Proposal Number WAW404-010615-1 WSCA Cisco Contract AR-233



# VoIP Phone System Proposal Woodland Public Schools

January 6, 2015 Solicitation No: RFP-120314



January 5, 2015

Michael Green and Rod Roduin Woodland Public Schools district office 800 3<sup>rd</sup> Street. Woodland WA. 97647 Bellevue, WA 98008

Ednetics would like to thank the Woodland School District for giving us the opportunity to provide a VoIP PBX, Phone & Voicemail system proposal for your consideration. This system will integrate seamlessly with the Informacast solution that the District has purchased for the new High School. Our team is confident in the solution we can deliver and excited to start a long-term partnership with the District.

As the largest education focused network solution provider in the Northwest we have seen first-hand how technology's role in the education setting is continually being refined. The potential to unify technologies is emerging as a powerful development for educators. Considering new technologies and how they might benefit our education clients is what Ednetics is all about. The needs of school districts and campuses are significantly different than those of a commercial environment. We understand this and it allows us to bring a stronger awareness and higher value than other companies that don't have our same focus. We believe you deserve our full attention.

For over sixteen years, Ednetics has been a Cisco Systems partner designing, implementing, and integrating technology solutions for schools in Washington, Oregon, Idaho and Montana. We strive to maintain our deep connections in the Northwest and are able to successfully uphold our presence and commitment to the area through our partnership with Cisco.

Ednetics and Cisco are proud of the solution we've proposed. Together, we know we'll be able to meet and exceed the District's needs. With any project of this nature we expect there to be questions that come up and encourage open dialog to review the scope, integration and features we've proposed before finalizing your decision. We would appreciate any opportunity to discuss questions or additional information that would help the District in their review. We also encourage you to utilize the customer references in the proposal to get their input on Ednetics' proven performance.

We appreciate your consideration and look forward to reviewing our proposal with you as you begin your selection process.

Sincerely,

Colby Van Vooren Regional Sales Manager | CCDA Ednetics, Inc 1445 NW 11<sup>th</sup> Street Corvallis, OR 97330 colby@ednetics.com T 888.809.4609 D 541.230.1635 M 503.799.3588

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Section 1 | Executive Summary

# **Executive Summary**

Ednetics is pleased to partner with Cisco Systems in proposing our Unified Communications solution for Woodland Public Schools. As a proven solution provider for the K-12 environment, we are confident that our technology, design and services will provide the highest value for the District's investment. In the following pages we will outline our solution and the key factors that make Ednetics a unique and powerful choice for your technology provider.

#### A Communication Platform for the Education Environment

The proposal provided herein is based on a market-proven and feature rich Cisco Unified Communications platform with a detailed design leveraged from Ednetics' sixteen years as a Cisco partner. As an education specific technology provider, Ednetics has tailored the design to specifically match the needs of a K-12 environment. The solution will not only provide for the district's current requirements but also deliver a platform for future technology growth due to its open architecture and close integration with other network technology platforms.

Key deliverables of our Ednetics service and solution include:

- Delivery and installation of a converged voice over IP system for maximum utilization of the District's investment in network technology.
- Use of Cisco's Unified Communications platform for true collaboration
  - Voice and Video IP Communication
  - Unified Messaging Single Inbox
  - Emergency (911) notification
- Redundant and geographically dispersed implementation of core systems on high-reliability server hardware.
- Protection from WAN failures via local voice gateways and Cisco Survivable Remote Site Telephony for each site.
- A system designed for integration with critical K-12 systems such as paging, IP bell and clock controls, video surveillance and access control.
- Hands-on training of district technical staff during installation and hand-off of the system as well as training of key users.

#### K-12 Focused Partner Rooted in the Pacific Northwest

Ednetics brings experience centered on technology solutions and the K-12 environment. Ednetics has been customizing solutions in collaboration with Pacific Northwest educators for over a decade and a half. Our multi-disciplinary engineering team works directly with school and university technology departments to learn how to address specific issues. As a result, we have developed and refined our offerings to better serve our customers. We evaluate products that become part of our solutions suite using firm criteria including market-wide standards, ease-of-use, projected life of equipment, scalability and stability. We look for technologies that complement each other and then appraise the benefits and possibilities for the academic environments.

#### Passionate About Technology and the People We Work With

Ednetics is focused on finding and implementing solutions that serve the education community. The evolution of technology has created exciting opportunities – from improving communications and operation efficiency to enhancing curriculum and empowering teachers. Ednetics sees the voice network as a platform capable of enhancing teaching and learning environments and supporting the efforts of educators and learners. Specifically for Woodland Public School, we feel we can bring much more value to the District beyond what is provided in the phone project alone.

"Ednetics has been instrumental in implementing the foundation for 21st Century Classrooms in the Yakima School District."

 Andres Gonzalez, Assistant Director of Technology YAKIMA SCHOOL DISTRICT



Section 2 | Vendor Information

## **Vendor Information**

### Company Background

In the past decade and a half, Ednetics has developed into the largest education focused network solution provide in the Northwest with over 200 active clients. We specialize in providing solutions in areas such as converged networks and IP applications to help meet the growing needs for technological advancement. Ednetics customers are K-12 and higher education institutions throughout Washington, Oregon, Idaho and Montana. Ednetics also works with city, county and state governments.

Ednetics is headquartered in scenic Post Falls, Idaho with additional offices in Bellevue and Yakima, Washington, and Corvallis, Oregon. The company currently has a staff of 100 full-time employees with over 50 engineers and installation technicians. In addition, Ednetics has a robust contracting and project management office managing an extended network of over 250 additional installation technicians and layer-1 specialists. Across all of our locations our team shares a client-focused mentality that allows us to build, encourage, and support mutually beneficial relationships.

#### **Ednetics Profile:**

- Founded in 1997
- Education and government specific network solution provider
- A Pacific Northwest company with five offices located across the region
- 100 full-time employees with over 50 engineers and technicians
- Over 200 active K-12 and higher education clients
- \$40+ million annual revenue in FY2013

#### **Company Awards:**

- Cisco's Solution Provider of the Year for the Western US 2014
- CRN's Managed Service Provider Elite 150: Top Solution Providers for On & Off Premise Services 2014
- CRN's Tech Elite 250: Top Solution Providers in the Data Center and IT Infrastructure Space 2013
- Cisco's Breakout Partner of the Year for the Western US 2010
- Cisco's Education Partner of the Year for the Western US 2009

#### **State Contract Participation:**

- Idaho State WSCA Cisco Contract
- Idaho State WSCA NetApp Contract
- Washington State DIS Cisco Contract
- Washington State WSCA Cisco Contract
- Washington State WLS Contract
- Washington State WSCA NetApp Contract
- Oregon State WSCA Cisco Contract
- Oregon State WSCA NetApp Contract

"We began working with Ednetics in 2007. Ednetics was instrumental in the design, development and implementation of our entire District-wide network. Ednetics' foresight put us on track to deliver today's technology needs without costly plan revisions or redirection. It's as if they knew five years ago where we will be tomorrow!"

 Shaun Mueller, Technology Director ELLENSBURG SCHOOL DISTRICT 401

#### **Ednetics Experience & Capabilities**

Ednetics is a Cisco Premier Partner and a recognized leader in providing network technology solutions in K-12. In additional to solutions for routing, switching, network security and wireless, Ednetics has been installing the Cisco Unified Communications product family since version 4.x began running on a Windows platform. Currently we are implementing the latest version of 10.x running as a virtual appliance on the Cisco Unified Computing System architecture. With our focus and experience, Ednetics has education-specific Unified Communications installations that can be referenced throughout the Pacific Northwest.

Today we offer our voice solution in a traditional on-premise deployment or as a hosted service. Ednetics is licensed with the FCC as a Telecommunications Provider. We are also licensed as a Competitive Local Exchange Carrier (CLEC) in Washington, Oregon and Idaho. With this status we are empowered to negotiate contracts with other providers in the Northwest to provide data circuits, traditional switched access telephone services, and voice over IP (VoIP) services.

Routing, switching, firewalls and wireless have been part of that business since the beginning and each of our telephony projects involves not only our Voice Engineering Team but also our Network Team, dedicated to routing, switching, firewalls, network segmentation, security, wireless, and network resiliency. We assist our customers with developing routing plans for both WAN and LAN environments, from collapsed core to advanced routing protocols. Internally on the LAN, we design and configure IP schemas for network segmentation via VLANs.

As part of our network engineering services, Ednetics also has a decade and a half of experience assisting our customers in provisioning Internet services. This has included: assisting with coordination with Internet Service Providers (ISPs), DNS registrations and changes, expert firewall and edge router configuration, and video conferencing endpoint configurations. At the Internet edge we provide solutions for security and bandwidth management/reporting. For bandwidth management, load balancing, traffic classification/traffic policing, we employ border routers from Cisco's ISR (Integrated Services Router) line.

Another key area of experience that Ednetics brings is the design and implementation of physical security solutions in the K-12 environment. Ednetics provides video surveillance and access control solutions to school districts across the Pacific Northwest with particular expertise in integrating these systems with Unified Communications systems to maximize the capabilities and effectiveness of every tool you have at your disposal.

"We were so impressed with the Ednetics network and voice upgrade that we had them install a district-wide video surveillance and access control solution."

Robert Silva, Technology Director HERMISTON SCHOOL DISTRICT

#### **Top Company Certifications**

Ednetics has achieved advanced certifications to meet the needs of our customers. Below is a list of our Top Company Certifications, Specializations and Partnerships. Documentation for Ednetics certifications is available upon request.

#### **CISCO PREMIER PARTNER**

Achieved Specializations:

- Data Center Architecture Specialization
- Advanced Collaboration Architecture
- Advanced Routing & Switching
- Advanced Security
- Advanced Unified Communications
- Advanced Wireless LAN
- CCIE-Security
- Cisco Authorized Technology Provider (ATP) TelePresence Video Express (program is invite only)
- Cisco Authorized Technology Provider (ATP) Identity Service Engine (program is invite only)

#### VMWARE ENTERPRISE PARTNER

#### Certifications:

- 3 VMware Sales Professionals (VSP)
- 3 VMware Technical Sales Professionals (VTSP)
- 2 VMware Certified Professionals (VCP) COMPETENCIES
- Infrastructure Virtualization
- Desktop Virtualization
- Academic Specialization

#### **CITRIX SILVER PARTNER**

#### Certifications:

- CCA for Citrix XenDesktop 4 Enterprise Edition
- CCA for Citrix XenApp 5 for Windows Server 2008
- CCSP 2010 for Application Virtualization
- CCSP 2010 for Desktop Virtualization
- CCSP 2010 for Server Virtualization

#### **EMC ASSOCIATE PARTNER**

#### Accreditations:

- Sales Accreditations for Backup & Consolidate
- Technical Accreditations for Backup & Consolidate

#### **NETAPP GOLD PARTNER**

#### Certifications:

- 6 Accredited Sales Professionals (NASP)
- 3 Accredited Technical Professionals (ASAP)
- Installation Accreditation
- SLED Contract Training

PHYSICAL SECURITY - Megapixel IP cameras, VMS (Video Management System) and Access Control Solutions Achieved Specializations:

- Arecont Advanced Certified Channel Partner
- ExacqVision VMS Certified Channel Partner
- Red Cloud Security Certified Reseller
- · Axis Certified Reseller

#### MICROSOFT SILVER PARTNER

### Competencies:

- Silver Desktop
- · Silver Midmarket Solution Provider

#### OTHER PARTNERSHIPS

- APC Channel Partner
- Extron Channel Partner/Integrator
- Hewlett Packard Reseller/Integrator
- RedCloud Channel Partner/Integrator
- Tandberg Authorized Partner/Integrator
- VBrick Channel Partner/Integrator

"I appreciate the level of service provided by Ednetics and their commitment to education. We have utilized their services for a variety of large and small projects and have been impressed with their consistent level of support. Their advice, design, and engineering resources have allowed us to plan and complete complex projects with minimal downtime."

 Dan Brown, Systems and Security Administrator WASHINGTON STATE UNIVERSITY

### K-12 Specific VoIP Project References

As requested in Attachment C we have included reference information on three similar projects. Ednetics has extensive experience with deploying VoIP systems, specifically in the K-12 environment. Below is a partial list of additional potential references that are available as needed. Specific contact information for any of the references can be provided upon request.

- Yakima School District
- Coeur d'Alene School District
- Franklin Pierce School District
- Pasco School District
- Tigard-Tualatin School District
- East Valley School District
- Brewster School District
- Freeman School District
- Edmonds School District
- Reynolds School District
- Union Gap School District
- Othello School District
- Lake Pend Orielle School Distirct
- Medical Lake School District
- Grandview School District



Section 3 | Solution Description

# Solution Description

Selecting a new voice and collaboration solution is a major decision for any organization. The Ednetics VoIP solution we propose has been designed and built to utilize Cisco's Unified Communications (UC) solution. At its core, the success and power of this solution comes from this combination of Cisco's technology platform and Ednetics' years of K-12 specific implementation experience.

### Cisco Voice over IP Solution

The proposed architecture is based on Cisco's converged IP Voice/Data network using open standards, and leverages the pervasive IP footprint to deliver a truly Unified Communication (UC) system. There are some primary/cursory components that enable call processing, internal and external connectivity, survivability, and applications. The following is a list and brief description of those components:

Communication Manager Server – The call processing engine of the system can be compared to the CPU of a legacy TDM PBX. This server sits at the center of the UCS deployment. It is scalable, highly available, and can be distributed/clustered across multiple facilities and/or geographic locations. All end points rely on Communications Manager for registration, call completion, and directory services. Using this model, the actual call path is peer-to-peer, and this server does not keep an established call up, but acts merely as a "match maker." A call in progress will continue even if the server goes offline.

Router/Gateway – Cisco leverages their market leading routers to serve as the survivable gateway for connecting multiple locations to the Communication Manager Server and for termination of carrier circuits for both voice and data (compared to trunk cards in a TDM based PBX). Each router can act as a stand-alone call processor in the event of a WAN link or failure in the main server. This is called Survivable Remote Site Telephony (SRST). IP phones can be configured to register automatically to multiple call processors, which include distributed routers, providing multiple options for survivability and redundancy.

*IP Network* – With this VoIP solution, the district will utilize its existing WAN and LAN investments to connect phone endpoints to the call-processing servers. As part of the VoIP deployment, Ednetics would provide engineering services to assess the District's existing network and recommend configuration changes such as IP schema, QoS and VLAN segmentation.

To better understand the range of features provided by the Cisco Unified Communications solution, a brief overview of the major components are given below:

#### Cisco Unified Communications Manager (CUCM)

Cisco Unified CM is a scalable, distributable, and highly available enterprise-class IP telephony call-processing system that provides traditional telephony features as well as advanced capabilities, such as mobility, presence, and preference. Cisco Unified CM consists of the following foundational elements:

- Cisco Intercompany Media Engine (IME)
- Cisco Unified Communications Manager Session Management Edition
- Cisco Service Advertisement Framework (SAF) Call Control Discovery
- Extension Mobility Cross Cluster (EMCC)
- RSVP SIP preconditions
- Analysis Manager

#### Cisco Unified CM features include:

- Cisco Unified Computing System (UCS) support
- New performance-monitoring counters
- Changes in Simple Network Management Protocol (SNMP) MIBs
- Administrative XML (AXL) serviceability API cipher support

#### Cisco Unity Connection (UCxN)

Cisco Unity Connection is a feature-rich voice messaging platform based on the same Linux Unified Communications Operating System as Cisco Unified Communications Manager. With Cisco Unity Connection, you can access voice messages using Cisco Unified Personal Communicator, or use the display on your Cisco Unified IP Phone to view, search, sort, and play messages. Cisco Unity Connection also provides robust Automated-Attendant functions that include intelligent call routing and easily customizable call-screen and message-notification options. Cisco Unity Connection features include:

- Cisco Unified Personal Communicator voicemail integration
- Cisco Unity Connection Inbox web browser interface to voice messages
- Internet Message Access Protocol (IMAP)-based email client to access voice messages
- Visual voicemail on your Cisco Unified IP Phone

#### Cisco Unified Survivable Remote Site Telephony (SRST)

Cisco Unified SRST is a critical component of a centralized call-processing architecture in which a Cisco Unified CM cluster, located centrally, provides telephony services for all sites of an organization. Cisco Unified SRST, in combination with Cisco Unified Communications Manager, offers a simple, cost-effective and highly available solution for customers who want the benefits of a centralized call-processing architecture with redundancy at remote branch offices and the homes of teleworkers. Cisco Unified SRST features include:

- Centralized Call Processing
- Delivery of full feature set to remote locations and next-generation call centers
- Centralized configuration and management
- Converged voice and data network
- Reduced installation cost (shared Cisco Unified CM resource)

### Cisco Emergency Responder (CER)

Cisco Emergency Responder assures that Cisco Unified Communications Manager will send emergency calls to the appropriate Public Safety Answering Point (PSAP) for the caller's location, and that the PSAP can identify the caller's location and return the call if necessary. In addition, the system automatically tracks and updates equipment moves and changes. Deploying this capability helps ensure more effective compliance with legal or regulatory obligations, reducing the risk of liability related to emergency calls as a result.

