Transformyx
TECHNOLOGY ARCHITECTS

Response to: St. Charles Parish Public School Network Infrastructure Upgrades (Erate funding year 2016-2017)

CISCO Powered

For: St. Charles Parish Public Schools

13855 River Road

Luling, LA 70070

From: Transformyx, Inc.

6867 Bluebonnet Blvd.

Baton Rouge, LA 70810

SPIN: 143026008

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Contact: Molly Evans

Molly.Evans@tfmx.com

(225) 761-0088 X116

March 7, 2016

St. Charles Parish Public Schools
13855 River Road
Luling, LA 70070
RE: Network Infrastructure Upgrades

Dear St. Charles Parish Public School Representatives,

Transformyx, a Louisiana owned and operated company, is an award-winning provider of strategic technology and business solutions. Transformyx is one of Cisco's most experienced partners in Louisiana and holds certifications and specializations in routing, switching, wireless, voice and unified computing. Our technical design team, installation team, and Cisco partnership can deliver the highest quality solution to the St. Charles Parish Public Schools (SCPPS).   Transformyx has gone the extra mile in the K12 environment, hiring a certified teacher and USAC trained Account Manager for the region. With valuable knowledge of E-rate forms, rules, and billing, our team can ensure that the USAC guidelines are strictly adhered to and facilitate your e-rate filing.

Transformyx appreciates the opportunity to bid on the SCPPS Network Infrastructure Upgrades. Upon award of this RFP, Transformyx will enter into a contract with SCPPS according to the terms set forth in the RFP. Transformyx fully understands that SCPPS may accept any portion of the proposal. This proposal is valid for two years or the completion of the project, whichever occurs first.

I, Paul Buteaux, as an authorized representative of Transformyx, certify that I am submitting this response for Network Infrastructure Upgrades and comply with the E-rate guidelines for the goods and/ or services being proposed to the St. Charles Parish Public Schools. Molly Evans will act as your Account Manager and point of contact at Transformyx.   She will act as your main contact and can be reached at (225) 761-0088 X116, by cell at (225)229-5219 or via E-mail at Molly.Evans@tfmx.com.

Sincerely,

VP of Enterprise Sales
Transformyx

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1.0 Costs

Per the St. Charles Parish RFP for Network Infrastructure Upgrades, Transformyx complies with the following specifications.

"All required information for E-rate form submissions must be provided to SCPPS prior to April 1,2016. Vendor will work with SCPPS to complete the E-rate Item 21 Attachment(s) needed for filing E-rate Form 471."

Comply – Transformyx will work with St. Charles to complete all Item 21s for St. Charles Parish Public School (SCPPS). We have a USAC trained staff that has successfully completed hundreds Item 21s.

"SCPPS reserves the right to cancel any contract if E-rate funding is not awarded."

Acknowledge – Transformyx understands the complexity of E-rate funding and acknowledges that if the district is not funded any contract that may result from this response may be cancelled.

1.1 "Supply a narrative of the costs associated with your proposal."

Based on our experience in the K-12 marketspace, Transformyx is proposing 2 options for your Network Infrastructure upgrades.

Option 1: Meraki APs and Meraki Switching:

With districts similar to SCPPS Transformyx has had great success with the easy-to manage, state-of-the-art cloud managed Cisco Meraki wireless solution. This end-to-end wired and wireless technology makes management simple and has all of the robust capabilities that you would expect in a high-end technology solution. There are two essential pieces to every Meraki component: hardware and licensing. Cisco is offering aggressive 5 year for the cost of 1 for licensing – making Meraki an extremely cost effective solution.

Access Point: MR42-HW ($417.62) and LIC-ENT-5Y ($171.00) **3X3:**3 MU-MIMO 802.11ac WAVE 2

- Highlights
    - 3X3:3 MU-MIMO 802.11ac Wave 2
    - 1.9 Gbps dual-radio aggregate frame rate
    - 24X7 real-time WIDS/WIPS
    - Integrated Bluetooth low energy beacon
    - Full-time WiFi location tracking via dedicated 3rd radio
    - Integrated enterprise security and guest access.

Network Switching:

- Layer 3 PoE: MS320-48FP-HW ($3,224.30) and LIC-MS32048FP-5YR ($537.70)

    - 48 port gigabit Ethernet
    - 4XSPF+ for 10GB uplink, non-shared
    - 740 W PoE/ PoE+
    - Visibility and control over thousands of ports
    - Built-in mult-site management
    - Zero touch provisioning
- Layer 3 Non-PoE: MS320-48-HW ($2,528.90) and LIC-MS32048-5YR ($421.80)
    - 48 port gigabit Ethernet
    - 4XSPF+ for 10GB uplink, non-shared
    - Visibility and control over thousands of ports
    - Built-in mult-site management

- o   Zero touch provisioning
- **Layer 2 -** Meraki Layer 2 switching does not provide SFP+ port options, we used the Layer 3 capable MS320 for this part of our proposal.

Cisco Meraki is a controller- less solution and no additional hardware is needed for a fully functioning wireless system.

Option 2: Cisco Wireless Controller and AP Soliton:

Transformyx has also included pricing on the traditional Cisco controller-based wireless technology. The leader in the wireless market space for 15 years, Cisco has a proven track record in K-12 with this wired and wireless solution. In the Layer 3 Switching section of the RFP, we noted that SCPPS would like to utilize RiPv2 and EIGRP. Both of these are Cisco proprietary routing protocols found on traditional Cisco switching, so as a Certified Cisco Reseller, we felt we should show pricing to the district on both options. Please note that we also have several K-12 customers (St. John the Baptist and West Baton Rouge Parish) that are running a hybrid environment. If SCPSS would no chose, you can run the Meraki AP solution with the Cisco switching. This ensures your backbone is the leading Cisco switching - and your wireless is the state-of-the art Meraki.

Transformyx will meet with SCPPS representatives to determine the best design for the district based on staffing, management needs, security, and preference. Our certified Cisco engineers will develop as design and plan based on best practice and experience that will support the district today and into the future.

1.2   "Eligible and ineligible costs must be identified in the narrative referenced in requirement 1.1."

Option 1: Meraki APs, the license, Meraki Switches and the corresponding license is 100% Erate eligible.

Option 2: Cisco Controllers, licensing, APs, and switches are all 100% eligible. The Cisco maintenance platform, Cisco Prime would be an ineligible cost. Prime is optional, but will increase management capabilities.

1.3 "Complete the cost sheet(s) associated with each category in the **2.0 Technical Response** section for which you are responding.

Please See attached spread sheet with corresponding Meraki Equipment and Cisco Solution.

1.4 "Installation costs should include all expenses required."

Transformyx has included all travel and per diem costs in our installation pricing.

1.5 "During the term of an agreed upon contract, the vendor must make available to SCPPS all similar contracts utilizing like services, equipment, and volumes, and terms and conditions that are made available to other customers in the state of Louisiana."

Transformyx participates on the Louisiana State Contract for Cisco Systems and Tripp Lite, and will honor both our pricing included in this response and our State Contract Pricing for the term of the contract.

1.6 "Vendors must provide SCPPS with lowest corresponding prices for all proposed equipment/services. Lowest corresponding price (LCP) is defined as the lowest price that a service provider charges to nonresidential customers who are similarly situated to a particular applicant (school, library, or consortium) for similar services."

Acknowledge – Transformyx works with many School Districts and Libraries in the state of Louisiana and will provide SCPPS with the lowest corresponding price for all proposed equipment and services.

1.7 "Unit costs provided in cost sheet(s) submitted per the **2.0 Technical Response** section must be independent of funding source (E-rate vs. non Erate funds)."

Acknowledge – Transformyx will honor the pricing put forth in this response, regardless of the funding source.

1.8 Unit costs provided in cost sheet(s) submitted per the **2.0 Technical Response** section must be independent of quantity. Proposed costs cannot change due to changes in quantities needed for project completion."

Acknowledge – Transformyx will honor unit pricing as put forth in this response.

1.9 Unit costs must be available to SCPPS for additional purchases for 12 months after completion of work agreed to within contract(s) awarded for this RFP.

Acknowledge – Transformyx will extend the contract created as a result of award to 12 months post implementation.

1.10 "The awarded vendor(s) must separate invoices for materials/services that will be E-rate eligible based on Category 2 school budgets from all other materials/services."

Acknowledge – Transformyx has been a "green-light" service provider with USAC for over 5 years. We understand the billing in both BEAR and SPI instances.

1.11 "Any service necessary to implement the proposed solution must be clearly defined. The total cost(s) of these services must also be clearly stated and specified as eligible or non-eligible for E-rate funding. If the cost is a recurring cost, include the anticipated payment schedule."

Acknowledge

1.12 SCPPS will not be responsible for any costs that were not specified in the Vendor's proposal.

Acknowledge – Transformyx has put forth our best effort to design a complete network based on the information provided by SCPPS.

2.0 Technical Response

2.1 Wireless

Transformyx has successfully completed Wireless Network implementations at several school districts in Louisiana. From large school districts like East Baton Rouge Parish Schools and Rapides Parish Schools – to smaller school districts like Central Community Schools and St. John the Baptist School district we have learned that a quality network design takes into account projected use, projected growth, square footage, building materials, outage tolerance, number of support staff, and budget. While some districts are preparing for the future with one AP in every classroom, and multiple APs in common areas, others are using a coverage model that can grow as their budget becomes available.

For this reason, Transformyx has utilized the Estimated Access Points as a starting point for our design. We have a perfected walkthrough procedure and a predicative tool set that upon award will allow us to design a complete and thorough solution.

2.1.2 The solution being proposed must satisfy all of the requirements listed below.
Vendors must state compliance in their response. If there is an exception to the listed requirements, the vendor must provide a detailed explanation of the proposed alternate.

