

• NETWORKERS

CISCO SYSTEMS

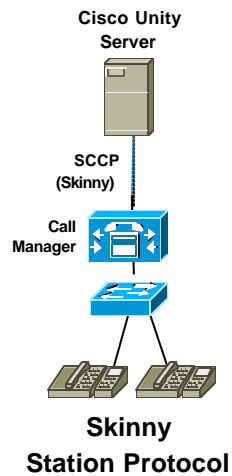


Deploying Unified Communications

How Cisco Unity Bridges the Legacy and IP Worlds

Session ICS-107

Cisco Unity—CallManager Integration Method



Skinny Station Protocol (SCCP)

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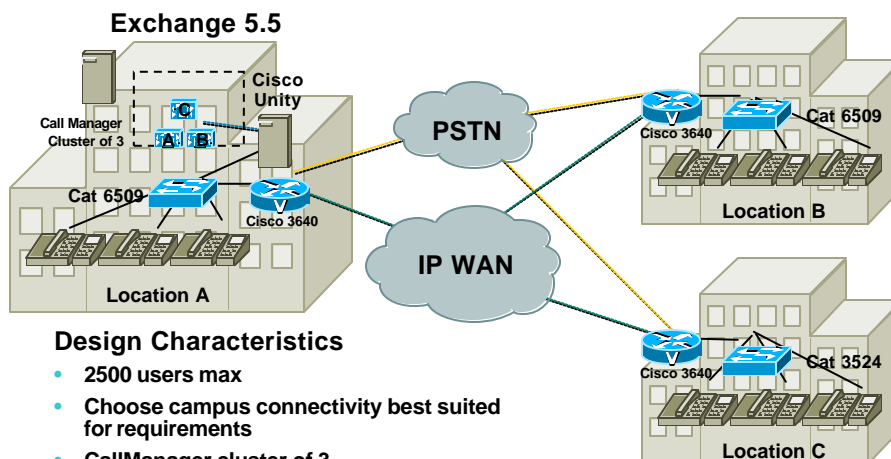
- Available today—700+ deployed
- Software only (no voice boards)
 - Efficient resource utilization
 - CallManager fail over support in a cluster
 - Easy setup via control panel, telephony service providers

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Centralized Cisco Unity and Call Processing

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Design Characteristics

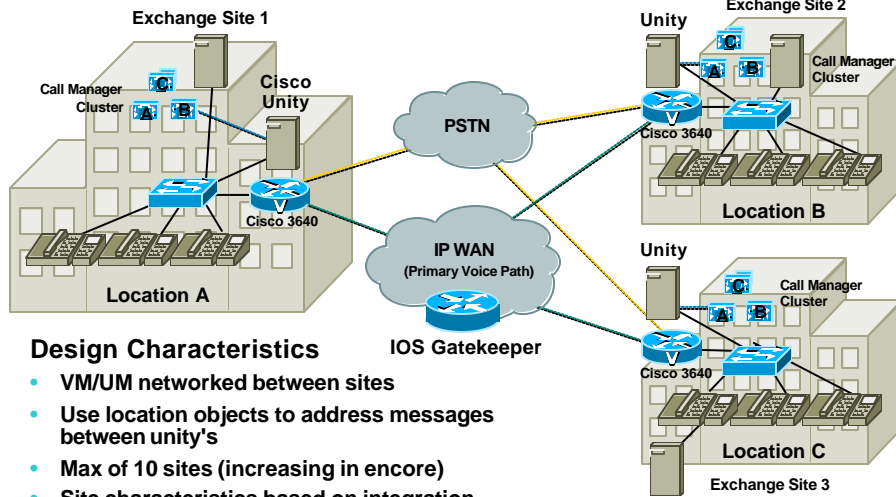
- 2500 users max
- Choose campus connectivity best suited for requirements
- CallManager cluster of 3
- 2 call processing CM's and a dedicated publisher
- All agents/phones register to same CM

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De-Centralized Cisco Unity and Call Processing

