

Sample Diagram



(Dedicated Circuits)



VPN to Municipalities via Internet
See Figure C-1-D in CJIS Policy

WWW

CSA

Other Municipalities

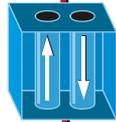
Remote Admin?

Internet Router

Intrusion Detection



Extranet



Other Relationships:

- Fiber to other Facilities
- SAN Storage (CJI ?)
- Regional Provider (CSA approved)



Router/Firewall/VPN

AA Server



CAD System (CJI)
128-bit TLS

LE VLANs

Non-LE VLAN (see following slide)

- CAD Client w/AA
- TLS Web App. hosted by State with AA
- See following slide for more examples



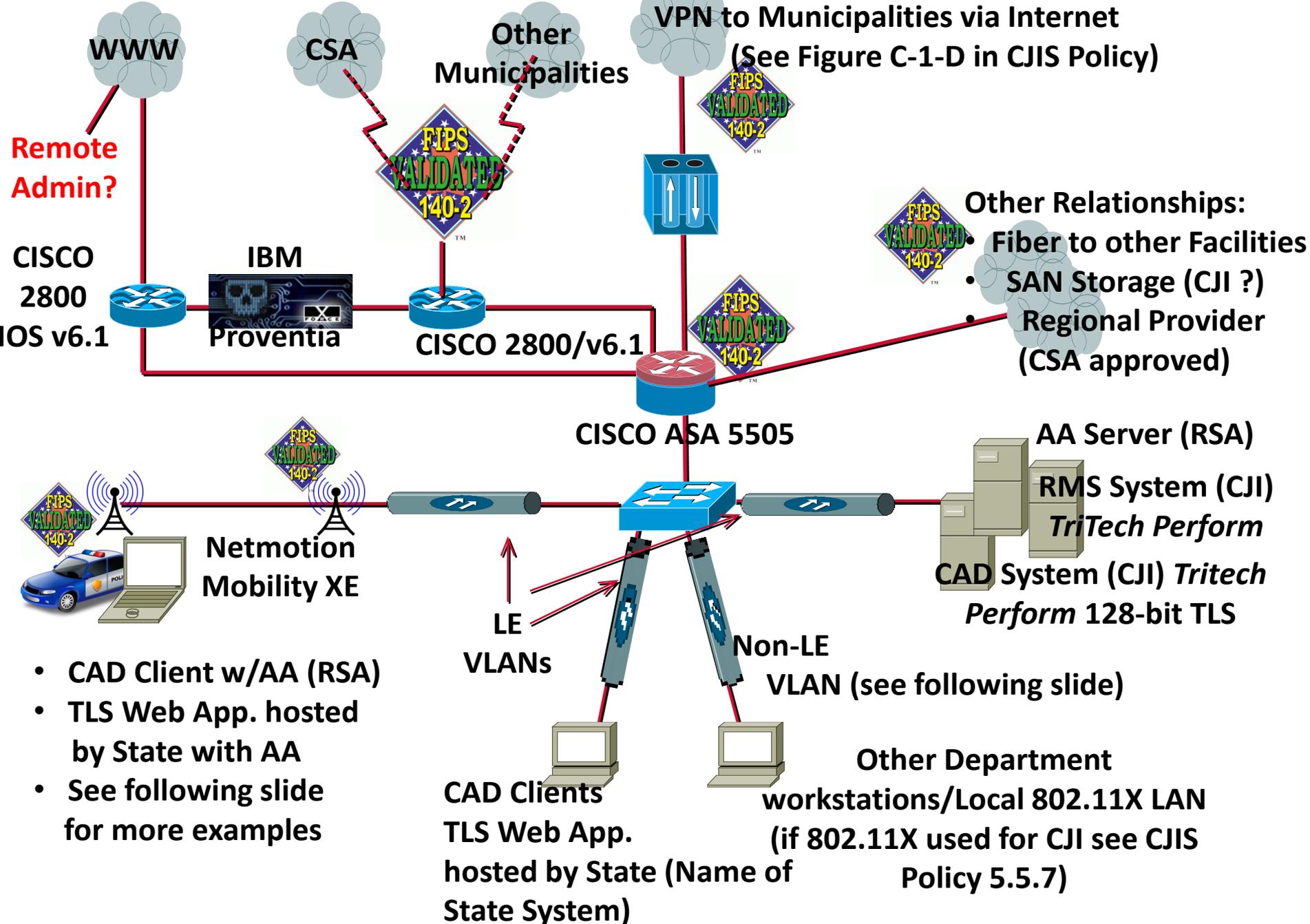
CAD Clients
TLS Web App.
hosted by State

Other Department
workstations/Local 802.11X LAN

What we would like to see



(Dedicated Circuits)



- CAD Client w/AA (RSA)
- TLS Web App. hosted by State with AA
- See following slide for more examples

VLANS

5.5.7.1 All 802.11x Wireless Protocols

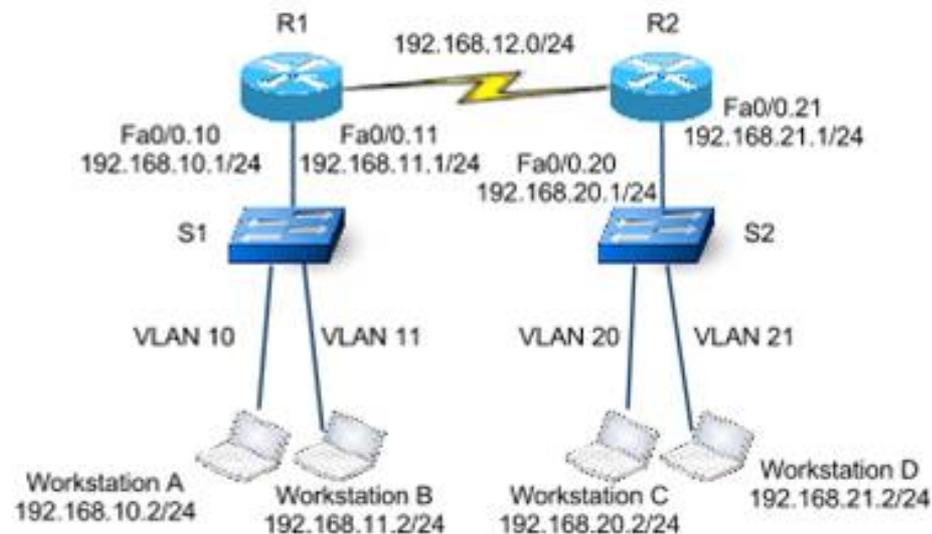
Segregate, virtually (e.g. virtual local area network (VLAN) and ACLs) or physically (e.g. firewalls), the wireless network from the operational wired infrastructure. Limit access between wireless networks and the wired network to only operational needs.

5.10.1.4 Voice over Internet Protocol

VoIP can be installed in-line with an organization's existing Internet Protocol (IP) services. Among VoIP's risks that have to be considered carefully are: myriad security concerns, cost issues associated with new networking hardware requirements, and overarching quality of service (QoS) factors.

In addition to the security controls described in this document, the following additional controls **shall be implemented when an agency deploys VoIP within a network that contains unencrypted CJI:**

1. Establish usage restrictions and implementation guidance for VoIP technologies.
2. Change the default administrative password on the IP phones and VoIP switches.
- 3. Utilize Virtual Local Area Network (VLAN) technology to segment VoIP traffic from data traffic.**