2.1.2.1 Access points must be based on 802.11ac and 802.11ac wave 2 radio technology.

Comply

2.1.2.2 Access points must be able to provide connectivity for at least 35 devices (35:1 ratio) simultaneously

Comply

2.1.2.3 Access points must support multi-user MIMO with three spatial streams and/on SU-MIMO with four spatial streams.

Comply

2.1.2.4 Access points must support up to 16 BSSIDs per radio.

Comply

2.1.2.5 Access points must be backwards compatible to support 802.11 a/b/g/n.

Comply

2.1.2.6 Access points must include radios for both 2.4 GHz and 5 GHz.

Comply

2.1.2.7 If controller-based solution is proposed it must support high availability allowing a second controller to take over duties with minimal disruption.

N/A – Cisco Meraki is a controller-less solution, with build tin "Self-healing" networking with per-flow optimization. This technology allows the APs to automatically reconfigure and use mesh links in the event of a wired Ethernet or switch failure, forwarding traffic to other APs in the network that have Internet gateway connectivity.

2.1.2.8 If controller-based solution is proposed it must support client connectivity in the event that a WAN outage disrupts communication between the access point and the controller.

N/A – Using the "Self-healing" mesh technology APs maintain a per-flow track of traffic, so clients already associated to an AP continue to have connectivity and experience no interruption of service.

2.1.2.9 Solution must offer access points with internal and external antenna options.

COMPLY-

2.1.2.10 Solution must offer the ability to manage all access points as one wireless network via a single management platform.

COMPLY – The Meraki dashboard provides unmated visibility into your network. The dashboard gives views into the network users, their devices and their applications. Armed with rich analytics, administrators can quickly create access control and application usage polices, optimizing both the end-user experience and network security.
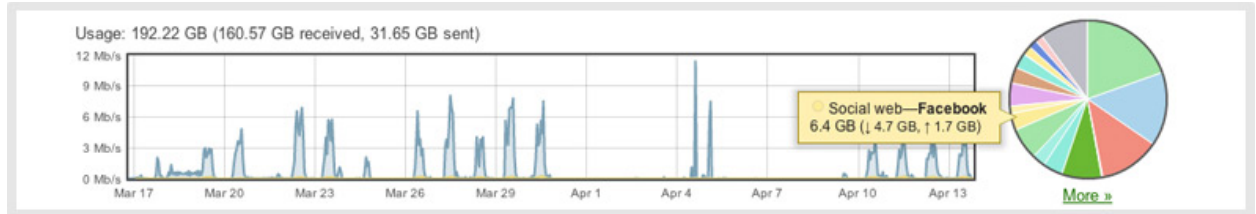
Figure 1 - Meraki Dashboard
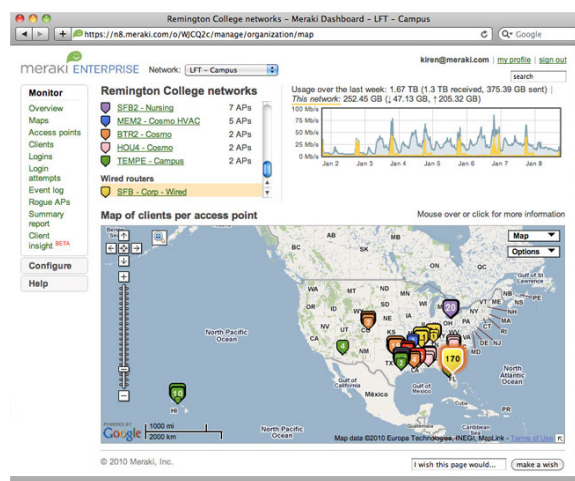
2.1.2.11 Solution must support QoS capabilities and policy enforcements.

COMPLY – Cisco Meraki's integrated Layer 7 fingerprinting and application QoS automatically identifies and controls hundreds of applications, from business apps to BitTorrent and YouTube.

Figure 2 - Meraki Application QoS

2.1.2.12 Solution must support technology to automatically configure RF settings such as channel assignment and transmit power.

COMPLY – Cisco Meraki's powerful, automated RF optimization system delivers high performance in high density environments and under challenging interference conditions.

Figure 3 - Meraki RF Optimization
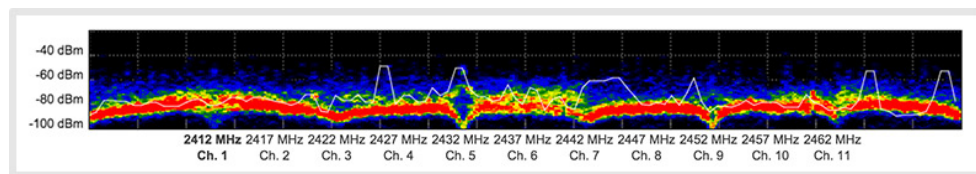
2.1.2.13 Solution must support technology that optimizes overall network capacity in mixed-client environments by helping ensure that 802.11 a/g/n and 802.11 ac clients operate at the best possible rate.

COMPLY - Cisco Meraki provides the ability to configure the MR series access points using either 20-MHz (VHT20), 40-MHz (VHT40) or 80-MHz (VHT80) channels on the 5GHz band.

2.1.2.14 Solution must support technology to steer dual band capable clients from 2.4 GHz to 5 GHz.

COMPLY

2.1.2.15 Solution must provide the capability of client moving from one access point to **another without noticeable loss of connectivity.**

COMPLY

2.1.2.16 Solution must provide a guest portal on a separate Vlan to allow unauthenticated user access to the Internet, yet still utilize the District's web filter.

COMPLY

2.1.2.17 Access points must be able to be mounted to drop ceilings or walls without loss of coverage area.

COMPLY

2.1.2.18 Solution must minimize interference from 3G/4G cellular network and distributed antenna systems.

COMPLY – By measuring utilization from neighboring APs, detecting Wi-Fi signals from non-Meraki APs and identifying non-Wi-Fi interference, Cisco Meraki APs continuously stay on top of changing and challenging conditions. Tools such as real-time spectrum analysis and live channel utilization deliver immediate information on the RF environment at any part of the network.

2.1.2.19 Solution must offer wireless intrusion protection, rogue detection, and containment.

COMPLY – Air Marshal is Cisco Meraki's wireless intrusion prevention (WIPS) solution. Integrated into every Cisco Meraki access point and centrally managed from the cloud, Air Marshal detects and neutralizes the wireless threats, delivering state of the art protection to the most security conscious distributed networks.

Figure 4 - Real-Time WIPS Example
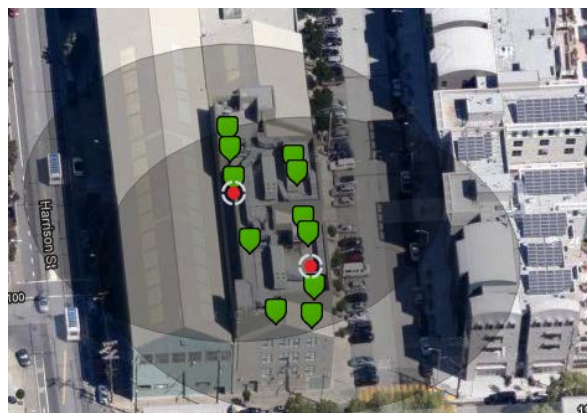
2.1.2.20 Vendor must describe warranty included with each brand/model of equipment proposed.

Acknowledge - Cisco Meraki has a lifetime hardware warranty with advanced replacement included.   You are also entitled to Meraki Support that includes:
- Access to knowledge-base
- Case-based support viewable in dashboard
- Firmware and software upgrades and updated
- 24X 7 Telephone support based out of San Francisco, London, and Sydney technical assistance centers.

2.1.3 Vendor must describe their installation and testing procedures for the proposed wireless solution, and must include/address all requirements below.

2.1.3.1 Vendor will be responsible for un-boxing, asset tagging, and logging each piece of equipment in an asset tracking spreadsheet provided by SCPPS, in an area designated by SCPPS.

COMPLY – Transformyx has perfected the e-rate asset management process. An example of our documentation set that we have developed for our Wireless Erate project is located in <mark>Appendix A</mark>. Below is a summary of our Equipment Staging and Inventory portion of our project plan:

> **Equipment Staging an Inventory**
> *Resources:*
> Project Manager, Installation Technician(s)
> *Deliverable description:*
> Transformyx will inventory and apply e-rate tag for all equipment included in this project. Transformyx will also apply SCPPS supplied inventory tags if required for this equipment
> *End result:*
> Equipment inventory spreadsheet

2.1.3.2 Any trash resulting from the un-boxing process must be disposed of by the vendor.

COMPLY

2.1.3.3 Vendor will be responsible for installing any necessary software and firmware updates.

COMPLY

2.1.3.4 Vendor will be responsible for configuration of access points.

COMPLY

2.1.3.5 Vendor will be responsible for mounting access points in designated areas as specified in agreed upon network design, and connecting access point to the network drop provided for that area.

COMPLY – Transformyx has a proven record of successful deployments of Wireless technology is K-12 environments. Below is a summary of our Installation and Configuration portion of our project plan:

> ### Installation and Configuration
>
> *Resources:*
> Project Manager, Lead Technology Architect and Installation Technician(s)
> *Deliverable description:*
> Transformyx will configure the Meraki dashboard to meet the project requirements and up to 3 SSIDs that will be available to all locations in the district. SSIDs will be setup to utilize Microsoft Active Directory or Pre-shared key for authentication. Additional parameters for the SSIDs and associated networking will be discussed with SCPPS prior to configuration. SCPPS campus maps will be loaded into the Meraki dashboard and access points will be placed in the appropriate locations. SCPPS is responsible for providing electronic maps which contain accurate room numbers and temporary buildings. Transformyx will also name and label each access point in the Meraki dashboard using the SCPPS naming standards. Installation Technicians will install each access point and document the location.
> *End result:*
> Updated equipment inventory spreadsheet with location information, each campus will have functioning wireless that meets the project requirements

2.1.3.6 Vendor will be responsible for testing every access point installed. Wireless coverage must meet specifications in the network design.