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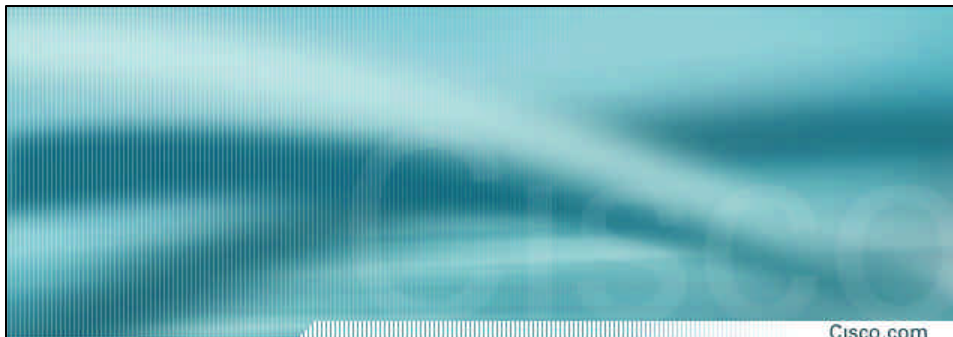


Design Characteristics

- VM/UM networked between sites
- Use location objects to address messages between unity's
- Max of 10 sites (increasing in encore)
- Site characteristics based on integration method (SMDI/Skinny)

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Cisco Unity and CallManager Deployment with Exchange

Single Exchange Sites
Multi-site WANs

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Centralized Exchange 5.5 Site vs. Decentralized Exchange 5.5 Site

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- **Centralized Exchange 5.5**
 - One site, usually physically in the same location
 - Centralized administration
 - Plenty of bandwidth
- **Decentralized Exchange 5.5**
 - Multi-site exchange 5.5 deployment
 - Distributed administration
 - At least 1 Cisco unity per 1 exchange 5.5 site

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One Exchange Site, One Cisco Unity 2.46

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- **40 ports (sessions), 2500 users for unified messaging has been tested**
- **The user limitation is the GAL (Global Address List) in exchange 5.5**

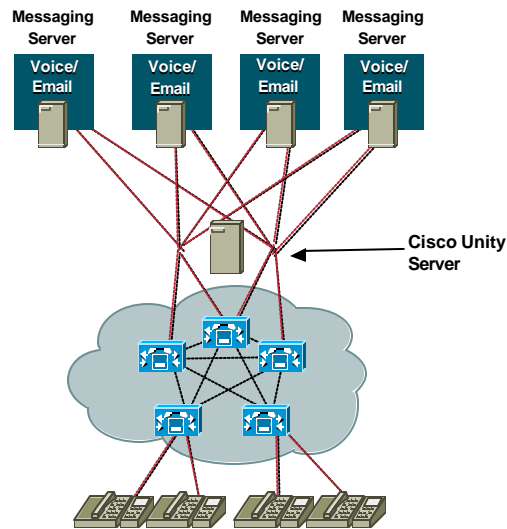
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Single Site Deployments (Skinny)

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- Exchange 5.5 farm is database
- One CCM cluster per Cisco unity
- 40 sessions
- 2500 users



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Multiple Cisco Unity Single Exchange Site

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- One Cisco unity per CCM cluster
- Cisco unity's networked via exchange
- CCM cluster dial plan needs to be uniformed

No duplicate extension ID's between CCM clusters

Example:

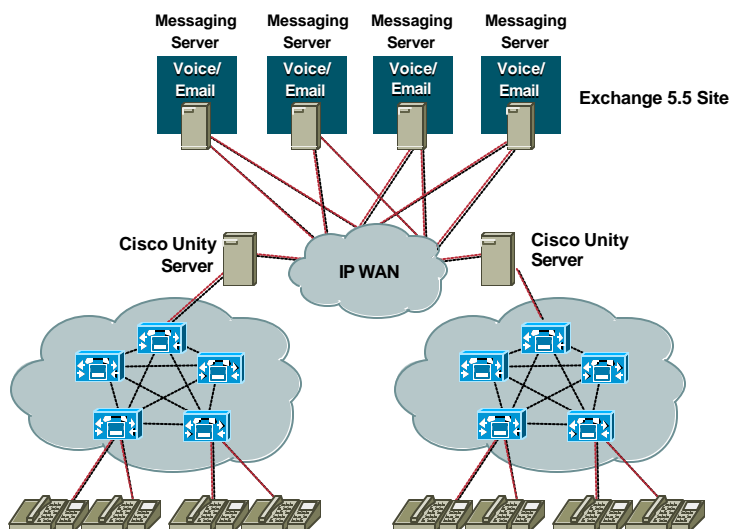
Cluster A extension range is, 10–195,
Cluster B extension range is, 20–295

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1 Exchange Site/Multiple Cisco Unity 2.46

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Recap Multiple Cisco Unity Single Site

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- One Cisco unity per CCM cluster
- **Unitys networked via exchange**
- No duplicate extension ID's between CCM clusters
- Blind addressing only

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Multiple Exchange Sites

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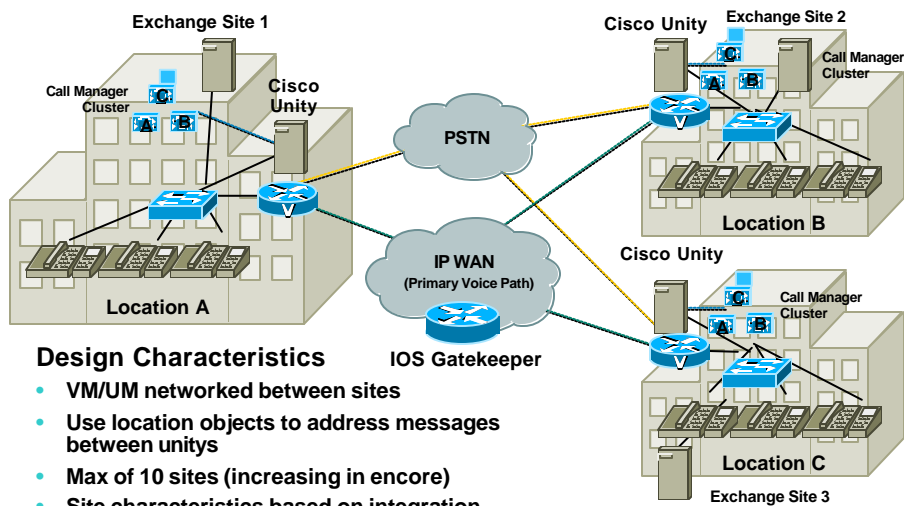
- Cisco unity required for every exchange site
- One Cisco unity per CallManager cluster
- Use digital networking to synchronize the Cisco unity directories
- Uses three digit prefix when addressing voice mail between exchange sites
- Supports blind addressing

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Example Multi Site

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Design Characteristics

- VM/UM networked between sites
- Use location objects to address messages between unities
- Max of 10 sites (increasing in encore)
- Site characteristics based on integration method (SMDI/skinny)

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Recap Multi-Site

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- One Cisco unity per CallManager cluster
- One CallManager cluster per exchange site
- Dialing conflicts allowed
- Blind addressing only
- Use existing exchange infrastructure
- Make sure customer has enough bandwidth

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System Requirements

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System Requirements Voice Mail

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- **4 and 8 ports**
 - Pentium II 266mhz or higher
 - 256 MB RAM
 - Microsoft NT version 4.0
 - Microsoft Exchange 5.5 voice mail runtime edition
 - AVTSP
 - Cisco unity voice mail software (PN Cisco unity-VM-X where X is the amount of sessions required)
- **16, 24, and 32 ports**
 - Pentium III 500
 - 512 MB RAM
 - Microsoft NT version 4.0
 - Microsoft Exchange 5.5 voice mail runtime edition
 - AVTSP
 - Cisco unity voice mail software (PN Cisco unity-VM-XX where XX is the amount of sessions required)

System Requirements Voice Mail (Cont.)

