Cisco AVVID

- AVVID Architecture
- Customer Solutions
- Products and Services
- Third Party Ecosystem

Cisco AVVID Architecture
Cisco AVVID System Architecture

Applications
- TAPI, JTAPI, SMDI

Call Processing
- Call Admission, Call Routing
- CallManager
- Directory

Infrastructure
- Cisco IOS®
- Gateway
- Router
- Switch

Clients
- Video
- SoftPhone
- IP Phone
- PC

Available Manageable
Scalable Open

Wireless Office—AVVID

Clients
- CellPhone
- SoftPhone
- Video
- IP Phones
- PCs

Infrastructure
- Cisco IP Fabric
- Internet Application Technologies
- Network Services
- Management
- Policy
- Directory

Applications
- CallManager Servers
- Message Servers
- Telephony Application Servers
- Directory Servers
- Content Servers

Distributed
Open
Adaptive
Manageable
Customer Solutions

Converged Campus

Fully Converged Voice, Video, and Data Network
Converged Small/Branch Office

Cisco ICS-7750 and Cisco Catalyst® Switch

Expandable Modular Solution for Ease of Installation and Support

Transparent Telecommuter

Corporate Headquarters

Remote Users/agents Have Complete Feature/Functionality
Moving From Centralized Call Centers to Distributed Contact Centers

Wireless-Enabled Branch

Extends Branch LAN With Wireless LAN Functionality for Mobile Workers
Cellular Extension to Cisco AVVID

- Mobile extension to AVVID
- Single number reach
- Integrates cellular network and converged IP network

Video Conferencing/Streaming Solutions

Cisco IP/VC Videoconferencing Family

Interactive Video Communications

Cisco IP/TV® Streaming Video Family

Video Broadcasting and Video on Demand
Products and Services

Infrastructure
Convergence Infrastructure Solutions

Price, Performance, No. of Ports

MC782x and Catalyst 6xxx Switch

MCS 783x and Catalyst 6xxx Switch

Cisco ICS 7750 and Any Recommended Catalyst Switch

No. Users

100  150  200  500  1000

Enterprise Branch  Enterprise Campus

Integrated Communications System 7750

- Integrated router/voice gateway
- QoS enabled switching processor
- Intelligent call processing
- Application servers including:
  - Auto attendant
  - Unified messaging
  - Integrated management
  - Redundant power supplies
Catalyst 3500-PWR-XL

- Affordable, Stackable switching platform with Inline Power capability and QoS

Cisco Catalyst Switch Voice Features

- Catalyst 6000 Ethernet Switch Card with in-line power
- Media services card for Catalyst 6000
- 8-port digital trunk gateway for Catalyst 6000
- 24-port analog station gateway for Catalyst 6000
- Catalyst inline power patch panel
Cisco Catalyst 6000 Ethernet Line Card with In-Line Power Option

- 48-port 10/100 Ethernet switch line card, with optional inline power daughtercard
- Provides in-line power to IP phones
- Intelligent auto detection of IP phones
- Manageable via SNMP

Catalyst In-Line Power Patch Panel

- For use in any switched Ethernet environment
- Provides in-line power to any Cisco IP phone
- Auto-discovery algorithm to provide power on demand to IP phones
- Increases availability of IP telephony network via centralized power distribution
Catalyst Inline Power

Catalyst Inline Power—Provides DC Power over Standard Category-5 Ethernet

- Catalyst Inline Power Ethernet modules:
  Deployable in Catalyst 6500/6000 series
  48-Port 10/100BaseT ports per module

Catalyst Phone Discovery

Catalyst Switch “Discovers” Connected Phone Automatically

- No user intervention required
  Power and phone configuration can be automatically supplied
- Works over standard 10/100BaseT Ethernet connections
- Available for Catalyst in-line power blades and in-line power patch panel
- “Phone Discovery” feature to be submitted as IEEE standard
Media Convergence Servers

- **Entry Level Platform**
  - CallManager 2.4
  - uOne Entry Edition
  - MCS-7820

- **Midrange Platform**
  - CallManager 2.4/3.0
  - High Performance
  - MCS-7830

- **Premium Platform**
  - CallManager 3.0
  - Highest Performance
  - MCS-7835

Cisco Enterprise Switch Platforms

**Enterprise Customer Types**

<table>
<thead>
<tr>
<th>Small</th>
<th>Midrange</th>
<th>High End</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wiring Closet:</strong></td>
<td><strong>Backbone:</strong></td>
<td></td>
</tr>
<tr>
<td>Catalyst 2900XL</td>
<td>Catalyst 2948G</td>
<td>Catalyst 55XX</td>
</tr>
<tr>
<td>Catalyst 3500-PWR-XL</td>
<td>Catalyst 5XXX</td>
<td>Catalyst 55XX</td>
</tr>
<tr>
<td>Catalyst 5XXX</td>
<td>Catalyst 4000</td>
<td>Catalyst 6500</td>
</tr>
<tr>
<td></td>
<td>Catalyst 8500</td>
<td></td>
</tr>
</tbody>
</table>
Packet Gateways