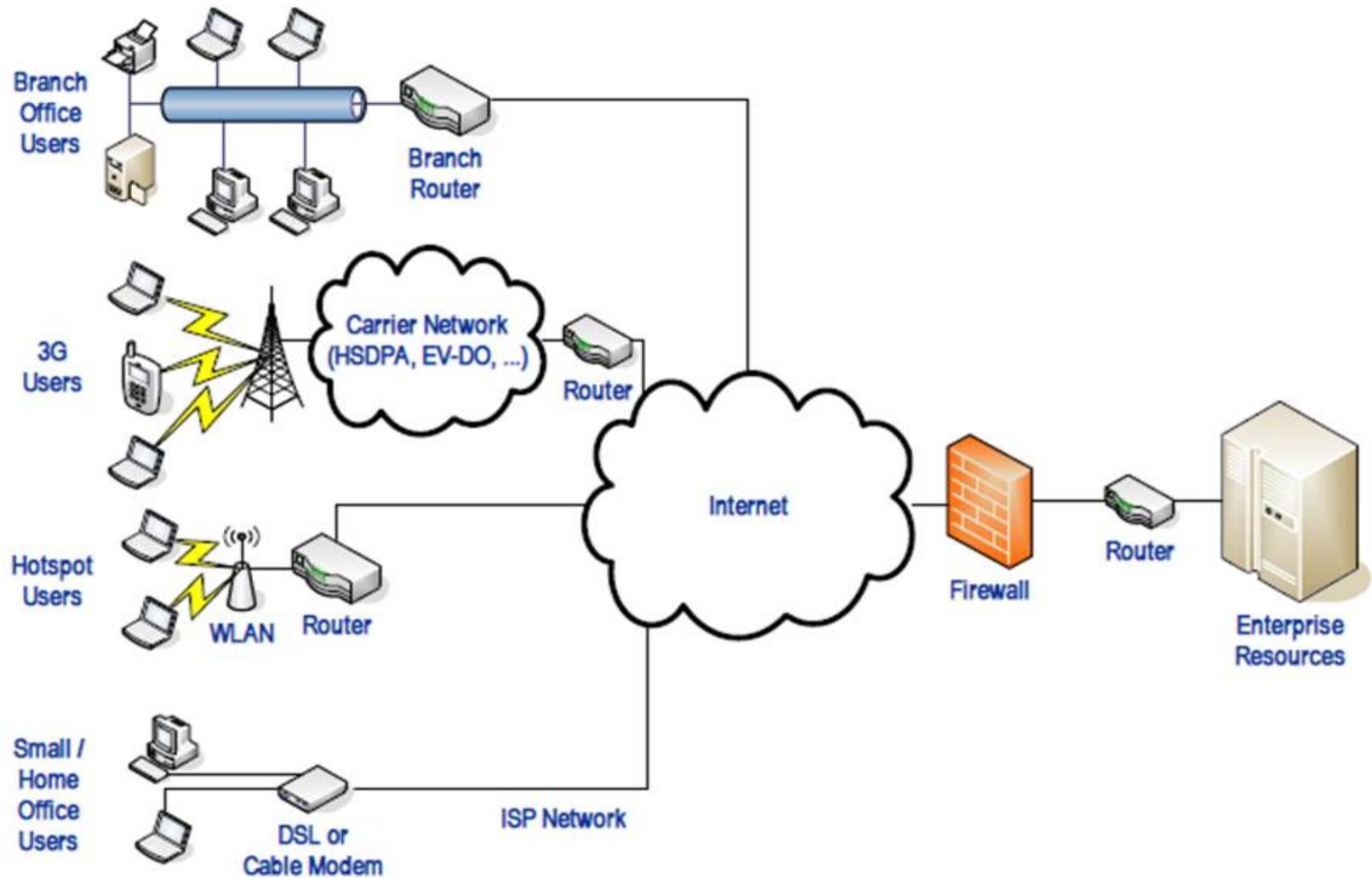
On R1, construct and apply an ACL on int S0/0 that denies traffic from Workstation C's IP address.

On R1, construct and apply an ACL on int F0/0.10 that denies any traffic on TCP ports 139 and 445. All other traffic should be permitted.

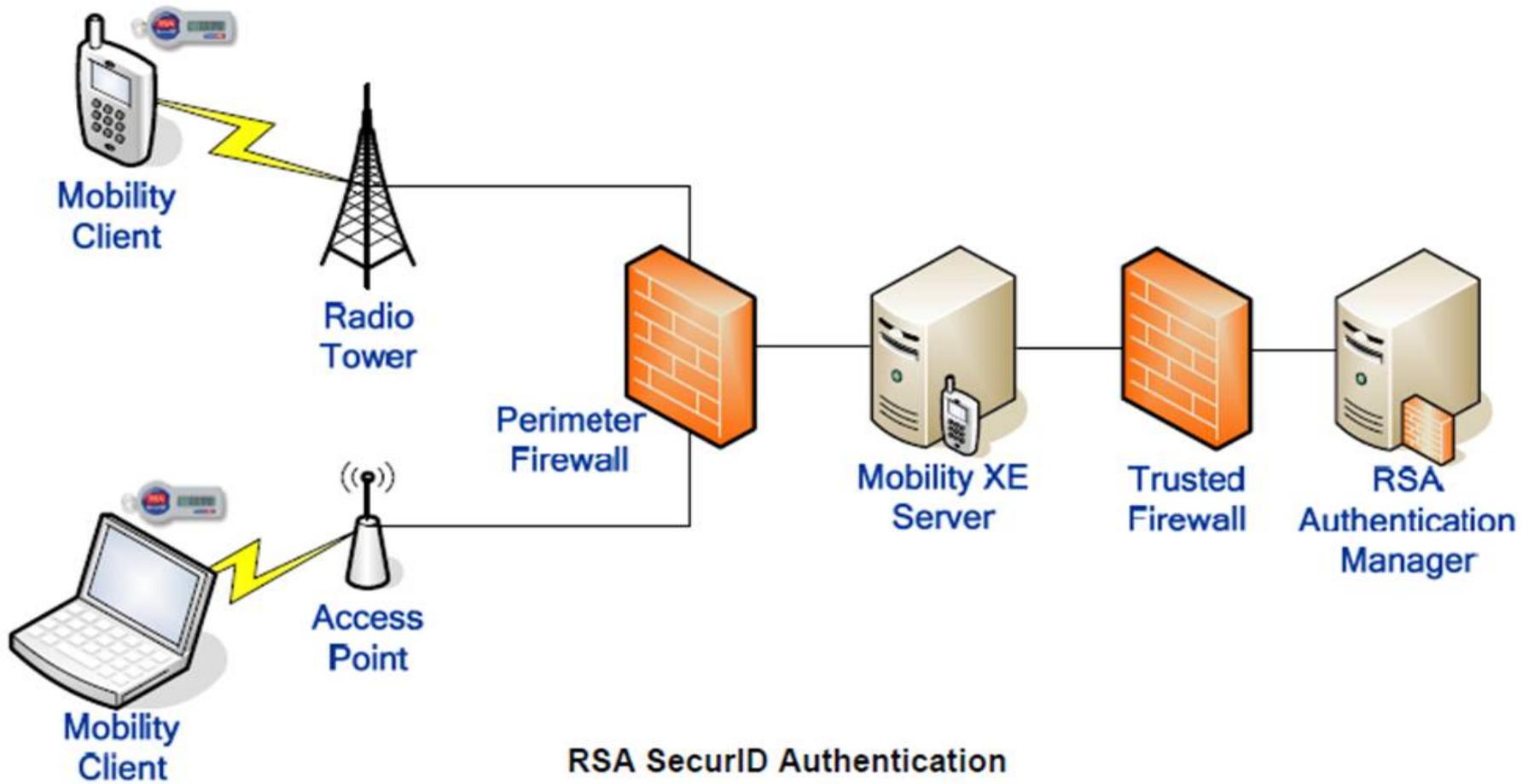
On R2, construct and apply an ACL on int F0/0.21 that permits traffic from any host to subnet 192.168.21.0/24 on TCP ports 80, 443, 20, and 21. Likewise the ACL should permit traffic from Workstation A to subnet 192.168.21.0 using ICMP and TCP port 3389. All other traffic to subnet 192.168.21.0/24 should be denied.

Mobility XE examples

Multiple WWANs from different cellular carriers are often needed to cover the entire service area.

