A P R O P O S A L T O

# Denton Independent School District

**for**

**E-Rate Eligible Session Initiated Protocol (SIP) Trunking**
**RFP Number: 120213**

**February 20, 2012**

## Presented by:

Tory B. Anderson
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verizonbusiness

2200 W. Airfield Dr., Dock E
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February 13, 2012

Ms. Alyce Hamman
Denton Independent School District
1213 N. Elm Street
Denton, Texas 76201

Dear Ms. Hamman:

Verizon appreciates the opportunity to propose our Voice over IP (VoIP) Services in response to Denton Independent School District's Request for Proposal for E-Rate Eligible Session Initiated Protocol (SIP) Trunking. We recognize that you have experienced significant challenges in your efforts to simplify the management of your network and drive operational efficiencies.

Verizon was recently **awarded** by the Texas Department of Information Resources the ability to add our **VoIP Portfolio,** including IP Trunking service, to the list of DIR contract services under **TEX-AN.** Verizon will also extend this service to the members of your consortium where service is available.

Denton Independent School District's current IP Trunks have a great deal of built in flexibility. This will allow my team, working closely with the DISD team, to fine tune them to best meet the district's current financial and performance requirements.

Verizon's Voice over IP (VoIP) portfolio gives Denton Independent School District the ease and efficiency of a single network that can support both voice and data communications. VoIP provides a clear migration path from traditional voice technologies to a VoIP solution and enables your organization to move to VoIP at your desired pace. Our VoIP portfolio includes:

- IP Trunking: Allows you to avoid purchasing or maintaining additional Time Division Multiplexing (TDM) enterprise gateways or TDM cards for your IP private branch multiplex (PBXs). And our IP Trunking service addresses your need to more effectively manage local services for your multiple remote sites.
- IP Integrated Access: Provides a cost-effective way to carry voice and data over the same IP network. The service works with existing key or PBX systems, and typically does not require additional investment in costly infrastructure or desktop equipment.

Additionally, Denton Independent School District will receive the following benefits from our solution:

- The potential for a single converged network for voice and data, reduced from separate voice and data networks, helping control your operating expenses
- A common network for voice and data, making network management easier; any number of sites can be accessed from any location via the Internet
- Services and features managed through a web-based portal using intuitive click-and-point controls

Our proposal presents a unique and cost-efficient VoIP Services solution tailored to your needs; and it highlights the advantages of selecting Verizon Business as your communications provider.

2200 W. Airfield Dr., Dock E
Dallas / Fort Worth Airport, TX 75261

We are committed to your success. We are confident that our proposal offers Denton Independent School District the right combination of quality, service, and price for your requirements.

Sincerely,

*Tory Anderson*

Tory Anderson
Sr. Account Manager

# Contents

# General Information

## Nature of Proposal

This proposal is being submitted to the District by Verizon Business Network Services, Inc., on behalf of applicable affiliates, MCI Communications Services, Inc. d.b.a Verizon Business and is contingent upon the parties' execution of a written agreement consistent with this proposal and such other terms and conditions as the parties may mutually agree upon. In the event of an award to Verizon Business, Verizon looks forward to good faith negotiations with the District, resulting in Verizon and District entering into a written agreement that includes such mutually agreeable terms and conditions.

## Pricing Disclaimer

Unless otherwise indicated in this proposal, prices do not include, and District will be required to pay, all applicable taxes and surcharges including telecommunications taxes, fees and surcharges, and including, but not limited to, sales, use, utility, gross receipts, and VAT, similar tax-like and tax-related charges, and other surcharges levied as a result of receipt of the services from Verizon Business, except to the extent that current exemption certificates have been furnished to Verizon prior to issuance of any invoices.

## Validity Period

Unless otherwise stated in this proposal, this proposal is valid for a period of ninety (90) days from the date submitted.

# Executive Summary

Verizon Business is pleased to propose a strategic solution designed to address Denton Independent School District's need for Voice over IP (VoIP) Services, as defined in the Request for Proposal (RFP) and discussed in recent meetings.

By carefully listening to our customers we can gain an understanding of your unique requirements, so that we can customize a solution that measurably impacts your operations. This is the approach we embraced as we prepared this proposal.

We recognize that Denton Independent School District has experienced challenges while striving to simplify the management of your network and drive operational efficiencies. The challenges include:

- **Gain network efficiencies:**
  - Improve the usage of your network
  - Simplify the administration of your multi-site network
  - Improve network efficiencies and share trunking resources for peak traffic
- **Contain costs:**
  - Control the costs of voice and data communications
- **Improve business continuity:**
  - Enhance your IP-based failover solutions
  - Improve detection of failures and routing of traffic to failover site
  - Manage incoming traffic distribution between geographically dispersed sites
- **Simplify management of your company's local voice services**
  - Increase efficiencies by moving your voice traffic to an IP network
  - Minimize hardware and software upgrades

## Verizon's Solution-Centered Approach

We understand that Denton Independent School District seeks a way to simplify management of your local voice services while improving network usage. Additionally, you need to lay the foundation of a network that can support a unified network as you drive to:

- Increase employee productivity
- Simplify network management

- Control the ever-rising costs of your communications networks

But the process seems arduous and complex, particularly when you consider the need for additional security. We want to help take your business to the next level.

## Convergence View

Converging desk phones, mobile phones, conferencing tools, Instant Messaging and Presence information, and e-mail to IP means that the foundations can be laid for Unified Communications – defined as communication services that are **IP-enabled**. And once the services **share a common IP platform and protocol**, all of these applications can be integrated.

**Integration then enables presence information to be shared**. When all of this is available through a single user interface, then you have Unified Communications.

Verizon's Voice over IP (VoIP) portfolio of services provides Denton Independent School District the **ease and efficiency of one network for voice and data services**. The benefits of Verizon VoIP's portfolio of feature-rich products include:

- A single converged network for voice and data, reduced from separate voice and data networks, **helping control your operating expenses**
- A common network for voice and data, making **network management easier**; any number of sites can be accessed from any location via the Internet
- Services and features that are managed through a **web-based portal** using intuitive click-and-point controls (e.g., easy moves, adds, and changes)

VoIP delivers enterprise-class features to Denton Independent School District while providing the administrative and end-user productivity-enhancing applications to help you easily operate and control your networks.

## Collaboration with Cisco

We have teamed with Cisco to bridge the gap between your traditional PBX systems and IP technologies—and put you on a path to adoption that works for your business**. We provide the network, migration strategy, and lifecycle services** you need to make the transition to unified communications. And **Cisco delivers one of the industry's most integrated unified communications platforms,** interwoven end-to-end **with security and resilience**.

Our partnership enables us to support, leverage, and extend your existing investments. We can help you reap the benefits of IP-based tools, such as VoIP, conferencing, and instant messaging, without replacing your existing communications environment.

Adopting unified communications should not add complexity to your IT environment. We can help you **keep it simple, even if you have a wide range of systems**

**across many site**s. From headquarters and branches to mobile users—you can rely on reliable service delivery from Verizon and platform interoperability from Cisco.

We also make it easy to address the security issues associated with unified communications. **With security services from Verizon Business and advanced security built into Cisco's network architecture**, security does not have to complicate the equation.

## How It Works

IP Communications is the integration of IP components transforming Denton Independent School District's business through:

- Advanced capabilities
- Operational efficiencies
- Cost control

IP Communications integrates IP components to enable your organization to re-engineer the way you do business, and to remain competitive through today's trends and challenges. IP Communications **relies on a global IP network foundation** and **couples VoIP with IP-enabled services**, such as IP contact centers, instant messaging, or e-mail, to **drive unified communications**.

In addition to its basic voice service benefits, **VoIP is an essential element of IP Communications and integrates voice and data traffic on one network**. VoIP can deliver advanced IP functionality – from your end-user to your enterprise – that surpasses traditional voice service.

An investment in VoIP technology will help Denton Independent School District achieve three goals:

1. Improve productivity
2. Gain efficiencies
3. Enhance your business operations

With **IP Collaboration**, you have **extensive collaboration choices over a suite of IP-enabled communications media**, including:

- Wired and wireless telephony
- Audio and video conferencing
- Instant messaging
- Unified voice and e-mail

This facilitates better communications with your suppliers, employees, and clients.

## Voice over IP Portfolio

Our VoIP suite of services are designed to provide Denton Independent School District the ease and efficiency of a single network for both voice and data communications. VoIP provides a clear migration path from traditional voice technologies to a VoIP solution and enables your organization to move to VoIP at your desired pace. Our primary VoIP services are described below.

### IP Trunking

Denton Independent School District has unique requirements with an IP PBX and you need a cost-effective way to carry voice and data over an IP network. Our VoIP service is delivered via a standards-based SIP trunk directly to the location's IP PBX.

With our IP Trunking Service, you can avoid purchasing or maintaining additional Time Division Multiplexing (TDM) enterprise gateways or TDM cards for your IP PBX. And our IP Trunking service addresses your need to more effectively **manage local services for multiple remote sites**. Based on centralized multi-site design options, your enterprise can establish a local service presence in multiple market areas through a single central IP PBX. This enables you to **reduce the complexities and control the costs of managing VoIP services** for your multiple sites.

In addition, IP Trunking can help you use voice trunks more efficiently with an enhancement called Burstable Enterprise Shared Trunks (BEST). Based on the challenges you face managing a multi-site network, **BEST can leverage idle trunk capacity in one location to accommodate a traffic increase in another location**.

Because we dynamically monitor call port usage at an enterprise level, we can provide voice trunking resources based on your overall enterprise needs versus on a site-by-site basis. This feature helps you **accommodate peak usage times without over-provisioning and to align your capacity planning** with the requirements of the extended enterprise.

### IP Integrated Access

Our IP Integrated Access Service provides a cost-effective way to carry voice and data over the same IP network. **The service works with existing Key or PBX systems, and typically does not require additional investment** in costly infrastructure or desktop equipment.

Similar to IP Trunking, IP Integrated Access uses **BEST to help you leverage idle trunk capacity in one location to accommodate a traffic increase in another location**. We can provide voice trunking resources based on your overall enterprise needs, enabling you to accommodate peak usage times without over-provisioning and to align your capacity planning with the requirements of the extended enterprise.

### Hosted IP Centrex

Hosted IP Centrex is designed for customers that want **all the features of a PBX or Key system without the associated capital, lease, or maintenance costs.** All the PBX functionality resides in the Verizon Business network. It is ideal for customers

moving to or establishing a new location, or for customers looking to replace an outdated PBX or Key system. Hosted IP Centrex is **a complete turnkey solution including design, installation, and ongoing maintenance for a low monthly fee**. Verizon Business's network-based IP technology provides a full suite of subscriber and administrative features.

## Solution Benefits to Denton Independent School District

Our Voice over IP Services offer Denton Independent School District the following benefits:

- Provides flexible and cost-saving alternatives to standard TDM trunking services:
  - Eliminates the need for a separate voice trunking facilities, as you can leverage our Private IP or Internet backbone to route calls to and from the PSTN via the SIP trunks
  - Allows you to leverage a gateway device or router/gateway to interface to a PBX or Key system
  - Provides automatic failover to alternative geographic sites in the event of a network or equipment failure
  - Allows your administrators to intercept calls and provide callers with options during an emergency situation
  - Enables you to fully optimize and manage local trunking requirements in a multi-site environment
  - Supports a network-based private dial plan for enterprise on-net calls
- Reduces costs while boosting performance:
  - Provides dynamic bandwidth allocation to enable more efficient use of the network for voice and data traffic
  - Enables more voice calls to be carried over a circuit
  - Eases management through use of a single network for voice and data
- Unifies communications and collaboration methods
- Drives network efficiencies:
  - Integrates voice and data networks for increased efficiency
  - Simplifies networks
  - Helps improve employee productivity
  - Reduces unnecessary training
- Increases operational efficiencies and cost control
  - Reduces the risk of CPE obsolescence
  - Increases your control over operating expenses

- Focuses your capital budgets on core projects
- Reduces hardware and software updates

## Why Verizon for VoIP?

### Portfolio

- Broad suite of services that allow customers to customize their solution and migrate to VoIP at their own pace.

### Experience

- More than nine years of experience delivering business-grade VoIP solutions.
- Supported by experienced and specialized VoIP professionals.

### Service Quality

- Work with multiple world-class vendors globally to provide world-class service and implementation.
- CPE certification testing.
- Comprehensive testing of all features/services prior to launch.
- Market experience and industry recognition back up our claims. Verizon VoIP has received awards and recognition highlighting our comprehensive VoIP portfolio and the value, innovation, solution design, and exceptional service we deliver.

### Highly Available, Expansive Network

- Highly sophisticated network infrastructure with nearly 50 redundant network gateways and dozens of application servers.
- Hundreds of thousands of network SBC ports available today with the expectation of the capacity doubling in 2011.
- Significant capital investment in network expansion and resiliency initiatives; network alarming and monitoring tools; and service delivery automation and reporting capabilities.
- Strong Service Level Agreement metrics such as Mean Opinion Score (MOS), Jitter, Time to Repair and Network Availability.

### Innovative IP-Enabled Features

- Burstable Enterprise Shared Trunks (BEST)—Allows customers to share local and long distance trunks across their enterprise helping drive cost savings.
- VoIP IP Enterprise Routing (VIPER)—Allows calls between Verizon VoIP customers, wherever they are, to be routed IP end-to-end and not be charged domestic or international long distance per minute charges.
- Business Continuity Management)—Inbound calls can failover to an IP termination or any telephone number (wireless, TDM in virtually any country)

- Multi-site, multi-country designs.

### Ease of Administration

- Through the Verizon Enterprise Center Web-based portal, customers can manage features and calling plans and run powerful enterprise reports.

### Footprint

- U.S. service availability in more than 355 markets in 49 states (no service in Alaska)
- Full two-way voice service in 12 European countries
- IP Trunking availability in India, Hong Kong and Australia with plans to expand to Singapore

## Focus on a Greener Planet

It's gratifying when a company and its customers can "do well by doing good." For Verizon, that opportunity comes every day by virtue of our leadership in global communications, which enables our customers to do business more effectively and in a more environmentally friendly way. Far from being a mere bumper sticker slogan, "going green" underscores our enormous opportunity—and responsibility—to positively impact our planet's environment while helping our customers realize the transformative power of broadband networks.

We operate one of the most interconnected and expansive communications networks. In the U.S., we lead the industry by deploying a large- scale, all-fiber network to the home, and we operate the nation's most reliable wireless voice and data network. These networks enable us to offer some of the most advanced communications services available today—services that help you improve productivity and reduce your environmental impact.

## Why Verizon

Verizon is a leading provider of advanced communications and IT solutions to large businesses and government customers worldwide. Combining unsurpassed global network reach with advanced communications, security and other professional services capabilities, we deliver innovative and seamless business solutions to customers around the world.

As a Cisco Gold Certified Partner since 1995, we stand ready to deliver a high level of support and service to Denton Independent School District. Verizon and Cisco have the expertise to implement and support solutions designed to meet your business-critical needs.

## Our Commitment to Denton Independent School District

Our goal is to provide you with the right combination of quality, service, and price for your unique unified communications requirements. Due to Verizon's vast capabilities,

you will have the services of a technology provider able to adjust to your changing needs.

Whether the requirement is the delivery of a best-in-breed communications solution, the flexibility to respond to changes in your business model, or the intellectual and personal dedication of your Verizon Business support team, we will be there for you.

We are dedicated to providing you with the best combination of quality, service, and price. We possess the track record, commitment, expertise, and technical leadership necessary to support your needs—now and in the future.

Verizon fully supports the Federal E-Rate program and will support the applicant in all aspects that are appropriate and allowable under program rules. However, all product and service eligibility/ineligibility decisions pertaining to both Priority 1 and Priority 2 categories remain solely with the Schools and library Division of the Universal Services Administrative Company (USAC). Applicant is solely responsible for applying and securing any E-Rate funding, and for ensuring the accuracy and integrity of all data and information submitted in connection with such application. Verizon will assist customer, where allowable. Verizon has no liability arising from any assistance it provides applicant in connection with such application and shall hold Verizon harmless with respect to any such assistance or information provided to applicant.

# Request for Proposals

***The Denton Independent School District will accept sealed proposals in the School District Purchasing Office until 2:00 p.m., Monday, February 13, 2012, from E-Rate eligible Telecommunication Providers to deliver connectivity from the district to the Public Switched Telephone Network (PSTN) for up to one-hundred sixty (160) call paths (channels) with management. The district will consider a proposal based on a Session Initiation Protocol (SIP) trunk solution.***

***Proposal forms and specifications can be obtained from the School District Purchasing Office at 1213 North Locust, Denton, Texas 76201.***

***Mark plainly on your envelope, "RFP#120213 ENCLOSED-NOT TO BE OPENED UNTIL 2:00 p.m., Monday, February 13, 2012." Address your sealed proposal to Alyce Hamman, Purchasing Buyer, Denton Public Schools, 1213 North Locust, Denton, Texas 76201. Proposals will be accepted at said time at the Locust street address. Any proposals received after the stated time will be rejected. Proposal pricing will not be read aloud.***

***Proposals will be reviewed by a committee and evaluated as follows: Proposed Fee - 58%, References - 5%, Quality of the proposer's good and services - 10%, Extent to which the services meet the district's needs – 10%, Past Experience with the District - 10%, HUB certification Verification - 2%, and Long Term cost to the District to acquire the vendor's services – 5%. Once the proposals have been ranked, and a successful proposer submitted to the governing body for approval, the results will be made available to interested parties.***

***The district intends to award this proposal to a single vendor for a period of up to three years with the option to extend, upon governing body approval, for two additional terms of one year each. The initial term will begin July 1, 2012 and end June 30, 2015.***

***The Denton Independent School District reserves the right to accept or reject any and all parts of any and all proposals and to waive any/all technicalities. The District further reserves the right to be the sole judge of quality and equality.***

***No proposals will be accepted by facsimile or e-mail.***

## Verizon Business Response

Verizon Business has read and understands.

# Section 1 Scope of Work

***DISD will follow the purchasing policies of the DISD Board and requirements and procedures of the Schools and Libraries Universal Service to be eligible for all available funding.***

***The implementation of any associated contracts resulting from this competitive bid process will be dependent on the districts' issuance of a written Notice to Proceed and the issuance of a District Purchase Order. E-rate funding notification alone will not signify Notice to Proceed. The district will have the right to allow the contract to expire without implementation if appropriate funding is not authorized.***

***DISD will evaluate proposals for the following telephone and telecommunication services:***

***The District request proposals from E-Rate eligible Telecommunication Providers to deliver connectivity from the district to the Public Switched Telephone Network (PSTN) for up to one-hundred sixty (160) call paths (channels) with management. The district will consider a proposal based on a Session Initiation Protocol (SIP) trunk solution.***

***This Request For Proposal (RFP) provides interested suppliers with sufficient information to prepare and submit Proposals for consideration with the intent of contracting with one or more companies to provide the requested service for DISD.***

## Verizon Business Response

Verizon Business has read and understands.

## *1.1 Anticipated Timeline*

- ***1/18/2011 – RFP posted on district website***
- ***1/19/2011 – Form 470 posted***
- ***2/2/2012 – Deadline for written questions by 4:00 p.m. CST***
- ***2/6/2012 – Response to questions posted on DISD website***
- ***2/13/2012 – RFP due in Purchasing by 2:00 p.m. CST***
- ***2/28/2012 – Recommendation to DISD Board of Education***

***Information updated per Addendum 1.***

## Verizon Business Response

Verizon Business has read and understands.

# Section 2 Standard Terms and Conditions

***2.1 The district intends to award this proposal to a single vendor for a period of up to three (3) years with the option to extend, upon governing body approval, for two (2) additional terms of one (1) year each. The initial term will begin July 1, 2012 and end June 30, 2015.***

## Verizon Business Response

Verizon and the District will be able to extend on mutual agreement under the terms of the TEX-AN Contract.

***2.2 The district reserves the right to reject any and all proposals, the right in its sole discretion to accept the proposal it considers most favorable to the district's interest, and the right to waive minor irregularities in the procedures. The district further reserves the right to reject all proposals and seek new proposals when such procedures are in the best interest of the district. The district also will be the sole judge as to the definition of "district's best interest."***

## Verizon Business Response

Verizon Business has read and understands.

***2.3 The attached specifications are to be used to set a minimum standard. The District does not want inferior substitute merchandise. Whenever an article or material is defined by describing a proprietary product or by using the name of a manufacturer, the term "or equal" if not inserted shall be implied. The specified article or material shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired and shall not be construed as to exclude other manufactured products of comparable quality design, and efficiency. If you bid an equal and/or alternate product to the specifications, please clearly state the brand name and description. Failure to provide proper information with this document may cause your bid(s) to be eliminated from consideration.***

## Verizon Business Response

Verizon Business has read and understands.

***2.4 The District reserves the right to accept or reject any and/or all bids, to waive any formalities and to award this bid in the best over all interest of the District. The District reserves the right to make final decisions as to comparable items. Be very certain that items upon which you bid and deliver are equal to items listed. Materials which are not equal shall be returned to the supplier transportation charges collect.***

## Verizon Business Response

Verizon Business has read and understands.

***2.5 No orders are to be placed without a purchase order signed by the purchasing agent. No payment will be made for orders filled without an approved purchase order.***

## Verizon Business Response

Verizon Business has read and understands.

## *2.5 Insurance*

***The contractor shall provide at all times during the contract period the following insurance coverage:***

1. ***Worker's Compensation Insurance, Statutory Benefits and Employer's Liability Insurance with limits of not less than $500,000;***
2. ***Commercial General Liability Insurance with limits of not less than $1,000,000 for bodily injury and $1,000,000 for property damage per occurrence, including Contractual Liability coverage.***
3. ***Motor Vehicle Liability Insurance with an employer's non-ownership endorsement. Limits of liability shall not be less than $1,000,000 combined single limit.***
4. ***Third Party Fidelity bond of $50,000 per employee.***
5. ***The bidder shall furnish Denton ISD certificates of insurance within 21 working days after acceptance of a contact.***
6. ***Denton ISD must have ten (10) days notice of cancellation or change in insurance coverage and give it's' approval.***
7. ***Pollution Insurance with limits of not less than 1,000,000 for property damage per occurrence.***

## Verizon Business Response

Verizon Business takes exception and offers the following alternative language:

The contractor shall provide at all times during the contract period the following insurance coverage:

1. Worker's Compensation Insurance, Statutory Benefits and Employer's Liability Insurance with limits of not less than $500,000 each accident/disease/policy limit;
2. Commercial General Liability Insurance with limits of not less than $1,000,000 combined single limit for bodily injury and $property damage per occurrence, including Contractual Liability coverage.
3. Commercial Automobile Liability Insurance  Limits of liability shall not be less than $1,000,000 combined single limit each accident.
4. Crime coverage with a limit of $1,000,000 per occurrence.
5. The bidder shall furnish Denton ISD certificates of insurance within 21 working days after acceptance of a contact.

# Section 3 Special Terms and Conditions

***3.1 In order for your proposal to be considered you must include all of the properly executed documents, including Signature Sheet, Proposal Form, Felony Conviction Form, Conflict of Interest Form, References, and HUB certification documentation if applicable. All responses must be legible and signed in order to be considered.***

## Verizon Business Response

Verizon Business has read and understands.

***3.2 Vendors taking exception to the terms and conditions or specifications of this proposal shall state these exceptions plainly on the exception page of this proposal document. If no exceptions are indicated on the submitted form, it will be assumed that your proposal complies with our document.***

## Verizon Business Response

Verizon hereby submits, as the basis of its bid and the terms and conditions under which it will perform the services, Verizon's State of Texas, Dept. of Information Resources, TEX-AN Contract # NG CTSA-010. For the convenience of the District, Verizon is supplying the relevant Service Attachments: Voice Over IP, with IP Trunking, and Internet Dedicated, along with the ERate Attachment. The SLA applicable to the VoIP service is listed in Verizon's Guide, referenced in the Service Attachment. The SLA for Internet Dedicated is included herein as an additional Attachment.

***3.3 By submitting a proposal to the District, the vendor agrees to waive and does waive any claim or cause of action against the Denton ISD, its Trustees, agents and employees arising out of or in connection with, the review of, evaluation of, and application of criteria for selection to the proposal; the recommendation of any proposal to the Board of Trustees, the selection or approval of any proposal by the Trustees on behalf of the District; the awarding of any contract by the Trustees; the selection or approval of any proposal by the Trustees on behalf of the District; the awarding of any contract by the Trustees for services included in the proposal; the waiver of any requirement contained in this Proposal; and any determination of best value to the District by the District, its' Trustees, Agents or employees from the proposals submitted to the district in response to the Proposal.***

## Verizon Business Response

Verizon Business has read and understands.

***3.4 The District limits its' purchases through the use of properly drawn and authorized purchase orders. The District is NOT responsible for services or products that were not authorized via this method. Verbal orders should not be accepted.***

## Verizon Business Response

Verizon Business has read and understands.

***3.5 Questions regarding this RFP can be submitted in writing until close of business 2/2/2012. Responses to all questions received in proper time frames will be made in writing and distributed to all Vendors via an Addendum to the RFP posted to the DISD Purchasing Website prior to the close of business 2/6/2012. Questions should be submitted via e-mail to the following people:***

***Michael Bernstein - mbernstein@dentonisd.org***

***Allen McDaniel – jmcdaniel9@tx.rr.com***

## Verizon Business Response

Verizon Business has read and understands.

***3.6 Prices quoted in The Vendor's response for all labor and materials will remain in effect for a period of at least ninety (90) business days from the issuance date of The Vendor's response.***

## Verizon Business Response

Verizon Business has read and understands.

***3.7 The vendor will provide information demonstrating their capability in delivering the services requested in this RFP. Experience, qualifications, and certifications will help determine the vendor's ability to deliver the specified services and help assure DISD of a successful project.***

## Verizon Business Response

Verizon Business has read and understands.

***3.8 As required by The Federal Communications Commission (FCC) and DISD best practices, this request for services to be contracted is based on an approved technology plan.***

## Verizon Business Response

Verizon Business has read and understands.

***3.9 The information in this Request For Proposals [RFP] is provided in conjunction with the Schools and Libraries Division [SLD] Forms 470 and 471, in partial fulfillment of the requirements for the FCC Universal Service Fund (a.k.a., "E-Rate") discounts. These programs provide discounts for: certain telecommunications products and services, including voice and data communications; Internet access; and, in some cases, internal connections. For more information about these Federal programs, and before responding to this RFP, please refer to the SLD web site, www.universalservice.org/sl/, or call the SLD Help Line at 888-203-8100. Please do not contact applicant personnel either with general questions about E-Rate, or to offer ineligible services or services not requested on this RFP. Bidders must have a valid Service Provider Identification Number [SPIN]. Telecommunications providers must also be registered ("common carrier") providers as defined by the SLD. Service providers must be prepared to discount invoices to the school and submit the balance to the E-Rate program via BEAR forms, as specified by the SLD.***

## Verizon Business Response

Verizon Business has read and understands.

# Section 4 Project Specifications

## 4.1 Proposer Qualifications

### 4.1.1 Schools and Libraries Program Requirements

***The Schools and Libraries Program reimburses telecommunications, Internet access, and internal connections providers for discounts on eligible services provided to schools and libraries. While schools and libraries apply for these discounts, USAC works in conjunction with service providers to make sure these discounts are passed on to program participants.***

***a. The vendor must be eligible to participate in the Schools and Libraries Program and obtained a Service Provider Identification Number (SPIN) from USAC.***

***The Federal Communications Commission (FCC) has determined that in order to provide telecommunications services (voice, video or data transport), the service provider must provide such services on a common carrier basis.***

**Verizon Business Response**

Verizon Business has read and understands.

***b. The vendor must be an eligible service provider for telephone, telecommunication services, and Internet services as defined by the Federal Communication Commission (FCC) for reimbursement from the Schools and Libraries Program.***

**Verizon Business Response**

Verizon Business has read and understands.

### 4.1.2 The Reputation of the Vendor and of the Vendor's Goods or Services

***a. The Proposal will include at least three (3) references from comparable education customers.***

**Verizon Business Response**

Please see Section 7 for the list of references.

***b. The proposal will include at least three (3) references from comparable product installations.***

## Verizon Business Response

Please see Section 7 for the list of references.

### *4.1.3 The Vendor's Past Relationship with the District*

***a. The proposal will include any past projects or contracts that the service provider has had with Denton Independent School District.***

## Verizon Business Response

Verizon currently has two IP Trunks installed with Denton ISD. The current contract for the IP Trunks will expire on 6-30-2012.

Verizon currently has a 36 month MICTA LD contract with Denton ISD that began on 3-8-11.

In 2011 Verizon converted all B-1 Lines (Business lines) to Centranet services.

There is also PRI service on a 3 year term that will expire on 7-15-2012

### *4.1.4 The Vendor's Knowledge and experience with the Solution.*

***a. The proposal will list the personnel and qualifications of the personnel that will be assigned to the project.***

## Verizon Business Response

Tory B. Anderson
Sr. Account Executive

Bill Bruckner
Client Solutions Architect
Government & Education

## *4.2 Goods and Services Requirements*

### *4.2.1 Provide access to PSTN network for district voice communications.*

***It is the intent of this RFP to evaluate proposals to provide access for DISD to the Public Switch Telephone Network (PSTN). The district will consider a proposal based on a Session Initiation Protocol (SIP) trunk solution.***

***Denton ISD currently has 2 SIP Trunks, each provisioned in a 4 x T1 configuration, that provide the district's access to the Public Switched Telephone Network (PSTN). During***

***normal operation, each set of SIP Trunks provides up to eighty (81) Concurrent calls, with the ability for one location to provide up to one-hundred sixty two (162) Concurrent calls should during a failover event. See description below for current services.***

| *Location* | *PSTN Access Lines* | *Address* | *DID Assigned* | *Type* |
|---|---|---|---|---|
| *Primary Demarc* | *SIP Based – 4 x T1;* | *Technology*<br>*1212 N. Elm St.*<br>*Denton, Tx. 76201* | *940.369. 0000-4999* | *Metro, Round Robin,* |
| *Secondary Demarc* | *SIP Based –*<br>*4 x T1* | *Ryan High School*<br>*5101 E. McKinney St.*<br>*Denton, Tx. 76208* | *940.369*<br>*0000-4999* | *Metro, Round Robin* |

***Denton ISD is seeking proposals for the following configurations:***

- ***Maximum of eighty (80) concurrent calls per location with ability to provide one-hundred sixty (160) concurrent calls from one location during a failover event (configuration provides for 100% of the traffic).***
- ***Maximum of sixty (60) concurrent calls per location with ability to provide one-hundred twenty (120) concurrent calls from one location during a failover event (configuration provides for 100% of the traffic).***
- ***Maximum of fifty (50) concurrent calls per location with ability to provide one-hundred (100) concurrent calls from one location during a failover event (configuration provides for 100% of the traffic).***
- ***Maximum of forty (40) concurrent calls per location with ability to provide eighty (80) concurrent calls from one location during a failover event (configuration provides for 100% of the traffic).***
- ***For the following annual timeframes during the contract, all configurations except the one-hundred sixty (160) concurrent call configuration will provide one-hundred sixty (160) concurrent calls (80 per location):***
  - ***August 1 – September 15***
  - ***January 1 – January 31***
  - ***Any other 30 day time period the district desires assuming sufficient notice is provided to the vendor.***

## Verizon Business Response

Verizon Business has read and understands

***The SIP trunks must have the following capabilities:***

- ***They must interface natively to the district's Cisco Call Manager, version 7.1.3.20000-2 without using PRI emulation.***

- ***Denton ISD currently uses two Cisco 2851 with CUBE licenses to interface to their trunks today. Indicate whether or not this hardware can be re-used for your service. If not, indicate what hardware and software will be required and provide pricing.***
- ***Combined call handling capacity for up to one-hundred sixty (160) concurrent calls during peak seasons (August 1 – September 15, January 1 – January 31, other with prior notice)***
- ***If one location loses access to the SIP network, DID calls must automatically overflow to the other location. In this scenario, the SIP bandwidth at the receiving location must be able to serve 100% of the traffic.***
- ***Must support E911.***
- ***Must support PS/ALI.***
- ***The SIP provider must be able to port the following DID numbers to their service:***

  ***940 323-1473 thru 940 323-1483***

  ***940 323-1485 thru 940 323-1494***

  ***940 323-1525 thru 940 323-1535***

  ***940 323-1584 thru 940 323-1594***

  ***940 323-1687 thru 940 323-1696***

  ***940 323-1787 thru 940 323-1799***

  ***940 323-8710 thru 940 323-8739***

  ***940 369-0000***

  ***940 369-0001***

  ***940 369-0002 thru 940 369-3813***

  ***940 369-3815 thru 940 369-4902***

  ***940 369-4905***

  ***940 369-4907 thru 940 369-4908***

  ***940 369-4910 thru 940 369-4911***

  ***940 369-4913 thru 940 369-4914***

  ***940 369-4916 thru 940 369-4917***

  ***940 369-4919 thru 940 369-4920***

  ***940 369-4922 thru 940 369-4923***

  ***940 369-4925 thru 940 369-4926***

  ***940 369-4928 thru 940 369-4929***

***940 369-4931 thru 940 369-4932***

***940 369-4934 thru 940 369-4935***

***940 369-4937 thru 940 369-4938***

***940 369-4940 thru 940 369-4945***

***940 369-4947 thru 940 369-4949***

***940 369-4956***

***940 369-4958***

***940 369-4967 thru 940 369-4968***

***940 369-4971***

***940 369-4977***

***940 369-4979***

***940 369-4983***

***940 369-4985 thru 940 369-4986***

***940 369-4990***

***940 369-4994 thru 940 369-4999***

***940 380-4150 thru 940 380-4159***

***940 380-7012 thru 940 380-7031***

***940 381-1700 thru 940 381-1718***

***940 381-5500 thru 940 381-5529***

***940 381-7022 thru 940 381-7029***

***940 381-8000 thru 940 381-8199***

***940 383-5201 thru 940 383-5229***

***940 383-6300 thru 940 383-6309***

***940 384-7032 thru 940 384-7045***

***940 384-7078 thru 940 384-7090***

***940 384-7258 thru 940 384-7270***

***940 384-7283 thru 940 384-7292***

***940 384-7337 thru 940 384-7347***

***940 483-8051 thru 940 483-8060***

***940 483-8062 thru 940 483-8071***

***940 483-8073 thru 940 483-8086***

***940 483-8148 thru 940 483-8158***

***940 483-8401 thru 940 483-8409***

***940 483-8479 thru 940 483-8487***

***940 483-8505 thru 940 483-8513***

***940 483-8515 thru 940 483-8524***

***940 483-8580 thru 940 483-8588***

***940 483-8590 thru 940 483-8598***

***940 484-1371 thru 940 484-1379***

***940 484-1664 thru 940 484-1678***

***940 484-1762 thru 940 484-1770***

***940 484-1945 thru 940 484-1958***

***940 484-1962 thru 940 484-1973***

***940 484-2140 thru 940 484-2157***

***940 484-2855 thru 940 484-2865***

***940 484-2953 thru 940 484-2962***

***940 484-5056 thru 940 484-5065***

***940 484-5081 thru 940 484-5091***

***940 484-5141 thru 940 484-5150***

***940 484-5184 thru 940 484-5194***

***940 484-5539 thru 940 484-5548***

***940 484-5583 thru 940 484-5596***

***940 484-5662 thru 940 484-5674***

***940 484-5753 thru 940 484-5762***

***940 484-5981 thru 940 484-5990***

***940 484-6172 thru 940 484-6190***

***940 484-6323 thru 940 484-6332***

***940 484-8190 thru 940 484-8199***

***940 565-8700 thru 940 565-8749***

***940 591-5200 thru 940 591-5249***

***940 891-4059 thru 940 891-4078***

***940 891-6460 thru 940 891-6470***

***940 891-6640 thru 940 891-6699***

## Verizon Business Response

Verizon Business has read and understands. The listed numbers are portable.

### *4.2.2 The Quality of the Vendor's Service*

***a. The vendor will include within the response the Service Level Agreement (SLA) that is provided with the proposed service offerings.***

## Verizon Business Response

Verizon Business has read and understands

Please see Attachment I for the SLA documentation.

***b. The vendor will provide a description of the technology and network providing the PSTN access.***

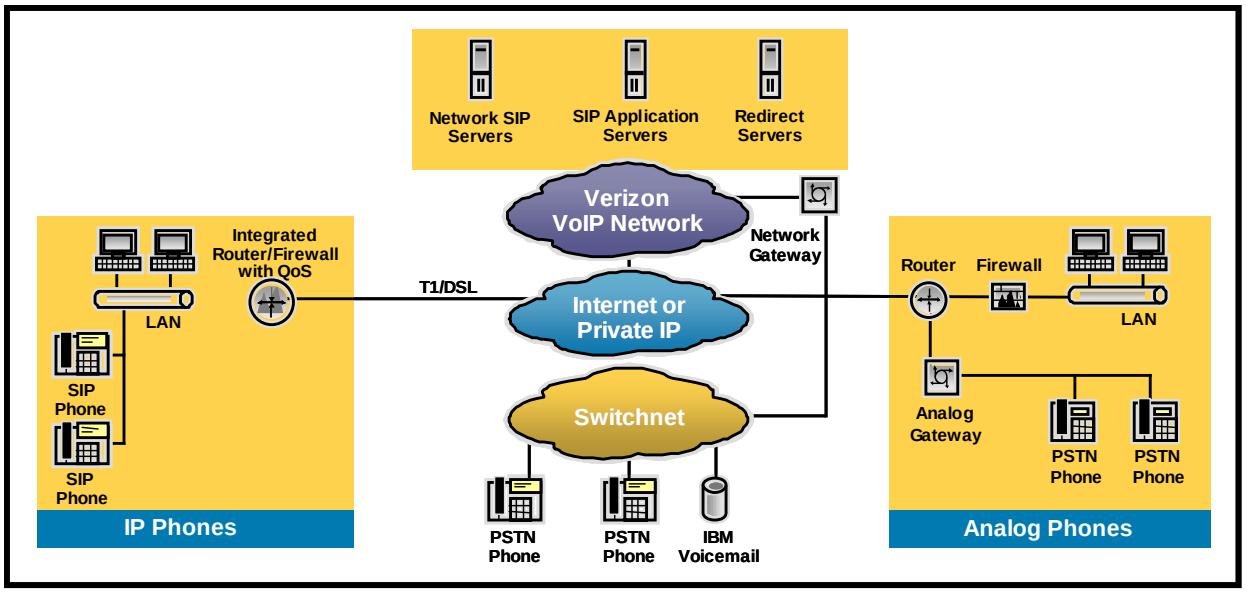
## Verizon Business Response

**Verizon VoIP Architecture**

The PSTN (Public Switched Telephone Network), built on a circuit-switched infrastructure, alone cannot meet the dynamic service creation and differentiation required by Enterprise customers. Bridging voice and data requirements on a hybrid PSTN and IP (Internet Protocol) infrastructure represents the best path to meet customer expectations for routing flexibility, secure connections, faster introduction of applications and reducing their total cost of ownership.

To meet the demand for converged IP networks, Verizon Business built VoIP Solutions that are tightly integrated with our fully managed and QoS-enabled IP network. This design not only maintains carrier class reliability, quality & security but also addresses the complex, mission critical & evolving communications needs of today's CIOs and CTOs.

The following diagram illustrates the service and the key network components:




## How does VoIP work?

Voice over IP or VoIP, means that your voice is carried over the Verizon IP network. When placing a call, VoIP converts the voice (analog) signal from your telephone into a digital signal which is then disassembled and transmitted through the Internet / IP Network only to be re-converted back to an analog signal on the other end.

In a traditional telephone phone system, a phone call is carried over the Public Switched Telephone Network (PSTN). This system works by setting up a dedicated channel (or circuit) between two points for the duration of the call. These telephony systems are based on analog voice transmitted over the dedicated circuits that are set up between the callers.

VoIP, in comparison to PSTN, has a number of capabilities and benefits that traditional phone calls can't mimic due to IP technology. Similarly, just as there are advantages, there are a few minor supportability limitations that come with using VoIP technology that should be noted.

## VoIP Elements

The following is a list of common VoIP elements including capabilities, supportability statements, and limitations that should be noted as part of VoIP Service.

- Call Admission Control
- Voice Compression
- VPN
- Modems
- Non Authorized Applications
- Security

- Conferencing
- Toll-Free Service – Switched Terminations to VZ VoIP services (ICB in EMEA)
- Fax
- CPE

### Call Admission Control (CAC)

Verizon VoIP leverages Call Admission Control (CAC) mechanisms to ensure that actual number of concurrent (i.e. simultaneous) calls from specific customer site doesn't exceed capacity of the IP access method and the call capacity that they purchased. This system of managing voice traffic bandwidth may also be referred to as "Call Counting."

Verizon VoIP utilizes SIP Proxy servers to set up all call types. With CAC, the SIP Proxies are able to count the number of active sessions occurring at any given location, which provides a number of benefits:

- **Fraud Prevention**: No one can place more calls than the SIP proxy settings allow.
- **Quality Assurance:** Ensure that customer will not place more calls than the confines of their bandwidth or Gold CAR setting, in the case of Private IP.
- **Customer Control:** Customers can control the amount of calling, and in turn, amount of bandwidth being used from a given location for Voice over IP (VoIP).

Verizon sets two values in the proxy to enable with Call Admission Control:

1. **Off-Net Concurrent Calls**: This is the sum of all concurrent off-net calls. Includes outbound and inbound Local and long distance (LD) calls to the PSTN.
2. **Off-location concurrent calls (aka On-Net + Off-Net)**: This is the sum of all off-net and location-location (on-net) calls. Includes outbound and inbound Local and long distance (LD) calls to the PSTN and location-location calls (on-net) inter and intra-enterprise.

- Non Best Limits
- Off-net = based on customer off-net traffic needs
- Off-location = based on customer access bandwidth, but cannot exceed 2 X Off-net Concurrent calls
- Best Limits
- Off-net = based on customer off-net traffic needs
- Off-location = Off-net +50 (assuming sum is less than access bandwidth)

  The Off-net Concurrent Call value (1) is derived from the number of concurrent calls that the customer purchases for a given location. The Total Concurrent Call (2) value is derived from the size of the customer's Port speed on Internet

Access, or the size of the customer's Gold CAR with Private IP. This limit should be set in terms of the amount of bandwidth they want prioritized for voice. **Note:** In some cases, the Off-location CAC will be set lower than the bandwidth. With BEST, if bandwidth exceeds billable CC + 50, or non-BEST if the value exceeds 2X the billable CCs.

For example, if a customer purchased 10 concurrent calls on an Internet 1.5 T1 Port with BEST, their Call Admission Control would be provisioned as follows:

- Off-net capacity = ten (10) concurrent calls
- Total capacity = 41 concurrent calls

Note: When a customer exceeds the CAC value provisioned at a site for the off-net value or total, the call will be treated as a busy scenario

### Voice Compression with Verizon VoIP

Compression reduces the bandwidth needed per voice call, which saves transmission time or capacity. Compression is a function of the type of codec used. The codec is essentially a software algorithm used to compress/decompress speech or audio signals. The codecs currently configured in the VoIP architecture support G.711 and G.729a standards.

### Modems

V.series modems (V.22, V.90) can be used on VoIP; however, modems do not necessarily function as reliably as they would over the public switched telephone network (PSTN). This is not due to a product limitation, but rather due to the nature of the technology. Verizon Business therefore discourages using modems for any applications requiring "maximum reliability" and cannot provide performance guarantees or support. Modems should only be used on VoIP for services that can accept "best-effort" service.

### Security

The IP network carrying Verizon VoIP is a global, fully redundant powerhouse. It's an intelligent network, and Verizon Business manages the equipment, capacity, power redundancy, technology upgrades, and security.

### Conferencing

Verizon VoIP supports both Traditional and IP Audioconferencing.

Verizon VoIP supports traditional Verizon Audioconferencing and Net Conferencing over Verizon VoIP Internet Dedicated Access. Since conferencing services and Verizon VoIP are not fully integrated, VoIP subscribers participating in audio conference will incur off-net calling usage. Charges for these calls will depend on the specific Verizon VoIP pricing plan offered.

Verizon VoIP also supports IP Audio Conferencing for conducting instant meetings that will speed collaboration while eliminating additional per minute charges for calls originating from a Verizon IP-enabled location leveraging the company's expansive

global IP network. As an added benefit, a customer using Verizon IP Audio Conferencing will not incur additional per minute charges from any VIPER-enabled location dialing into the host conference bridge.

### Toll-Free Service - Terminations to VZ VoIP services (ICB in EMEA)

Customers can terminate Verizon switched Toll-Free service (800,888,877 or 866) to their Verizon VoIP sites in the continental U.S. Due to limited facilities between VZ VoIP network and switched toll-free network, this option is not recommended for high volume toll-free users. The current limit is that switched terminations cannot be provisioned to location with more than 110 Concurrent call ports. The toll-free services which terminate to VZ VoIP services will be contracted and billed via standard toll-free services as defined in applicable contracts and pricing guides. VoIP terminations are deemed as local, so the per minute rate element used in the toll free pricing guide is switched local.

### Fax

Fax traffic can be supported with T.38 (US) or G.711 codec. Many equipment vendors will require customer to enable T.38 in CPE to support, and will vary by vendor.

