



Today's Connected Communities

Where technology and government intersect.

Technology and digital innovation are impacting communities across the country. City and county leaders must embrace these changes and support this progression to better serve their communities. AMS.NET's connected communities defines a digital infrastructure that redefines safety, creates new revenue opportunities, and enables you to better serve your citizens. It's where technology and government intersect.

Communication/Collaboration

Our connected communities technology delivers a secure, reliable way to communicate and collaborate while maximizing resources.

- ▶ Connect with colleagues and citizens from anywhere on any device for improved efficiency
- ▶ Collaborative workspaces for intradepartmental or cross-agency information sharing
- ▶ Support a range of devices including smart phones and tablets in a bring-your-own-device (BYOD) workplace
- ▶ End-to-end communication capabilities-voice, video, messaging, presence, chat, and mobility
- ▶ Team or project collaboration space to send messages and share files
- ▶ Capture and share video
- ▶ Professional development and training
- ▶ City council meeting recording and event broadcasting

Access/Infrastructure

The infrastructure is the underlying platform for delivering connected communities to better serve citizens.

- ▶ Updated network for improved efficiencies and reduced maintenance
- ▶ Reliable access to city and Internet resources
- ▶ Wi-Fi access in public areas for citizens to access Internet, maps, local business information, city services, etc.
- ▶ Wireless sensors and location-based services to improve city services, safety, traffic, parking, utilities, and more
- ▶ Robust and reliable connections to support video communications
- ▶ Simplified management and improved operations
- ▶ Consolidated and virtualized data centers for smaller footprint and power management
- ▶ Simplified policy-based IT automation with software-defined data center
- ▶ Disaster recovery solutions for business continuity after a disaster or disruption

Safety/Security

Public safety and emergency response is a priority of local government. The connected communities platform supports the objectives to keeping communities safe with faster response, improved efficiency, and cost savings.

- ▶ Safe communities and public spaces
- ▶ Protect infrastructure and critical data
- ▶ Provide security before, during, and after a cyber-attack
- ▶ Defend across the extended network, endpoints, and cloud
- ▶ Protection against malware and ransomware attacks
- ▶ Video surveillance for crime reduction
- ▶ Real-time situational awareness
- ▶ Intra-agency and cross-agency communication and collaboration
- ▶ Emergency notification to agencies and community
- ▶ Integrated voice, text, and email notifications

Enhance Communication
with Colleagues
and the Public

Communication/Collaboration

Provide Secure Guest Wi-Fi
and Reliable Access
to City Resources

Access/Infrastructure/Data Center

Provide Improved
Public Safety and Faster
Emergency Response

Safety/Security



AMS.NET
Technology Solution Provider

Today's Connected Communities

Solution	Function	Technology
Communication/Collaboration	Communicate with Colleagues and Public	Cisco Unified Communications/Telephony
	Provide Department Voicemail Box for Return Call	Cisco Unified Communications/Voice-Mail
	Collaborate, Share Files, Send Instant Messages, and more with Colleagues and Intra-Agency	Cisco Spark
	Engage with Various Agencies, Hold Video Interviews, Record and Playback Meetings, Provide Online Training	Cisco Spark/WebEx/TelePresence
	Capture, Transform and Share Video- Broadcast City Council Meetings or Local Events	Enterprise Video Platform
	Keep Current with Policies and Regulations and Retain the Best Talent with Training and Professional Development	Cisco Spark/TelePresence/WebEx
Access/Infrastructure/Data Center	Deliver Secure Guest Access to City Resources and Internet, Support City and County Employee BYOD Programs	Wireless Network/802.11ac Wave 2/ Outdoor Wireless Access Points
	Deploy Location-Based Mobile Services, Deliver Venue-Specific Information or Offers	Cisco Mobility Services Engine/ Cisco Connected Mobile Experiences (CMX)
	Provide Fast and Reliable Content Delivery for More Productive City and County Employees	Cisco Integrated Services Routers/ Cisco IWAN with Akamai Connect Caching
	Visibility and Control of City Resources and Content	Cisco Prime Infrastructure/ Meraki Dashboard Network Management and Analytics
	Data Center Virtualization for Smaller Footprint & Power Mgmt.	Cisco UCS, VMware Virtualization Software
	Automate the Data Center with Policy-Based IT Automation and Software Defined Networking	Cisco Application Centric Infrastructure (ACI) and Software-Defined Networking (SDN)
	Enable Business Continuity in the Event of a Disaster	Data Center/SAN Disaster Recovery Solutions
Safety/Security	Deliver City-Wide Surveillance and Security to Reduce Crime	Video Surveillance with License Plate Recognition, Monitoring, Analytics
	Secure and Safe Access to Content	Cisco Firepower Next-Gen Firewall, Advanced Malware Protection, Intrusion Prevention, Threat Protection, OpenDNS, Web Filtering
	Provide Emergency Notification in Case of Emergency	Singlewire IP Paging and Notification System
Support/Managed Services	Supplement IT Resources or Receive Support of a Hosted Model	AMS.NET Maintenance and Managed Services

Celebrating More Than **25** Years

Learn More!