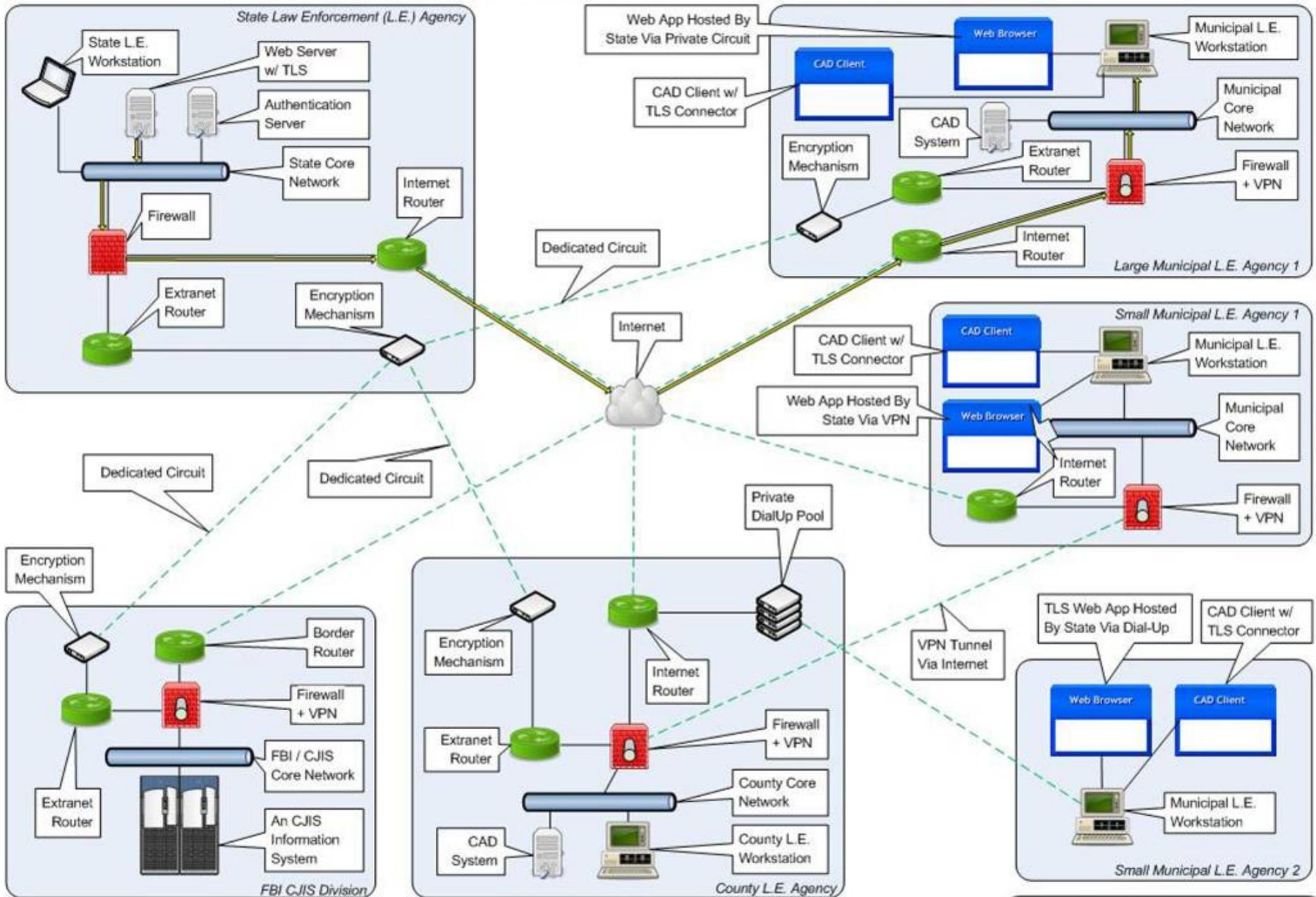


Multiple Networks



More Examples from CJIS Policy

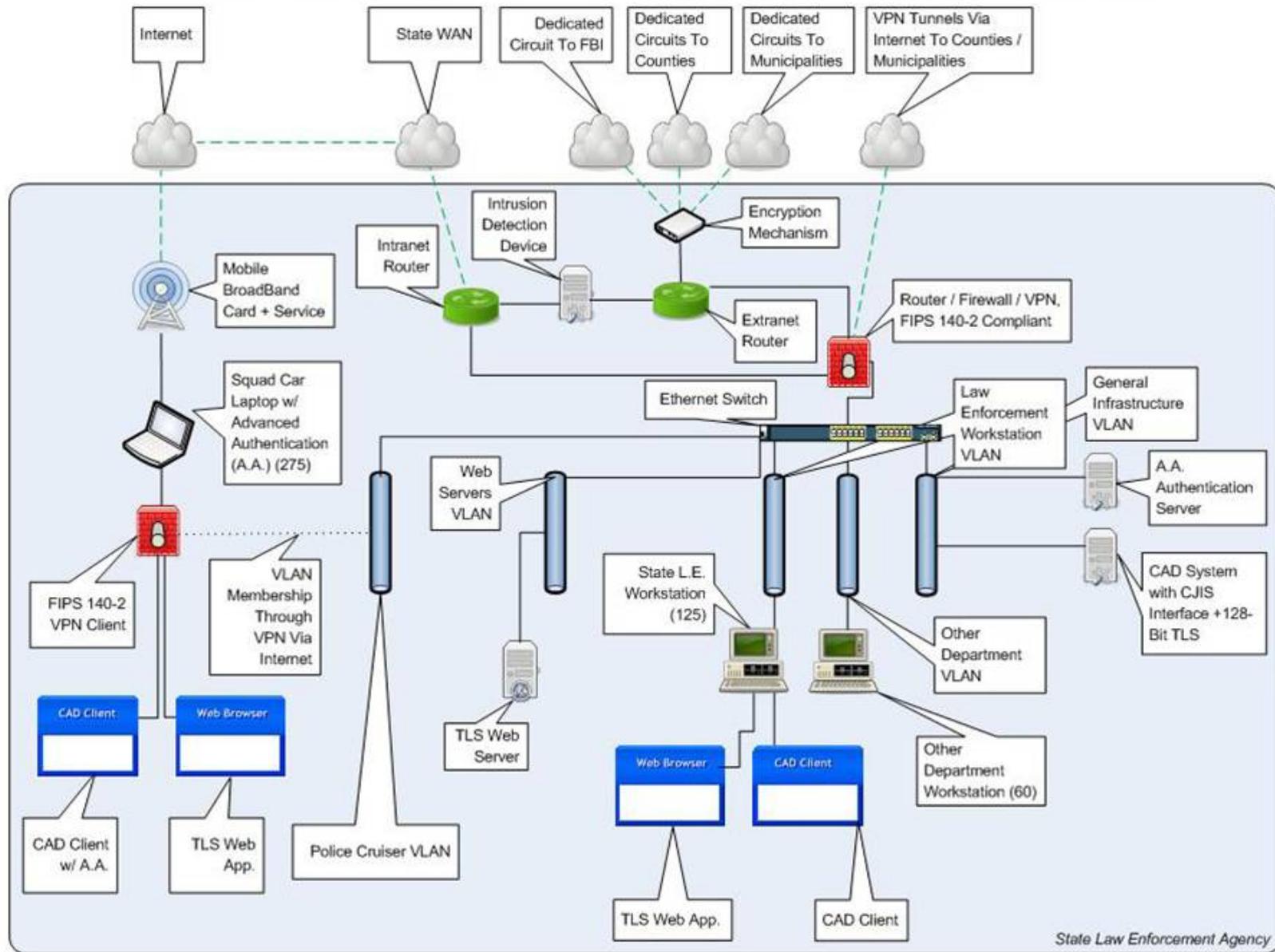
Overview: Conceptual Connections Between Various Agencies



