RFP E-Rate Bid Response for E-Rate

Year 2015-2016

Resilient SPIN # 143031788

Prepared by:
Brett Alterman
Resilient Intelligent Networks, L.L.C.
Denton, Texas

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February 24, 2015

RESILIENT

Celina ISD
205 South Colorado
Celina, TX 75009
Attn: Marilyn Chamberlin

Dear Marilyn Chamberlin:

Resilient Intelligent Networks appreciates the opportunity to respond to your E-Rate bid request for proposal. Resilient is the largest local Texas based HPN partner in the area. We felt like we can help the district on HPN products for Wired and Wireless as an option and Aruba Wireless products as a secondary option for consideration due it's valued added management capabilities and market position

Based on our company focus and strengths we have responded to the wireless section of your RFP. Resilient Intelligent Networks is an advanced network/wireless integrator and an HP ProCurve Master "Elite" partner as well as Aruba Wireless Silver Partner, we obtained this level based on the value add we can provide to our Celina ISDs for their data networks.

This includes:

- Network Design assistance
- High knowledge level of ProCurve products and solutions
- Knowledge of Aruba Wireless Products
- Advanced networking services (Switch/Router install/config. Etc...)
- Advanced wireless services (Access Point/Cloud Control install/config. Etc...)
- Fiber/Cooper Cabling Consulting, Design, and Implementation

With our knowledge of HP Networking solutions and advanced networking we have developed great relationships with many Schools and Universities and plan to continue our focus in this market segment. Resilient Intelligent Networks along with HP Networking and Aruba Wireless products provides the best possible network solution for schools.

Resilient Intelligent Networks provided network and wireless installation services, configuration, documentation, and knowledge transfer scope of work based on Celina ISD's desire to look at an integrated solution. Resilient Intelligent Networks can provide multiple references for ISD type accounts if needed.

Resilient is committed to providing Celina ISD with the highest level of support available and to develop a strong business relationship in the future.

Sincerely,

Brett Alterman

Resilient Intelligent Networks, L.L.C.
2921 Country Club Rd. Suite 104
Denton, TX 76210
Mobile: 469-767-9202
balterman@resilientiq.com

Project Objectives

The goal of this document is to outline a project plan to design, implement, install and test a network/wireless solution for Celina ISD.

We look forward to a successful implementation and a long relationship with Celina ISD. We understand the value of our clients and promise to respect that relationship by providing project plans that are on schedule, within budget and scope.

The project objectives for our solution include:

- Network/ Wireless Design and Configuration of Hardware
- Configure MSM/Aruba Controller to support new solution
- Hardware Installation and Connectivity
- Copper cabling
- Comprehensive Project Documentation

Hardware Design and Cabling Notes

Project Notes

- Resilient is providing a 5400R series switch with twelve slots for supporting modules
- Resilient is providing an HP MSM460 access point fulfilling the 802.11AC requirements
- **Optional Hardware**
    - Resilient is providing an optional quote with HP 560 (802.11AC) and an Aruba 215 access point (802.11AC) Note: This is the Aruba AC platform that has additional functionality that we would be happy to go over more detail if needed, but please see specifications links below:
    - Resilient is providing an optional quote with:
        - Aruba 215 access point (802.11AC).
            - Note: This is the Aruba AC platform that has additional functionality that we would be happy to go over more detail if needed, but please see specifications links below:
        - Redundant Aruba 7200 Mobility Controller redundant controller.
        - 1 year subscription license for Aruba AirWave for 1 device. Includes 1 year of support

See Links below to product specifications:

- **HP 5400R Series Chassis:**
  http://www8.hp.com/h20195/v2/GetPDF.aspx/4AA5-2605ENN.pdf

- **HP MSM460 Series Access Point (802.11N):**
  http://h17007.www1.hp.com/docs/products/4AA3-2358ENW.pdf

- **HP 560 Series Access Point (802.11AC):**
  http://www8.hp.com/h20195/v2/GetPDF.aspx%2F4AA5-1459ENN.pdf