Go to www.ams.net/connectedcommunities
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Communication/Collaboration

Enhance Communication within Agencies, Across Departments and with Citizens

Cisco Unified Communications/Telephony

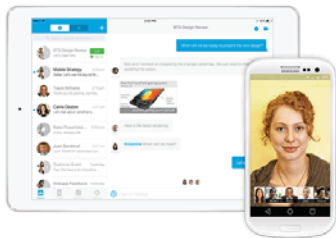
The core of the Cisco collaboration infrastructure is the Cisco Unified Communications Manager to provide call control. A variety of call-processing applications and phones provide mobility to keep in touch no matter where you work. Users can transition active calls between their desktop and mobile phones without interruption. Single number reach streamlines communications with one published number. Unified messaging and voicemail solutions allow users to access messages from email, web browser, IP Phone, smartphone, and messaging client.



Cisco Unified Communications/Telephony

- ▶ Essential call control within a total collaboration solution
- ▶ Connect with colleagues and citizens from anywhere on any device for improved efficiency
- ▶ End-to-end communication capabilities-voice, video, messaging, presence, chat, and mobility
- ▶ Easy-to-use communication system

Cisco SPARK/WebEx/TelePresence



A part of Cisco's collaboration solution is Cisco Spark. Cisco Spark is a single communication service for all your communications including messaging, conferencing, and telephony. Project workspaces provide a central space for team messages and sharing files. Integrated video sharing allows you to have basic instant meetings with audio, video, and screen-sharing capabilities. Quickly and easily

meet via video from your phone, desktop, or TelePresence endpoint. Advanced meetings provide all the WebEx capabilities and allow anyone to join a meeting on any device. Meetings can be recorded for future reference or for training.

A cloud-based phone system or hybrid service enables voice and video communications through mobile, desktop soft clients, Cisco IP phones, and TelePresence video room-based systems. The Cisco Spark mobile app brings it all together and provides a single experience across all platforms, including zero-touch meetings, single number reach and HD video conferencing.

Cisco SPARK/WebEx/TelePresence

- ▶ End-to-end communication capabilities-voice, video, messaging, presence, chat, and mobility
- ▶ Team or project collaboration space to send messages and share files
- ▶ Meet with your colleagues, share your desktop screen, or enable video from one collaboration room
- ▶ Mobile and Cisco IP phone integration for easy transition from phone call to screen share on any device
- ▶ Video-enable TelePresence room and simply walk into room with your Spark app and the meeting is ready to go