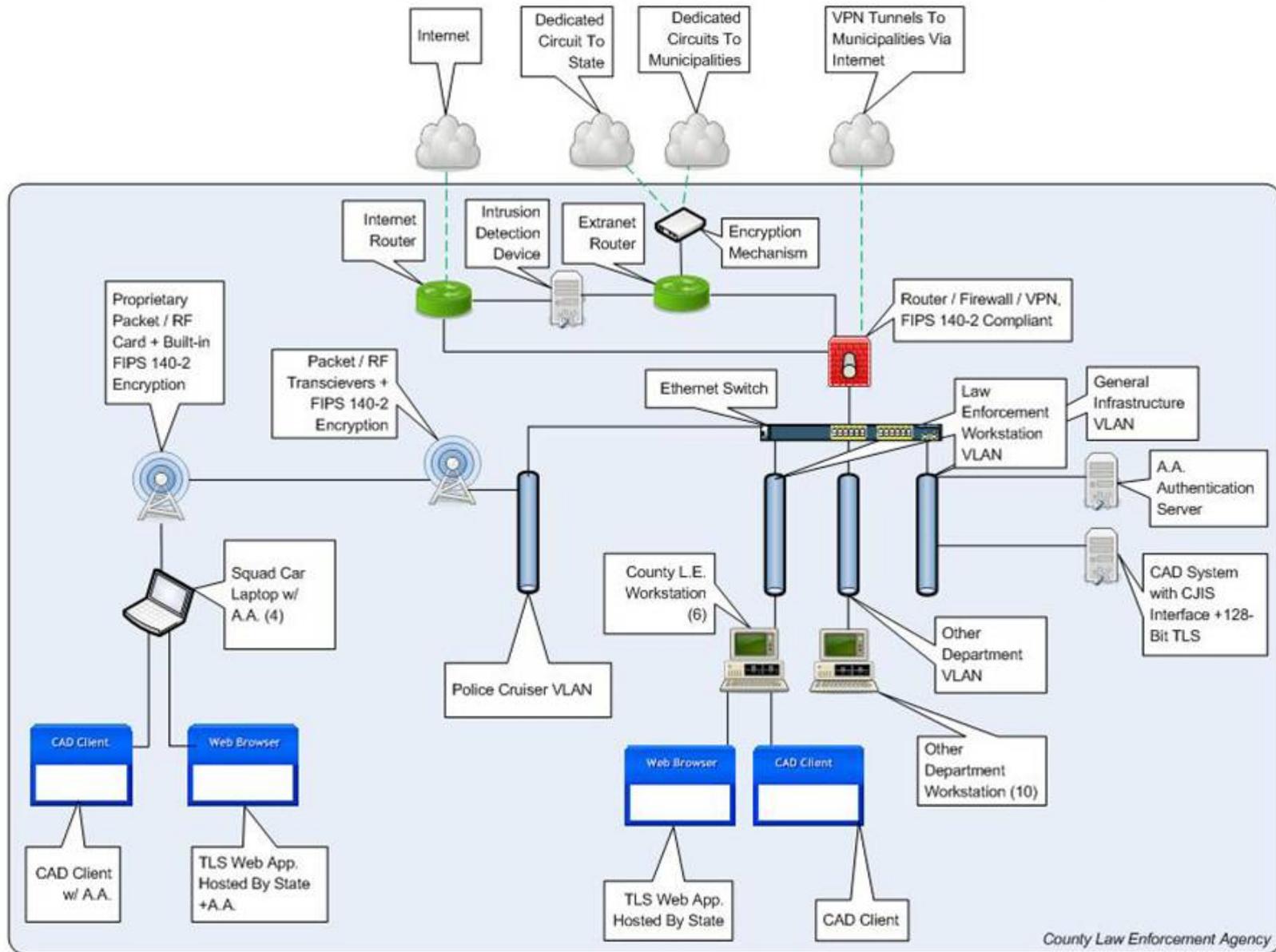
Appendix C.1-A

01/01/2011

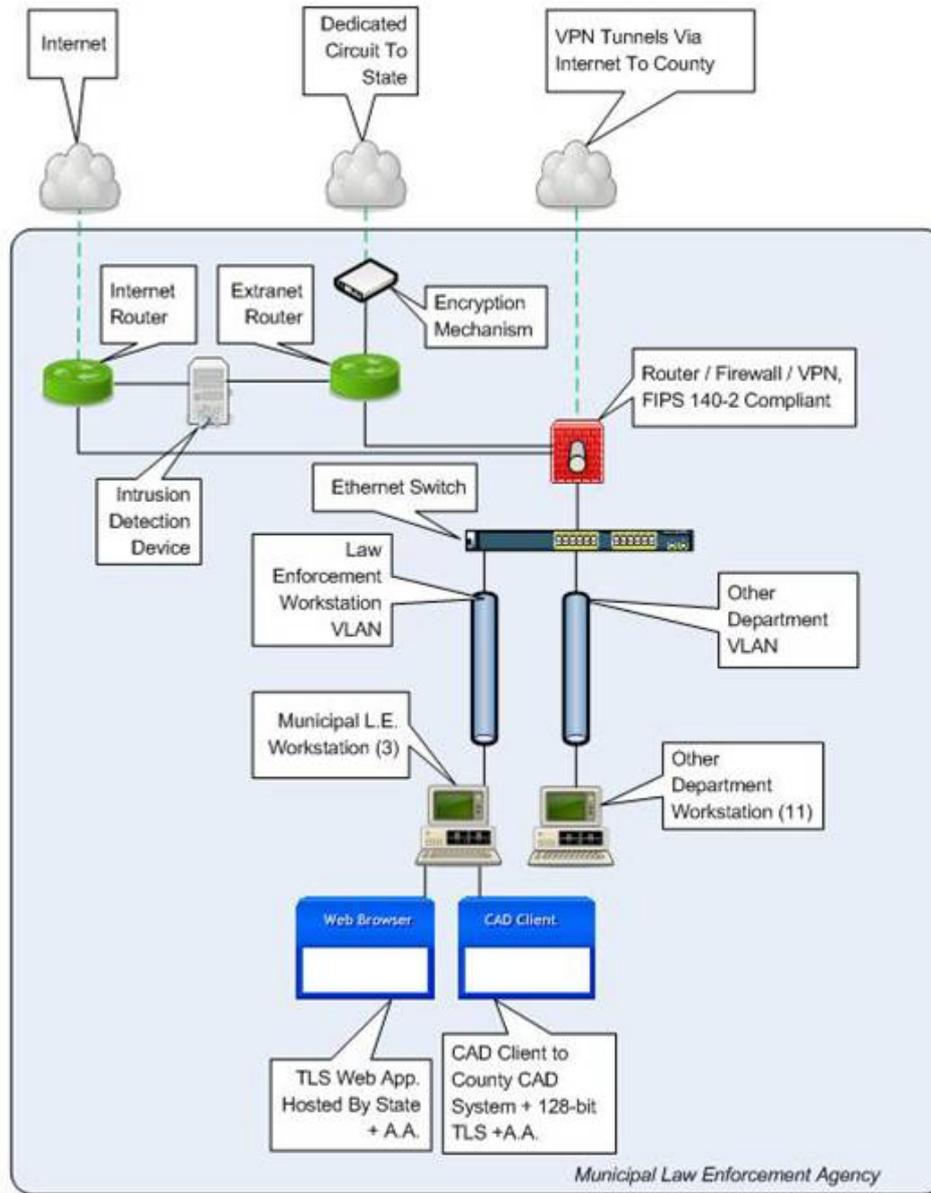
Conceptual Topology Diagram For A State Law Enforcement Agency



Conceptual Topology Diagram For A County Law Enforcement Agency



Conceptual Topology Diagram For A Municipal Law Enforcement Agency



--- FIPS 140-2 COMPLIANT ENCRYPTION
 ——— STANDARD CONNECTION

ICONS

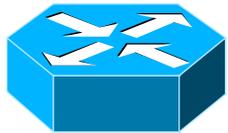
Icons: Cisco Products



Router-
Color and
subdud



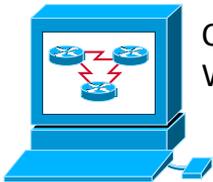
Router
w/Silicon Switch



Wavelength
Router



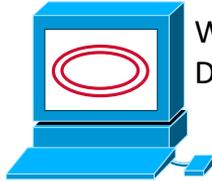
Protocol
Translator



CiscoWorks
Workstation



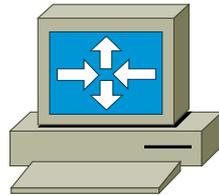
Access
Server



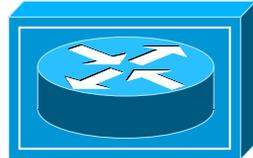
Workgroup
Director



Network
Management
Appliance



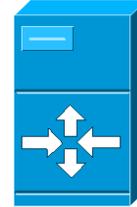
PC Router
Card



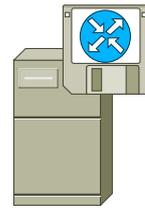
Cisco
Hub



NetFlow
Router



Server
with
PC Router



Software-
Based Router on
File Server



TransPath



Bridge



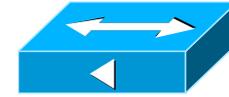
Workgroup
Switch
Color/Subdud



Workgroup
Switch
Voice-Enabled



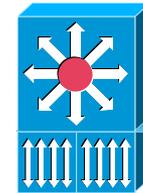
100BaseT
Hub



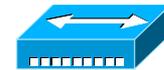
uBR910
Cable DSU



CDDI/
FDDI
Concentrator



PC Adapter
Card

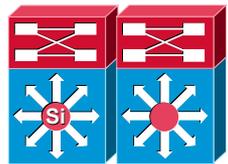


Small Hub
(10BaseT
Hub)

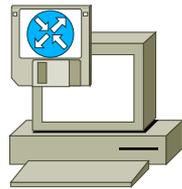


Terminal
Server

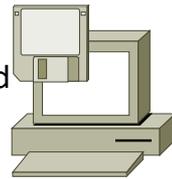
Icons: Cisco Products (Cont.)