### Local Number Portability

Local Number Portability (LNP) allows businesses to switch local service providers and retain their existing local telephone numbers. LNP is available in 100% of Verizon's local coverage area. For LNP to be a viable solution, a customer's local phone numbers MUST reside in the same industry-defined rate center as its physical address.

### Rate Center Violations

Rate centers are geographic areas defined by call plans. Geographic boundaries set by the ILECs determine the proper telephone numbers for each rate center. Verizon rate centers mirror those defined by the ILECs. A rate center violation (RCV) occurs when a customer is given a telephone number that is not correct for its physical service location

### VoIP Universal Calling (charges apply as per pricing option)

Verizon enables Universal Calling for VoIP service with the following call coverage:

- Outbound Local Calls - Customers can place phone calls to and receive phone calls from their Session Initiation Protocol (SIP) phone or public switched telephone network (PSTN) phone in a pre-defined local calling area. Each local service provider controls and defines what constitutes their standard local calling area. See fMCI/CLEC Local Calling Area for more information.
- VoIP Calling Coverage (Intra-enterprise VoIP (VoIP origination and termination) calling) - enables callers to place phone calls to and receive phone calls from any telephone that is currently subscribed within an enterprise to a Verizon VoIP service.

- Outbound Long Distance Calls - Offers network gateways to the Verizon long distance telephone network, allowing the customer to complete off-net calls.
- International Coverage - Calls to international locations can also be made.
- Inbound 8XX Calls - Basic toll-free routing and termination. Enhanced toll-free routing capabilities are not supported.

Fax - Support for fax pass-through.

**Service Access Codes (SACs)**

SACs are non-geographic area codes (technically referred to as NPAs) assigned for special network uses. These codes typically include 500, 700, 800 / 888 and 900.

- 500, 700: routed according to the customer's pre-subscribed carrier.
- 800, 888, etc: Verizon Local Service customers can originate calls to toll free numbers. They can also receive toll free calls by using their local number as the translation for their toll free number.

**900 / 976 Blocking**

900 calling is not supported for any VoIP Service. All 900 calls are blocked and a VoIP user will not be able to dial a 900 number.

**911 Service.**

Basic 911 Service - 911 is an emergency reporting system where a caller can dial 911 for all emergency services. When 911 is dialed, Basic 911 Service routes the call to the Public Safety Answering Point (PSAP) serving that area for handling of the call. The 911 operator will figure the nature of the call and dispatch the proper response teams (i.e. police, fire, and/or ambulance, etc...). Basic 911 does NOT provide enhanced features such as providing ALI (Automatic Location Information) to the 911 operator. In most cases it does not provide ANI (Automatic Number Identification Information) either.

Enhanced 911 Service - Enhanced 911 is an advanced form of 911 service that does provide ALI (Automatic Location Information) and ANI (Automatic Number Identification Information) to the 911 operator. With E-911, the telephone number of the caller is transmitted to the PSAP where it is cross-referenced with an address database to determine the caller's location. That information is then displayed on a video monitor for the emergency dispatcher to direct public safety personnel responding to the emergency. This enables police, fire department, and ambulances to find callers who cannot orally provide their precise location.

Enhanced 911 works in VoIP in a manner similar to how it works in a traditional PSTN environment. Each customer will have a unique Billing Telephone Number (BTN) assigned in the Class 5 switch. That customer's BTN will be sent to the PSAP on outgoing 911 calls and can be assigned a unique address/suite number for display at the PSAP. Customers will be provisioned, according to their office location and the boundaries of the respective 911 service provider, to the proper terminating trunk group. A 911 call will be routed over the network and directed (via the PSTN

gateway) to the site's local Class 5 switch, for delivery to the appropriate 911 service providers.

### Emergency 911 Service using Verizon VoIP

Every Verizon VoIP Local customer receives 911 Service in locations where such 911 calling is available and only under the limited circumstances described below until further notice of enhancement has been provided by Verizon Business. The Verizon VoIP contract clearly describes the emergency calling capabilities. As stated above, the service currently enables users to access an appropriate PSAP by dialing 911.

The ability to access an appropriate PSAP with VoIP depends on the type, configuration, and location of the phone used. A VoIP subscriber has the option of using four different types of phones:

- SIP phone provisioned and used in a fixed, identified location (a fixed SIP phone)
- SIP phone provisioned and used as "Mobile", i.e., the phone can be used at a temporary location other than the primary service address (a mobile SIP phone). **(Capability only available to Hosted IP Centrex customers with the Intermediate or Advanced Packages)**
- Traditional non-SIP phone (PBX, Key System, or analog) provisioned and used in a fixed, identified location (a non-SIP phone)
- Softphone **(Available to Hosted IP Centrex Advanced Package customers only)**

Long Distance Only Voice Service does NOT provide access to E-911 calling. Thus, to ensure proper E-911 access and support, customer must obtain separate Local service when only Long Distance Voice Service is ordered from Verizon.

### Current Emergency 911 Service Limitations using VoIP

Below is a description of 911 limitations to be aware of:

- Fixed profile SIP phone limitations: When 911 is dialed on a fixed SIP phone, the call will be routed to the appropriate PSAP based on the billing telephone number primary service address assigned to the fixed SIP phone. Therefore, if moved to a new location, a MOVE/CHANGE Service Order must be submitted, and the phone may need to be reconfigured in order for a 911 call to be routed to the appropriate PSAP.
- Traditional phone limitations: When 911 is dialed on a traditional, non-SIP (i.e., standard) phone used with VoIP, the call will be routed to the appropriate PSAP if 911 service is available in that area, based on the billing telephone number primary service address assigned to the phone.

911 Surcharges - A number of states, counties, cities, and other jurisdictions levy surcharges on 911 services. These charges, which are typically imposed to fund the administration of 911 services, vary from locality to locality. Where applicable, Verizon will provide these fees as a separate line on the invoice.

### Private Switch / Automatic Location Identification (PS/ALI)

PS / ALI is an advanced form of E-911 service that gives PBX customers the ability to deliver station-level Automatic Number Identification (ANI) and exact location information to the PSAP where it is cross-referenced with an address database to exactly pin point the caller's location. The location information included in the ALI database is the caller's specific building address, floor, suite, and cube number.

PS / ALI consists of three parts.

1. Agreement between Verizon Business and the customer with notification provided to the appropriate Incumbent Local Exchange Carriers (ILEC) that customer, not Verizon Business is now responsible for loading Calling Party Number records in the ALI database.

2. Customer must obtain application software/support from 3 rd party vendor to build and maintain records in the appropriate ILEC ALI database.

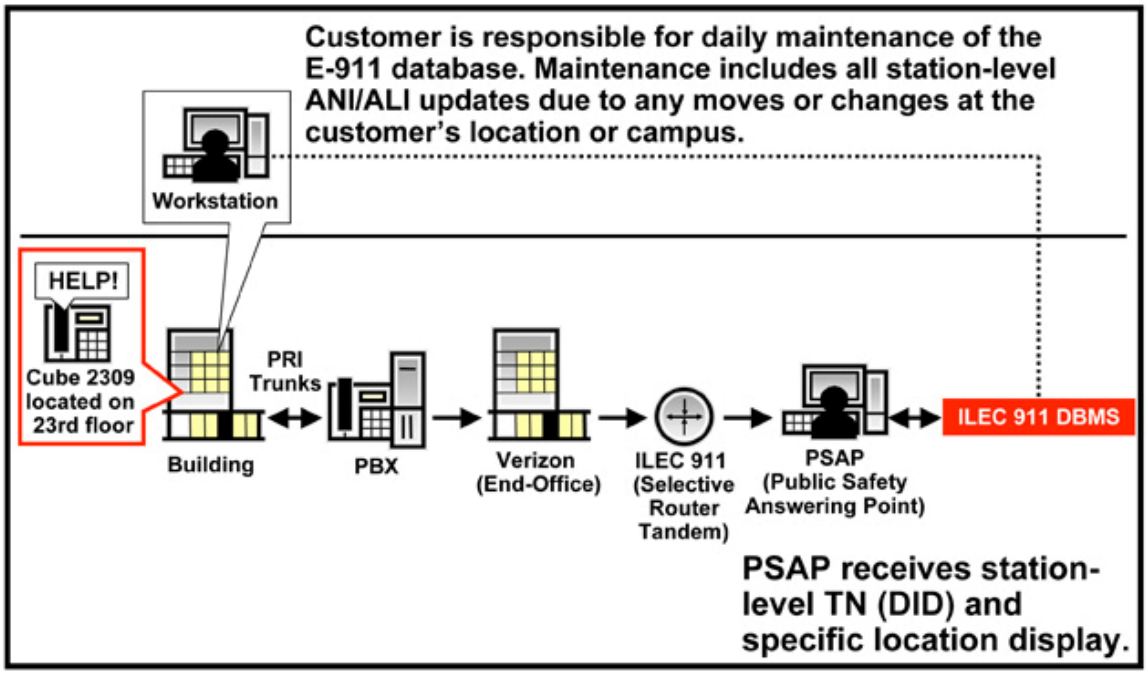
3. Requirement for specific network logic by Verizon Business to pass Calling Party Number as ANI instead of a customer's primary BTN. The location information included in the ALI database by the customer is the caller's specific building address, floor, suite, and cube number.

PS / ALI is available for all Verizon VoIP customers but there are limitations that make it different from the domestic Local PS / ALI product:

*Criteria*

- Available to VoIP A La Carte customers only. For VoIP Bundle customers, an individual case basis (ICB) process may be requested from VoIP Marketing.
- Enhanced feature platform, Broadsoft is used. Customers who are on the legacy NS / RS platform must migrate to the new platform before they can leverage PS / ALI.
- Customers that use a TDM PBX with an Enterprise Gateway must have ISDN PRI signaling between the PBX and the Gateway so that the Network features on the EGW can work.
- Every subscriber must be built with a 'feature profile' in the Verizon Business provisioning systems. This ensures when a subscriber dials 911, Verizon Business knows exactly which subscriber originated the call, which allows the correct subscriber ANI info to be sent to the PS / ALI database.

### PS / ALI Call Flow




### Local Directory Assistance (411) *(incremental charges apply)*

Local Directory Assistance allows for the Verizon VoIP subscriber to get telephone number information from an Operator by dialing 411. All Verizon VoIP local customers have access to Local Directory Assistance via 411, and some locations have the added feature of National Directory Assistance via 411.

Directory Assistance - Use appropriated contracted rates.

### Operator Services *(charges apply)*

Verizon offers a full range of operator-assisted calling. Callers can access Verizon local and long distance operators by dialing "0" or "00."

- Dialing "0" (and no other digits) connects the caller to a Verizon Local Service operator.
- Dialing "00" connects the caller to a Verizon long distance operator.

Operator Services provides general assistance, emergency support, foreign language support and transfers to other service organizations. Other functions include assistance with Collect Calls, Third Party Calls, Person-to-Person Calls, and Card Calls. Additionally, Operators are responsible for obtaining a billing payment option and processing calls for callers whom: have difficulties dialing, request the operator to complete the call for them, or when there are network difficulties.

Operator Assisted - Use appropriated contracted rates.

### Directory Services

Verizon local customers receive the following standard directory services free of charge:

- Listing of the customer's name and address with Local Directory Assistance.
- One standard listing in the LEC white pages that covers the customer's business location.
- One standard listing in the yellow pages. The customer's name, address, and telephone number are included under one "header" of the customer's choice (example: Medical Equipment and Supplies).
- One copy of each local yellow and white pages directory. The local operating company will deliver these to Verizon VoIP customers. Verizon customers may request additional directories at the time they place their order.

### Directory Listings

Verizon provides the following types of directory listings at no charge:

- Primary Listing: The Primary, or Main Listing, is the free white pages listing that each customer receives.
- Classified Heading: The heading in the Yellow Pages under which the customer's listing appears; this normally indicates the type of business. Local Service customers receive one free listing in the yellow pages.
- Note: A Non-Published telephone number is omitted from both the printed directory and from Directory Assistance.
- Note: A Non-Listed number is omitted from the printed directory and appears only in Directory Assistance files.

### Directory Advertising

Verizon does not provide directory advertising. Customers must arrange their own directory advertising directly through the Yellow Pages sales organization. The customer is billed directly by the Yellow Pages organization, not Verizon.

### Telecommunications Relay Service (TRS)

Telecommunications Relay Service (TRS), mandated by the Americans with Disabilities Act, allows voice telephone users to communicate via a relay service with individuals who are deaf, hard of hearing, or speech disabled. With this service, a Communication Assistant (CA) or Relay Operator (RO) facilitates communication between a hearing person using a standard voice telephone and a person who is deaf, hard of hearing, or speech disabled using a text telephone or personal computer.

For additional information about TRS, visit the Federal Communications Commission (FCC) website: http://www.fcc.gov/cgb/dro/trs.html

Using TRS.

TRS is available 24 hours a day, seven days a week. There is no limit to the length of a call, or how many calls are made. Each state offers TRS. To reach TRS in any state, simply dial 711. TRS providers may have toll-free 800 numbers listed in telephone directories or on their websites.

After calling TRS, a specially trained CA or RO will come on the line and facilitate the conversation by typing what the voice telephone user says and voicing what the text telephone user types. Every CA or RO follows a strict code of ethics requiring complete confidentiality of all relay conversations.

TRS Cost - TRS is included as a standard Local Service component at no charge, however, long distance and/or toll charges do apply.

### N11 Services

N11 is a three-digit shortcut to reach special community services. The numbers are set aside by the Federal Communications Commission (FCC) and operated by the provider of the special community service.

In addition to 911 (Emergency) and 711 (TRS), other N11 services such as 311 are available, where jurisdictionally mandated.

This is what each N11 code is used for:

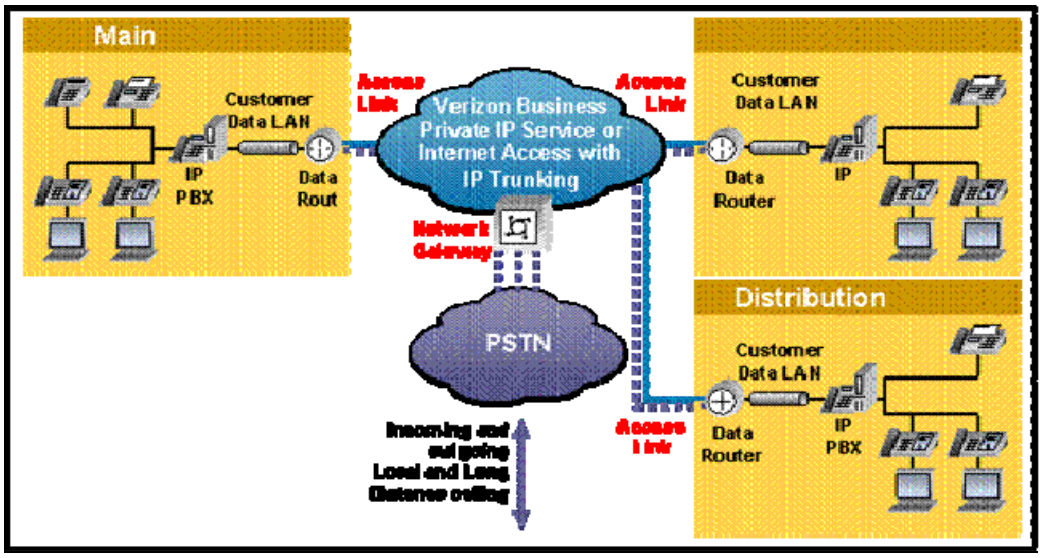
- 211 Community Information and Referral Services
- 311 Non-Emergency Police, Fire and Other Governmental Services
- 511 Traffic and Transportation Information (US); Provision of Weather and Traveler Information Services (Canada)
- 611 Repair Service
- 711 Telecommunications Relay Service (TRS) for the speech and hearing impaired.
- 811 Access to One Call Services to Protect Pipeline and Utilities from Excavation Damage (US) (i.e. Call before you dig numbers)

### IP Trunking

With IP Trunking, customers can leverage Verizon Business's IP backbone to access the Public Switched Telephone Network and voice services, allowing more efficient use of their wide area network resources.

Designed for customer locations equipped with an IP PBX, IP Trunking service is delivered via a standards-based SIP trunk directly to the customer's IP PBX. This streamlined approach eliminates the need for expensive TDM enterprise gateways or TDM cards, and the associated maintenance costs. IP Trunking offers single and multi-site configurations and is certified for use with some Avaya, Cisco, Mitel, Nortel, Panasonic and Siemens CPE platforms. With IP Trunking, customers can leverage Verizon Business's IP backbone to access the Public Switched Telephone Network and voice services, allowing more efficient use of their wide area network resources.

### IP Trunking Diagram




### Internet Dedicated Access (IDA)

Verizon's Internet Dedicated Access (IDA) leverages the global reach of the Verizon IP infrastructure. Internet Dedicated offers permanently open, high bandwidth, dedicated connections to Verizon's global IP network via access circuits of 768 Kbps to T3. Internet Dedicated includes a standard package of IP services that include domain name, DNS, news, IP addresses, and service level agreements, as well as 24x7 monitoring.

Available speeds range from 768 Kbps to T3. To determine which speed is best depends on the location's mix of voice and fax usage. With IDA, voice calls use G.729a, while fax calls use the G.711 protocol and require more bandwidth.

This means:

- IDA 768 Kbps access supports up to 20 concurrent voice only calls, or a combination of three fax lines with up to (12) voice calls, two fax lines with up to (15) voice calls, one fax line with up to (18) voice calls. (Up to three fax lines are supported.)
- IDA T1 access supports up to 41 concurrent voice only calls, or a combination of three fax lines with up to (33) voice calls, two fax lines with up to (36) voice calls, one fax line with up to (39) voice calls. (Up to three fax lines are supported.)
- IDA T3 access is also available.

***c. The vendor will describe any traffic reporting capabilities associated with the service.***

## Verizon Business Response

This embedded user guide provides a detail explanation of the available reports and how to access them on the Verizon Enterprise Center web portal.

VoIP Reports Guide.pdf

Hard copy of this Reports Guide is available under Attachment II.

***d. If there is an option for bundled domestic long distance, pricing must show bundled and unbundled rates. For the bundled scenario, indicate the number of included long distance minutes and the cost for any overflow minutes. For the unbundled scenario, indicate the "per minute" rate you would charge for long distance.***

## Verizon Business Response

Verizon Business has read and understands. Since we are proposing the new State of Texas DIR Tex-AN rates, the only option available at this time is bundled rates. We are proposing free domestic (InterLATA and IntraLATA) long distance minutes calculated as 250 minutes times the number of requested simultaneous call paths. For instance, if Denton ISD requests 80 call paths at each location, the LD minutes will be calculated as

(2 * 80) * 250 = 40,000 free domestic LD minutes per month

The overage is $0.0208 per minute.

There is also a bundle based on 750 minutes per simultaneous call which Verizon can price if the district so desires.

***e. The vendor will review and recommend opportunities to improve service and/or reduce costs on an annual basis to the TIO or his designee.***

## Verizon Business Response

Verizon has read, understands, and will comply.

***f. The vendor will schedule outages for network maintenance, expansions, and modifications during hours that meet the operational needs of DISD staff.***

## Verizon Business Response

Verizon Business will comply in terms of scheduled outages for network maintenance, expansions, and modifications that are solely related to Denton ISD. Verizon will send notice to specified DISD staff of any scheduled outages related to Verizon's core network which could impact DISD along with other customers.

***g. The vendor must contact specified DISD staff when system outages occur.***

## Verizon Business Response

Verizon provides customers with a 10 business day advance notice for non-emergency maintenance. To meet the customers' requirements, occasional network upgrades must be performed. These network upgrades are needed to provide improved performance and new features. Generally these upgrades will be performed between the hours of 11 PM and 6 AM. Network upgrades are planned to provide customers reasonable and timely notification in order to minimize any impact on the customers service

Verizon reserves the right to perform emergency maintenance at any time, when it is determined that such maintenance is necessary to maintain network performance and integrity. This exception would be in instances where an unplanned outage occurs due to "Force Majeure" type circumstances and there is not sufficient time to notify customers.

### *4.2.3 Service Offerings*

***DISD will evaluate the overall proposals for services provided to the district. It is DISD's intent to contract for the most cost effective and technically superior and efficient solution for the district.***

***a. The vendor will include all services required to deliver a comprehensive solution to the district. Services should include design, installation, implementation, telecommunication services, number portability, direct trunk overflow capability, E911, management and transport.***

## Verizon Business Response

Verizon Business has read and understands.

## 4.3 Cost

### 4.3.1 Total Long Term Cost to the District

***DISD will evaluate the total long-term cost to the district to acquire the requested services. The evaluation will be based on one, two, and three year service solutions.***

***a. The vendor will provide a cost for each requested service per location for proposed term of the service. All cost should be identified as E-rate eligible with the percent eligible if less than 100% or Non E-rate Eligible.***

**Verizon Business Response**

Verizon Business has read, understands, and will comply. Please see costs in Section 5.

### 4.3.2 Nonrecurring Cost to the District.

***DISD will evaluate the one time, nonrecurring cost to the district. These costs should include all fees including installation, configuration, and hardware cost – all one-time costs that the district will incur to implement the service.***

***a. The vendor will provide the nonrecurring cost per service per location.***

**Verizon Business Response**

Verizon Business has read, understands, and will comply. Please see costs in Section 5.

### 4.3.3 Recurring Cost to the District.

***DISD will evaluate the recurring cost to the district on a monthly basis.***

***a. The vendor will provide the monthly recurring cost to the District per service per location.***

**Verizon Business Response**

Verizon Business has read, understands, and will comply. Please see costs in Section 5.

# Section 5 Proposal Form

### *5.1.1. SPIN NUMBER:* ___143001197_____

### *5.1.2. Evidence of FCC Telecommunication Carrier X - (Yes) / (No)*

## Verizon Business Response

Section 5
SPIN_Contact_Displa

Please see the following page.

Reference

## SPIN and BEAR Contact Search Results

Guidance on determining if a company is eligible to provide telecommunications services:

Form 499 Filer column indicates “Y”:

- This service provider has successfully filed a Form 499 with USAC. Telecommunications providers with a “Y” are eligible to provide Telecommunications Services and Internet service providers with a “Y” are eligible to provide Interconnected Voice over Internet Protocol (VoIP) services.

All other designations:

- Some service providers that do not have a “Y” designation are eligible to provide Telecommunications Services because they meet certain conditions and are exempt from filing a Form 499 . You can contact the Client Service Bureau to determine if the company has met those conditions.

Form 499 Filer column indicates “X”:

- This service provider has been researched by USAC and is **not** eligible to provide Telecommunications Services.

Form 499 Filer column indicates “Z”:

- This service provider is currently being researched by USAC to determine if it is eligible to provide Telecommunications Services.

Form 499 Filer column is blank:

- This service provider has not been researched and its status is unverified.

Applicants are reminded that they should confirm this and all other information with the service provider.

**Page 1 of 1**
**Results 1 - 1 of 1**

| SPIN | Service Provider Name | Contact Name | Contact Address | Contact Phone | Form 499 Filer | SPAC Filed |
|---|---|---|---|---|---|---|
| 143001197 | Verizon Business Global LLC | Jeannine Tabb | 205 N. Michigan Ave 7th Floor, Chicago, IL 60601 | 312260-3120 | Y | 1998<br>1999<br>2000<br>2001<br>2002<br>2003<br>2004<br>2005<br>2006<br>2007<br>2008<br>2009<br>2010<br>2011 |

New Search Done

Questions about the SLD Program? Call our Client Service Bureau at (888) 203-8100.

### *5.1.3. Three References of Comparable Educational Customers*

1. **Name** Irving Independent School District
   Street Address 2621 W. Airport Freeway
   City/State/Zip Irving, Texas 75062
   Contact's Name Dr. Alice Owen
   Phone Number 972-600-5250

2. **Name** Plano Independent School District
   Street Address 2700 W. 15th Street
   City/State/Zip Plano, Texas 75075
   Contact's Name Dan Armstrong
   Phone Number 469-752-8253

3. **Name** Texas A&M University
   Street Address College Station
   City/State/Zip Texas
   Contact's Name Walt Magnussen
   Phone Number 979 845 5588

### *5.1.4. Three References of Comparable Product Installations*

***1.*** Please see Attachment II for comparable Product Installations.

***2.*** _____

***3.*** _____

### *5.1.5. Previous Contracts with DISD*

***1.*** CURRENT TO EXPIRE ON 6-30-2012 – Verizon Participation Agreement (IP Trunks) will expire on 6-30-2012

***2.*** CURRENT – MICTA LD Contract for 36 months beginning on March 8, 2011

***3. If more, please list on separate sheet.***

### *5.1.6. List the personnel and qualifications of the personnel that will be assigned on the project:*

***1.*** Tory Anderson – Verizon Account Manager

***2.*** Bill Bruckner – Solutions Architect

***3.*** _____

# Cost Summary

***The vendor will provide a cost summary on the form below. The information requested below is the minimum that will be accepted. Vendor will submit one (1) original, five (5) complete copies as well as an electronic copy of the proposal. Use additional pages as needed. Additional information and pricing shall be documented, titled with the "Additional Service Cost" line item on this Cost Summary Form that it is detailing, and the total additional cost entered into that line item's price.***

## One Year Contract Cost –

***The contract's start date will be July 1, 2012 and end date will be June 30, 2013. Options to extend contract should be described.***

| Demarc Location | Concurrent Calls During Normal Operation | Concurrent Calls in Failover Mode | One-Time Costs | Recurring Costs | Total Site Cost |
|---|---|---|---|---|---|
| Primary Demarc | 80 | 160 | $0.00 | $4,443.30 | $4,443.30 |
| Secondary Demarc | 80 | 160 | $0.00 | $3,169.30 | $3,169.30 |

| Demarc Location | Concurrent Calls During Normal Operation | Concurrent Calls in Failover Mode | One-Time Costs | Recurring Costs | Total Site Cost |
|---|---|---|---|---|---|
| Primary Demarc | 60 | 120 | $0.00 | $3,713.35 | $3,713.35 |
| Secondary Demarc | 60 | 120 | $0.00 | $2,439.35 | $2,439.35 |

| Demarc Location | Concurrent Calls During Normal Operation | Concurrent Calls in Failover Mode | One-Time Costs | Recurring Costs | Total Site Cost |
|---|---|---|---|---|---|
| Primary Demarc | 50 | 100 | $0.00 | $3,480.35 | $3,480.35 |
| Secondary Demarc | 50 | 100 | $0.00 | $2,206.35 | $2,206.35 |

| Demarc Location | Concurrent Calls During Normal Operation | Concurrent Calls in Failover Mode | One-Time Costs | Recurring Costs | Total Site Cost |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| *Primary Demarc* | *40* | *80* | *$0.00* | *$2,938.16* | *$2,938.16* |
| *Secondary Demarc* | *40* | *80* | *$0.00* | *$1,664.16* | *$1,664.16* |

## *Two Year Contract Cost*

***The contract's start date will be July 1, 2012 and end date will be June 30, 2014. Options to extend contract should be described.***

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *80* | *160* | | | |
| *Secondary Demarc* | *80* | *160* | | | |

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *60* | *120* | | | |
| *Secondary Demarc* | *60* | *120* | | | |

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *50* | *100* | | | |
| *Secondary Demarc* | *50* | *100* | | | |

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *40* | *80* | | | |

| | | | | | |
|---|---|---|---|---|---|
| *Secondary Demarc* | *40* | *80* | | | |

## *Three Year Contract Cost*

***The contract's start date will be July 1, 2012 and end date will be June 30, 2015. Options to extend contract should be described.***

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *80* | *160* | | | |
| *Secondary Demarc* | *80* | *160* | | | |

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *60* | *120* | | | |
| *Secondary Demarc* | *60* | *120* | | | |

| *Location* *Demarc* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *50* | *100* | | | |
| *Secondary Demarc* | *50* | *100* | | | |

| *Demarc Location* | *Concurrent Calls During Normal Operation* | *Concurrent Calls in Failover Mode* | *One-Time Costs* | *Recurring Costs* | *Total Site Cost* |
|---|---|---|---|---|---|
| *Primary Demarc* | *40* | *80* | | | |
| *Secondary Demarc* | *40* | *80* | | | |

## Verizon Business Response

* Verizon Business is proposing costs based on the State of Texas, Department of Information Resources, TEX--AN Contract NG CTSA—010. Under this agreement, there is only a minimum 1 year of service requirement and no term commitments or annual volume commitments. The price components in TEX-AN are less than Verizon's standard discounted 3 year price components. If Denton ISD wants to extend the service for another 12 month period, Verizon can provide an option for extension upon 30 days notice. There is no termination liability beyond the initial 12 month commitment.

Pricing in the above tables are all monthly rates and include:

- The requested concurrent calls.
- 4,940 DID numbers.
- Local loop access sized to accommodate the requested concurrent calls including overflow.
- Internet access into the VoIP network sized to accommodate the requested concurrent calls including overflow.

Because Verizon currently provides this service, there are no one-time costs. However, if Denton ISD wishes to add DID numbers, there is a one-time charge of $4.16 per block of 20 DID numbers, and a monthly recurring charge of $5.20 per block of 20 DID numbers.

250 minutes of domestic Long Distance times the number of simultaneous call paths are included in the price. There are no options in the TEX-AN contract, at this time, that do not include bundled LD minutes.

Changes to the number of T1s and Internet bandwidth changes may incur a service order charge of $37.44 per order, and amendment to the agreement.

### *Additional (Added Value) Services:*

| ***Description of Service*** | ***Cost*** |
|---|---|
| Burstable Enterprise Shared Trunks (BEST) (adder per simultaneous call bundled with 250 LD minutes of use).<br><br>The BEST feature enables customers to use idle trunk capacity in one location to accommodate an increase in traffic at another location. It is typically used when there are three or more customer locations. Some restrictions apply as described in the Business Rules based upon the service region | $8.32 |

| *Description of Service* | *Cost* |
|---|---|
| Web voicemail, per month, per box | $4.16 |
| Auto Attendant instance, per month, per instance | $24.96 |
| | |

# Section 6 Evaluative Criteria

***DISD shall accept the proposal it deems to be in the best interest of DISD based on the evaluation of the responses per the selection criterion set forth in Section 44.031 in the Texas Education Code with price being the highest weighted criteria.***

***Proposed Fee – 58%***

***References – 5%***

***Quality of the proposer's goods and services – 10%***

***The extent to which the services meet the district's needs and approach of the vendor – 10%***

***Past Relationship with the district – 10%***

***HUB certified – 2%***

***Long term cost to the district to acquire the vendor's services – 5%.***

## Verizon Business Response

Verizon Business has read and understands.

# Section 7 Submittals

***Signature Sheet***

***Proposal Form***

***Felony Conviction Form***

***References***

***Conflict of Interest Form***

***HUB Certification Verification***

# *Signature Sheet*

***We, the undersigned, have read and fully understand the specifications and conditions relating to this document.***

***Submitted By:***

***Company Name:*** Verizon Business Network Services Inc. on behalf of MCI Communications Services, Inc.

***Mailing Address:*** 2200 W Airfield Drive, Dock D, Dallas / Fort Worth Airport, TX 75261

***Representative Name Printed:*** Anthony Recine, Vice President

***Representative Name Signature:*** A. Tony Recine

***Date:*** 2/13/2012

***E-mail Address:*** Tory.Anderson@verizon.com

***Telephone Number:*** 940-257-7318

***Telephone Number:*** 940-257-7318

***(Questions Concerning Proposal)***

***Fax Number:*** 571-918-7287

# *FELONY CONVICTION NOTIFICATION*

***State of Texas Legislative Senate Bill No. 9, Section 44.034 of Texas Education Code, Notification of Criminal History, Subsection (a), states, "a person or business entity that enters into a contract with a school district must give advance notice to the District if the person or owner or operator of the business entity has been convicted of a felony." The notice must include a general description of the conduct resulting in the conviction of a felony.***

***Subsection (b) states, "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction." The district must compensate the person or business entity for services performed before the termination of the contract.***

***CRIMINAL HISTORY REVIEW OF CONTRACTOR EMPLOYEES***

***Texas Education Agency Amendment to 19 TAC 153.1101 and new rule 19 TAC 153.117 regarding criminal history checks of contractor employees provide the school district with rules interpreting Texas Education Code §22.0834. The rules define continuing contract duties, direct contact with students and other relevant terms within the statute.***

***Except as otherwise provided herein, Contractor will obtain and certify in writing, before work begins, and at least annually, a national criminal history record, which includes fingerprinting, information that relates to an employee, applicant, agent or Subcontractor of the Contractor or a Subcontractor, if the person has or will have continuing duties related to the Project, and the duties are or will be performed on Owner's property where students are regularly present or at another location where students are regularly present. Contractor shall assume all expenses associated with the national background checks and fingerprinting and shall immediately remove any employee or agent who was convicted of, received probation for, or received deferred adjudication for any felony as outlined below or any misdemeanor involving moral turpitude, from Owner's property or other location where students are regularly present. Owner shall determine what constitutes "moral turpitude" or "a location where students are regularly present."***

***Contractor or sub-contractors may not work on District property where students are present when they have been convicted, received probation or deferred adjudication for the following felony offenses:***

***1. Any offense against a person who was, at the time the offense occurred, under 18 years of age or enrolled at a public school;***

***2. Any sex offense;***

***3. Any crimes against persons involving:***

***a. Controlled substances; or***

***b. Property; or***

***4. Any other offense the District believes might compromise the safety of students, Staff or property.***

***Please complete the information below:***

***I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions and criminal history checks for the company employees, agents, or subcontractors that will be on DISD campuses have been reviewed by me and the following information furnished is true to the best of my knowledge.***

***Vendor's Name:*** Verizon Business Network Services Inc. on behalf of MCI Communications Services, Inc.

***Authorized Company Official's Name (please print or type):***

Anthony Recine, Vice President

***A. My firm is not owned nor operated by anyone who has been convicted of a felony.***

***Signature of Company Official:*** A. Anthony Recine ***Date:*** 2/13/2012

***B. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:***

***Name of Felon(s):*** _____

***Details of Conviction(s):*** _____

***Signature of Company Official:*** _____ ***Date:*** _____

# *REFERENCES*

## *(3 public school districts)*

***1. Name*** Irving Independent School District

***Address*** 2621 W. Airport Freeway, Irving, TX 75062

***Phone Number*** 972-600-5250

***Contact Name*** Dr. Alice Owen

***Length on Business Relationship***

***2. Name*** Plano Independent School District

***Address*** 2700 W. 15th Street, Plano, TX 75075

***Phone Number*** 469-752-8253

***Contact Name*** Dan Armstrong

***Length on Business Relationship***

***3. Name*** Texas A&M University

***Address*** College Station , TX

***Phone Number*** 979 845 5588

***Contact Name*** Walt Magnussen

***Length on Business Relationship***

# *Conflict of Interest Questionnaire*

conflict of Interest form.pdf

Please see the following pages for hardcopy.

## CONFLICT OF INTEREST QUESTIONNAIRE

**FORM CIQ**

**For vendor or other person doing business with local governmental entity**

This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity.

By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. *See* Section 176.006, Local Government Code.

A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

**OFFICE USE ONLY**

Date Received

1 **Name of person doing business with local governmental entity.**

Verizon Business Network Services Inc. on behalf of MCI Communications Services, Inc.

2

☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

3 **Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.**

None

4 **Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.**

None

Amended 01/13/2006

## CONFLICT OF INTEREST QUESTIONNAIRE

**For vendor or other person doing business with local governmental entity**

**FORM CIQ**
**Page 2**

5 **Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)**

This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or business relationship. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire?

☐ Yes ☒ No

B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity?

☐ Yes ☒ No

C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

☐ Yes ☒ No

D. Describe each affiliation or business relationship.

6 **Describe any other affiliation or business relationship that might cause a conflict of interest.**

None

7 Verizon Business Network Services Inc. on behalf of MCI Communications Services, Inc.

Anthony Recine

Signature of person doing business with the governmental entity

2/13/2012

Date

Anthony Recine, Vice President

Amended 01/13/2006

# Attachment I Sample Contract Documents / Service Level Agreements

Please see the following pages for sample contract documents and Service Level Agreements.

## E-Rate Funding Related Terms and Conditions
## Service Attachment

**I. General.**

**A.** The terms and conditions of this service attachment apply with respect to any Services (which term includes equipment) for which Customer seeks E-Rate funding ("E-Rate Services") under the federal Universal Service Fund from the Schools and Libraries Division of the Universal Service Administrative Company or USAC ("E-Rate Program").

**B.** Delayed Implementation. Verizon will delay the start of any work or activities related to installation or provision of the E-rate Services upon Customer request, until such time as Customer notifies Verizon in writing of USAC's approval of E-rate funding, or Customer notifies Verizon to proceed to provide such E-rate Services (regardless of whether E-rate funding is or has been approved), in which case Customer shall be responsible for payment as set out in Section III.C below. However, if within twelve (12) months after this Agreement is signed by either party, Customer has neither notified Verizon that it has received such USAC approval of E-rate funding for E-rate Services nor notified Verizon to proceed to provide such E-rate Services, then Verizon reserves the right to terminate this Agreement with respect to such E-rate Services upon written notice to Customer.

**C.** Term and Survival. Notwithstanding any other provisions to the contrary set forth in the Verizon Business Service Agreement (the "Agreement") to which this is attached, the Initial Term and Effective Date for E-Rate Services will be as follows: Providing Customer has signed and delivered this Agreement to Verizon no later than May 1, 2012, the "Initial Term" for the E-Rate Services will be scheduled to begin on July 1, 2012, or as soon thereafter as such services are installed if not previously installed, and the pricing in this Agreement will be effective for such E-Rate Services on that date ("Effective Date") . If Verizon has not received the signed Agreement from Customer by May 1, 2012, the Initial Term for the E-Rate Services will be scheduled to commence on the 1st day of the 2nd billing cycle following Verizon's receipt of the signed Agreement from Customer, or as soon as such services are installed if not previously installed, but in no event earlier than July 1, 2012. The Initial Term shall end upon completion of the number of months specified as the Initial Term in the Agreement following the commencement of the Initial Term. Unless otherwise agreed, the Initial Term for new or additional E-Rate Services installed after the Initial Term begins will be co-terminus with the Initial Term applicable to the other E-Rate Services. At the end of the Initial Term, the Agreement for these Services may be subject to extension or continuation to the extent so provided in the provisions of the Agreement applicable to these Services. In the event the Services are provided to, and used by, Customer after the signature of this Agreement but prior to July 1, 2012, then Customer shall pay the rates set forth in this Agreement unless a prior written agreement is in effect and applicable to such pre-July 1 time period

**D.** Customer and Verizon each represent and warrant that it has complied and will comply with all laws, rules and regulations applicable to the E-Rate Program.

**II. E-Rate Funding Method.**

Please designate the intended funding method by checking the appropriate box below:

☐ Billed Entity Applicant Reimbursement Form ("BEAR" ) – FCC Form 472

☐ Service Provider Invoice Form_("SPIF') – FCC Form 474

**III. Customer Responsibilities.**

**A.** Customer is solely responsible for applying for and securing any E-Rate funding, and for ensuring the accuracy and integrity of all data and information submitted in connection

with such application. Verizon has no liability arising from any assistance it provides Customer in connection with such application and Customer shall hold Verizon harmless with respect to any such assistance or information provided to Customer.

**B.** Verizon makes no representation or warranty whatsoever with respect to the eligibility of any particular Services for E-Rate funding, as such determination rests solely with the Schools and Libraries Division of USAC in its capacity as administrator of the E-Rate Program. Any reference in the Agreement to E-Rate eligibility or ineligibility is not determinative, but is for ease of reference only.

**C.** If for any reason Customer fails to qualify for or secure E-Rate funding or otherwise becomes ineligible for such funding in whole or in part, or if such funding is withdrawn or canceled in whole or in part, or if payment of any Verizon charges is denied by USAC in whole or in part, Customer is nevertheless obligated to pay one-hundred percent (100%) of the charges associated with the Services provided under this Agreement that are not paid to Verizon from E-Rate funding, including if applicable reimbursing to Verizon any funds which Verizon is obliged to return to USAC on account of Customer in connection with the Agreement.

**D.** Upon request, Customer will provide Verizon with copies of any E-rate-related materials (including all attachments) reasonably requested by Verizon, including without limitation: (i) Form 471 and Item 21 Attachments, (ii) Form 500, (iii) Service Substitution Request, and (iv) approved SLD FCC 486 Service Certification Form.

**IV. Payment.**

**A.** Standard Invoicing. Except as provided below, Verizon will invoice Customer in full for all Services, including those for which Customer's E-rate funding request has been approved. Customer will pay all invoices as provided in the Agreement. With respect to Services for which E-Rate funding has been approved, Customer will file FCC Form 472 (Billed Entity Applicant Reimbursement Form or BEAR) and certify that it has paid for those Services in full. (Note that Verizon must receive an approved SLD Funding Commitment Decision Letter and approved SLD FCC Form 486 Service Certification Form before Verizon will sign Customer's FCC Form 472 (BEAR).) Within twenty (20) business days after receipt of payment from USAC, Verizon will remit the approved discounted portion to Customer.

**B.** Alternative Invoicing.

1. For some services (which Verizon will identify for Customer on request), Customer may request that Verizon invoice Customer only for the so-called non-discounted charges (i.e., the charges that are not to be paid or reimbursed via E-Rate funding).
2. Any such request will apply to all E-Rate Services that are eligible for such invoicing until Customer notifies Verizon that it does not want to continue that invoicing treatment with respect to a subsequent funding year. Once made, this invoicing election may not be changed for the current year.
3. To qualify for such invoicing, Customer must send notice to Verizon under this Agreement, together with an approved SLD Funding Commitment Decision Letter and approved SLD FCC Form 486 Service Certification Form.
4. Customer understands that Verizon will file FCC Form 474 (Service Provider Invoice Form or SPIF) to obtain payment from USAC of the so-called discounted charges, and upon request, Customer will provide any appropriate documentation or information to Verizon or USAC in support of Verizon's request(s) for payment.

**C.** If, following the end of the funding year, Verizon determines that it has received payment for a Service from both USAC and Customer, Verizon will correct any such duplication, either through credits or refunds to Customer or USAC, as it determines to be appropriate.

# INTERNET DEDICATED SERVICE
# SERVICE ATTACHMENT

1. **Rates and Charges.**

1.1 **Monthly Recurring Charges and Non-Recurring Charges.**

1.1.1 Customer will pay the monthly recurring charges ("MRC"), which are fixed for the Term of this Agreement and the non-recurring charges ("NRC") for Internet Dedicated Services in the contiguous U.S. (includes Internet Dedicated NxT1 Service, Internet Dedicated T1 Service, Internet Dedicated T3 Service, Internet Dedicated OC3 Service, Internet Dedicated OC12 Service, Internet Dedicated OC48 Service, Internet Dedicated GigE Port Only Service, Internet Dedicated Ethernet Service and Internet Dedicated Fast Ethernet Port Only Service), in Alaska (includes Internet Dedicated NxT1 Service, Internet Dedicated T1 Service, Internet Dedicated T3 Service, Internet Dedicated OC3 Service, Internet Dedicated OC12 Service and Internet OC48 Service), ("Internet Dedicated Service") and attendant options listed, as applicable, in the Guide for VBSIII. Additional charges are set forth in the Guide for VBSIII.

1.1.2 Installation may be scheduled between the hours of 8AM and 7PM ET Monday through Friday (excluding holidays). If Customer requires installation outside of these hours, Verizon will charge an additional $500 fee.

2. **Special Pricing.**

2.1 **Internet Dedicated Service**. In lieu of all other rates, discounts and promotions, Customer will receive a **<DiscountToken>** discount off the MRC and overage charges, if applicable, set forth in the Guide for **<InternetServiceToken>** Internet Dedicated Service VBS III. Access is not eligible for these discounts and is additional.

2.1 **Internet Dedicated Service.** In lieu of all other rates, discounts and promotions, Customer will receive the following discount(s) off the MRC and overage charges, if applicable; set forth in the Guide for Internet Dedicated Service VBS III. Access is not eligible for these discounts and is additional.

| Internet Dedicated Service | Discount off MRC and Overage Charges |
|---|---|
| **<InternetServiceToken>** | **<DiscountToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** |

2.1 **Internet Dedicated Service.** In lieu of all other rates, discounts and promotions, Customer will receive the following discount(s) off the MRC and overage charges, if applicable, set forth in the Guide for Internet Dedicated Service. Access is not eligible for these discounts and is additional.

| Internet Dedicated Service Type | Discount off MRC | Discount off Overage Charges |
|---|---|---|
| **<InternetServiceToken>** | **<DiscountToken>** | **<Write-OverToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** | **<Write-OverToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** | **<Write-OverToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** | **<Write-OverToken>** |
| **<InternetServiceToken>** | **<DiscountToken>** | **<Write-OverToken>** |

3. **Additional Terms and Conditions.**

3.1 **Access.** Access to a router at an Verizon Network hub near Customer's site may be interrupted for (i) scheduled maintenance (usually scheduled during off-hours at an Verizon hub, such as Tuesdays and Thursdays between 3:00 AM and 6:00 AM local time), (ii) emergency maintenance, or (iii) as otherwise set forth in the Agreement.