Cisco Enterprise Video Platform

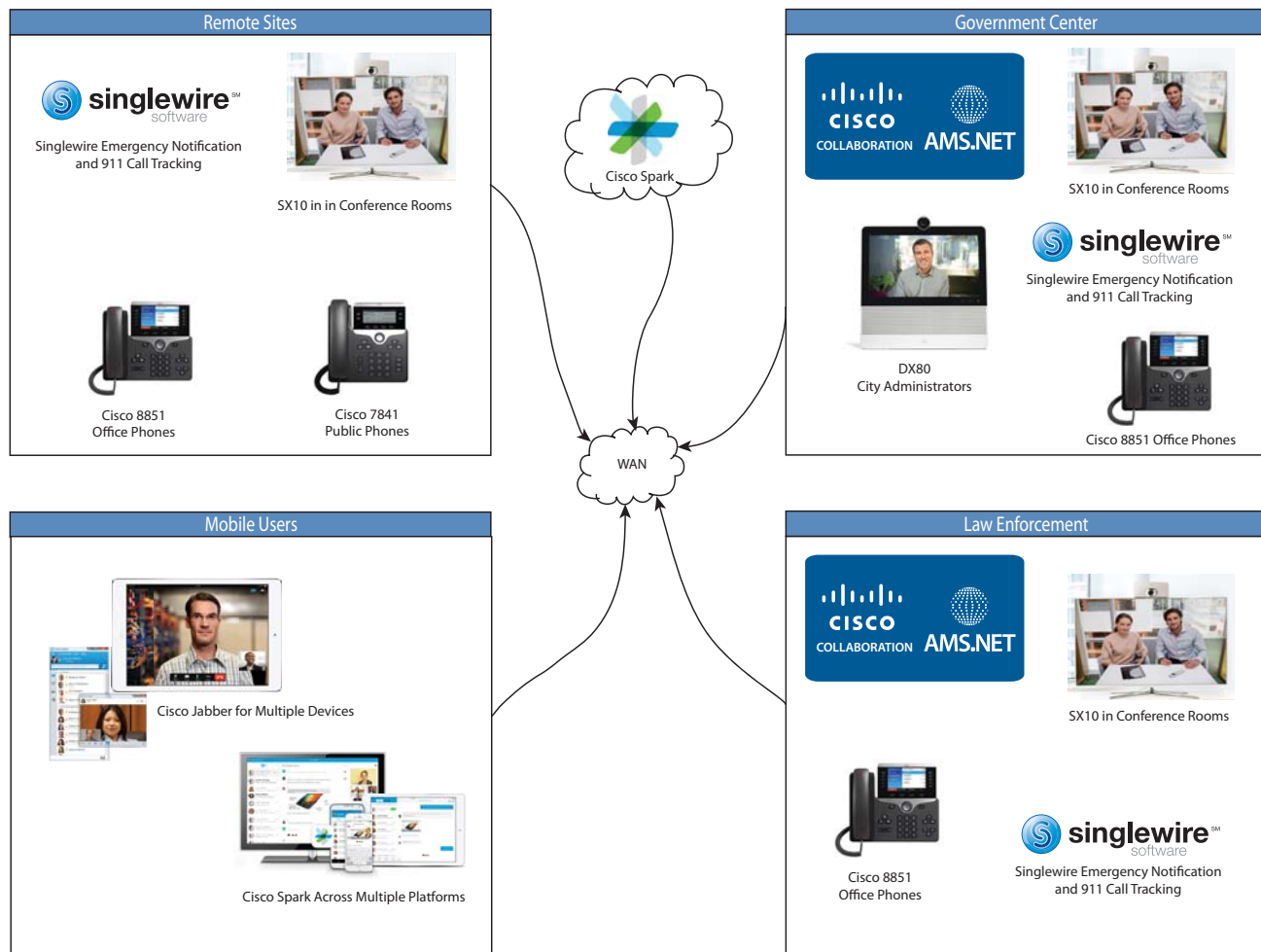
Cisco makes it easy to capture, transform, and share video content. Cisco's TelePresence Content Server, VBrick Rev and VBrick Distributed Media Engine (DME) enable you to capture and deliver high-quality live and on-demand video to thousands of viewers.



Cisco Enterprise Video Platform

- ▶ Event broadcasting, professional development, and training
- ▶ IPTV distribution of live streamed video in browser-based interface
- ▶ Basic video editing and sharing
- ▶ Live and on-demand video

Communication/Collaboration Architecture



Recommended Products (Click link for more info)

- ▶ [Cisco Unified Communications Manager](#)
- ▶ [Cisco Business Edition 6000](#)
- ▶ [Cisco Business Edition 7000](#)
- ▶ [Cisco Cloud Collaboration](#)
- ▶ [Cisco Unity Connection](#)
- ▶ [Cisco TelePresence MX800](#)
- ▶ [Cisco TelePresence SX10](#)
- ▶ [Cisco TelePresence DX80](#)
- ▶ [Cisco TelePresence Touch 10](#)
- ▶ [Cisco TelePresence SpeakerTrack 60](#)
- ▶ [Cisco 8851 Phones](#)
- ▶ [Cisco 7841 Phones](#)
- ▶ [Cisco Spark](#)
- ▶ [Cisco Jabber](#)
- ▶ [Singlewire InformaCast](#)

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Provide Secure Wi-Fi Guest Access and Deliver Reliable Access to City Resources

Wireless Network/802.11ac Wave 2

City employees rely upon mobile devices for improved productivity and citizens demand Wi-Fi in public spaces. 802.11ac Wave 2 provides a significant boost in performance from 802.11ac Wave 1 and 802.11n to support the increasing number of devices and bandwidth requirements of applications. Multigigabit technology allows you to deliver beyond 1 GB on existing Category 5e cables with support of Power over Ethernet (PoE), PoE+ and Universal Power over Ethernet (UPOE).



Wireless

- ▶ Reliable access to city and Internet resources
- ▶ Supports public Wi-Fi access and BYOD employee programs
- ▶ Location-based services

Cisco Integrated Services Routers (ISR)/ IWAN w/ Akamai Connect for Caching

Integrated Intelligent WAN features including application awareness, quality of service, and WAN optimization help provide for the best user experience. Cisco IWAN with Akamai Connect provides caching and optimizes web and mobile applications to minimize bandwidth impact. Pervasive security with VPN options, threat defense services, and consistent policy enforcement provide a secure working environment.