COMPLY

2.1.3.7 The installation of any access point model which will require more than one network drop must be clearly communicated as such to SCPPS in your installation response.

Acknowledge – The Cisco Meraki AP only needs one cable run to a POE switch (or switch with power injector) to operate.

2.2 Network Switches

2.2.1 The solution being proposed must satisfy all of the requirements listed below. Vendors must state compliance in their response. If there is an exception to the listed requirements, the vendor must provide a detailed explanation of the proposed alternate. Anticipated quantities needed are designated in the **SCPPS 2.2 Network Switches Cost Sheet.** Vendor must complete and submit proposed brands and models, along with costs, on the **SCPPS 2.2 Network Switches Cost Sheet**. SCPPS reserves the right to adjust quantities based on needs assessed throughout the project.

2.2.1.1 Layer 3 and Layer 2 switches functionally equivalent to, or better than, Avaya ERS 3549GTS-PWR+

COMPLY

2.2.1.2 Solution must offer SFP+.

COMPLY

2.2.1.3 Must support both 1 Gb/ 10 Gb speeds on each SFP port.

COMPLY – The Meraki MS3XX series switches support 4 X SFP+ for 10GB uplinks, non-shared (Must have correct 1GB or 10gb sfp)

2.2.1.4 Must support multiple Vlans.

COMPLY

2.2.1.5 Must provide at least 48 ports capable of auto-negotiating 100 Mbs or 1 Gbs.

COMPLY

2.2.1.6 Must support Spanning Tree Protocol.

COMPLY

2.2.1.7 Must support IPv4 routing protocols (static, RIPv2, OSPF,EIGRP).

COMPLY / NOTE– Meraki Switches support Dynamic routing (OSPFv2), Static routing. Only Cisco Catalyst switches support EIGRP.)

2.2.1.8 Must support Internet Group Management Protocol (IGMP) Snooping for IPv4 for Multi-cast forwarding.

COMPLY/ NOTE- MS Switches can forward IGMP traffic, but will run IGMP snooping by default. This prevents the switch from sending multicast traffic to hosts who are not yet joined with the proper multicast group

2.2.1.9 Must support IGMP filtering.

NOTE: MS Switches can forward IGMP traffic, but will run IGMP snooping by default. This prevents the switch from sending multicast traffic to hosts who are not yet joined with the proper multicast group

2.2.1.10 Must support telnet and SSH for remote management.

N/A – To manage Meraki remotely you would access the device via the secure Meraki dashboard.

2.2.1.11 Must support QoS capabilities.

COMPLY

2.2.1.12 Must support stacking capabilities.

COMPLY – Virtualy stacking can manage up to thousands of ports from a single pane of glass

2.2.1.13 Must support POE+ and non-POE options.

COMPLY

2.2.1.14 Must offer solution for management of multiple switches.

COMPLY

2.2.1.15 Vendor must describe warranty included with each brand/model of equipment proposed.

Acknowledge - Cisco Meraki has a lifetime hardware warranty with advanced replacement included.   You are also entitled to Meraki Support that includes:
- Access to knowledge-base
- Case-based support viewable in dashboard
- Firmware and software upgrades and updated
- 24X 7 Telephone support based out of San Francisco, London, and Sydney technical assistance centers.

2.2.2 Vendor must describe their installation and testing procedures for the proposed network switch solution, and must include/address all requirements below:

2.2.2.1 Vendor will be responsible for un-boxing, asset tagging, and logging each piece of equipment in an asset tracking spreadsheet provided by SCPPS, in an area designated by SCPPS.

COMPLY -– Transformyx has perfected the e-rate asset management process. An example of our documentation set that we have developed for our Wireless Erate project is located in Appendix A. Below is a summary of our Equipment Staging and Inventory portion of our project plan:

Equipment Staging an Inventory
- *Resources:*
  Project Manager, Installation Technician(s)
- *Deliverable description:*
  Transformyx will inventory and apply e-rate tag for all equipment included in this project. Transformyx will also apply SCPPS supplied inventory tags if required for this equipment
- *End result:*
  Equipment inventory spreadsheet

2.2.2.2 Any trash resulting from the un-boxing process must be disposed of by the vendor.

COMPLY

2.2.2.3 Vendor will be responsible for configuration of network switches.

COMPLY

2.2.2.4 Vendor will be responsible for placing and securing network switches in the designated racks, and connecting cabling to the network switches. Cable management within rack must be agreed upon with SCPPS prior to installation of network switches.

COMPLY

2.2.2.5 Existing network switches being replaced must be removed by vendor and placed in an area designated by SCPPS.

COMPLY

2.2.2.6 Vendor will be responsible for testing every network switch installed.

COMPLY

2.3 Cabling

2.3.1 The solution being proposed must satisfy all of the requirements listed below. Vendors must state compliance in their response. If there is an exception to the listed requirements, the vendor must provide a detailed explanation of the proposed alternate. Estimated quantities needed are designated in the **SCPPS 2.3 Cabling Cost Sheet**. Vendor should reference the **SCPPS_Site_Maps** for location of fiber placement. Vendor must complete and submit proposed costs on the **SCPPS 2.3 Cabling Cost Sheet**. SCPPS reserves the right to adjust quantities based on needs assessed throughout the project.

2.3.1.1 Vendor (or proposed subcontractor) must have all applicable state licensing and be able to provide any additional statutory requirements (such as bonds or permits) as applicable for installing wired telecommunication services. Provide the name and license number of the company providing the wiring.

Acknowledge – The cabling subcontractor that has worked with Transformyx on multiple K-12 wireless implementations is Data-Tel of Louisiana. Their state contractor license number is : #36386

2.3.1.2 The contractor must be certified to install and terminate both copper and fiber.

COMPLY- Data-Tel is a registered member of BICSI and the staff stays current with all TIA/EIA standards.

2.3.1.3 All cable must meet the requirements of the National Electrical Code (NEC) except where other authorities or codes impose a more stringent requirement or practice.

COMPLY

2.3.1.4 Cabling must meet all local building codes and nationally recognized cabling standards, including BICSI, ANSI/TIA/EIA, and IEEE 802.3.

COMPLY – Cabling will be Leviton which offers best-in-class copper and fiber cables that are tested to perform beyond industry standards.

2.3.1.5 Single mode fiber should meet or exceed the loss characteristics defined by either ITU or TIA standards.

COMPLY

2.3.1.6 All fiber should be indoor/outdoor rated, distribution style, single mode fiber cable.

COMPLY

2.3.1.7 Plenum rated cable is NOT required.

ACKNOWLEDGE

2.3.1.8 Fiber connections must include termination on both ends of all strands into a mounted, 12/24-port, fiber optic enclosure (LIU) at each end and two fiber patch cables (2 meter, LC to LC).

COMPLY

2.3.1.9 Fiber must be terminated so that it is compatible with devices at each end.

COMPLY – Data-Tel has worked with Transformyx in implementing Wireless deployments in over 50 schools. We are familiar with a multitude of network devices.

2.3.1.10 Underground cabling (fiber) shall include the cost of trenching or boring as needed, appropriate PVC pipe, transition from PVC to EMT (up to 8 feet EMT included), building entry, and innerduct (orange flex tubing). Where existing conduit is a viable solution, vendor and SCPPS must agree on a final solution.

COMPLY

2.3.1.11 No outdoor cabling shall be exposed. All outside tubing shall be watertight. For outside conduit, EMT conduit should be used above ground and PVC conduit underground. All tubing shall meet building and recognized cabling specifications.

COMPLY

2.3.1.12 No indoor cabling shall be exposed except in attics, above ceiling tiles, as patch cords, or unless approved in advance by SCPPS. However, fiber in attics must be in orange flex tubing (inner duct) or conduit.

COMPLY

2.3.1.13 The cable installer must provide clean and legible as-built cable drawings and records in both hard and soft copy as part of system installation. These drawings must, at a minimum, show the location and type of all communication rooms, communication closets, all distributing cable runs, and all outlets. Cable records must include information necessary to correlate cable runs and terminating locations. Vendor may utilize the **SCPPS_Site_Maps** to assist in final drawings.

COMPLY – A complete set of cable documentation will be supplied upon the completion of the project. Please see example in Appendix D

2.3.1.14 Category 6 drops shall include all needed supplies (i.e. Cat6 cable, jacks, etc.) and termination into patch panel and into jack. In some instances, other supplies might be required on certain drops like wall caddy, wall box and raceway. No Cat 6 drop will exceed 300 feet. This should be accounted for in vendor responses.

COMPLY

2.3.1.15 Cable accessories (ie. Jacks, Connectors, etc.) must include at least a 3 year warranty. SCPPS currently uses Panduit cabling accessories.

COMPLY – Leviton Cable has a limited lifetime warranty

2.3.1.16 Vendor proposals shall address cabling services and cabling materials.

COMPLY

2.3.1.17 All cables, patch panels, and faceplates must be labeled using a permanent marking system. Handwritten labels are not acceptable.

COMPLY

2.3.1.18 All cables must be installed at least one foot from any fluorescent lighting unless contained in separate conduit, and four feet from other sources of electrical interference such as motors and generators unless otherwise agreed upon by vendor and SCPPS.

COMPLY

2.3.1.19 Cat 6 cables for access points must be purple, all other drops must be blue. Corresponding patch cables must match the color of the run.