Coupled with Cisco Unified Communications Manager, Cisco Emergency Responder surpasses traditional PBX capabilities by introducing user or phone moves and changes at no cost, and dynamic tracking of user and phone locations for emergency 9-1-1 safety and security purposes.

Cisco Emergency Responder includes the following features:

- Real-time location-tracking database and enhanced routing capabilities
- Supports automatic notification of customer security personnel when an emergency call is in progress and provides the caller's location
- Requires no administrative support for moving phones or staff from one location to another

# Software Configuration & Capabilities

The suite of Cisco Unified Communication software and all applications included in this proposal will be virtualized and run on Cisco's high-availability server platform. Our proposal would implement a VMWare environment with vSphere 5 and thereby leverage the existing virtualization experience that the district has. Although the district's existing SAN storage could potentially be utilized, the UCS servers will be deployed with direct attach storage that will cover all of the applications.

All management is done via the web-interface. Even the bulk management interface is accessed through the GUI, and any additional files it requires for its updates are expected in Comma Separated Values (CSV) format. There is no installable application software required for management outside of a web-browser. The Real Time Management Tool (RTMT) is available for monitoring the health and status of the appliances, though it is not strictly necessary for management.

When station additions are made at any location, CUCM has the ability to auto provision the new Cisco handset as soon as it is detected. This feature is available throughout the CUCM cluster and may also be turned off if desired. If auto provisioning (auto registration) is not enabled the MAC address of the phone can be entered into CUCM to enable the Cisco handset. If a Cisco Handset is moved from one building to another no changes are needed to enable the phone at its new location.

### **Fault Tolerance and Redundancy**

The architecture of the Cisco Unified Communications system offers both redundancy and survivability. The core servers themselves are virtualized systems and physically distributed, replacing the racks and shelves of expensive and proprietary legacy PBX equipment. This design enables fault-tolerance by allowing for physical and logical distribution of call-processing, voicemail, and PSTN services which minimizes the impact of the loss of any one specific site.

In this proposal, a two-system cluster has been designed. In the event of a failure taking down the primary UC server, the secondary server will pick up control of all gateways and phones managed by the primary Unified CM. These servers in both physical and virtual configurations support multiple network cards or interfaces to avoid having a single upstream switch act as a single point of failure. This same level of redundancy is available with each of the voice applications running on the UCS platform.

One important note about the redundancy provided by the two-system cluster of UC servers is that the ability of the secondary server to take over control will depend upon the WAN's routing capabilities. The WAN must have the capability to route traffic between the selected secondary server location and all other sites when the primary location (the District Data Center).

In addition to the fault tolerance provided by the physical distribution of the call processing and voicemail systems, each site will be configured with Survivable Remote Site Telephony (SRST). SRST runs on the same routers that will be deployed to provide paging system integration and fax support at each site to also provide temporary call-processing redundancy and PSTN services for that site in the event of a WAN failure. The combination of these features is designed to address power failure, LAN failure, WAN failure, etc.

### IP Paging System & Other Potential Integrations

At Ednetics, we design our solutions with the understanding that modern education entities are not just looking for a system that provides dial tone and simple phone calls. Today's "phone" system has to be much more – it is a core platform for your District's collaboration, business operations and student safety. Our solutions are customized for the K-12 environment by maintaining a focus on critical integrations with systems such as bell control and paging, emergency notification, physical security and external notification services. The end result is a K-12 specific solution that provides enhanced capabilities, utilization & flexibility.

The Cisco system supports direct integration to intercom, paging and notification systems – specifically the Singlewire Informacast system being deployed at the new high school – and can provide audible and visual emergency alerts. This allows your handsets to become a tool to broadcast live or pre-recorded audio and text realizing greater returns with the same resources.

In addition, our solution supports other potential integrations that the District can take advantage of upon initial deployment or add later on as part of a subsequent project.

- IP Faxing Service
- Integration with Outbound Call Services (ex. SchoolMessengar)
- Initiate pages/notifications from iOS/Android phones
- Initiate Lockdown/Emergency Event (access control, paging, messaging) from physical button
- Initiate Lockdown/Emergency Event from phone handset
- Ability to control door access from phones
- Ability to monitor video surveillance from phones

## Implementation Plan

Ednetics has extensive experience with the replacement of legacy phone systems and transition to an IP platform in K-12 environments. Based on the size of the District's voice network and other specifics Ednetics has constructed a project schedule that fits within the specified timeline listed in the RFP and believes this to be a reasonable schedule. We have included a draft graphical timeline. Upon awarding of the project, we would anticipate further reviewing the details of the implementation plan as one of the initial steps.

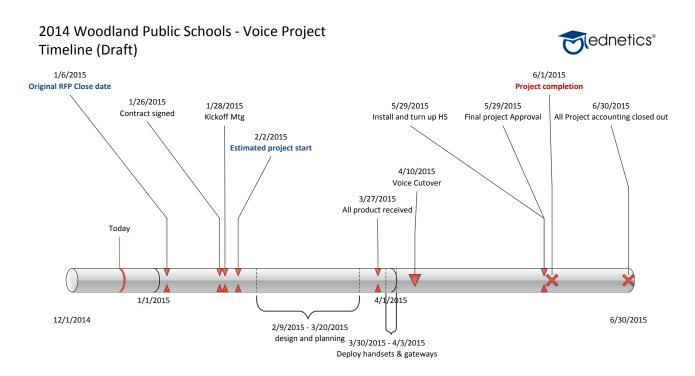


Figure 1: Draft Timeline for Woodland School District VoIP Project.

### Maintenance and Technical Support

With our on-premise VoIP proposal we have provided two maintenance and support options for the District. Cisco SMARTnet Services provide manufacturer maintenance and technical assistance on all hardware and software in the proposal. Additionally, based on the stated request in the RFP we have included Ednetics One Technical Support for vendor provided monitoring, troubleshooting and repairs. The Ednetics Technical Support is an option, not required as part of our proposal, but one that we provide for those looking for a fully supported and true turn-key solution.

#### Cisco Maintenance and Support

Cisco SMARTnet Service is an award-winning technical support service that gives your IT staff direct, anytime access to Technical Assistance Center (TAC) engineers and Cisco.com resources. You receive the fast, expert response and the dedicated accountability you require to resolve critical network issues.

Cisco SMARTnet Service provides the following device-level support:

- Global access 24 hours a day, 365 a year to specialized engineers in the Cisco TAC
- Anytime access to the extensive Cisco.com online knowledge base, resources, and tools
- Next-business-day (NDB) advance hardware replacement
- Ongoing operating system software updates, including both minor and major releases within your licensed feature set
- Proactive diagnostics and real-time alerts on select devices with Smart Call Home

#### Cisco Technical Assistance Center

Cisco's Technical Assistance Center (TAC) is available 24x7. The district will have access to the TAC through the SMARTnet contracts held on Cisco hardware and software. Cisco employs the use of a multi-tiered priory system that is based on the number of people being affected by a given issue (similar to Ednetics). Their response times will change based on the priority of the case. A TAC case submission can follow or be followed by a case submission to Ednetics technical support if the district chooses partner support as well.

Cisco TAC engineers are among the best in the industry. Expertly trained engineering teams are ready to respond to your specific hardware or Cisco IOS software problem via the Web, email, or telephone. This highly skilled staff offers you years of networking experience. With more than 1,200 TAC support engineers on staff, the Cisco TAC provides a high level of knowledge in voice, video, and data communications networking technology. The Cisco TAC has a sophisticated call routing system that quickly routes you to the correct technology personnel for:

- Expert Assistance This complements your in-house resources, Cisco TAC employs a highly skilled staff that offers you years of networking experience, more than 1,000 support engineers on staff, 390 CCIE-certified professionals, and access to 13,000 research and development engineers.
- <u>Faster Resolution</u> Cisco TAC provides constant measurement of Customer satisfaction and time-to-resolution tracking. Cisco TAC resolves more than 300,000 Customer issues per month.
- <u>High Level of Knowledge</u> Cisco TAC offers expertise in numerous networking environments (voice, video, and data communications) and technologies (access, Cisco IP telephony, LAN switching, optical networking, security solutions, content delivery networking, Secure Area Networks (SANs), and wireless).
- <u>Worldwide Availability</u> Cisco support is there when you need it, 24 hours a day, 365 days a year in more than 140 languages, by email or telephone.
- <u>Cisco Virtual Lab</u> The powerful Cisco virtual lab, equipped with all Cisco devices and Cisco IOS software versions, provides an engineering resource and knowledge base for training, product information, and re-creation and testing of selected network problems.

#### Ednetics One Technical Support

We stand behind our projects and services and by providing ongoing support through our dedicated Support Desk. This team exists to provide excellent responsiveness and technical support to our customers. This group enforces the Service Level Agreement (SLA) requirements for our support contracts. They use an enterprise class ticket tracking system to ensure that each issue is accounted for from inception to resolution. This group is trained on the troubleshooting and the resolution of common issues for all of the solutions that Ednetics offers. In additional to this, they possess internal paths of escalation including access to our specialized teams and our business partners (such as Cisco Systems, Microsoft, etc.). The Support Desk is always staffed during Ednetics extended business hours (7 am to 7 pm). Ednetics support representatives are available 24/7 for creation of support cases, troubleshooting and addressing major issues.

Our support provides customers with guaranteed response times, free remote support and direct access to our network engineering staff. Typically our support agreement provides organizations with a Tier 2/3 support level. Tier 1 would be the Customer network administrator staff or other local resource. While Ednetics staff may often participate in advanced troubleshooting and problem solving, we can also serve as an extension to the Customer network administration team if necessary, and example would be assisting with a remote Move/Add/Change (MAC).

Because the Ednetics Support Desk has dedicated staff, our customers can expect an immediate response when you call our toll free support line. The same staff also monitors our dedicated mailbox, support@ednetics.com, so you can typically expect to have your case created and prioritized within 15 minutes. Our standard SLA is 4 hours to begin working on the issue; however we typically are able to begin work much sooner. We take a practical approach to our responses using priority as a driving factor. When an outage is reported, it will be assigned high priority and a response will typically begin immediately. Ednetics will notify our customers in the event of a service affecting or potentially service affecting maintenance. This notification would be issued whether the work being performed was on-premise equipment or the managed head-end systems.

Cases of normal priority, such as a Move/Add/Change (MAC) request, receive a priority marking of medium and are typically handled by in our Support Desk at tier 1. Service affecting tickets such as an outage would be tagged as 'high priority' in the ticket system. When a high priority case gets created, the ticketing system automatically sends notifications to 2<sup>nd</sup> and 3<sup>rd</sup> tier engineering groups and to management. These cases receive automatic escalation, and the details are relayed, in person, by support desk staff to the upper tier engineers. At that point a plan of action is created, the customer is contacted and the details of the action plan are relayed. Management is also kept informed during the process. For difficult cases or those involving software issues, our support team may engage our business partners (such as Cisco Systems, Microsoft, etc.) in the troubleshooting process.

All of the on-premise components with this system can be updated and troubleshot remotely over a VPN connection. Onsite support is also included if necessary. If it is necessary to visit a site for any reason, this will be coordinated and follow procedures as required by the District.

An example copy of an Ednetics One Technical Support Contract has been provided in Appendix II for further reference.

### Base Bid and Bid Alternates

Ednetics has designed a solution for the Base Bid and Bid Alternate 1 as stipulated in the RFP requirements. Voice network diagrams depicting the proposed designs for both the Base Bid and Bid Alternate 1 are included below and detailed bill of materials for each are included in Appendix II. The features, functions and capabilities described within apply to both options.

Also as specified, we have provided costs for a Bid Alternate 2 – extending the manufacturer maintenance and warranty of the Base Bid for a further 1 to 5 years (2-6 years total coverage). Again, a detailed description of Bid Alternate 2 is provided in Appendix II.

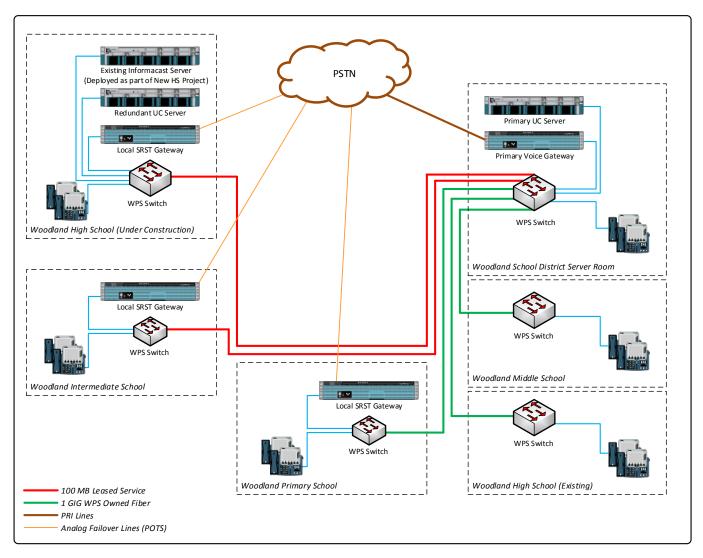


Figure 2: Voice Network Diagram for the Base Bid Design.

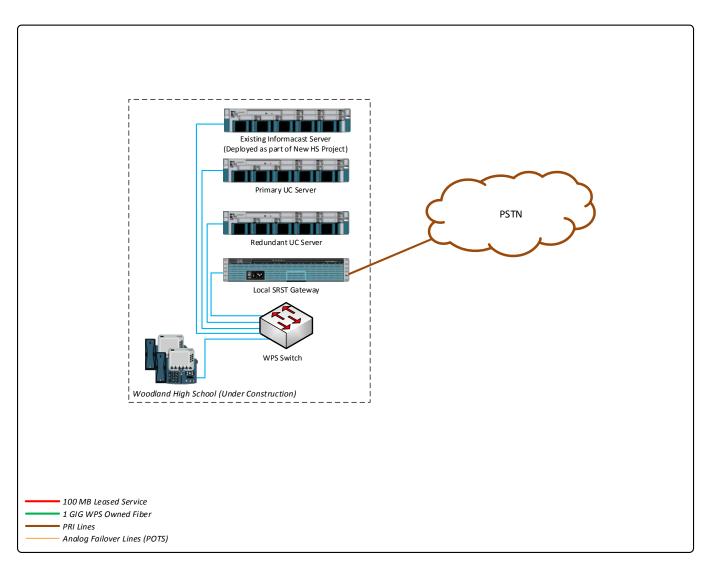


Figure 3: Voice Network Diagram for Bid Alternate 1 Design.



Section 4 | RFP Requirements

# RFP Requirements

### General Scope of Work

The Ednetics proposed solution complies with the General Scope of Work listed in the RFP document (pages 8-9). Details on the engineering services provided by Ednetics are given in the Scope of Work outline in Appendix II.

### **Specified Requirements & Responses**

#### **Required System Features**

Woodland School District is looking for a phone and voicemail that provide the following:

A. A full featured phone and voicemail system capable of handling a wide range of services.

RESPONSE: Comply.

B. Capable of growing to a minimum of 1,000 stations and voicemail ports.

RESPONSE: Comply.

C. Reliable and easy to use, with easy to learn intuitive features.

RESPONSE: Comply.

D. Web browser user interface to review and manage voicemails.

RESPONSE: The Cisco UC solution provides Unified Messaging which gives end users access to their voicemail on their phone or through their email. This provides multiple interfaces for end users to review and manage messages without the need for a separate web browser interface.

E. Web browser or client software interface to manage the phone system and the voicemail system.

RESPONSE: Comply.