Cisco ISR/IWAN with Akamai Connect

- ▶ Consistent, gigabit performance while multiple services run concurrently
- ▶ Integrated Cisco Intelligent WAN features- application awareness, quality of service, and WAN optimization
- ▶ Caching and optimization

Cisco Management Solutions

Policy and management tools provide visibility and control of the entire network. Cisco Prime Infrastructure provides management of the wired, wireless network, devices, applications, and users all in one place. It offers policy monitoring from Cisco Identity Services Engine (ISE) and location-based tracking of mobility devices with Cisco Mobility Engine (MSE). The Connected Mobile Experience (CMX) allows you to analyze the wireless traffic to provide better services to the community. Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM) enables provisioning and management automation.

Management Solutions

- ▶ Visibility and control of entire network
- ▶ Simplified management and improved operations
- ▶ Location-based tracking and services
- ▶ Automated provisioning and management

Data Center/ Disaster Recovery



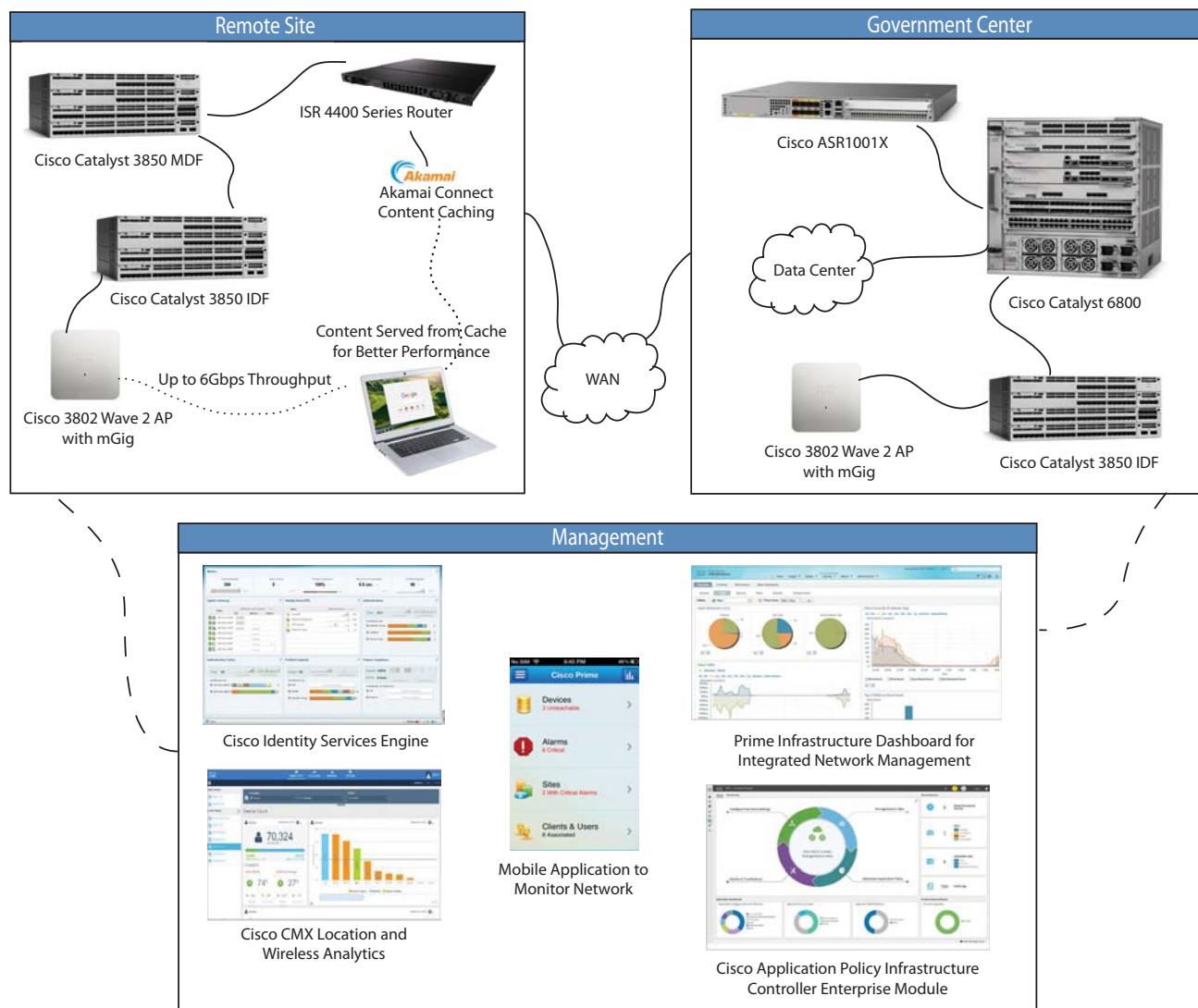
Cisco UCS Unified Computing System with Nimble Storage and VMware vSphere deliver integrated compute, storage, networking, virtualization, and management to provide secure and reliable IT services. This single platform provides consolidation and virtualization and supports cloud-based applications and computing. Cisco ACI within the data center provides policy-based automation to reduce application deployment times.