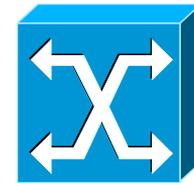
Route/Switch Processor with and without Si



PC with Router-Based Software



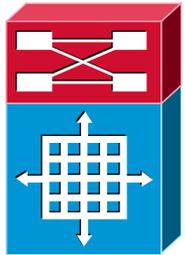
PC with Software



ATM Switch



Cisco CA



PXF



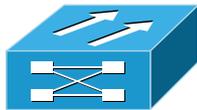
Switch Processor



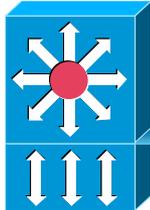
LAN2LAN Switch



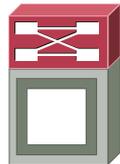
MicroWeb Server



IP Transport Concentrator



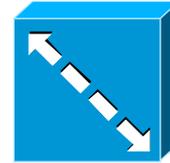
VIP



ASIC Processor



General Processor



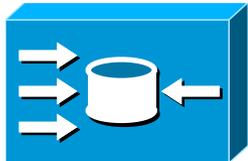
ISDN Switch



Label Switch Router



BBSM



Content Engine



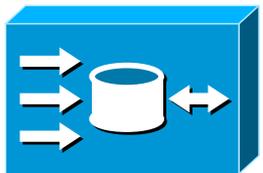
Cisco 5500 Family



Multi-Switch Device



ATA



Management Engine (ME 1100)

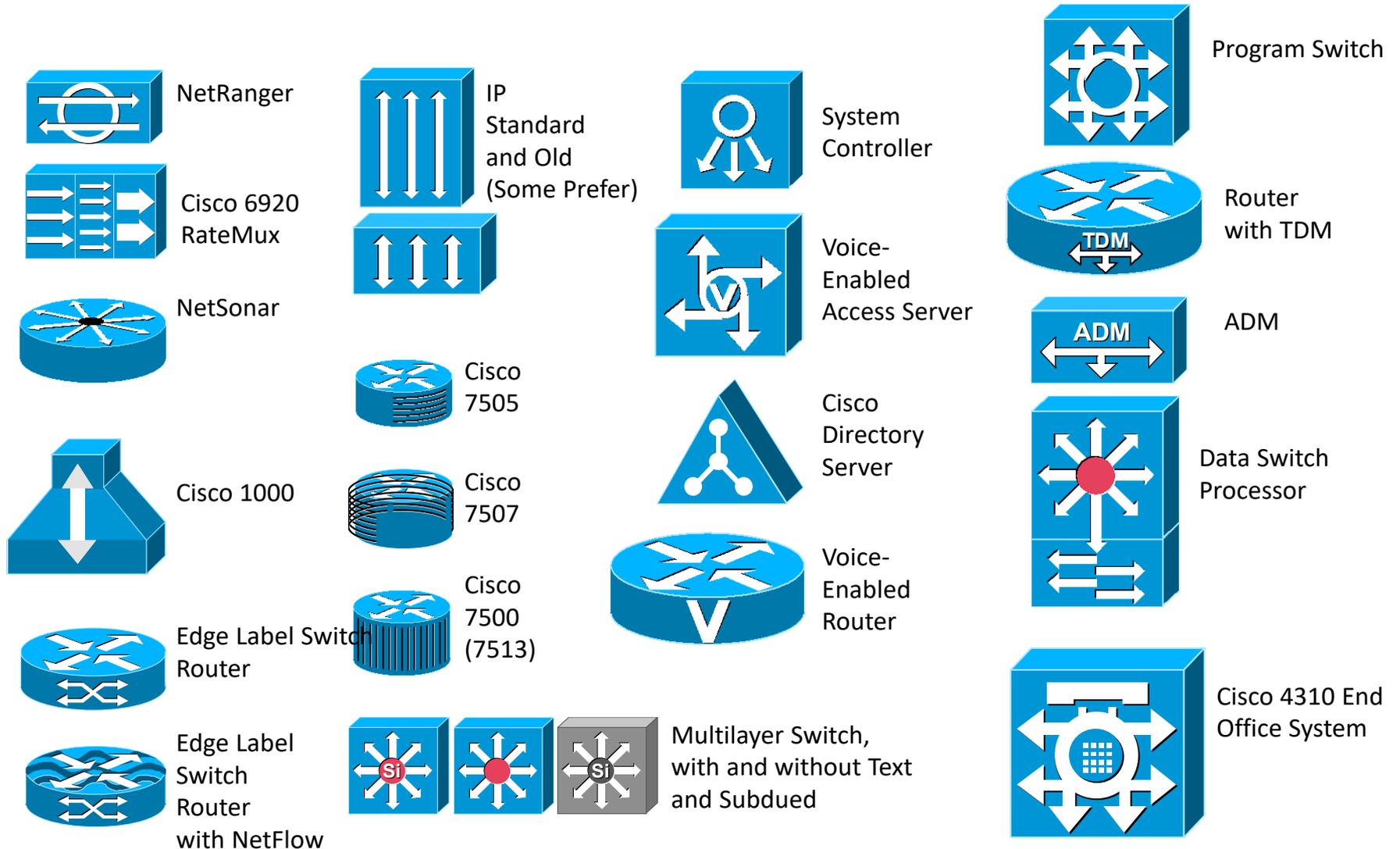


Broadband Router

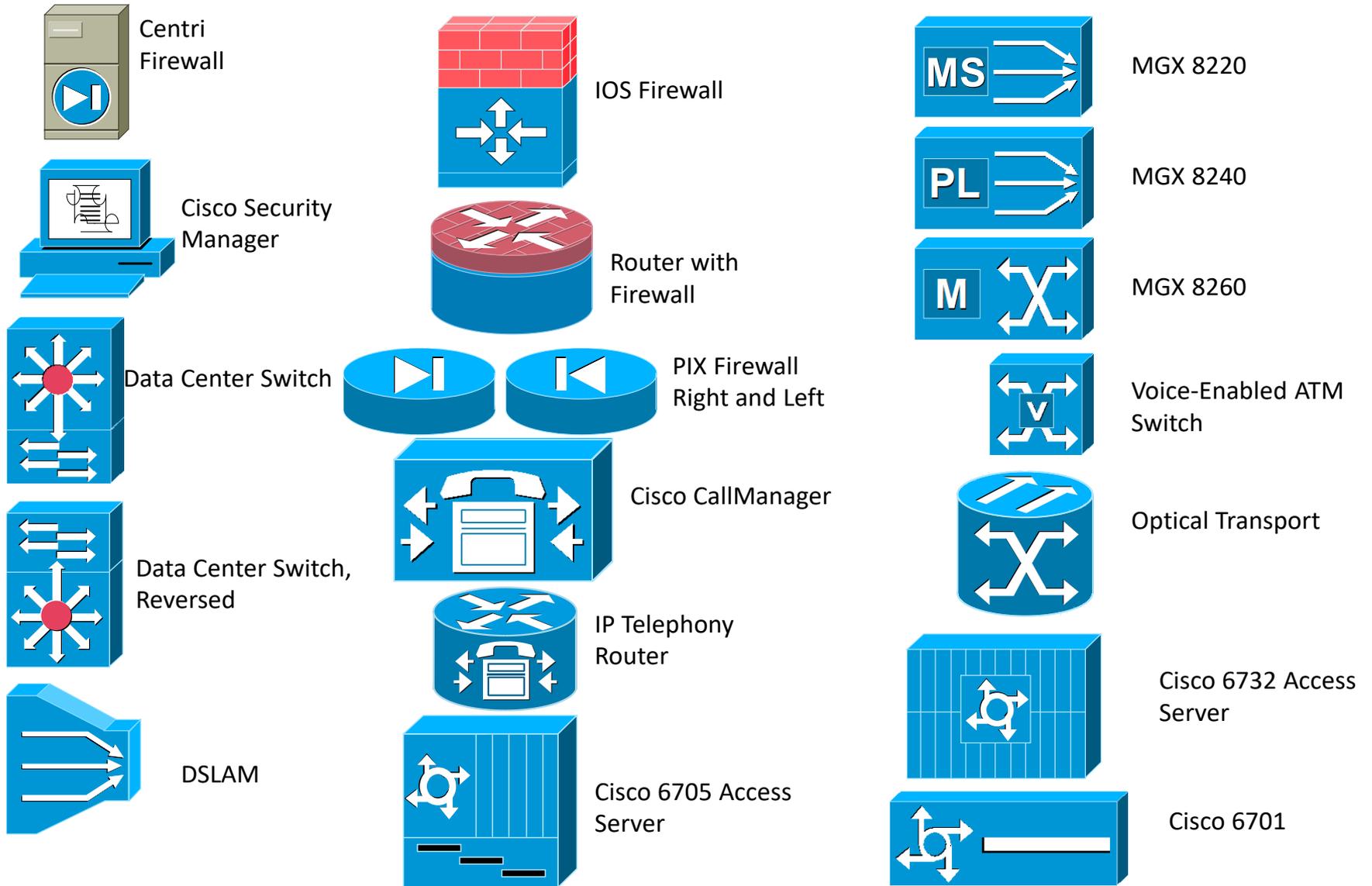


ITP

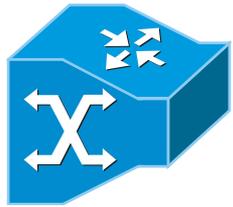
Icons: Cisco Products (Cont.)