3.2 **Verizon Internet Dedicated GigE Port Only Services.** Verizon's Internet Dedicated GigE Port Only Service and 10GigE Port Only Service are intra-building connectivity products, and thus the Customer's demarcation point must reside within the same building as a GigE-qualified Verizon-owned network hub. To ensure proper installation, Verizon will order all telco lines within the telco facility where the Verizon hub is located.

3.3 **Customer Obligations – Service Not To Be Resold.** While Customer can resell Internet connectivity, Customer cannot resell the Internet Dedicated Service in its entirety to another person or entity without the express prior written consent of Verizon. If Customer resells Internet connectivity to end users, Customer is responsible for: (i) providing the first point of contact for end user support inquiries; (ii) providing software fulfillment to end users; (iii) running its own primary and secondary domain name service DNS for end users; (iv) registering end users' domain names; (v) using BGP routing to the Verizon Network, if requested by Verizon; (vi) collecting route additions and changes, and providing them to Verizon; and (vii) registering with the appropriate agency all IP addresses provided by Verizon to Customer that are allocated to end users.

3.4 **Burstable Downgrade.** Customer may downgrade to a lower Burstable Service level if Customer's Measured Use Level is at or below such Burstable Service level for at least two consecutive months and Customer thereafter requests the downgrade in writing.

3.5 **Burstable Select Upgrades/Downgrades.** Customer may change (upgrade or downgrade) its Burstable Select Service Level once within a given calendar month, by requesting the same in writing. The new Service Level and applicable charges will take effect on the first day after the end of the billing cycle during which the written request is received.

3.6 **Terms/Early Termination.**

3.6.1 The "Service Activation Date" for an Internet Dedicated Service ordered hereunder will be the date the Internet Dedicated Service is available to route IP packets at Customer's site. The term of any Internet Dedicated Service ordered hereunder shall commence upon the Service Activation Date and will (except as indicated in section 3.7.2) automatically renew, expire and terminate according to the terms of the Agreement.

3.6.2 The minimum term commitment for each circuit ("Service Term") for Verizon Internet Dedicated OC-3, OC-12, OC-48 and Fast Ethernet, Ethernet Service, 10GigE Port Only and GigE Port Only, is one year. If the Agreement terminates or expires prior to the termination of this Service Attachment, this Service Attachment with respect to the aforementioned services shall continue in full force and effect under the terms and

conditions of the Agreement for the longer of the minimum Service Term or the Service Term otherwise agreed to by Customer. If Customer terminates the aforementioned services before the end of the Service Term for reasons other than Customer termination for Cause, Customer will pay an amount equal to 75% of the MRC for the discontinued service(s) multiplied by the number of months remaining in the unexpired portion of the Service Term, plus a pro rata portion of any and all credits received by Customer, in addition to any amounts owed for service already received.

# INTERNET DEDICATED SERVICE
# Service Level Agreement (SLA)
# April 2007

## SLA.1 – Circuit Installation

**Installation Scope.** Verizon's Circuit Installation SLA is to have installation of a Verizon-ordered telephone company circuit and activation of a Verizon port completed within forty (40) business days for T1 services, sixty (60) business days for T3 services, and within the scheduled installation date provided in writing by a Verizon Sales Manager for OC-3, OC-12, OC-48, FE Port Only, and Internet Dedicated Ethernet (and GigE) services.

**Installation Process.** The installation date shall be counted from the date Verizon has received all of the following from Customer: signed contract (e.g., Service Agreement or Amendment), completed Customer Information Form, and (if requested by Verizon) completed credit application. The Circuit Installation SLA is not available for Customer-ordered telephone company circuits, Verizon-ordered telephone company circuits outside the contiguous U.S., or if installation delay is attributable to Customer equipment, Customer's facility, acts or omissions of Customer, its employees or agents, Customer not passing Verizon's credit check, or reasons of Force Majeure (see below if not defined in the applicable service agreement).

**Installation Remedy.** To claim a credit, Customer must request it by calling the Billing Inquiry/Trouble telephone number on its invoice. At the time of the call, Customer must provide the company name, account number, circuit ID, name of the service (Internet Dedicated), contact name and number, email address, SLA installation date, and the actual installation date in order to process the request. If Verizon determines in its reasonable commercial judgment that there is a Circuit Installation SLA non-compliance, then at Customer's request, Customer's invoice will be credited an amount equal to 50% of Verizon's billed installation charge, to include any applicable Internet Port/service installation charges and Verizon-ordered and -billed access installation charges for the Internet Dedicated Service for which the Circuit Installation was not compliant with the SLA.

## SLA.2 - Availability

**Service Availability Scope.** Verizon's Service Availability SLA provides that the Verizon Network (as defined in the applicable service agreement) will be available 100% of the time.

**Service Availability Process.** At Customer's request, Verizon will calculate Customer's "Network Unavailability" during a calendar month. "Network Unavailability" consists of the number of minutes that the Verizon Network or a Verizon-ordered access circuit in the contiguous U.S. was not available to Customer, and includes unavailability associated with any maintenance at the Verizon data center where Customer's circuit is connected or Customer's server is located other than Scheduled Maintenance (defined below). Outages will be counted as Network Unavailability only if Customer opens a trouble ticket with Verizon Customer support within four (4) hours from learning of the outage. Network Unavailability will not include Scheduled Maintenance, or any unavailability resulting from (a) any Customer-ordered telephone company circuits or equipment, (b) Customer's applications or equipment, (c) acts or omissions of Customer or user of the Internet Dedicated Service authorized by Customer or (d) Force Majeure (see below if not defined in the applicable service agreement). If Verizon fails to meet this SLA during any given calendar month in accordance with the above, Customer's account will be credited at Customer's request.

**Service Availability Remedy.** To receive credit for an SLA non-compliance, Customer must request such credit within 30 days from the date that the Internet Dedicated Service was unavailable**.** For each cumulative hour of Network Unavailability or fraction thereof in any calendar month, at

Customer's request, Customer's account shall be credited for the pro-rated charges for one day of the Verizon I monthly recurring charge plus one day of the telephone company line charges for the Service with respect to which a Service Availability SLA has been non-compliant**.**

**SLA.3 – Latency**

**Latency Scope.** Verizon's U.S. Latency SLA provides for average round-trip transmissions of 45 milliseconds or less between Verizon-designated inter-regional transit backbone routers ("Hub Routers") in the contiguous U.S. Verizon's Transatlantic Latency SLA provides for average round-trip transmissions of 90 milliseconds or less between a Verizon Hub Router in the New York metropolitan area and a Verizon Hub Router in the London metropolitan area. Latency is calculated by averaging sample measurements taken during a calendar month between Hub Routers. Network performance statistics relating to the U.S. Latency Guarantee and the Transatlantic Latency Guarantee are posted at the following location: **http://www.verizonbusiness.com/global/about/network/latency.**

**Latency Remedy.** If Verizon fails to meet the Latency SLA in a calendar month, Customer's account shall be automatically credited for that month. The credit will equal the pro-rated charges for one day of the Verizon monthly recurring charge for the Internet Dedicated Service with respect to which the SLA has not been met. Credits will not be issued if failure to meet either the U. S. Latency SLA or the Transatlantic Latency SLA is attributable to reasons of Force Majeure (see below if not defined in the applicable service agreement).

**SLA.4 - Network Packet Delivery**

**Network Packet Delivery Scope**. Verizon offers both a North American and Transatlantic Network Packet Delivery SLA. Verizon's North American Network Packet Delivery SLA provides for a monthly packet delivery of 99.5% or greater between Verizon-designated Hub Routers in North America. The Transatlantic Network Packet Delivery SLA provides for a monthly packet delivery of 99.5% or greater between a Verizon-designated Hub Router in the New York City metropolitan area and a Verizon-designated Hub Router in the London U.K. metropolitan area.

**Network Packet Delivery Process.** Packet delivery is calculated based on the average of regular periodic measurements taken during a calendar month between Hub Routers. Network Performance statistics relating to the Network Packet Delivery SLAs will be posted at the following location: **http://www.verizonbusiness.com/global/about/network/latency**. No credits will be issued if failure to meet a Network Packet Delivery SLA is attributable to reasons of Force Majeure (see below if not defined in the applicable service agreement).

**Network Packet Delivery Remedy.** If Verizon fails to meet any Network Packet Delivery SLA in a calendar month, Customer's account will be automatically credited for that month. Such credit will equal the pro-rated charges for one day of the Verizon monthly recurring charge for the Internet Dedicated Service with respect to which a Network Packet Delivery SLA has not been met.

**SLA.5 - Denial of Service SLA**

**Denial of Service Scope.** Verizon will respond to Denial of Service attacks reported by Customer within 15 minutes of Customer opening a complete trouble ticket with the Verizon Business Customer Center. Verizon defines a Denial of Service attack as more than 95% bandwidth utilization. This SLA is only available in the United States.

**Denial of Service Process.** To open a trouble ticket for Denial of Service, Customer must call Verizon at 1-800-900-0241 and state: "I am under a Denial of Service Attack." A complete trouble ticket consists of Customer's Name, Account Number, Caller Name, Caller Phone Number, Caller Email Address and Possible Destination IP address/Type of Attack. Verizon will use trouble tickets and other appropriate Verizon records to determine, in its sole judgment, SLA compliance. Customer must notify Verizon no later than 30 days after the Denial of Service attack(s) occurred.

**Denial of Service Remedy.** If Verizon fails to meet the Denial of Service SLA, Customer's account will be credited, at Customer's request, the pro-rated charges for one day of the Verizon monthly recurring charges for the affected Internet Dedicated Service. Customer may obtain no more than one credit per day, regardless of the number of Denial of Service SLA non-compliances during the day.

**SLA.6 - Reporting SLAs**

Verizon provides two types of reporting SLAs – a Network Outage Notification SLA and a Scheduled Maintenance Notification SLA. Verizon's Network Outage SLA provides Customer notification within 15 minutes after it is determined that Internet Dedicated Service is unavailable. Verizon's standard procedure is to ping or SNMP trap Customer's router every five minutes. If the router does not respond after two consecutive five-minute ping or SNMP trap cycles, Verizon will deem the Internet Dedicated Service unavailable and the Customer's point of contact will be notified by e-mail, phone or pager, as elected by Verizon.

**Scheduled Maintenance.** Scheduled Maintenance means any maintenance at the Verizon hub to which Customer's circuit is connected (a) of which Customer is notified seven calendar days in advance, and (b) that is performed at the Verizon hub to which Customer's circuit is connected. Notice of Scheduled Maintenance will be provided to Customer's designated point of contact by email or pager, as elected by Verizon. Upon receiving such notice, Customer may request to have such maintenance postponed to a later date if agreed to by Verizon.

**Force Majeure.** Any delay in or failure of performance by Verizon will not be considered a breach of this SLA if and to the extent caused by events beyond its reasonable control, including, but not limited to, acts of God, embargoes, governmental restrictions, strikes, lockouts, work stoppages or other labor difficulties, riots, insurrection, wars, or other military action, acts of terrorism, civil disorders, rebellion, fires, floods, vandalism, or sabotage ("Force Majeure"). Verizon's obligations hereunder will be suspended to the extent caused by Force Majeure so long as the Force Majeure continues.

**SLA.7 - Network Jitter SLA** (currently applicable only in U.S.)

**U.S Network Jitter Scope.** Also known as delay variation, Jitter is defined as the variation or difference in the end-to-end delay between received packets of an IP or packet stream. Jitter is usually caused by imperfections in hardware or software optimization and varying traffic conditions and loading. Excessive delay variation in packet streams usually results in additional packet loss, which affects quality. Verizon's North American Network jitter performance will not exceed 1 milliseconds between Verizon-designated inter-regional transit backbone network routers Hub Routers in the contiguous U.S.

**Network Jitter Process.** Jitter shall be measured by averaging sample measurements taken during a calendar month between Hub Routers. Each month's Network performance statistics relating to the Network Jitter SLAs shall be posted at **http://global.verizonbusiness.com/about/network/latency/**. No credits will be made if failure to meet a Network Jitter SLA is attributable to reasons of Force Majeure (as defined in the applicable service agreement).

**Network Jitter SLA Remedy.** If Verizon fails to meet Jitter SLA in a calendar month; Customer's account shall be automatically credited for that month for the pro-rated charges for one day of the Verizon Monthly Fee for the service with respect to which Jitter SLA has not been met.

**SLA.8- Mean Opinion Score (MOS) SLA** (currently applicable only on the U.S. Mainland)

**MOS Scope.** Mean Opinion Score is a measure (score) of the audio fidelity, or clarity, of a voice call. It is a statistical measurement that predicts how the average user would perceive the clarity of each call. The Verizon Internet Dedicated MOS SLA provides that Verizon's U.S. Mainland Network MOS performance not be less than 3.8 between Verizon-designated inter-regional transit backbone

network routers ("Hub Routers") in the contiguous United States. MOS is calculated using the standards based E-model (ITU-T G.107).

**MOS Process.** Credits will not be issued if failure to meet the MOS SLA is attributable to reasons of Force Majeure (as defined in SLA.6 above, if not defined in the applicable service agreement.)

**MOS Remedy.** To receive a credit, Customer must submit a request within 30 business days after SLA results for the preceding month have been posted and which indicate that the MOS SLA has not been met. Customer's account will be credited a pro-rated amount of the monthly recurring charges equivalent to one day's Internet Dedicated Service plus one day of the access line charges for the Internet Dedicated Service.

# Verizon Voice over IP (VoIP) Service Level Agreement (SLA)

## Overview

Verizon provided IP Service guarantees service by offering a performance Service Level Agreement (SLA). Performance metrics in the SLA include: Mean Opinion Score (MOS), Jitter, Network Availability, and Time To Repair (TTR). Customers must submit their request for an SLA credit payout as SLA credits are not automatic. No SLA credits will be given if an SLA standard is not met due to reasons of force majeure (as defined in the Verizon Service Guide (the Guide) or applicable Service Agreement).

Verizon offers the SLA to those Verizon VoIP customers who use Verizon's Internet Dedicated Service or Private IP Service for transport.

## Eligibility

The Service Level Agreement for VoIP is available to customers, in any sales channel, that sign up for at least a one-year term commitment for VoIP and use Verizon Internet Dedicated or Private IP service.

## SLA Components

### Jitter

Also known as delay variation, jitter is defined as the variation or difference in the end-to-end delay between received packets of an IP or packet stream. In voice over IP, jitter is the variation in the time between packets arriving, caused by network congestion, timing drift, or route changes.

Jitter is usually caused by imperfections in hardware or software optimization or varying traffic conditions and loading. Excessive delay variation in packet streams usually results in additional packet loss, which impacts voice quality.

Jitter metrics are calculated based on the G.729a codec with 20 millisecond frame size. The VoIP Jitter SLA provides that Verizon's contiguous U.S. Internet Network (as defined in the Guide) monthly jitter performance will not exceed 1.0 millisecond. Performance is measured by periodically collecting data across the contiguous U.S. Internet Network from which a monthly average is derived.

### Mean Opinion Score (MOS)

A "good" voice call is one in which the participants can communicate without difficulty and in which there are no annoying or distracting effects. One of the mostly widely known metrics for measuring voice quality is MOS, or Mean Opinion Score. Mean Opinion Score is a measure (score) of the audio fidelity, or clarity, of a telephone call. It is a statistical measure that predicts how the average user would perceive the clarity of each call.

MOS metrics are calculated based on the G.729a codec with 20 millisecond frame size. The MOS SLA threshold for VoIP using the E-model (ITU-T G.107) is 4.0.

### Network Availability SLA

The VoIP Network Availability SLA provides that Verizon's contiguous U.S. Internet Network (for the purposes of this Network Availability SLA, the "Network") will be available at least ninety-nine point nine per cent (99.9%) if the time as measured on a monthly basis by trouble ticket time. The Network is considered not available for the number of minutes that a trouble ticket shows the Network was not

available to Customer. The unavailable time starts when Customer opens a trouble ticket with Verizon Customer Support at 877-777-7176 and releases the Service for immediate testing. The unavailable time stops when the applicable Network or access circuit trouble has been resolved and the Service is again available to Customer.

The VoIP Network Availability SLA does not include unavailability resulting from:

Force majeure (as noted above);Verizon Internet Network maintenance, Customer-ordered third-party circuits; inappropriate Service configuration change(s) made by or through Customer at the Verizon Enterprise Center web-site; Customer Premises Equipment including, but, not limited to, Customer-provided PBX, black phones, SIP phones, firewalls, Router/modem and/or Analog/Ethernet Adapter; acts or omissions of Customer, or any use or user of the service that is authorized by or enabled through Customer but outside the scope of Customer's Service; "Customer Time," which is the time identified on the trouble ticket (if any) attributable to, or caused by, through no fault of Verizon, the following: (a) incorrect or incomplete contact information provided by Customer which prevents Verizon from completing the trouble diagnosis and service restoration; (b) Verizon being denied access to network components at the Customer location when access is required to complete trouble shooting, repair, diagnosis, or acceptance testing; (c) Customer's failure or refusal to release the circuit for testing; (d) Customer being unavailable when Verizon calls to close a trouble ticket or verify service restoration, (e) any other act or omission on the part of Customer; or (f) down-time caused by the Local Exchange Carrier (LEC) local loop for periods where the LEC's maintenance support is not available.

Customer must open a trouble ticket with Verizon Customer Support while it is experiencing a service problem. The calculation of unavailable time is based on trouble ticket times. Should Customer have multiple locations detrimentally affected by an outage, one ticket can be submitted; however, the individual locations affected should be identified in the original ticket.

**Time to Repair (TTR)**

The VoIP Time to Repair (TTR) provides that Priority One (PTY 1) tickets will be resolved in four hours or less.PTY 1 tickets are categorized as a "hard outage" whereby there is complete loss of VoIP service or severe degradation that results in Customer's inability to receive any inbound calls and/or complete any outbound calls from a given location using Verizon VoIP and Customer is prepared to release its Service for immediate testing. "Time to Repair" is defined as time taken to restore end-to-end Service during a Hard Outage based on trouble ticket time. Unavailable time starts when Customer opens a trouble ticket with Verizon Customer Support at 877-777-7176 and releases the Service for immediate testing. Unavailable time stops when the Service is again available to Customer.

Priority One (PTY 1) outages resulting from any of the following are not subject to the TTR SLA:

- Force majeure (as noted above);Verizon Internet Network maintenance;
- Verizon Internet Network maintenance;
- Customer-ordered third-party circuits;
- Inappropriate Service configuration change(s) made by or through Customer at the Verizon Enterprise Center web site;
- Customer Premises Equipment including, but not limited to, Customer-provided PBX, black phones, SIP phones, firewalls, Router/modem and/or Analog/Ethernet Adapter;
- Acts or omissions of Customer or its users, or any use or user of the Service that is authorized by or enabled through Customer but outside the scope of Customer's service;

?In addition, the TTR SLA does not cover "Customer Time," which is the time identified on the trouble ticket (if any) attributable to, or caused by, through no fault of Verizon, the following: (a) incorrect or incomplete contact information provided by Customer which prevents Verizon from completing the trouble diagnosis and service restoration; (b) Verizon being denied access to network components at the

Customer location when access is required to complete trouble shooting, repair, diagnosis, or acceptance testing; (c) Customer's failure or refusal to release the circuit for testing; (d) Customer being unavailable when Verizon calls to close a trouble ticket or verify service restoration, (e) any other act or omission on the part of Customer; or (f) down time caused by the Local Exchange Carrier (LEC) local loop for periods where the LEC's maintenance support is not available.

### Benefits

Every VoIP customer that signs up for a minimum one-year term agreement is eligible for the benefits of the VoIP SLA at no additional cost. The SLA assures customers that Verizon is highly motivated to do everything possible to meet the highest standards of service performance and minimize situations that could result in a potential credit payout.

## Credit Submission Process

Customer SLA credit requests must be proactively submitted within 30 days after the month in which the SLA standard was not met. Requests can be submitted to Verizon Business Voice over IP SLA.

SLA credit payout rules apply as follows:

- Jitter, MOS, and TTR
  - Credit equal to 1 day share of Verizon VoIP and Data monthly recurring charge (MRC).
  - A la Carte service, the MRC used to calculate the credit is either the applicable site fee of simultaneous calling charge plus the applicable MRC for the related Internet Dedicated Service or Private IP Service under the related Verizon Business Service Agreement.
  - Bundled service, the MRC used to calculate the credit is the applicable base charge plus the simultaneous calling charge.
- Network Availability:
  - Credit equal to 1 day share of Verizon VoIP Service monthly recurring charge ("MRS) multiplied by each whole hour that the affected unit of service was unavailable.
  - For VoIP Service provided on an A La Carte basis, the MRC used to calculate the credit is either the applicable site fee or simultaneous calling charge plus the applicable MRC for the related Internet Dedicated Service or Private IP Service under the related Verizon Business Service Agreement.
  - For VoIP Service provided on a Bundled basis, the MRC used to calculate the credit is the applicable base charge plus the simultaneous calling charge. No credits will be given with respect to units of the Service not affected by the unmet SLA.

## Technical Reference

### Explaining the MOS SLA metric

To derive MOS on VoIP, the standards based E-model (ITU-T G.107) published by the ITU (International Telecommunications Union) is used.

The E-model is a complex computational model or mathematical algorithm that assesses the impacts of transmission impairment factors on call quality. Essentially, the E-model determines how the combination of network impairment factors impact user perception of voice quality and then quantifies it with an R-Factor score. R-Factor is a numerical value that rates the expected call quality perception of the average user.

R-Factor rating can lie in the range from 0 to 100, where R = 0 represents an extremely bad quality and R = 100 represents a very high quality. Public switched telephone network (PSTN) calls generally have R-

Factor scores between 70 and 100. Using these two standards, the maximum R-Factor that can be measured on a G.729a codec (with 20 millisecond frame size) is 83.

The R-Factor value is then used to estimate a Mean Opinion Score (MOS). The E-model (ITU-T G.107) contains the formula to derive MOS from R-Factor. The best possible MOS any carrier can provide using the G.729a codec with 20 millisecond frame size is 4.1. The MOS SLA threshold for VoIP is 4.0.

Below is a matrix pulled directly from the ITU E-model document which maps R-value to MOS and shows the corresponding user satisfaction level.

| R-Factor | MOS | User Satisfaction |
|---|---|---|
| 90 | 4.34 | Very satisfied |
| 80 | 4.03 | Satisfied |
| 70 | 3.60 | Some users dissatisfied |
| 60 | 3.10 | Many users dissatisfied |
| 50 | 2.58 | Nearly all users dissatisfied |

**Defending the MOS SLA Metric**

Some customers may argue that they can get a higher MOS score using a G.729a codec based on information they read in industry publications.

If a vendor says it can guarantee more than a 4.1 MOS score using these same specifications, the vendor may not be using a standards based algorithm or they may not be using the E-Model.

It's important to note that this is an evolving landscape. As new standards emerge, Verizon Business will always strive to use the most current standards that provide the greatest accuracy for our customers.

# Voice Over IP Service
# Service Attachment

1. **Service Description**

1.1 **VoIP Service Types.** Verizon will provide to Customer one or more of the following Voice Over IP Service(s) (individually or collectively, the "VoIP Service").

IP Flexible T1
IP Integrated Access
IP Trunking
Hosted IP Centrex

The VoIP Service types are described in an individual Service Supplement attached hereto and made a part hereof. Terms and conditions specific to each VoIP Service type are set forth in the applicable Service Supplement.

1.2 **VoIP Premium Services.** Customer may order VoIP Premium Services pursuant to the terms and conditions in the Guide applicable to VoIP Premium Services.

1.3 **Professional Services.** If Customer wishes to receive professional services related to VoIP Service, it must separately subscribe to Verizon's Service Attachment for Professional Services.

1.4 **Burstable Enterprise Shared Trunks.** Subject to the terms and conditions herein and specifically the limitations set forth in Section 4.13, below, Customer's VoIP sites that are provisioned with Burstable Enterprise Shared Trunks will be able to share across Customer's enterprise the simultaneous calling capacity purchased by Customer.

1.5 **VoIP IP Enterprise Routing ("VIPER").** VIPER allows calls between Verizon VoIP customer locations to be terminated without incurring per-minute U.S.-domestic or international usage charges provided both the originating and terminating locations have the VIPER feature enabled.[1] There is no additional fee for VIPER, but Customer must order this feature to obtain its benefits.

2. **Rate and Charges – VoIP Service.** Monthly recurring charges ("MRC") and non-recurring charges ("NRC") and other charges specific to each VoIP Service type are set forth in the applicable Service Supplement. Rates and charges for VoIP Service that are designated as "fixed for the Term" are subject to change if VoIP Service is subjected to regulation by any State, or if Federal regulation of VoIP Service is expanded. MRCs, NRCs and other charges applicable to supplemental services for all VoIP Service types are set forth below.

| Supplemental Services | Rates and Charges |
|---|---|
| Installation Expedite Fee | See Administrative NRC rates in the Guide. |
| Dispatch Charge<br>For dispatch of Verizon technician to make | See Other Charges (Rates and Charges) in the VoIP section of the Guide |

[1] So long as both the origination and termination endpoints are VIPER-enabled, VIPER calls are delivered from the originating endpoint to the terminating endpoint without conversion to PSTN protocols. However, if one of the locations has a device (e.g., an IP-PBX) that does not register with Verizon's application server, that device must interoperate with the other device originating or terminating the call. In some instances, the two devices do not interoperate successfully. One instance is where a non-registering device needs to re-negotiate an agreed-upon protocol (i.e., a "codec") in the middle of a call. If this re-negotiation is not successful, a dropped call will result. Codec re-negotiation could be triggered by a variety of causes, including but not limited to placing a call on hold, transferring a call to voicemail, the playing of a network announcement, or placing a call into an IP-enabled conference bridge. Verizon is not responsible or liable for calls dropped due to failure of endpoints to interoperate successfully.

| | |
|---|---|
| Customer-requested changes– charged per occasion. | |
| Outbound "Off-Net" International Calling | See International Calls (Rates and Charges) in the VoIP section of the Guide |
| Optional Local Service Features | See Rates and Charges in the VoIP section of the Guide |
| Direct Inward Dial (DID) Service | See Other Charges (Rates and Charges) in the VoIP section of the Guide. |
| On-Site Training | Per a separate Service Attachment for Site Services |
| CNAM (Caller Name Display) | MRC per simultaneous call unit – $1.50 |

3. **Taxes and Governmental Charges.** Taxes and Governmental Charges based on the location at which VoIP service is used – for example, 911 service fees (which may also be referred to by such names as "taxes" or "surcharges") – will be determined by the VoIP service location designated by Customer for its end-users at the time VoIP service is activated. At such time as Verizon has the ability to bill Taxes and Governmental Charges for each telephone number based on the location at which VoIP service is used in each individual month, then Taxes and Governmental Charges attributable to each telephone number during any particular month will be determined by the location designated by each end-user as its service location as of Customer's monthly billing date.

4. **Terms and Conditions**

4.1 **Business Application.** VoIP Service is offered only to commercial business customers.

4.2 **Equipment.** Optional CPE ("customer premises equipment") required for any VoIP Service is provided pursuant to a separate Service Attachment for such CPE.

4.3 **Letter of Authorization.** To the extent Customer's VoIP Service includes the provision of Verizon's Local voice service and Customer implements PS/ALI, Customer will execute Verizon's Letter of Authorization ("LOA") that lists affected telephone numbers (via range, if applicable) and the attendant street addresses. Verizon will use the LOA to notify the appropriate Incumbent Local Exchange Carrier (ILEC) that Customer, not Verizon, is now responsible for building, loading, and maintaining the location-specific ALI database for the call CPNs (calling party numbers) associated with the BTNs.

4.4 **No Resale.** VoIP Service is provided only to Customer. Resale by Customer of VoIP Service as a stand-alone service is prohibited. However, if Customer subscribes to a tiered or metered pricing plan for VoIP Service, Customer may provide to and be compensated by end-users for VoIP-based services as a component of a larger service offering provided, for example, to a retirement home, campus-living facility, or hotel.

4.5 **Auto Dialers**. Customer may not utilize auto-dialers or any similar type of device in connection with any VoIP Service.

4.6 **Customer-Obtained Facilities.** Except as otherwise expressly stated herein or in another Verizon Service Attachment, Customer is responsible for obtaining, installing, configuring and maintaining all equipment (including, but not limited to, SIP Phones, gateways and firewalls), software, wiring, power sources, telephone connections and/or communications services necessary for inter-connection with Verizon's network or otherwise for use in conjunction with VoIP Service ("Facilities"). Customer is responsible for ensuring that such Facilities are compatible with Verizon's requirements (including being certified by Verizon for use with VoIP Service or successful completion of Verizon's VoIP Interoperability Program, where applicable), and that they continue to be compatible with subsequent revision levels of Verizon-provided equipment, software and services. Customer is responsible for operation and configuration of its computer(s) and LAN/WAN. If Customer uses its WAN to connect multiple remote sites through a single site ("hub" site) to the Verizon VoIP network, Customer will be responsible for the quality of VoIP Service ("QOS") on its WAN. The demarcation for VoIP Service QOS will be

the hub site. If Customer connects any Facilities to VoIP Service that Customer reasonably should know may not be compatible with VoIP service, Customer is solely responsible for any effects that arise from that connection on VoIP service, equipment or software of Verizon, Customer, or any third party, and Customer waives any claims against Verizon relating to the performance of VoIP service.

4.7 **Design Approval.** Notwithstanding the inclusion of this VoIP Service Attachment in Customer's contract, availability of VoIP Service on a site-by-site basis is subject to having a site design reviewed and approved by Verizon.

4.8 **Unified Site.** Customer can provision its multi-building campus as a single VoIP termination to maximize network and billing efficiencies provided (i) all the buildings within its campus are in the same rate center; (ii) its PBX is able to send DID level information for 911 calls; and (iii) Customer implements PS/ALI (see the 911 Appendix). For example, if Customer's campus is comprised of 20 buildings all within the same rate center, the 20 buildings can be provisioned as a single Verizon VoIP site subject to the above.

4.9 **Service Disclaimer.** Verizon is not responsible for certain conditions or equipment that may affect VoIP Service, including, without limitation:

- Failure or poor performance of Customer's Domain Name Server ("DNS Server") and/or local area network ("LAN") upon which VoIP Service relies. Network-related outages also may occur, and service restoration intervals may vary from those associated with traditional telecommunications service.
- Communications from analog modems may have protocol interaction issues when used over VoIP technology (due to their handshake and error-checking rules) and cannot be assured of the same quality as other communications;
- Modems – Modems may not be used on VoIP Service except with Codec G.711 without silence suppression.
- Facsimile devices – Fax transmission is highly dependent on Customer's facsimile device, its ability to disable error correction, and other factors.
- Alarm lines (whether or not they use modems) are wholly unsupported on VoIP Service (with respect to both service and wiring, without limitation).
- All inside wiring and special construction.

4.10 **Geographic Coverage**

4.10.1 VoIP Service is not available in Alaska and may not be available in other states or regions. Availability of underlying transport may vary based on Customer's location(s).

4.10.2 The VoIP service described herein is provided only to Customer locations within the U.S. Mainland and Hawaii. If Customer desires on its own to extend IP-based calls originating with the VoIP service beyond the U.S. Mainland and Hawaii demarcation for Verizon VoIP Service, Customer expressly acknowledges that it is solely responsible for such extension and the legal and regulatory ramifications of extending such calls into foreign jurisdictions.

4.11 **Restrictions**

4.11.1 Customer shall not modify the Verizon-installed design and/or configuration without the previous written consent of Verizon. Customer expressly acknowledges Verizon may immediately suspend Customer's use of VoIP Service if Customer violates the foregoing restriction.

4.11.2 At any given time, Customer may only place as many concurrent calls as it has purchased.

4.12 **Call Origination Information.** Customer acknowledges that Verizon classifies local and long distance calls to determine appropriate rate allocation (i.e., local or interstate). Verizon bases this classification on the information in Verizon's systems identifying each call's originating location. As accurate information regarding the origination point of calls is necessary to make the appropriate rate allocation, it is a material condition of this Service Attachment that Customer provide Verizon with accurate information reflecting its calls' originating location. Customer shall defend, indemnify and hold Verizon harmless with respect to any third-party claims arising out of Customer's delivery of call origination information to Verizon or to such third parties.

4.13 **Burstable Enterprise Shared Trunks (BEST).** To the extent Burstable Enterprise Shared Trunks are available to Customer, the following terms and conditions apply:

4.13.1 When all VoIP traffic is aggregated at Customer's hub location, Customer will only be able to make as many simultaneous calls across its enterprise as is supported via the data access at such hub location.

4.13.2 Customer is solely responsible for purchasing sufficient simultaneous calls across its enterprise to support traffic for its hub and remote locations. Customer acknowledges and understands that purchasing, say, 800 simultaneous calls across its enterprise to serve, say, 800 sites, may diminish the end-user experience, resulting in such occurrences as busy lines.

4.13.3 BEST is only available at locations that use metered or tiered pricing models. If Customer purchases VoIP Service that includes the availability of BEST, all locations receiving VoIP Service within Customer's enterprise must be metered or tiered. That is, only metered or tiered locations within Customer's enterprise will be able to burst using available simultaneous call capacity from other Customer sites that use a metered or tiered pricing model.

4.13.4 BEST does not allow for the sharing of simultaneous calling capacity between Customer locations receiving Local and LD VoIP Service and Customer locations receiving only LD service.

4.13.5 BEST includes a sharing of simultaneous call capacity, not minutes. If Customer uses BEST to share simultaneous call capacity between sites billed on tiered pricing models, the included number of LD minutes per concurrent call will not be shared between sites. For example, if Customer purchases two 250-minute simultaneous call capacity tiers at location A and three 250-minute simultaneous call capacity tiers at location B, location A is entitled to a total of 500 LD minutes in a month before the overage rate applies, and location B is entitled to a total of 750 LD minutes in a month before the overage rate applies; location A is not entitled to share Location B's 750 minutes even if the two locations are using BEST.

4.13.6 BEST is not available with IP Flexible T1 or Hosted IP Centrex services with unlimited LD pricing.

4.13.7 BEST is only available to U.S. sites and only the simultaneous call units at U.S. sites contribute to the total available concurrent call capacity. BEST is implemented at the enterprise level; if Customer desires to obtain BEST, it will apply to all Customer sites obtaining VoIP service.

4.13.8 The maximum bursting capacity of each VoIP IP Trunking location is based on two factors – the maximum number of calls that can be supported within the location's data bandwidth and the total number of simultaneous calling units purchased by Customer across its enterprise – and is subject in any case to a maximum of fifty (50) simultaneous calls in addition to what is provisioned at any single location. Two examples are provided:

If Customer's Location A buys 20 simultaneous calling units on a T1 and Customer's Location B buys 40 simultaneous calls on a DS3, assuming availability, Location A could burst through its allocation of 20 simultaneous calling units up to a maximum of 41 simultaneous calling units because that's the maximum simultaneous calls supportable on a T1.

If Customer's Location C buys 60 simultaneous calling units on a DS3 and Customer's Location D also buys 60 simultaneous calling units on a DS3, assuming availability, Location C could burst through its allocation of 60 simultaneous calling units up to a maximum of 110 simultaneous calling units because any single location is limited to bursting to an additional 50 simultaneous calling units.

4.13.9 Customer must inform Verizon of its data bandwidth at each location so that Verizon can properly configure the maximum simultaneous call setting based on Customer's bandwidth. Verizon will perform a periodic review of Customer's actual simultaneous call bursting and reserves the right, after consulting with Customer, to reallocate simultaneous calling capacity among Customer locations to better reflect actual use.

4.13.10 If Customer changes its data bandwidth and desires more simultaneous calls to be supported at a particular location, it must process a change order with Verizon to increase the number of available simultaneous calling units.

4.13.11 Every remote site must receive an allocation of at least one simultaneous call on a metered or tiered basis to be able to participate in BEST.

4.13.12 Verizon Technical Support will be able to identify call failures or blockage if Customer exceeds its aggregate (enterprise-level) simultaneous calling capacity. However, Verizon is not responsible for monitoring utilization. Customer is responsible for monitoring location-level traffic requirements to identify sites which require additional simultaneous call capacity to meet traffic requirements.

4.14 **Additional Terms and Conditions for BUNDLED Pricing Model.** The BUNDLED pricing model is subject to the following additional terms and conditions.

4.14.1 Verizon may interrupt BUNDLED Internet Dedicated Services for scheduled or emergency maintenance or as otherwise set forth in the Agreement.

4.14.2 BUNDLED Pricing is not available for Customer facilities located in the following states: Kentucky, Maine, New Hampshire, North Dakota, South Dakota, Vermont, West Virginia, and Wyoming.

4.14.3 **VoIP Service Equipment**

4.14.3.1 **General.** At all times, title to any equipment provided by Verizon as part of VoIP Service ("VoIP Service Equipment") will remain with Verizon. Customer shall (i) maintain the VoIP Service Equipment and any associated software, systems, cabling and facilities in accordance with the reasonable instructions of Verizon as may be given from time to time; (ii) not modify, relocate, or in any way interfere with the VoIP Service Equipment unless expressly authorized by a representative of Verizon to do so; and (iii) not cause the VoIP Service Equipment to be repaired, serviced, or otherwise accessed except by an authorized representative of Verizon. Failure of Customer to permit Verizon representatives entry, upon reasonable request, to Customer premises or service locations to repair or maintain VoIP Service or equipment will discharge Verizon from its service obligation. Upon termination or expiration of this Agreement, Customer will return the VoIP

Service Equipment to Verizon at Verizon's expense in the manner set forth in the Guide.

4.14.3.2 **Maintenance.** With respect to the VoIP Service Equipment only, Verizon will provide the following maintenance services ("Maintenance Services"): (i) Use commercially reasonable efforts to isolate any problems with the VoIP Service Equipment that resides on Customer's site and send a technician to Customer's site if necessary; (ii) replacement of affected components if Verizon, in its sole discretion, determines that any VoIP Service Equipment that resides on Customer's premise needs to be replaced; such component to be replaced with a component in good working order and of like kind and functionality from a manufacturer of Verizon's choice at the time of replacement.

4.14.3.3 **Normal Use Limitation.** Maintenance Services only apply to problems arising out of the normal use of the VoIP Service Equipment and do not apply if the VoIP Service Equipment is damaged as a result of the negligence or willful misconduct of Customer. If repair and/or replacement is required because of damage caused by Customer's negligence or willful misconduct, Customer will be charged time at a rate of $125 per hour during normal business hours to repair the VoIP Service Equipment, and Customer will be charged the replacement cost of VoIP Service Equipment requiring replacement.

4.15 **LNP.** Customer can arrange to port its numbers using LNP (Local Number Portability) at the same time VoIP service is made available for use, or delay LNP for up to 10 days afterwards. However, billing for VoIP Service will commence in accordance with Section 4.16, below.

4.16 **Billing Initiation.** Billing for VoIP service will begin when the VoIP service is available for use, even if Customer's numbers have not been ported to the VoIP service (see "LNP" above).

4.17 **Service Level Agreement**

4.17.1 Subject to Section 4.17.2 below, the Service Level Agreement ("SLA") for VoIP Service is set forth at www.verizonbusiness.com/terms. Verizon reserves the right to amend SLAs from time to time, effective upon either posting of the revised SLA to that URL or providing other notice to Customer. These SLAs set forth Customer's sole remedies for any claim relating to VoIP Service (including the related Internet Dedicated Service or Private IP Service), including any failure to meet the conditions set forth in these SLAs. Verizon's records and data are the basis for all SLA calculations and determinations. Under these SLAs, the maximum amount of credit available to Customer for any calendar month shall not exceed the following: (a) for A LA CARTE pricing, the simultaneous calling capacity MRC plus the applicable MRC for the related Internet Dedicated service under the Agreement; or (b) for BUNDLED pricing, the applicable base MRC and simultaneous calling capacity MRC that, absent the credit, would have been charged for the service using the BUNDLED pricing model under this Agreement.

4.17.2 **Limitations on VoIP Voice Quality SLA.** Verizon's VoIP Voice Quality SLA applies only if an end-user is using VoIP Service via Verizon's Internet Dedicated Service or Private IP Service at a Customer location covered by Verizon VoIP Service. However, Verizon's VoIP Voice Quality SLA never applies to soft-phone use.

4.18 **Access to CPNI.** Customer's use of VoIP Service may enable access to Customer Proprietary Network Information ("CPNI"). As a condition of such access, Customer agrees:

- To execute a "Designation Of Customer VoIP Administrator(s) With CPNI Authorizer" form provided by Verizon (see Appendix II), designating in writing one or more Customer "Administrators" authorized to access CPNI and to identify end-users authorized to access

CPNI either directly or via an online application such as the Integrated Communications Package (ICP), if applicable; and

- To cooperate with Verizon's reasonable authentication and security procedures for access to CPNI, including, without limitation, password resets and re-authentication of authorized end-users.

4.19 **E-911 – Emergency Calling.** The FCC's requirements regarding "interconnected VoIP service" are addressed in Appendix I (E-911 – Emergency Calling Terms and Conditions) attached hereto.

## Service Supplement __
## VoIP Service Type – IP Flexible T1

1. **Rates and Charges**

1.1 Current rates and charges for VoIP IP Flexible T1 Service are described below. VoIP IP Flexible T1 Service is available via the BUNDLED pricing model with unlimited local and domestic long distance calls. Rates and charges for International calls, certain Local features, directory assistance, and related items are set forth in the Guide.

| Item | NRC | MRC |
|---|---|---|
| IP Flexible T1 Bundle | $250[2] (Site Activation Fee) | $625[1,2] |
| Simultaneous Calling Capacity[3] | N/A | $35 per simultaneous calling unit[1,4] |
| Service Establishment Fee **(for new Verizon VoIP Service customers)** | See VoIP Rates and Charges in the Guide | N/A |
| After-Hours Implementation Support[5] | See VoIP Rates and Charges in the Guide | N/A |
| Battery Backup Option | $243 (purchase) | $21 (rental) |
| Expedited Provisioning | See Administrative NRC rates in the Guide. | N/A |

[1] Rate fixed for the Term.
[2] Per bundle at each Customer location and includes Internet Dedicated Price Protected T1 (1.5 Mbps) transport service with a standard router, applicable VoIP Service Equipment, and local access and unlimited outbound U.S. long distance and local calling (subject to the number of simultaneous calling units selected). Each IP Flexible T1 bundle is limited to a maximum of 24 simultaneous calls.
[3] Customer must maintain its simultaneous call count for at least a 30-day period before requesting a decrease in simultaneous call count.
[4] Each such per-call unit includes the ability to make one outbound U.S. long distance or local call at a time.
[5] Supplemental fee to the Service Establishment Fee for implementation services provided 8 pm – 7 am local time, Monday through Friday. Such services not provided on weekends or holidays.

1.2 **Discounts.** Customer shall receive the following discount percentage, based on the Term of the Agreement and Customer's AVC, applicable only to the IP Flexible T1 Simultaneous Calling Capacity Charge, DID blocks, and base MRC: ____%.

This discount is not available for any other IP Flexible T1 services, charges, or features.

1.2 **Special Pricing**. In lieu of all other rates, discounts and promotions, including those set forth in this Service Supplement outside of this Special Pricing section, Customer will receive the following discounts off the applicable MRCs described above.

| Service Element | Discount |
|---|---|
| Simultaneous Calling Capacity/IP Flexible T1 Bundle MRC | [Insert discount percentage]* |
| DID Blocks | [Insert discount percentage]** |
| Optional Network Features | [Insert discount percentage]** |

* Discount percentage applies to both Service Elements.
** Discount percentage must match for these two categories.

2. **IP Flexible T1 Service Restrictions**

- For each Customer location, up to two T-1 lines may be utilized (each of which must be purchased as part of a separate bundle).

- Customer shall not utilize auto-dialers or any similar type of device in connection with IP Flexible T1 VoIP Service.

- Customer shall not utilize IP Flexible T1 VoIP Service in any call center environment or in connection with any similar such application.

- Customer shall not use IP Flexible T1 VoIP Service for telemarketing, fax broadcasting, fax blasting, or continuous or extensive call forwarding.

- Customer shall not aggregate traffic from multiple sites into a single site configured with IP Flexible T1 VoIP Service.

- Customer's design shall not be configured with more than one DID per simultaneous call.

Customer expressly acknowledges that any violation of the foregoing restrictions on its use of VoIP IP Flexible T1 Service may result in the immediate suspension or termination of VoIP IP Flexible T1 Service.

## Service Supplement ___
## VoIP Service Type – IP Integrated Access

**Rates and Charges.** Current rates and charges for VoIP IP Integrated Access Service are described below. VoIP IP Integrated Access Service is available via the A LA CARTE pricing model with Tiered and metered pricing options. Rates and charges for International calls, certain Local features, directory assistance, and related items are set forth in the Guide.