The holistic approach with Veeam backup software makes backup and recovery fast and simplified with virtual machine and file level recovery. In the event of a disaster, government workers are quickly back up and running to provide essential community services.

Data Center/Disaster Recovery

- ▶ Unified computing system
- ▶ Supports cloud-computing
- ▶ Consolidation and reduced footprint for power reduction
- ▶ Policy-based automation application deployment
- ▶ Fast, simplified disaster recovery

Cisco Access/Infrastructure Architecture



Recommended Products (Click link for more info)

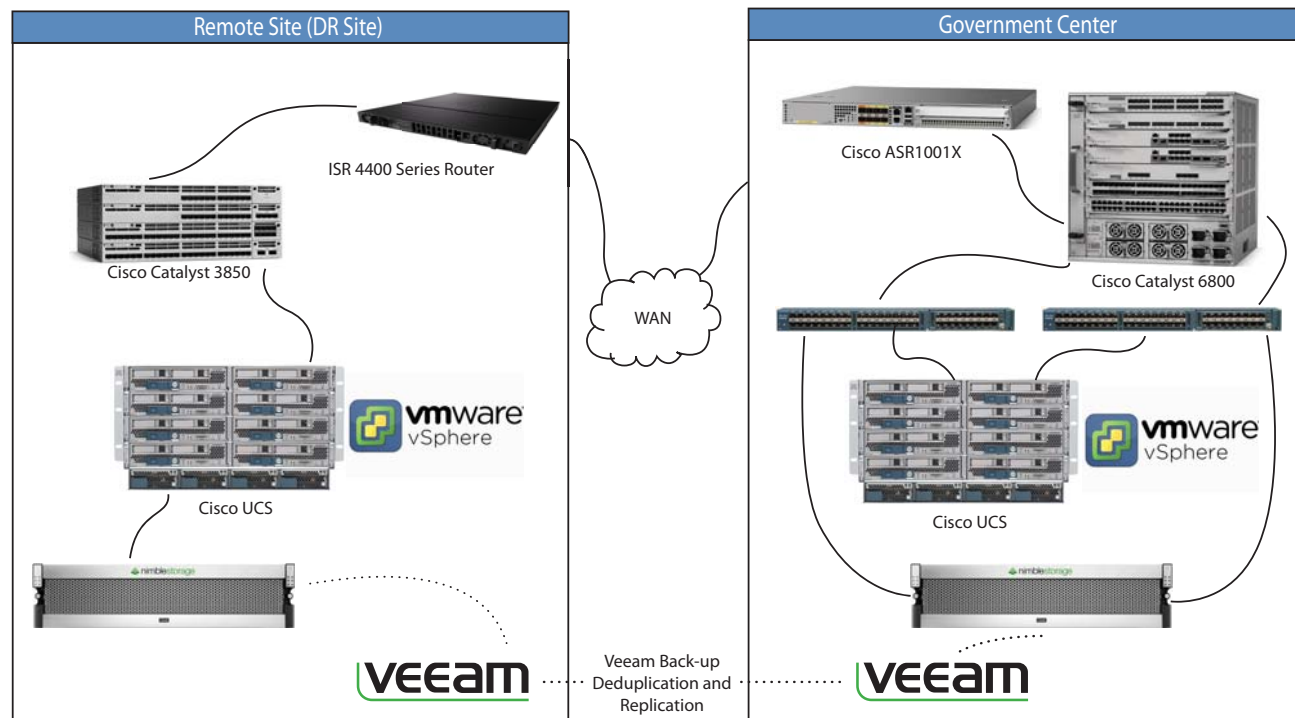
- ▶ [Cisco 3850 Series Switches](#)
- ▶ [Cisco ISR 4400 Series Integrated Services Routers](#)
- ▶ [Akamai Connect Content Caching](#)
- ▶ [Cisco Aironet 3800 Series Wave 2 Access Points](#)
- ▶ [Cisco ASR1001X Router](#)
- ▶ [Cisco Catalyst 6800](#)
- ▶ [Cisco Identity Services Engine](#)
- ▶ [Cisco Prime Infrastructure](#)
- ▶ [Cisco Connected Mobile Experiences \(CMX\)](#)
- ▶ [Cisco Application Policy Infrastructure Controller Enterprise Module](#)