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- **40 ports**
 - Dual processor pentium III 500
 - 1 GB RAM
 - RAID
 - Microsoft NT versions 4.0
 - Microsoft Exchange 5.5 voice mail runtime edition
 - AVTSP
 - Cisco unity voice mail software (PN Cisco unity-VM-40)

System Requirements Unified Messaging

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- **4 and 8 ports**

Pentium II 266mhz or higher

256 MB RAM

Microsoft NT version 4.0

Microsoft Exchange 5.5 voice mail runtime edition

AVTSP

**Cisco unity unified messaging software
(PN Cisco unity-UM-X where X is the amount of sessions required)**

- **16, 24, and 32 ports**

Pentium III 500

512 MB RAM

Microsoft NT version 4.0

Microsoft Exchange 5.5 voice mail runtime edition

AVTSP

**Cisco unity unified messaging software
(PN Cisco unity-UM-XX where XX is the amount of sessions required)**

System Requirements UM (Cont.)

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- **40 ports**

Dual processor pentium III 500

1 GB RAM

RAID

Microsoft NT versions 4.0

Microsoft Exchange 5.5 voice mail runtime edition

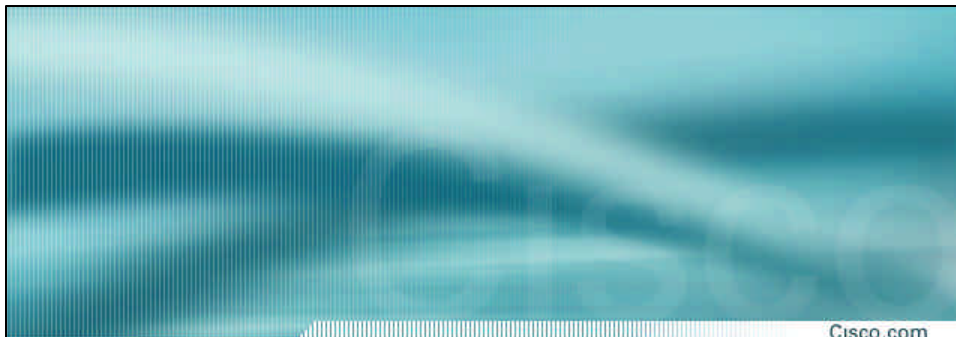
AVTSP

**Cisco unity voice mail software
(PN Cisco unity-UM-40)**

Supported Legacy PBX's

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- **Lucent Definity G3 (Analog)**
- **Lucent Definity Gx (Calista)**
- **Nortel Meridian 1 (Calista)**
- **NEC NEAX2000 (MCI)**
- **NEC NEAX2400 (MCI)**
- **Centrex (SMDI)**
- **Ericsson MD-110 (SMDI)**

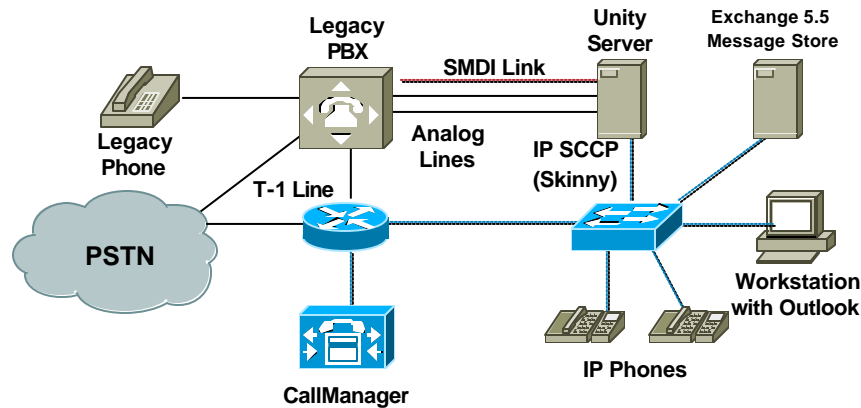


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Telephone System and Integrations Overview