F. Email notification of the receipt of voicemails, with an accompanying digital audio file (such as AVI, wav or MP3) so the user can listen to the message on their desktop computer.

RESPONSE: Comply.

G. Automatic Time of Day and Day of Week scheduling with separate and multiple greeting options.

RESPONSE: Comply.

#### Standard Phone System Features and Capabilities

1. Online Backup and restore capabilities for user and configuration data, without service interruption

RESPONSE: In the Solution Description section of our proposal we have outlined the fault tolerance features of our proposed design including dual servers that maintain active-active redundancy of the call management, voicemail and E911 services. This ensures uptime without service interruption in the event of a server failure. Additionally, there are backups of the phone system configurations and there is an inactive partition for staging of the backups in the event that system maintenance or a full restore needs to be done, however this would require a service window to complete.

2. The ability to pre-record, store, auto-attendant messages and quickly and simply switch between stored messages within an auto-attendant to provide information on situations notifications such as late school closures, early releases, late starts, bus route restrictions.

RESPONSE: Comply.

3. The system must support Quality of Service and the latest published standards standard for voice prioritization. Bidders shall identify the codec(s) the system utilizes and the type of QoS the network should be set up for.

RESPONSE: Comply.

4. Web browser interface to allow employees to access and manage their voice mail.

RESPONSE: The Cisco UC solution provides Unified Messaging which gives end users access to their voicemail on their phone or through their email. This provides multiple interfaces for end users to review and manage messages without the need for a separate web browser interface.

5. Bidders shall identify redundancy and failover capabilities and features. Provide information on how the proposed systems will maintain uninterrupted service in the event of system/hardware failure and in the event of a power interruption. Bidders should assume that there the sites do not have generators.

RESPONSE: Our solution complies with the requirements and our redundancy and failover capabilities are outlined in the Solution Description section of the proposal.

6. District-wide 4-digit dialing.

RESPONSE: Comply.

7. All equipment supplied under this contract shall be Underwriters Laboratory (or other national testing laboratory) approved and all literature for the components shall identify the national testing laboratory approval.

RESPONSE: Comply.

8. The district network consists of category 5e/6 UTP cabling. Woodland Public Schools will provide all PoE ports.

RESPONSE: Acknowledge.

9. All equipment to be mounted in an IDF or MDF must be rack mountable in a standard 19" data cabinet or relay rack, served by standard 120-volt 15 amp electrical power. 208V power is an acceptable alternative however requirements for 208V power must be noted conspicuously in proposal documents.

RESPONSE: Comply.

10. IP networking features must allow branch-to-branch voice traffic between multiple controllers to be routed over the Districts data network. Network connectivity is provided by 100Mb or 1,000 Mb RJ-45 Ethernet ports.

RESPONSE: Our solution is designed for installation on the District's existing IP network. Preparing the Wide Area Network (WAN) and Local Area Network (LAN) is a key component for successful implementation. Ednetics will provide consultation to the District as they prepare the network for VoIP. Use of proper voice VLANs and QoS will ensure that critical voice traffic is protected even when the network is experiencing high traffic loads. A network survey will be conducted to determine if any additional district provided network hardware is required and to detail network configuration requirements that need to be met.

11. All equipment must be installed to meet local seismic requirements.

RESPONSE: Comply.

### **Desired/Optional Requirements**

1. Distinctive Ring to distinguish outside/inside calls

RESPONSE: Comply.

2. Active Directory Integration

RESPONSE: Comply.

3. Hot Desking features, to allow a user to log in to a shared phone, and the shared phone will take on the class of service, voice messaging and E911 location reporting for the user.

RESPONSE: Comply.

4. Integration of software between the voice system and the PS/ALI database allowing for automated update/refresh of PS/ALI data resulting from relevant MAC actions.

RESPONSE: Comply.

5. Web-based phone system and voicemail administration.

RESPONSE: Comply.

#### **Phone Feature Requirements**

1. Phones identified in this document as "classroom phones" shall be Polycom SoundPoint 331 or approved equivalent in features, capabilities and quality and shall provide (2) 100/1000 Mb Ethernet ports. All phones shall have the ability to derive power from both PoE and a local power supply plugged into the AC outlet at the desk.

RESPONSE: Based on the example phone model for the classroom locations, we have specified a Cisco 7821 IP phone handset. The Cisco 7800 Series phones deliver advanced IP Telephony features and crystal clear wideband audio performance to deliver an easy-to-use, full-featured voice communications experience. Further details on this phone and it's features are provided with the specification sheets in Appendix III.

This phone meets the updated requirement set in the RFP addendum of having a 100 Mb Ethernet port.

2. Phones identified in this document as "administrator's phones" shall be Polycom SoundPoint 550 or approved equivalent in features, capabilities and quality and shall be equipped with (2) 100/1000Mb Ethernet ports. All phones shall have the ability to derive power from both PoE and a local power supply plugged into the AC outlet at the desk.

RESPONSE: Based on the example phone model for the classroom locations, we have specified a Cisco 7841 IP phone handset. The Cisco 7800 Series phones deliver advanced IP Telephony features and crystal clear wideband audio performance to deliver an easy-to-use, full-featured voice communications experience. Further details on this phone and it's features are provided with the specification sheets in Appendix III.

It should be noted that the 7841 phone meets the original requirement of having a 100/1000 Mb Ethernet port.

3. User customizations should be associated with the extension and stored on the server, so that users are not required to recreate them in the event of handset replacement. Alternately, the system may have a method that uses the web interface or client software to save settings and transfer them to new phone, or to save and transfer to a new phone a "standard setup" to speed up programming of new phones.

RESPONSE: Comply.

4. The owner would like the capability to place a call to any speaker equipped phone, or group of phones, on the new PBX and have the call drop directly onto the speaker such that two-way hands free communication can start immediately, without the individual at the called location having to touch the phone. Bidders Shall Identify In Their Proposals If This Can Be Accomplished Using Systems Included In The Base Proposal.

RESPONSE: The Cisco phone system provides this two-way hands free communication to individual phones. Communication with groups of phones is provided through integration the the previously purchased Informacast server that will be installed at the new High School.

#### Required Reporting Features

1. The system should have call accounting capabilities, including the ability to report inbound, outbound, and internal calls by station, group, department, and building.

RESPONSE: Comply.

2. Call accounting reports should be available to print, email, or export to a commonly-used file formats such as Excel and CSV.

RESPONSE: Comply.

3. The system should provide system and user-level voice mailbox reporting to track basic system functions and usage, including size of message store, message aging and auto-deletion of messages.

RESPONSE: Comply.

4. Performance reporting, including real-time reporting/monitoring of lines in use, with the ability for a system administrator to forcibly disconnect calls; call reporting of the average and maximum wait times to acquire a channel and failure due to lack of available channel and ACD volume and wait reporting

RESPONSE: Comply.

#### **Emergency Calling Features**

E911 capability is required for Woodland School District phone by State Law. The vendor shall provide a solution for 911 dialing that achieves the expected functions of a 911 system without substantially changing any of the expected normal operations of the system, including:

a. Ability to dial 911 directly, as opposed to the requirement to dial a prefix + 911, such as 9-911.

RESPONSE: Comply.

b. Ability to dial 911 from any phone regardless of login/lock status and/or class of service

RESPONSE: Comply.

c. 911 shall override other outbound calls.

RESPONSE: Comply.

d. The school site systems must retain the ability call 911 in the event of a local power outage or if the link to the core PBX equip is severed.

RESPONSE: Comply.

NOTE: In the event of a power outage at the main MDF, the school district allows their core phone system to go out of service, but maintains two POTS lines into each school office for emergency communications, and uses the intercoms to communicate with the classrooms. In the event of a link loss or power outage, WPS wants to maintain calling capabilities within the school site (assuming they still have power) and out to E911.

Bidders Shall Identify In Their Proposals How This Is To Be Accomplished.

RESPONSE: System measures for WAN and component failures are outlined in the Solution Description section of the proposal. Protection from power outages will depend on UPS devices or other power backup systems and are the responsibility of the District per the RFP Addendum issued. Ednetics will provide any additional information needed to assist the district in specifying and/or procuring potential new power backup equipment.



Appendix I

62

67 68

#### New Woodland School District VoIP Phone & Voicemail System Revised December 15, 2014

#### **Schedule Of Values**

**Bid Response Spreadsheet** 

Instruction: Bidders are to fill out the form below and provide the information both in paper and electronic format (MSExcel v2010) as part of their bid submittal.

#### BASE BID: PROVIDE A VOIP PBX, VOICEMAIL AND PHONES TO REPLACE THE EXISTING WPS PBX, INCLUDING THE NEW HIGH SCHOOL.

BIDDING CONTRACTOR INFORMATION

Contractor Business Name	Ednetics Inc.			
Contractor Business Address	971 S Clearwater Loop, Post Falls Idaho. 83854			
Contractor Document Delivery Address	1445 NW 11th Street, Corvallis Oregon 97330			
Contractor Phone Number	888 809-4609			
Contractor Primary Contact Name	Colby Van Vooren			
Contractor Primary Contact Phone Number	541-799-3588			
Contractor Primary Contact E-mail	Colby@Ednetics			
Contractor Primary Contact Fax Number	208-777-4708			

	SITES	INDIVIDUAL SITE COSTS
1	Main Campus	
	Core PBX Servers, software and ancillary equipment	\$16,279.22
	Phone systems software and licensing	\$24,162.78
	Voicemail system software and licensing	\$9,211.05
	E911 Compliance Requirements	\$3,904.84
	Traffic engineering services, trunks and number porting	included
	PBX specific networking and support equipment	\$9,488.85
	Telephones	
	Site Total	\$ 76,292.94
2	Primary School	
	PBX specific networking and support equipment	\$3,992.25
	Telephones	\$5,307.40
	Site Total	\$ 9,299.65
3	Intermediate School	
	PBX specific networking and support equipment	\$3,556.65
	Telephones	\$5,334.05
	Site Total	\$ 8,890.70
4	New High School	
	PBX specific networking and support equipment	\$21,303.17
	Telephones	\$6,100.00
	Site Total	\$ 27,403.17
5	Miscellaneous Costs	
	Performance Bond	\$ 1,828.30
	Insurance	included
	Shipping	included
	Permits	included
	Other Miscellaneous Costs - Ednetics Technical Support	\$ 12,224.00
	BID TOTAL	\$ 135,938.76
	WSST at 7.8%	\$ 10,603.22

GRAND TOTAL INCLUDING WSST \$

Identify the total number of phones to be provided

Notes

- All costs for the entire project shall be included the BID TOTAL value above. Additional costs for items not shown in BID TOTAL will NOT BE PAID.
  - Bidders are reminded that this is a prevailing wage project. See Latest rate tables

http://www.lni.wa.gov/TradesLicensing/PrevWage/

Contractors request for payments shall be based on completion of the individual systems sections 1 through 5, as shown above. Section 1 must be complete and operational prior to payment for items 2 through 5.

#### BID ALTERNAT E #1: FOR THE NEW HIGH SCHOOL ONLY, PROVIDE A VOIP PBX, VOICEMAIL AND PHONES.

4	New High School	
	PBX specific networking and support equipment	\$ 51,636.26
	Telephones	\$ 10,231.50
	Site Total	\$ 61,867.76
	Performance Bond	\$ 928.02
	Insurance	included
	Shipping	included
	Permits	included
	Other Miscellaneous Costs - Ednetics Technical Support	\$ 6,896.00

BID ALTERNATE #1 SUBTOTAL	\$ 69,691.78
_	
WSST at 7.8%	\$ 5,435.96
_	
BID ALTERNATE #1 GRAND TOTAL INCLUDING WSST	\$ 75,127.74

#### BID ALTERNAT E #2: WARRANTY AND MAINTENANCE SERVICES ON THE BASE BID

90	1	Provide Costs For Extended Warranty, starting at the end of the vendors base warranty.	
91	2	One (1) additional year extended warranty, including phones.	\$ 10,954.48
92	3	Two (2) additional year extended warranty, including phones.	\$ 20,956.28
93	4	Three (3) additional year extended warranty, including phones.	\$ 31,422.20
94	5	Four (4) additional year extended warranty, including phones.	\$ 40,471.32
95	6	Five (5) additional year extended warranty, including phones.	\$ 50,790.68
96	7		
97	8	One (1) additional year extended warranty, not including phones.	\$ 9,291.28
98	9	Two (2) additional year extended warranty, not including phones.	\$ 17,781.08
99	10	Three (3) additional year extended warranty, not including phones.	\$ 26,634.20
100	11	Four (4) additional year extended warranty, not including phones.	\$ 34,322.52
101	12	Five (5) additional year extended warranty, not including phones.	\$ 43,079.48
102			
103			

#### BID ALTERNAT E #3: USE THE OLD PBX AND PHONES AS TRADE-IN

104

		Provide the amount the total cost of the new PBX will be REDUCED if the old system is taken as trade-in. If	
105		this bid alternate is accepted, the contractor will be responsible to remove the old PBX and the phones.	Best available discounts already factored in Base Bid pricing
111			
112			
113		IDENTIFY YOUR STANDARD COSTS AND LABOR RATES	
114	1	Cost to provide (1) wall power supply for the phones where PoE isn't available.	
115	2	Installation Technician, standard rate, per hour	\$125.00
116	3	Installation Technician, overtime rate, per hour	\$125.00
117	4	Repair Technician, standard rate, per hour.	\$125.00
118	5	Repair Technician, overtime rate, per hour.	\$125.00
119	6	Project Manager, standard rate, per hour	\$175.00
120	7	Project Manager, overtime rate, per hour	\$175.00
121	8	Network Technician, standard rate, per hour	\$150.00
122	9	Network Technician, overtime rate, per hour	\$150.00
123	10	Systems Engineer, standard rate, per hour	\$150.00
124	11	Systems Engineer, overtime rate, per hour	\$150.00
-			

#### PROPOSAL SIGNATURE PAGE

#### **Attachment B**

Proposals are subject to all requirements furnished with this Request for Proposal document. By signing below, vendor affirms having read the terms, conditions and specifications, and agrees thereto and warrants that products and services supplied herein conform to specifications herein.

By signature on their proposal, Proposers certify that: they have read this Request for Proposal (RFP); are legally authorized to bind the Proposer; agree to furnish the requested supplies, equipment or services in accordance with this RFP.

FIRM NAME: Ednetics, Inc.
ADDRESS: 971 S. Clearwater Loop
CITY, STATE, ZIP: Post Falls, ID 83854
WASHINGTON UBI NO.: 602127359 FEDERAL TAX ID: 84-1408391
SPIN: 143008534
CONTACT NAME: Colby Van Vooren TITLE: Assistant Sales Manager
TELEPHONE NUMBER: <u>888-809-4609</u> FAX NUMBER: <u>208-777-4708</u>
E-MAIL ADDRESS: colby@ednetics.com
ARE ANY DISTRICT EMPLOYEES OR FORMER EMPLOYEES ON THE GOVERNING BOARD?
Check YES or NO X
F YES, PLEASE GIVE NAME(S) AND POSITION(S).
If the proposer has had a contract terminated for default in the last five years, describe such incident. Termination for default is defined as notice to stop performance due to the proposer's non-performance of poor performance and the issue of performance was either:  (a) non-litigated due to inaction on the part of the proposer, or  (b) litigated and such litigation determined that the proposer was in default.  Submit full details of the terms for default including the other party's name, address, and phone number. Present the proposer's position on the matter. The District will evaluate the facts and may, at its sole discretion, reject the proposal on the grounds of the past experience. If no such termination for default has been experienced by the proposer in the past five (5) years, so indicate.  n/a
Legally Authorized Signature:
PRINTED NAME: Colby Van Vooren DATE: 1/5/15
TITLE: Assistant Sales Manager
SIGNATURE: Colpran

### **BIDDER REFERENCES FORM**

### **Attachment C**

Provide a minimum of three recent verifiable client references for similar projects completed within the last year in the State of Washington. References must be from customers and end users. We will contact all references

References from equipment vendors, suppliers, manufacturers or subcontractors will not be considered.