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Data Center/Disaster Recovery Architecture



Recommended Products (Click link for more info)

- ▶ [Cisco 3850 Series Switches](#)
- ▶ [Cisco ISR 4400 Series Integrated Services Routers](#)
- ▶ [Cisco ASR1001X Router](#)
- ▶ [Cisco UCS Unified Computing System with VMware vSphere](#)
- ▶ [Nimble Storage](#)
- ▶ [Veeam Back-up and Deduplication](#)

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Safety/Security

Provide Improved Public Safety and Faster Emergency Response

Cisco Firepower

The Cisco Firepower Next Generation Firewall (NGFW) is a fully integrated, threat-focused next-gen firewall with unified management.



This integrated next-gen firewall provides full control of traffic based on applications, users, and the traffic content. It includes Application Visibility and Control (AVC), optional Firepower next-gen IPS, Cisco Advanced Malware Protection (AMP), and URL filtering. This single vendor solution provides advanced threat protection before, during, and after attacks. This solution is performance and density optimized and supports 1/10/40 GB in a smaller footprint.

Cisco Advanced Malware Protection (AMP) for Endpoints

Cisco's security solution provides protection throughout the extended network including endpoints whether connected to a protected network or roaming on the Internet. AMP for Endpoints performs analysis in real time, behavior over time, and retrospectively across all endpoints. Once an attack is detected, AMP provides immediate protection across the rest of the attack vectors.

Cisco OpenDNS

As a part of Cisco's security solution, OpenDNS provides cloud-delivered network security services that protect any device, no matter where it's located. Security is delivered at the DNS layer to keep malware from compromising your systems and to stop botnets, phishing, and ransomware from exfiltrating your data.

Video Surveillance



IP Video Surveillance enables earlier threat detection, faster incident response, and enhanced collaboration with law enforcement. Cameras and intelligent monitoring software deliver live monitoring and playback for an enhanced security solution. Central web-based management enables viewing of video from PC or mobile device. Tampering, motion, and loitering detection along with analytic software for automatic event notification and process activation deliver the intelligence needed from a security solution. A variety of indoor and outdoor cameras provide you with a flexible and scalable security system.

Singlewire Emergency Notification and Paging

Singlewire's InformaCast Advanced Notification is a powerful, yet easy-to-use system to respond to emergency situations including intruders, lock-downs, facility or equipment malfunctions, fire, weather emergencies, and more. Notification systems are integrated with your network, Cisco phones, bells, clocks, PA systems and speakers, and digital signage to increase the speed, reach, and success rate of your emergency alerts.

Cisco Security Solutions

- ▶ Integrated next-gen firewall provides full control of traffic based on users, applications, the traffic content
- ▶ Provide security before, during, and after a cyber-attack
- ▶ Consolidate security vendors with single vendor integrated solution
- ▶ Security and threat intelligence capabilities provide security across the entire attack continuum
- ▶ Advanced malware protection provides visibility into endpoints, networks, web, and email to stop threats across the attack vectors
- ▶ Cisco's Firepower next-gen firewall features application visibility and control, next-gen IPS, AMP and URL filtering for high-level protection
- ▶ Cisco's OpenDNS provides cloud-delivered security to help stop malware and ransomware attacks