- **Aruba 210 Series Access Point (802.11AC):**
  http://www.arubanetworks.com/assets/ds/DS_AP210Series.pdf

- **Aruba 7200 Series Mobility Controllers:**
  http://www.arubanetworks.com/pdf/products/DS_7200Series.pdf

Scope of Work

LAN/WLAN Services

Resilient will provide a network design for the deployment of HP switches into the LAN. Equipment will be delivered to Resilient Intelligent Networks where a base configuration will be established according to approved network design. Configuration includes:

LAN/WLAN Design

Resilient Intelligent Networks will lead a network design discussion in order to better understand the following:

- Physical and Logical Design
- Device Configuration and Standardization
- Routing Design (Static, RIP, OSPF, BGP, MPLS)
- L2/L3 Redundancy (ERPS, MCT, Spanning Tree, VRRP)
- Security Features/Best Practice (SNMP, Password Management, Device Access)
- Review and Discuss staging, implementation and documentation process
  - Onsite Implementation
  - Onsite Testing Scenarios
  - Site Completion Documentation
- SSID name schemes and VLAN Design

- Network Services (Radius, DHCP, DNS)
- Network Authentication Review
- RADIUS Infrastructure Design
- Client Type Review (XP, SP3, Vista, Win7)
- Client Device Requirements
- AD or LDAP Review (Groups, Schema and GPO)
- Identify IP address to be assigned to WLAN components
- Power provisioning requirements
- WLAN system management requirements.

Design Acceptance

- Current network configuration information as it pertains to the new design and Celina ISD requirements.
- Design Acceptance Document that will provide the network configuration for review and approval before starting the final programming and connections of the system.
  - Physical and Logical Network Design
  - Configuration Requirements
    - IP Addressing
    - L2 Redundancy Design
    - L3 Redundancy Design
    - VLAN Layout
    - Management
  - If applicable, migration and testing plan
  - WLAN Solution Design (Authentication, VLAN, Network Services, Guest Network)
  - Integration Plan including client configuration strategy and infrastructure changes.

Hardware Configuration

- Equipment Staging
  - Unbox and power on for 24 hour burn in
  - Update firmware
  - Device Configuration
    - ❖ Module Installation (*if applicable*)
    - ❖ VLAN/IP Addresses
    - ❖ Routing
    - ❖ Network Services (SNTP, Spanning Tree, VRRP, etc.)
- Test Network functionality via testing scenario (QA Checklist)
- Pre-stage wireless controller and APs for deployment
- Physically label AP

- Asset tagging (if applicable), labeling and device documentation
- Asset reporting: Serial number, host name, closet, asset tag, etc.
- Prepare onsite implementation documentation
- Devices will be packed and shipped to site

Hardware Installation and Testing

Hardware will be installed in accordance with the network/wireless design document. Existing switches/access points will be removed, installed, and connectivity will be established. Network closet hardware will be consolidated and existing patch cables will be dressed to improve the aesthetic appearance. Once hardware is installed, a final configuration check will be performed to validate consistency. This is to ensure that all device configurations the standards for all device services and labeling.

Hardware Installation

- Existing switches/access points will be boxed-up and delivered to the client
- New switches/access points will be installed, powered-up, and tested
- WAN/LAN connectivity will be established via fiber/copper cables and tested
- New patch cables will be installed to support new fiber/copper drops between patch panels and new switches with Velcro
- Access points will be installed below grid when possible
- Before and after pictures will be delivered upon project completion

Hardware Testing

- Device Configuration

    ❖ Per Device Configurations will be provided in the documentation at the end of the Hardware Staging phase. These configurations will be updated during physical implementation if necessary. Celina will be provided with a Configuration QA Check List for each device and can validate for accuracy.

- Redundancy

    ❖ Failover of device and link scenarios will be tested to ensure that the failover and recovery of L2 and L3 protocols are working appropriately. This testing will include LAG testing and L3 redundancy.