Reference 1 - Client Name:	State:	Type of Business:				
Lake Stevens School District	Washington	K-12				
Contact Name:	Job Title:	Phone Number:				
Jim Weissert	Network Manager	206-588-6001				
Type of Service:	E-mail Address:	OK to Contact?				
Voice ☑ Data □	jim_weissert@lkstevens.wednet.edu	Yes				
Number of devices / approximate monthly minutes	When Installed:					
600 phones	2014					
Description / Notes:						
Installation and configuration of new Cisco VoIP phone sys	tem.					
		- (5 ·				
Reference 2 - Client Name:	State:	Type of Business:				
Pasco School District	Washington	K-12				
Contact Name:	Job Title:	Phone Number:				
Mark Garrett	Dir of Information Systems	509-543-6757				
Type of Service:	E-mail Address:	OK to Contact?				
Voice ☑ Data □	magarrett@psd1.org	Yes				
Number of devices / approximate monthly minutes	When Installed:					
1700 phones	Upgrade done in 2014					
Description / Notes:						
Upgrade of Cisco VoIP phone system, also originally instal	led by Ednetics.					
Reference 3 - Client Name:	State:	Type of Business:				
Quincy School District	Washington	K-12				
Contact Name:	Job Title:	Phone Number:				
Chris Molitor	Dir of Technology	509-787-4571				
Type of Service:	E-mail Address:	OK to Contact?				
Voice ☑ Data □	cmolitor@qsd.wednet.edu	Yes				
Number of devices / approximate monthly minutes	When Installed:					
300 phones	Upgrade done in 2014					
Description / Notes:						
Upgrade of Cisco VoIP phone system, also originally install	ed by Ednetics plus ongoing technic	al support.				

#### **CERTIFICATION AND ASSURANCES**

#### Attachment- D

I/we make the following certifications and assurances as a required element of the proposal to which it is attached, understanding that the truthfulness of the facts affirmed here and the continuing compliance with these requirements are conditions precedent to the award or continuation of the related contract(s):

- 1. I/we declare that all answers and statements made in the proposal are true and correct.
- 2. The prices and/or cost data have been determined independently, without consultation, communication, or agreement with others for the purpose of restricting competition. However, I/we may freely join with other persons or organizations for the purpose of presenting a single proposal.
- 3. The attached proposal is a firm offer for a period of 60 days following receipt, and it may be accepted by the District without further negotiation (except where obviously required by lack of certainty in key terms) at any time within the 60-day period.
- 4. In preparing this proposal, I/we have not been assisted by any current or former employee of the District whose duties relate (or did relate) to this proposal or prospective contract, and who was assisting in other than his or her official, public capacity. (Any exceptions to these assurances are described in full detail on a separate page and attached to this document.)
- 5. I/we understand that the District will not reimburse me/us for any costs incurred in the preparation of this proposal. All proposals become the property of the District, and I/we claim no proprietary right to the ideas, writings, items, or samples, unless so stated in this proposal.
- 6. Unless otherwise required by law, the prices and/or cost data which have been submitted have not been knowingly disclosed by the proposer and will not knowingly be disclosed by him/her prior to opening, directly or indirectly to any other proposer or to any competitor.
- 7. I/we agree that submission of the attached proposal constitutes acceptance of the solicitation contents and the attached sample contract and general terms and conditions. If there are any exceptions to these terms, I/we have described those exceptions in detail on a page attached to this document.
- 8. No attempt has been made or will be made by the Proposer to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.

Signature of Proposer _		Colphan		
		0		
Title	Assistant Sale	s Manager	Date 1/5/15	

## CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT AND OTHER RESPONSIBILITY MATTERS Attachment – E

Ednetics, Inc.	certifies that to the best of their knowledge/belief that neither
	an individual and/or the company and its principals are presently
contracts by any Federal governmen	lebarment, declared ineligible or voluntarily excluded for the award of tal agency or department.
having primary management or supe	certification, means officers; directors; owners; partners; and persons rvisory responsibilities within a business entity (e.g. general osidiary, division, or business segment, and similar positions).
Ednetics, Inc.	shall provide immediate written notice to Woodland School
District if at any time during the term was erroneous when made or has be such notification, or if Woodland Scl	of this Agreement, including any renewals hereof, if such certification ecome erroneous by reason of changed circumstances. Based on lool District should determine at any time that this certification is rives the right to review the status of the organization and if
	a covered transaction with another person at the next lower tier, we we will verify that the person with whom we intend to do business is do this by:
A. Checking the federal Exclude	Parties List System (EPLS); or
B. Collecting a certification from	that person if allowed by this rule; or
C. Adding a clause or condition to	o the covered transaction with that person.
transaction with a person who is deb participation in this covered transaction transaction originated. A participant in participant in a lower tier covered tra	that we shall not knowingly enter into any lower tier covered arred, suspended, declared ineligible, or voluntarily excluded from on, unless authorized by the department or agency with which this in a covered transaction may rely upon a certification of a prospective insaction that is not debarred, suspended, ineligible, or voluntarily on, unless it knows that the certification is erroneous.
this transaction was entered into. If it knowingly rendered an erroneous ce	aterial representation of fact upon which reliance was placed when is later determined that the prospective lower tier participant rification, in addition to other remedies available to the Federal acy with which this transaction originated may pursue available for debarment.
	1/5/15
Authorized Signature	Date
Colby Van Vooren	
Printed Name	



Appendix II

# Detailed Bill of Materials – Base Bid

# Main Campus

# Core Server & Equipment

Core Server & Equip		O±		I I i+ D-i		F. Assadad Daisa
Part Number Core Server	Description	Qty		Unit Price		Extended Price
UCSC-C220-M3S	UCS C220 M3 SFF w/o CPU mem HDD PCIe PSU w/ rail kit	1	\$	2,860.00	¢	2,860.00
UCS-CPU-E5-2630	2.30 GHz E5-2630/95W 6C/15MB Cache/DDR3 1333MHz	2	\$	1,724.62	\$	3,449.24
UCS-MR-1X082RY-A	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v	6	\$	448.00	\$	2,688.00
A03-D500GC3	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted	4	\$	610.00	\$	2,440.00
UCS-SD-32G-S	32GB SD Card for UCS servers	1	\$	162.00	\$	162.00
UCSC-PSU-650W	650W power supply for C-series rack servers	1	\$	630.00	\$	630.00
UCSC-RAIL1	Rail Kit for C220 C22 C24 rack servers	1	\$	030.00	\$	-
N20-BBLKD	UCS 2.5 inch HDD blanking panel	4	\$	_	\$	_
UCSC-PCIF-01F	Full height PCIe filler for C-Series	1	\$	_	\$	_
UCS-RAID9271CV-8I	MegaRAID 9271CV with 8 internal SAS/SATA ports with Supercar.	-	\$	1,686.00	\$	1 <i>.</i> 686.00
				•	ڊ \$	,
R2XX-RAID10 CON-SNT-C220M3SF	Enable RAID 10 Setting Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	1 1	\$ \$	1.00 173.58	\$	1.00 173.58
					-	
VS5-STD-A	Academic vSphere 5 Standard for 1 processor	2 2	\$ \$	507.45	\$ \$	1,014.90 237.50
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	2	Ş	118.75	Ş	237.30
<u>Services</u> EdServices	Education installation and configuration consists	1	٠	037.00	Ļ	027.00
Euservices	Ednetics installation and configuration services	1	\$	937.00	\$	937.00
				Subtotal	\$	16,279.22
Phone System Soft	ware & Licensing					
Part Number	Description	Qty		Unit Price		Extended Price
Licensing	·					
BE6K-SW-10.X	Cisco Business Edition 6000 - Software Version 10.X	1	\$	-	\$	-
BE6K-START-UCL25	BE 6000 - UCL Starter Bundle with 25 Enh and 25 VM Licenses	1	\$	165.00	\$	165.00
BE6K-UCL-ENH	Cisco Business Edition 6000 - Ehanced User Connect License	227	\$	69.30	\$	15,731.10
JABBER-IM-RTU	Jabber for Everyone Right to Use	1	\$	-	\$	-
PC-10X-STANDARD-K9	Prime Collaboration Standard 10.x	1	\$	_	\$	_
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	252	\$	15.84	\$	3,991.68
Services			•	.5.5	•	3,221.100
EdServices	Ednetics installation and configuration services	1	\$	4,275.00	\$	4,275.00
				Subtotal	\$	24,162.78
Voicemail System S	oftware & Licensing					
Part Number	Description	Qty		Unit Price		Extended Price
Licensing	Beschption	Qty		Officiale		Exteriaca i nec
BE6K-UCL-VM	Cisco Business Edition 6000 -Voicemail/Unified Messaging Lic	227	\$	24.75	\$	5,618.25
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	252	\$	9.90	-	2,494.80
Services	cisco striss support of circus 25 525th crimity comment		•	2.20	*	2, 1, 1,00
EdServices	Ednetics installation and configuration services	1	\$	1,098.00	\$	1,098.00
				Subtotal	<b>F</b> \$	9,211.05
F011 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				24240441		2,2:1103
E911 Software & Lic						
Part Number	Description	Qty		Unit Price		Extended Price
Licensing  D. FARCAICY DEPAIDS	EMPCAICY DEDAIDD FED	4			,	
R-EMRGNCY-RSPNDR	EMRGNCY RSPNDR ESD	1	\$	-	\$	-
ER10-SW-K9	EMRGNCY RSPNDR 10 SW NEW	1	\$	-	\$	-
ER10-USR-1	EMRGNCY RSPNDR USR LIC 1 PHN FOR NEW 10X SYSTEM	252	\$	6.60	\$	1,663.20
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	252	\$	1.32	\$	332.64
<u>Services</u> EdServices	Ednetics installation and configuration services	1	\$	1,909.00	\$	1,909.00
				Subtotal	<b>F</b> \$	3,904.84
					*	2,50 1.01

# PBX Networking Equipment

Part Number	Description	Qty	Unit Price		Extended Price
Primary Voice Gateway					
C2951-CME-SRST/K9	2951 Voice Bundle w/PVDM3-32 FL-CME-SRST-25 UC Lic	1	\$ 3,001.35	\$	3,001.35
VWIC3-4MFT-T1/E1	4-Port 3rd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1	1	\$ 1,452.00	\$	1,452.00
VIC3-2FXS/DID	Two-Port Voice Interface Card- FXS and DID	1	\$ 145.20	\$	145.20
PVDM3-64	64-channel high-density voice and video DSP module	1	\$ 1,056.00	\$	1,056.00
PWR-2921-51-AC	Cisco 2921/2951 AC Power Supply	1	\$ -	\$	-
SL-29-UC-K9	Unified Communication License for Cisco 2901-2951	1	\$ -	\$	-
MEM-2951-512MB-DEF	512MB DRAM (1 512MB DIMM) for Cisco 2951 ISR (Default)	1	\$ -	\$	-
MEM-CF-256MB	256MB Compact Flash for Cisco 1900 2900 3900 ISR	1	\$ -	\$	-
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$ -	\$	-
FL-CME-SRST-5	Communication Manager Express or SRST - 5 seat license	2	\$ 56.10	\$	112.20
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$ 214.50	\$	214.50
FL-CME-SRST-100=	Communication Manager or SRST- 100 seat Paper RTU	1	\$ 759.00	\$	759.00
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	1	\$ 633.60	\$	633.60
Services					
EdServices	Ednetics installation and configuration services	1	\$ 2,115.00	\$	2,115.00
			Subtotal	<b>F</b> \$	9,488.85
Phone Handsets					
Part Number	Description	Qty	Unit Price		Extended Price
CP-7821-K9=	Cisco UC Phone 7821	71	\$ 84.15	\$	5,974.65
CP-7841-K9=	Cisco UC Phone 7841	39	\$ 120.45	\$	4,697.55
Services					
EdServices	Ednetics distribution and setup of new handsets	1	\$ 2,574.00	\$	2,574.00
			Subtotal	<b>F</b> \$	13,246.20
Total Main Campus				\$	76,292.94

# **Primary School**

# PBX Networking Equipment

Part Number	Description	Qty	Unit Price	Extended Price
Local Voice Gateway				
C2921-CME-SRST/K9	2921 Voice Bundle w/PVDM3-32 FL-CME-SRST-25 UC	1	\$ 1,714.35	\$ 1,714.35
VIC2-2FXO	Two-port Voice Interface Card - FXO (Universal)	1	\$ 145.20	\$ 145.20
VIC3-2FXS/DID	Two-Port Voice Interface Card - FXS and DID	1	\$ 145.20	\$ 145.20
PWR-2911-AC	Cisco 2911 AC Power Supply	1	\$ -	\$ -
SL-29-UC-K9	Unified Communication License for Cisco 2901-2951	1	\$ -	\$ -
MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)	1	\$ -	\$ -
MEM-CF-256MB	256MB Compact Flash for Cisco 1900 2900 3900 ISR	1	\$ -	\$ -
PVDM3-16	16-channel high-density voice and video DSP module	1	\$ -	\$ -
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$ -	\$ -
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$ 214.50	\$ 214.50
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	1	\$ 363.00	\$ 363.00
<u>Services</u>				
EdServices	Ednetics installation and configuration services	1	\$ 1,410.00	\$ 1,410.00
			Subtotal	\$ 3,992.25
Phone Handsets				
Part Number	Description	Qty	Unit Price	Extended Price
CP-7821-K9=	Cisco UC Phone 7821	44	\$ 84.15	\$ 3,702.60
CP-7841-K9=	Cisco UC Phone 7841	4	\$ 120.45	\$ 481.80
<u>Services</u>				
EdServices	Ednetics distribution and setup of new handsets	1	\$ 1,123.00	\$ 1,123.00
			Subtotal	\$ 5,307.40
Total Primary School				\$ 9,299.65

# Intermediate School

# PBX Networking Equipment

Part Number	Description	Qty	Unit Price	Extended Price
Local Voice Gateway		-		
C2911-CME-SRST/K9	2911 Voice Bundle w/PVDM3-16 FL-CME-SRST-25 UC Lic	1	\$ 1,351.35	\$ 1,351.35
VIC2-2FXO	Two-port Voice Interface Card - FXO (Universal)	1	\$ 145.20	\$ 145.20
VIC3-2FXS/DID	Two-Port Voice Interface Card - FXS and DID	1	\$ 145.20	\$ 145.20
PWR-2901-AC	Cisco 2901 AC Power Supply	1	\$ -	\$ -
SL-29-UC-K9	Unified Communication License for Cisco 2901-2951	1	\$ -	\$ -
MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)	1	\$ -	\$ -
MEM-CF-256MB	256MB Compact Flash for Cisco 1900 2900 3900 ISR	1	\$ -	\$ -
PVDM3-16	16-channel high-density voice and video DSP module	1	\$ -	\$ -
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$ -	\$ -
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$ 214.50	\$ 214.50
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	1	\$ 290.40	\$ 290.40
<u>Services</u>				
EdServices	Ednetics installation and configuration services	1	\$ 1,410.00	\$ 1,410.00
			Subtotal	\$ 3,556.65
Phone Handsets				
Part Number	Description	Qty	Unit Price	Extended Price
CP-7821-K9=	Cisco UC Phone 7821	33	\$ 84.15	\$ 2,776.95
CP-7841-K9=	Cisco UC Phone 7841	9	\$ 120.45	\$ 1,084.05
Services				
CP-PWR-CUBE-3=	Cisco power adapter for 7900 Series IP phone handset	33	\$ 14.85	\$ 490.05
Services				
EdServices	Ednetics distribution and setup of new handsets	1	\$ 983.00	\$ 983.00
			Subtotal	\$ 5,334.05
Total Intermediate Sch	1			\$ 8,890.7