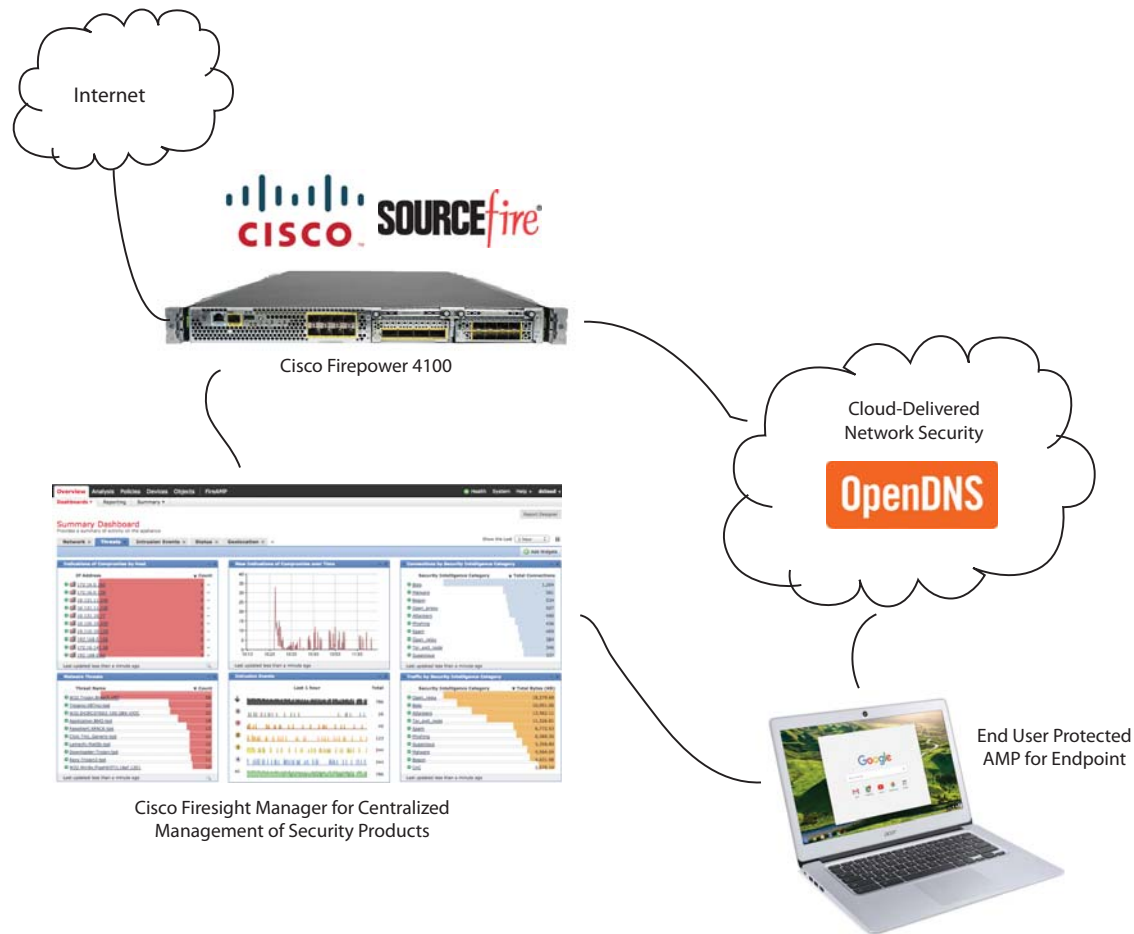
Video Surveillance

- ▶ Intelligent physical security solution
- ▶ View live or recorded video via the web from a PC or mobile device
- ▶ Analytic software for automatic event notification and process activation
- ▶ Tampering, motion, and loitering detection
- ▶ Longer retention time for video

Singlewire Notification & Paging

- ▶ Emergency notification to building speakers, IP phones, and digital signage
- ▶ Integrated voice, text, and email notifications
- ▶ Trigger alerts from button or Cisco IP phone and send live or pre-recorded messages

Security Architecture



Recommended Products (Click link for more info)

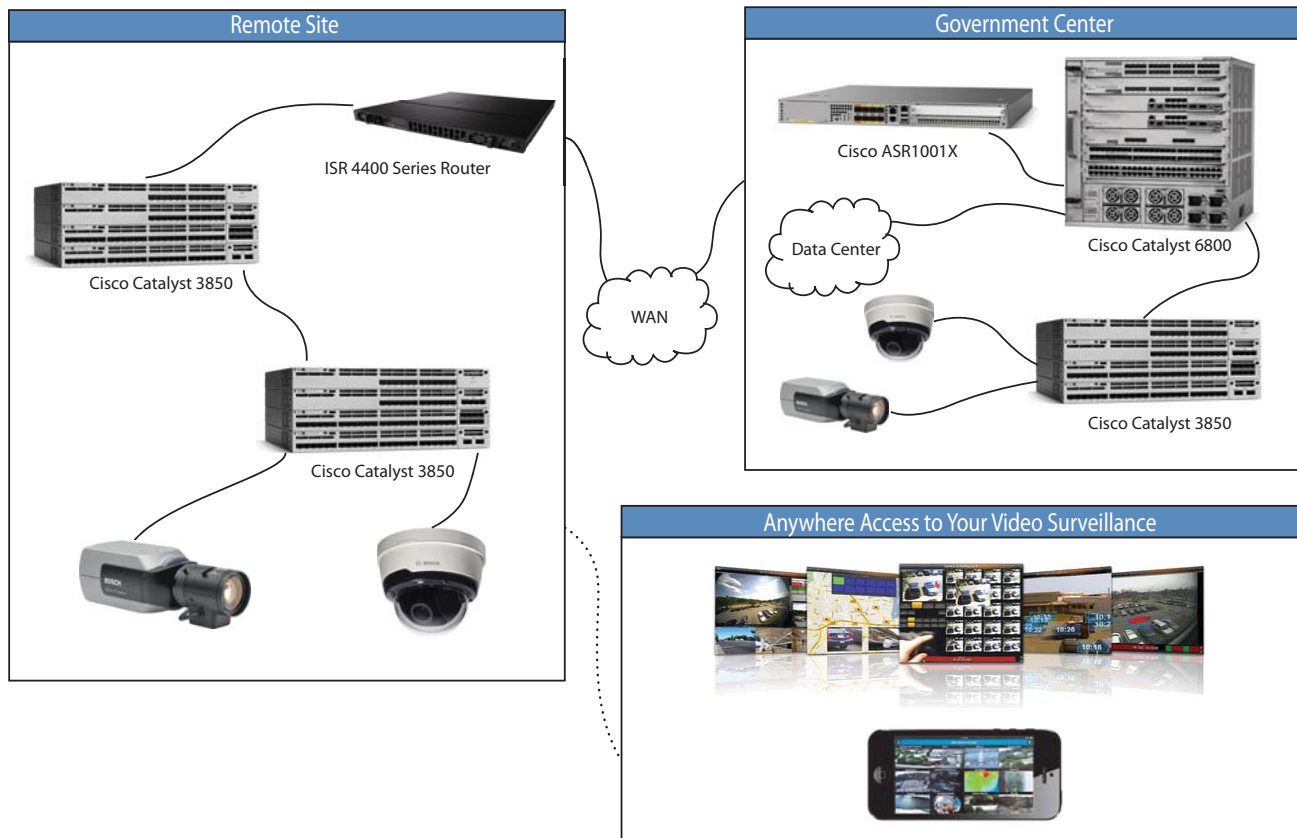
- ▶ [Cisco Firepower 4100 Series Next-Gen Firewall](#)
- ▶ [Cisco FireSIGHT Management Center](#)
- ▶ [Cisco OpenDNS](#)
- ▶ [Cisco Advanced Malware Protection \(AMP\) for Endpoints](#)