8-Port Digital Trunk Gateway/Media Services Card for Catalyst 6000

Catalyst 6000 8-Port Voice T1 and Services Module:

- Provides eight physical or logical ports
  - User configurable on a port-by-port basis
- Configured as a physical port
  - T1 or E1 port for connections to the PSTN or PBX
- Configured as a logical port
  - Provides voice services such as conferencing or compression
  - Shared network resource
24-Port Analog Station Gateway for Catalyst 6000

- Deployable in any Catalyst 6000/6500 chassis
- Provides analog connectivity for fax machines, speaker phones, analog telephone sets
- 24 FXS ports (one RJ21 connector)
- Uses one IP address
- Supports fax relay
- Supports hook-flash blind transfer

VG200 Standalone Gateway

- Second-generation standalone analog gateway
- Supports up to four FXS/FXO interfaces
- Uses standard Voice Interface Cards (VIC) from router platforms
- Voice gateway only; no routing capability
Cisco Standalone Voice Gateways

- DT-24+
- DE-30+
- VG-200

Digital Trunk T1/E1 PRI

Analog FXS/FXO

Cisco Integrated Voice Gateways

- Catalyst 6000
- Cisco 7200-VXR
- Cisco AS5800
- Cisco AS5300
- Cisco MC3810
- Cisco ICS 7750
- Cisco 2600
- Cisco 3600
- Cisco 1750
Cisco IP/VC 3520 and 3525 Video Gateways

- Connects H.320 circuit-switched networks to H.323 IP networks
- Ties into existing H.320 conferencing networks
- Video, audio, and T.120 data calls up to 384 kbps
- Supports PRI, BRI, and V.35 interfaces

Intelligent Call Processing

Enables Worldwide Connectivity
Cisco Multimedia Conference Manager

- H.323 Gatekeeper and Proxy on Cisco IOS®
- Performs call management
  - Admission control
  - Bandwidth management
  - Authorization
  - Call routing
- Enables quality of service
  - RSVP
  - IP precedence
- Enables security
  - Authentication
  - Firewall

Cisco CallManager 3.0

- Provides call processing intelligence in an IP network-based application
- Standard HTML access for installation, configuration, and management
- Preinstalled on media convergence server platforms
- Provides access to commonly used telephony features, as well as interfaces to third party applications such as Unified Messaging
**Cisco CallManager Features**

**New Convergence Features**
- Single-Button Collaboration
- Integrated Voice Compression
- Direct Inward/outward Dial
- Distributed Processing
- Web-based Attendant Console
- Automatic Bandwidth Selection
- Call Admission Control
- Standards-Based-Interfaces

**Enhanced Features**
- Automatic Phone M/A/C
- Web-Based Administration
- Remote Serviceability
- Performance Monitoring
- Number Portability
- User Mobility (hoteling)
- Web-Based User Directory
- Transparent Off-Premises Extension

**Legacy Voice Features**
- Hold
- Transfer
- Call Forward
- Speed Dial
- Direct Inward/outward Dial
- Last Number Redial
- Call Detail Recording
- Automatic Route Selection
- Adhoc Conference
- Meet-me Conference
- Secure Administration
- Toll-Quality Voice

---

**Cisco IP/VC 3510 Multipoint Control Unit**

- Enables multiparticipant videoconferences
- Video, audio, and T.120 data bridging—from 128 kbps to 1.5 Mbps
- Up to 15 sessions per unit
- Scales easily by combining multiple units
- Supports ad hoc call-in or planned call-out conferences
IP Phone Client Devices

First Generation IP Phones

- Standards-based IP Phones
- Integrated 10 MB hub
- Over 60,000 shipped
- Over 2 years in the market
Second-Generation IP Phones

- Attractive Industrial Design
- QoS in phones 802.1p/q
- Integrated Ethernet switching
- Easy access to new world features

Cisco IP Phone 7960

- Second-generation IP phone
- Display-based phone (no paper labels or key lamp pairs)
- One-button access to new world features
- Integrated headset interface
- Full duplex speakerphone utilizing Polycom technology
- Integrated 10/100 switch with QoS (802.1p/q)
- Online context-sensitive help
- In-line or local power
Cisco IP Phone 7910