# New High School

## Secondary Server & Equipment

Part Number	Description	Qty		Unit Price		Extended Price
Secondary Server						
UCSC-C220-M3S	UCS C220 M3 SFF w/o CPU mem HDD PCIe PSU w/ rail kit	1	\$	2,860.00	\$	2,860.00
UCS-CPU-E5-2630	2.30 GHz E5-2630/95W 6C/15MB Cache/DDR3 1333MHz	2	\$	1,724.62	\$	3,449.24
UCS-MR-1X082RY-A	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v	6	\$	448.00	\$	2,688.00
A03-D500GC3	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted	4	\$	610.00	\$	2,440.00
UCS-SD-32G-S	32GB SD Card for UCS servers	1	\$	162.00	\$	162.00
UCSC-PSU-650W	650W power supply for C-series rack servers	1	\$	630.00	\$	630.00
UCSC-RAIL1	Rail Kit for C220 C22 C24 rack servers	1	\$	-	\$	-
N20-BBLKD	UCS 2.5 inch HDD blanking panel	4	\$	-	\$	-
UCSC-PCIF-01F	Full height PCIe filler for C-Series	1	\$	-	\$	-
UCS-RAID9271CV-8I	MegaRAID 9271CV with 8 internal SAS/SATA ports with Supercar	1	\$	1,686.00	\$	1,686.00
R2XX-RAID10	Enable RAID 10 Setting	1	\$	1.00	\$	1.00
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	1	\$	173.58	\$	173.58
VS5-STD-A	Academic vSphere 5 Standard for 1 processor	2	\$	507.45	\$	1,014.90
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	2	\$	118.75	\$	237.50
Local Voice Gateway						
C2921-CME-SRST/K9	2921 Voice Bundle w/PVDM3-32 FL-CME-SRST-25 UC Lic	1	\$	1,714.35	\$	1,714.35
VIC2-2FXO	Two-port Voice Interface Card - FXO (Universal)	1	\$	145.20	\$	145.20
VIC3-2FXS/DID	Two-Port Voice Interface Card- FXS and DID	1	\$	145.20	\$	145.20
PWR-2911-AC	Cisco 2911 AC Power Supply	1	\$	-	\$	-
SL-29-UC-K9	Unified Communication License for Cisco 2901-2951	1	\$	-	\$	-
MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)	1	\$	-	\$	-
MEM-CF-256MB	256MB Compact Flash for Cisco 1900 2900 3900 ISR	1	\$	_	\$	_
PVDM3-32	32-channel high-density voice and video DSP module	1	\$	_	\$	_
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$	-	\$	-
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	2	\$	214.50	\$	429.00
FL-CME-SRST-5=	Communication Manager Express or SRST - 5 seat paper RTU	2	\$	56.10	\$	112.20
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	1	\$	363.00	\$	363.00
<u>Services</u>						
EdServices	Ednetics installation and configuration services	1	\$	3,052.00	\$	3,052.00
				Subtotal	\$	21,303.17
Phone Handsets						
Part Number	Description	Qty		Unit Price		Extended Price
CP-7821-K9=	Cisco UC Phone 7821	38	\$	84.15	\$	3,197.70
CP-7841-K9=	Cisco UC Phone 7841	14	\$	120.45	\$	1,686.30
Services			,		•	.,
EdServices	Ednetics distribution and setup of new handsets	1	\$	1,216.00	\$	1,216.00
				Subtotal	\$	6,100.00
Total New High School	1				\$	27,403.17

## Miscellaneous

## **Ednetics Technical Support**

Description				Price
EdneticsOne Technical Supp	oort for VoIP System - 1 year			\$ 15,280.00
<b>Ednetics Support Discount</b>				\$ (3,056.00)
Summary of Coverage				
Summary of Coverage:	4 Business Hour Response			
Phone Support E-mail Support	4 Business Hour Response			
• • • • • • • • • • • • • • • • • • • •	·			
Remote Support	Next Business Day Response	_		
Software	Software updates, bug fixes, security patches within license	a		
	feature set determined by product category.			
Equipment Supported:	Cisco UCS C220 Servers	2		
	Cisco 2951 Voice Gateway/Router	1		
	Cisco 2921 Voice Gateway/Router	2		
	Cisco 2911 Voice Gateway/Router	1		
	CUCM UCL Enhanced Users	252		
	Unity Connection Voice Mail Licenses	252		
	Emergency Responder Licenses	252		
NOTE: Additional multi-yea	r discounts available on EdneticsOne Support			
2 years up-front - 10% di	scount, 3 years - 15% discount, 4 years - 18% discount, 5 years	- 20% discount		
			Subtotal	\$ 12,224.00

# Detailed Bill of Materials – Bid Alternate 1

## New High School

# PBX Networking Equipment

Part Number	Description	Qty		Unit Price		Extended Price
Core Server		~-)				
UCSC-C220-M3S	UCS C220 M3 SFF w/o CPU mem HDD PCle PSU w/ rail kit	1	\$	2,860.00	\$	2,860.00
UCS-CPU-E5-2630	2.30 GHz E5-2630/95W 6C/15MB Cache/DDR3 1333MHz	2	\$	1,724.62	\$	3,449.24
UCS-MR-1X082RY-A	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v	6	\$	448.00	\$	2,688.00
A03-D500GC3	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted	4	\$	610.00	\$	2,440.00
UCS-SD-32G-S	32GB SD Card for UCS servers	1	\$	162.00	\$	162.00
UCSC-PSU-650W	650W power supply for C-series rack servers	1	\$	630.00	\$	630.00
UCSC-RAIL1	Rail Kit for C220 C22 C24 rack servers	1	\$	-	\$	-
N20-BBLKD	UCS 2.5 inch HDD blanking panel	4	\$	-	\$	-
UCSC-PCIF-01F	Full height PCIe filler for C-Series	1	\$	-	\$	-
UCS-RAID9271CV-8I	MegaRAID 9271CV with 8 internal SAS/SATA ports with Supercar	1	\$	1,686.00	\$	1,686.00
R2XX-RAID10	Enable RAID 10 Setting	1	\$	1.00	\$	1.00
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	1	\$	173.58	\$	173.58
VS5-STD-A	Academic vSphere 5 Standard for 1 processor	2	\$	507.45	\$	1,014.90
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	2	\$	118.75	\$	237.50
<u>Secondary Server</u>						
UCSC-C220-M3S	UCS C220 M3 SFF w/o CPU mem HDD PCle PSU w/ rail kit	1	\$	2,860.00	\$	2,860.00
UCS-CPU-E5-2630	2.30 GHz E5-2630/95W 6C/15MB Cache/DDR3 1333MHz	2	\$	1,724.62		3,449.24
UCS-MR-1X082RY-A	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v	6	\$	448.00	\$	2,688.00
A03-D500GC3	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted	4	\$	610.00	\$	2,440.00
UCS-SD-32G-S	32GB SD Card for UCS servers	1	\$	162.00	\$	162.00
UCSC-PSU-650W	650W power supply for C-series rack servers	1	\$	630.00	\$	630.00
UCSC-RAIL1	Rail Kit for C220 C22 C24 rack servers	1	\$	-	\$	-
N20-BBLKD	UCS 2.5 inch HDD blanking panel	4	\$	-	\$	-
UCSC-PCIF-01F	Full height PCIe filler for C-Series	1	\$	-	\$	-
UCS-RAID9271CV-8I	MegaRAID 9271CV with 8 internal SAS/SATA ports with Supercar	1	\$	1,686.00	\$	1,686.00
R2XX-RAID10	Enable RAID 10 Setting Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	1 1	\$ \$	1.00	\$	1.00
CON-SNT-C220M3SF				173.58	\$	173.58
VS5-STD-A VS5-STD-G-SSS-A	Academic vSphere 5 Standard for 1 processor vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	2 2	\$ \$	507.45 118.75	\$ \$	1,014.90 237.50
	vapriere a standard sits 12x3/4 business flours, 1 Froc - 1 year	2	Ļ	110.73	ڔ	237.30
<u>Local Voice Gateway</u> C2921-CME-SRST/K9	2921 Voice Bundle w/PVDM3-32 FL-CME-SRST-25 UC Lic	1	\$	1 71 / 25	ċ	1 71 / 25
VWIC3-1MFT-T1/E1	1-Port 3rd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1	1	\$	1,714.35 471.90	\$ \$	1,714.35 471.90
VIC2-2FXO	Two-port Voice Interface Card - FXO (Universal)	1	\$	145.20	\$	145.20
VIC3-2FXS/DID	Two-Port Voice Interface Card - FXS and DID	1	\$	145.20	\$	145.20
PWR-2911-AC	Cisco 2911 AC Power Supply	1	\$	143.20	\$	143.20
SL-29-UC-K9	Unified Communication License for Cisco 2901-2951	1	\$	_	\$	_
MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)	1	\$	_	\$	_
MEM-CF-256MB	256MB Compact Flash for Cisco 1900 2900 3900 ISR	1	\$	_	\$	_
PVDM3-32	32-channel high-density voice and video DSP module	1	Ś	_	Ś	-
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	1	\$	_	\$	-
FL-CME-SRST-25	Communication Manager Express or SRST - 25 seat license	2	\$	214.50	\$	429.00
FL-CME-SRST-5=	Communication Manager Express or SRST - 5 seat paper RTU	2	\$	56.10	\$	112.20
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	1	\$	363.00	\$	363.00
Phone System Software & Lic	ensing					
BE6K-SW-10.X	Cisco Business Edition 6000 - Software Version 10.X	1	\$	_	\$	-
BE6K-START-UCL25	BE 6000 - UCL Starter Bundle with 25 Enh and 25 VM Licenses	1	\$	165.00	\$	165.00
BE6K-UCL-ENH	Cisco Business Edition 6000 - Ehanced User Connect License	57	\$	69.30	\$	3,950.10
JABBER-IM-RTU	Jabber for Everyone Right to Use	1	\$	-	\$	· -
PC-10X-STANDARD-K9	Prime Collaboration Standard 10.x	1	\$	-	\$	-
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	82	\$	15.84	\$	1,298.88
Voicemail System Software &						
BE6K-UCL-VM	Cisco Business Edition 6000 -Voicemail/Unified Messaging Lic	57	\$	24.75	\$	1,410.75
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	82	\$	9.90	\$	811.80

Total New High School	- Bid Alt 1				\$	61,867.76
				Subtotal	\$	10,231.50
EdServices	Ednetics distribution and setup of new handsets	1	\$	2,460.00	\$	2,460.00
Services	CISCO OC FITOTIE 7641	24	ڔ	120.43	Ş	2,090.00
CP-7821-K9= CP-7841-K9=	Cisco UC Phone 7821 Cisco UC Phone 7841	58 24	\$ \$	84.15 120.45	\$ \$	4,880.70 2,890.80
Part Number	Description	Qty		Unit Price		Extended Price
Phone Handsets						
				Subtotal	\$	51,636.26
EdServices	Ednetics installation and configuration services	1	\$	9,285.00	\$	9,285.00
CON-ECMU-ER10USR1 Services	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	82	\$	1.32	\$	108.24
ER10-USR-1	EMRGNCY RSPNDR USR LIC 1 PHN FOR NEW 10X SYSTEM	82	\$	6.60	\$	541.20
ER10-SW-K9	EMRGNCY RSPNDR 10 SW NEW	1	\$	-	\$	-
E911 Software & Licensing R-EMRGNCY-RSPNDR	EMRGNCY RSPNDR ESD	1	\$	-	\$	-

## Detailed Bill of Materials – Bid Alternate 2

## Extended Maintenance and Warranty – including Handsets

## One Additional Year Manufacturer Maintenance & Warranty (2 Years Total)

Part Number	Description	Qty	Unit Price	Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	2	\$ 173.58	\$ 347.16
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	4	\$ 118.75	\$ 475.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	252	\$ 15.84	\$ 3,991.68
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	252	\$ 9.90	\$ 2,494.80
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	252	\$ 1.32	\$ 332.64
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	1	\$ 633.60	\$ 633.60
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	2	\$ 363.00	\$ 726.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	1	\$ 290.40	\$ 290.40
<u>Handsets</u>				
CON-SNT-CP7841K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7841	66	\$ 6.60	\$ 435.60
CON-SNT-CP7821K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7821	186	\$ 6.60	\$ 1,227.60

Subtotal \*\*\$

Subtotal \*\*\$

10,954.48

20,956.28

## Two Additional Years Manufacturer Maintenance & Warranty (3 Years Total)

Part Number	Description	Qty	Unit Price	Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	4	\$ 173.58	\$ 694.32
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	8	\$ 118.75	\$ 950.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	504	\$ 15.84	\$ 7,983.36
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	504	\$ 9.90	\$ 4,989.60
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	504	\$ 1.32	\$ 665.28
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	2	\$ 633.60	\$ 1,267.20
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	4	\$ 363.00	\$ 1,452.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	2	\$ 290.40	\$ 580.80
<u>Handsets</u>				
CON-SNT-CP7841K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7841	132	\$ 6.60	\$ 871.20
CON-SNT-CP7821K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7821	372	\$ 6.60	\$ 2,455.20
Cisco Multi-year discount				\$ (952.68)

## Three Additional Years Manufacturer Maintenance & Warranty (4 Years Total)

Part Number	Description	Qty	Unit Price		Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	6	\$ 173.58	\$	1,041.48
VS5-STD-3G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 3 yrs	4	\$ 313.50	\$	1,254.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	756	\$ 15.84	\$	11,975.04
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	756	\$ 9.90	\$	7,484.40
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	756	\$ 1.32	\$	997.92
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	3	\$ 633.60	\$	1,900.80
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	6	\$ 363.00	\$	2,178.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	3	\$ 290.40	\$	871.20
<u>Handsets</u>					
CON-SNT-CP7841K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7841	198	\$ 6.60	\$	1,306.80
CON-SNT-CP7821K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7821	558	\$ 6.60	\$	3,682.80
Cisco Multi-year discount				\$	(1,270.24)
			Subtotal	<b>F</b> \$	31,422.20

## Four Additional Years Manufacturer Maintenance & Warranty (5 Years Total)

Part Number	Description	Qty	Unit Price		Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	8	\$ 173.58	\$	1,388.64
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	4	\$ 118.75	\$	475.00
VS5-STD-3G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 3 yrs	4	\$ 313.50	\$	1,254.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	1008	\$ 15.84	\$	15,966.72
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	1008	\$ 9.90	\$	9,979.20
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	1008	\$ 1.32	\$	1,330.56
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	4	\$ 633.60	\$	2,534.40
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	8	\$ 363.00	\$	2,904.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	4	\$ 290.40	\$	1,161.60
<u>Handsets</u>					
CON-SNT-CP7841K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7841	264	\$ 6.60	\$	1,742.40
CON-SNT-CP7821K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7821	744	\$ 6.60	\$	4,910.40
Cisco Multi-year discount				\$	(3,175.60)
			Subtotal	<b>*</b> \$	40,471.32

## Five Additional Years Manufacturer Maintenance & Warranty (6 Years Total)

Part Number	Description	Qty	Unit Price		Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	10	\$ 173.58	\$	1,735.80
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	8	\$ 118.75	\$	950.00
VS5-STD-3G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 3 yrs	4	\$ 313.50	\$	1,254.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	1260	\$ 15.84	\$	19,958.40
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	1260	\$ 9.90	\$	12,474.00
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	1260	\$ 1.32	\$	1,663.20
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	5	\$ 633.60	\$	3,168.00
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	10	\$ 363.00	\$	3,630.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	5	\$ 290.40	\$	1,452.00
<u>Handsets</u>					
CON-SNT-CP7841K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7841	330	\$ 6.60	\$	2,178.00
CON-SNT-CP7821K9	Cisco SMARTNET Maint: 8X5XNBD Cisco UP Phone 7821	930	\$ 6.60	\$	6,138.00
Cisco Multi-year discount				\$	(3,810.72)
Cisco Muiti year discount				ڔ	(3,010.72)
			Subtotal	\$	50,790.68

## Extended Maintenance and Warranty – without Handsets

## One Additional Year Manufacturer Maintenance & Warranty (2 Years Total)

Part Number	Description	Qty	Unit Price		Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	2	\$ 173.58	\$	347.16
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	4	\$ 118.75	\$	475.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	252	\$ 15.84	\$	3,991.68
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	252	\$ 9.90	\$	2,494.80
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	252	\$ 1.32	\$	332.64
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	1	\$ 633.60	\$	633.60
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	2	\$ 363.00	\$	726.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	1	\$ 290.40	\$	290.40
			Subtotal	<b>*</b> \$	9,291.28

## Two Additional Years Manufacturer Maintenance & Warranty (3 Years Total)

	•		-		
Part Number	Description	Qty		Unit Price	Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	4	\$	173.58	\$ 694.32
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	8	\$	118.75	\$ 950.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	504	\$	15.84	\$ 7,983.36
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	504	\$	9.90	\$ 4,989.60
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	504	\$	1.32	\$ 665.28
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	2	\$	633.60	\$ 1,267.20
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	4	\$	363.00	\$ 1,452.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	2	\$	290.40	\$ 580.80
Cisco Multi-year discount					\$ (801.48)