- Network Connectivity

  - ❖ A network PING test will be performed by the remote implementation Engineer. Successful results will be captured and documented to confirm site functionality. These tests can be used to affirm network connectivity per VLAN.

- Rack Verification

  - ❖ Celina will supply an asset list (per closet) which will include model, configuration, asset tag information, chassis MAC address and serial numbers. This information will be used to ensure physical installation of equipment and consistency of documentation. Any issues relating to device configuration or documentation can be escalated to Provider during the testing period for resolution. Once walk-throughs are complete and any issues have been resolved.

LAN/WLAN Support

Resilient will provide "Day One Support" once the network is running on the new solution. "Day One Support" will be the first business after hardware installation/testing has been completed. An engineer will provide support via remote access for four hours. Extended support can be added to a block hour contract. Resilient will provide remote configuration and troubleshooting support to resolve any issue from site turn up. Any issues that arise will need to be emailed or called into the Lead Engineer or Project Manager. Resilient ensures prompt response/service during "Day One Support" to guarantee a smooth transition during the wireless upgrade.

Fiber Optic Cable Installation

Resilient will install Laser Optimized Multimode Fiber (OM3) to support 10G connectivity between the Intermediate School MDF/IDF, identified in the project walkthrough. Resilient also will install Single mode Fiber (OS2) to support 10G connectivity between the Intermediate MDF and Data Center.

- All fiber pathways will be neatly organized.
- Resilient will install J-Hook pathways according to industry standards to support the fiber link where needed
- The fiber installation will be in compliance with EIA/TIA 568-B.3 standards
- Resilient will install a new wall mount rack to support new switch gear and integrate existing copper patch panels
- Fiber strand will be terminated in a newly installed fiber enclosures using LC connectors
- Resilient will install (1) 12 port fiber adapter in each MDF/IDF closet to support new fiber runs

- A 15ft service loop will be located at each point of termination
- The fiber link will be labeled with the appropriate cable identifier on each end of the drop as well as the front of each fiber enclosure
- Resilient will install armored fiber to provide superior resistance to damage
- Resilient will provide and install fiber jumpers necessary to provide connectivity between fiber bulkheads and network hardware
- Resilient will test and certify all data drops with a Fluke Networks DTX 1800 or equivalent certifiable hardware.

Copper Cable Installation and Connectivity

Resilient will install Cat-6 Riser cables to support additional access points for the wireless upgrade project. Resilient will also repurposed existing access point cables when possible. Below is a breakout of cables per campus:

Administration Building

- (10) CAT-6 cables will be installed to support new wireless hardware
- (6) Copper cables will be relocated to support new wireless hardware

Intermediate School

- (23) CAT-6 cables will be installed to support new wireless hardware
- (8) Copper cables will be relocated to support new wireless hardware

Elementary School

- (30) CAT-6 cables will be installed to support new wireless hardware
- (9) Copper cables will be relocated to support new wireless hardware

- Resilient will install J-Hook pathways according to industry standards to support the physical cable plant
- All cable pathways will be neatly organized
- A 15ft service loop will be located above every new access point drop
- A 10ft service loop for all data drops will be left all MDF/IDF locations (if vertical managers are not available the 10ft service loop will need to be appropriately and neatly supported and stored above the ceiling or in the back of cabinets)
- Any walls that must be penetrated will be fire blocked according to industry standards
- All new/existing drops will be terminated in compliance with EIA/TIA 568-B standards
  - All new/existing drops for access points will be installed in a 1 port surface mount box on the device end, which will be secured to permanent building structure
  - All new/existing drops will be terminated to a new Cat-6 patch panel in MDF/IDF if existing patch panels cannot support

- All new/existing drops will be labeled with the appropriate cable identifier on each end as well as the front of each patch panel port and surface mount
- Resilient will connect every access point drop with a Cat-6 patch cable to a switch port in each MDF/IDF location and ensure connectivity
- All new/existing drops will be tested to CAT-6 standards using a Fluke DTX-1800

Deliverables

Resilient will schedule a closeout meeting with Celina ISD to review project objectives and present project documentation which will include:

- Network documentation show hardware installed per campus with switch configurations
- Updated wireless design per campus and district with locations and label identifiers
- Updated "As Builts" with copper/fiber pathways with cable labels indicators
- Pictures of network closets and access point installation

Assumptions

Resilient asks Celina ISD to be aware of the following assumptions and ensure client responsibilities are addressed prior to project commencement:

General Assumptions:

- Celina ISD will provide full access to any information necessary towards the completion of the project.
  - Celina ISD point of contact information
  - Site maps / floor plans
  - Remote access to LAN
  - Configuration files
  - Active service agreement numbers
  - Licenses that pertain to equipment on bill of sale
  - IP addresses to VLAN management interfaces
- All equipment is covered under a warranty or active manufacturing service agreement.
- Provider is not responsible for network issues caused by deficient manufacture hardware or software.
- Warranty responsibilities will be carried out by the Manufacturer of equipment purchased for the project.
- Work will be performed Monday through Friday during normal business hours (8:00am -5:00 pm) unless mutually agreed, after hours schedule is required.

- Project duration will be continuous and no greater than 4 Weeks
- Additional assumptions could be defined as a detailed Scope of Process (SOP) if developed and agreed upon.
- Resilient is responsible for only those services that pertain to devices listed on the bill of material.

Implementation Assumptions:

- Celina ISD authentication infrastructure will be set-up, configured and in good working condition prior to implementation.
- Celina ISD is responsible for providing adequate power to support design in each rack.
- Celina ISD is responsible for ensuring proper power protection/UPS in all closets to cover HP warranty
- Celina ISD has the appropriate rack space to install new equipment.
- Celina ISD will reuse existing patch cables and patch panels.
- Network transitions and cutovers will occur during Celina ISD defined maintenance window(s)
- All racks, patch cables, cable and cable management will be pre-existing and operational prior to start of project.
- All fiber (if applicable) will be certified for required speed and distance prior to start of physical Implementation.
- Resilient is not responsible for cabling plant issues that occur due to failure of the existing cable plant.
- Resilient is only responsible for establishing network connectivity L2 and L3. A PING and TRACEROUTE test will be used to determine connectivity.
- Resilient is not responsible for application issues unless there is direct correlation with work being performed.
- Resilient is willing to troubleshoot all issues. If root cause is unrelated to work being performed by Resilient, Celina ISD can be billed for additional troubleshooting hours at a rate of $175 per hour plus T&E.

Testing Assumptions:

- Celina ISD is responsible for configurations on all clients.
- Celina ISD is responsible for updating IPs and or drivers on all printers.
- Celina ISD will provide a list of key resources and or applications for testing during the scheduled maintenance window.
- Celina ISD will provide timely feedback during the implementation maintenance window. The maintenance will be a continuous with no breaks greater than 15 minutes, unless noted in migration plan.
- Celina ISD is responsible for assistance of physical device and cable moves for testing or troubleshooting.

- Celina ISD will provide network access to allow completion of testing scenarios or help desk resources to perform testing.

Conditions

Intent: In addition, Resilient Intelligent Networks requires that the following assumptions be true before any installation activities can commence.

- Resilient Intelligent Networks shall work with Celina ISD to provide Resilient personnel with access a work area appropriate for completing on-site project activities. For the duration of the time-period allotted for the project, personnel shall be permitted on site for execution of project related tasks.
- The network must be as stable as possible and functioning with no major reconfigurations scheduled during the implementation period.
- This implementation will be performed during normal business hours, Monday through Friday, unless otherwise mutually agreed upon in writing.
- Resilient Intelligent Networks, LLC will take every effort and precaution when dealing with Celina ISD's data. **Celina ISD is responsible for having complete backups of all systems that involve the above project.**
- **Resilient Intelligent Networks will not be responsible for loss of data, damages resulting in loss of data, loss of revenue resulting from the loss of data or any costs associated with the recovery of such data.**
- Resilient Intelligent Networks reserves the right to suspend/delay the project until all requirements have been met by the Celina ISD.
- Payment to Resilient Intelligent Networks of any invoices for work completed shall not be affected by Resilient Intelligent Networks, LLC decision to delay or suspend a project due to Celina ISD's failure to meet required conditions.
- **Resilient Intelligent Networks will not be held responsible for loss of revenue and/or productivity resulting from work performed as a result of this project.**
- Normal network down-time will be discussed and agreed upon by Celina ISD and Resilient Intelligent Networks. Abnormal network conditions can occur during infrastructure projects and Resilient Intelligent Networks will not be held responsible for any damages resulting from an unscheduled network down-time to correct the abnormality.