1. **Tiered Pricing – Simultaneous Calling Capacity Charge.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. A minimum of one unit must be purchased for each VoIP IP Integrated Access location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP (VoIP origination and termination within Customer's enterprise) calling, unlimited local calling, and an allotment of inter-enterprise VoIP (termination is non-VoIP and/or outside Customer's enterprise) long distance ("LD") minutes as set forth below. Overage charges will apply as outlined below for minutes in excess of established limits. Minutes cannot be shared between locations (multiple buildings on a campus with a single VoIP connection comprise a single location) nor can they be rolled over from month to month. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call | Intra-enterprise VoIP mins included | Local Calls included | Inter-enterprise VoIP LD Mins included | BEST | Domestic Long Distance |
|---|---|---|---|---|---|---|
| 250 Local and LD | $28 | Unlimited | Unlimited | 250 | n/a | $0.025/min |
| 250 Local and LD with BEST | $38 | Unlimited | Unlimited | 250 | Included | $0.025/min |
| 750 Local and LD | $38 | Unlimited | Unlimited | 750 | n/a | $0.025/min |
| 750 Local and LD with BEST | $48 | Unlimited | Unlimited | 750 | Included | $0.025/min |
| 250 LD only | $12 | Unlimited | n/a | 250 | n/a | $0.025/min |
| 250 LD only with BEST | $22 | Unlimited | n/a | 250 | Included | $0.025/min |
| 750 LD only | $22 | Unlimited | n/a | 750 | n/a | $0.025/min |
| 750 LD only with BEST | $32 | Unlimited | n/a | 750 | Included | $0.025/min |

2. **Metered Pricing – Simultaneous Calling Capacity Charge.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. A minimum of one (1) unit must be purchased for each VoIP IP Integrated Access location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP calling (VoIP origination and termination within Customer's enterprise) and unlimited local calling, while all outbound long distance ("LD") inter-enterprise calls (termination is non-VoIP and/or outside Customer's enterprise) will be billed a per-minute charge, as set forth below. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call | Intra-enterprise VoIP mins included | Local Calls included | Inter-enterprise VoIP LD Mins included | BEST | Domestic Long Distance |
|---|---|---|---|---|---|---|
| Local and LD | $25 | Unlimited | Unlimited | 0 | n/a | $0.023/min |
| Local and LD with BEST | $35 | Unlimited | Unlimited | 0 | Included | $0.023/min |
| LD only | $7 | Unlimited | n/a | 0 | n/a | $0.023/min |
| LD only with BEST | $17 | Unlimited | n/a | 0 | Included | $0.023/min |

3. **Change in Simultaneous Call Count.** Customer must maintain its provisioned simultaneous call count for at least a 30-day period before requesting a decrease in simultaneous call count.

4. **Equipment and Transport**

   4.1 In addition to the fees set forth above, Customer will pay the applicable fees (not included here) for the gateway, access or transport service (e.g., port and permanent virtual circuit charges), CPE, or any other services or equipment not explicitly described as part of the A LA CARTE pricing. Such fees will be described in the separate Service Attachment for the attendant service and/or CPE.

   4.2 A LA CARTE pricing does not include Verizon Internet Dedicated, Ethernet, or Private IP Service which must be purchased separately by Customer as transport for use with IP Integrated Access VoIP Service.

5. **Service Establishment Fee.** Customer will pay NRCs for service establishment as set forth in the VoIP Rates and Charges section of the Guide for VoIP IP Integrated Access.

6. **Optional Network Features.** Customer will pay for the optional network features at the following rates, which are fixed for the Term:

| Optional Network Features(s) | Charges |
|---|---|
| Auto Attendant | $30/instance/month* |
| Hybrid Intermediate Package – provides the following telephony features: Call Forwarding; Remote Office; Find Me / Follow Me; Call Blast (an incoming call rings a number of devices simultaneously; also known as "simultaneous ring"). | $5.50/configured DID user/month |
| Redirect to Telephone Number – PBX Group Unreachable or Call Forward Unreachable | NRC of $1.50/DID in a configured PBX/Key group** plus $2.00/DID/month in a configured PBX/Key group** |

* "Instance" means each menu of options that a caller may choose to access. Each separate listing of touch tone options presented to a caller is considered a separate menu.

** PBX/Key group is defined by groupings of numbers. When Redirect to Telephone Number (PBX Group Unreachable or Call Forward Unreachable) is provisioned on a PBX/Key group, all numbers in that group will be provisioned and billed with the feature.

**7. Discounts.** Customer shall receive the following discount percentage, based on the Term of the Agreement and Customer's AVC, applicable only to the IP Integrated Access BEST and non-BEST Simultaneous Calling Capacity Charges (MRC and Domestic Long Distance rates), Optional Network Features and DID blocks: ___%.

This discount is not available for any other IP Integrated Access services, charges, or features.

8. **Special Pricing**. In lieu of all other rates, discounts and promotions, including those set forth in this Service Supplement outside of this Special Pricing section, Customer will receive the following discounts off the applicable MRCs described above.

| Service Element | Discount |
|---|---|
| Simultaneous Calling Capacity/BEST | [Insert discount percentage] |
| Domestic Off-Net (Non-Intra-Enterprise) Long Distance | [Insert discount percentage] |
| DID Blocks | [Insert discount percentage]* |

| | |
|---|---|
| Optional Network Features | [Insert discount percentage]* |
| ***** Discount percentage must match for these two categories. | |

**Service Supplement**
**VoIP Service Type – IP Trunking**

**Rates and Charges.** Current rates and charges for VoIP IP Trunking Service are described below. VoIP IP Trunking Service is available via the A LA CARTE pricing model with Tiered and metered pricing options. Rates and charges for International calls, certain Local features, directory assistance, and related items are set forth in the Guide.

1. **Tiered Pricing – Simultaneous Calling Capacity Charge.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. A minimum of one unit must be purchased for each VoIP IP Trunking location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP (VoIP origination and termination within Customer's enterprise) calling, unlimited local calling, and an allotment of inter-enterprise VoIP (termination is non-VoIP and/or outside Customer's enterprise) long distance ("LD") minutes as set forth below. Overage charges will apply as outlined below for minutes in excess of established limits. Minutes cannot be shared between locations (multiple buildings on a campus with a single VoIP connection comprise a single location) nor can they be rolled over from month to month. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call | Intra-enterprise VoIP mins included | Local Calls included | Inter-enterprise VoIP LD Mins included | BEST | Domestic Long Distance |
|---|---|---|---|---|---|---|
| 250 Local and LD | $28 | Unlimited | Unlimited | 250 | n/a | $0.025/min |
| 250 Local and LD with BEST | $38 | Unlimited | Unlimited | 250 | Included | $0.025/min |
| 750 Local and LD | $38 | Unlimited | Unlimited | 750 | n/a | $0.025/min |
| 750 Local and LD with BEST | $48 | Unlimited | Unlimited | 750 | Included | $0.025/min |
| 250 LD only | $12 | Unlimited | n/a | 250 | n/a | $0.025/min |
| 250 LD only with BEST | $22 | Unlimited | n/a | 250 | Included | $0.025/min |
| 750 LD only | $22 | Unlimited | n/a | 750 | n/a | $0.025/min |
| 750 LD only with BEST | $32 | Unlimited | n/a | 750 | Included | $0.025/min |

2. **Metered Pricing – Simultaneous Calling Capacity Charge.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. A minimum of one (1) unit must be purchased for each VoIP IP Trunking hub and remote location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP calling (VoIP origination and termination within Customer's enterprise) and unlimited local calling, while all outbound long distance ("LD") inter-enterprise calls (termination is non-VoIP and/or outside Customer's enterprise) will be billed a per-minute charge, as set forth below. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call | Intra-enterprise VoIP mins included | Local Calls included | Inter-enterprise VoIP LD Mins included | BEST | Domestic Long Distance |
|---|---|---|---|---|---|---|
| Local and LD | $25 | Unlimited | Unlimited | 0 | n/a | $0.023/min |
| Local and LD with BEST | $35 | Unlimited | Unlimited | 0 | Included | $0.023/min |
| LD only | $7 | Unlimited | n/a | 0 | n/a | $0.023/min |
| LD only with BEST | $17 | Unlimited | n/a | 0 | Included | $0.023/min |

3. **Change in Simultaneous Call Count.** Customer must maintain its provisioned simultaneous call count for at least a 30-day period before requesting a decrease in simultaneous call count.

4. **Equipment and Access**

   4.1 In addition to the fees set forth above, Customer will pay the applicable fees (not included here) for the gateway, access or transport service (e.g., port and permanent virtual circuit charges), CPE, or any other services or equipment not explicitly described as part of the A LA CARTE pricing. Such fees will be described in the separate Service Attachment for the attendant service and/or CPE.

   4.2 A LA CARTE pricing does not include Verizon Internet Dedicated, Ethernet, or Private IP Service which must be purchased separately by Customer as transport for use with IP Trunking VoIP Service.

5. **Service Establishment Fee.** Customer will pay NRCs for service establishment as set forth in the VoIP Rates and Charges section of the Guide for VoIP IP Trunking.

6. **Optional Network Features.** Customer will pay for the optional network features at the following rates, which are fixed for the Term:

| Optional Network Features(s) | Charges |
|---|---|
| Auto Attendant | $30/instance* |
| Hybrid Intermediate Package – provides the following telephony features: Call Forwarding; Remote Office; Find Me / Follow Me; Call Blast (an incoming call rings a number of devices simultaneously; also known as "simultaneous ring"). | $5.50/configured DID user |
| Redirect to Telephone Number – PBX Group Unreachable | NRC of $1.50/DID in a configured PBX group** plus $2.00/DID/month in a configured PBX group** |

* "Instance" means each menu of options that a caller may choose to access. Each separate listing of touch tone options presented to a caller is considered a separate menu.

** PBX group is defined by groupings of numbers. When Redirect to Telephone Number (PBX Group Unreachable) is provisioned on a PBX group, all numbers in that group will be provisioned and billed with the feature.

7. **Discounts.** Customer shall receive the following discount percentage, based on the Term of the Agreement and Customer's AVC, applicable only to the IP Trunking BEST and non-BEST Simultaneous Calling Capacity Charges (MRC and Domestic Long Distance rates), Optional Network Features and DID blocks: ____%.

   This discount is not available for any other IP Trunking services, charges, or features.

8. **Special Pricing.** In lieu of all other rates, discounts and promotions, including those set forth in this Service Supplement outside of this Special Pricing section, Customer will receive the following discounts off the applicable MRCs described above.

| Service Element | Discount |
|---|---|
| Simultaneous Calling Capacity/BEST | [Insert discount percentage] |
| Domestic Off-Net (Non-Intra-Enterprise) Long Distance | [Insert discount percentage] |
| DID Blocks | [Insert discount percentage]* |
| Optional Network Features | [Insert discount percentage]* |

| |
|---|
| * Discount percentage must match for these two categories. |

## Service Supplement __
## VoIP Service Type – Hosted IP Centrex

1. **Rates and Charges.** Current rates and charges for VoIP Hosted IP Centrex Service are described below. VoIP Hosted IP Centrex Service is available via the A LA CARTE pricing model with Unlimited, Tiered or metered pricing options, and via the BUNDLED pricing model with Unlimited options, and in all cases includes access via Verizon's Integrated Communications Package ("ICP") to either Intermediate or Advanced levels of feature package content. For each Customer location, up to two T-1 lines may be utilized (each of which must be purchased as part of a separate bundle). Rates and charges for International calls, certain Local features, directory assistance, and related items are set forth in the Guide.

   1.1 **A LA CARTE Unlimited Pricing – Simultaneous Calling Capacity Charge.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. A minimum of one unit must be purchased for each VoIP Hosted IP Centrex location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP (VoIP origination and termination within Customer's enterprise) calling, unlimited local calling (if Customer purchases Domestic LD and local), unlimited inter-enterprise VoIP (either origination or termination is non-VoIP and/or outside Customer's enterprise) and long distance ("LD"). Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call |
|---|---|
| Domestic LD and Local | $35 |
| Domestic LD only | $30 |

   1.2 **A LA CARTE Tiered Pricing – Simultaneous Calling Capacity Charge.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. A minimum of one unit must be purchased for each VoIP Hosted IP Centrex location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP (VoIP origination and termination within Customer's enterprise) calling, unlimited local calling, and an allotment of inter-enterprise VoIP (either origination or termination is non-VoIP and/or outside Customer's enterprise) long distance ("LD") minutes as set forth below. Tiered overage charges will apply as outlined below for minutes in excess of established limits. Minutes cannot be shared between locations [multiple buildings on a campus with a single VoIP connection comprise a single location] nor can they be rolled over from month to month. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call | Intra-enterprise VoIP mins included | Local Calls included | Inter-enterprise VoIP LD Mins included | BEST | Domestic Long Distance |
|---|---|---|---|---|---|---|
| 250 Local and LD | $28 | Unlimited | Unlimited | 250 | n/a | $0.025/min |
| 250 Local and LD with BEST | $38 | Unlimited | Unlimited | 250 | Included | $0.025/min |
| 750 Local and LD | $38 | Unlimited | Unlimited | 750 | n/a | $0.025/min |
| 750 Local and LD with BEST | $48 | Unlimited | Unlimited | 750 | Included | $0.025/min |
| 250 LD only | $12 | Unlimited | n/a | 250 | n/a | $0.025/min |
| 250 LD only with BEST | $22 | Unlimited | n/a | 250 | Included | $0.025/min |
| 750 LD only | $22 | Unlimited | n/a | 750 | n/a | $0.025/min |
| 750 LD only with BEST | $32 | Unlimited | n/a | 750 | Included | $0.025/min |

   1.3 **A LA CARTE Metered Pricing.** Customer will pay the following MRC – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units

Customer selects. A minimum of one (1) unit must be purchased for each VoIP Hosted IP Centrex location. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP calling (VoIP origination and termination within Customer's enterprise) and unlimited local calling, while all outbound long distance ("LD") inter-enterprise calls (termination is non-VoIP and/or outside Customer's enterprise) will be billed a per-minute charge, as set forth below. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| Service Type | MRC Per Simultaneous Call | Intra-enterprise VoIP mins included | Local Calls included | Inter-enterprise VoIP LD Mins included | BEST | Domestic Long Distance |
|---|---|---|---|---|---|---|
| Local and LD | $25 | Unlimited | Unlimited | 0 | n/a | $0.023/min |
| Local and LD with BEST | $35 | Unlimited | Unlimited | 0 | Included | $0.023/min |
| LD only | $7 | Unlimited | N/A | 0 | n/a | $0.023/min |
| LD only with BEST | $17 | Unlimited | N/A | 0 | Included | $0.023/min |

1.4 **Change in Simultaneous Call Count.** Customer must maintain its simultaneous call count for at least a 30-day period before requesting a decrease in simultaneous call count.

1.5 **Equipment and Access**

1.5.1 In addition to the fees set forth above, Customer will pay the applicable fees (not included here) for the gateway, access or transport service (e.g., port and permanent virtual circuit charges), CPE, or any other services or equipment not explicitly described as part of the A LA CARTE pricing. Such fees will be described in the separate Service Attachment for the attendant service and/or CPE.

1.5.2 A LA CARTE pricing does not include Verizon Internet Dedicated, Ethernet, or Private IP Service which must be purchased separately by Customer as transport for use with Hosted IP Centrex VoIP Service.

1.6 **BUNDLED Pricing – Base MRC**

1.6.1 **Base MRC.** Customer will pay the MRC set forth below for BUNDLED pricing, which is fixed for the Term, based on the type of Internet Dedicated service and router option (standard or upgraded). The applicable VoIP Service Equipment (defined in Section 4.12.3 in the Service Attachment) is included in the base MRC.

| BUNDLED Pricing Transport Options | Base MRC |
|---|---|
| Internet Dedicated Tiered 768 kbps with standard router | $900 |
| Internet Dedicated Tiered 768 kbps with upgraded router | $1,000 |
| Internet Dedicated Price Protected T1 (1.5 Mbps) with standard router | $1,000 |
| Internet Dedicated Price Protected T1 (1.5 Mbps) with upgraded router | $1,100 |
| Optional Internet Dedicated Shadow T1 (1.5 Mbps) | $800 |

1.6.2 **Composition of Base MRC.** The base MRC applies to each bundle at each Customer location and includes the selected BUNDLED transport service (including Shadow T1, if applicable), the applicable VoIP Service Equipment, local access and unlimited outbound U.S. long distance and local calling (subject to the number of simultaneous calling units selected). Each bundle is limited to the capacity of the transport service selected (either 384 kbps, 768 kbps or 1.5 Mbps) and to the simultaneous calling capacity available and selected for that transport service (for example, up to a maximum of 41 simultaneous calls on a 1.5 Mbps T1). The capacity of the Ethernet switch provided via BUNDLED pricing (whether standard or upgraded) is based on the simultaneous calling capacity selected. Additional capacity must be purchased separately.

1.6.3 **BUNDLED Pricing – Simultaneous Calling Capacity Charge – Unlimited Plan.** Customer will pay an MRC of $35 – which is fixed for the Term – per simultaneous calling unit multiplied by the number of simultaneous call units Customer selects. Each such simultaneous calling unit includes unlimited intra-enterprise VoIP (VoIP origination and termination) calling, unlimited local calling, and unlimited inter-enterprise VoIP (either origination or termination is non-VoIP) long distance ("LD") minutes as set forth below. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

1.6.4 **BUNDLED Pricing Limitations.** Optional IP phones, external firewalls, or any other services or equipment not explicitly described as part of BUNDLED pricing are not included with BUNDLED pricing.

1.6.5 **Shadow T1 Service.** In addition, Customer may order optional BUNDLED Internet Dedicated Shadow T1 Service (available only if the upgraded router option is selected for the transport service), to back up Customer's primary BUNDLED transport service, for the base MRC indicated above in Section 1.6.1, above. When in use, BUNDLED Internet Dedicated Shadow T1 Service uses the Verizon Service Equipment included with Customer's primary BUNDLED Internet Dedicated Service).

1.6.6 **Optional Switch Capacity**

1.6.6.1 **Analog Gateway.** The BUNDLED pricing base MRC covers VoIP Service Equipment sufficient for a number of analog gateway ports equal to the simultaneous calling capacity selected. Customer will pay an additional MRC for any analog gateway capacity needed to support additional end-users (the "Extra Analog Gateway MRC"). The Extra Analog Gateway MRC is $60 for each block of four additional end-users to be supported above the simultaneous calling capacity selected.

1.6.6.2 **Ethernet Switch for Upgraded Router.** If Customer selects one of the types of BUNDLED transport service which include an upgraded router as indicated above, for an additional MRC of $50, Customer may select a Cisco 2950 optional Ethernet switch, supporting up to 48 ports, used in connection with BUNDLED Internet Dedicated service. Other upgraded Ethernet switches, not described here, are also available pursuant to the separate Service Attachment for such CPE.

1.6.7 **BUNDLED Site Activation Fee.** A BUNDLED Site Activation Fee of $500 will be charged for each Internet Dedicated bundle at each location.

1.7 **Service Establishment Fee.** Customer will pay NRCs for service establishment as set forth in the VoIP Rates and Charges section of the Guide for Hosted IP Centrex.

1.8 **Expedited Provisioning (Bundled Pricing).** An NRC will be assessed to Customers who request expedited provisioning of Internet Dedicated transport – whether the circuit is provisioned by Verizon or by another local exchange carrier – in accordance with the Administrative NRC rates set forth in the Guide.

1.9 **Optional Network Features available with A LA CARTE or BUNDLED pricing.** Customer will pay for the optional network features at the following rates, which are fixed for the Term:

| Optional Network Features(s) | MRC |
|---|---|
| Auto Attendant | $30/instance* |
| Attendant Console | $20/configured user |
| Voicemail | $5/configured user |

| | |
|---|---|
| Redirect to Telephone Number – Call Forward Unreachable | NRC of $1.50/configured user<br>$2.00/DID/month/configured user |
| * With respect to the Auto Attendant feature, "instance" means each menu of options that a caller may choose to access. Each separate listing of touch tone options presented to a caller is considered a separate menu. | |

1.10 **Optional Network Features available via ICP with A LA CARTE or BUNDLED pricing.** Customer will pay for the ICP-enabled network feature packages at the following rates, which are fixed for the Term:

| End-User Feature Package | MRC |
|---|---|
| **Intermediate** – provides basic telephony features such as call forwarding, 3-way calling, caller ID, etc., plus access to a web-based interface for additional enhanced features, e.g., scheduled call forwarding and Call Blast (an incoming call rings a number of devices simultaneously; also known as "simultaneous ring"). Also provides plug-ins (available via download from the ICP website) that provide real-time call management and a soft-phone. | $5.50<br>per end-user feature package |
| **Advanced** – Provides all the capabilities of Intermediate plus a desktop client (available via download from the ICP website) that includes instant messaging capabilities. | $7.50<br>per end-user feature package |
| **End-User Feature Package Terms and Conditions**<br><br>1. Verizon expressly disclaims all responsibility and liability for outages and any other problems arising from non-Verizon-provided Internet access when Hosted IP Centrex Service is accessed by end-users remotely, i.e., away from Customer's primary business location at which VoIP Service is installed.<br><br>2. As stated in Section 4.17.2 of the Service Attachment, Verizon's VoIP Voice Quality SLA does not apply to soft-phone use.<br><br>3. Verizon will not conduct any maintenance of any equipment (whether or not supplied by Verizon under this Service Attachment) nor bear any responsibility for trouble-shooting at any end-user site that is not Customer's primary service address.<br><br>4. Trouble tickets involving End-User feature packages or remote users will be routed through Customer's designated Administrator, who will be provided a checklist of the minimum tasks to be completed prior to calling in a trouble ticket. All such trouble-ticket calls will be handled on a commercially reasonable basis. Verizon will not dispatch to any end-user location remote from Customer's primary service address. | |

1.11 **Discounts.** Customer shall receive the following discount percentage, based on the Term of the Agreement and Customer's AVC, applicable only –

- **Within A LA CARTE and BUNDLED Pricing:** to BEST and non-BEST Simultaneous Call Charges (MRC and Domestic Long Distance rates), Optional Network Feature Charges, DID blocks; and
- **Within BUNDLED Pricing:** to Base MRC, Shadow T1 redundancy, and rental price for the first two (2) Cisco 2950 Ethernet Switches.

Discount: ____%.

This discount is not available for any other Hosted IP Centrex services, charges, or features.

1.12 **Special Pricing.** In lieu of all other rates, discounts and promotions, including those set forth in this Service Supplement outside of this Special Pricing section, Customer will receive the following discounts off the applicable MRCs described above.

| Service Element | Discount |
|---|---|
| Simultaneous Calling Capacity/Bundled Pricing–Base MRC /BEST feature | [Insert discount percentage]* |
| Domestic Off-Net (Non-Intra-Enterprise) Long Distance | [Insert discount percentage] |
| DID Blocks | [Insert discount percentage]** |
| Optional Network Features | [Insert discount percentage]** |

***** Discount applies to both Service Elements IF Bundled Pricing applies; otherwise, only to Simultaneous Calling Capacity.
****** Discount percentage must match for these two categories.

## 2. Terms and Conditions

2.1 **Service Disclaimer.** Customer understands that use of Hosted IP Centrex VoIP Service that includes any unlimited pricing items is restricted in the following manner:

2.1.1 Customer shall not utilize Hosted IP Centrex VoIP Service in any call center environment or in connection with any similar such application.
2.1.2 Customer shall not use VoIP Service for telemarketing, fax broadcasting, fax blasting, or continuous or extensive call forwarding.
2.1.3 Customer shall not aggregate traffic from multiple sites into a single site configured with Hosted IP Centrex VoIP Service.
2.1.4 Customer's design shall not be configured with more than 8:1 oversubscription, i.e., no more than eight DIDs per simultaneous call.
2.1.5 Customer shall not utilize auto-dialers or any similar type of device in connection with VoIP service.

Customer expressly acknowledges that any violation of the foregoing restrictions on its use of VoIP Hosted IP Centrex Service may result in the immediate suspension or termination of VoIP Hosted IP Centrex Service.

2.2 **ICP Software.** By its use of Verizon VoIP Service, and in particular, its end-users' use of an ICP feature package, Customer acknowledges and agrees that it is subscribing to the Software and Documentation provision in the Guide's General Terms and Conditions for Internet Services governing such use.

## Service Supplement __
## VoIP Service Type – IP Business Bundle

The availability of IP Business Bundle is limited. Customer must confirm availability with its Verizon account manager or an authorized Verizon sales associate before placing orders for IP Business Bundle hereunder.

**Rates and Charges.** Current rates and charges for IP Business Bundle are described below. IP Business Bundle is available via a BUNDLED pricing model. Rates and charges for International calls, certain Local features, directory assistance, and related items are set forth in the Guide.

1. **Bundle Pricing – IP Business Bundle Charge.** Customer will pay the applicable MRC for each IP Business Bundle Customer selects, as shown below. Each simultaneous calling unit includes unlimited intra-enterprise VoIP (VoIP origination and termination within Customer's enterprise) calling, unlimited local calling, and an allotment of inter-enterprise VoIP (termination is non-VoIP and/or outside Customer's enterprise) long distance ("LD") as set forth below. IP Business Bundle also includes customer premises equipment ("CPE") (as further described below in Section 8) and Verizon's Internet Dedicated Service as transport.

   Overage charges will apply as outlined below for minutes in excess of established limits. Minutes cannot be shared between locations (multiple buildings on a campus with a single VoIP connection comprise a single location) nor can they be rolled over from month to month. Calls to international locations can also be made but are billed at metered rates as set forth in the Guide.

| **No. of Simultaneous Call Units →**<br>**Components ↓** | **4** | **8** | **12** | **16** | **24** |
|---|---|---|---|---|---|
| Internet Dedicated Service Single T1 (1.5 Mbps) | ✓ | ✓ | ✓ | ✓ | ✓ |
| Local calling and standard features | ✓ | ✓ | ✓ | ✓ | ✓ |
| DIDs (phone numbers) | Single block of 20 | Single block of 20 | Single block of 20 | Single block of 20 | Two blocks of 20 each (40) |
| Domestic Long Distance calling minutes (250 per Simultaneous Call Unit ordered up to maximum shown) | 1,000 | 2,000 | 3,000 | 4,000 | 6,000 |
| Router (includes installation* and maintenance) | ✓ | ✓ | ✓ | ✓ | ✓ |
| | | | | | |
| MRC – 2-year Service Commitment[2] | $647 | $694 | $767 | $823 | $992 |
| MRC – 3-year Service Commitment[2] | $583 | $625 | $691 | $741 | $894 |
| Per-minute Domestic Long Distance overage | $0.025 | $0.025 | $0.025 | $0.025 | $0.025 |

[1] Includes rack-mounts, install kit and punchdown of analog lines (as applicable).

[2] If Customer terminates VoIP Service before the end of the Service Commitment for reasons other than Cause; or Verizon terminates VoIP Service for Cause pursuant to the pertinent terms in the Agreement, then Customer will pay, within thirty (30) days after such termination: (i) an amount equal to 25% of the MRC times the number of months remaining in Customer's 2-year Service Commitment or 20% of the MRC times the number of months remaining in Customer's 3-year Service Commitment, as applicable, plus (ii) a pro rata portion of any and all credits received by Customer.

2. **Change in Simultaneous Call Count.** At any time up to 60 days before the expiration of Customer's Service Commitment, Customer may increase its Simultaneous Call Units to a higher category of Simultaneous Call Units. Customer is not permitted to decrease its Simultaneous Call Units during a Service Commitment period nor revert to a lower, previously-ordered level.

3. **Service Establishment Fee.** Customer will pay NRCs for service establishment as set forth in the VoIP Rates and Charges section of the Guide for VoIP IP Integrated Access.

4. **Access Charges.** Verizon will order the local loop access for IP Bundle, the circuit charges for which are included in the pricing above.

5. **Optional Network Features.** Customer will pay for the optional network features at the following rates, which are fixed for the Term:

| Optional Network Features(s) | Charges |
|---|---|
| Auto Attendant | $30/instance/month* |
| Voicemail | $5/configured user/month |
| Redirect to Telephone Number – PBX Group Unreachable or Call Forward Unreachable | NRC of $1.50/DID in a configured PBX/Key group** plus $2.00/DID/month in a configured PBX/Key group** |

***** "Instance" means each menu of options that a caller may choose to access. Each separate listing of touch tone options presented to a caller is considered a separate menu.

** PBX/Key group is defined by groupings of numbers. When Redirect to Telephone Number (PBX Group Unreachable or Call Forward Unreachable) is provisioned on a PBX/Key group, all numbers in that group will be provisioned and billed with the feature.

6. **Discounts.** Customer shall receive the following discount percentage, based on the Term of the Agreement and Customer's AVC, applicable only to the IP Business Bundle Optional Network Features, additional DID blocks, and Domestic Long Distance overage: ___%

   This discount is not available for any other IP Business Bundle services, charges, or features.

7. **Special Pricing**. In lieu of all other rates, discounts and promotions, including those set forth in this Service Supplement outside of this Special Pricing section, Customer will receive the following discounts off the applicable MRCs described above.

| Service Element | Discount |
|---|---|
| | |
| Per-minute Domestic Long Distance overage | [Insert discount percentage] |
| DID Blocks | [Insert discount percentage]* |
| Optional Network Features | [Insert discount percentage]* |
| ***** Discount percentage must match for these two categories. | |

8. **Customer Premises Equipment ("CPE")**

8.1 **Guide.** The provisions of the Guide relating to CPE (the "CPE Terms") apply to CPE supplied as a part of IP Business Bundle. Certain current Guide terms regarding CPE are described in part below (without limitation).

8.2 **Title and Risk of Loss.** Verizon retains title to each item of CPE provided to Customer with IP Business Bundle. Customer bears the risk of loss or damage to CPE after installation and while such equipment is located at an installation site (except for loss or damage proximately caused by Verizon) and shall pay Verizon the reasonable and customary costs of repair or replacement if such loss or damage occurs.

8.3 **Maintenance.** Subject to the conditions set forth in Title and Risk of Loss immediately above, maintenance of the CPE is included in the applicable MRC set forth above. Verizon warrants that maintenance service will be performed in a good and workmanlike manner. Customer's sole remedy for a breach of that warranty is for Verizon to reperform the defective work.

8.4 **Responsibilities.** Verizon and its contractors are not responsible or liable for Customer's failure to provide backup power, or to adequately duplicate or document files or for data or files lost during the course of performance of maintenance services. Customer will provide a physical and electrical environment for the CPE that meets Verizon specifications and provide Verizon access to the CPE as reasonably necessary or useful for Verizon to perform its obligations. Customer shall not move or remove any item of CPE without Verizon's prior written consent. Upon expiration or termination of service for any reason, Customer must return or dispose of CPE in accordance with Verizon's requirements within five business days after such expiration or termination. Customer is liable for any loss or damage to CPE resulting from theft, disappearance, fire or any other cause. For each item of CPE not returned, for any reason, within the five-day period, Customer will be deemed to have purchased such CPE and shall pay Verizon the replacement cost of such CPE.

9. **Export and Legal Compliance.** Customer acknowledges that certain equipment, software and technical data which may be provided under this Agreement may be subject to export and re-export controls under the U.S. Export Administration Regulations and/or similar regulations of the U.S. or any other country. Customer shall not export or re-export any such equipment, software, technical data or any direct product thereof in violation of any such laws. Customer shall comply with all laws and regulations, including but not limited to import and custom laws and regulations.

# Appendix I

## E-911 – Emergency Calling
## Terms and Conditions

1. **Requirement.** A provider of "interconnected VoIP service" is required by the Federal Communications Commission to route emergency 911 calls in conjunction with such VoIP service where such 911 calling is available. "Interconnected VoIP service" means the VoIP service (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the end-user's location; (3) requires IP-compatible CPE; and (4) permits end-users generally to receive calls that originate on the PSTN and to terminate calls to the PSTN. **911 emergency calling service laws may also apply to Customer and it is solely Customer's responsibility to understand and comply with such laws.**

2. **E-911 Routing.** Enhanced 911 calling ("E-911") enables end-users to access an appropriate public safety answering point ("PSAP") by dialing 911 with Automatic Number Identification ("ANI") and Automatic Location Identification ("ALI") displayed at the PSAP. The ANI may be the calling party number ("CPN") or the billing telephone number ("BTN") depending on Customer's configuration. **Pursuant to FCC requirements, Verizon enables the routing of E-911 calls only in locations where such 911 calling is available and only in the limited circumstances described below.** An end-user's ability to access an appropriate PSAP depends on the type, configuration and location of the phone used. Furthermore, much like access to 911 emergency service via traditional PSTN local service, access to a PSAP will be unavailable if Customer's access circuit or local gateway fails.

   2.1 **ANI/ALI.** E-911 provided via any of the four types of Verizon VoIP Service will pass ANI and the registered primary service address of that ANI as ALI. If VoIP Service is provided to a campus environment where all buildings have the same service address and rate center, then Customer acknowledges and agrees that when 911 is dialed, the call will be routed to the appropriate PSAP based on the primary service address of the calling ANI.

   2.2 **Long Distance Service/Limitations on E-911.** Long Distance Voice Service does not provide access to E-911 calling. Thus, to obtain E-911 access and support, Customer must purchase separate Local service when only Long Distance Voice Service is ordered from Verizon (an option with IP Integrated Access, Hosted IP Centrex, and IP Trunking). If Customer purchases VoIP service for a geographically-distributed multi-site environment and has remote locations outside the Local service footprint covered by VoIP Service, or Customer chooses not to purchase Local service with its VoIP Service at certain remote locations, Customer agrees that it is responsible for obtaining separate Local service at each such location in the Service Attachment to the extent it desires or is required to provide E-911.

   2.3 **PS/ALI.** If Customer requires delivery of location-specific ALI (such as floor and room number within a building) to the PSAP, or otherwise desires E-911 to be provided for multiple user configurations, Customer must implement Private Switch/Automatic Location Identification (PS/ALI). **Customer may obtain the software and support that enable PS/ALI from a third-party provider or Verizon pursuant to a separate contract.** In all cases, VoIP Service can only support the delivery of the caller's station level phone number to a PSAP when such telephone numbers are ported to Verizon during the initial provisioning process or are numbers assigned by Verizon. Before Verizon will support Customer's use of PS/ALI, Customer must execute Verizon's LOA (see Section 4.3 in the Service Attachment). Once PS/ALI is implemented, Verizon will continue to send 911 calls to the PSAP; **however, Customer and not Verizon will be entirely responsible for the content of the information delivered in ALI to the PSAP and for any liability arising from the provision of, or the failure to provide, accurate and up-to-date information**.

   State or local laws may require Customer to implement PS/ALI to ensure required E-911 support for multiple user configurations to enable station-specific 911 ANI and ALI display.

   2.4 **Other Access Limitations.** Common events that can limit access to E-911 via VoIP Service include but are not limited to:

   - **Loss of Electric Service.** A loss of electric service will interrupt VoIP Service. Customers are urged to implement a battery backup system for VoIP Service.
   - **Loss of Broadband Service.** VoIP Service will be interrupted if the attendant broadband connection is not available.
   - **Failure of Equipment.** The malfunction or failure of equipment, software or hardware necessary for end-to-end Internet functionality (e.g., routers, IP phones, analog gateways, etc.) can limit access to E-911.

- **Failure to Register New Location of Equipment.** For IP Flexible T1, IP Integrated Access, and IP Trunking VoIP services, Verizon is able to provide access to E-911 only at the end-user's registered primary service location. For these VoIP service types, if a VoIP phone is used at a location other than at the end-user's registered primary service location, E-911 will not be available. For Hosted IP Centrex service, mobility is supported for the end-user's IP phone or soft-phone (phone in the PC), but the end-user may only place calls from a location that is, in fact, the end-user's registered address. Otherwise, E-911 calls will not be sent to the correct PSAP. If the end-user's registered address is at a location different from the end-user's "office phone" (the dedicated hand-set that remains at the end-user's registered primary service location), use of the end-user's land-line for 911 calls will not contact the correct PSAP. Customer must inform end-users that it is entirely their responsibility to use the tools available with VoIP Service to update their registered address.
- **Non-Recognition of Phone Number.** If an end-user uses a non-native telephone number (i.e., a telephone number from a local exchange area different from where the caller is located), E-911 access may be limited.

2.5 **End-User Notice Requirements.** Customer represents and warrants that it will notify all of its end-users of Verizon VoIP of the interaction and/or limitations of E-911 with Verizon VoIP as set forth in the Service Attachment and this Appendix, and with respect to Hosted IP Centrex end-users, (i) what procedures such end-users must follow for registering a new location prior to moving an IP phone or soft-phone; and (ii) of the affects of re-registration of end-user addresses on existing end-user office phones and E-911. Customer shall be solely responsible for any third-party claims and liability arising from Customer's failure to so notify its end-users.

3. **E-911 and VoIP IP Trunking Service.** Because Customer's IP Trunking may permit end-users to use VoIP Service at other than Customer's or the end-users' primary service location, and Verizon may not detect when an end-user uses the service at a non-primary service location, Customer warrants it will, with respect to IP Trunking:

- detect when an end-user has moved his or her VoIP phone (i.e., any device used for VoIP calling) to a non-primary service location, and suspend VoIP Service unless and until either Customer (a) verifies that the end-user is at the location for which the VoIP phone is registered for service or (b) re-registers the VoIP phone for service ("nomadic service") at the end-user's current location;

- only permit nomadic service when E-911 calls made via the nomadic service include the information needed to route that call to the PSAP serving that location in the manner required by the FCC's E-911 requirements for Interconnected VoIP service; and

- otherwise block all VoIP calls attempted to be made via the nomadic service.

Customer shall be solely responsible for all third-party claims and liability arising from Customer's failure to do as required in this Section 3.

4. **E-911 and Hosted IP Centrex Service**

4.1 **PSAP Routing.** If an IP phone or soft-phone used with VoIP Hosted IP Centrex Service is moved to a new location, Customer or its end-user must report the change of location. If Customer or its end-user fails to report such a change of location or moves an IP phone or soft-phone outside Verizon's E-911 service area, VoIP Service may be suspended until Customer informs Verizon of the change or moves the IP phone or soft-phone back within Verizon's E-911 service area.

4.2 **Change in Registered Location.** Customer's end-users who want to use a VoIP Service-enabled IP phone or soft-phone other than at its current registered location can register their phone at their temporary location by utilizing the ICP application and client which can be downloaded to the end-user desktop.

Turning the power to a phone off and then back on, or unplugging it and then plugging it back in may indicate to Verizon, via a change in IP address, that the phone may have been moved. Verizon may, but is not obligated to, monitor the IP phone's IP address.

4.3 **Affect of Change in Registered Location.** Customer's end-users who use a phone at a Customer facility for which VoIP Service has been enabled, but for which the ANI has been registered at another location, will still be able to place outbound 911 calls; **however, such calls will be directed to the correct PSAP for the ANI, not necessarily for the PSAP serving the Customer facility at which the phone is located.**

5. **Provider Parity.** For purposes of 47 U.S.C. 615a (*Service provider parity of protection*) and with respect to the provision of Verizon VoIP Service, Verizon is an IP-enabled voice service provider.

**(The following summary of the document below is provided for the convenience and internal use of Verizon Business representatives only. It has no legal effect. Only the language of the document below determines its meaning.)**

**The form "Designation of Customer VOIP Administrators as CPNI Administrators" contains two sections:**

**A. The first authorizes Administrators to access CPNI, and to name Users who may access CPNI.**

**B. The second authorizes CPNI access for all Users the Administrator names as authorized to access ICP or other online VOIP applications.**

## Appendix II

## Designation of Customer VOIP Administrator(s) with CPNI Authorization

| | |
|---|---|
| **Customer** | **[INSERT CUSTOMER FULL LEGAL NAME]** |
| **Signature** | |
| **Name** | |
| **Title** | |
| **NASP ID AND GUDUNS ID (where available)** | |

**A. Administrator Access to CPNI and Designation as CPNI Authorizer for Users.** On behalf of itself and its affiliates, the Customer named above, through its authorized representative's signature, hereby designates the individuals listed below or in an attachment containing the same data elements, as VOIP Administrators, with the authority to designate end users authorized to access CPNI of Customer and its affiliates, as specified below (collectively "Administrators") for MCI Communications Services, Inc., d/b/a Verizon Business Services and its affiliates set forth in the Service Publication and Price Guide located at www.verizonbusiness.com/guide (collectively or individually "Verizon").

| Administrator Name | Title | Tel. No. | Email | Postal Address | Add | Remove |
|---|---|---|---|---|---|---|
| | | | | | ☐ | ☐ |
| | | | | | ☐ | ☐ |
| | | | | | ☐ | ☐ |

Customer will so designate as Administrators all representatives who are authorized to manage Customer's use of Verizon VOIP service, including through the online applications made available by Verizon to Customer for its use. This designation, and any subsequent additions or removals of Administrators, will be effective within a reasonable period after Verizon has received a signed writing with the content set out above. Administrators are authorized to access the Customer Proprietary Network Information ("CPNI")***** of Customer and its affiliates.

**B. User Access to CPNI via Online Applications.** Customer representatives ("Users") designated by Administrators as authorized to access "ICP" (Integrated Communications Package) or other online applications made available by Verizon in connection with VOIP service are also authorized to access the CPNI of Customer and its affiliates through those online applications. This VOIP-specific CPNI access authorization is independent of any general CPNI authorization or deauthorization, and this authorization is not withdrawn by the withdrawal of a general CPNI authorization. In order to withdraw the VOIP-specific CPNI authorization established hereby, a Customer Administrator must permanently withdraw the User(s) access to ICP and all other VOIP-related online applications that may provide access to CPNI.

***** CPNI includes information about the quantity, technical configuration, type, destination, location, and amount of use of telecommunications or interconnected voice over Internet Protocol services purchased from Verizon or its affiliates that is made available to Verizon or its affiliates solely by virtue of your relationship with Verizon or its affiliates and related local exchange or toll billing information.

# Attachment II Supporting Documentation

CASE STUDY

Communications Solutions

# Texas A&M and Verizon Partner to Enhance Academic Experience

**A university with a reputation for innovation sharpens its technological edge by implementing IP Communications and Collaboration Solutions from Verizon Business**

Astute college football fans are probably familiar with some of the unique traditions of the Texas A&M Aggies. For example in 1922, Aggie fans introduced the twelfth man, the practice of standing throughout athletic events to better support their team. Time honored traditions at Texas A&M extend beyond the athletic arena. A case in point is the Aggie Ring, a symbol of Aggie values that must be earned by students based on criteria that were established in 1933.

The remarkable spirit of the Texas A&M community is matched by the university's reputation of academic excellence. One of the top research institutions in the United States, Texas A&M offers more than 120 undergraduate degree programs and 240 master's and Ph.D. programs. Many of the university's degree programs are ranked in the top 10 nationally.

Officials at Texas A&M recognize that a critical factor in being a top tier university is to be on the leading edge of technology. University administrators have realized for many years that their campus is not defined by its physical boundaries. The "extended campus" connects students, academics, alumni and partners across the globe. And when it comes to recruiting students, faculty and researchers, being at the forefront of technology helps Texas A&M attract the "best of the best."

University officials also realize that in order to achieve their goals, it is important to partner with industry leaders. For this reason, Texas A&M has chosen to partner with Verizon Business for critical technology solutions. According to Dr. Walt Magnussen, Director of Telecommunications, the affiliation with Verizon is decades old not only because Verizon is a global leader in IT but also because throughout the relationship, the university "has received 100% commitment from Verizon."

Verizon Business and Texas A&M have partnered on projects such as the Trans Texas Video Network (TTVN, a 400-site distance learning network. Additionally, Texas A&M and other institutions, in conjunction with Verizon Business and other providers, implemented the Lonestar Education and Research Network (LEARN), a high-speed optical network designed to support research, teaching, health care and public service across the state.

## Leaders in VoIP Technology

Another ambitious collaborative project is the VoIP Internet2 Technology Evaluation Center (ITEC), which is the VoIP test facility for the industry-wide Internet2 project. The VoIP Lab at Texas A&M is "a premier voice over IP facility for higher education," says Magnussen. "Projects include VoIP security, VoIP best practices, VoIP interoperability, wireline to wireless VoIP handoff, and satellite delivery of VoIP."

As part of its ongoing effort to enhance the educational experience and maintain its technological edge, Texas A&M recently signed agreements with Verizon Business for a number of services.

The university signed a renewal of its Master Service Agreement with Verizon Business that includes traditional voice and data networking services, cabling and managed services. In addition, the university has contracted with Verizon Business for the following services:

**Texas A&M**
*College Station, Texas*

## Best Practices of a Technology Leader

- Recognize that today's campus must extend across physical boundaries to connect students, academics, alumni and partners across the globe
- Realize that being at the forefront of technology helps recruit the "best of the best"
- Partner with industry leaders in order to achieve goals

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- Voice over IP (VoIP) services that will help modernize the university's telecommunications infrastructure and enable Unified Communications
- Conferencing services that will enhance communications and collaboration for staff, students and faculty
- Professional Services that will help capitalize on the value of its new collaboration technologies

These agreements indicate the depth and breadth of Verizon Business's solutions for the higher education market and underscore Verizon's ability to partner with our valued customers.

## Expanding IP Communication

The university has taken a major step in upgrading its telecommunications infrastructure, by choosing Verizon Business to deploy a customized Voice over IP (VoIP) solution including advanced switching gear, onsite technical support and professional services. The plan calls for 3,000 lines to be installed in six buildings by the end of 2009. Ten more buildings are targeted for VoIP installations in 2010. Dr. Magnussen believes that the entire campus community will benefit from the advanced communications services.

"By deploying state-of-the-art voice over IP technology, we can meet the long-term needs of students and faculty at the university for years to come."

The new converged VoIP platform will eliminate the need for separate voice and data networks yet will increase the amount of bandwidth for voice, data and video traffic. The enhanced capabilities provided by VoIP are critical to satisfying the increasing demands of the campus community. Diverse applications range from faculty members who plan on incorporating online virtual programs into their classes to researchers who want instant access to supercomputing resources.