Subtotal \$

17,781.08

## Three Additional Years Manufacturer Maintenance & Warranty (4 Years Total)

Part Number	Description	Qty	Unit Price	Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	6	\$ 173.58	\$ 1,041.48
VS5-STD-3G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 3 yrs	4	\$ 313.50	\$ 1,254.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	756	\$ 15.84	\$ 11,975.04
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	756	\$ 9.90	\$ 7,484.40
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	756	\$ 1.32	\$ 997.92
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	3	\$ 633.60	\$ 1,900.80
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	6	\$ 363.00	\$ 2,178.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	3	\$ 290.40	\$ 871.20
Cisco Multi-year discount				\$ (1,068.64)
			Subtotal	\$ 26,634.20

Part Number	Description	Qty	Unit Price	Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	8	\$ 173.58	\$ 1,388.64
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	4	\$ 118.75	\$ 475.00
VS5-STD-3G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 3 yrs	4	\$ 313.50	\$ 1,254.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	1008	\$ 15.84	\$ 15,966.72
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	1008	\$ 9.90	\$ 9,979.20
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	1008	\$ 1.32	\$ 1,330.56
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	4	\$ 633.60	\$ 2,534.40
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	8	\$ 363.00	\$ 2,904.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	4	\$ 290.40	\$ 1,161.60
Cisco Multi-year discount				\$ (2,671.60)

Subtotal \*\*\$

34,322.52

## Five Additional Years Manufacturer Maintenance & Warranty (6 Years Total)

Part Number	Description	Qty	Unit Price		Extended Price
CON-SNT-C220M3SF	Cisco SMARTNET Maint: 8X5XNBD UCS C220 M3 SFF w/o	10	\$ 173.58	\$	1,735.80
VS5-STD-G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 1 year	8	\$ 118.75	\$	950.00
VS5-STD-3G-SSS-A	vSphere 5 Standard SnS 12x5/4 business hours, 1 Proc - 3 yrs	4	\$ 313.50	\$	1,254.00
CON-ECMU-UCMENHUC	Cisco SWSS Support UPGRADES BE6K UCM 10X Enhance	1260	\$ 15.84	\$	19,958.40
CON-ECMU-UCN10XVM	Cisco SWSS Support UPGRADES BE6K - Unity Connect	1260	\$ 9.90	\$	12,474.00
CON-ECMU-ER10USR1	SWSS UPGRADES EMRGNCY RSPNDR USR LIC FOR 10X	1260	\$ 1.32	\$	1,663.20
CON-SNT-2951CMST	Cisco SMARTNET Maint: 8X5XNBD 2951 Voice Bundle w/ UC	5	\$ 633.60	\$	3,168.00
CON-SNT-2921CMST	Cisco SMARTNET Maint: 8X5XNBD 2921 Voice Bundle w/ UC	10	\$ 363.00	\$	3,630.00
CON-SNT-2911CMST	Cisco SMARTNET Maint: 8X5XNBD 2911 Voice Bundle w/ UC	5	\$ 290.40	\$	1,452.00
Cisco Multi-year discount				\$	(3,205.92)
-			Subtotal	<b>F</b> \$	43,079.48

## Ednetics Services Scope of Work – Base Bid

### Cisco Unified Communications Business Edition

### UCM Server (IP PBX)

#### Customer will be responsible for:

Any necessary wiring including cable testing/tracing/labeling/new cabling.

Providing the PSTN circuits such as PRI and POTS (via telephone company).

Providing any necessary electrical facilities.

Receiving any (direct shipment) UPS equipment.

Installation of any UPS battery backups systems.

*Installation of any Power Distribution Units for rack equipment.* 

Completing any necessary Active Directory changes (if an AD integrated system is desired).

Ensuring there are the necessary racks and rack space for new equipment.

Providing any necessary switchports and PoE.

Configuration of network equipment, VLANs and Quality of Service (QoS).

Preparing wall-ports for the IP phones to connect to prior to phone distribution by Ednetics.

Any client side configurations, software installs and upgrades.

Filling out any Ednetics provided customer templates.

Providing a SFTP server for off-box backups VoIP servers.

Extending any circuit dmarcs to the voice gateways.

Consenting to a Materials Staging Agreement, so Ednetics can receive project related equipment.

Providing Ednetics with fully functional IPSEC VPN remote access to the voice network/s. This is to

remain in place while the project or any subsequent support contracts are in effect.

Section Summary: Ednetics will build and install a new Cisco Business Edition system (IP/VoIP PBX) to replace the legacy phone system. This installation will provide new phones, PBX functions, voicemail and enhanced features for 911 services. All systems will run on the Customer's data network.

#### Ednetics will perform preparation tasks including:

Receive all products (except any UPSs) at our offices for staging.

Create an asset sheet for the equipment involved in the installation.

Label all equipment with Ednetics or Customer labeling standards.

Associate customer SMARTnet contracts to Ednetics' profile.

Work with Customer to analyze current dial-plan, make adjustments as needed (numbering, hunt-groups, call trees, etc.).

Check any data in customer templates for consistency, data integrity.

Work with Customer Network Administrators to determine IP schema for voice network/s.

Obtain any upgrade files and media for UCM servers, register upgrade licenses.

### Ednetics will perform build tasks including:

Power on and bench test each piece of equipment that we receive.

Configure networked devices with appropriate IP information in accordance with IP schema.

Load UCM server software the new Cisco BE6K hardware.

Install server licensing, server activation, networking parameters.

Import project user and device data into the UCM server (data provided via customer template).

Load latest recommended IOS version on any project voice gateways.

Configure gateways within the UCM server.

### Ednetics will perform install tasks including:

Rack & install UCM servers, ensure they are housed properly and pingable on the network.

Visit each project site to distribute the telephone handsets and connect them to District prepared wall-ports.

Verify the new UCM server is functioning and communicating across sites.

Complete on-site programming and make any final changes to system data.

Complete any on-site programming including backups to Customer SFTP server.

Rack & install the voice gateways at each site, ensure they are operational on the network as expected.

#### Ednetics will perform test/documentation tasks including:

Perform thorough testing including incoming calls, outgoing calls, caller ID, 911 etc.

Provide documentation including verification of initial backup and asset sheet for new equipment.

Provide up to two (2) hours of administrative training on UCM 10.x features/administration.

Provide up to four (4) hours of telephone system user training, train-the-trainer, etc.

Provide thirty (30) days of up and running technical support for configurations performed during the project.

### **Unity Connection (Voicemail)**

### Customer will be responsible for:

Users will be responsible for checking their old voicemail prior to the migration, it will NOT be migrated.

Users will need to go through the Unity Connection setup process to create their new voicemail boxes.

Filling out any Ednetics provided customer templates.

Installation of necessary backup hardware/software for Unity Connection.

Completing any necessary Active Directory preparation (if an AD integrated system is desired).

The client-side desktop integration (e-mail software) to Unity Connection.

Providing a SFTP server for off-box backups of Unity Connection.

Providing Ednetics with fully functional IPSEC VPN remote access to the voice network/s. This is to

remain in place while the project or any subsequent support contracts are in effect.

Section Summary: Ednetics will build a new Unity Connection server for the project. Unity Connection will provide both voicemail services Active Directory integrated if desired for single-inbox voicemail in e-mail functionality. Unity Connection will also host any Customer call handlers (call-trees) and any other special-purpose mailboxes and recordings.

#### **Ednetics will perform preparation tasks including:**

Install the Unity Connection software on the new Cisco BE6K server appliance.

License and register the Unity Connection hardware and software.

Work with Customer to fill out templates for any call-trees or special purpose mailboxes and recordings.

Work with Customer to integrate with Active Directory if desired.

Associate customer SMARTnet contracts to Ednetics' profile.

#### Ednetics will perform build/Install tasks including:

Import voicemail subscriber information and create mailboxes (provided via customer template).

Configure networking parameters in accordance with IP schema.

Integrate new Unity Connection server to the new UCM 10.x server, register ports etc.

Verify that the Unity Connection server is healthy and communicating as expected.

### Ednetics will perform test/documentation tasks including:

Verify call handler behavior and flow including main line test, hunt group test etc.

Verify advanced feature behavior including dropped call, visual VM, etc.

Provide documentation including verification of initial backup and asset sheet for new equipment.

Provide up to one (1) hour of administrative training on Unity Connection features and administration.

### Emergency Responder (High Availability)

#### **Customer will be responsible for:**

Subscribing to an E911 service (through the telephone company or Intrado).

Providing voice circuits that support E911 signaling (PRI or CAMA).

Filling out any Ednetics provided customer templates.

Providing per site (internal) 911 call notification data (via template).

Installation of necessary backup hardware/software for ER server.

Working with local Safety authorities to verify response zone requirements.

Providing a SFTP server for off-box backups of ER.

Providing Ednetics with fully functional IPSEC VPN remote access to the voice network/s. This is to

remain in place while the project or any subsequent support contracts are in effect.

Section Summary: Ednetics will build a new Cisco Emergency Responder CER server for the project. CER works with E-911 services to provide enhanced functions when 911 is called. Features such as internal notifications and alerting when 911 is called so the District can react locally very quickly.

#### **Ednetics will perform preparation tasks including:**

Work with Customer to determine E911 zone response requirements.

Register licensing and install licenses on the new ER server.

Associate customer SMARTnet contracts to Ednetics' profile.

#### Ednetics will perform build/install tasks including:

Install ER server including licensing, service activation and networking parameters on new server.

Perform initial programming of new ER server including, user accounts and passwords.

Perform recommended software upgrades on both servers per best practice.

Configure any UCM server integration changes including modifications to dial plan.

Complete any on-site programming including local alerting when 911 is called.

Coordinate with Customer for the upload any new E911 data to the PS/ALI database through telephone company.

#### Ednetics will perform test/documentation tasks including:

Notify local PSAP (if applicable) including scheduling tests (if pre-scheduling is necessary).

Verify PS/ALI data with dispatchers including test calls from different zones/buildings.

Verify dispatchers are able to return disconnected 911 calls to originating caller.

Verify local notifications are working including message delivery (email) and ring behavior.

Provide documentation including verification of initial backup and asset sheet for new equipment.

Provide up to one (1) hour of administrative training on ER features and administration.

## Ednetics Services Scope of Work – Bid Alternate 1

### Cisco Unified Communications Business Edition

### UCM Server (IP PBX)

### Customer will be responsible for:

Any necessary wiring including cable testing/tracing/labeling/new cabling.

Providing the PSTN circuits such as PRI and POTS (via telephone company).

Providing any necessary electrical facilities.

Receiving any (direct shipment) UPS equipment.

Installation of any UPS battery backups systems.

Installation of any Power Distribution Units for rack equipment.

Completing any necessary Active Directory changes (if an AD integrated system is desired).

Ensuring there are the necessary racks and rack space for new equipment.

Providing any necessary switchports and PoE.

Configuration of network equipment, VLANs and Quality of Service (QoS).

Preparing wall-ports for the IP phones to connect to prior to phone distribution by Ednetics.

Any client side configurations, software installs and upgrades.

Filling out any Ednetics provided customer templates.

Providing a SFTP server for off-box backups VoIP servers.

Extending any circuit dmarcs to the voice gateways.

Consenting to a Materials Staging Agreement, so Ednetics can receive project related equipment.

Providing Ednetics with fully functional IPSEC VPN remote access to the voice network/s. This is to

remain in place while the project or any subsequent support contracts are in effect.

Section Summary: Ednetics will build and install a new Cisco Business Edition system (IP/VoIP PBX) for the New High School. This installation will provide new phones, PBX functions, voicemail and enhanced features for 911 services. All systems will run on the Customer's data network. This will be for the New High School only and will operate completely independently from the rest of the District. Integration options are typically available, but have not been included in this scope per the RFP. This system could be added onto at a later date to support the rest of the District.

### Ednetics will perform preparation tasks including:

Receive all products (except any UPSs) at our offices for staging.

Create an asset sheet for the equipment involved in the installation.

Label all equipment with Ednetics or Customer labeling standards.

Associate customer SMARTnet contracts to Ednetics' profile.

Work with Customer to analyze current dial-plan, make adjustments as needed (numbering, hunt-groups, call trees, etc.).

Check any data in customer templates for consistency, data integrity.

Work with Customer Network Administrators to determine IP schema for voice network/s.

Obtain any upgrade files and media for UCM servers, register upgrade licenses.

#### Ednetics will perform build tasks including:

Power on and bench test each piece of equipment that we receive.

Configure networked devices with appropriate IP information in accordance with IP schema.

Load UCM server software the new Cisco BE6K hardware.

Install server licensing, server activation, networking parameters.

Import project user and device data into the UCM server (data provided via customer template).

Load latest recommended IOS version on any project voice gateways.

Configure gateways within the UCM server.

### Ednetics will perform install tasks including:

Rack & install UCM servers, ensure they are housed properly and pingable on the network.

Visit each project site to distribute the telephone handsets and connect them to District prepared wall-ports.

Verify the new UCM server is functioning and communicating across sites.

Complete on-site programming and make any final changes to system data.

Complete any on-site programming including backups to Customer SFTP server.

Rack & install the voice gateways at each site, ensure they are operational on the network as expected.

#### Ednetics will perform test/documentation tasks including:

Perform thorough testing including incoming calls, outgoing calls, caller ID, 911 etc.

Provide documentation including verification of initial backup and asset sheet for new equipment.

Provide up to two (2) hours of administrative training on UCM 10.x features/administration.

Provide up to four (4) hours of telephone system user training, train-the-trainer, etc.

Provide thirty (30) days of up and running technical support for configurations performed during the project.

#### **Unity Connection (Voicemail)**

#### Customer will be responsible for:

Users will be responsible for checking their old voicemail prior to the migration, it will NOT be migrated.

Users will need to go through the Unity Connection setup process to create their new voicemail boxes.

Filling out any Ednetics provided customer templates.

Installation of necessary backup hardware/software for Unity Connection.

Completing any necessary Active Directory preparation (if an AD integrated system is desired).

The client-side desktop integration (e-mail software) to Unity Connection.

Providing a SFTP server for off-box backups of Unity Connection.

Providing Ednetics with fully functional IPSEC VPN remote access to the voice network/s. This is to

remain in place while the project or any subsequent support contracts are in effect.

**Section Summary:** Ednetics will build a new Unity Connection server for the project. Unity Connection will provide both voicemail services Active Directory integrated if desired for single-inbox voicemail in e-mail functionality. Unity Connection will also host any Customer call handlers (call-trees) and any other special-purpose mailboxes and recordings.

#### **Ednetics will perform preparation tasks including:**

Install the Unity Connection software on the new Cisco BE6K server appliance.

License and register the Unity Connection hardware and software.

Work with Customer to fill out templates for any call-trees or special purpose mailboxes and recordings.

Work with Customer to integrate with Active Directory if desired.

Associate customer SMARTnet contracts to Ednetics' profile.

#### Ednetics will perform build/Install tasks including:

Import voicemail subscriber information and create mailboxes (provided via customer template).

Configure networking parameters in accordance with IP schema.

Integrate new Unity Connection server to the new UCM 10.x server, register ports etc.

Verify that the Unity Connection server is healthy and communicating as expected.

#### Ednetics will perform test/documentation tasks including:

Verify call handler behavior and flow including main line test, hunt group test etc.

Verify advanced feature behavior including dropped call, visual VM, etc.

Provide documentation including verification of initial backup and asset sheet for new equipment.

Provide up to one (1) hour of administrative training on Unity Connection features and administration.

#### Emergency Responder (High Availability)

#### Customer will be responsible for:

Subscribing to an E911 service (through the telephone company or Intrado).

Providing voice circuits that support E911 signaling (PRI or CAMA).

Filling out any Ednetics provided customer templates.

Providing per site (internal) 911 call notification data (via template).

Installation of necessary backup hardware/software for ER server.

Working with local Safety authorities to verify response zone requirements.

Providing a SFTP server for off-box backups of ER.

Providing Ednetics with fully functional IPSEC VPN remote access to the voice network/s. This is to

remain in place while the project or any subsequent support contracts are in effect.

Section Summary: Ednetics will build a new Cisco Emergency Responder CER server for the project. CER works with E-911 services to provide enhanced functions when 911 is called. Features such as internal notifications and alerting when 911 is called so the District can react locally very quickly.

#### Ednetics will perform preparation tasks including:

Work with Customer to determine E911 zone response requirements.

Register licensing and install licenses on the new ER server.

Associate customer SMARTnet contracts to Ednetics' profile.

#### Ednetics will perform build/install tasks including:

Install ER server including licensing, service activation and networking parameters on new server.

Perform initial programming of new ER server including, user accounts and passwords.