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Video Surveillance Architecture



Recommended Products (Click link for more info)

- ▶ [OnSSI IP Video Surveillance](#)
- ▶ [Cisco IP Video Surveillance](#)
- ▶ [Milestone IP Video Surveillance](#)
- ▶ [Sony IP Video Surveillance Cameras](#)
- ▶ [Bosch IP Video Surveillance Cameras](#)
- ▶ [Arecont Vision IP Video Surveillance Cameras](#)
- ▶ [Axis Communications IP Video Surveillance Cameras](#)

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Managed Services/Procurement

Procure and Support Essential Technology Solutions

Managed Services

Several managed services are available for the management and maintenance of your technology investments. If you need to supplement IT resources or are looking for the support of a hosted model, AMS.NET managed service agreements can provide that support and free up IT resources for more strategic projects.

Most agreements provide upgrades and updates, troubleshooting and repair, as well as monitoring, reporting, reinstallation, and configuration of failed equipment covered under contract. A host of agreements are available including, managed voice services, managed wireless, managed WAN, and managed video surveillance agreements.

Managed Services

- ▶ Support and maintenance of your technology investments
- ▶ Technical support and troubleshooting
- ▶ Network monitoring on technology under contract
- ▶ Installation of replacement hardware under contract
- ▶ Monthly reporting under contract

CMAS Contracts

CMAS Contracts provide competitive pricing and speed up the procurement process. Several contracts are available which cover technology such as Cisco networking, security, and telephony products, HP networking products, Ruckus and Aerohive wireless products along with products from EMC, Brocade, Barracuda, Tripplite, Berk-Tek, Commscope, Fluke, Panduit, General Cable, Hoffman, Leviton, Mohawk, Ortronics, Superior Essex and others.

GSA Contract

AMS.NET government customers can utilize this contract to purchase structured wiring products and services at fair and reasonable prices through a fast, efficient, and cost effective procurement process.

E-Rate Funding

Public libraries can take advantage of the E-Rate program which designates funds for data transmission service and Internet access to support broadband connectivity to schools and libraries. Internal connections needed for broadband connectivity within schools and libraries are also eligible.

Merced County FOCUS Contract

The Merced County FOCUS Contract assists public sector entities by reducing the cost and time normally required to acquire technology needs.

Cisco Capital Leasing & Financing Promotions

Creative financing allows government entities to procure essential technology today instead of waiting for the bond market and overall economy to recover.

Products Available on Contract

- ▶ LAN or WLAN networking- routers, switches
- ▶ Wireless access points
- ▶ Network security- firewall services and components
- ▶ Data center networking & storage
- ▶ Backup solutions
- ▶ Physical security solutions
- ▶ Software supporting above components
- ▶ Cabling, connectors and related components
- ▶ Racks
- ▶ UPS battery backup
- ▶ Maintenance and professional services
- ▶ And more!

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