Acceptance of Proposal

This Service Agreement (the "Agreement") effective as of February 24, 2015, is made and entered into by and between Resilient Intelligent Networks, L.L.C. with its principal place of business located at 2921 Country Club Rd, Denton, Texas 76210 and Celina ISD (Celina ISD). In the event of a conflict in the provisions of any Attachments hereto and the provisions set forth in this Agreement, the provisions of this Agreement shall govern.

1. Services

Resilient Intelligent Networks, L.L.C. agrees to provide services as requested by Celina ISD. All services provided by Resilient Intelligent Networks, LLC for the Celina ISD as an "Independent Contractor" and billed to Celina ISD on a "Time and Material" basis. Specific job functions to be performed by Resilient Intelligent Networks personnel shall be described in written attachments to this agreement. Celina ISD agrees that Resilient Intelligent Networks shall have ready access to Celina ISD staff and resources as necessary to perform the Services provided for by this agreement.

2. Title of Work

Title, rights to and interest in all Services, equipment, materials, supplies and structures procured by Resilient Intelligent Networks from third parties or supplied by Resilient Intelligent Networks and incorporated, or intended at the time of procurement or supply to be incorporated into work product of Resilient Intelligent Networks (excluding Resilient Intelligent Networks tools, equipment and rented items) shall remain entirely and exclusively with Resilient Intelligent Networks or such third party until Celina ISD has met all of its obligations under this agreement. When Celina ISD has fulfilled all such obligations, including but not limited to payment of all Resilient Intelligent Networks invoices, all title, rights, interest and intellectual property rights to deliverable software shall pass to Celina ISD, unless otherwise agreed to in writing by the Parties. Resilient Intelligent Networks shall retain all right, title and interest, and all other intellectual property rights in software tools owned and developed by Resilient Intelligent Networks and licensed to Celina ISD by Resilient Intelligent Networks for usage of their product.

3. Rate of Payment for Services

Celina ISD agrees to pay Resilient Intelligent Networks at the rate stated in each attachment to this agreement.

4. Invoicing

Celina ISD agrees to pay the amounts invoices by Resilient Intelligent Networks, Celina ISD will be invoiced (once project is completed) and agrees to remit payment of invoice amount within thirty (30) days unless otherwise agreed to and outlined in the attachment. If Celina ISD becomes delinquent in paying for Services rendered to Celina ISD by Resilient Intelligent Networks, Resilient Intelligent Networks may seek remedies allowed by the laws of the State of Texas. Should this action be taken by Resilient Intelligent Networks, Celina ISD agrees to reimburse Resilient Intelligent Networks for all attorneys' fees, court costs, and any other reasonable expenses incurred by Resilient Intelligent Networks in the recovery of Celina ISD debt to Resilient Intelligent Networks.

5. Termination of Services

In the absence of specific conditions for termination of Services stated in an attachment to this agreement, this agreement shall remain in effect until terminated by either Celina ISD or Resilient Intelligent Networks by giving thirty (30) days prior written notice to the other.

6. Staff

Neither Resilient Intelligent Networks nor Resilient Intelligent Networks' staff is or shall be deemed to be employees of Celina ISD. Resilient Intelligent Networks shall take appropriate measures to ensure that Resilient Intelligent Networks employees who perform services for Celina ISD are competent to do so.