Cisco Unity Dual Switch Integration

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Dual Switch

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- **Simultaneously integrates with IP-based CallManager and traditional circuit PBX's**
- **Cisco SCCP, along with traditional PBX's voice board integration**
- **Allows for customer migration to IP-based PBX solutions**
- **Supported in Cisco unity 2.46**

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Telephone System Overview

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- **Key systems**
- **Private Branch Exchange (PBX)**
- **Central Office switches (CO)**
- **Public Switched Telephone Network (PSTN)**
- **Voice over IP (VoIP)**

Integration Features

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- **Call forward to a personal greeting**
This feature makes it easy for callers to leave messages for subscribers who are busy or away from their desks; with this feature, incoming calls routed to an unanswered or busy extension are automatically forwarded directly to a subscriber's voice mailbox; there, the caller can leave a personal message

Integration Features (Cont.)

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- **Easy Message Access**

With this feature, subscribers simply press one button on their telephone set to retrieve new messages from their voice mailboxes without entering a personal ID number; to prevent unauthorized message access, subscribers may also require a security code to be entered before message playback

Integration Features (Cont.)

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- **ANI/Caller ID**

When available with the telephone system, the Automatic Number Identification (ANI) or Caller ID (CID) integration displays the telephone number of the outside caller in your voice mail message

Integration Features (Cont.)

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- **Message Waiting Indication (MWI)**

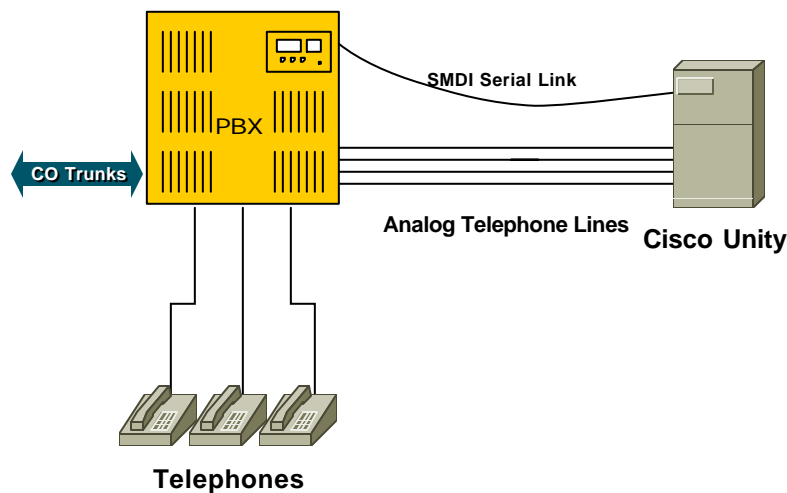
When integrated with a telephone system that supports this feature, Cisco unity will light a message waiting lamp, activate a display, or provide a stutter dial tone on the subscriber's extension when new messages have been received

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Analog Integrations (Cont.)