COMPLY

2.3.1.20 Cat 6 drops should be pulled to the closest data rack.

COMPLY

2.3.1.21 All cable runs must be continuous from end to end. Cable splicing to achieve greater cable length is not allowed.

2.3.1.22 All data drops must be tested and certified. Certification reports must be provided to SCPPS.

COMPLY

2.3.1.23 Vendor must supply 1ft – 3ft patch cables as needed to connect from patch panel to switch.

COMPLY

2.3.1.24 Vendor must include the cost of racks and patch panels in the proposal. However, SCPPS may eliminate these items if there is space in the existing rack.

Acknowledge – During the question phase of the RFP, SCPSB indicated that they would supply the racks necessary to complete the project.

2.3.1.25 Cabling replaced by this project must be removed without interruption of service. If removal is not possible SCPPS must be notified.
COMPLY

2.3.1.26 To support access point placement, each drop run for an access point must be 10ft. longer than anticipated placement.

COMPLY

3.0 Implementation Process & Timelines

Provide a response to this section for each category in the **2.0 Technical Response** section for which you are responding. A detailed response must be provided for each requirement below.

3.1 All installations must be in place and operational on **September 30, 2017**.

COMPLY – Transformyx has successfully rolled out wireless deployments of multiple school districts and has a perfected implementation process.

3.2 During school hours (7:00 am – 3:30 pm), there must be no disruption of service, and no degradation in transport speed or capacity without the prior approval of SCPPS. Vendor will plan with SCPPS to schedule network outages in order to replace equipment.

COMPLY – Transformyx will provide SCPPS with a dedicated Project Manager who will coordinate on-site

3.3 Vendor will work with SCPPS to take advantage of school holidays, after-school hours, and weekends for project implementation. Vendor will be responsible for all costs associated with work performed during these times.

COMPLY

FOR SECTIONS 3.4 – 3.7 we have included a Sample Scope of Work

3.4 Describe the various resources within your company that will assist in executing this network upgrade.

3.5 Describe all of the implementation steps that will take place and provide timelines, stated in number of days, for each phase of the process for which you are responding, resulting in the implementation being complete by September 30, 2017.

3.6 Vendor must provide a representative to act as project manager and liaison with identified SCPPS contact. Representative must meet regularly with identified SCPPS contact to provide an update in regards to project status and timelines and must be available via email and/or phone for questions/discussions and project status requests during project work time.

3.7 Describe the method and frequency in which status updates will be provided to SCPPS during the implementation process.

Scope of Work Category 2 Equipment and Installation

Transformyx will work with SCPPS to determine an implementation strategy, which will be documented and tracked throughout the project. This project will follow our Methodology that has been tested on large-scale school districts. The Transformyx project methodology is based on Information Technology Project Management practices, Cisco deployment models and industry experience. This methodology is built around defining customer expectations through planning, consistent communications through meeting and exceeding customer expectations by providing qualified resources that are manufacturer certified.

Our implementation services and methodology are based on previous e-rate experience and delivery of several successful Cisco Meraki deployments in K-12 environments. Our goal is to provide SCPSS a great customer experience by implementing a Cisco Meraki wireless solution based on industry best practices. A sample our e-rate project documentation can be found in Appendix C. Transformyx will provide the following implementation services to SCPPS based on the items requested in this proposal:

Project Objectives:

SCPPS is evaluating deployment of Cisco Meraki access points in schools throughout the district as part of E-Rate 2016-2017 project. SCPPS is looking for a partner that will provide Project Management, Cabling, Wireless Installation and Configuration Services. Below is a summary of the deliverables for this engagement:

Project Management and Project Documentation

Pre-Implementation Walkthroughs
Cabling
Equipment staging and inventory
Installation and Configuration
Post-Implementation Walkthroughs

Project Resources:

Project Manager
Lead Technology Architect
Lead Cabling Engineer
Installation Technician (s)

Project Deliverables:

Project Management

Resources:

Customer Project Manager

Deliverable description:

Transformyx will provide SCPPS with a Project Manager who will be responsible for coordinating and organizing the project with the district. After the project is organized, this individual will create a project

schedule and coordinate resources for cabling, installation and configuration. The project manager will also be responsible for project communications, meetings and documentation.

End result:

Project requirements, Project Standards and Project Schedule

Pre-Implementation Walkthroughs

Resources:

Customer, Project Manager, Lead Technology Architect, and Lead Cabling Engineer

Deliverable description:

Transformyx will develop a pre-implementation checklist that meets the project requirements. This checklist will be presented to SCPPS for approval and will be utilized by Transformyx to determine if a campus is ready for installation. Transformyx will walk through each campus to validate the campus infrastructure is sufficient to meet the project requirements, validate the requested equipment is sufficient to meet the project requirements and perform a wireless assessment. The end result will be site readiness approval or issues to resolve and a cabling plan.

End result:

Site readiness acceptance or remediation items, Cabling Plan

Cabling

Resources:

Project Manager, Lead Cabling Engineer, and Installation Technician(s)

Deliverable description:

Transformyx will provide cabling resources that will run, terminate and test Ethernet cable drops from a designated IDF(s) to each access point. Each cable run will be labeled, documented and tested after completion.

End result:

Each campus cabled to meet project requirement, Documented cable testing

Equipment Staging an Inventory

Resources:

Project Manager, Installation Technician(s)

Deliverable description:

Transformyx will inventory and apply e-rate tag for all equipment included in this project. Transformyx will also apply SCPPS supplied inventory tags if required for this equipment

End result:

Equipment inventory spreadsheet

Installation and Configuration

Resources:

Project Manager, Lead Technology Architect and Installation Technician(s)

Deliverable description:

Transformyx will configure the Meraki dashboard to meet the project requirements and up to 3 SSIDs that will be available to all locations in the district. SSIDs will be setup to utilize Microsoft Active Directory or Pre-shared key for authentication. Additional parameters for the SSIDs and associated networking will be discussed with SCPPS prior to configuration. SCPPS campus maps will be loaded into the Meraki dashboard and access points will be placed in the appropriate locations. SCPPS is responsible for providing electronic maps which contain accurate room numbers and temporary buildings. Transformyx will also name and label each access point in the Meraki dashboard using the SCPPS naming standards. Installation Technicians will

install each access point and document the location.
End result:
Updated equipment inventory spreadsheet with location information, each campus will have functioning wireless that meets the project requirements

Post-Implementation Walkthroughs

Resources:
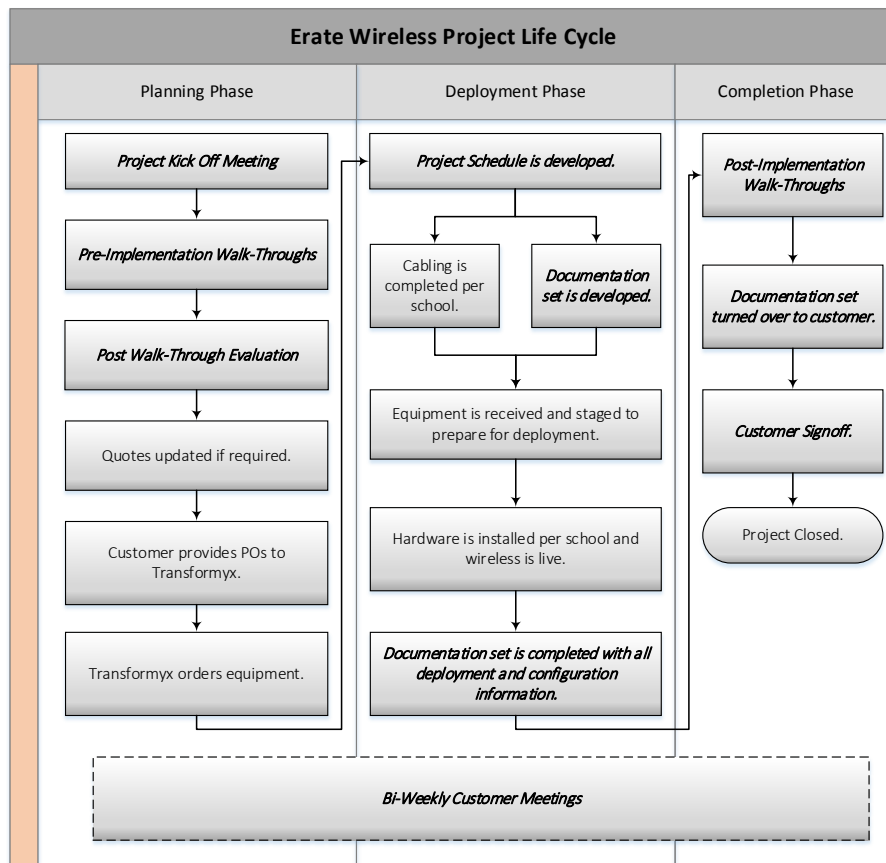Customer and Project Manager
Deliverable description:
Transformyx will develop a post-implementation checklist that meets the project requirements. This checklist will be presented to SCPPS for approval and will be utilized by Transformyx to determine if a campus is complete. Transformyx will walk through each campus to validate cabling, installation documentation and functioning wireless. The end result will be campus completion approval or remediation items.
End result:
Site completion acceptance or remediation items

Below is a visual representation of our e-rate wireless project life cycle.

Erate Wireless Project Life Cycle

Planning Phase	Deployment Phase	Completion Phase
Project Kick Off Meeting	*Project Schedule is developed.*	*Post-Implementation Walk-Throughs*
Pre-Implementation Walk-Throughs	Cabling is completed per school. / *Documentation set is developed.*	*Documentation set turned over to customer.*
Post Walk-Through Evaluation	Equipment is received and staged to prepare for deployment.	*Customer Signoff.*
Quotes updated if required.	Hardware is installed per school and wireless is live.	Project Closed.
Customer provides POs to Transformyx.	*Documentation set is completed with all deployment and configuration information.*	
Transformyx orders equipment.		