- “Common area” instrument—hallway, break room, reception, or office cubicle
- Medium telephone traffic
- Display area: 2 x 24 character-based
- 10BaseT or 2x10/100BaseT configurations (with 802.1p/q)
- Message waiting indication
- In-line or local power

New Cisco IP SoftPhone

Two Views:
- Phone under Glass
- PC Drag and Drop
Introducing the Cisco Aironet 340 Series Wireless LAN Solutions

The New Cisco Aironet 340 Series of 802.11b Compliant High Speed Wireless Solutions Offers the Best Performance, Manageability, Scalability and Security for Both In-building and Building to Building Wireless Applications

Fully-Integrated Family of Wireless LAN Products:

- PC card/PCI and ISA client adapters
- Access points
- Line-of-sight bridge products
- Antennas and accessories
Cisco Aironet 340 Series
Client Adapters

- Client access for both notebook and desktop systems
- Broad Operating Systems Support:
  - Windows 95, 98,
  - Windows NT 4.0
  - Windows 2000
  - Windows CE
  - Novell Netware clients
- Easy, simple installation
- Lifetime limited warranty

Cisco Aironet 340 Series
Access Points

- Center point of a stand-alone wireless network
- Connection point between wireless and wired networks
- Enables mobile roaming and coverage throughout a building
Cisco Aironet 340 Series Bridges

- Building-to-building connectivity at up to 25 miles (line of sight)
- Cost effective alternative to leased line/T1
- Rapid, simple deployment and redeployment
- Point-to-point and Point-to-multipoint
- No government license required

Wireless LAN Security

Wireless Lans Raise Security Implications Not Found With Traditional Wired Lans. Cisco Addresses These Concerns:

- 128-bit (Strong Encryption) 802.11 optional Wired Equivalent Privacy (WEP)
- Inherent security of spread spectrum
- Upcoming security enhancements:
  - Certificate Server for authentication and centralized security management
  - Multiple certificate server support
  - x.509 compliance
Wireless Office—Licensed Spectrum

- VIPERCell—GSM to IP gateway
- VIPERBase—RAS (Registration, Authentication, Security) server

Converged Network Management
CiscoWorks 2000

- **Inventory Management**: Network change reports and inventory details
- **Software Image Management**: Scheduling, distribution, and monitoring of software upgrades
- **Syslog Analyzer**: Filtered, flexible syslog error reporting
- **Availability Management**: Monitoring of device reachability, reloads, and response time
- **Configuration Management**: Configuration management for routers and switches
- **Change Audit Services**: Audit logging and reporting of network changes

CiscoView 5.1

- **Web-based browser interface** for all Cisco platforms
- **Distributed and multiuser enabling collaborative management**
- **Open Web interfaces** for integration into Network Management systems (e.g. HP OV, Tivoli Netview, etc.)
Small Converged Office Management

Call Processing Management

- Provides configuration and troubleshooting information for call processing and associated gateways
- Interfaces with PerfMon for performance analysis
Wireless Management

- SNMP-compliant MIBs enable centralized management with a variety of packages
- Browser or Telnet AP configuration, diagnostics, mapping utilities for management “out of the box”
- Local or Remote AP Configuration through Console Port or over LAN
- Aironet Client Utility (ACU) for site surveys, client configuration

Converged Support Solutions
New World Cisco AVVID
Service and Support

- Proactive Solutions
- Quality
- Experience
- Thought Leadership

Service and Support
Portfolio Availability

Knowledge Transfer
- CIM:AVVID Stage II
- CENS: VoIP Implementation (EMEA)

Optimize
- VoIP Network Assessment (NSA)
- Network Verification Service (NSA)

Plan and Design
- Voice Capacity Planning
- VoIP Network Audit
- VoIP Network Assessment

Implement
- Total Implementation Solutions (TIS) for Cisco AVVID

Operate
- SMARTnet/onsite
- 2-Hour Onsite Support
- Minor Moves, Adds, and Changes (MAC)
- Systems Integrated Support
- SmartSpares
Third Party Ecosystem

Cisco AVVID Open Systems Program Members

<table>
<thead>
<tr>
<th>Active Voice</th>
<th>Circa Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive Intelligence Inc.</td>
<td>ISI, Inc.</td>
</tr>
<tr>
<td>Latitude Communications</td>
<td>IntegraTRAK</td>
</tr>
<tr>
<td>Polycom</td>
<td>Shomiti Systems</td>
</tr>
<tr>
<td>Symbol Technologies</td>
<td></td>
</tr>
</tbody>
</table>
Cisco AVVID Architecture for Voice, Video and Integrated Data

Session 2008

Please Complete Your Evaluation Form

Session 2008