"Texas A&M has proven itself to be a leader in using technology to improve the educational experience" said Troy Cromwell, group president for Verizon Business government and education markets. "Our ongoing relationship with Texas A&M is a good example of how Verizon Business partners with our higher education customers to develop powerful solutions to address their business challenges."

## New Tools for Effective Collaboration

VoIP is not the only technology that Texas A&M is installing in order to promote effective collaboration on and off campus. The university will also deploy a full suite of Verizon Business audio conferencing services including Instant Meeting. Audio conference users can take advantage of Mobile Conference Connection to effortlessly schedule and initiate conference calls from a BlackBerry or Microsoft® Windows Mobile® smart phone. Conference leaders can record conferences, monitor attendance and disconnect or add additional lines. Verizon Business also offers audio integration with popular instant messaging (IM) and e-mail calendaring applications.

Dr. Magnussen recognizes that enhanced conferencing services can help improve the productivity of faculty and staff. The conferencing services will also be utilized for continuity of operations planning. In the event that key personnel cannot get to campus during an emergency, conferencing can play an integral part in bringing together key decision makers to manage the situation.

The conferencing services are provided under the MiCTA umbrella contract. Verizon Business is an approved vendor under MiCTA, a nonprofit association that aggregates common services for its members at a competitive price.

## Continuing the Partnership

Verizon Business values Texas A&M's business and has committed the necessary resources so that ongoing projects meet the university's expectations. As a result, Texas A&M continues to work with Verizon to explore new technologies that will enhance the educational experience. For example, the university is currently deploying a fixed mobile convergence solution with Verizon Wireless to help provide additional flexibility and productivity for IP and wireless users. "At some point in the future, all services will be going toward converged services," says Dr. Magnussen. "We are working with Verizon Business as a strategic partner to make the transition, taking advantage of Verizon Business's top-notch engineers and technicians to answer the question, how do we make it through the convergence process?"

Texas A&M continues to develop new projects with Verizon not only because Verizon is a global technology leader but also because both partners have benefited from the decades' long business relationship. Dr. Magnussen's advice to other universities is, "Pick a strategic partner like Verizon and leverage their expertise. Make it a two-way street. Whenever you've got those two-way partnerships, everyone seems to benefit."

"By deploying state-of-the-art voice over IP technology, we can meet the long-term needs of students and faculty at the university for years to come."

DR. WALT MAGNUSSEN
DIRECTOR OF TELECOMMUNICATION
TEXAS A&M UNIVERSITY

### About Verizon Business

Verizon Business, a unit of Verizon Communications (NYSE: VZ), is a global leader in communications and IT solutions. We combine professional expertise with one of the world's most connected IP networks to deliver award-winning communications, IT, information security and network solutions. We securely connect today's extended enterprises of widespread and mobile customers, partners, suppliers and employees—enabling them to increase productivity and efficiency and help preserve the environment. Many of the world's largest businesses and governments—including 96 percent of the Fortune 1000 and thousands of government agencies and educational institutions—rely on our professional and managed services and network technologies to accelerate their business. Find out more at www.verizonbusiness.com.

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CASE STUDY

IP Communications

# Hosted IP Centrex Earns High Marks at Irving Schools

**To help students compete in the information age, school districts need updated equipment and advanced broadband connectivity. However, many times schools do not have the financial resources or the staff to implement and manage these solutions. By partnering with Verizon Business, a school district with a history of technological innovation recently implemented the necessary infrastructure to help increase its computing and networking capabilities.**

## About Irving ISD

Located in the center of the Dallas/Fort Worth area, The Irving Independent School District (IISD) serves approximately 34,000 students, representing 99 countries and 54 languages. The district has grown from a single wooden building, 100 years ago, to a system comprised of 38 schools and four central support facilities.

The IISD's mission statement asserts that the district will produce "engaged learners who are critical thinkers, leaders, and contributors in a technological, diverse, and competitive 21st century world." In order to help achieve the district's goals, Irving voters approved $49.8 million in bond funds for instructional technology in 2007. Today, all students in grades 9-12 are equipped with laptop computers for use at home and school. Each campus has distance learning and video conferencing capabilities and each classroom has secure access to online curriculum documents and software such as Gradebook and Blackboard.

## Commitment to Technology

Irving ISD is committed to integrating technology into all facets of the educational process including not just the classroom but also the professional development of teachers and administrators. The district also uses the latest technology to keep parents and the community involved and updated about the learning process.

The IISD three-year technology plan is both ambitious and thorough. The plan ranges from the conceptual—"Teachers and students will be equipped with current technologies that make learning interesting, motivating and relevant to the real world" to the practical—"Technology will be accessible and in working order at all times for teaching and learning."

The technology plan calls for the maintenance of a "robust, reliable infrastructure to support the instructional needs of teachers and students" and specifies that systems must be upgraded on a regular basis. As Dr. Alice Owen, the district's Executive Director of Technology, succinctly states "We tax the system everyday so we need to keep up with new technology."

## Benefits of a Managed Service

The fact that Verizon Hosted IP Centrex is a hosted service was very attractive to Irving ISD. Many public agencies and school districts take advantage of hosted or managed services because they have  low capital budgets or are constrained by other financial circumstances

## Hosted IP Centrex and E-Rate

The Schools and Libraries program of The Universal Service Fund, commonly known as E-Rate, makes discounts available to eligible schools and libraries for telecommunications services. In many cases, the E-Rate program treats managed services, such as Hosted IP Centrex, more favorably than a CPE solution. Verizon Business has E-Rate experts on staff that can help customers navigate the complexity of the E-Rate process.

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### Acceleration Problem

No matter how much a school district invests in classroom technology the investment can't be fully appreciated unless there is an infrastructure in place that enhances communications, collaboration, and application acceleration. For many years, IISD had maintained three separate telephone systems. The systems had grown increasingly expensive to maintain and were unable to support new applications such as Unified Communications and Collaboration (UC&C).

Administrators decided that the district needed a new system that would improve the ability of students, parents, teachers and staff to communicate effectively. It was important that the new system could be managed centrally, would be easily upgradeable in the future, and would provide cost savings to the district.

### An Innovative Solution to the District's Problems

While reviewing the vendors' responses to the district's Request for Proposal (RFP), IISD administrators were particularly impressed by the Verizon Business proposal. Having worked on a number of strategic projects for the district in the past, the Verizon account team had become trusted advisors to the District. Verizon proposed a system that not only met the key requirements of the district but would also help unburden the IT staff from many of their daily maintenance and administrative tasks. After careful consideration, IISD chose the Hosted IP Centrex (HIPC) solution proposed by the Verizon team.

HIPC provides Irving ISD with all of the benefits of an IP-PBX without the associated CPE capital, lease, or maintenance costs. All of the PBX functionality resides in the Verizon Business network, not on the customer premises. HIPC is a complete turnkey solution including design, installation, and ongoing maintenance for a low monthly price.

Because HIPC is a managed service, Dr. Owen and her staff are removed from the day to day operation of the telephone system, allowing them to focus on driving the applications that will push the educational process to the next level.

Dr. Owen notes that when needed, moves and changes are easily programmable via a central management console. Features such as call forwarding can be easily programmed to meet the needs of an individual administrator or an individual campus.

### Improving Infrastructure in a Condensed Time Frame

Dr. Owen says that once the final decision was made to implement HIPC, Verizon needed to undertake "a mammoth job in a very short time frame. For the most part, everything was implemented in about six weeks throughout the entire district. It was incredible. We knew it was going to be a tough time frame and Verizon did a super job in making it happen."

All of the district's campuses are connected to the Local Area Network via wireless technology. Each building is connected to the district's Gigabit Ethernet Wide Area Network (Gig-E WAN) provided by Verizon. In addition to using the WAN to accelerate applications, Dr. Owen cites the benefits achieved through Power over Ethernet (POE). By utilizing POE, the district is able to run voice, data and power over the same cable to any device attached to the local area network. This capability provided significant savings in time and cost control as new electric outlets were not required throughout the schools in order to implement the HIPC network.

### Benefits of a Managed Service

The fact that Verizon HIPC is a hosted service was very attractive to Irving ISD. Many public agencies and school districts take advantage of hosted or managed services because they have low capital budgets or are constrained by other financial circumstances. With hosted services, most hardware and software upgrades are undertaken by the provider, not the customer. And in most cases there is a reduced risk of product obsolescence as the provider bears the responsibilty of upgrades.

Another benefit of HIPC for a school district is that the federal E-Rate program usually funds the majority of the cost. In many cases, the E-Rate program treats managed services, such as HIPC, more favorably than a CPE solution. Verizon Business has E-Rate experts on staff that can help customers navigate the complexity of the E-Rate process.

### A Direct Path to Hosted Unified Communications

Unified Communications solutions enable school systems to enhance day-to-day collaboration and workforce mobility. With our Hosted IP Centrex solution, unified communications are available as optional capabilities that take users from basic IP Telephony to full-blown unified communications. They are offered as a package of network hosted services that require little or no premise based equipment or system integration. School districts can also benefit from centralized management of communications methods and devices for employees and administrators through our web-based interface. Users can initiate conference calls, access their voicemail, manipulate point-and-click control of incoming and outgoing calls, and synchronize their Calendars—all through a single, easy-to-use web interface.

### Reliable Communications

One of the district's chief goals was to have better communications between parents, teachers and staff. However, when a school's voice communications system is out of service, it can cause major worries for all concerned, especially parents. Verizon Hosted IP Centrex has several options to help keep school districts up and running in the event of a disaster. With network based call redirects, calls can be routed to an alternate termination point when a particular facility is unreachable.

It should be noted that because Verizon operates one of the world's most extensive IP networks, we design our products with resiliency, redundancy and reliability in mind. And with a managed service such as HIPC, Verizon monitors and maintains the system 24 hours per day, seven days per week, 365 days per year.

### Continuing the Technology Leadership Tradition

The Irving Independent School district has done an admirable job of providing both its students and faculty with the tools they need to succeed. HIPC has made it possible for system users to communicate seamlessly across all district locations. Today, all classrooms across the district have protected Internet access, IP telephones with unified voice mail, and access to district-wide email.

Unified Communications solutions will enable school districts to enhance day-to-day collaboration among students, teachers and staff. Hosted IP Centrex provides unified communications as optional capabilities that range from basic IP Telephony to intermediate real time call control to full-blown unified communication. Dr. Owen has not experimented with these capabilities yet but is looking forward to doing so. "Now that we are used to the new system, we will probably start doing unified messaging as a pilot with some of our key administrators."

The implementation of Hosted IP Centrex has helped solidify the Irving Independent School district's reputation as a technology leader. The district is well positioned to take advantage of the many benefits of IP Communications and has the support of the Verizon Business team to help meet future goals.

### About Verizon Business

Verizon Business, a unit of Verizon Communications (NYSE: VZ), is a global leader in communications and IT solutions. We combine professional expertise with one of the world's most connected IP networks to deliver award-winning communications, IT, information security and network solutions. We securely connect today's extended enterprises of widespread and mobile customers, partners, suppliers and employees—enabling them to increase productivity and efficiency and help preserve the environment. Many of the world's largest businesses and governments—including 96 percent of the Fortune 1000 and thousands of government agencies and educational institutions—rely on our professional and managed services and network technologies to accelerate their business. Find out more at www.verizonbusiness.com.

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CASE STUDY

IP Communications

# Real Estate Company Invests in Hosted IP Solution for Voice

**A real estate company with more than 250 locations realizes increased efficiency of operations in move to voice over IP.**

## Company Background and Industry

The company is an integrated real estate company that operates regional malls and outlet centers in the U.S., as well as international properties. The company has more than 250 locations nationwide.

## Key Business Challenges

The real estate company was experiencing growing pains due to several acquisitions. Network support, interoperability, and reliability were sporadic for some locations. And the expense of maintaining disparate systems was producing diminishing returns. Ultimately, the situation began to adversely affect business effectiveness and execution.

## The Solution

The company asked Verizon Business to implement Hosted IP Centrex with Voice over IP (VoIP) for further network efficiency, functionality, and cost control. Initially, the real estate company rolled out Hosted IP Centrex to 18 sites that were already leveraging IP networking. With this solution, the company can consolidate IT staff at the headquarters location and manage sites remotely.

## Why Verizon Business?

Verizon Business has been instrumental in the industry-wide development of voice over IP services. The flagship Hosted IP Centrex offering provides PBX functionality over the network, so businesses can easily take advantage of the flexibility, features, and economy of IP across new and existing locations. A full suite of subscriber and administrative features are delivered over the network, simplifying IT challenges. And Hosted IP Centrex is a comprehensive, cost-effective solution that includes design, installation, and ongoing maintenance.

## Results and Next Steps

The company had been using local lines and a private line for long distance, but with the Verizon Business solution, they are able to control costs by consolidating local and long distance over the IP network. The company plans to continue the transition to converged voice and data over an IP network, thereby increasing the return on investment inherent in network consolidation, ease of management, and voice over IP.

## For More Information

verizonbusiness.com/products/voip/centrex/

verizonbusiness.com



**Large real estate investment company**

### Challenge

- Increase growth potential
- Simplify IT support
- Control costs while consolidating acquisitions

### Solution

- Hosted IP Centrex (HIPC)

### Business Value

- **Optimize.** Streamlined communications help improve operational efficiencies
- **Grow.** Network consolidation simplifies acquisition process
- **Succeed.** Voice over IP helps control costs while improving collaboration across locations

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CASE STUDY

MPLS Network, VoIP

# La Quinta Wakes Up on the Bright Side, Thanks to a New Centralized Property Management System.

**How does a small American regional hotel company transform itself into a national player with 785 properties across the U.S.? The answer is simple. A willingness to take risks while staying committed to long-term goals enabled this hotelier to go from strength to strength. But with expansion came internal challenges and costly processes that required streamlining in order to sustain profitability.**

To stay competitive, La Quinta needed more control in providing better value to their hotel guests. The time was right to overhaul their IT infrastructure, and this hotelier turned to Verizon to deliver critical networking infrastructure services.

## Everyone to Its Own

For an IT department, keeping up with an ever-expanding hotel chain is no easy feat. Vivek Shaiva, the hotel chain's CIO, was finding his IT team stretched thin with the challenge of managing a decentralized model for each of their properties. Each hotel had its own reservation system, networks, suppliers and way of doing things which was creating extraneous costs extending to power concerns and maintenance.

With limited visibility into each of the hotels, response to problems was reactive. And this reactive approach and decentralized environment was putting revenues at risk. A decentralized IT model was not only costly to run, but complex. Dealing with myriad local service providers was a challenge.

It was time to say good-bye to the traditional network of Frame Relay lines, leased lines, and local trunks and embrace IP-based networking.

## A New Way of Working

One word—convergence. With the maturation of VoIP call quality and the ability to converge voice and data over a single network, convergence was at the heart of Shaiva's IT strategy. "Convergence was the way forward for being able to centralize applications to provide better value to La Quinta guests, along with quicker response times to property needs" said Shaiva.

Replacing the traditional Frame Relay network with a Verizon MPLS-based Private IP network was the first phase of the project. With a converged network in place, Verizon IP Trunking with Burstable Enterprise Shared Trunking (BEST) was implemented to support inbound hotel reservations. Toll free traffic is now carried over the Verizon Business network to central reservations and includes traffic from the U.S. and Canada. This proved to be ideal for La Quinta as it enabled trunk capacity at individual sites to stay at reduced levels while sharing pooled trunks across the enterprise. Reliability and security are also crucial for this large hotelier. Verizon's VoIP solution has in-built disaster recovery, which means, if a hub is down, Shaiva can easily re-route traffic to another hub—minimizing business disruption.

> "In every respect, whether consistency of performance around the country, round-the-clock support, easier administration, additional services, or controlling cost, La Quinta sees the company doing better with its network and getting more for its money."
>
> **VIVEK SHAIVA**, CIO, LA QUINTA

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### Centralizing the Brains of the Business

The newly centralized Property Management System is the brains of property operations. It enables the checking in and checking out of hotel guests, detail on room availabilities and other key benefits in the daily operations of each property.

With a Centralized Property Management System solution powered by Verizon Business connectivity, Shaiva has adopted a proactive approach to service impacting issues, reducing the potential for down-time. Hotel staff is now better placed to provide enhanced customer service and impact positively on their hotel's performance. All thanks to a secure, performing centralized property management system.

> "Verizon VoIP Trunking solution with Burstable Enterprise Shared Trunks has helped improve customer service, control telecom costs, improve call handling flexibility, and support our overall business continuity objectives."
>
> **VIVEK SHAIVA**, CIO, LA QUINTA

### Finger on the Pulse

By centralizing the property management system, the company has greater control and visibility into its daily revenue numbers. Hotels can now easily upload their daily revenue reports to back-end reporting systems enabling the company to report on daily revenues in a timely manner.

This increased transparency, timeliness and detailed reporting provides the management team with strong intelligence from which to make critical business decisions.

### Smooth Operations

Multiple local exchange carriers providing services to the hotel chain across the U.S. created administrative challenges for the IT department. Moving to Verizon VoIP has put this under a single provider and simplified life for Vivek Shaiva. With local and long distance voice traffic routed over IP Trunking, Shaiva was able to streamline management of their local services, consolidate their contracting and invoicing and leverage centralized voice reporting across all properties.

This has freed Shaiva and his IT team to focus on helping the hotel chain to grow rather than keeping day-to-day communications running smoothly.

### A Cost-Effective Communications Solution

By eliminating multiple service providers, this hotelier now enjoys greater control over communications expenses. And because they can now share trunking resources across all their U.S. properties, they have been able to significantly reduce the number of underutilized trunks in all locations—thanks to Verizon's Burstable Enterprise Shared Trunks feature.

"In every respect, whether consistency of performance around the country, round-the-clock support, easier administration, additional services, or controlling cost, La Quinta sees the company doing better with its network and getting more for its money," concludes Shaiva. The right technology and expertise has opened new doors to success for La Quinta—even in a tough economic climate.

### For More Information

To find out how you can benefit from a converged solution, contact your Verizon Business account manager or visit verizonbusiness.com/products/voip/trunking/. To learn more on how BEST helps improve trunking efficiencies and control costs—watch our BEST Video.

### About Verizon Business

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### About La Quinta

LQ Management L.L.C. is one of the largest operators of limited-service hotels in the United States with over 79,000 rooms. Based in Dallas, Texas, with 9,000 employees nationwide, La Quinta operates and provides franchise services to nearly 800 hotels in the U.S., Canada, and Mexico under La Quinta Inn® and La Quinta Inn & Suites® brands. For more information, please visit www.lq.com.

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CASE STUDY

IP Communications

# Campbell Creek Lets its Voice be Heard

## A Verizon Hosted IP Centrex deployment results in a highly contented employee base at Verizon's Campbell Creek campus—and value to the company.

This story begins with an aging PBX system that struggled to provide the flexibility and functionality required to meet the needs of over 3,000 employees at Verizon Business's Campbell Creek campus in Richardson, Texas. The traditional approach simply wasn't delivering anymore—and the employees were feeling it. Support teams were spending more time fixing and repairing the old PBX. Employees were looking for a solution that would simplify the way they collaborated and communicated. Being productive was about getting first time, right time communications.

Consequently, the Internal Voice Engineering team determined it was time to offer employees a more collaborative way of working. To support end-user requirements and provide all the benefits of VoIP technology, the team decided to replace the legacy PBX system with a hosted Voice over IP solution—Verizon Hosted IP Centrex (HIPC).

### Getting the Infrastructure Ready

With VoIP one thing is certain: your network will experience exponentially more traffic. Before any migration is undertaken, it's important to answer this fundamental question: "Is my existing infrastructure ready and able to provide a quality real-time business class voice communication service?" At Campbell Creek, the Engineering and Local Support team had years of experience with the facility and access to the appropriate onsite resources to perform their own network assessment. Multiple teams collaborated to perform the assessment to identify and validate the additional bandwidth required to effectively carry the expected increased volume of traffic across the converged data network. If you're considering a VoIP implementation, you might not have access to these resources. For situations like this, our professional services consultants can conduct a Unified Communications & Collaboration (UC&C) Readiness Assessment, which will determine whether your organization's local area networks and wide area network are fit to support VoIP and UC&C applications.

### The Devil is in the Detail

While the network implementation phase was in progress the overriding question preoccupying the engineering teams was "How do we deploy IP phones to over 3,000 employees without bringing business operations to a halt?" It's critical to avoid the scenario on go-live morning that their users have the wrong configuration, phone number, type of service or worse no service at all. Key to providing a seamless transition is gathering accurate user data. Achieving this is not simple—but can be overcome as long as additional resources and time are factored into the migration plan. **"The golden rule is not to trust existing data from telephone systems, internal directories, and company staff personal database. Always verify your data—it must be 100% accurate," remarked Doug Porter, Verizon Engineering and Support Team Manager.**

"As organizations deploy and use IP-enabled, advanced collaboration tools in their operations, they are able to perform better on business critical areas, and realize a higher return on their collaboration."

**FROST & SULLIVAN,** MEETINGS AROUND THE WORLD II CHARTING THE COURSE OF ADVANCED COLLABORATION, JUNE 2009

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### Getting Down to Brass Tacks

For the project in Richardson, the team created a user-friendly webpage supported with a back-end database. Every employee at Campbell Creek was sent an e-mail with instructions on how to accurately populate the webpage, which greatly simplified collection of all the information required. The webpage form asked simple questions such as: user e-mail address, manager's name, where they sat (e.g., floor, cubicle), their extension number, if they were pooled with other extension numbers, fax numbers, shared phones with anyone else in the group, and unique 800 numbers. Users were also asked about different needs in terms of features and their respective mobility levels, and even phone model types. From this raw data, the engineering team was able to efficiently and accurately build out the phone configuration data of every user and pave the way for a successful migration.

### Scheduled Migration in Manageable Groups

Migration of Campbell Creek began with a select number of users chosen to pilot the service for one week. With successful completion of the pilot, the remaining 3,000+ users were broken down into manageable groups of 350 users and migrated in an orderly fashion every other week. In the initial deployment phase, all users were given access to both the VoIP and legacy phones to ease the transition. The implementation team quickly realized, however, that this was not necessary. Users were excited to receive the IP Phones and eager to start using them. **"The old phones started to appear in stockpiles in corners, as users did not want to use them anymore." said Porter.** Within three months all 3000+ users were migrated over to the new VoIP platform.

### The Value of a Strong HIPC Support Team

To simulate a Verizon Business customer experience, the internal team followed the same procedures as if the implementation had been for an external customer. All aspects of the implementation were supported by a standard Hosted IP Centrex team. This included the provision of technical specialists for hands-on configuration and testing, program managers to oversee and liaise between the internal engineering team, and the Verizon VoIP back-office and implementation teams. "Initially it was expected that, this being an internal deployment, we would have been left on our own to deploy—but this was not the case." said Donna Schulken, Project Manager, Enterprise Technical Services. "It was a pleasant surprise to find out that the same Project Managers assigned to customers were assigned to an internal deployment. Weekly meetings were held and attended by the HIPC team and no item or issue went un-addressed."

### A New Way of Working

Change is often difficult. And not surprisingly, employees who had used the same equipment for a long time were initially overwhelmed with the increased capability available with the VoIP phones. It resulted in process changes and change in their day-to-day activities. However, employees were quickly able to adapt to their new IP phones and the Hosted IP Centrex capabilities—a fact evidenced by the mostly standard user issues reported to support teams; varying from "I can't get my headset to work" to understanding how to activate the many calling features.

Having sound end-user training in place is important as there are always those who will need support getting up to speed. We offer solid end-user training to all Hosted IP Centrex customers through an online customer training site where users can participate in live net training sessions, hear recorded trainings, and retrieve downloadable user's manuals. This training, along with onsite support, was instrumental in preparing the Campbell Creek end users to adapt comfortably to the world of IP telephony.

### Making Work an Activity, Not a Location

Some employees initially asked "what's in it for me?"—but quickly realized that a VoIP upgrade is more than a technology change. It provides a direct benefit to how they perform their day-to-day tasks. Laurie Shook, manager at Verizon's Campbell Creek campus, appreciates how smooth it is when working remotely. "Whereabouts no longer matters, thanks to the remote office application." She also finds that with caller ID she can manage her time better—by taking the calls that are most important and letting less urgent calls go to voice mail.

### Users' Top Hosted IP Centrex Features

- Auto Attendant for an automated receptionist facility
- Activate a "Do Not Disturb" signal
- Make outbound calls from a remote phone and have them billed centrally to the business
- Remote employees get access to advanced calling features from any location
- Check your voicemail via the telephone, the web portal as well as receive voicemail in your e-mail inbox
- Centralized web-based management of all user feature packages and dial plans

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### Forging Ahead with Fewer Administration Headaches

With every implementation (VoIP or legacy PBX), support tickets will increase as equipment and processes change, and this project was no different. Two months after deployment, however, the number of trouble tickets submitted to the support team had already leveled off. In fact, the as the project activities slowed down tickets numbers were even reduced from the days with the legacy voice platform.

Onsite support teams found that they could focus on other aspects of the business as the simplified converged topology meant easier management and control. For example, adding new phones, users, and other everyday Move/Add/Change/Delete (MACD) functions became a much easier process thanks to the IP enablement and web-based administrative functions. Any requirements for individuals to physically move from cubicle to cubicle can be as simple as un-plugging the phone and walking it over to the new location.

IP telephony is changing the way people think about how they like to be connected and how they communicate with their colleagues, customers, and suppliers. This highly available connected employee base at Campbell Creek is expected to bring value to Verizon Business, both in terms of increased productivity and efficiency.

To learn more about how our VoIP solutions can help your business, visit us at www.verizonbusiness.com

- www.verizonbusiness.com/products/voip/centrex/
- www.verizonbusiness.com/solutions/productivity/

### About Verizon Business

Verizon Business, a unit of Verizon Communications (NYSE: VZ), is a global leader in communications and IT solutions. We combine professional expertise with one of the world's most connected IP networks to deliver award-winning communications, IT, information security and network solutions. We securely connect today's extended enterprises of widespread and mobile customers, partners, suppliers and employees—enabling them to increase productivity and efficiency and help preserve the environment. Many of the world's largest businesses and governments—including 96 percent of the Fortune 1000 and thousands of government agencies and educational institutions—rely on our professional and managed services and network technologies to accelerate their business. Find out more at www.verizonbusiness.com.

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CTD Customer Training and Documentation

http://customertraining.verizonbusiness.com

# VoIP Reports Guide

**Version: 2.11**

**Last Updated: December 2011**

# TABLE OF CONTENTS

# LOG IN AND ACCESS REPORTS 1

## Overview

Verizon VoIP Reporting enables you to:

- Analyze local and long distance traffic across your enterprise on one report
- Identify when sites are over trunked with idle capacity
- Identify blocked calls
- Identify the peak busy hour so you can plan accordingly

## System Requirements

| Component | Requirement | Web | Desktop Client | Office Plug In |
|---|---|---|---|---|
| **Hardware** | Pentium III class processor 450 Mhz or higher<br>Minimum 128 MB RAM, recommended 256 MB RAM<br>75 MB hard drive free space | X | X | X |
| **Operating Systems** | Windows® NT 4.0 w/Service Pack 6 or higher<br>Windows 2000<br>Windows XP<br>Windows Vista | X | X | X |
| **Resolution** | 800 x 600 required, 1024 x 768 recommended | X | X | X |
| **Internet Connection** | Minimum 28k dial-up, Broadband recommended | X | X | X |
| **Multimedia** | Macromedia® Flash Player 7.0 or higher | X | | |
| **Browser** | Internet Explorer® 5.5 - 6x, 7.0. 8.0<br>Mozilla Firefox 3.x | X | | |
| **Software** | Microsoft® Office 2000 or higher. | | | X |

# Trusted Sites

Modify your Internet Explorer browser security setting for trusted sites to **Low** so the Administrative Console has permission to handle Excel uploads. **NOTE: For IE 7 and above only.**

1. In your browser, select **Tools | Internet Options**. The *Internet Options* pop-up appears.
2. Click the **Security** tab.

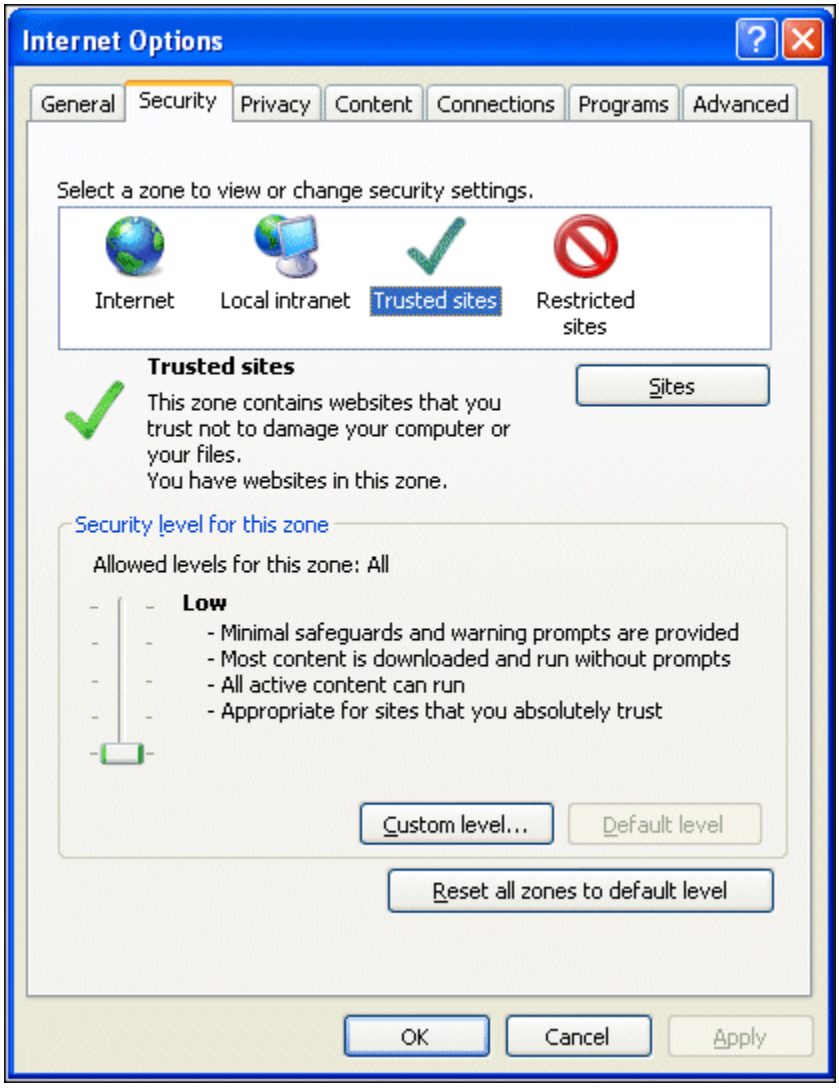



*Figure 1-1: Internet Options*

3. Click **Custom level**.
4. Set the security at **Low**.
5. Click **Apply**.
6. Click **OK**.

# Log In to the Verizon Enterprise Center

VoIP tools are accessed through the Verizon Enterprise Center.

1. Open Microsoft® Internet Explorer.
2. Type the following URL in your address box: https://enterprisecenter.verizon.com.
3. Press **Enter**. The *Enterprise Center* sign in page appears.

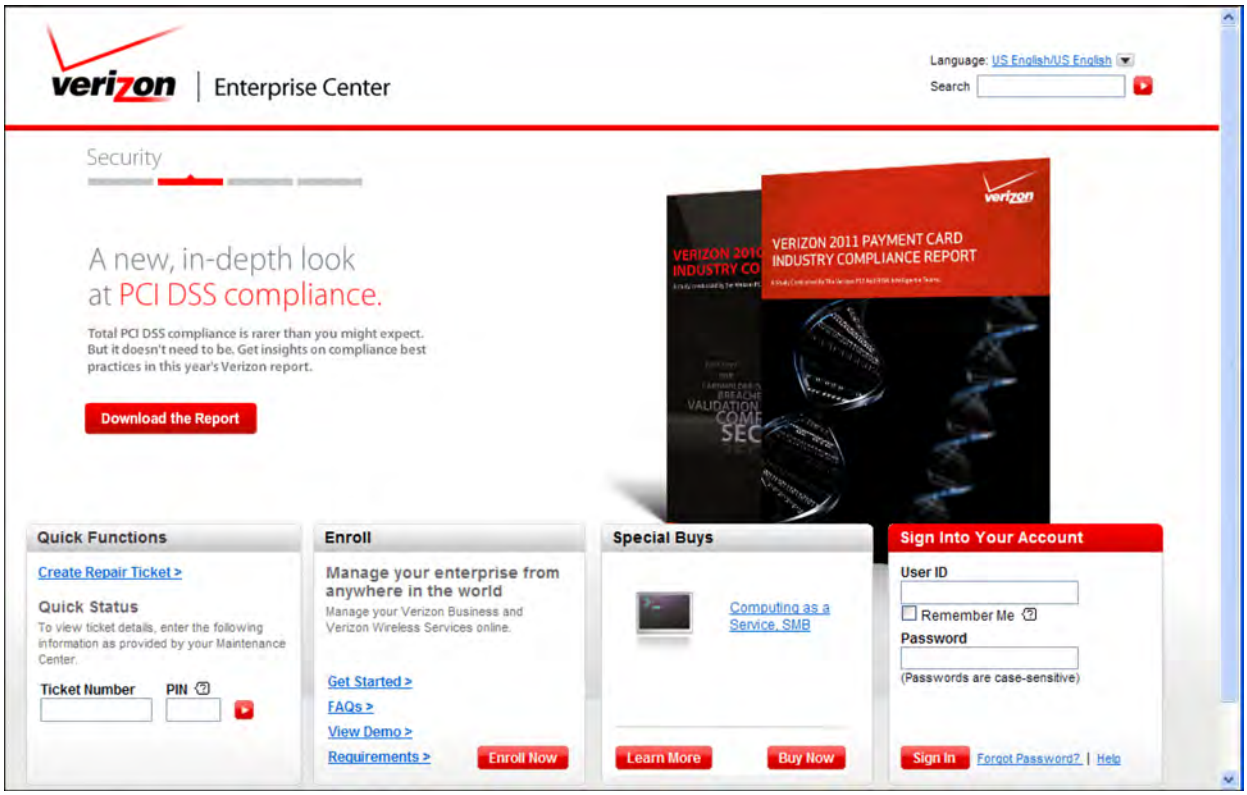



*Figure 1-2: Enterprise Center Sign In*

4. Enter your *User ID* and *Password*.
5. Click **Sign In**. A screen appears prompting you to change your password if this is the first time you are logging in.
6. Change your password, then read and accept the *Terms and Conditions*.

# Enterprise Center Home

There are several options you can select on the Enterprise Center Home page. The Home page lists all of the available products and services in addition to the ones to which you are subscribed.

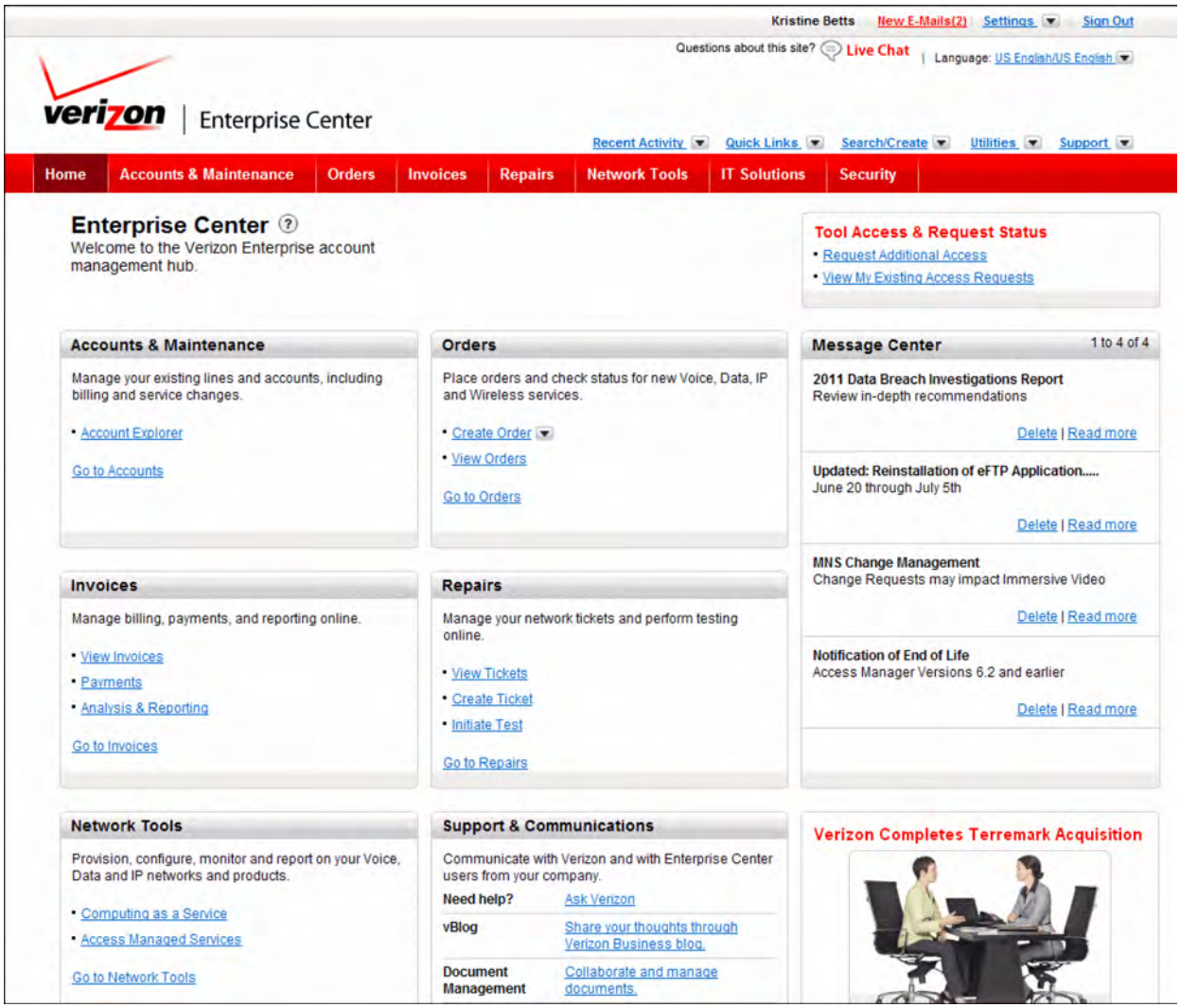



*Figure 1-3: VEC Home*

7. Click **Network Tools** on the toolbar.
8. Click the **Manage Voice over IP** link on the *Network Tools* tab. The tool to which you are subscribed opens in another browser window.

---

**Note:** Contact your account team if you are not sure which VoIP tool you are subscribed.

---

# Access via the Integrated Administrative Console

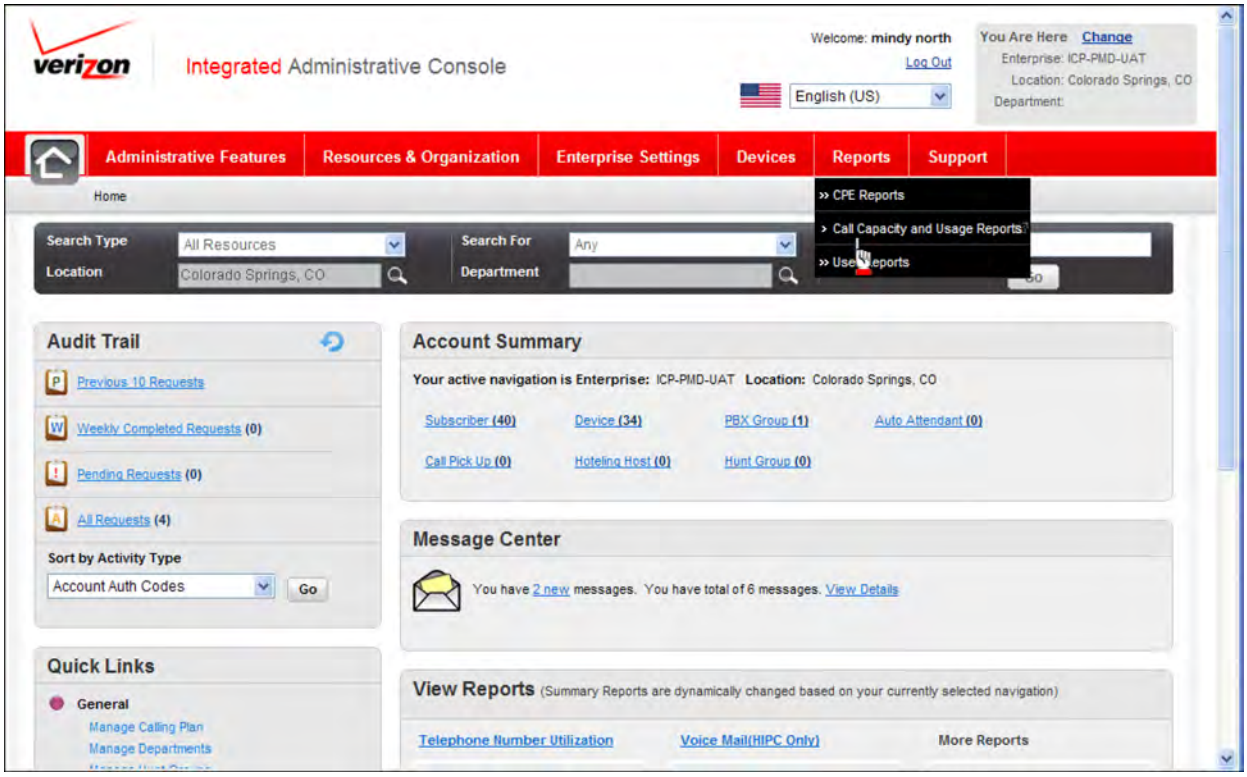



*Figure 1-4: Integrated Administrative Console*

1. Select **Reports | Call Capacity and Usage Reports** from the toolbar at the top of the page. The *Main Reporting Area* screen opens in another browser window.

   **-OR-**

   Scroll to the *View Reports* section on the Home page.

   Select the report you want to view, or click the **Call Capacity and Usage Reports** link under *More Reports*.

# Access via the Administrative Console

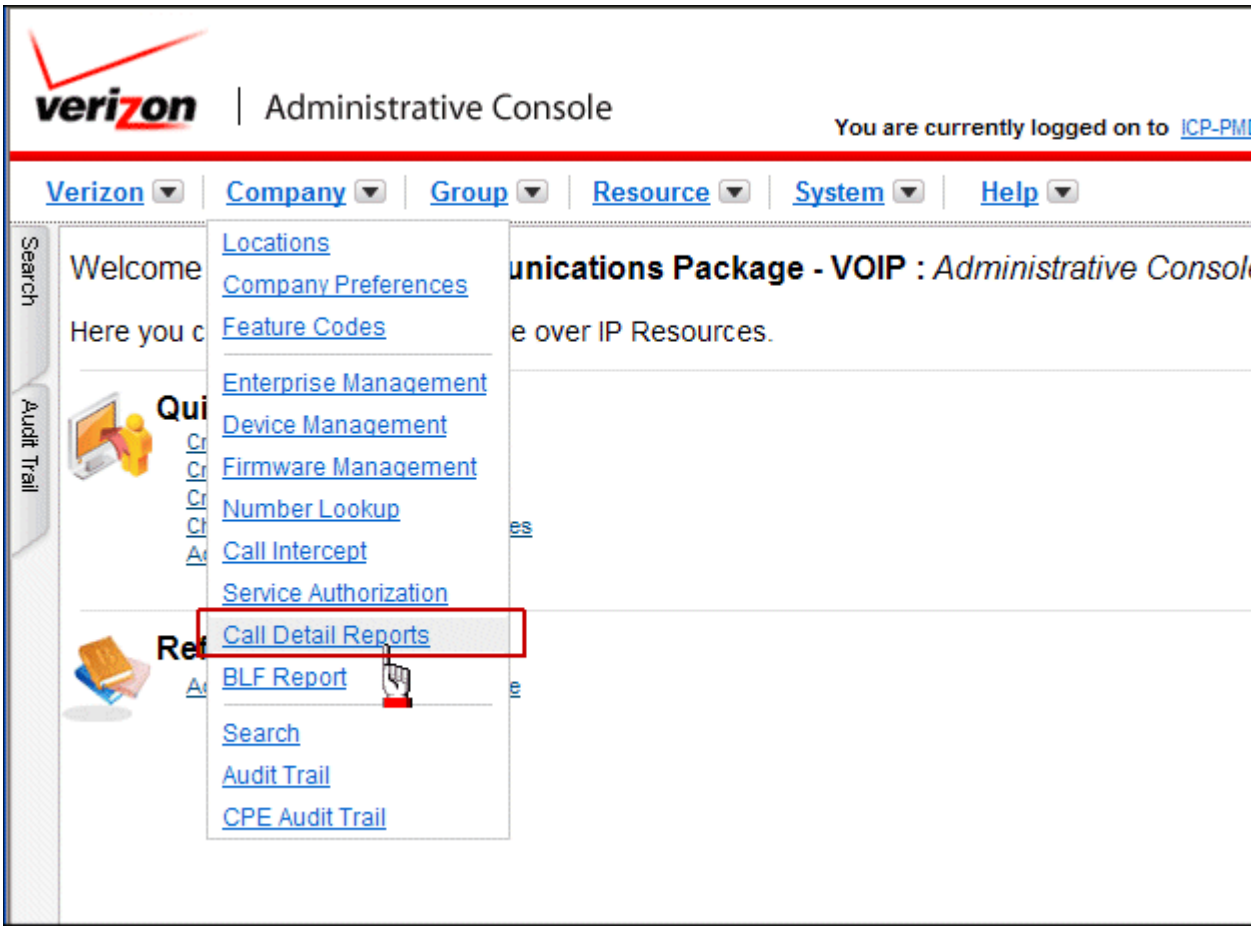



*Figure 1-5: ICP Administrative Console*

1. Select **Company | Call Detail Reports** from the drop-down menu at the top of the page. The *Call Detail Reports* screen appears.
2. Click the **IASA Reports page** link. The *Main Reporting Area* appears in another browser window.