Bi-Weekly Customer Meetings

Note: Items in *Bold Italic* print indicate Project Management responsibilities.

3.8 Vendor will be liable for any damages caused to work sites. If damages occur, vendor will be held responsible for all repairs and/or costs associated with repairs.

COMPLY

3.9 Vendor may not make physical changes to any SCPPS structures without written permission from SCPPS. This includes any cutting, drilling, boring, or physical alterations of any kind.

COMPLY

3.10 Vendor will keep the work area free from accumulation of waste materials and debris caused by installation and maintenance that are part of this project. Vendor is responsible for the disposal of all waste material.

COMPLY

3.11 Implementation of all facets of the proposed solution must be completed in a safe and professional manner.

COMPLY

3.12 Joint inspections by SCPPS and the vendor representative will be made throughout implementation and before acceptance of the work by SCPPS.

COMPLY

4.0 Maintenance & Support

Provide a response to this section addressing each category in the **2.0 Technical Response** section for which you are responding. A detailed response must be provided for each requirement below.

4.1 Indicate the local resources available to provide support to the district, including but not limited to the number of local technicians available for network and equipment installation, troubleshooting, and repair.

Staff

Transformyx has an experienced and qualified staff. Our staff is located in our 32,000 square foot state-of-the-art data center in Baton Rouge, Louisiana. We also have remote engineering teams in New Orleans, Louisiana and Hammond, Louisiana.   Some of our local staff includes:

Claude Bethea – 27 year Technology Professional, CEO
Jim Dubos – 25 year Technology Professional, CTO
Paul Buteaux -22 years of Technology Sales Experience, CCSE, VP Enterprise Sales
Charles Rougeau – 22 years of Technology Experience; CCNP, CCNP Voice
Chris Favalora – 20 years of Technology Experience; CCNP, CCNP Voice, CCDP

Charles Smith – 15 years of Technology Experience, CCIE Collaboration
Cavin O'Quin - 15 years of Technology Experience, NetApp Certified, VMWare, Microsoft
Kyle Coleman – 10 years of Technology Experience, Cisco Certified Wireless
Louis LaTour – 20 years of Technology Experience, Unified Computing Expert, Storage Expert
Troy Patt – 10 years of Technology Experience, Cisco Certified Route/Switch, F5, Cisco Security
Scott Hoppe – 22 years of Technology Experience, Cisco Unified Computing Expert, Storage
Robert Mincey - 15 years of Technology Experience, CCIE
Robert Bell – 7 years of Technology Experience, CCNA, Meraki experience
Bart Leblanc- 25 years of Structured Cabling Experience, RCDD, member BICSI
Molly Evans- 10 years of Technology Experience, State Certified Teacher, and USAC trained
Miriam Tiritilli- 12 years of Technology Experience, Cisco Services Expert
Valerie Bernard - 5 years or IT Project Management Experience, Lean Six Sigma Yellow Belt

We also employ 10 dedicated technology technicians to run our help desk and data center and several   installation technicians and interns.

4.2 Provide information regarding your company's service assurance. Include your service level agreements and response time per service level.

Transformyx has been supporting customers in Louisiana for over 25 years. Customer Service is our number one priority. We have education customers that have Managed Service Contracts, full/part time staffing services, remote management service or just hourly as-needed services. We will work with SCPPS to understand the Service Level expectations and custom design a solution that works for the district.

4.3 Describe your repair/replacement process which includes the steps taken for submitting, escalating, and tracking troubles toward resolution.
- Customer problem report (Via customer portable, website, email or phone)
  ✓ SCPPS can work directly with Cisco Technical Assistance Center or can utilize their Transformyx team to resolve problems
- Troubleshooting
  ✓ Transformyx and Cisco will work remotely to diagnose problem
  ✓ If hardware replacement is determined to be necessary, gear will be shipped within 24 hours. (SCPPS can work independently or with Transformyx on installation)
- Resolution
  ✓ Transformyx and Cisco will escalate to until there is a satisfactory resolution.

4.4 Describe the schedule during which real time support will be available to SCPPS.

The advantage of matching Transformyx's local integration team with Cisco Hardware is the availability of 24 hour support. With a Cisco

Meraki solution SCPPS will have access to Meraki Support which includes:
- Access to knowledge-base
- Case-based support viewable in dashboard
- Firmware and software upgrades and updated
- 24X 7 Telephone support based out of San Francisco, London, and Sydney technical assistance centers

SCPPS will also have access to local Transformyx engineering support from 6am until 6pm Monday thru Friday.

4.5 Describe the mechanism in which SCPPS will contact the vendor to request support.
SCPPS can contact Transformyx via their client portal on our website, e-mail, or telephone.
SCPPS can contact Cisco via the website or telephone.

4.6 Vendor must provide knowledge transfer and training on installed equipment/software at the time of project completion.

COMPLY

5.0 Qualifications & Prior Experience

Provide a response to this section addressing each category in the **2.0 Technical Response** sections for which you are responding. A detailed response must be provided for each requirement below.

5.1 Qualifications

5.1.1 Provide information on the expertise and certifications of your company and employees to design, implement, and maintain the equipment and services proposed.

Transformyx is a Cisco Premier Reseller with specializations in:
- Advanced Collaboration Architecture Specialization
- Advanced Enterprise Networks Architecture Specialization
- Advanced Unified Computing Technology Specialization
- Cloud Services Reseller
- Cisco Cloud Powered Infrastructure as a Service Provider

5.1.2 Provide a copy of your Certification to operate as a Telecommunication Service 5.1.1 Provider in the State of Louisiana.
SEE APENDIX A

5.1.3 Provide the E-rate SPIN number(s) that your company uses in Louisiana.
Transformyx Inc., SPIN143026008

5.1.4 Contractors must meet and affirm compliance with all requirements stated in the document titled "**Contractor Contractual and Insurance Requirements Revised 042910**".

COMPLY

5.1.5 The vendor must include all subcontractors as insurers under its policies or shall insure that all subcontractors satisfy the same insurance requirements affirmed to in requirement 5.1.4.

COMPLY

5.1.6 Any subcontractor used on this project is bound by all terms and conditions of the contractor to which the contract is awarded. The primary vendor into which SCPPS enters an agreement will assume total responsibility for any actions of subcontractors used to fulfill the agreement.

COMPLY

5.2 Prior Experience

FOR SECTIONS 5.2.1 -5.2.3 We have provided a References Table, and Customer Testimonials

5.2.1 Provide at least 3 references of projects similar in scope to this project and any other pertinent information on your experience in working with school districts on large scale projects of the same scope.
5.2.2 Include all Louisiana school districts in your reference list where you have completed similar projects.
5.2.3 State your experience in providing equipment and/or services which were E- rate funded in the telecommunications category in Louisiana.

References

West Baton Rouge Parish Schools Tammy Seneca 3761 Rosedale Road Port Allen, LA 70767 (P) 225-343-8309 tseneca@wbrschools.k12.la.us	In 2013, Transformyx completed a Meraki wireless implementation for the 1 to 1 schools in the district. Transformyx was also awarded the WBR 2015-2016 E-rate for wireless. We increased their Meraki Wireless Coverage throughout the district. WBRPS is also a Managed Service Customer.
Livingston Parish School Board Rob Logan 13909 Florida Blvd. Livingston, LA 70754 (P) 225-686-7044 Robert.logan@lpsb.org	LPSB deployed a Cisco Wireless Network in 2015. Transformyx completed the wireless installation in of all of the High Schools and Middle Schools throughout the district in the summer of 2015 and will continue with the Elementary schools beginning in January of 2016.
Baton Rouge Community College Ron Solomon 201 Community College Dr. Baton Rouge, LA 70806 (P) 225-202-8009	Transformyx completed an upgrade to the BRCC Cisco wireless in 2015. We incorporated the existing equipment where possible and created a robust, cost-effective solution.

solomonr@mybrcc.edu	
Orleans Parish School Board *Glen Smith* 3520 General DeGaulle Dr. New Orleans, LA 70114 (P)(504) 304-3520 Glen_Smith@nops.k12.la.us	Transformyx has worked with Orleans Parish School Board for over 2 years. As their go-to partner, we help deploy and support their Cisco controller-based wireless solution.
East Baton Rouge Parish Schools *Napoleon Burrell* 1050 S Foster Dr. Baton Rouge, LA 70806 (P) 225-922-5537 nburrell@ebrpss.k12.la	Transformyx was awarded the 2014-2015 wireless E-rate RFP for East Baton Rouge Parish Schools. In working with this large scale Cisco Wireless deployment, we have perfected walk-through notations, implementation schedules, installation, testing and documentation. We have also worked hand in hand with E-rate consultants and are extremely familiar with the USAC regulations. This is an on-going project that will be completed by January 2017.

St. Joseph's Academy	Transformyx has supported the IT staff at St. Joseph's
Greg Hanner 3015 Broussard St. Baton Rouge, LA 70808-1120 (P) 225.383.7207 hannerg@sjabr.org	Academy for over 5 years. While they are only a single location school, they have been acknowledged as a leader in technology for the last 15 years. They currently use the Cisco Wireless solution to support their entire campus which has been 1 to 1 for 15 years.
Central Community School System	Central Community Schools engaged Transformyx in 2012
David McLaughlin 13421 Hooper Road Suite 6 Baton Rouge, LA 70818 (P) 225-262-1919 dmclaughlin@centralcss.org	to assist them in a complete infrastructure upgrade. They have a complete Cisco Infrastructure including route switch, firewall, Wireless, and physical security.