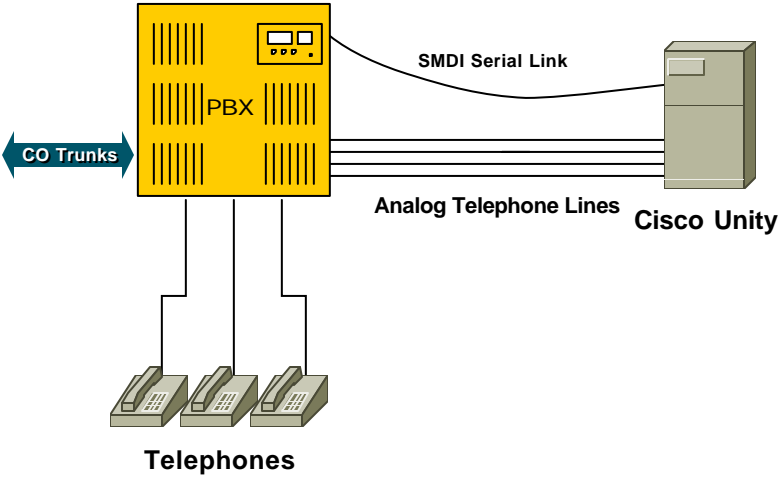
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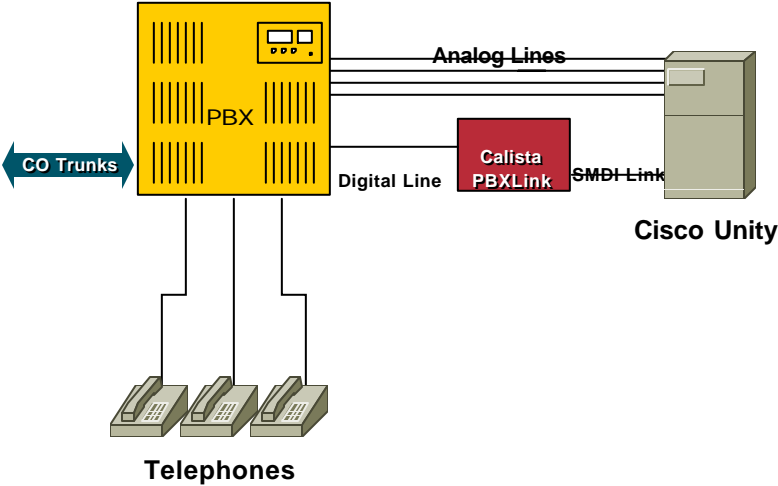
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Serial Integrations (Cont.)



Digital Integration with Calista PBXLink

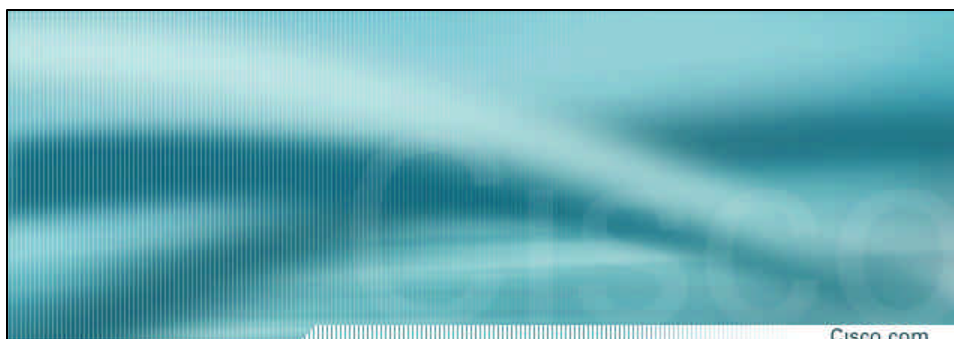


Unity 3.01 Futures

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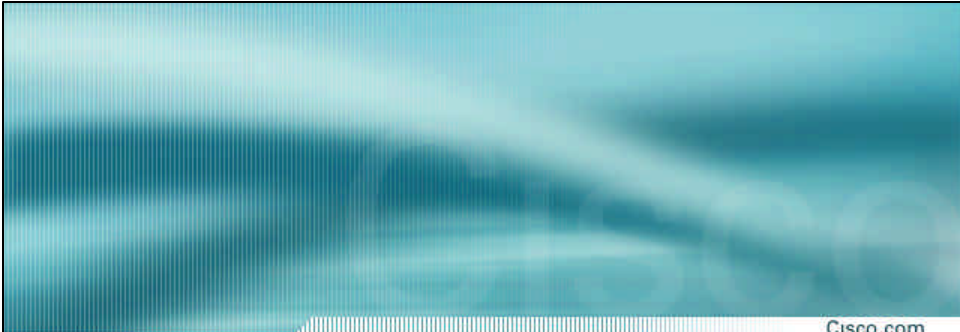
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Telephones



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Thank You




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Please Complete Your Evaluation Form


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EMPOWERING THE
INTERNET GENERATIONSM

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