# Access via Verizon VoIP (IASA)

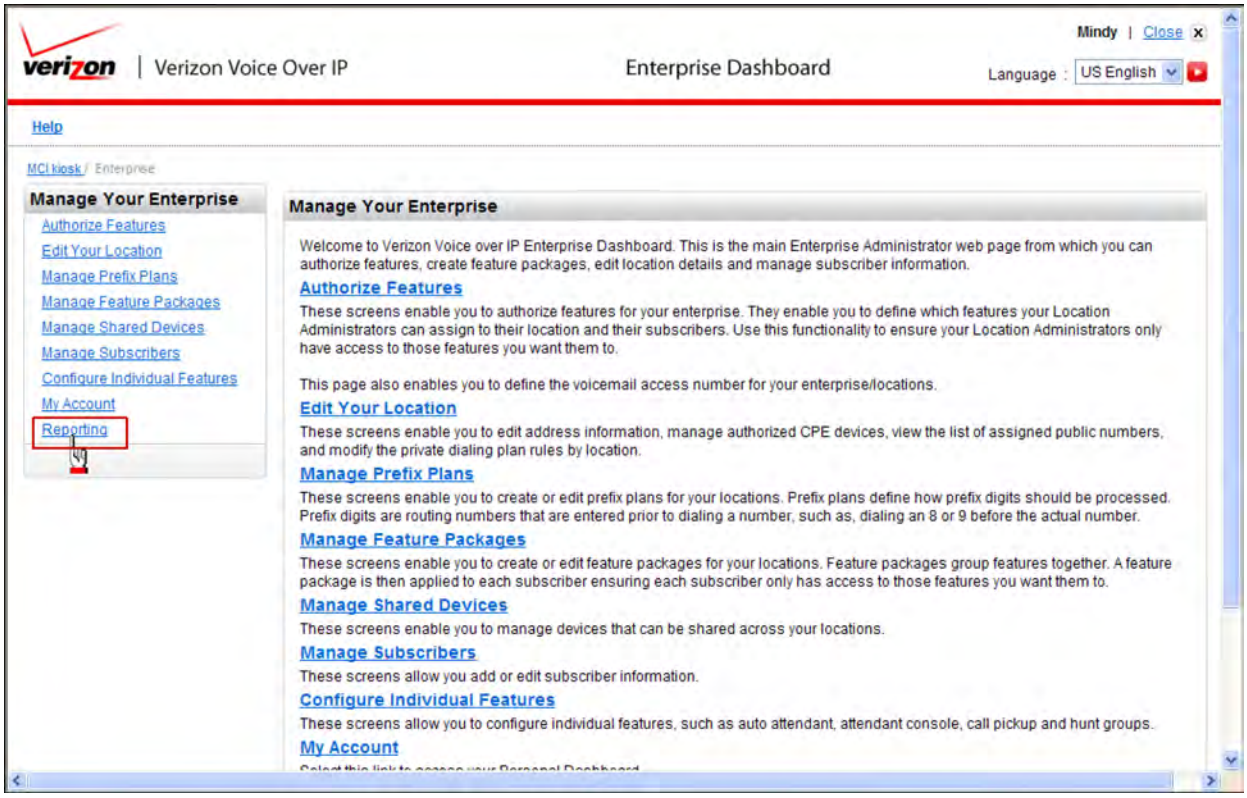



*Figure 1-6: Verizon Voice Over IP - Enterprise Dashboard*

1. Click the **Reporting** link from the menu on the left of the Verizon Enterprise Dashboard. The *Main Reporting Area* screen appears in the same window.

# Customer Support & Training

## Customer Support - Enterprise Center

Contact customer support for any Verizon Enterprise Center portal related issues. They can assist you with product and general platform questions, errors, and password resets.

Contact your account team with any account specific questions on equipment or service, pricing information, or adding subscribers to Verizon Enterprise Center.

- Call toll-free at 1-800-569-8799.
- Send an e-mail for technical questions or to inquire about purchasing products or services.

## Customer Support - VoIP

Subscribers should work with their administrator with any issues or questions.

- Call toll-free 24x7 at 1-877-777-7176 or 1-877-926-6457.
- E-mail at ipct-voip@verizonbusiness.com.

**Note:** Contacting VoIP support or Repair for issues that can be self resolved will result in charges.

## Training

Go to http://customertraining.verizonbusiness.com to enroll in training and/or download user and reference guides.

# CONFIGURE AND RUN REPORTS 2

## Main Reporting Area

The *Main Reporting Area* provides access to the list of reports you can run, documents you can view (reports you save to the server), and all the reports you scheduled to run at another time. Data is stored for six months. Reports do not include Virtual Foreign Exchange (VFX) calls.

**Note:** Follow the instructions in Section 1 for accessing the *Main Reporting Area*. Instructions are provided for users of the Administrative Console and IASA.


*Figure 2-1: Main Reporting Area*

1. Click **Reports You Can Run**. A list of reports appears (next page).

   **-OR-**

   Click **Documents You Can View** to view all saved reports, as well as delete reports (see page 2-6).

   **-OR-**

   Click **View Scheduled Reports** to access all scheduled reports and modify or delete them (see page 2-8).

# Reports You Can Run

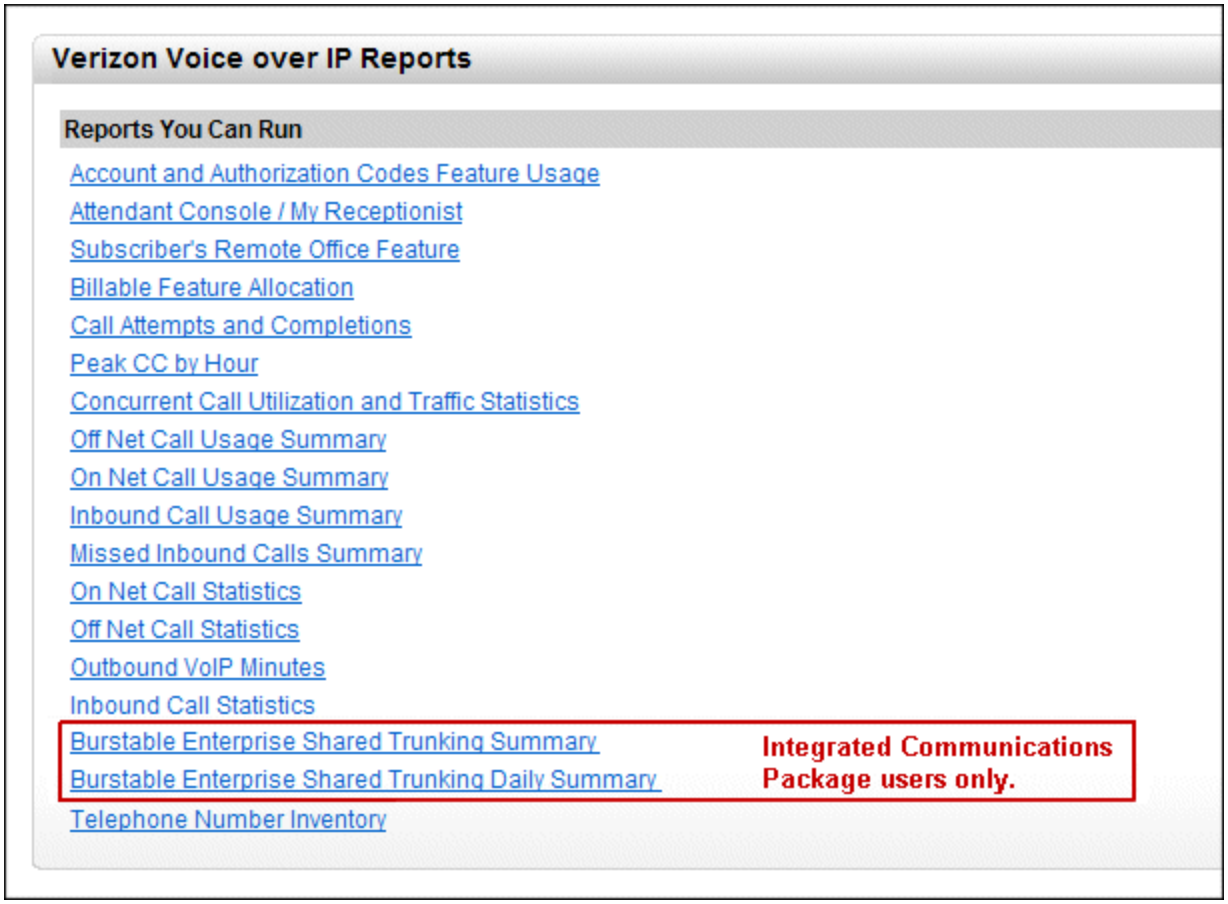



*Figure 2-2: Reports You Can Run*

2. Select the report you want to run. The report parameters screen appears.

   **-OR-**

   Click **Back** to return to the *Main Reporting Area*.

# Report Parameters

The parameters you can configure depend on the report type you selected. For example, some reports allow you to select one or multiple locations, countries, or regions. The following instructions for setting report parameters include all possible parameters even though they are not all show in Figure 2-3 below.

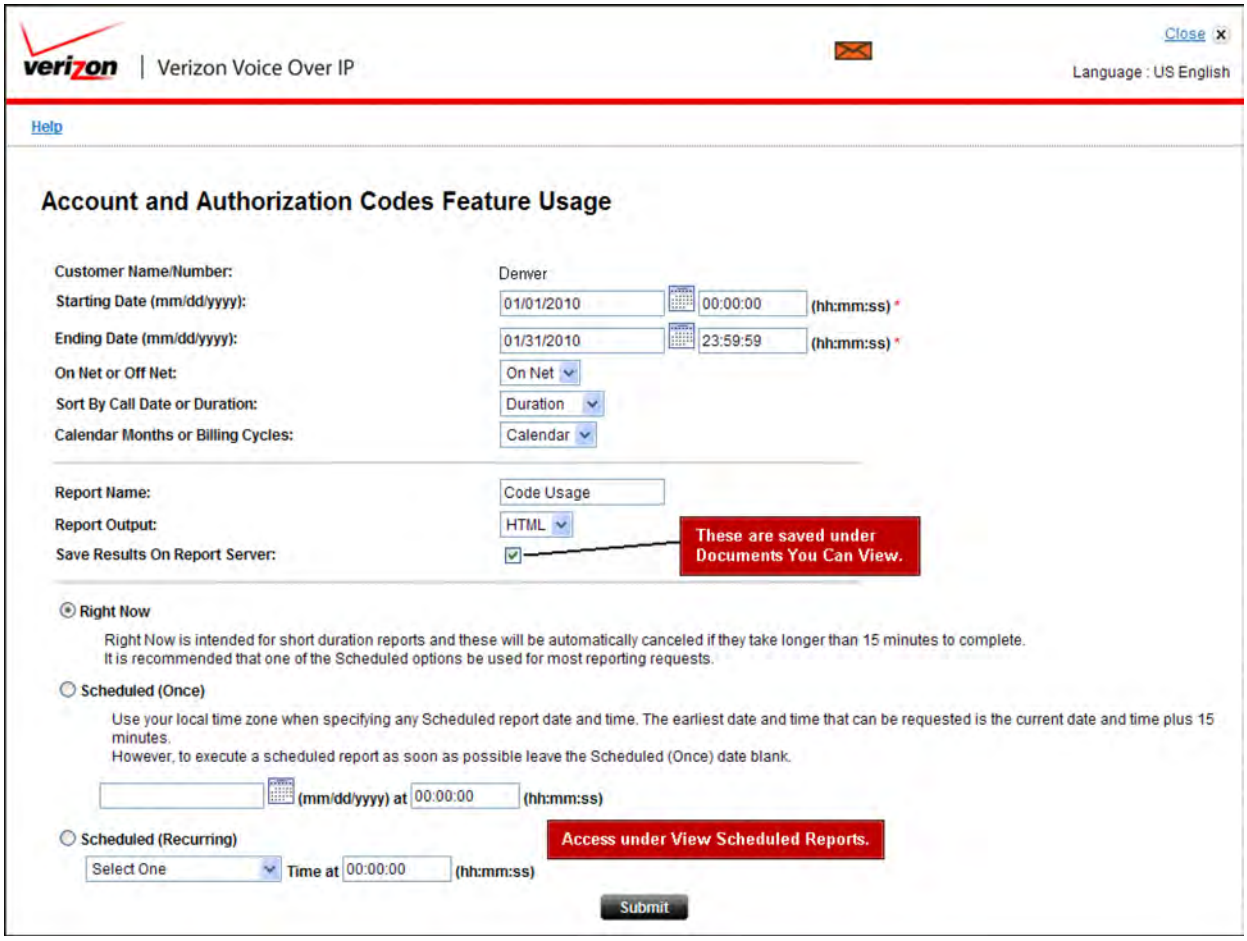



*Figure 2-3: Report Parameters*

3. Select a location or multiple locations from the *Customer Location* list, if applicable.
4. Select a country from the *Country* drop-down list, if applicable. Countries include: **All**, **France**, **Germany**, **Great Britain**, **Italy**, **Netherlands**, **Spain**, and **United States**.
5. Select a region from the *Region* drop-down list, if applicable. Regions include: **All**, **United States**, and **Europe**.
6. Enter the *Starting Date (mm/dd/yyyy)* and time. Data is stored for six months.
7. Enter the *Ending Date (mm/dd/yyyy)* and time.

8. Select **On Net** or **Off Net** from the *On Net* or *Off Net* drop-down list.
    - **On Net** (on network) - calls originating and terminating on Verizon's IP network.
    - **Off Net** (off network) - calls going off the IP network to the PSTN.
9. Select **Date/Time** or **Duration** from the *Sort By Call Date or Duration* drop-down list. Use your local time zone when specifying a scheduled date and time.
10. Select **Calendar** or **Billing** from the *Calendar Months or Billing Cycles* drop-down list. The date range you specify can be grouped into either Calendar Month or Billing Cycle (IASA only).
11. Enter a unique name in the *Report Name* field (no spaces).
12. Select **Excel Data**, **Excel Display**, **RTF**, **PDF**, or **HTML** from the *Report Output* drop-down list. The options available depend on the report type you selected.
13. Check **Save Results On Report Server** if you want to save ad hoc reports under *Documents You Can View*. Reports are stored for two weeks before they are deleted from the system.
14. Check **Right Now** if you want to view the report immediately. This option is for short duration reports and these are automatically canceled if they take longer than 15 minutes to complete. It is recommended that *Scheduled (Once)* or *Schedule (Recurring)* is selected for most reporting requests. These reports run in HTML format and can be downloaded/ saved in other formats after they are generated.
15. Check **Scheduled (Once)** to run the report one time.
    - Enter a date/time at least 15 minutes in the future.

    **-OR-**

    Leave the date/time blank to execute as soon as possible.

    **-OR-**

    Check **Scheduled (Recurring)**.
    - Select the frequency from the drop-down list.
    - Enter the time.
16. Click **Submit**. Reports scheduled to run immediately compile and are displayed.
17. If you scheduled a report to run in the future, click **View Scheduled Reports** in the *Main Reporting Area* (see Figure 2-1).
18. Click **Documents You Can View** in the *Main Reporting Area* to view/delete reports.

# Report Navigation

The navigation bar is located at the top of every report. There are several options in the *NavBar* that assist you in navigating.


*Figure 2-4: On Net Call Detail by Location*

- Click **NavBar** to open a pane on the left side of the screen that lists locations you can select to filter report information.
- Click **First** to go to the first page of the report.
- Click **Prev** to go to the previous page of the report.
- Click **Next** to go to the next page of the report.
- Click **Last** to go to the last page of the report.
- Type a page number in the *Retrieving* field and click **Goto** to go to a specific page of the report.
- Select the magnification of the report from the drop-down list.
- Click **Search** to search for a search string, for example: a telephone number. The search pane opens on the left side of the screen. Search options include:

  Pages in a report that contain specific or multiple items

  Wildcards (e.g. find all numbers that begin with 719 = 719*)

  Save as CSV or XLS

  Find a file to open later to use in the execution of a report
- Click **Download** to export the report to PDF, Excel, or RTF. You can export the entire report or just certain pages.
- Click **Print** to print the entire report or just certain pages.
- Click **X** to close the report and return to the report parameters screen.

# Documents You Can View

All saved reports where you selected **Save Results On Report Server** as part of the report parameters are stored here. You can also delete reports from here.

Stored reports are kept for 14 days and are then automatically deleted by the system. There can be 300 reports displayed at one time (about 20 reports per day). If you reach this limit frequently, you will need to manually delete reports to make room for new reports. You can save reports to your PC before deleting. **NOTE**: If you have reports that you run "now," you can uncheck the **Save Results to Server** option (see Figure 2-3). You can save the report to your PC after you run it and it will not be saved on the server after you close it.

1. Click **Documents You Can View** in the *Main Reporting Area*. The *Documents You Can View* screen opens in another browser window.

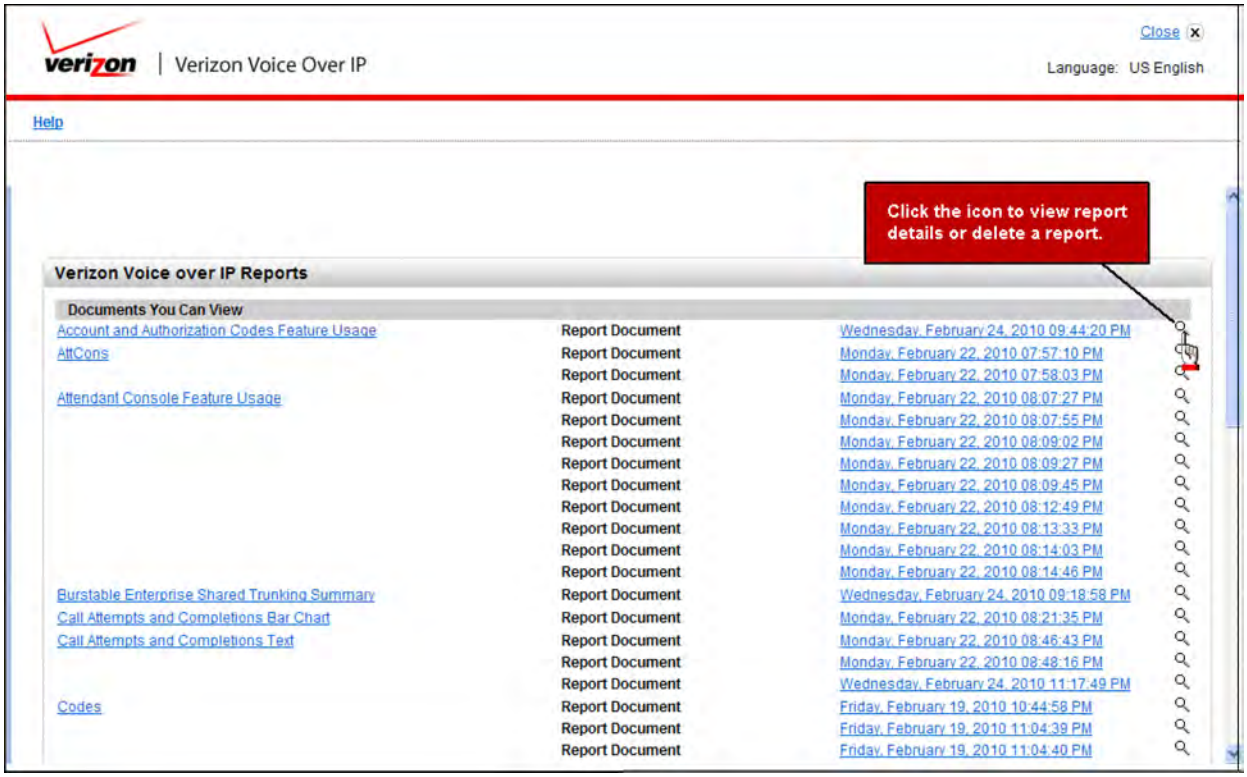



*Figure 2-5: Documents You Can View*

2. Click the report name or a date to open the report.

## View File Detail/Delete

1. Click the 🔍 next to a report or report date to view the report details or delete the report. The *View Details* screen appears.

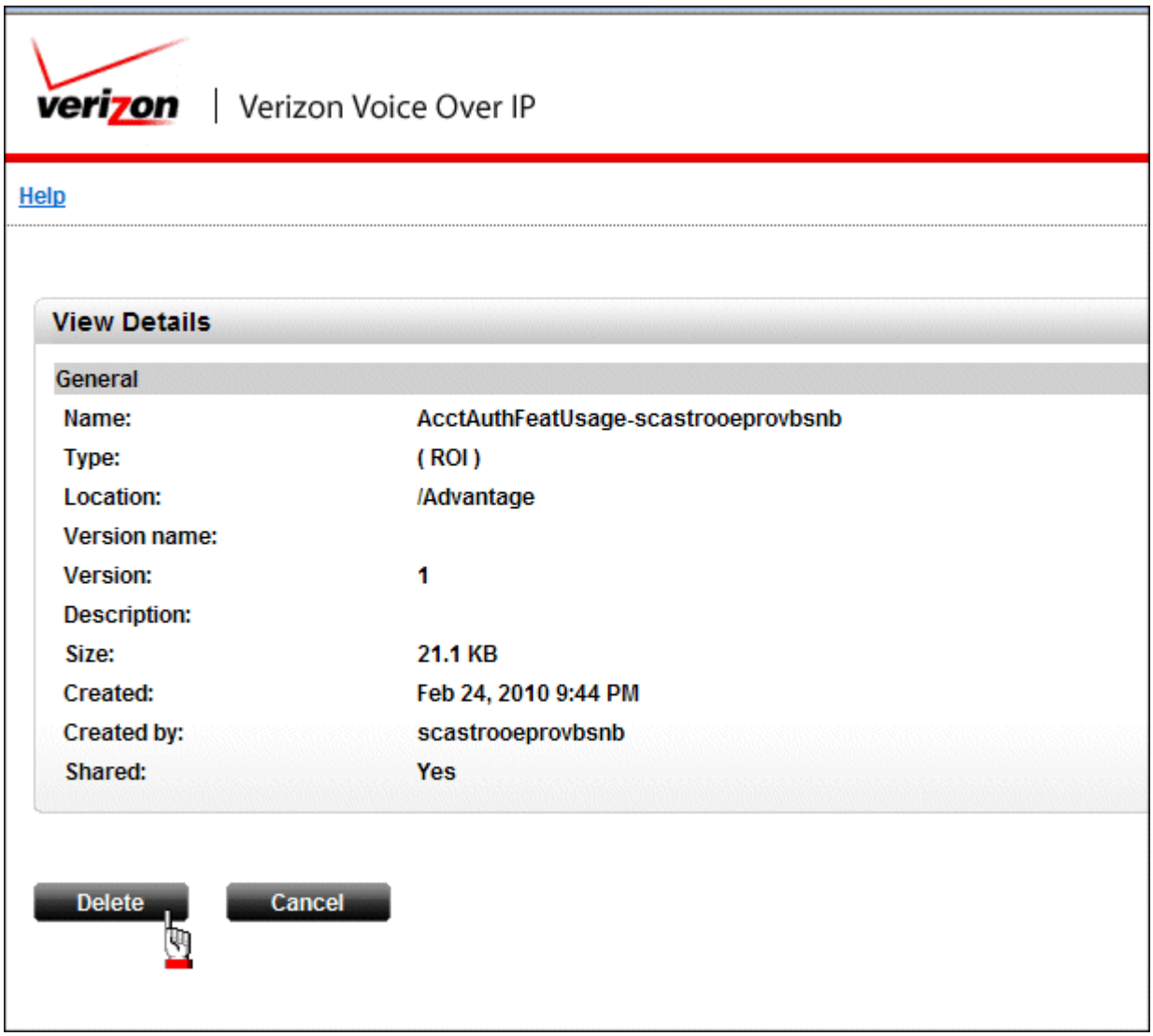



*Figure 2-6: View Details*

2. Click **Delete** to delete the report.

   **-OR-**

   Click **Cancel** to return to the *Documents You Can View* screen.

# Scheduled Reports

All reports that you scheduled to run once or as recurring in the report parameters are listed here. Once the report runs, you can go to *Documents You Can View* to access it.

1. Click **View Scheduled Reports** on the *Main Reporting Area* screen. The *Scheduled Reports* screen appears.

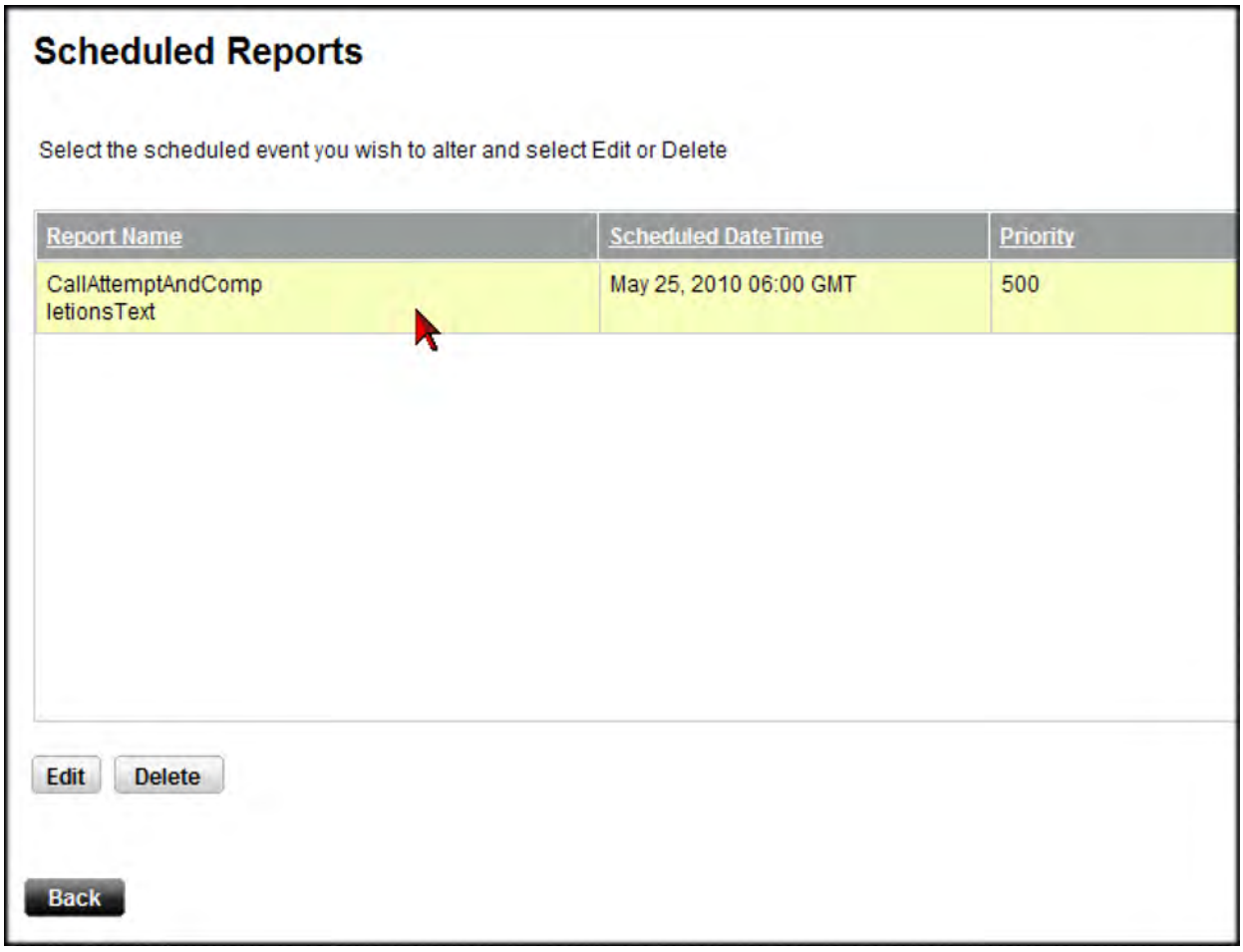



*Figure 2-7: Scheduled Reports*

2. Select the report.
3. Click **Edit** to change the schedule, who to notify upon completion (defaults to your user ID), and priority.

   **-OR-**

   Click **Delete** to cancel the report.
4. Click **Back** to return to the *Main Reporting Area* screen.

# VIEW AND UNDERSTAND REPORTS 3

## Reports Snapshot

The following table lists all of the available reports with a brief description of each.

| Report | Description |
|---|---|
| **BEST REPORTS** | |
| **Burstable Enterprise Shared Trunking Summary** | Provides an enterprise and location level view of concurrent call port usage and allows for daily, weekly, or monthly summary options. |
| **Burstable Enterprise Shared Trunking Daily Summary** | Provides hourly concurrent call port usage for the day you selected. |
| **CONCURRENT CALL REPORTS** | |
| **Peak CC by Hour** | Lists all successfully completed (answered) calls made concurrently by subscribers from one or more locations. |
| **Concurrent Call Utilization and Traffic Statistics** | Lists all calls (completed, blocked, not answered, failed, etc.) made concurrently by subscribers at one or more locations. |
| **CALL DETAIL REPORTS** | |
| **Call Attempts and Completions** | Provides totals of on net/off net attempted and completed inbound and outbound calls in a graphical or text format. |
| **Off Net Call Usage Summary** | General usage report that you can use to monitor off net usage to ensure you are within your call package and do not incur additional charges. |
| **On Net Call Usage Summary** | The data is grouped by customer and location with subtotals and is used to understand on net traffic patterns. |
| **On Net Statistics** | Displays the total number of on net calls per month. |
| **Off Net Statistics** | Displays the total number of off net calls per month. |
| **FEATURE STATUS/USAGE** | |
| **Account and Authorization Codes Feature Usage** | Displays the account/auth code usage for a location. |

| Report | Description |
|---|---|
| **Attendant Console/My Receptionist** | Lists the subscribers in each of your locations that enabled/disabled the Receptionist/Attendant Console. |
| **Subscriber's Remote Office Feature** | Lists the subscribers in each of your locations that enabled/disabled Remote Office. |
| **Billable Feature Allocation** | Provides a snapshot of billable features for each of your locations. |
| **INCOMING CALLS** | |
| **Inbound Call Usage Summary** | Displays all the incoming calls to a location with a line item for each individual call. |
| **Inbound Call Statistics** | Provides the total number of inbound calls for your locations along with the total minutes and average length. |
| **Missed Inbound Calls Summary** | Displays all on net and off net incoming calls to the numbers at your locations that were not physically answered. |
| **OUTBOUND CALLS** | |
| **Outbound VoIP Minutes** | Breaks down the outbound VoIP minutes (on net and off net) for each account number. |
| **NUMBER INVENTORY** | |
| **Telephone Number Inventory** | Lists all the telephone numbers assigned to your enterprise. |

# BEST

## Burstable Enterprise Shared Trunking Summary

The *BEST Shared Trunking Summary* report is available to all BEST-enabled VoIP customers. It provides an enterprise and location level view of concurrent call port usage and allows for daily, weekly, or monthly summary options. Data is stored for six months.

BEST allows sharing of call capacity across U.S. or European ICP provisioned locations. This is applicable for Integrated Communications Package users only.

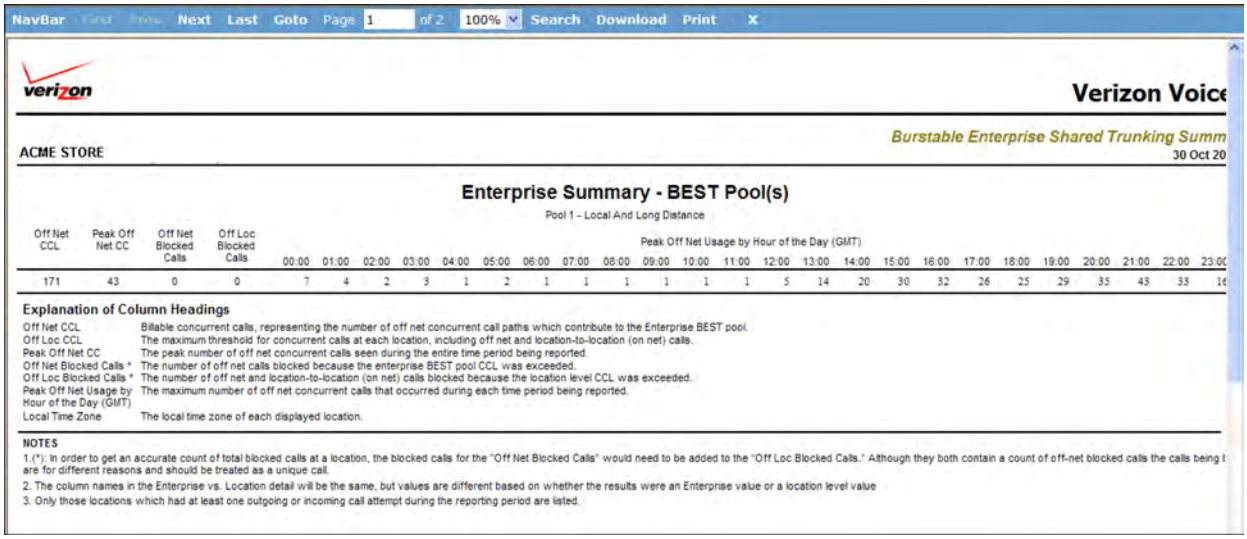



*Figure 3-1: Burstable Enterprise Shared Trunking Summary*

The following table describes the columns in the report.

| Column | Description |
|---|---|
| **BEST Pool** | The BEST Pool indicates what kind of call it is.<br>0= Not a BEST location<br>1 = Local and long distance<br>2 = Long distance only |
| **Off Net CCL** | Billable concurrent calls representing the number of off net concurrent call paths that contribute to the enter-prise BEST pool. |
| **Off Loc CCL** | Maximum threshold for concurrent calls at each location, including off net and location-to-location (on-net) calls. |
| **Peak Off Net CC** | Peak number of off net concurrent calls seen during the entire time period being reported. |

| Column | Description |
|---|---|
| **Location Time Zone** | Lists the location's time zone. The number indicates minus GMT. For example, CST6 is Central Standard Time - 6 hours GMT. |
| **Off Net Blocked Calls *** | Number of off net calls blocked because the enterprise BEST pool CCL was exceeded. |
| **Off Loc Blocked Calls *** | Number of off net and location-to-location (on net) calls blocked because the location level CCL was exceeded. |
| **Peak Off Net Usage by Hour of the Day (GMT)** | Maximum number of off net concurrent calls that occurred during each time period being reported. |
| **Local Time Zone** | Local time zone of each displayed location. |

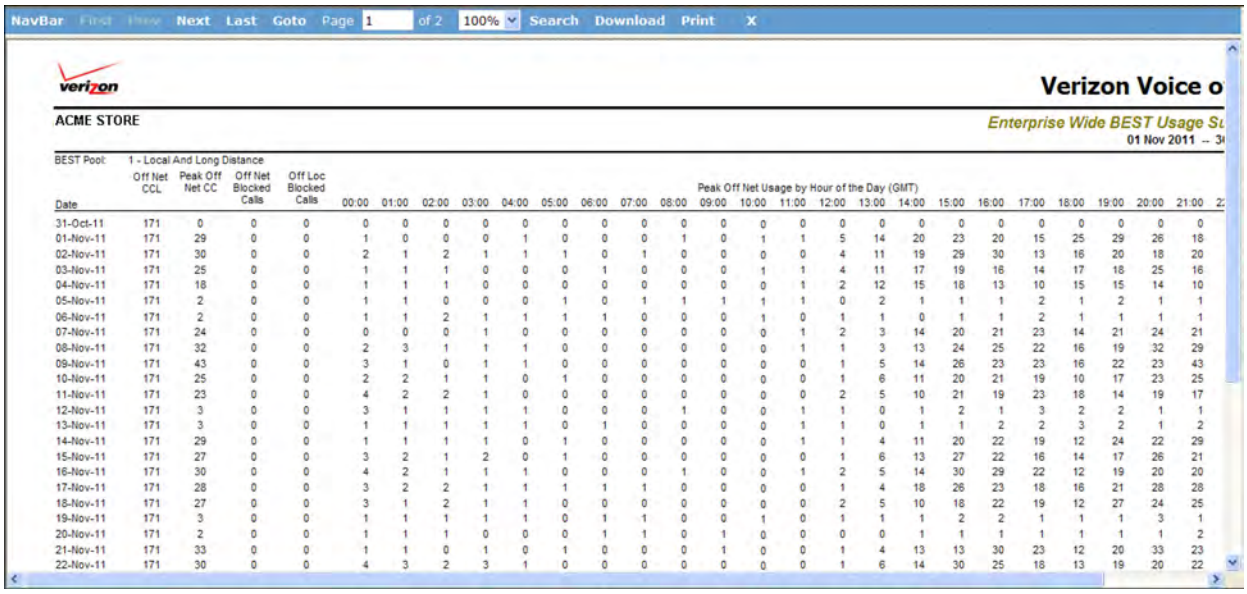
**Note:** * In order to get an accurate count of total blocked calls at a location, the blocked calls for the **Off Net Blocked Calls** would need to be added to the **Off Loc Blocked Calls**. Although they both contain a count of off net blocked calls, they should be treated as a unique call.

The column names in the Enterprise vs. Location detail are the same, but the values are different based on whether the results were and enterprise value or a location level value.

Only those location that had at least one outgoing or incoming call attempt during the reporting period are listed.

## Burstable Enterprise Shared Trunking Daily Summary

The *BEST Shared Trunking Daily Summary* report is available to all BEST-enabled VoIP customers. It provides hourly concurrent call port usage for the day you selected. Data is stored for six months.



NavBar First Prev Next Last Goto Page 1 of 2 100% Search Download Print X

verizon

Verizon Voice o

ACME STORE

Enterprise Wide BEST Usage Su

01 Nov 2011 -- 3

BEST Pool: 1 - Local And Long Distance

| Date | Off Net CCL | Peak Off Net CC | Off Net Blocked Calls | Off Loc Blocked Calls | Peak Off Net Usage by Hour of the Day (GMT) 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31-Oct-11 | 171 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 01-Nov-11 | 171 | 29 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 5 | 14 | 20 | 23 | 20 | 15 | 25 | 29 | 26 | 18 | |
| 02-Nov-11 | 171 | 30 | 0 | 0 | 2 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 11 | 19 | 29 | 30 | 13 | 18 | 20 | 18 | 20 | |
| 03-Nov-11 | 171 | 25 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 11 | 17 | 19 | 18 | 14 | 17 | 18 | 25 | 16 | |
| 04-Nov-11 | 171 | 18 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 12 | 15 | 18 | 13 | 10 | 15 | 15 | 14 | 10 | |
| 05-Nov-11 | 171 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | |
| 06-Nov-11 | 171 | 2 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | |
| 07-Nov-11 | 171 | 24 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 14 | 20 | 21 | 23 | 14 | 21 | 24 | 21 | |
| 08-Nov-11 | 171 | 32 | 0 | 0 | 2 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 13 | 24 | 25 | 22 | 16 | 19 | 32 | 29 | |
| 09-Nov-11 | 171 | 43 | 0 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 14 | 26 | 23 | 23 | 16 | 22 | 23 | 43 | |
| 10-Nov-11 | 171 | 25 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 11 | 20 | 21 | 19 | 10 | 17 | 23 | 25 | |
| 11-Nov-11 | 171 | 23 | 0 | 0 | 4 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 10 | 21 | 19 | 23 | 18 | 14 | 19 | 17 | |
| 12-Nov-11 | 171 | 3 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | |
| 13-Nov-11 | 171 | 3 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | |
| 14-Nov-11 | 171 | 29 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 11 | 20 | 22 | 19 | 12 | 24 | 22 | 29 | |
| 15-Nov-11 | 171 | 27 | 0 | 0 | 3 | 2 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 13 | 27 | 22 | 16 | 14 | 17 | 26 | 21 | |
| 16-Nov-11 | 171 | 30 | 0 | 0 | 4 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 5 | 14 | 30 | 29 | 22 | 12 | 19 | 20 | 20 | |
| 17-Nov-11 | 171 | 28 | 0 | 0 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 4 | 18 | 26 | 23 | 18 | 16 | 21 | 28 | 28 | |
| 18-Nov-11 | 171 | 27 | 0 | 0 | 3 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 10 | 18 | 22 | 19 | 12 | 27 | 24 | 25 | |
| 19-Nov-11 | 171 | 3 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | |
| 20-Nov-11 | 171 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| 21-Nov-11 | 171 | 33 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 13 | 13 | 30 | 23 | 12 | 20 | 33 | 23 | |
| 22-Nov-11 | 171 | 30 | 0 | 0 | 4 | 3 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 14 | 30 | 25 | 18 | 13 | 19 | 20 | 22 | |

*Figure 3-2: BEST Shared Trunking Daily Summary*

The following table describes the columns in the report.

| Column | Description |
|---|---|
| **BEST Pool** | The BEST Pool indicates what kind of call it is.<br>0= Not a BEST location<br>1 = Local and long distance<br>2 = Long distance only |
| **Date** | Displays the date you selected for the report. |
| **Off Net CCL** | Billable concurrent calls representing the number of off net concurrent call paths that contribute to the enterprise BEST pool. |
| **Peak Off Net CC** | Peak number of off net concurrent calls seen during the entire time period being reported. |
| **Off Net Blocked Calls** | Number of off net calls blocked because the enterprise BEST pool CCL was exceeded. |
| **Off Loc Blocked Calls** | Number of off net and location-to-location (on net) calls blocked because the location level CCL was exceeded. |
| **Peak Off Net Usage by Hour of the Day (GMT)** | Maximum number of off net concurrent calls that occurred during each time period being reported. |

# Concurrent Calls

## Peak CC by Hour

This report lists all successfully completed (answered) calls made concurrently by subscribers from one or more locations for the day/time intervals you specify in the report parameters in near real time. It is useful to monitor your peak concurrent calls to know when an adjustment might be necessary to prevent blocked calls. The peak (busiest) hour drives the number of concurrent call ports that you need.

You can view this report in a graphical or text format. The table on the next page defines the elements of both the graph and text reports.

This report can be run daily (reports on the busiest hour by day), weekly (reports on the busiest day of the week), or monthly (reports on the busiest week of the month).

### Graph

In the graph below, the red line indicates BEST CCL. If your calls go above this red line, you are "borrowing" calls.

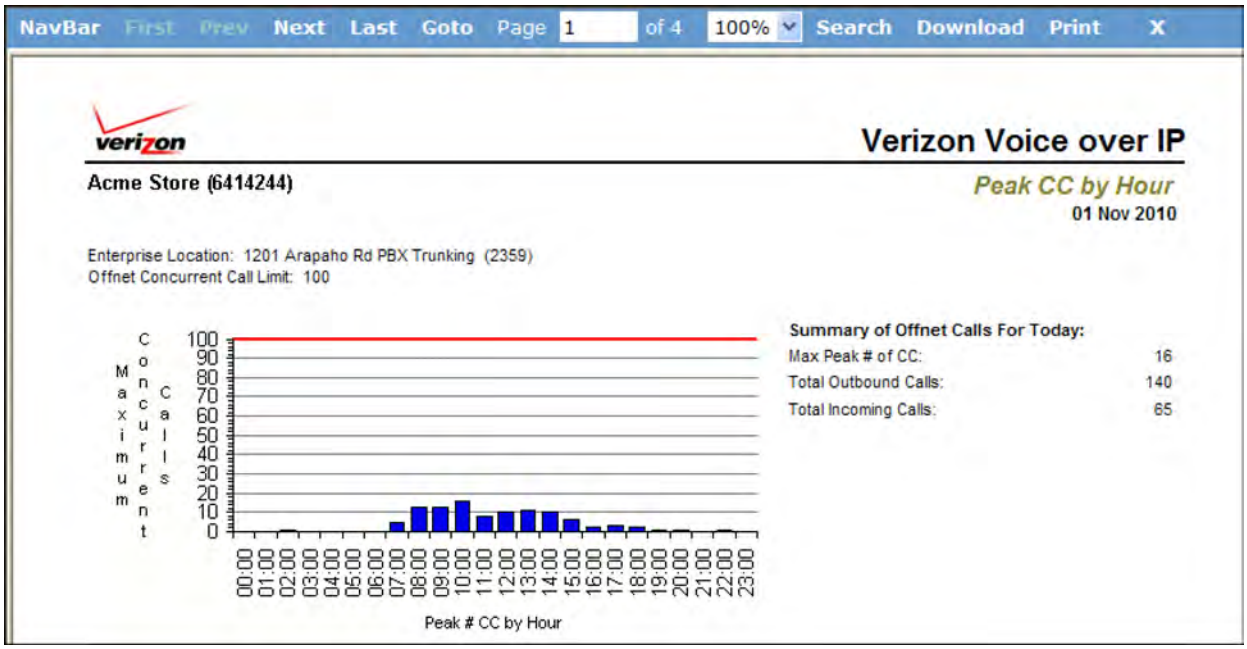



*Figure 3-3: Peak CC by Hour - Graph*

## Text

In the text report, the numbers in the hour columns indicate how many calls were made at the same time at that hour. Reports are in local time and break down the number of maximum peak (busiest) CCL calls in one hour intervals.