Testimonials

Livingston Parish Schools

"Transformyx has been a true partner in Livingston Parish's IT initiatives. TFMX has invested in our vision, connected us with key knowledge experts, provided essential technical expertise, advocated with manufacturers on our behalf, and proven themselves time and again in our trenches. By listening, analyzing, and delivering, they have earned my respect. Through proactive and candid support, they have earned my trust."

- Robert Logan, Director of Technology Livingston Parish Schools

West Baton Rouge Parish Schools

"Transformyx has provided our parish with years of reliable network maintenance services. Our representative is efficient, dependable, and available on a moment's notice. Whether it is preparing for a hurricane or the everyday duties that must be completed in order to keep our network running, I know that I can count on Transformyx."

- Tammy Seneca, Ph.D., Supervisor of Information Systems and Educational Technology WBRPS

Baton Rouge Community College

"With Transformyx, I am confident that I have a partner to aid me in my technology needs. They have given our campus' technology infrastructure a much needed facelift with the latest technology. Transformyx knowledgeable engineering staff expertly installed and configured a Cisco-centric system for the highest connectivity. We are extremely pleased and look forward to continuous work with Transformyx."

- Ron Solomon, CIO Baton Rouge Community College

East Baton Rouge Parish Schools

"Transformyx has provided exceptional service to the East Baton Rouge Parish School System. Year after year, our team has learned to depend on the flexibility of the Transformyx team as well as their

dedication to the East Baton Rouge Parish School System as a partner. The key factors for choosing to work with Transformyx are their in-depth product knowledge, dedication to our needs and requirements, as well as their ability to support innovative design solutions within the means of our budget."

- Napoleon Burrell, Program Manager of Networks and Operations

Appendices

A. Louisiana Resale Certificate

B. Manufacturer's Authorization Form

C. Project Management Sample Documentation

D. Cabling Documentation Example

Appendix A – Louisiana Resale Certificate

R-1064 (8/12)

LOUISIANA DEPARTMENT *of* REVENUE

Louisiana Resale Certificate
Purchases of Tangible Personal Property For Resale
LA.RS 47:301(10)

Note: This certificate may be duplicated as needed. Please retain original certificate for your records.

PLEASE PRINT OR TYPE.

Purchaser Information		
Louisiana Account Number 9913328-001-400	Effective Date (mm/dd/yyyy) 03/01/2015	Expiration Date (mm/dd/yyyy) 03/31/2018
Purchaser Legal Name TRANSFORMYX INC	Purchaser Trade Name TRANSFORMYX INC	

Mailing Address			
Mailing Address 6867 BLUEBONNET BLVD			
City BATON ROUGE		State LA	ZIP 70810-1635

Location Address			
Location Address 6867 BLUEBONNET BLVD			
City BATON ROUGE		State LA	ZIP 70810-1635

Business Information	
U.S. NAICS Code 541519	Purchaser's Type of Business Other Computer Related Services

I, the purchaser, certify that all materials, goods, merchandise, and services purchased are for resale as tangible personal property, either in the same form as purchased or to be added as a recognizable, identifiable, and beneficial component of a new product. I also certify that any services purchased with the use of this certificate will be resold as a service as defined under Louisiana R.S. 47:301(14). I further certify that all tax-exempt purchases will be resold as tangible personal property in the normal course of our business.

I understand that if I use any of the items other than for resale, I must pay sales/use tax at the time of use. If this purchase is later found to be subject to tax, I, the purchaser, assume full liability for the tax.

Any purchaser or agent who fraudulently signs this certificate without intent to use the taxable items for resale is subject to all the penalties provided for by Title 47 of the Louisiana Revised Statutes and collection will be pursued against the seller or purchaser for any taxes, penalties and interest due.

Authorization	
Name	Title CEO
Signature x	Date (mm/dd/yyyy)

The validity of this exemption certificate can be verified at www.revenue.louisiana.gov.

The State of Louisiana does not certify the correctness of the parish information contained in this document.

Parish Information	
Parish of Principal Place of Business	Parish Tax Account Number

Appendix B - Manufacturer's Authorization Form

CISCO

**MANUFACTURER'S
AUTHORIZATION FORM**

Date: March 6, 2106

To: St. Charles Parish Public School
District
13855 River Road
Luling, LA 70070

Subject: St. Charles Parish Public School District BID

Cisco Systems, Inc., a company duly organized under the laws of the State of California of the United States, having its principal place of business at 170 W. Tasman Drive, San Jose, CA 95134 -1706, USA ("Cisco"), who is a provider of networking products and services, hereby confirms that, as of the date of this letter, Transformyx ("Reseller") wishes to participate in the Bid or Project stated above and has entered into an Indirect Channel Partner Agreement which entitles Reseller to do the following:

(1)   resell and/or distribute Cisco products and/or services in USA to end users within that territory;

(2)   bid, negotiate and conclude a contract with you for the above products/services manufactured or supplied by Cisco. The Reseller is an independent contractor and has no authority to commit and/or bind Cisco or its affiliates in any way.

Cisco will, within the scope of its agreem ent with its authorized channels, provide support and product warranty services for Cisco products obtained through its authorized channels.

This Authorization shall be accurate as of the date appearing at the top of this letter.

If you need any additional information, please do not hesitate to contact JOHN FIRMENT at 919 -392-7587. For more information about Cisco's channel partner program, please visit the following URL:http://www.cisco.com/web/partners/index.html.

Duly authorized to sign this authorization for and on behalf of: **Cisco Systems, Inc.**

Brian Fukuhara, V.P., Finance

Appendix C - Project Management Sample Documentation

Pre-Implementation Walk-Through Sample

PRE-IMPLEMENTATION SITE WALK-THROUGH

Transformyx

CUSTOMER NAME:	▮▮▮▮▮▮
PROJECT DESCRIPTION:	ERate 2015-16 Wireless Rollout
PROJECT MANAGER:	Valerie Bernard
SCHOOL NAME(S):	▮▮▮ Elementary School
WALK-THROUGH DATE:	10.21.2015

PURPOSE

The function of this document is to note all pertinent information that will assist in effectively planning and implementing Cisco Wireless throughout the school noted above.

PARTICIPANT LIST

Name	Company	Phone	Email
Valerie Bernard	TFMX	225.761.0088	Valerie.Bernard@TFMX.com
▮▮▮	▮▮▮	▮▮▮	▮▮▮
Shawn Piper	DataTel	225.505.1417	ShawnP@datatelofla.com

WALK-THROUGH CHECKLIST

Checklist Item:	Criteria:	Notes:
MDF Guidance	Rack space for patch panel & switches (2U)? ☒ Yes ☐ No ☐ Not Required Avail. Power for Rack (UPS)? ☐ Yes ☒ No ☐ Not Required Rack space sufficient for UPS (2U)? ☒ Yes ☐ No ☐ Not Required If no UPS for rack, is power available for new devices? ☒ Yes ☐ No ☐ Not Required	⇨ ▮▮▮ to clean out rack prior to deployment. ⇨ Install new 1500W rack mount UPS. ⇨ Install new patch panel. ⇨ Install net new POE switch.
IDF 1 Computer Lab	Rack space for patch panel & switches (2U)? ☒ Yes ☐ No ☐ Not Required Avail. Power for Rack (UPS)? ☐ Yes ☒ No ☐ Not Required Rack space sufficient for UPS (2U)? ☒ Yes ☐ No ☐ Not Required If no UPS for rack, is power available for new devices? ☒ Yes ☐ No ☐ Not Required	⇨ Install new 750W rack mount UPS. ⇨ Install new patch panel. ⇨ Install new non-POE 48p switch. ⇨ Install net new POE switch.

1

PRE-IMPLEMENTATION SITE WALK-THROUGH

Transformyx

IDF 2 500 Hall	**Rack space for patch panel & switches (2U)?** ☒ Yes ☐ No ☐ Not Required **Avail. Power for Rack (UPS)?** ☐ Yes ☒ No ☐ Not Required **Rack space sufficient for UPS (2U)?** ☒ Yes ☐ No ☐ Not Required **If no UPS for rack, is power available for new devices?** ☒ Yes ☐ No ☐ Not Required	⇨ Install new 1500W rack mount UPS (2 post rack). ⇨ Patch panel exists; none required. ⇨ Install net new POE switch.
IDF 3 600 Hall	**Rack space for patch panel & switches (2U)?** ☐ Yes ☐ No ☒ Not Required **Avail. Power for Rack (UPS)?** ☐ Yes ☐ No ☒ Not Required **Rack space sufficient for UPS (2U)?** ☐ Yes ☐ No ☒ Not Required **If no UPS for rack, is power available for new devices?** ☐ Yes ☐ No ☒ Not Required	⇨ Cabling only.

EQUIPMENT PURCHASE RECAP

MDF/IDF	Qty. UPS Needed	Qty. POE switch Needed	Qty. Non-POE switch Needed	Qty. Patch Panel Needed	Qty. Power Inj Needed	Rack Needed	Qty. APs Needed
MDF	-	1	-	-	-	-	
IDF 1	-	1	-	-	-	-	
IDF 2	-	1	-	-	-	-	55
IDF 3	-	-	-	-	-	-	
Total	**0**	**3**	**0**	**0**	**0**	**0**	**55**

EQUIPMENT QUOTE RECAP

MDF/IDF	UPS to Quote	Qty. POE switch	Qty. Non-POE switch	Qty. Patch Panel	Qty. Power Inj	Rack	Qty. APs
MDF	1 – 1500w R/M	-	-	1	-	-	
IDF 1	1 – 750w R/M	-	1 (48port)	1	-	-	
IDF 2	1 – 1500w TP/M	-	-	-	3	-	
IDF 3	-	-	-	-	-	-	
Total	**3**	**0**	**1**	**2**	**3**	**0**	**0**

*R/M is rack mounted UPS.