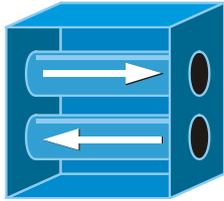
Icons: Cisco Products (Cont.)



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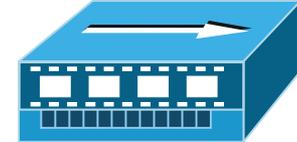
IP DSL Switch



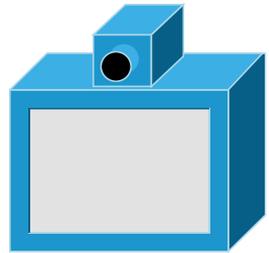
VPN Concentrator



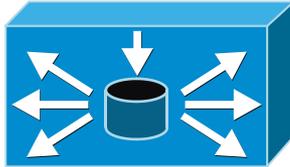
Cisco 15200



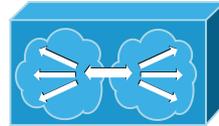
Cisco VN 2900



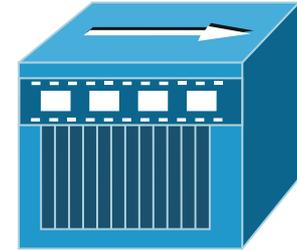
H.323



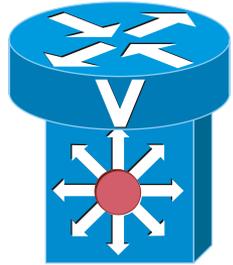
CDM
(Content
Distribution
Manager)



CSS 11000



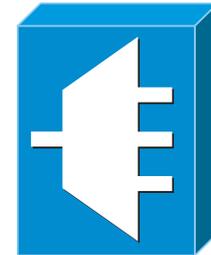
Cisco
VN 5900



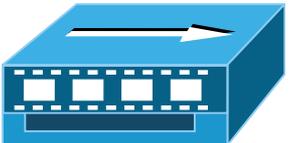
Access
Gateway



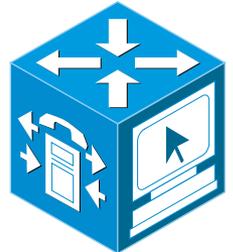
IAD Router



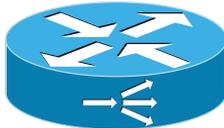
Cisco 15800



Cisco
VN 5902



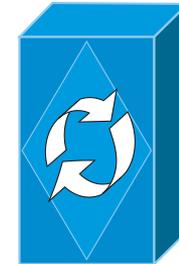
ICS 7750



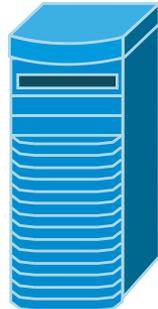
Content
Router



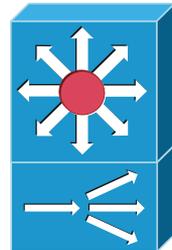
Cisco
Storage
Router



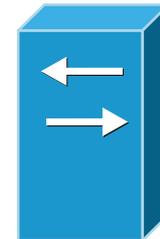
BTS 10200
Softswitch



ICM



Content
Switch

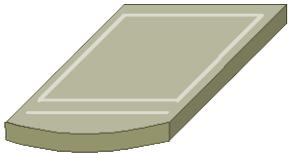


Generic
Softswitch

Icons: Cisco Products (Cont.)



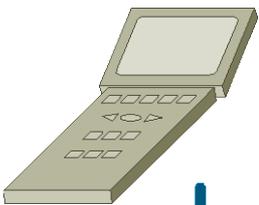
Handheld



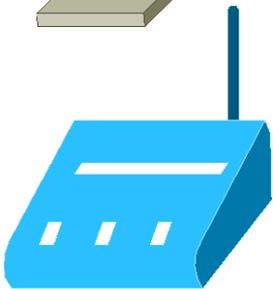
PC Card



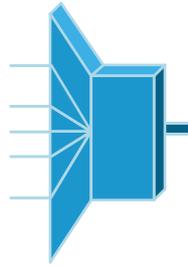
AccessPoint



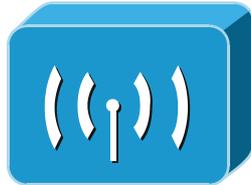
Scanner



EtherClient



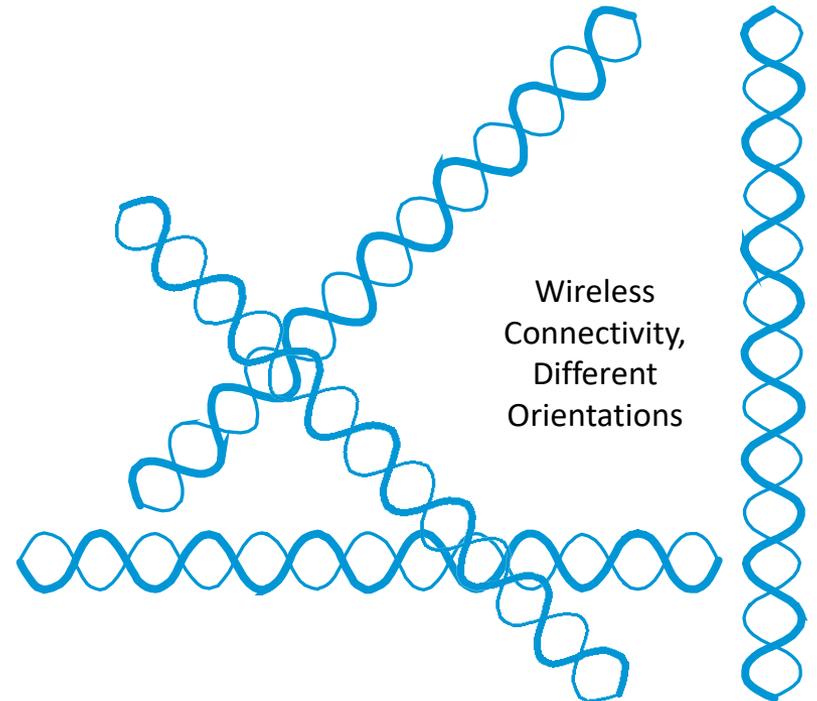
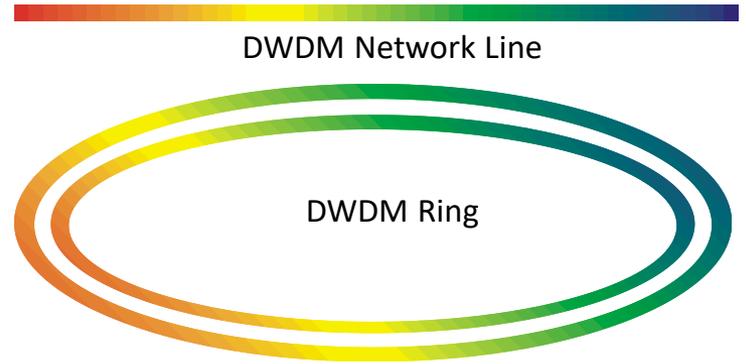
DWDM Filter



Wireless Transport



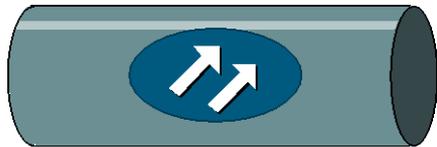
Tablet



Icons: Cisco Products, Optical (Cont.)