The difference between this report and the *CC Utilization and Traffic Statistics* report is that this report breaks down the peak calls by the busiest hour. The *CC Utilization and Traffic Statistics* report summarizes all completed concurrent calls and blocked calls.

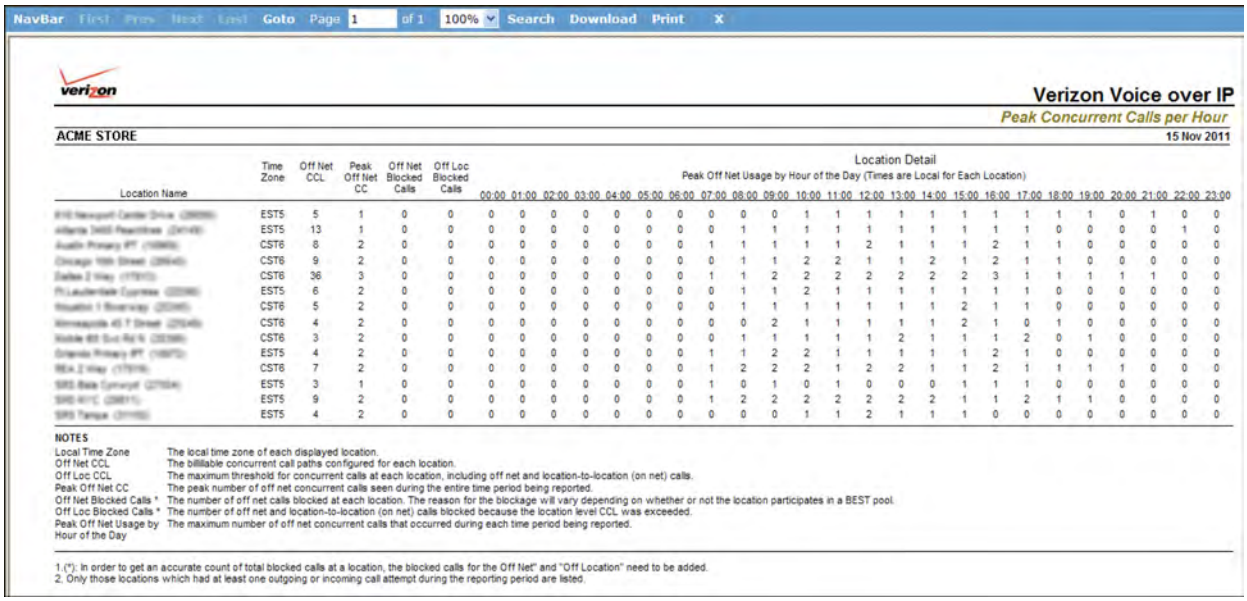



*Figure 3-4: Peak CC by Hour - Text*

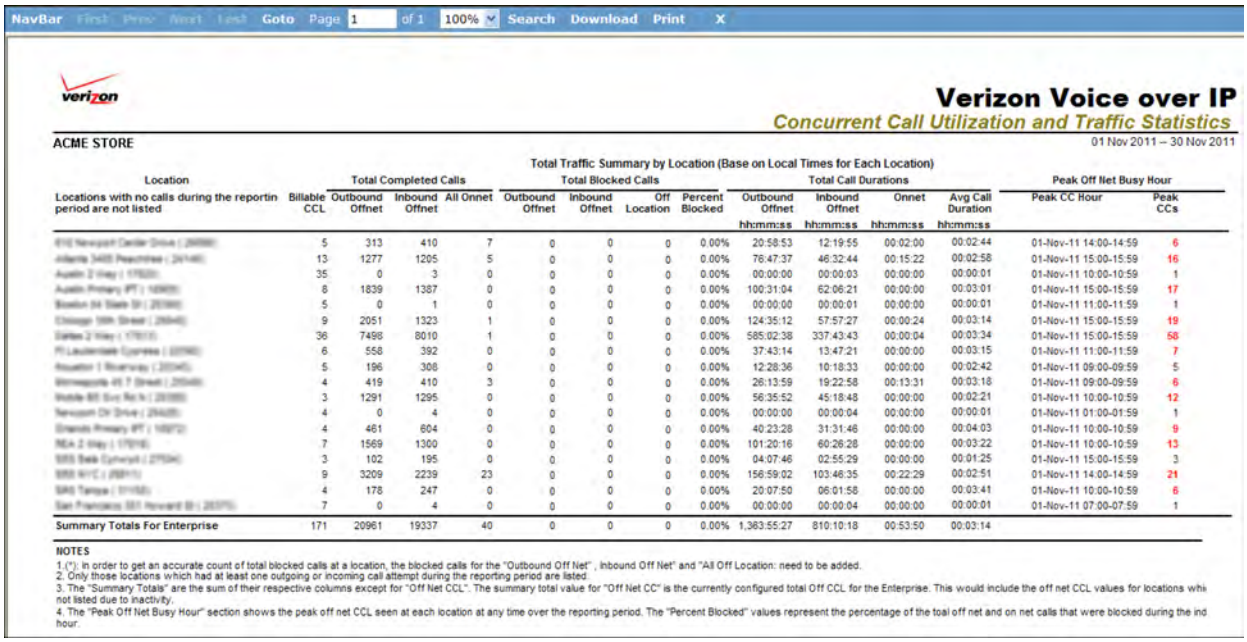
The following table defines the columns in the report.

| Column | Description |
|---|---|
| **Local Time Zone** | Local time zone of each displayed location. |
| **Off Net CCL** | Billable concurrent calls representing the number of off net concurrent call paths that contribute to the enterprise BEST pool. |
| **Off Loc CCL** | Maximum threshold for concurrent calls at each location, including off net and location-to-location (on-net) calls. |
| **Peak Off Net CC** | Peak number of off net concurrent calls seen during the entire time period being reported. |
| **Off Net Blocked Calls** | Number of off net calls blocked because the enterprise BEST pool CCL was exceeded. |
| **Off Loc Blocked Calls** | Number of off net and location-to-location (on net) calls blocked because the location level CCL was exceeded. |
| **Peak Off Net Usage by Hour of the Day (GMT)** | Maximum number of off net concurrent calls that occurred during each time period being reported. |

## Concurrent Call Utilization and Traffic Statistics

This report lists all calls (completed, blocked, not answered, failed, etc.) made concurrently by subscribers at one or more locations for the day/time intervals you specify in the report parameters. Included are traffic statistics, peak usage, and blockage per location with data provided in one hour intervals. This report does not display any BEST data; it just calculates how busy each location got.

The difference between this report and the *Peak CC by Hour* report is that this report summarizes all completed concurrent calls and blocked calls. The *Peak CC by Hour* report breaks down the peak calls by the busiest hour.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verizon

**Verizon Voice over IP**

*Concurrent Call Utilization and Traffic Statistics*

ACME STORE

01 Nov 2011 – 30 Nov 2011

Total Traffic Summary by Location (Base on Local Times for Each Location)

| Location | Total Completed Calls | | | | Total Blocked Calls | | | | Total Call Durations | | | | Peak Off Net Busy Hour | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Locations with no calls during the reportin period are not listed | Billable CCL | Outbound Offnet | Inbound Offnet | All Onnet | Outbound Offnet | Inbound Offnet | Off Location | Percent Blocked | Outbound Offnet hh:mm:ss | Inbound Offnet hh:mm:ss | Onnet hh:mm:ss | Avg Call Duration hh:mm:ss | Peak CC Hour | Peak CCs |
| [redacted] | 5 | 313 | 410 | 7 | 0 | 0 | 0 | 0.00% | 20:58:53 | 12:19:55 | 00:02:00 | 00:02:44 | 01-Nov-11 14:00-14:59 | 6 |
| [redacted] | 13 | 1277 | 1205 | 5 | 0 | 0 | 0 | 0.00% | 76:47:37 | 46:32:44 | 00:15:22 | 00:02:58 | 01-Nov-11 15:00-15:59 | 16 |
| [redacted] | 35 | 0 | 3 | 0 | 0 | 0 | 0 | 0.00% | 00:00:00 | 00:00:03 | 00:00:00 | 00:00:01 | 01-Nov-11 10:00-10:59 | 1 |
| [redacted] | 8 | 1839 | 1387 | 0 | 0 | 0 | 0 | 0.00% | 100:31:04 | 62:06:21 | 00:00:00 | 00:03:01 | 01-Nov-11 15:00-15:59 | 17 |
| [redacted] | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0.00% | 00:00:00 | 00:00:01 | 00:00:00 | 00:00:01 | 01-Nov-11 11:00-11:59 | 1 |
| [redacted] | 9 | 2051 | 1323 | 1 | 0 | 0 | 0 | 0.00% | 124:35:12 | 57:57:27 | 00:00:24 | 00:03:14 | 01-Nov-11 15:00-15:59 | 19 |
| [redacted] | 36 | 7498 | 8010 | 1 | 0 | 0 | 0 | 0.00% | 585:02:38 | 337:43:43 | 00:00:04 | 00:03:34 | 01-Nov-11 15:00-15:59 | 58 |
| [redacted] | 6 | 558 | 392 | 0 | 0 | 0 | 0 | 0.00% | 37:43:14 | 13:47:21 | 00:00:00 | 00:03:15 | 01-Nov-11 11:00-11:59 | 7 |
| [redacted] | 5 | 196 | 308 | 0 | 0 | 0 | 0 | 0.00% | 12:28:36 | 10:18:33 | 00:00:00 | 00:02:42 | 01-Nov-11 09:00-09:59 | 5 |
| [redacted] | 4 | 419 | 410 | 3 | 0 | 0 | 0 | 0.00% | 26:13:59 | 19:22:58 | 00:13:31 | 00:03:18 | 01-Nov-11 09:00-09:59 | 6 |
| [redacted] | 3 | 1291 | 1295 | 0 | 0 | 0 | 0 | 0.00% | 56:35:52 | 45:18:48 | 00:00:00 | 00:02:21 | 01-Nov-11 10:00-10:59 | 12 |
| [redacted] | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0.00% | 00:00:00 | 00:00:04 | 00:00:00 | 00:00:01 | 01-Nov-11 01:00-01:59 | 1 |
| [redacted] | 4 | 461 | 604 | 0 | 0 | 0 | 0 | 0.00% | 40:23:28 | 31:31:46 | 00:00:00 | 00:04:03 | 01-Nov-11 10:00-10:59 | 9 |
| [redacted] | 7 | 1569 | 1300 | 0 | 0 | 0 | 0 | 0.00% | 101:20:16 | 60:26:28 | 00:00:00 | 00:03:22 | 01-Nov-11 10:00-10:59 | 13 |
| [redacted] | 3 | 102 | 195 | 0 | 0 | 0 | 0 | 0.00% | 04:07:46 | 02:55:29 | 00:00:00 | 00:01:25 | 01-Nov-11 15:00-15:59 | 3 |
| [redacted] | 9 | 3209 | 2239 | 23 | 0 | 0 | 0 | 0.00% | 156:59:02 | 103:46:35 | 00:22:29 | 00:02:51 | 01-Nov-11 14:00-14:59 | 21 |
| [redacted] | 4 | 178 | 247 | 0 | 0 | 0 | 0 | 0.00% | 20:07:50 | 06:01:58 | 00:00:00 | 00:03:41 | 01-Nov-11 10:00-10:59 | 6 |
| [redacted] | 7 | 0 | 4 | 0 | 0 | 0 | 0 | 0.00% | 00:00:00 | 00:00:04 | 00:00:00 | 00:00:01 | 01-Nov-11 07:00-07:59 | 1 |
| Summary Totals For Enterprise | 171 | 20961 | 19337 | 40 | 0 | 0 | 0 | 0.00% | 1,363:55:27 | 810:10:18 | 00:53:50 | 00:03:14 | | |

NOTES

1.(*): In order to get an accurate count of total blocked calls at a location, the blocked calls for the "Outbound Off Net" , Inbound Off Net" and "All Off Location: need to be added.
2. Only those locations which had at least one outgoing or incoming call attempt during the reporting period are listed.
3. The "Summary Totals" are the sum of their respective columns except for "Off Net CCL". The summary total value for "Off Net CC" is the currently configured total Off CCL for the Enterprise. This would include the off net CCL values for locations whi not listed due to inactivity.
4. The "Peak Off Net Busy Hour" section shows the peak off net CCL seen at each location at any time over the reporting period. The "Percent Blocked" values represent the percentage of the toal off net and on net calls that were blocked during the ind. hour.

*Figure 3-5: Concurrent Call Utilization and Traffic Statistics*

The following table defines the elements in the report.

| Column | Description |
|---|---|
| **Location** | Name of the location. |
| **TOTAL COMPLETED CALLS - TOTAL NUMBER OF ANSWERED CALLS FOR EACH LOCATION DURING THE SPECIFIED TIME PERIOD.** | |
| **Billable CCL** | Off net concurrent call ports billed for the location. The enterprise summary includes the total of Billable CCL for all enterprise locations, whether or not calls were made from the location during the reporting period. |
| **Outbound Offnet** | The total number of calls going off the IP network to the PSTN. |

| Column | Description |
|---|---|
| **Inbound Offnet** | The total number of calls coming in from the PSTN to the IP network. |
| **All Onnet** | The total number of calls originating and terminating on Verizon's IP network. |
| **TOTAL BLOCKED CALLS** - TOTAL NUMBER OF BLOCKED CALLS FOR EACH LOCATION DUE TO CCL BEING REACHED. IT IS THE SUM OF ALL OF THE CALLS BLOCKED AT EACH LOCATION FOR THE ENTERPRISE. | |
| **Outbound Offnet** | The total number of calls going off the IP network to the PSTN. |
| **Inbound Offnet** | The total number of calls coming in from the PSTN to the IP network. |
| **Off Location** | Number of off net and location-to-location (on net) calls. |
| **Percent Blocked** | The percentage of attempted concurrent inbound and outbound offnet calls that were blocked due to exceeding the CCL. |
| **TOTAL CALL DURATIONS** - TOTAL DURATION OF ALL OUTBOUND AND INBOUND CALLS (OFFNET AND ONNET), AS WELL AS THE AVERAGE CALL DURATION. | |
| **Outbound Offnet** | The total number of calls going off the IP network to the PSTN. |
| **Inbound Offnet** | The total number of calls coming in from the PSTN to the IP network. |
| **Onnet** | The total number of calls originating and terminating on Verizon's IP network. |
| **Average Call Duration** | The average length of all concurrent calls for the location (outbound/inbound offnet, onnet) displayed in hh:mm:ss. |
| **PEAK BUSY HOUR** - PEAK CONCURRENT CALL LEVEL FOR A LOCATION DURING THE TIME PERIOD. ENTERPRISE MAXIMUM BILLABLE CC IS THE TOTAL CC AVAILABLE ACROSS THE ENTERPRISE, INCLUDING LOCATIONS WITH NO CALL ACTIVITY FOR THE TIME PERIOD. | |
| **Peak CC Hour** | The date and hour that had the largest volume of concurrent calls. |
| **Peak CCs** | The total number of concurrent calls during the peak hour. If the peak CCL is higher than the billable CCL, BEST customers are "borrowing" calls. |

# Call Detail

## Call Attempts and Completions

This report provides totals of on net/off net attempted and completed inbound and outbound calls in a graphical or text format. Call attempts include complete, in progress, and incomplete calls. This report is useful to understand what is going on in the network and if there are any problems that may require the reconfiguration of features or your network. **Note: Completed calls does not necessarily indicate how many calls were actually answered. It indicates how many calls successfully entered the Verizon network.**

The table on the next page defines the elements of both the graph and text reports.

### Graph

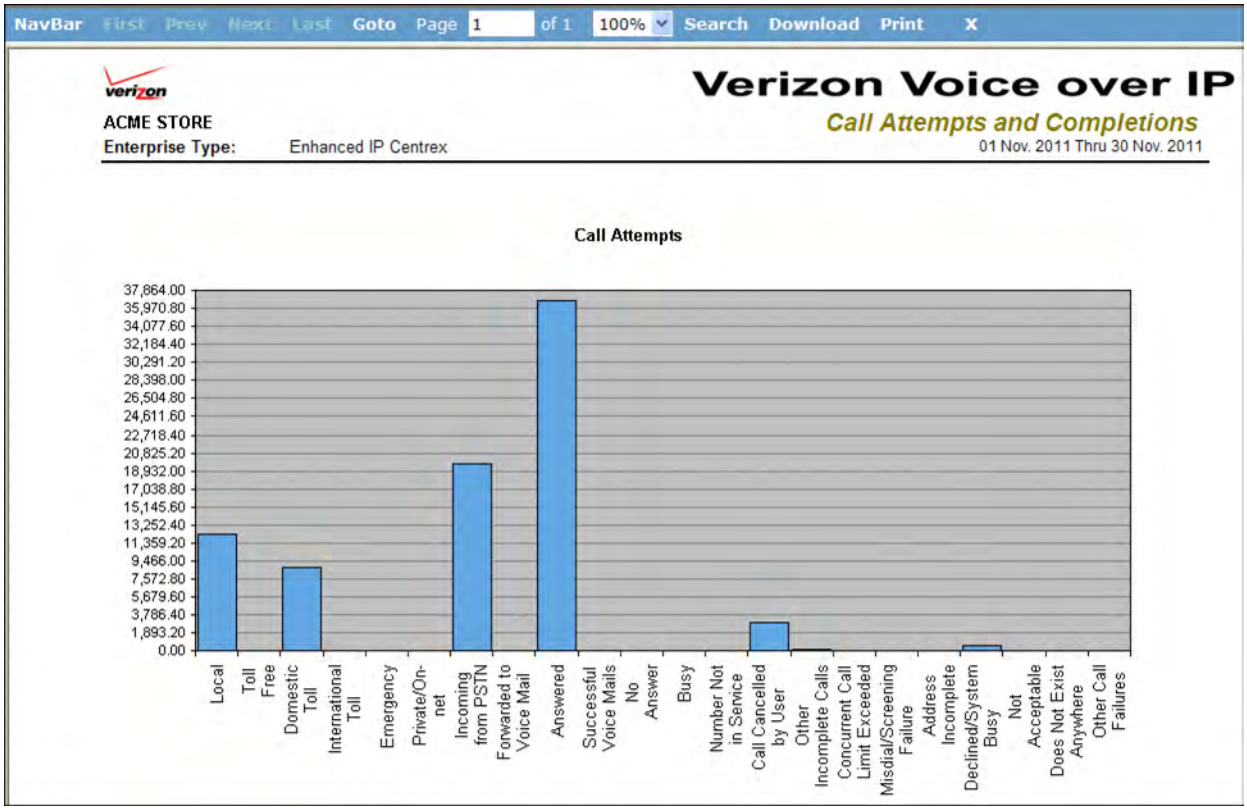
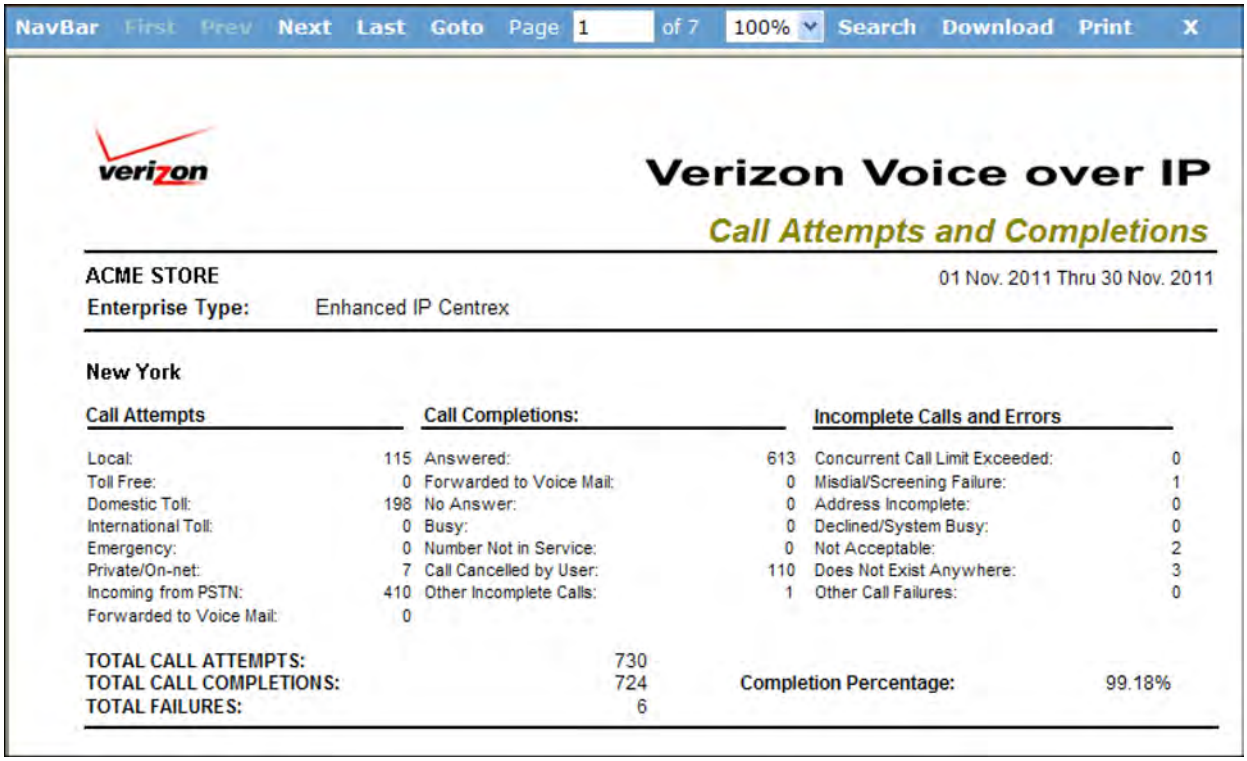



*Figure 3-6: Call Attempts and Completions - Graph*

## Text

The text report displays the same call attempts, completions, and incomplete data as the graph. The *Completion Percentage* at the bottom of the report indicates how many calls successfully entered the Verizon network. It does not necessarily indicate how many calls were actually answered.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verizon

Verizon Voice over IP

Call Attempts and Completions

ACME STORE
01 Nov. 2011 Thru 30 Nov. 2011
Enterprise Type: Enhanced IP Centrex

New York

| Call Attempts | | Call Completions: | | Incomplete Calls and Errors | |
|---|---|---|---|---|---|
| Local: | 115 | Answered: | 613 | Concurrent Call Limit Exceeded: | 0 |
| Toll Free: | 0 | Forwarded to Voice Mail: | 0 | Misdial/Screening Failure: | 1 |
| Domestic Toll: | 198 | No Answer: | 0 | Address Incomplete: | 0 |
| International Toll: | 0 | Busy: | 0 | Declined/System Busy: | 0 |
| Emergency: | 0 | Number Not in Service: | 0 | Not Acceptable: | 2 |
| Private/On-net: | 7 | Call Cancelled by User: | 110 | Does Not Exist Anywhere: | 3 |
| Incoming from PSTN: | 410 | Other Incomplete Calls: | 1 | Other Call Failures: | 0 |
| Forwarded to Voice Mail: | 0 | | | | |

| | | | |
|---|---|---|---|
| TOTAL CALL ATTEMPTS: | 730 | | |
| TOTAL CALL COMPLETIONS: | 724 | Completion Percentage: | 99.18% |
| TOTAL FAILURES: | 6 | | |

*Figure 3-7: Call Attempts and Completions - Text*

The following table defines the call attempts, call completions, and incomplete calls and errors. The graph and text reports both present the same information, just in different formats.

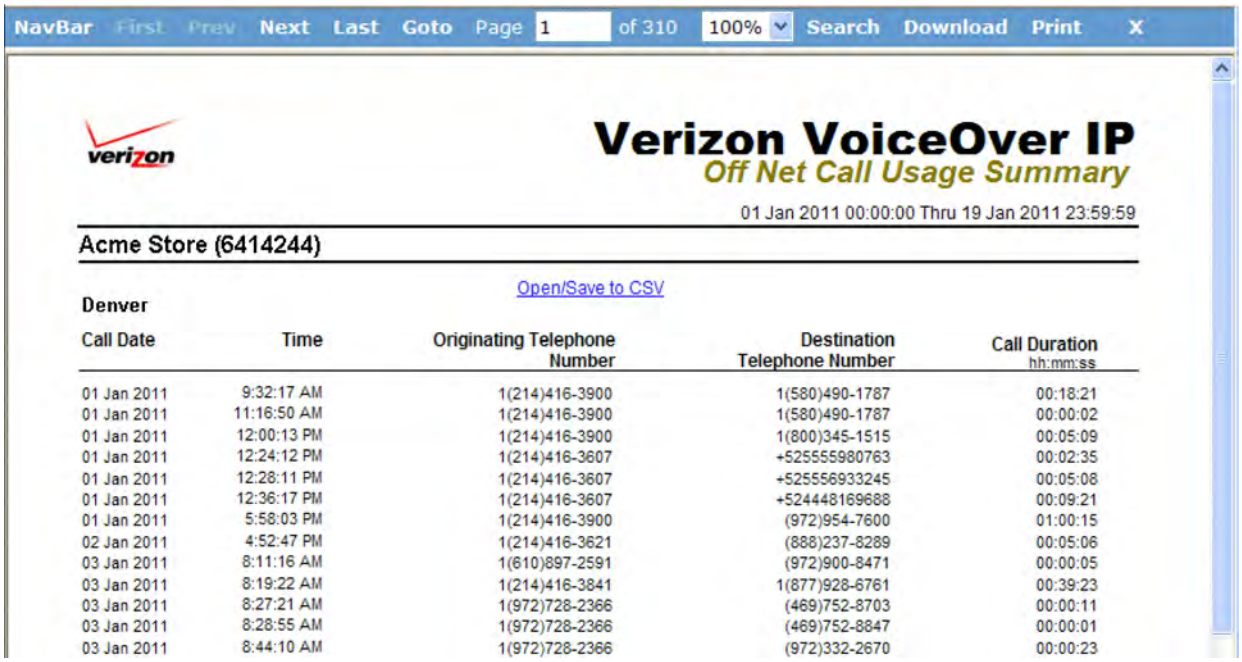
| Column | Description |
|---|---|
| **CALL ATTEMPTS** | |
| **Local** (outbound) | Total number of outbound calls within the same geographic region. U.S. only. |
| **Toll Free** (outbound) | Total number of outbound calls to numbers beginning with a 1 followed by 800, 877, 866, or 888. U.S. only. |
| **Domestic Toll** (outbound) | Total number of outbound chargeable calls within the same geographic region. U.S. only. |
| **International Toll** (outbound) | Total number of outbound chargeable calls to other countries (U.S. only). All European outbound PSTN traffic is listed here. |

| Column | Description |
|---|---|
| **Emergency** (outbound) | Total number of outbound calls to 911. U.S. only. |
| **Private/On-net** (inbound/outbound) | Total number of inbound/outbound calls originating and terminating on Verizon's IP network. |
| **Incoming from PSTN** (inbound) | Total number of all incoming calls from the telephone network. |
| **Forwarded to Voice Mail** (inbound) | All incoming calls that were forwarded to voice mail. |
| CALL COMPLETIONS | |
| **Answered** (inbound and outbound) | Total number of calls that were answered. |
| **Forwarded to Voice Mail** (inbound) | All incoming calls that were forwarded to voice mail. |
| **No Answer** (inbound/outbound) | Total number of calls that were not answered. There would not be any No Answer flags if the call either fails or goes to voice mail. |
| **Busy** (inbound/outbound) | The number of callers that received a busy signal. |
| **Number Not in Service** (inbound/outbound) | The number called is not in service. |
| **Call Canceled by User** (inbound/outbound) | The caller hung up. |
| **Other incomplete** (inbound/outbound) | Indicates some other system error response. |
| INCOMPLETE CALLS AND ERRORS | |
| **Concurrent Call Limit Exceeded** | The call was blocked because the off net concurrent call limit was reached. |
| **Misdial/Screening Failure** | The caller misdialed the number. |
| **Address Incomplete** | Unable to resolve domain. |
| **Declined/System Busy** | Verizon network busy. |
| **Not Acceptable** | Indicates a system error, e.g., misconfiguration of customer equipment. |
| **Does Not Exist Anywhere** | Number called does not exist. |
| **Other Call Failures** | This could include a timeout, request cancelled, busy, internal server error, etc. |

## Off Net Call Usage Summary

Off Net calls are calls going off the IP network to the PSTN. You can specify the beginning and ending dates for your report. It is a good idea to know your call package and number of off net minutes. This is a general usage report that you can use to monitor off net usage to ensure you are within the package and do not incur additional charges. It can assist you in deciding if you need to upgrade your package if you are consistently over your off net minutes.

The total number of minutes and calls are displayed at the bottom of the report.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verizon

**Verizon VoiceOver IP**

*Off Net Call Usage Summary*

01 Jan 2011 00:00:00 Thru 19 Jan 2011 23:59:59

**Acme Store (6414244)**

Open/Save to CSV

**Denver**

| Call Date | Time | Originating Telephone Number | Destination Telephone Number | Call Duration hh:mm:ss |
|---|---|---|---|---|
| 01 Jan 2011 | 9:32:17 AM | 1(214)416-3900 | 1(580)490-1787 | 00:18:21 |
| 01 Jan 2011 | 11:16:50 AM | 1(214)416-3900 | 1(580)490-1787 | 00:00:02 |
| 01 Jan 2011 | 12:00:13 PM | 1(214)416-3900 | 1(800)345-1515 | 00:05:09 |
| 01 Jan 2011 | 12:24:12 PM | 1(214)416-3607 | +525555980763 | 00:02:35 |
| 01 Jan 2011 | 12:28:11 PM | 1(214)416-3607 | +525556933245 | 00:05:08 |
| 01 Jan 2011 | 12:36:17 PM | 1(214)416-3607 | +524448169688 | 00:09:21 |
| 01 Jan 2011 | 5:58:03 PM | 1(214)416-3900 | (972)954-7600 | 01:00:15 |
| 02 Jan 2011 | 4:52:47 PM | 1(214)416-3621 | (888)237-8289 | 00:05:06 |
| 03 Jan 2011 | 8:11:16 AM | 1(610)897-2591 | (972)900-8471 | 00:00:05 |
| 03 Jan 2011 | 8:19:22 AM | 1(214)416-3841 | 1(877)928-6761 | 00:39:23 |
| 03 Jan 2011 | 8:27:21 AM | 1(972)728-2366 | (469)752-8703 | 00:00:11 |
| 03 Jan 2011 | 8:28:55 AM | 1(972)728-2366 | (469)752-8847 | 00:00:01 |
| 03 Jan 2011 | 8:44:10 AM | 1(972)728-2366 | (972)332-2670 | 00:00:23 |

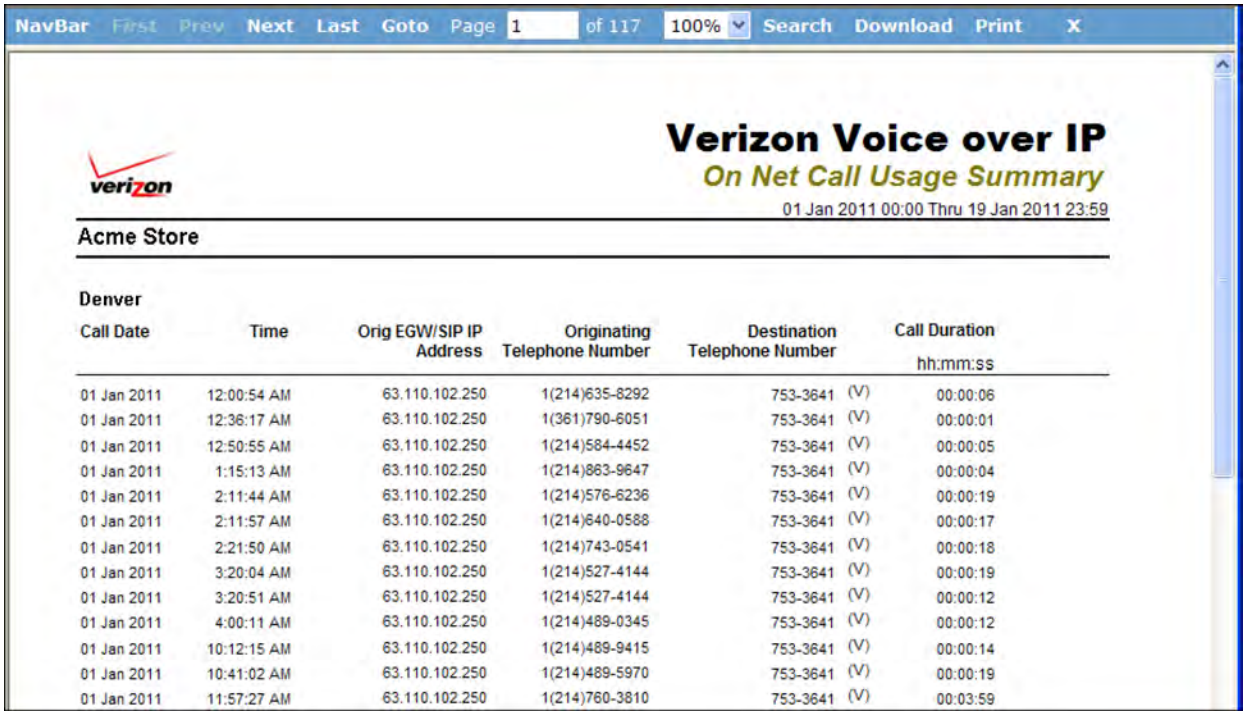
*Figure 3-8: Off Net Call Usage Summary*

The following table defines the columns in the report.

| Column | Description |
|---|---|
| **Call Date** | The date the call was placed. |
| **Time** | The time the call was placed. |
| **Originating Telephone Number** | Displays the originating telephone number. European customers may not see the full number displayed due to protection laws (by customer request). Rules vary by country. |
| **Destination Telephone Number** | Displays the terminating telephone number. European customers may not see the full number displayed due to protection laws (by customer request). Rules vary by country. |
| **Call Duration hh:mm:ss** | Displays the length of the call in **hours: minutes: seconds** format. |

## On Net Call Usage Summary

On Net calls are calls that originate and terminate on Verizon's IP network. The data is grouped by *Customer* and *Location* with subtotals. This report is useful to understand on net traffic patterns. In the example below, Denver had two on net calls on June 22nd that lasted combined total of 8 minutes, 40 seconds.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verizon

**Verizon Voice over IP**

*On Net Call Usage Summary*

01 Jan 2011 00:00 Thru 19 Jan 2011 23:59

**Acme Store**

**Denver**

| Call Date | Time | Orig EGW/SIP IP Address | Originating Telephone Number | Destination Telephone Number | Call Duration hh:mm:ss |
|---|---|---|---|---|---|
| 01 Jan 2011 | 12:00:54 AM | 63.110.102.250 | 1(214)635-8292 | 753-3641 (V) | 00:00:06 |
| 01 Jan 2011 | 12:36:17 AM | 63.110.102.250 | 1(361)790-6051 | 753-3641 (V) | 00:00:01 |
| 01 Jan 2011 | 12:50:55 AM | 63.110.102.250 | 1(214)584-4452 | 753-3641 (V) | 00:00:05 |
| 01 Jan 2011 | 1:15:13 AM | 63.110.102.250 | 1(214)863-9647 | 753-3641 (V) | 00:00:04 |
| 01 Jan 2011 | 2:11:44 AM | 63.110.102.250 | 1(214)576-6236 | 753-3641 (V) | 00:00:19 |
| 01 Jan 2011 | 2:11:57 AM | 63.110.102.250 | 1(214)640-0588 | 753-3641 (V) | 00:00:17 |
| 01 Jan 2011 | 2:21:50 AM | 63.110.102.250 | 1(214)743-0541 | 753-3641 (V) | 00:00:18 |
| 01 Jan 2011 | 3:20:04 AM | 63.110.102.250 | 1(214)527-4144 | 753-3641 (V) | 00:00:19 |
| 01 Jan 2011 | 3:20:51 AM | 63.110.102.250 | 1(214)527-4144 | 753-3641 (V) | 00:00:12 |
| 01 Jan 2011 | 4:00:11 AM | 63.110.102.250 | 1(214)489-0345 | 753-3641 (V) | 00:00:12 |
| 01 Jan 2011 | 10:12:15 AM | 63.110.102.250 | 1(214)489-9415 | 753-3641 (V) | 00:00:14 |
| 01 Jan 2011 | 10:41:02 AM | 63.110.102.250 | 1(214)489-5970 | 753-3641 (V) | 00:00:19 |
| 01 Jan 2011 | 11:57:27 AM | 63.110.102.250 | 1(214)760-3810 | 753-3641 (V) | 00:03:59 |

*Figure 3-9: On Net Call Usage Summary*

The following table defines the columns in the report.

| Column | Description |
|---|---|
| **Call Date** | The date the call was placed. |
| **Time** | The time the call was placed. |
| **Orig EGW/SIP IP Address** | Displays the originating telephone number. |
| **Originating Telephone Number** | Displays the originating telephone number. European customers may not see the full number displayed due to protection laws (by customer request). Rules vary by country. |
| **Destination Telephone Number** | Displays the terminating telephone number. European customers may not see the full number displayed due to protection laws (by customer request). Rules vary by country. |
| **Call Duration hh:mm:ss** | Displays the length of the call in **hours: minutes: seconds** format. |

## On Net Call Statistics

On Net calls are calls that originate and terminate on Verizon's IP network.

### Daily

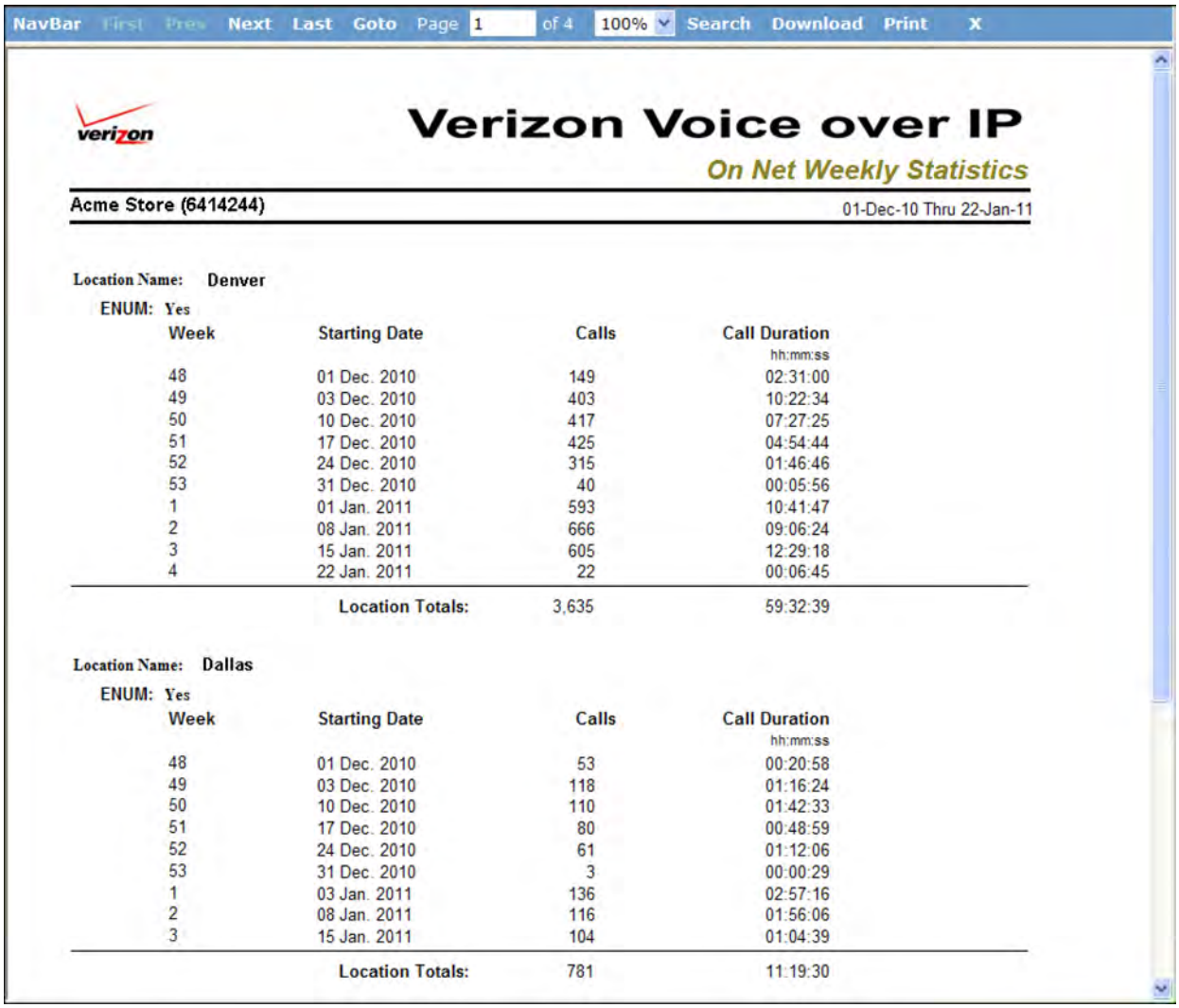
Displays the total number of on net calls per day. Totals and daily averages are listed for each location.

### Weekly

Displays the total number of on net calls per week. Totals and weekly daily averages are listed for each location.

### Monthly

Displays the total number of on net calls per month. Totals and monthly daily averages are listed for each location.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verizon

Verizon Voice over IP

On Net Weekly Statistics

Acme Store (6414244) 01-Dec-10 Thru 22-Jan-11

Location Name: Denver
ENUM: Yes

| Week | Starting Date | Calls | Call Duration hh:mm:ss |
|---|---|---|---|
| 48 | 01 Dec. 2010 | 149 | 02:31:00 |
| 49 | 03 Dec. 2010 | 403 | 10:22:34 |
| 50 | 10 Dec. 2010 | 417 | 07:27:25 |
| 51 | 17 Dec. 2010 | 425 | 04:54:44 |
| 52 | 24 Dec. 2010 | 315 | 01:46:46 |
| 53 | 31 Dec. 2010 | 40 | 00:05:56 |
| 1 | 01 Jan. 2011 | 593 | 10:41:47 |
| 2 | 08 Jan. 2011 | 666 | 09:06:24 |
| 3 | 15 Jan. 2011 | 605 | 12:29:18 |
| 4 | 22 Jan. 2011 | 22 | 00:06:45 |
| | Location Totals: | 3,635 | 59:32:39 |

Location Name: Dallas
ENUM: Yes

| Week | Starting Date | Calls | Call Duration hh:mm:ss |
|---|---|---|---|
| 48 | 01 Dec. 2010 | 53 | 00:20:58 |
| 49 | 03 Dec. 2010 | 118 | 01:16:24 |
| 50 | 10 Dec. 2010 | 110 | 01:42:33 |
| 51 | 17 Dec. 2010 | 80 | 00:48:59 |
| 52 | 24 Dec. 2010 | 61 | 01:12:06 |
| 53 | 31 Dec. 2010 | 3 | 00:00:29 |
| 1 | 03 Jan. 2011 | 136 | 02:57:16 |
| 2 | 08 Jan. 2011 | 116 | 01:56:06 |
| 3 | 15 Jan. 2011 | 104 | 01:04:39 |
| | Location Totals: | 781 | 11:19:30 |

*Figure 3-10: On Net Call Statistics (Weekly)*

The following table defines the columns inthe *On Net Statistics by Location* report.

| Column | Description |
|---|---|
| **Location Name** | Displays the location for which data is displayed. |
| **Day/Week/Month** | Lists the day, week, or month based on the reporting period you specified in the report parameters. |
| **Starting Date** | Lists the date of the calls. |
| **Calls** | Lists the number of calls. |
| **Call Duration** | Lists the total duration of all calls for the time period in hh:mm:ss. |
| **Location Totals** | Displays the total number of all calls and the total duration of all calls for the location. |
| **VIPER Totals for Location** | Calls that are on the IP network but outside of your enterprise (enterprise-to-enterprise). Displays the total number of ViPER calls and the total duration of ViPER calls for the location. This is will available in July. |

## Off Net Call Statistics

Off net calls are calls going off the IP network to the PSTN.