*F/S is free standing UPS.

*TP/M is two-post rack mounted UPS.

2

REVIEW COMMENTS

- The rack in IDF 2 is a two-post rack. There are five switches and one NVR (camera) server in this rack currently. Molly to determine if 1500w UPS will support this power load.

APPROVALS

_____   Date: _____
Print ▮ Representative Name Here

_____
▮ Representative Signature Here

3

Equipment Master Spreadsheet Sample

School Name	24p Meraki POE	48p Meraki POE	8p Non POE	24p Non POE	48p Non POE	750W F/S UPS	750W R/M UPS	1500W F/S UPS	1500W R/M UPS	Patch Panel	Power Injectors	APs
(Ordered)	2	-	-	-	-	-	-	-	-	-	5	35
(Quote)	-	-	-	-	-	1	1	-	-	1	-	-
Total	2	-	-	-	-	1	1	-	-	1	5	35
(Ordered)	3	-	-	-	-	-	-	-	-	-	6	40
(Quote)	-	-	1	-	-	1	1	-	-	2	-	-
Total	3	-	1	-	-	1	1	-	-	2	6	40
(Ordered)	-	3	-	-	-	-	-	-	-	-	-	55
(Quote)	-	-	-	-	1	-	1	-	2	2	3	-
Total	-	3	-	-	1	-	1	-	2	2	3	55
(Ordered)	3	-	-	-	-	-	-	-	-	-	8	34
(Quote)	-	-	-	1	-	2	2	-	-	2	-	-
Total	3	-	-	1	-	2	2	-	-	2	8	34
(Ordered)	2	-	-	-	-	1	1	-	-	-	2	33
(Quote)	-	-	-	1	-	2	1	-	-	1	-	-
Total	2	-	-	1	-	3	2	-	-	1	2	33
Total Devices	**10**	**3**	**1**	**2**	**1**	**7**	**7**	**0**	**2**	**8**	**24**	**197**

MDF/IDF	24p Meraki POE	48p Meraki POE	8p Non POE	24p Non POE	48p Non POE	750W F/S UPS	750W R/M UPS	1500W F/S UPS	1500W R/M UPS	Patch Panel	Power Injectors	APs	Notes
ORDERED													
MDF (Library)	1												to remove old switch prior to deployment.
Café													
Guidance/22	1												to remove wire manager prior to deployment.
1-A											2		
2-A											2		
3-A											2		
28	1												
34													
Total	3	0	0	0	0	0	0	0	0	0	6	40	
NEED TO QUOTE													
MDF (Library)						1				1			
Café			1										
Guidance/22										1			Quote conduit in this hall.
1-A													
2-A													
3-A													
28							1						
34													
Total	0	0	1	0	0	1	1	0	0	2	0	0	

Additional Notes:
DataTel to run Cat6 to Café only. [ ] will run fiber and install rack later.
Coordinate install with [ ] to be onsite to remove current switches to make space in rack for new switches. Rack is currently full. Must be done after school dismissal.

Asset Tagging Documentation Sample

	Device	Model #	Serial #	MAC Address	IDF/Room	Erate Tag #	Location
			Access Points				
1	Cisco Meraki Access Point	mr34	Q2FD-UW56-KA3F	88:15:44:F8:6C:10	1A	AP1	
2	Cisco Meraki Access Point	mr34	Q2FD-NJ8S-79S6	88:15:44:F8:D5:30	3A	AP2	
3	Cisco Meraki Access Point	mr34	Q2FD-YYJK-2Q6J	88:15:44:F8:7A:20	3B	AP3	
4	Cisco Meraki Access Point	mr34	Q2FD-E5Q2-6BPB	88:15:44:F8:2A:60	24	AP4	
5	Cisco Meraki Access Point	mr34	Q2FD-7E9A-NQZH	88:15:44:F8:12:10	9	AP5	
6	Cisco Meraki Access Point	mr34	Q2FD-CFGW-AH2X	88:15:44:F8:3D:80	25	AP40	
7	Cisco Meraki Access Point	mr34	Q2FD-5BX5-XJYU	88:15:44:F7:F8:60	23	AP6	
8	Cisco Meraki Access Point	mr34	Q2FD-4LLJ-ULTC	88:15:44:F7:F4:60	10	AP7	
9	Cisco Meraki Access Point	mr34	Q2FD-4W47-CCQT	88:15:44:F7:F3:90	CAFÉ	AP8	
10	Cisco Meraki Access Point	mr34	Q2FD-9CMG-FZTY	88:15:44:F8:1C:90	1	AP37	
11	Cisco Meraki Access Point	mr34	Q2FD-7EJ9-6EQ6	88:15:44:F8:11:B0	3	AP39	
12	Cisco Meraki Access Point	mr34	Q2FD-EAZU-9KN8	88:15:44:F8:27:40	2	AP9	
13	Cisco Meraki Access Point	mr34	Q2FD-66CE-N5YU	88:15:44:F7:FE:00	15	AP10	
14	Cisco Meraki Access Point	mr34	Q2FD-9UDP-7SRB	88:15:44:F8:21:A0	18	AP11	
15	Cisco Meraki Access Point	mr34	Q2FD-5F2H-3VXZ	88:15:44:F7:FA:00	17	AP12	
16	Cisco Meraki Access Point	mr34	Q2FD-ANZ5-6XMR	88:15:44:F8:4C:60	22	AP13	
17	Cisco Meraki Access Point	mr34	Q2FD-9WHE-23EL	88:15:44:F8:20:F0	21	AP14	
18	Cisco Meraki Access Point	mr34	Q2FD-5EGC-KUM3	88:15:44:F7:F9:F0	19	AP15	
19	Cisco Meraki Access Point	mr34	Q2FD-AU6R-KBXP	88:15:44:F8:4E:A0	2A	AP16	
20	Cisco Meraki Access Point	mr34	Q2FD-DCD3-JGHB	88:15:44:F8:33:80	9	AP17	
21	Cisco Meraki Access Point	mr34	Q2FD-4B42-MYSE	88:15:44:F7:ED:80	2B	AP18	
22	Cisco Meraki Access Point	mr34	Q2FD-AE36-RJ4C	88:15:44:F8:53:60	8	AP19	
23	Cisco Meraki Access Point	mr34	Q2FD-9FVR-V25D	88:15:44:F8:1E:30	OFFICE	AP20	
24	Cisco Meraki Access Point	mr34	Q2FD-LBPP-KLLF	88:15:44:F8:55:20	4	AP21	
25	Cisco Meraki Access Point	mr34	Q2FD-9MPQ-65KP	88:15:44:F8:1F:A0	14	AP22	
26	Cisco Meraki Access Point	mr34	Q2FD-9NK2-GVZ2	88:15:44:F8:1E:C0	13	AP23	
27	Cisco Meraki Access Point	mr34	Q2FD-EL6H-5ZZC	88:15:44:F8:29:A0	12	AP24	
28	Cisco Meraki Access Point	mr34	Q2FD-9Y4D-EEUT	88:15:44:F8:20:90	16	AP25	
29	Cisco Meraki Access Point	mr34	Q2FD-D7UH-C87A	88:15:44:F8:35:40	11	AP26	
30	Cisco Meraki Access Point	mr34	Q2FD-BX29-GBVR	88:15:44:F8:42:30	CAFÉ	AP27	
31	Cisco Meraki Access Point	mr34	Q2FD-L59S-7DLF	88:15:44:F8:67:30	29	AP28	
32	Cisco Meraki Access Point	mr34	Q2FD-994F-WYPF	88:15:44:F8:1D:A0	34	AP34	

	Device	Model #	Serial #	MAC Address	IDF/Room	Erate Tag #	Location
33	Cisco Meraki Access Point	mr34	Q2FD-DVX2-7P3L	88:15:44:F8:2C:B0	28	AP29	
34	Cisco Meraki Access Point	mr34	Q2FD-JF4P-9QC6	88:15:44:F8:AE:20	30	AP30	
35	Cisco Meraki Access Point	mr34	Q2FD-NJ5S-PJ85	88:15:44:F8:D2:70	1B	AP31	
36	Cisco Meraki Access Point	mr34	Q2FD-BUFC-THN2	88:15:44:F8:42:60	31	AP32	
37	Cisco Meraki Access Point	mr34	Q2FD-ZU7B-B4G3	88:15:44:F8:70:10	27	AP33	
38	Cisco Meraki Access Point	mr34	Q2FD-XXGU-6BTR	88:15:44:F8:83:70	32	AP38	
39	Cisco Meraki Access Point	mr34	Q2FD-7Q5Q-PRK8	88:15:44:F8:10:30	26	AP36	
40	Cisco Meraki Access Point	mr34	Q2FD-ZXHU-S2AU	88:15:44:F8:6F:50	33	AP35	
			Switches				
1	24 Port Meraki POE Switch	MS220-24P	Q2KP-PS37-QSMG	88:15:44:77:16:CF	Library	N/A	
2	24 Port Meraki POE Switch	MS220-24P	Q2KP-2QVN-67LD	88:15:44:76:EA:47	28	N/A	
3	24 Port Meraki POE Switch	MS220-24P	Q2KP-MM5E-7CUF	88:15:44:76:FA:FA	Guidance	N/A	
4	HP Non-POE 8 Port Switch	HP2530 48g	Q2HP-85KP-6CBY	88:15:44:01:88:15	CAFÉ	N/A	
			Power Injectors				
1	Power Injector	Cisco Meraki 802.3at	N/A	N/A	T-3A	N/A	
2	Power Injector	Cisco Meraki 802.3at	N/A	N/A	T-3A	N/A	
3	Power Injector	Cisco Meraki 802.3at	N/A	N/A	T-2A	N/A	
4	Power Injector	Cisco Meraki 802.3at	N/A	N/A	T-2A	N/A	
5	Power Injector	Cisco Meraki 802.3at	N/A	N/A	T-1A	N/A	
6	Power Injector	Cisco Meraki 802.3at	N/A	N/A	T-1A	N/A	
			UPS				
1	750W Free Standing UPS	SMART 750 SLT	SM8162	N/A	Library	N/A	
2	750W Rack Mount UPS	SMART 1000 RM1U	SM8676	N/A	28	N/A	

Post-Implementation Walk-Through Sample

Transformyx

OPERATIONAL TURNOVER

CUSTOMER NAME:	█████████████████
PROJECT DESCRIPTION:	Meraki Wireless/Switch Deployment
LEAD ENGINEER:	Charles Rougeau
PROJECT MANAGER:	Valerie Bernard

PURPOSE

The function of this document is to provide essential information surrounding the switch and wireless installs at █████ Upper Elementary and █████ Elementary. The details contained within this document expand upon the components necessary to transition the support from the project core team to the organization.