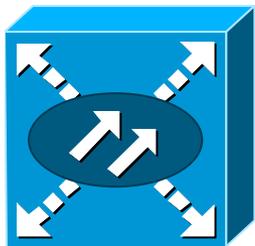
Automatic Protection Switching



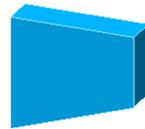
Channelized Pipe



Concatenated Payload



Optical Cross-Connect



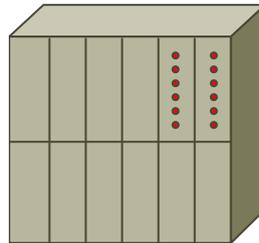
WDM



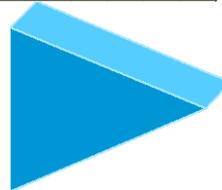
Optical Fiber



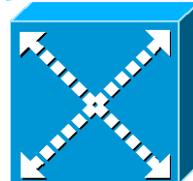
ONS15104



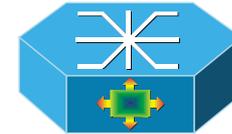
SONET MUX



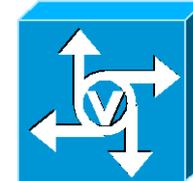
Optical Amplifier



Digital Cross-Connect



Optical Services Router



Voice-Enabled Communications Server



Voice-Enabled Router



Program Switch



Router with TDM



Cisco 10700

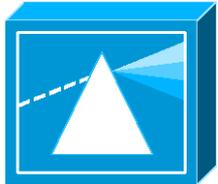
Icons: Cisco Products, Optical (Cont.)



Protected Optical



Unprotected Optical

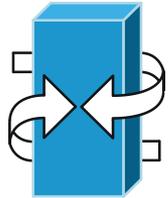


Metro 1500



ONS 15540

Icons: Cisco Products (Cont.)



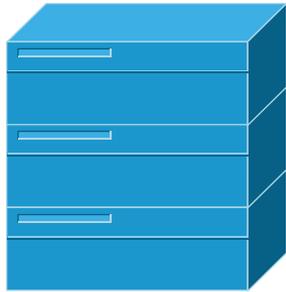
SC2200 Signaling Controller



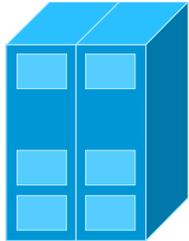
IP/TV Server



VSC3000 Virtual Switch Controller



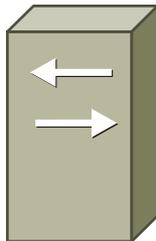
IP/TV Broadcast Server



VSC3000 or SC2200 Host

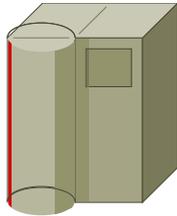


BTS 10200 Softswitch



Generic Softswitch

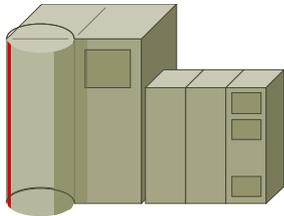
Icons: IBM



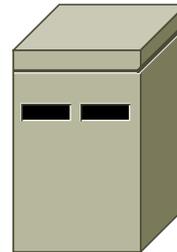
IBM
Mainframe



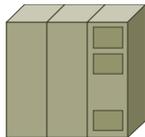
Cluster Controller/3174
(Desktop Model, Not
Used Much)



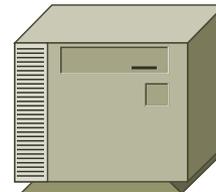
IBM
Mainframe
with FEP



IBM Mini
(AS400)



FEP
(Front End
Processor)

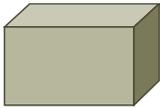


Cluster Controller/
3274 or 3174
(Most Common
Type)

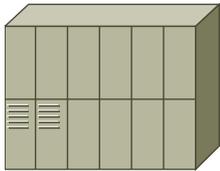
Icons: WAN



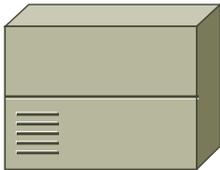
DSU/CSU
(Add Text in PowerPoint)



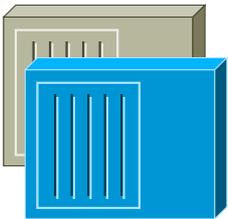
WAN



MUX



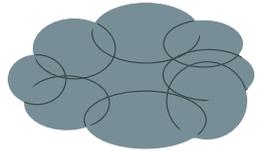
PBX/
Switch



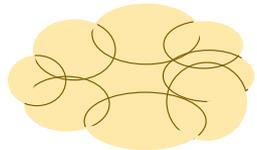
Hub
Gray and Blue



NAT



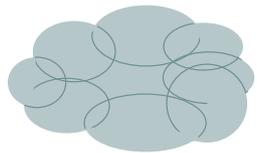
Network
Cloud,
Dark



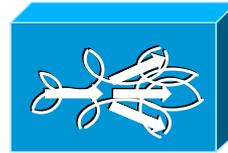
Network
Cloud,
Gold



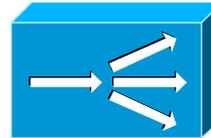
Network
Cloud,
White



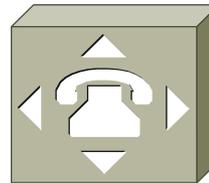
Network
Cloud,
Standard
Color



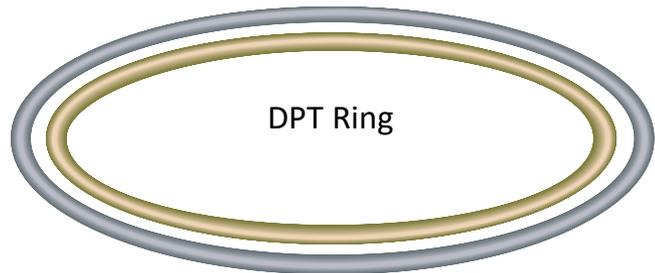
Distributed
Director



Local Director

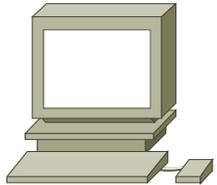


PBX
(Small)

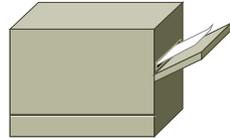


DPT Ring

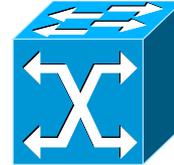
Icons: LAN



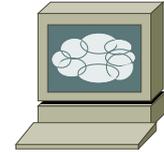
Workstation
(Sun)



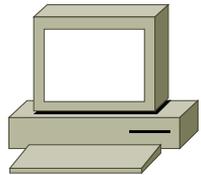
Printer



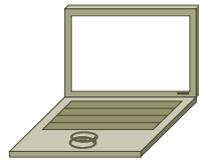
ATM/FastGb
Etherswitch



Web
Server



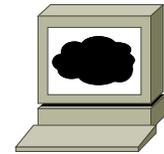
PC



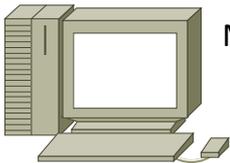
Laptop



HP Mini



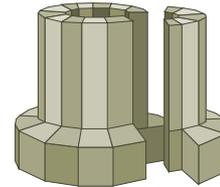
Web
Browser



Mac



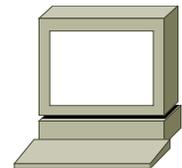
File
Server



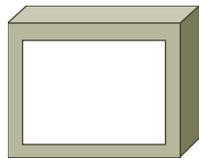
Super-
computer



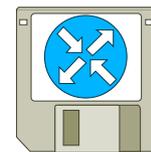
Repeater



Terminal



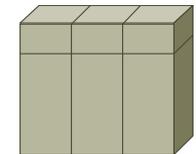
Monitor



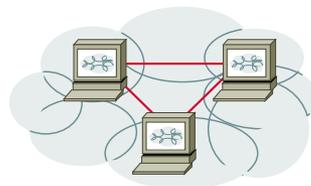
LAN2LAN



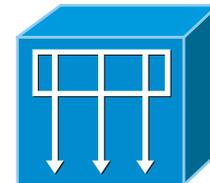
Newton



Mini or
VAX/VMS
with DECnet



Web
Cluster



Intelligence
Engine 2100
Series

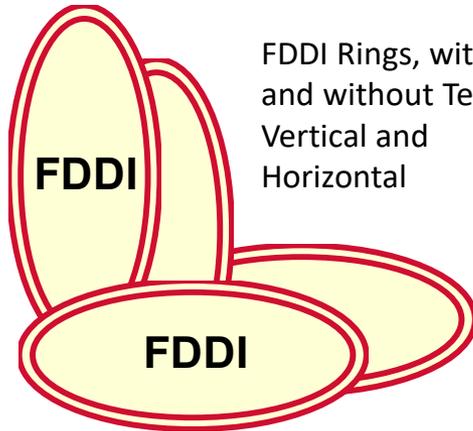
Icons: Media



Token Rings, with
and without Text
and Subdued



Line: Serial (Use Thicker where There Is Space)