Perform recommended software upgrades on both servers per best practice.

Configure any UCM server integration changes including modifications to dial plan.

Complete any on-site programming including local alerting when 911 is called.

Coordinate with Customer for the upload any new E911 data to the PS/ALI database through telephone company.

#### Ednetics will perform test/documentation tasks including:

Notify local PSAP (if applicable) including scheduling tests (if pre-scheduling is necessary).

Verify PS/ALI data with dispatchers including test calls from different zones/buildings.

Verify dispatchers are able to return disconnected 911 calls to originating caller.

Verify local notifications are working including message delivery (email) and ring behavior.

Provide documentation including verification of initial backup and asset sheet for new equipment.

Provide up to one (1) hour of administrative training on ER features and administration.

# Example Contract: Ednetics One Technical Support

## **Ednetics One** Technology Support Plan

### **Part of Your Technology Team**

The Ednetics One Technology Support Plan provides support coverage for all designated technology under one convenient plan. Ednetics One customers have access to the expertise of the entire Ednetics team of specialized engineers. The plan includes unlimited expert technical support via phone, e-mail and remote support. You also get guaranteed response times to quickly and efficiently resolve your technology support issues. We are proud to be part of your team.

#### **Ednetics One Support Desk**

Ednetics has a fully staffed, dedicated, support desk for quickly handling support requests. Support desk personnel enter individual support issues into the system so that each item can be properly tracked to its conclusion.

#### **Response Times**

Ednetics will respond to properly submitted requests for support within the time specified below.

#### **EMAIL SUPPORT**

4 business hour response time

#### PHONE SUPPORT

4 business hour response time

#### REMOTE SUPPORT

4 business hour response time

#### **ONSITE SUPPORT**

Scheduled. Emergency onsite support is available next business day or as replacement parts are available.

#### SYSTEM OUTAGE

1 hour or less response time

#### **ON-SITE SUPPORT**

Billed hourly at \$150/hr

### **Coverage Dates**

This Ednetics One Technology Support Plan is active from:

January 1st, 2014 to December 31st, 2015

### **Account Manager**

Colby Van Vooren E-mail: colby@ednetics.com Toll Free: 888.809.4609

### **Ednetics One** Technology Support Plan

#### **Support Information**

In order to ensure your support request is properly received and response times are met, you must submit your support request through:

E-mail: support@ednetics.com

OR

Toll Free Phone: 877.809.4610

Ednetics offices are open Monday through Friday 6 a.m. to 7 p.m. Pacific Standard Time excluding Ednetics observed holidays. For emergencies an on-call technician can be reached 24x7. Normal cases submitted outside of Ednetics business hours will be queued promptly the next business day.

#### **Coverage Information**

This plan provides for technical support service on items that are listed on the *Supported Equipment List*. Items that are not listed are not eligible for support services. However, client may choose to add items to the plan. Support coverage includes troubleshooting for existing equipment and configurations.

#### **Adding Items to an Existing Plan**

Ednetics One Technology Support Plan pricing is fixed for all supported items for the term of the plan. Once qualified as supportable, additional equipment may be added at a rate of 5% of the published list value on a per year basis prorated to the plan end date.

#### **Remote Support**

Ednetics will provide remote support via VPN, WebEx, phone, and e-mail, for items covered under this plan. This support includes troubleshooting for existing equipment and configurations. If during the course of remote support, Ednetics finds it necessary, on-site support services will be scheduled.

#### **Onsite Support Services**

On-site support services are available at a reduced, flat-rate of \$150/hr. Travel is billed at half the on-site rate. If a support issue cannot be resolved via remote support, on-site support services will be scheduled next business day or as replacement hardware is available.

### **Security Certificates**

Single-host SSL certificates from a trusted Certificate Authority (CA) are provided to Ednetics One Technology Support Plan customers for systems that we install. Supported uses are: Microsoft Exchange, IIS Web Services, and Wireless LAN Authentication.

### Moves, Adds and Changes

The Ednetics support staff will assist our customers with processing MAC requests (see definitions) remotely using system management tools.

### **Ednetics One** Technology Support Plan

#### **Update and Patch Support**

Ednetics will perform licensed minor updates, bug fixes, and security patches for systems covered under this plan to resolve support issues.

#### **IPVS Systems Check**

For supported equipment, Ednetics will schedule time twice annually to log into Customer IP Video Surveillance Management Servers and perform checks for: offline cameras, lens focus, dirty or obstructed lenses, server logs, storage utilization. Ednetics will create support tickets for any support issues identified during these checks. Ednetics will share other information and recommendations with the Customer and can provide quotes as desired for items such as: server/storage upgrades, on-site maintenance for camera replacements, lens cleaning or focus.

#### **Hardware Support**

Ednetics support staff will assist in identifying cases where hardware repair or replacement is necessary. Ednetics can also assist in the resolution of hardware cases up to repair or replacement. Hardware repair or replacement requires 3<sup>rd</sup> party warranties, such as Cisco SMARTnet or warranty.

#### **Technology and Personnel Requirements**

This plan requires the use VPN access. The customer firewall must be capable of IPSEC or SSL VPN connectivity. This is necessary to improve remote response capability. Alternatively, we can provide an Ednetics-owned firewall to be used for VPN termination.

This plan also requires the designation of a customer personnel resource, or resources with administrator level credentials for all items under support to participate in remote troubleshooting when necessary.

#### **Exclusions**

This plan is not intended to provide tier I support (see definitions) or as a replacement for existing customer resources. It is intended supplement existing customer resources by providing technical support at tiers II and III (see definitions). This plan is not intended to provide desktop support to end users, their workstations or software applications. This plan does not include the setup of new equipment or software, new configurations or configuration changes (other than MAC). On-site MAC requests are not covered and would be handled separately on a time and materials or project basis. Cisco Unified Contact Center support excludes the creation of new applications and the creation of new or modification of existing scripts. This contract does not provide hardware warranty or replacement. However, hardware repair or replacement assistance is available and can be obtained through the Ednetics support desk.

## **Ednetics One** Technology Support Plan

#### **Definitions**

#### **Ednetics Observed Holidays**

New Year Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, December 25, December 24 or 26.

#### Move, Adds and Changes (MACs)

These are system administration tasks, which become necessary when users or certain devices are added to, removed from or change their location on the network or phone system. Ednetics One Technology Support Plan currently covers the following types of MACs:

#### CISCO FIREWALLS

NAT Translations, port forwarding, Access Control Lists.

#### CISCO SWITCHING

Change port VLAN assignments, port enables/disables, add/remove VLAN (to an existing layer-3 switch).

#### CISCO VOICE

Phone line changes, User display changes, Call behavior e.g.; hunt groups, Addition of a new phone instrument, User Management in Unity Connection, Variations to Message Handler, VM PIN reset, add/remove line, CCX User/Application Management (agent/supervisor/group assignments, associate application with existing scripts or prompts.

#### **DATA CENTER**

Servers: User/mailbox/alias creation, password reset, permissions/group membership assignment, Simple GPO creation/modification, Folder share creation, Printer share creation (existing print server), DHCP Reservation/Exclusion creation, Static DNS entries.

SAN: Setup and resize volumes and LUNs, Setup and modify Shares (CIFS), Setup and adjust snapshot schedules, Setup and test autosupport function (NetApp), Setup user accounts, Password resets.

#### IP VIDEO SURVEILLANCE

Add/remove users for access, password resets, permissions/group membership assignment, motion detection adjustments, recording frame rate adjustments, remote focus (w/compatible cameras).

### IP ACCESS CONTROL

Add/remove users for access, password resets, permissions/group membership assignment, door schedule adjustments.

#### Tier I Support

Initial support level, end-user support, and basic customer issues. Tier I Support is not included in the plan.

#### Tier II Support

Administrator support level, more in-depth customer issues, investigating and trouble-shooting to solve issues.

#### Tier III Support

Highest support level, expert level trouble-shooting and analysis

### **BID BOND**

### Hartford Fire Insurance Company Hartford, CT 06155

CONTRACTOR:

(Name, legal status and address)

Ednetics, Inc.

SURETY:

(Name, legal status and principal place of business)

Hartford Fire Insurance Company

OWNER:

(Name, legal status and address)
Woodland School District

BOND AMOUNT: Five Percent of The Total Amount Bid-----(5%)----

PROJECT:

(Name, location or address, and Project number, if any)
New Woodland Public Schools VoIP PBX and Voicemail System

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

The Company executing this bond vouches that this document conforms to American Institute of Architects Document A310, 2010 edition

Signed and sealed this6thday ofJanuary	, <u>2015</u>
	Ednetics, Inc.
	(Principal) (Seal) (Seal)
(Witness)	Director of Finance + Administration (Title)
	Hartford Fire Insurance Company
Anton	(Surety) (Seal)
(Witness)	Charla M. Boadle, Attorney-In-Fact (Title)

The Company executing this bond vouches that this document conforms to American Institute of Architects Document A310, 2010 edition

# POWER OF ATTORNEY

Direct Inquiries/Claims to:

#### THE HARTFORD

Bond T-4 One Hartford Plaza Hartford, Connecticut 06155 call: 888-266-3488 or fax: 860-757-5835)

Agency Code: 52-805182

KNOW ALL	PERSONS	BY	THESE	PRESENTS	THAT:
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Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint,

up to the amount of Unlimited Charla M. Boadle, Mark L. Roff, Dan Romain, Lisa Tatham, Patricia M.

Wachter of SPOKANE, Washington

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by \( \sum\_{\text{a}}\), and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on August 1, 2009, the Companies have caused these presents to be signed by its Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Wesley W. Cowling, Assistant Secretary

M. Ross Fisher, Vice President

STATE OF CONNECTICUT Hartford COUNTY OF HARTFORD

On this 12th day of July, 2012, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



Kathleen T. Maynard Notary Public My Commission Expires July 31, 2016

Kathleen T. Maynard

I, the undersigned, Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of January 6, 2015 Signed and sealed at the City of Hartford.

















Gary W. Stumper, Vice President

POA 2012



Appendix III



# Cisco Unified Communications Manager 10.0

Cisco<sup>®</sup> Unified Communications Manager is the heart of Cisco Collaboration services, enabling session and call control for video, voice, messaging, mobility, instant messaging (IM), and presence.

### **Product Overview**

In this post-PC era where users bring their own devices (BYOD) to the work place, today's organization is challenged in unprecedented ways. These changes in work styles and the ever-increasing need for collaboration require organizations to have an integrated productivity solution that enables users to communicate from anywhere, using any device, on any network in a cost-effective, reliable, and secure manner. With more than 200,000 customers worldwide and more than 60 million Cisco IP Phones and tens of millions of soft clients deployed, Cisco Unified Communications Manager (UCM) is the industry leader in enterprise call and session management platforms. It delivers people-centric user and administrative experiences while supporting the full range of collaboration services including video, voice, IM and presence, messaging, and mobility on Cisco as well as third-party devices.

### New with Cisco Unified Communications Manager Version 10.0

Cisco Unified Communications Manager Version 10.0 builds on the many capabilities of previous versions by:

- Providing smooth experiences for end users and system administrators: It enables network-based call recording for any device, including Jabber<sup>®</sup> clients; allows remote devices to connect without creating a VPN; provides integrated administration, serviceability, and user options and preferences for Instant Messaging and Presence (IM&P); and supports standards-based Single Sign-On (SSO) for administrative users.
- Offering new capabilities such as agent-selected video on hold and caller-specific audio on hold for contact centers, and a powerful new user-oriented application programming interface (API) as well as enhancements to existing APIs for developers.
- Assuring the most efficient use of valuable human and network resources by simplifying the installation, upgrade, and platform migration process; automating dial-plan replication; end-user self-provisioning and self-care; and more efficient use of videoconferencing resources and enhancements to network bandwidth management.
- Removing management complexity with automated, accelerated provisioning and simplified, real-time monitoring and troubleshooting: Comprehensive management is now included with every Cisco Unified Communications Manager installation. Cisco Prime<sup>™</sup> Collaboration Standard, a fully web-enabled management application, is included with all Cisco Unified Workspace Licensing and Cisco User Connect Licensing for Cisco Unified Communications. Cisco Prime Collaboration Advanced offers additional automation, deeper diagnostic capabilities, and long-term reporting.

Table 1 lists major features in Cisco Unified Communications Manager Version 10.0.

 Table 1.
 High-Level Features in Cisco Unified Communications Manager 10.0

Feature	Benefits
sso	<ul> <li>SSO enables system administrators to work on different clusters and different applications without repeatedly responding to challenges for their username and password.</li> </ul>
	Security Access Markup Language (SAML) enables integration with various commercial identity providers.
Network-based call recording	This feature enables call recording without regard to device capabilities or location, including mobility calls using Single Number Reach or Extend and Connect.
_	This feature automatically selects the best point at which to replicate audio media: Cisco Unified Border Element (UBE), Cisco Session Initiation Protocol (SIP) voice gateway, or Cisco device.
	It integrates with Cisco MediaSense and other commercial call recording servers, in centralized or distributed deployments.
Remote access	<ul> <li>Session-based firewall traversal limits exposure of enterprise and personal data by enabling remote devices to connect without establishing a VPN.</li> </ul>
	<ul> <li>It works with Cisco Collaboration Edge Architecture and selects Cisco devices to optimize audio and video media paths for economical, large-scale deployment.</li> </ul>
IM&P	<ul> <li>Unified administration of IM&amp;P and voice and video call-control users reduces time and effort to add, change, and verify user configuration.</li> </ul>
	<ul> <li>Common administration of IM&amp;P and other nodes within a cluster simplifies installation, node configuration, and backup and restore.</li> </ul>
	<ul> <li>Integrated serviceability allows easy navigation and supports a single client for the Real-Time Monitoring Tool (RTMT).</li> </ul>
	<ul> <li>A common portal makes it easy for end users to manage their options and preferences for IM&amp;P together with voice and video.</li> </ul>
	<ul> <li>Increased flexibility in Active Directory (AD) integration makes it easier to migrate from other IM&amp;P services.</li> </ul>
IPv6	IPv6 offers an expanded portfolio of IPv6-capable endpoints that will be compatible with future versions.
	It enables video- and presentation-sharing capability for IPv6 endpoints.
	<ul> <li>It reduces the need for Media Termination Points (MTPs) to provide IPv4-to-IPv6 interworking for announcements and music on hold.</li> </ul>
	Server-based MTP can provide IPv4-to-IPv6 interworking for audio.
Contact center	Agent-selected video on hold supports a rich, interactive experience for users of premium contact center services.
	<ul> <li>Video awareness for Computer Telephony Integration (CTI) enables a broader opportunity to match video-capable callers and agents.</li> </ul>
	<ul> <li>Caller-specific music on hold makes it possible to preserve the source selection most appropriate for the caller as a call is transferred from Interactive Voice Response (IVR) to an agent or subsequently from agent to agent.</li> </ul>
Mobility and Extend and Connect	These features restore and maintain connections with remote clients and controlled devices for improved end-user experience.
	<ul> <li>Additional enterprise features for mobile clients and support for concurrent use of mobility and Extend and Connect amplify end-user control.</li> </ul>
	Self-provisioning and self-care make it easy for administrators to offer these capabilities to all users.
Developer APIs	<ul> <li>A powerful, standards-based, new API makes it easy to develop new applications to manage user-based settings consistently for multiple devices.</li> </ul>
	Comprehensive change notification keeps Administrative XML (AXL) applications synchronized with Cisco UCM.
Global dial-plan replication	<ul> <li>Numeric patterns configured in one cluster are automatically distributed among all communicating clusters, reducing administrative effort.</li> </ul>
	Common service with intercluster Uniform Resource Identifier (URI) distribution eases setup.
Self-provisioning and self-care	<ul> <li>Provisioning templates enable administrators to define user configuration once and apply it automatically to new users discovered through directory integration.</li> </ul>
	End users can complete the provisioning process without administrative assistance, configuring their personal devices through an application or Intel Virtualization Technology (IVT) interaction.
	A new self-care interface makes it easy for end users to manage their options and preferences for all devices.
Videoconferencing	<ul> <li>Integration with Cisco TelePresence Conductor enables shared use of common videoconferencing resources for ad hoc and rendezvous conferencing across multiple clusters, increasing usage and lowering unit costs.</li> </ul>
	<ul> <li>A new data channel for videoconferences enables enhanced information exchange and control capabilities for conference participants.</li> </ul>
	Endpoint-based three-way videoconferencing expands the resource pool while protecting the user experience from music on hold.
Network bandwidth	Improved Call Admission Control for Extension Mobility across clusters protects call quality for visiting users.