7. Representation

Only current management personnel of Resilient Intelligent Networks shall represent Resilient Intelligent Networks during the performance of this agreement and have authority to execute written modifications or additions to this agreement.

8. Warranty

Resilient Intelligent Networks warrants to Celina ISD that the material, analysis, data, programs and services to be delivered or rendered hereunder, will be of the kind and quality designated in the attachment(s) and will be performed by qualified personnel. Special requirements for format or standards to be followed shall be attached as an additional Exhibit and executed by both Celina ISD and Resilient Intelligent Networks MAKES NO OTHER WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR NON-INFRINGMENT.

9. LIMITATION OF LIABILITY: IN NO EVENT WILL Resilient Intelligent Networks BE LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT UNDER ANY THEORY OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER LEGAL OR EQUITABLE THEORY FOR (A) THE LOSS OR INACCURACY OF DATA OR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES, OR TECHNOLOGY; (B) ANY INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION OR OPPORTUNITY, OR OTHER PECUNIARY LOSS EVEN IF RESILIENT INTELLIGENT NETWORKS, LLC HAS BEEN NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. THE PARTIES EXPRESSLY AGREE THAT RESILIENT INTELLIGENT NETWORKS , LLC   TOTAL LIABILITY FOR ANY AND ALL CLAIMS

RELATING TO OR ARISING UNDER THIS AGREEMENT SHALL BE LIMITED TO THE RETURN OF ANY FEES RECEIVED.

10. Applicable Law

Resilient Intelligent Networks, LLC shall comply with all applicable laws in performing services but shall be held harmless by the Celina ISD for violation of any governmental procurement regulation(s) to which it may be subject. This agreement shall be construed in accordance with the laws of the State of Texas. If any action at law or in equity, including an action for declaratory relief, is brought to enforce or interpret the provision of the agreement, the parties agree that the prevailing party shall be entitled to recover reasonable attorney's fees for the other party. The fees may be agreed upon by the parties, set by the court or set by an agreed upon Third Party. If payment of such fees is enforced in separate action brought for that purpose, payment of such fees shall be in addition to any other relief which may be awarded.

11. Waiver – Severability

If any provision of this agreement shall be held by a court of competent jurisdiction to be illegal, invalid, or unenforceable, the remaining provisions shall remain in full force and effect. No waiver of any breach of any provision of this agreement shall constitute a waiver of any other breach of the same or any other provisions hereof, and no waiver shall be effective unless made in writing and signed by an authorized representative of the waiving party.

12. Assignment

Neither party may assign this agreement, in whole or in part, without the express written consent of the other party, except to a parent or wholly owned subsidiary or in connection with a transfer of all or the majority of its stock or assets. Subject to the foregoing, this agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the respective parties hereto.

13. Force Majeure

Neither party shall be in default or otherwise liable for any delay in or failure of its performance under this agreement where such delay or failure arises by reason of any Act of God, or any government or any government body, acts of the common enemy, the elements, strikes or labor disputes, or other similar or Dissimilar cause beyond the control of such party.

14. Entire Agreement

This agreement and all attachments hereto constitute the entire agreement between Resilient Intelligent Networks and Celina ISD, and supersede all prior negotiations, representations, or agreements, either oral or written, related to this agreement.

15. E-Rate Contract Agreement

All contracts are contingent upon funding by the Schools and Libraries Division (SLD) of the Universal Services Administrative Company (USAC) unless otherwise agreed upon by district.

16. Notices

(ii) Notices to Resilient Intelligent Networks should be sent to:

> Resilient Intelligent Networks, L.L.C.
> PO Box 1285
> Argyle, Texas 76226

IN WITNESS WHEREOF, the parties hereto have signed this Agreement as of the date below.

ACCEPTED AND AGREED TO:

Celina ISD   **Resilient Intelligent Networks**

By: _____   By: _____

Name: _____   Name: Brett Alterman

Title: _____   Title: Sales Director

Date: _____   Date: 2/24/2015

Project Member Contact Information

- For questions or clarifications regarding this document, please contact the following personnel:

Brett Alterman

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