TRANSFORMYX CONTACT INFORMATION

Contact Name	Title	Phone	Email
Shawn Piper	Project Manager, DataTel	(225) 273-4521	Shawn.DataTel@gmail.com
Valerie Bernard	Project Manager	(225) 236-5416	Valerie.Bernard@TFMX.com
Charles Rougeau	VP, Engineering	(225) 761-0088	Charles@TFMX.com
Molly Evans	Account Manager	(225) 761-0088	Molly.Evans@TFMX.com

DEPLOYMENT INFORMATION

███ Equipment:

MDF/IDF	24p Meraki POE	8p Non POE	750W F/S UPS	750W R/M UPS	Patch Panel	Power Injectors	APs
MDF (Library)	1		1		1		
Café		1					
Guidance/22	1				1		
1-A						2	
2-A						2	
3-A						2	
28	1			1			
34							
Total	3	1	1	1	2	6	40

OPERATIONAL TURNOVER

█ Equipment:

MDF/IDF	24p Meraki POE	750W F/S UPS	750W R/M UPS	Patch Panel	Power Injectors	APs
MDF (106)	1		1	1		█
204	1	1				█
Office		1			2	█
Total	2	2	1	1	2	33

ADDITIONAL COMMENTS

All work has been completed by Transformyx (wireless and switch deployment) and DataTel (cabling). Signoff from █████████████████████ is requested to indicate work performed is satisfactory and fulfills the contractual obligation of Transformyx.

APPROVALS

Prepared by: _____ Date: _____
Project Manager

Customer: _____ Date: _____

Project Planning Meeting Minutes Sample

MEETING AGENDA AND MINUTES

Meeting Topic:		
████████ Meeting Minutes – Erate 2015-16		
Date:	**Time:**	**Location:**
10/15/2015	3—4:00 PM CST	███████████ Office
Participants:		
TFMX: Valerie Bernard, Molly Evans, Charles Rougeau, Shawn Piper, ~~Bart LeBlanc~~ ██████████████████████████████████		

AGENDA:

| Item:	Topic:	Lead:

1.	Project Overview
	   a. Start Date
	   b. Order of School Deployments
	   c. Changes/Lessons Learned from ███ and ████
	   d. Tagging and Documentation
	   e. Switch and AP Deployment
	   f. Miscellaneous
		Group Discussion

MINUTES:

Item:	Topic:
1.	a. ██████ is ready to begin now.
	b. ███████████ and ████████ Upper Elementary are immediate need. Valerie will set up walkthroughs for those schools with Shawn and a ████ Tech for next Wednesday. █████████ Elementary and ████ Elementary will be walked as well if time allows. ███████████ will be walked at a later date due to distance. Valerie will also request maps from ████.
	c. Charles recommended terminating in the patch panel where available. Shawn will verify this is part of the quotes. - TFMX will configure and deploy switches along with ████ technical assistance to make changes at each school.
	d. All Meraki switches were ordered and are located at ███ ████ will check with █████ on which school may need an additional switch. Valerie can arrange to have them picked up and tagged. All APs will also be shipped to ████. TFMX will pick up and tag. All equipment will be beared until all cabling and APs are ordered and paid for.
	e. There are no standardized tests scheduled until March. TFMX and DataTel will be able to work during school hours. Valerie will notify the principals of working dates prior to work beginning.

	f. Miscellaneous:
	   - TFMX will leave existing APs in place; ████ will remove following completion of a school.
	   - Molly will email ████ the substitution form for switch changes.
	   - ████ will verify that the new wing at ████ has Cat6 cabling.

ACTION ITEMS:

Item:	Topic:	Owner:	Due Date:
1b	Schedule walkthroughs of ████ and ████ Request maps from ████.	Valerie Bernard	Done
1c	Determine if termination of cable in patch panel is noted	Shawn Piper	10/21/15

Appendix D – Example of Cabling Documentation

School E-Rate WAP Drops
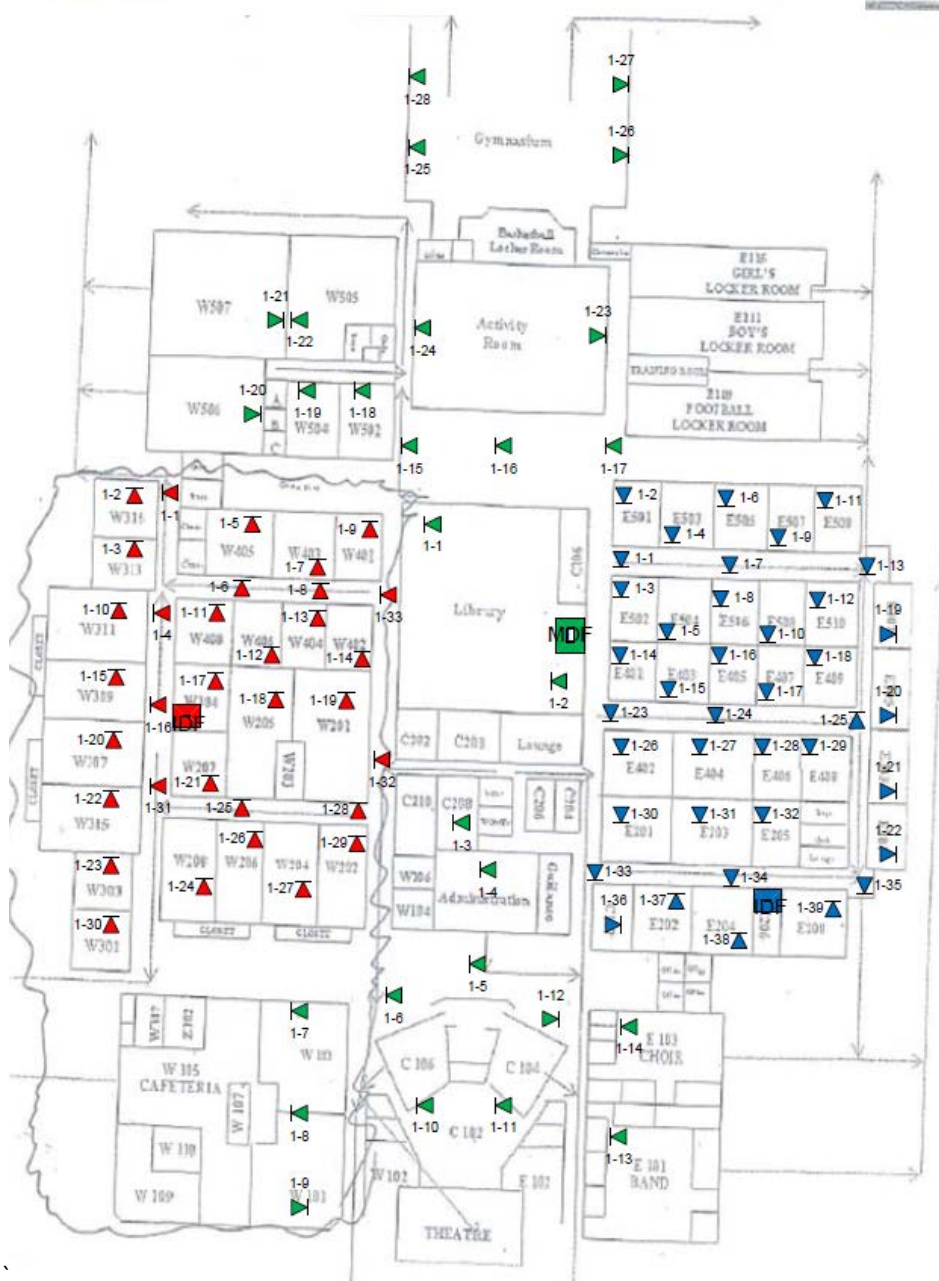
Resources

Cisco Meraki: https://meraki.cisco.com/

Cisco Meraki for K-o12: https://meraki.cisco.com/lib/pdf/meraki_k-12_overview_solution_guide.pdf

Cisco Meraki MR42 Access Point: https://meraki.cisco.com/products/wireless/mr42

Cisco Meraki MS3200 Access Switches: https://meraki.cisco.com/products/switches/ms320-48

Cisco Wireless LAN Controller: http://www.cisco.com/c/en/us/products/wireless/5520-wireless-controller/index.html

Cisco 1852I Access Points: https://www.cisco.com/c/en/us/products/wireless/aironet-1850-series-access-points/index.html

Cisco Catalyst Switches: http://www.cisco.com/c/en/us/products/switches/catalyst-3850-series-switches/index.html

Cisco Prime Management Software: http://www.cisco.com/c/en/us/products/cloud-systems-management/prime.html