Feature	Benefits
accounting	<ul> <li>Video promotion reduces inefficient use of network bandwidth and dynamically enables Cisco Telepresence video quality for Cisco Desktop Collaboration Experience (DX600) Series desktop video endpoints participating in Cisco Telepresence video calls.</li> </ul>
Cisco Prime Collaboration deployment	<ul> <li>This feature automates multiversion software upgrades and physical-to-virtual platform migrations with ease and simplicity for administrators.</li> <li>Cisco Prime Collaboration automates and simplifies installations, IP address and hostname changes, file distribution, and notification.</li> <li>It enables you to realize the benefits of upgrading without the challenges.</li> </ul>
Cisco Prime Collaboration Provisioning Standard	<ul> <li>This solution provides a single interface for a single cluster for call control, messaging, presence, and video.</li> <li>Administrator audit log and order tracking promote accountability, network security, and operational control, and they facilitate troubleshooting.</li> <li>Lightweight Directory Access Protocol (LDAP) integration for user changes helps ensure consistency among systems.</li> <li>Batch provisioning (single cluster only) increases operating efficiencies and reduces costs with scheduled scripts and templates that let an operator rapidly and consistently add or modify a large number of users or a large number of endpoints or device profiles (and the corresponding configuration settings).</li> </ul>
Cisco Prime Collaboration Assurance Standard	<ul> <li>This solution provides a web-enabled single interface for fault monitoring for core Cisco Unified Communications and video components.</li> <li>Email notification of alarms alerts operators even if they are not viewing the management system, reducing downtime and helping ensure that critical alarms are not missed.</li> <li>Pre-canned and customizable performance metrics dashboards display short-term trends for core unified communications components and provide visibility into critical performance metrics for reduced troubleshooting time and effort.</li> <li>The ability to search components within a unified communications cluster and view them in real time allows you to customize searches and find the status of components quickly.</li> <li>Custom performance alerts based on user-configurable thresholds facilitate proactive notification of problems.</li> </ul>

### For More Information

For more information about Cisco Unified Communications Manager, please visit <a href="http://www.cisco.com/go/unifiedcm">http://www.cisco.com/go/unifiedcm</a> or contact your local Cisco account representative.



Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pacific Headquarters Cisco Systems (USA) Pte. Ltd. Singapore Europe Headquarters Cisco Systems International BV Amsterdam, The Netherlands

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## Cisco IP Phone 7800 Series

The Cisco® IP Phone 7800 Series is a cost-effective, high-fidelity voice communications portfolio designed to improve your organization's people-centric communications, while reducing your operating costs.

It combines an attractive new ergonomic design with "always-on" reliability and secure encrypted communications. The Cisco<sup>®</sup> IP Phone 7800 Series delivers advanced IP Telephony features and crystal clear wideband audio performance to deliver an easy-to-use, full-featured voice communications experience.

The Cisco<sup>®</sup> IP Phone 7800 Series introduces three models to the Cisco IP Phone portfolio. From left-to-right (Figure 1), they are:

- The IP Phone 7821 supporting two lines
- The IP Phone 7841 supporting four lines
- The IP Phone 7861 supporting sixteen lines

Figure 1. Cisco IP Phone 7800 Series



The line keys on each model are fully programmable. You can set up keys to support either lines, such as directory numbers, or call features like speed dialing. You can also boost productivity by handling multiple calls for each directory number, using the multi-call per-line appearance feature. Tri-color LEDs on the line keys support this feature and make the phone simpler and easy to use.

Fixed function keys on all models give you one-touch access to service, messaging, directory, hold/resume, transfer, and conference features. A full-duplex speakerphone lets you set up clear multi-party conferences for flexible, productive collaboration.

The Cisco<sup>®</sup> IP Phone 7800 Series sets a new standard in usability and delivers a context-sensitive user experience. It features a high resolution 3.5" (396x162) greyscale display, with white backlighting for easy reading. Localized language support, including right-to-left onscreen text, meets the needs of global users.

The Cisco<sup>®</sup> IP Phone 7800 Series is also more energy-efficient and eco-friendly, to support your green initiatives. Each phone supports Power-over-Ethernet (PoE) Class 1 and Cisco's EnergyWise<sup>™</sup>, and is Energy Star certified. A standard power-save option reduces power consumption during off-hours, to save money and maximize energy efficiency.

The IP Phone 7800 Series portfolio is ideal for any mid-sized to large enterprise company that wants to update its phone system from a traditional analog or digital-based system to an IP Communications system. It's also an excellent choice if you're seeking to expand your voice communications support with your current Cisco Unified Communications solution.

### Features and Benefits

Table 1 lists features and benefits of the Cisco® IP Phone 7800 Series

Table 1. Features and Benefits

Features	Benefits
Hardware Features	
Ergonomic design	• The phone offers an easy-to-use interface and provides a traditional telephony-like user experience.
Graphical display	<ul> <li>White backlit, greycale, 396×162 pixel-based display (3.5") provides scrollable access to calling features and text-based XML applications.</li> </ul>
Handset	<ul> <li>The handset is a standard wideband-capable audio handset (connects through an RJ-9 port).</li> <li>The handset is hearing aid-compatible (HAC) and meets Federal Communications Commission (FCC) loudness requirements for the Americans with Disabilities Act (ADA). You can achieve Section 508 loudness requirements by using industry-standard inline handset amplifiers such as Walker Equipment W-10 or CE-100 amplifiers. The dial pad is also ADA-compliant.</li> </ul>
Headset	• The analog headset jack is a standard wideband-capable RJ-9 audio port.
Backlit Indicator	• The phone supports backlit indicators for the audio path keys (handset, headset and speakerphone), select key, line keys, and message waiting.
Volume control	• A volume-control toggle provides easy decibel-level adjustments of the handset, monitor speaker, and ringer.
Full duplex speakerphone	Full-duplex speakerphone allows gives you flexibility in placing and receiving calls.
Replaceable bezel	Phone includes a black bezel. Optional silver bezel is also available separately.
Dual-position foot stand	<ul> <li>The display is easy to view and the buttons and keys are easy to use. The two-position foot stand supports viewing angles of 30 degrees and 45 degrees; you can remove the foot stand for wall mounting, with mounting holes located on the base of the phone.</li> </ul>
Wall-mountable	• The phone can be installed on a wall using optional wall-mount kit (available separately).
Electronic hook switch	• The hookswitch can be controlled electronically with a third party headset connected to the auxiliary port.
Keys	<ul> <li>The phone has the following keys</li> <li>Line keys</li> <li>Soft-keys</li> <li>Two-way navigation and select keys</li> <li>Hold/Resume, Transfer and Conference keys</li> <li>Messaging, Service and Directory keys</li> <li>Standard key pads</li> <li>Volume control toggle key</li> <li>Speakerphone, headset and mute keys</li> </ul>
Power Features	
IEEE PoE class 1	• The phone supports IEEE 802.3af PoE (Class 1); power consumption does not exceed 3.84 watts.

Features	Benefits
Cisco power cube 3	This power cube is used as a standard Cisco IP Phone Power Supply for non-PoE deployments.
Call-Control Support	
Cisco Unified Communications Manager	<ul> <li>8.5.1</li> <li>8.6.2</li> <li>9.1.2</li> <li>10.x and later</li> </ul>
Cisco Business Edition 6000	<ul><li>8.6.2</li><li>9.1.2</li><li>10.x and later</li></ul>
Cisco Hosted Collaboration Solution	8.6.2 and later (using supported UCM versions above)
Cisco Unified Survivable Remote Site Telephony	8.x and later

## Licensing

The Cisco<sup>®</sup> IP Phone 7821 requires a Basic User Connect License (UCL) in order to connect to Cisco Unified Communications Manager. The Cisco<sup>®</sup> IP Phone 7841 and 7861 require an Enhanced User Connect License (UCL) in order to connect to Cisco Unified Communications Manager.

## **Product Specifications**

Table 2 lists the features and specifications of The Cisco® IP Phone 7800 Series.

 Table 2.
 Features and Specifications

Features	Specifications
Signaling protocol support	Session Initiation Protocol (SIP)
Codec support	• G.711a/ µ , G.722, G.729a, iLBC
Key call features support	• + Dialing (E.164)
	Abbreviated dial
	Adjustable ringing and volume levels
	Adjustable display contrast
	Agent greeting
	Auto-answer
	Auto-detection of headset
	Busy Lamp Field (BLF)
	Call back
	Call forward
	Call history
	Call park
	Call Pickup
	Call timer
	Call waiting
	Caller ID
	• cBarge
	Corporate directory
	Conference
	Cross Cluster Extension Mobility (EMCC)
	Dial from the list
	Direct transfer
	Do not disturb
	Extension Mobility (EM)
	Forced access codes and client matter codes
	Group call pickup

Features	Specifications
	<ul> <li>Serbian (Republic of Serbia)</li> <li>Serbian (Republic of Montenegro)</li> <li>Slovenian (Slovenia)</li> <li>Thai (Thailand)</li> <li>Turkish (Turkey)</li> </ul>
Multiple ring tones	The phone supports user-adjustable ring tones.
Directories	<ul> <li>The phone identifies incoming messages and categorizes them for users on the screen. This makes it fast and easy to return calls using direct dial-back capability. The corporate directory integrates with the Lightweight Directory Access Protocol (LDAP) standard directory.</li> </ul>
Quality-of-service (QoS) options	<ul> <li>The phone supports CDP and 802.1Q/p standards, and can be configured with an 801.1Q VLAN header containing the VLAN ID overrides configured by the Admin VLAN ID.</li> </ul>
Security	<ul> <li>Certificates</li> <li>Image authentication</li> <li>Device authentication</li> <li>File authentication</li> <li>Signaling authentication</li> <li>Media encryption using Secure Real-Time Transfer Protocol (SRTP) using AES-128</li> <li>Signaling encryption using Transport Layer Security (TLS) Protocol using AES-128 or AES-256</li> <li>Encrypted configuration files</li> <li>802.1X authentication</li> <li>Cryptography</li> </ul>
Configuration options	The user can configure IP address assignment statically or through the DHCP client.
Physical dimensions (H×W×D)	<ul> <li>CP-7821: 207 x 206 x 28mm (exclude foot stand)</li> <li>CP-7841: 207 x 206 x 28mm (exclude foot stand)</li> <li>CP-7861: 207 x 265 x 28mm (exclude foot stand)</li> </ul>
Weight	<ul> <li>CP-7821: 867g</li> <li>CP-7841: 868g</li> <li>CP-7861: 1053g</li> </ul>
Display	• 3.5" 396×162 pixels
Ethernet switch	<ul> <li>The phone has a 10/100BASE-T (The Cisco® IP Phone 7821 &amp; 7861) or a10/100/1000BASE-T (The Cisco® IP Phone 7841) Ethernet connection through two RJ-45 ports, one for the LAN connection and the other for a downstream Ethernet device connection like a PC.</li> </ul>
Phone casing composition	Polycarbonate acrylonitrile butadiene styrene (ABS) textured plastic.
Power requirements	<ul> <li>The phone is an interoperable IEEE 802.3af PoE (Class 1 device); 48 VDC is required; it can be supplied locally at the desktop using an optional AC-to-DC power supply (CP-PWR-CUBE-3=). Use of the power supply also requires the use of one of the corresponding AC country cords.</li> </ul>
Operational temperature	• 32 to 104°F (0 to 40°C)
Nonoperational temperature shock	• 14 to 140°F (-10 to 60°C)
Humidity	<ul> <li>Operating 10% to 90%, non-condensing</li> <li>Non-operating 10% to 95%, non-condensing</li> </ul>
Cosmetic	Cisco cosmetic class A
Certification and compliance	<ul> <li>Regulatory Compliance</li> <li>CE Markings per directives 2004/108/EC and 2006/95/EC</li> <li>Safety</li> <li>UL 60950 Second Edition</li> <li>CAN/CSA-C22.2 No. 60950 Second Edition</li> <li>EN 60950 Second Edition (including A11 &amp; A12)</li> <li>IEC 60950 Second Edition (including A11 &amp; A12)</li> <li>AS/NZS 60950</li> <li>GB4943</li> <li>EMC - Emissions</li> <li>47CFR Part 15 (CFR 47) Class B</li> <li>AS/NZS CISPR22 Class B</li> </ul>

Features	Specifications
	∘ CISPR22: 2005 w/Amendment 1: 2005 Class B
	<ul> <li>EN55022: 2006 w/Amendment 1: 2007 Class B</li> </ul>
	∘ ICES003 Class B
	∘ VCCI Class B
	∘ EN61000-3-2
	∘ EN61000-3-3
	∘ KN22 Class B
	EMC - Immunity
	∘ EN55024
	∘ CISPR24
	∘ EN60601-1-2
	∘ KN24
	Armadillo Light
	• Telecom
	FCC Part 68 HAC
	∘ CS-03-HAC
	∘ AS/ACIF S004
	AS/ACIF S040
	∘ NZ PTC 220
	∘ Industry Standards: TIA 810 and TIA 920
	∘ Industry Standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at

## **Product Specifications**

Table 3 gives ordering information for the phone and its accessories.

 Table 3.
 Ordering Information

Product Number	Description
CP-7821-K9=	Cisco IP Phone 7821
CP-7841-K9=	Cisco IP Phone 7841
CP-7861-K9=	Cisco IP Phone 7861
CP-7821-W-K9=	Cisco IP Phone 7821, White
CP-7841-W-K9=	Cisco IP Phone 7841, White
CP-7861-W-K9=	Cisco IP Phone 7861, White
CP-DX-HS=	Spare Handset for Cisco IP Phone 7800 Series
CP-7800-HS-CORD=	Spare Handset Cord for Cisco IP Phone 7800 Series
CP-7800-HS-HOOK=	Spare Handset Hook for Cisco IP Phone 7800 Series, 20 Pieces
CP-7800-WMK=	Spare Wallmount Kit for Cisco IP Phone 7800 Series
CP-7861-WMK=	Spare Wallmount Kit for Cisco IP Phone 7861
CP-7800-FS=	Spare Foot stand for Cisco IP Phone 7800 Series
CP-7861-FS=	Spare Foot stand for Cisco IP Phone 7861
CP-7821-B-BEZEL=	Spare Black Bezel for Cisco IP Phone 7821
CP-7821-S-BEZEL=	Spare Silver Bezel for Cisco IP Phone 7821
CP-7841-B-BEZEL=	Spare Black Bezel for Cisco IP Phone 7841
CP-7841-S-BEZEL=	Spare Silver Bezel for Cisco IP Phone 7841
CP-7861-B-BEZEL=	Spare Black Bezel for Cisco IP Phone 7861
CP-7861-S-BEZEL=	Spare Silver Bezel for Cisco IP Phone 7861
CP-PWR-CUBE-3	Cisco Power Cube 3
CP-PWR-CORD-AP=	Power Cord Asia Pacific
CP-PWR-CORD-AR=	Power Cord Argentina

Product Number	Description
CP-PWR-CORD-AU=	Power Cord Australia
CP-PWR-CORD-BZ=	Power cord for Brazil
CP-PWR-CORD-CE=	Power Cord European
CP-PWR-CORD-CN=	Power Cord China
CP-PWR-CORD-JP=	Power Cord Japan
CP-PWR-CORD-NA=	Power Cord North America
CP-PWR-CORD-SW=	Power Cord Switzerland
CP-PWR-CORD-UK=	Power Cord United Kingdom

### Warranty

The Cisco<sup>®</sup> IP Phone 7800 Series are covered by a Cisco standard 1-year replacement warranty.

### Cisco Unified Communications Services

Cisco and our certified partners can help you set up a secure, dependable Cisco Unified Communications solution, meeting aggressive deployment schedules and accelerating business advantage. Cisco's portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks.

Our unique lifecycle approach to services defines what's needed at each phase of the solution lifecycle. Customized planning and design services help you create a solution that meets your business needs. Awardwinning technical support helps you boost your operational efficiency. Remote management services simplify day-to-day operations. And optimization services let you modify and improve your network solution when business needs change.

#### More Information

For additional details on the Cisco® IP Phone 7800 Series, go to <a href="http://www.cisco.com/go/ipphones/7800">http://www.cisco.com/go/ipphones/7800</a>.



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