FDDI Rings, with
and without Text,
Vertical and
Horizontal



Line: Circuit-Switched
(Use Thicker where There Is Space)

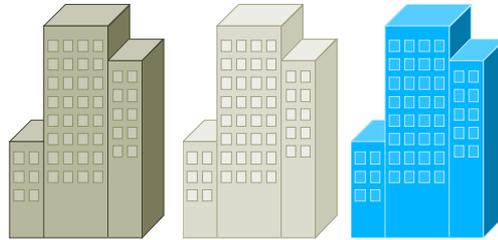


Line: Ethernet
(Use Thicker where There Is Space)

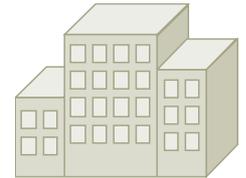
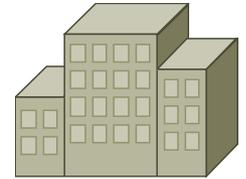
Icons: Buildings



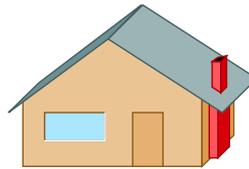
Government



Headquarters,
Regular, Subdued,
and Blue



University



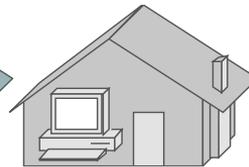
House, Regular and
Blue



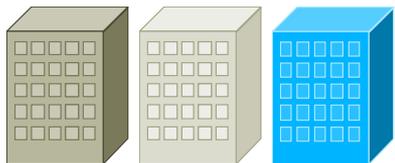
Medium Building,
Regular, Subdued,
and Blue



Small
Business



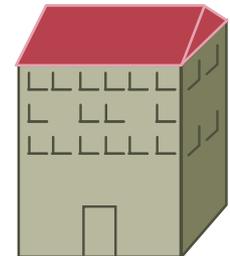
Telecommuter
House (Color and
Subdued)



Branch
Office,
Regular, Subdued,
and Blue

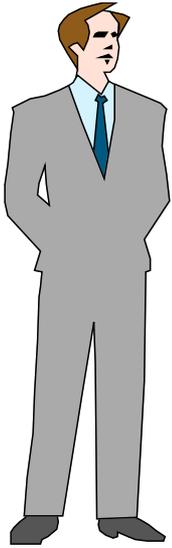


Home Office



MDU

Icons: People



Man



Woman



Symbol Woman, Various Colors



Symbol Man, Various Colors



End User Male,
Left and Right

End User Female,
Left and Right



Running Man
(Color and
Subdued)

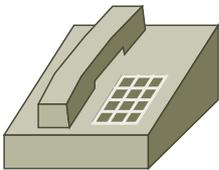
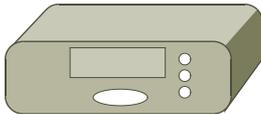
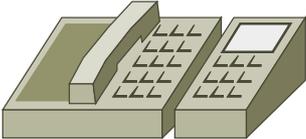
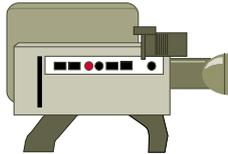
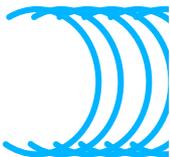
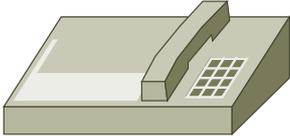
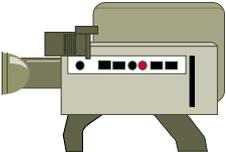
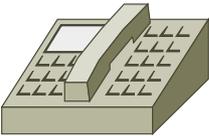
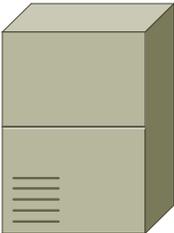
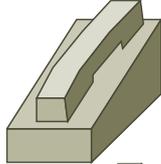
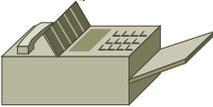
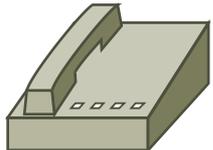
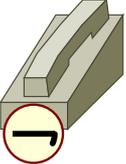
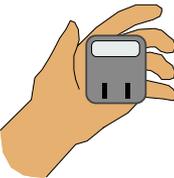
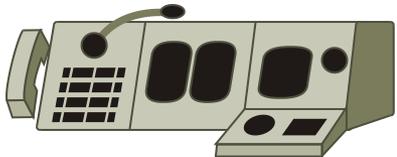


Running Woman

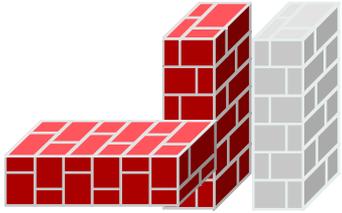


End User,
CiscoWorks

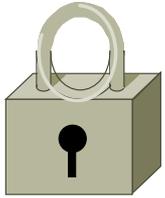
Icons: Multimedia/Voice/Phone

	Phone		Camera PC/Video		Set Top Box (STB)		BBFW
	Phone- Appliance		Camera PC/Video		Television		BBFW Media
	Fax/ Phone		Camera PC/Video		Speaker		
	Phone Feature		Cell Phone		Microphone		Class 4/5 Switch
	Phone 2		Fax		Headphones		Hoot and Holler Phone
	Phone Ethernet		Pager		Phone Polycom		Turret
	IP Phone						

Icons: Miscellaneous



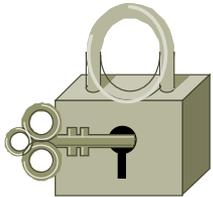
Firewall,
Horizontal and
Vertical,
Subdued



Lock



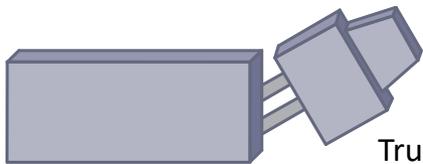
Key



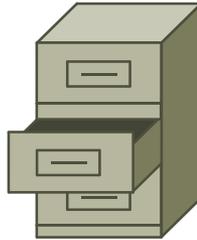
Lock and Key



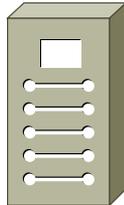
Car



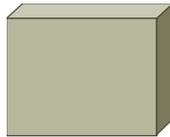
Truck



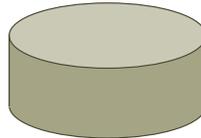
File Cabinet



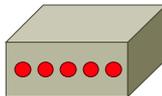
Breakout Box



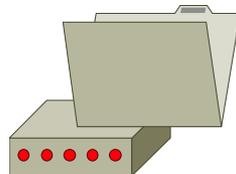
Host



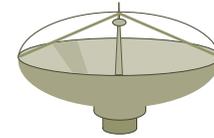
Database,
Relational



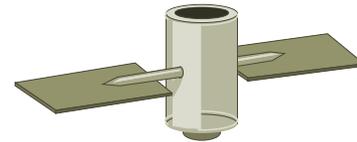
Modem



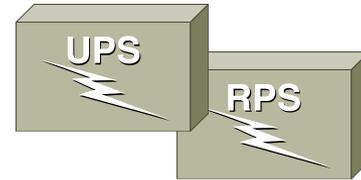
BBS
(Bulletin
Board
System)



Satellite
Dish



Satellite



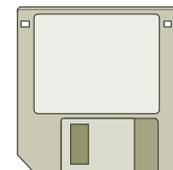
UPS, RPS



MAU



PAD



Diskette
(3.5" Floppy)