### Daily

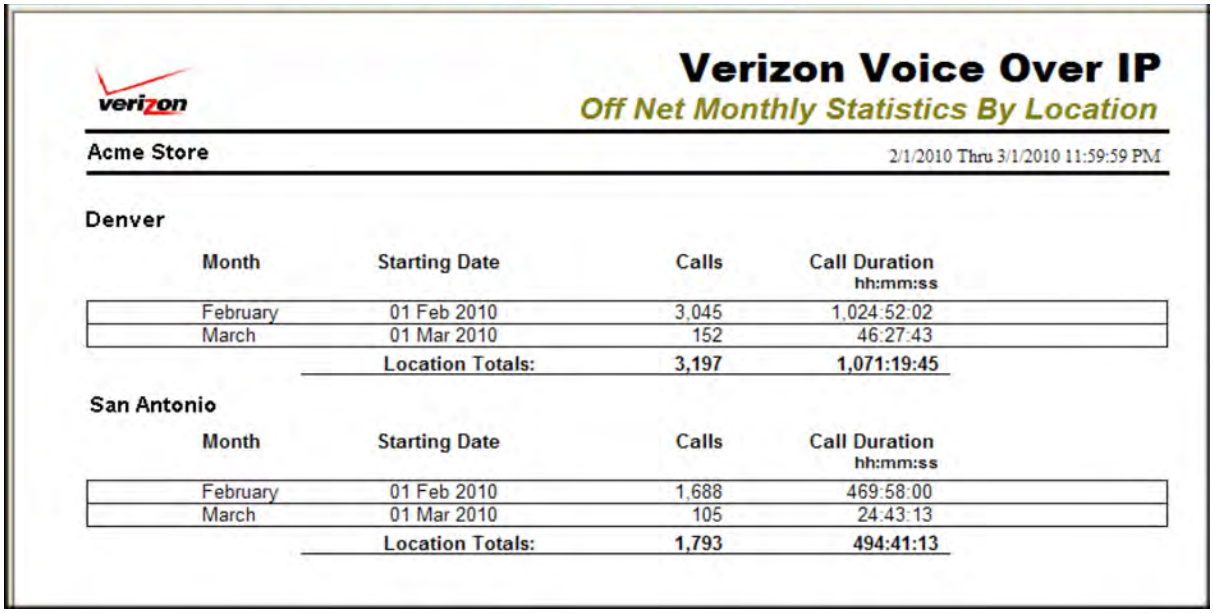
Displays the total number of off net calls per day. Totals and daily averages are listed for each location.

### Weekly

Displays the total number of off net calls per week. Totals and weekly daily averages are listed for each location.

### Monthly

Displays the total number of off net calls per month. Totals and monthly daily averages are listed for each location.



verizon

**Verizon Voice Over IP**

*Off Net Monthly Statistics By Location*

**Acme Store** 2/1/2010 Thru 3/1/2010 11:59:59 PM

**Denver**

| Month | Starting Date | Calls | Call Duration hh:mm:ss |
|---|---|---|---|
| February | 01 Feb 2010 | 3,045 | 1,024:52:02 |
| March | 01 Mar 2010 | 152 | 46:27:43 |
| | **Location Totals:** | **3,197** | **1,071:19:45** |

**San Antonio**

| Month | Starting Date | Calls | Call Duration hh:mm:ss |
|---|---|---|---|
| February | 01 Feb 2010 | 1,688 | 469:58:00 |
| March | 01 Mar 2010 | 105 | 24:43:13 |
| | **Location Totals:** | **1,793** | **494:41:13** |

*Figure 3-11: Off Net Call Statistics (Monthly)*

The following table defines the columns inthe *Off Net Statistics by Location* report.

| Column | Description |
|---|---|
| **Day/Week/Month** | Lists the day, week, or month based on the reporting period you specified in the report parameters. |
| **Starting Date** | Lists the date of the calls. |
| **Calls** | Lists the number of calls. |
| **Call Duration** | Lists the total duration of all calls for the time period in hh:mm:ss. |

# Feature Status/Usage

## Account and Authorization Codes Feature Usage

This report displays the account/auth code usage for a location. You can set the parameters to include a calendar month or billing cycle, call date or duration, or specific start and end dates. These reports include only those account/auth codes used as established in the Calling Plan. This report is useful if you want to monitor the usage, frequency, and durations of different types of calls that result in charges (e.g., international calls that require authorization).

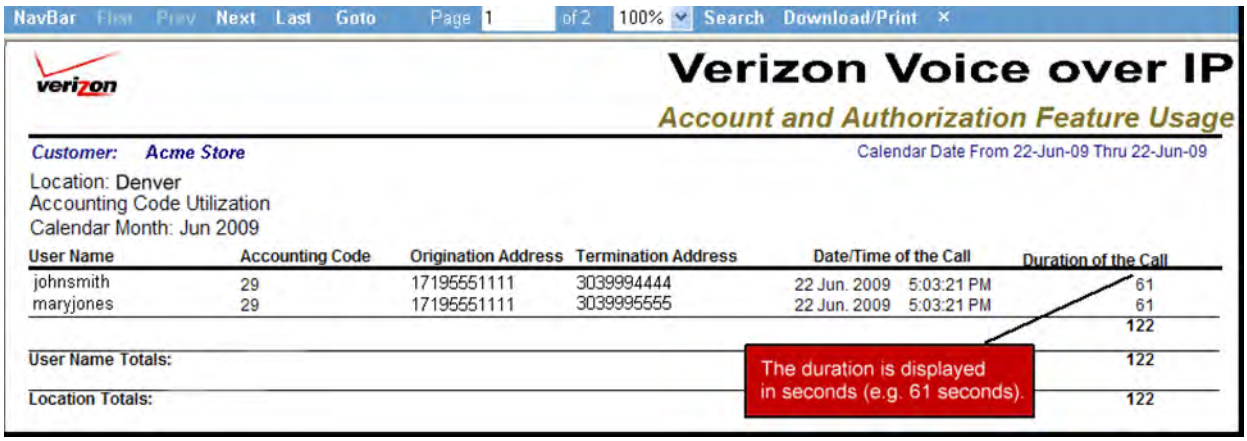



*Figure 3-12: Account and Authorization Feature Usage*

The following table defines the columns in the report.

| Column | Description |
|---|---|
| **User Name** | The subscriber who used the account/authorization code when they placed the call. It can also display the name or extension of the subscriber depending on how the administrator configured them. |
| **Accounting/Authorization Code** | **Account Code**: subscribers enter a code created by the administrator so that calls made and received outside of the group can be tracked.<br>**Authorization Code**: restrict callers from making unauthorized calls and only allow those with access to make calls with authorization codes that you add. Authorizations codes must be a minimum of 6-digits. |
| **Origination Address** | The phone number where the call originated. |
| **Termination Address** | The phone number where the call terminated. |
| **Date/Time of the Call** | The date and time the call was placed. |
| **Duration of the Call** | The length of the call displayed in seconds (e.g., 61 seconds). |

| Column | Description |
|---|---|
| **User Name Totals** | Displays the total call duration for all user names listed. |
| **Location Totals** | Displays the total call duration for each location. |

## Attendant Console/My Receptionist

This report lists the subscribers in each of your locations that enabled/disabled the Attendant Console. The dates the feature was turned on or off are listed. If it was turned on/off multiple times, additional line items are listed for each instance. This report is useful to monitor usage because there are additional charges associated with using the Attendant Console.

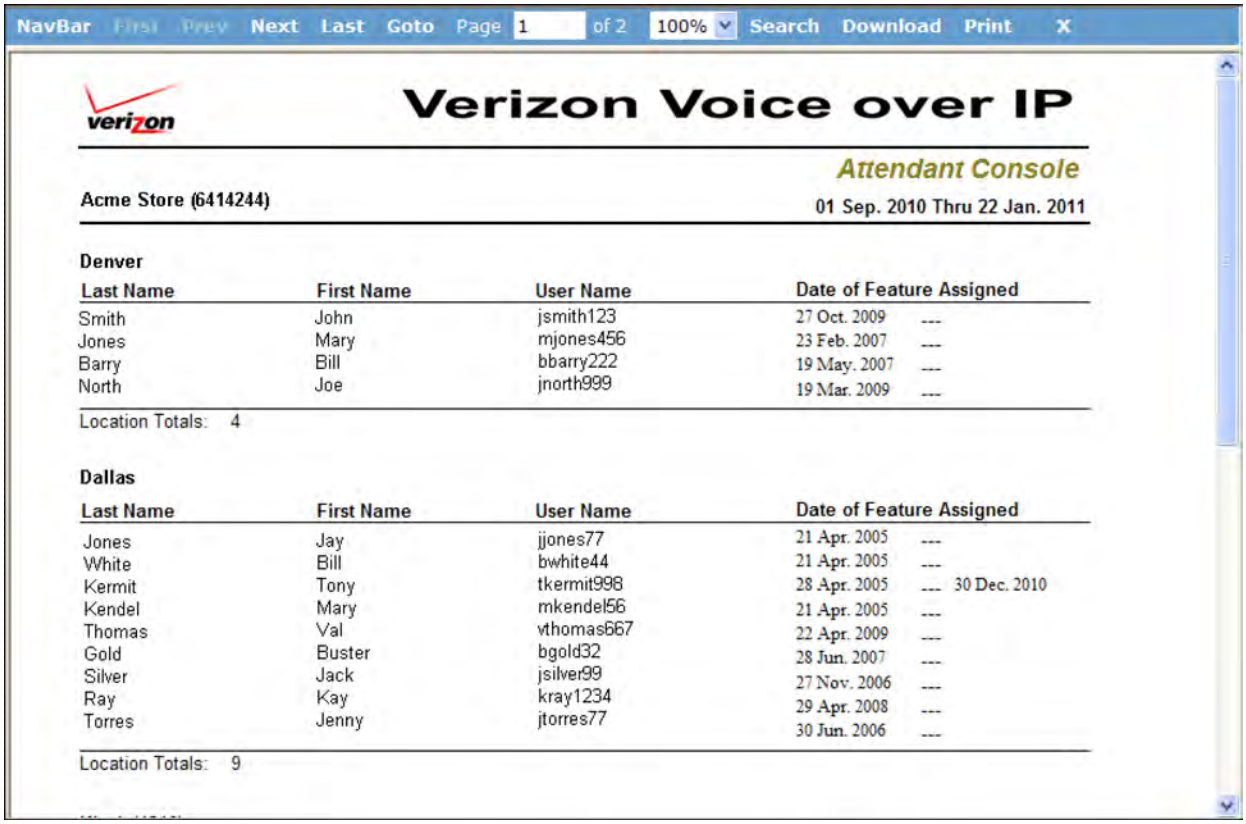



*Figure 3-13: Attendant Console/My Receptionist*

**Note:** If you are an ICP user, this reflects Receptionist feature usage even though the title says Attendant Console Feature Usage.

## Subscriber's Remote Office Feature

This report lists the subscribers in each of your locations that enabled/disabled Remote Office. The dates the feature was turned on or off are listed. If it was turned on/off multiple times, additional line items are listed for each instance. This report is useful to monitor usage because there are additional charges associated with using Remote Office (only billable for IASA provisioned customers).

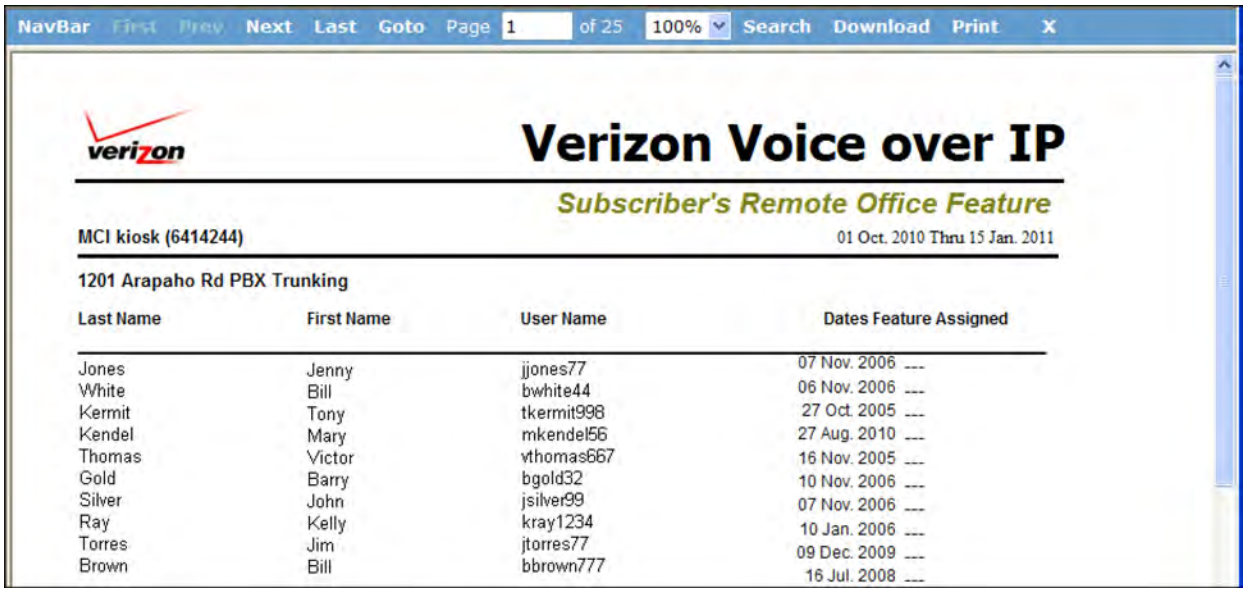



*Figure 3-14: Subscriber's Remote Office Feature*

## Billable Feature Allocation

This report provides a snapshot of billable features for each of your locations. There is no date associated with this report. It shows the current status of what features/packages you have at the time the report is executed. The date the report was executed is displayed in the report footer. The report can be in HTML, PDF, or RTF output (not Excel).

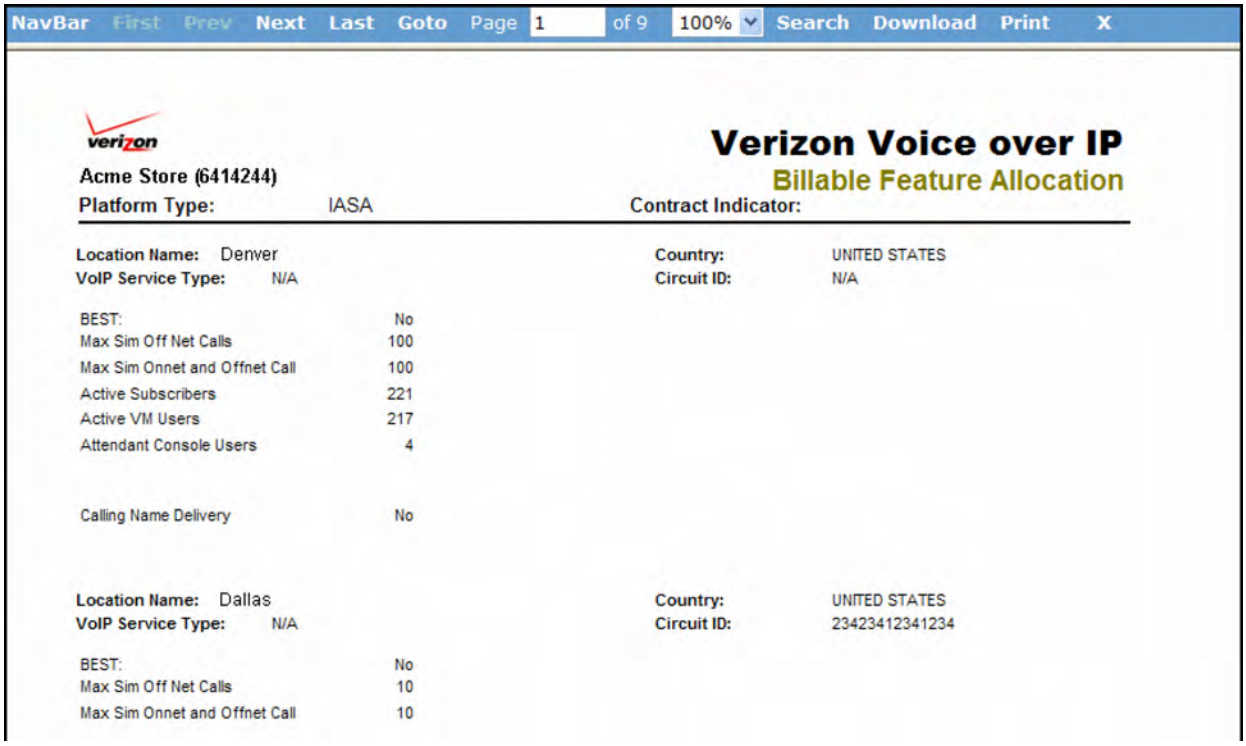



*Figure 3-15: Billable Feature Allocation*

The following table describes the elements in the *Customer Package Status* report.

| Column | Description |
|---|---|
| **BEST Enabled** | (Burstable Enterprise Shared Trunks) - BEST allows sharing of call capacity across U.S. or European ICP provisioned locations. This is applicable for Integrated Communications Package users only.<br><br>The *Location BEST Service Level* groups locations on the same dial plan and service level that are in the same BEST pool. The number is any of the locations that are sharing the same maximum concurrent call limit (MaxCCL); the number is what pool the name is called. All locations that have that same number are sharing a pool of off net calls. |

| Column | Description |
|---|---|
| **Max Sim Off Net Calls** | The actual billable CCL for this location. This is a limit of max concurrent off net calls. If you are BEST enabled, this is how much of the total enterprise BEST value is being contributed by this location. |
| **Max Sim Onnet and Offnet Calls** | The maximum number of concurrent off net calls that the hardware at this location supports (bandwidth that supports some maximum number of concurrent calls in progress no matter what the billable of BEST levels are). This value is typically greater than *Off Network CCL*. If you are BEST enabled, it reflects the BEST setting of the location instead of the overall enterprise. |
| **Active Subscribers** | Number of subscribers in that location. |
| **Active VM Users** | Number of subscribers in that location who have voice mail accounts. |
| **Attendant Console Users** | Number of subscribers in that location who are enabled for the Attendant Console (Receptionist). |
| **Calling Name Delivery** | This indicates whether CNAM is enabled or not. CNAM is a location level feature that results in a monthly recurring charge of $1.50 per simultaneous call. |
| **IP Centrex Customers Only (ICP only)** | |
| **Simple PBX Users** | This field is not applicable. It will be removed in a future release. |
| **Simple Key Users** | This field is not applicable. It will be removed in a future release. |
| **Simple Mobility Users** | This field is not applicable. It will be removed in a future release. |
| **Basic Users** | Users with phone service only and no access to the ICP Web or Desktop Client tools. |
| **Intermediate Users** | ICP Web tool access only. |
| **Advanced Users** | Users that have access to the ICP Web tool, ICP Desktop Client, and the Office Plugin. |
| **Receptionist Users** | Enabled for the ICP Receptionist. |

# Incoming Calls

## Inbound Call Usage Summary

This report displays all the incoming calls to location with a line item for each individual call.

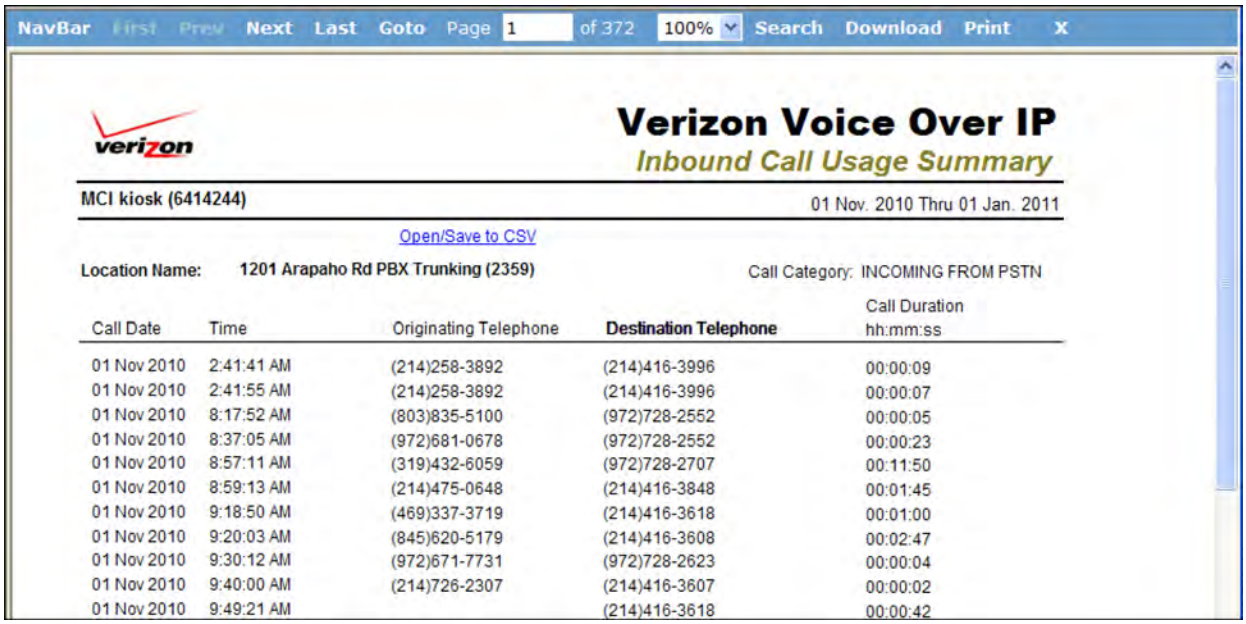


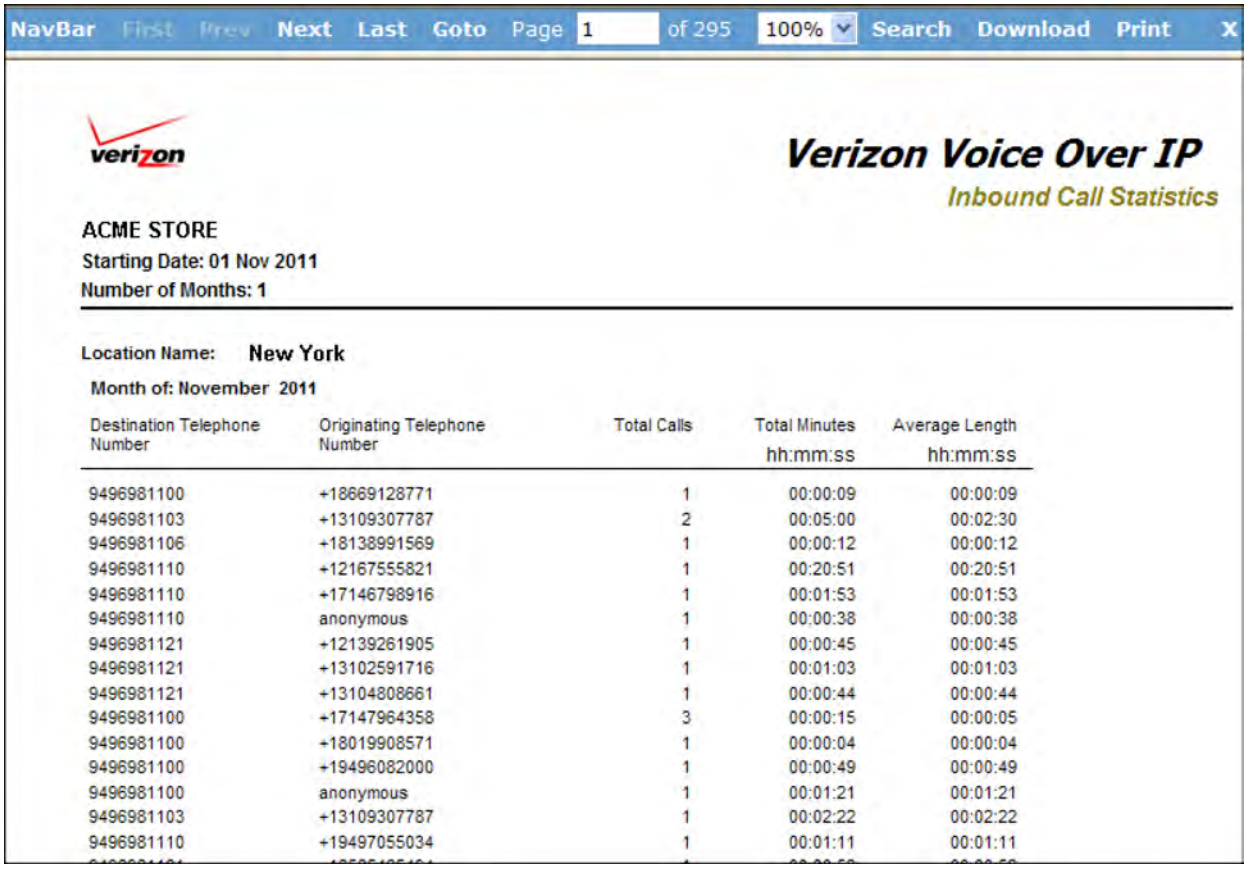

*Figure 3-16: Inbound Call Usage Summary*

The following table defines the columns inthe report.

| Column | Description |
|---|---|
| **Call Date** | The date the call was placed. |
| **Time** | The time the call was placed. |
| **Originating Telephone** | Displays the originating telephone number. |
| **Destination Telephone** | Displays the terminating telephone number. |
| **Call Duration hh:mm:ss** | Displays the length of the call in **hours: minutes: seconds** format. |

## Inbound Call Statistics

This report provides the total number of inbound calls for your locations along with the total minutes and average length, whereas the *Inbound Call Usage Summary* report provides all calls with the date/time. You can choose one or multiple locations and run a daily (busiest hour by day), weekly (busiest day of week), or monthly (busiest week of month) report.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Verizon Voice Over IP

Inbound Call Statistics

ACME STORE
Starting Date: 01 Nov 2011
Number of Months: 1

Location Name: New York

Month of: November 2011

| Destination Telephone Number | Originating Telephone Number | Total Calls | Total Minutes hh:mm:ss | Average Length hh:mm:ss |
|---|---|---|---|---|
| 9496981100 | +18669128771 | 1 | 00:00:09 | 00:00:09 |
| 9496981103 | +13109307787 | 2 | 00:05:00 | 00:02:30 |
| 9496981106 | +18138991569 | 1 | 00:00:12 | 00:00:12 |
| 9496981110 | +12167555821 | 1 | 00:20:51 | 00:20:51 |
| 9496981110 | +17146798916 | 1 | 00:01:53 | 00:01:53 |
| 9496981110 | anonymous | 1 | 00:00:38 | 00:00:38 |
| 9496981121 | +12139261905 | 1 | 00:00:45 | 00:00:45 |
| 9496981121 | +13102591716 | 1 | 00:01:03 | 00:01:03 |
| 9496981121 | +13104808661 | 1 | 00:00:44 | 00:00:44 |
| 9496981100 | +17147964358 | 3 | 00:00:15 | 00:00:05 |
| 9496981100 | +18019908571 | 1 | 00:00:04 | 00:00:04 |
| 9496981100 | +19496082000 | 1 | 00:00:49 | 00:00:49 |
| 9496981100 | anonymous | 1 | 00:01:21 | 00:01:21 |
| 9496981103 | +13109307787 | 1 | 00:02:22 | 00:02:22 |
| 9496981110 | +19497055034 | 1 | 00:01:11 | 00:01:11 |

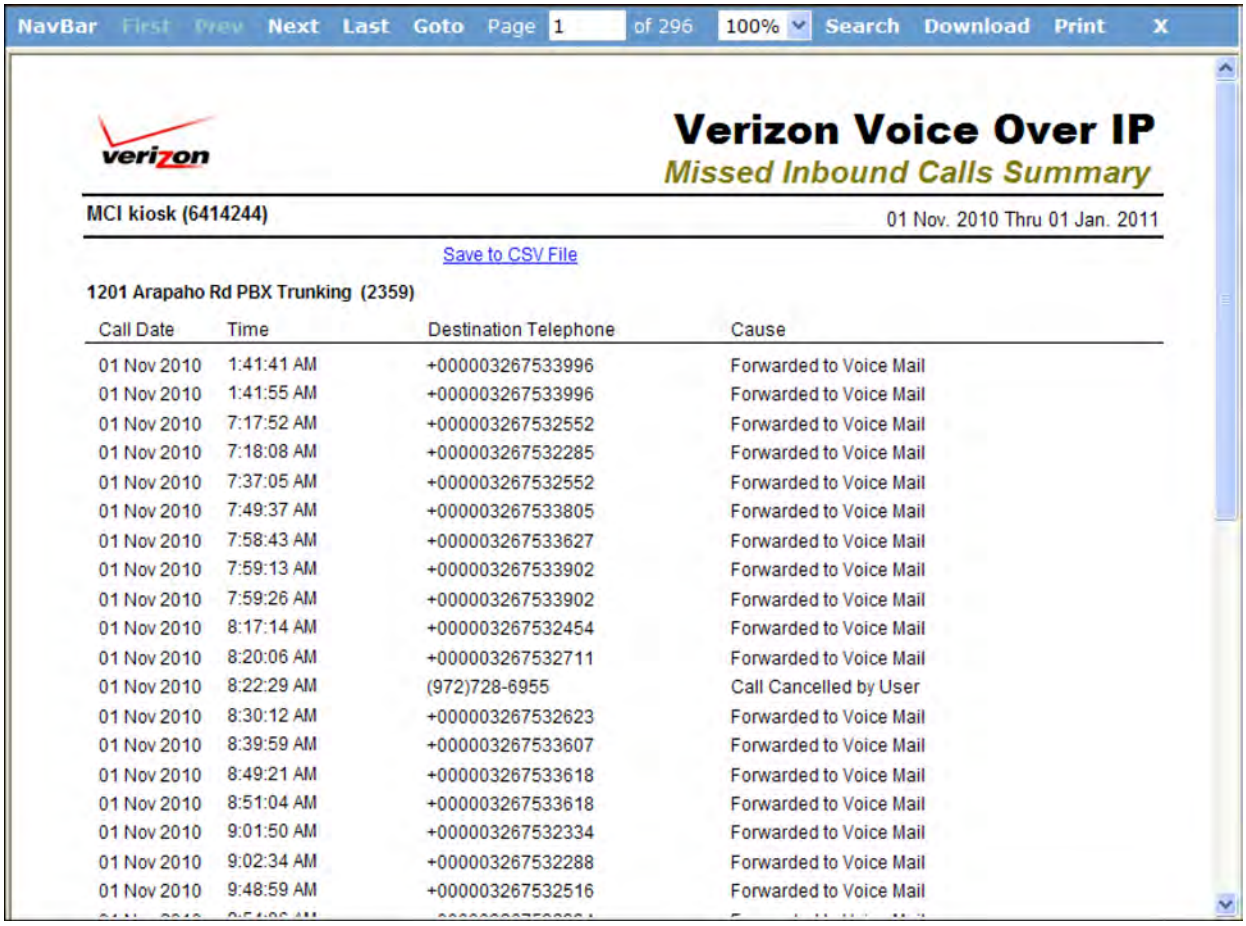
*Figure 3-17: Inbound Call Statistics*

The following table defines the columns inthe *Incoming Call Summary* report.

| Column | Description |
|---|---|
| **Destination Telephone** | Displays the terminating telephone number. |
| **Originating Telephone** | Displays the originating telephone number. |
| **Total Calls** | Total number of incomings calls for the terminating number. |
| **Total Minutes hh:mm:ss** | Total number of minutes for the terminating number. |
| **Average Length hh:mm:ss** | The average length of all calls in **hours:minutes:seconds.** |

## Missed Inbound Calls Summary

This report displays all on net and off net incoming calls to the numbers at your locations that were not physically answered. You can use this report to monitor missed calls and reconfigure certain features where necessary.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Verizon Voice Over IP

Missed Inbound Calls Summary

MCI kiosk (6414244) 01 Nov. 2010 Thru 01 Jan. 2011

Save to CSV File

1201 Arapaho Rd PBX Trunking (2359)

| Call Date | Time | Destination Telephone | Cause |
|---|---|---|---|
| 01 Nov 2010 | 1:41:41 AM | +000003267533996 | Forwarded to Voice Mail |
| 01 Nov 2010 | 1:41:55 AM | +000003267533996 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:17:52 AM | +000003267532552 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:18:08 AM | +000003267532285 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:37:05 AM | +000003267532552 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:49:37 AM | +000003267533805 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:58:43 AM | +000003267533627 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:59:13 AM | +000003267533902 | Forwarded to Voice Mail |
| 01 Nov 2010 | 7:59:26 AM | +000003267533902 | Forwarded to Voice Mail |
| 01 Nov 2010 | 8:17:14 AM | +000003267532454 | Forwarded to Voice Mail |
| 01 Nov 2010 | 8:20:06 AM | +000003267532711 | Forwarded to Voice Mail |
| 01 Nov 2010 | 8:22:29 AM | (972)728-6955 | Call Cancelled by User |
| 01 Nov 2010 | 8:30:12 AM | +000003267532623 | Forwarded to Voice Mail |
| 01 Nov 2010 | 8:39:59 AM | +000003267533607 | Forwarded to Voice Mail |
| 01 Nov 2010 | 8:49:21 AM | +000003267533618 | Forwarded to Voice Mail |
| 01 Nov 2010 | 8:51:04 AM | +000003267533618 | Forwarded to Voice Mail |
| 01 Nov 2010 | 9:01:50 AM | +000003267532334 | Forwarded to Voice Mail |
| 01 Nov 2010 | 9:02:34 AM | +000003267532288 | Forwarded to Voice Mail |
| 01 Nov 2010 | 9:48:59 AM | +000003267532516 | Forwarded to Voice Mail |

*Figure 3-18: Missed Inbound Calls Summary*

The following table defines the columns inthe *Missed Inbound Call Detail by Location* report.

| Column | Description |
|---|---|
| **Call Date** | The date the call was placed. |
| **Time** | The time the call was placed. |
| **Destination Telephone** | Displays the terminating telephone number. European customers may not see the full number displayed due to protection laws (by customer request). Rules vary by country. |

| Column | Description |
|---|---|
| **Cause** | The reason the call was missed. The text that displays is based on the error code received in the system. This field is left blank if no text is associated with an error code. You may see the following causes in this column:<br>• Call routed to voice mail<br>• 484 address incomplete<br>• 600 or 603 system busy<br>• 404 number not in service<br>• 486 concurrent call limit exceeded<br>• 403 call screening failure<br>• 408 no answer<br>• 606 not acceptable |

# Outbound Calls

## Outbound VoIP Minutes

This report breaks down the outbound VoIP minutes (on-net and off-net) for each account number in the billing cycles or months you specify, including domestic and international calls. Total minutes and calls are listed for each account number (hh:mm:ss), and at the bottom of the report for all cycles.

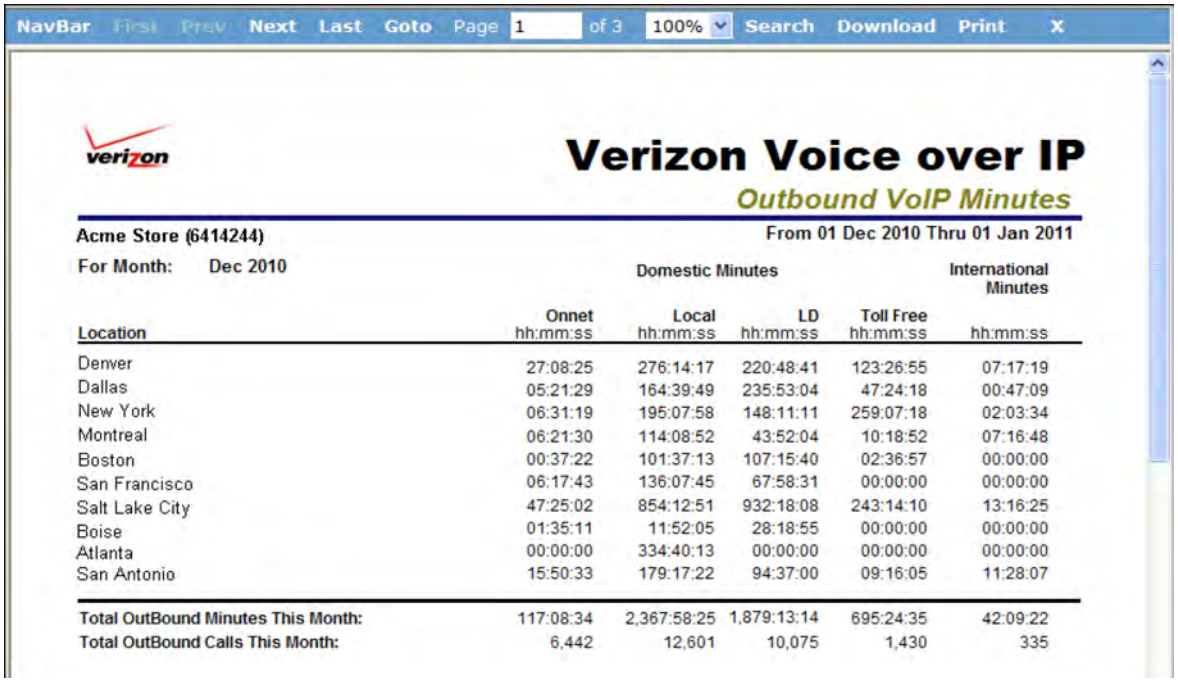



*Figure 3-19: Outbound VoIP Minutes*

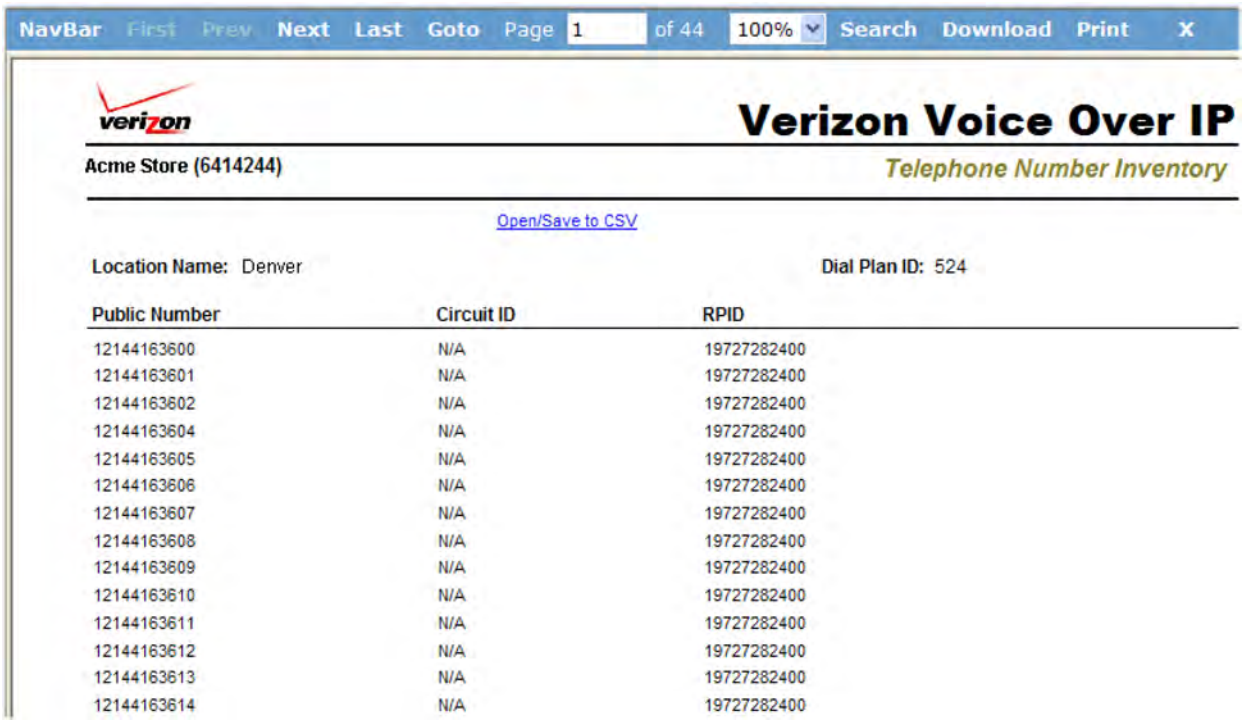
The following table defines the columns inthe *Outbound VoIP Minutes* report.

| Column | Description |
|---|---|
| **Location** | The location from which the outbound call originated. |
| **Onnet hh:mm:ss** | The total number of calls originating and terminating on Verizon's IP network. |
| **Local hh:mm:ss** | How many total outbound minutes for local calls from that location. |
| **LD hh:mm:ss** | How many total outbound minutes for long distance calls from that location. |
| **Toll Free hh:mm:ss** | How many total outbound minutes for toll free calls from that location. |
| **International Minutes hh:mm:ss** | How many total outbound minutes for international calls from that location. |

# Number Inventory

## Telephone Number Inventory

The *Telephone Number Summary* lists all telephone numbers assigned to your enterprise. This includes numbers in use and available numbers in your inventory.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verizon

Verizon Voice Over IP

Acme Store (6414244)

Telephone Number Inventory

Open/Save to CSV

Location Name: Denver

Dial Plan ID: 524

| Public Number | Circuit ID | RPID |
|---|---|---|
| 12144163600 | N/A | 19727282400 |
| 12144163601 | N/A | 19727282400 |
| 12144163602 | N/A | 19727282400 |
| 12144163604 | N/A | 19727282400 |
| 12144163605 | N/A | 19727282400 |
| 12144163606 | N/A | 19727282400 |
| 12144163607 | N/A | 19727282400 |
| 12144163608 | N/A | 19727282400 |
| 12144163609 | N/A | 19727282400 |
| 12144163610 | N/A | 19727282400 |
| 12144163611 | N/A | 19727282400 |
| 12144163612 | N/A | 19727282400 |
| 12144163613 | N/A | 19727282400 |
| 12144163614 | N/A | 19727282400 |

*Figure 3-20: Telephone Number Summary*

The following table defines the elements in the *Number Inventory* report.

| Column | Description |
|---|---|
| **Location Name** | Indicates the location for which the inventory was generated. |
| **Dial Plan ID** | The DPID is a number assigned to a specific dial plan. You can have more than one dial plan. |
| **Public Number** | Lists all the available and “in use” telephone numbers assigned to your enterprise. |
| **Circuit ID** | This field is not applicable. It will be removed in a future release. |
| **RPID** | The Remote Party ID (RPID) s an identification of the terminal (IP telephone, mobile handset, etc.) calling you. When you see a caller’s number on your screen, this could be the RPID. Or, when a call is coming in to the Verizon network from the PSTN, the RPID might be identifying a gateway instead of the calling party number. |

# TROUBLESHOOTING TIPS 4

There may be times when you need to isolate problems with an application issue, network issue, LAN issue, PC issue, or an issue linked to login credentials. The following will help with troubleshooting:

## Clear Internet Cache & Cookies

### Internet Explorer

1. Open Internet Explorer.
2. Go to **Tools | Internet Options**.
3. Under *Browsing history* and on the *General* tab, click **Delete**. This will clear your cache and remove cookies. It will also remove temporary files, browser history, saved passwords (will not auto-populate fields/forms), and web form information.
4. Click **Apply**.
5. Click **OK**.
6. Close all Internet browsers.
7. Open a new browser and try logging in to the application again.

### Mozilla Firefox

1. Open Mozilla Firefox.
2. Go to **Tools | Options**.
3. Click the **Privacy** tab.
4. Click **Show Cookies**. The *Cookies* pop-up appears.
5. Click **Remove All Cookies**.
6. Click **Close**.
7. Click **OK**.
8. Close all Internet browsers.
9. Open a new browser and try logging in to the application again.

## Pop-ups

If you do not want to disable your pop-up blocker, you can hold down your **CTRL** key when you click a link or button that opens a new window. This temporarily disables the pop-up blocker for that task.

### Disable pop-ups in Internet Explorer

1. Open Internet Explorer.
2. Go to **Tools | Internet Options**.
3. Click the **Privacy** tab.
4. Under *Pop-up blocker*, uncheck **Turn on Pop-up Blocker**.
5. Click **Apply**.
6. Click **OK**.

### Disable pop-ups in Mozilla Firefox

1. Open Mozilla Firefox.
2. Go to **Tools | Options**.
3. Click the **Content** tab.
4. Uncheck **Block pop-up windows**.
5. Click **OK**.

## Advanced Troubleshooting

You may need to contact customer support if you cannot resolve the issue. Refer to page 1-8 for instructions on contacting customer support.

- Did you verify your PC has access to the Internet?
- Are pop-ups enabled?
- Can you access other web sites?
- When did this issue begin?
- Is anyone else experiencing the issue? If so, how many?
- Have you successfully logged in before?
- Have you tried to log in at another work station? If so, what was the result?
- The Verizon technician will automatically attempt to duplicate the issue on their end in order to isolate it to the Verizon network or your LAN.

**Obtain the following information**:

- Type of Internet browser (e.g. Mozilla Firefox, Internet Explorer, etc.) and version. Go to **Help | About** in your browser to see the version.
- Java version. Go to **Start | Control Panel | Java | Java View**.
- Operating System (e.g. Windows XP, Vista, MAC)
- Error Message received (e.g. invalid user credentials, server 500- unable to reach server, security warning).

**Java Troubleshooting**:

- Check the Java version by going to **Start | Control Panel | Java | Java View**, and then un-select.
- Turn on Java Debugging by going to **Start | Control Panel | Java | Advanced Debugging Menu**. Select all, and then click **Apply/OK**.
- Relaunch the application in a new browser and wait for the Java Debug screen to pop up. Copy and paste the contents and email to the Verizon ETMS ticket.

6. Document the details from the previous steps in the trouble ticket.