

VCX Connect and VCX V7000 Unified Communications Series

What's New with VCX Release 9.5

Technical Solution Brief

HP Networking Technical Marketing Engineering

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Introduction

This Technical Solution Brief (TSB) provides a brief overview of the new features and functionality available with the Hewlett-Packard (HP) VCX Connect Unified Communications Series and VCX V7000 Unified Communications Series release 9.5. The intended audience for this TSB is HP Solution Architects and HP Technical Consultants.

New Feature Summary

The VCX 9.5 release includes these new features and enhancements:

- New 350x Series of IP Phones
- Desktop Communicator enhancements
 - May be available post-VCX 9.5 GA
- IP Messaging enhancements
 - Secure IMAP connections
 - Electronic Fax Sending
 - IP Messaging Mailbox Seat License Bundles
- IP Telephony enhancements
 - CAC on VCX Secondary server
 - Extension length increased to 15
 - SIP User parameter
 - VCX User additional data
 - Global Directory enhancement
 - Phone MIB enhancement
 - Phone display multi-language enhancement
- VCX Application enhancements
 - VCX applications supported on Windows 7 32-Bit Operating System
 - ACD Call Detail Record Reporting
- VCX now runs on HP servers
 - V7005 is now HP DL120 G6 server
 - V7205 is now HP DL360 G6 server
- Scalability enhancements
 - VCX Connect Unified Communications Series
 - VCX V7000 Unified Communications Series

New 350x Series of IP Phones

- New 350x series of IP phones (3500B, 3500, 3501, 3502 and 3503) are supported in this release
- 3503 IP Phone provides Gigabit connectivity, a large backlit color display, paper-less labels, up to 8 calls, and mapping of up to 21 features
- 3502 IP Phone provides Gigabit connectivity, a large backlit gray-scale display, paper-less labels, up to 6 calls, and mapping of up to 15 features
- 3501 IP Phone provides Gigabit connectivity, a backlit gray-scale display, paper-less labels, up to 2 calls, and mapping of up to 2 features
- 3500 IP Phone provides Gigabit connectivity, a non-backlit gray-scale display, paper-less labels, up to 2 calls, and mapping of up to 2 features
- 3500B IP Phone provides Fast Ethernet connectivity, a non-backlit gray-scale display, paper-less labels, up to 2 calls, and mapping of up to 2 features

Desktop Communicator enhancements

- May be available post-VCX 9.5 GA
- Files can be shared/transferred using the Desktop Communicator
- Rejected calls are automatically routed to voice mail
- Change to Attended Transfer procedure
- Support for Vista 32-bit and 64-bit, and Windows 7 32-bit and 64-bit OS's
- Forward typing and searching for company name is enabled
- MSI installation is supported
- Informational screen with version number appears at initialization

IP Messaging enhancements

- Secure IMAP Connections
 - SSL v3 is supported for secure IMAP implementations within IP Messaging
- Electronic Fax Sending
 - IP Messaging provides fax server functionality, allowing electronic faxes as tif, jpg, png, gif, bmp, and pdf attachments in an email sent to IP Messaging which converts the attached faxes to the universal graphic format and delivers to a fax machine via local analog port or PSTN
 - Up to 20 fax destinations can be sent in a single email
 - IP Messaging sends return receipt with success or failure indication for each fax destination
- IP Messaging Mailbox Seat License Bundles
 - New 50, 250, and 1000 mailbox seat license bundles

IP Telephony enhancements

- Call Admission Control (CAC) Enhancement
 - The secondary server supports the CAC feature
- VCX Extension Length enhancement
 - The length of extension number (including phone extension, group address, etc.) has been increased from 10 to 15
- Standard SIP User parameter support
 - The SIP “user” parameter has been standardized to follow the definition of RFC 3261
 - The old private SIP “user” parameter, which is used to identify the type of SIP sender or receiver in previous VCX versions, has been replaced by “vcx-user” parameter
- Conference User Group/Class support
 - Administrators can define the User Group and User Class through VCX web interfaces
- Ability to configure how user names are displayed in VCX web interface
- Global Directory enhancement
 - Automatically detects differences between different VCX versions, allowing VCX 9.5 and later systems to have Global Directory synchronized even with differences in release level
- IP Phone MIB enhancement
 - IP phones (310x, 350x, or 3rd party devices) can be discovered through VCX Devices on IMC
- Phone Display Multi Language enhancement
 - For VCX V7000 and VCX Connect solutions, the user name or phone’s display name can support Unicode (UTF-8)
 - Users can input multi-language data into these fields, such as Chinese, French, Spanish, Japanese, Korean, etc.
 - Not available for VCX on Power systems

VCX Application enhancements

- VCX Applications Windows 7 32-Bit Support
 - VCX Windows applications (CDR Reporting and ACD Real Time Statistics) are supported to work on Windows 7 32-bit Operating System
- Automatic Call Distribution (ACD) Call Detail Reports (CDR) enhancement
 - ACD historical reports are available with VCX CDR Reporting application

VCX now runs on HP Servers

- V7005 server is now HP ProLiant DL120 G6
- V7205 server is now HP ProLiant DL360 G6

Scalability Enhancements

- VCX Connect Unified Communications Series
 - VCX Connect MIM and VCX Connect 100 now supports up to 12 regions
 - VCX Connect 200 now supports up to 500 devices/mailboxes per region and up to 12 regions
 - Improved scalability achieved with existing IBM x-Series x3250M2 and HP ProLiant DL120 G6 servers
- VCX V7000 Unified Communications Series Classic configurations
 - V7005 with HP ProLiant DL120 G6 servers now support up to 2,500 devices/mailboxes per region, up to 10 VCX Branch Offices per region, up to 12 regions, and up to 7,500 devices/mailboxes enterprise-wide
 - V7205 with HP ProLiant DL360 G6 servers now support up to 5,000 devices/mailboxes per region, up to 20 VCX Branch Offices per region, up to 12 regions, and up to 15,000 devices/mailboxes enterprise-wide
- VCX V7000 Unified Communications Series Expand configurations
 - V7005 with HP ProLiant DL120 G6 servers now support up to 10,000 devices/mailboxes per region, up to 50 VCX Branch Offices per region, up to 12 regions, and up to 30,000 devices/mailboxes enterprise-wide
 - V7205 with HP ProLiant DL360 G6 servers now support up to 20,000 devices/mailboxes per region, up to 75 VCX Branch Offices per region, up to 12 regions, and up to 60,000 devices/mailboxes enterprise-wide

New Feature Solution Briefs

New 350x IP Phone Series

- Brand new, contemporary look and feel with large, backlit displays
- Green initiative – backlit power save mode and deep sleep mode
- Headset and full duplex speaker phone on all models
- End user customizable digital soft labels
- High resolution color executive phone
- Gigabit interfaces
- Icon and text driven menus
- Linux operating system



3503 IP Phone

- Requires VCX 9.0 Business IP Phone License
 - 110mm x 67mm, backlit, color, anti-glare LCD display
 - 800 x 480 pixel resolution
- Backlit intensity control
- Up to 8 simultaneous calls
- Two Gigabit Ethernet ports - PoE
 - 7 backlit programmable buttons
 - 8th button acts as next page button to 3 deep menu
 - 21 total programmable buttons
- Customizable digital labels
- 5 soft buttons & 4 way scroll/ok button for menu selection
 - Icon and text driven menu selections
- Linux operating system
- Full-duplex speakerphone
 - Including wideband support
- Headset port
- Class B emissions
- Hearing aid compatible
- Handset lifter ready



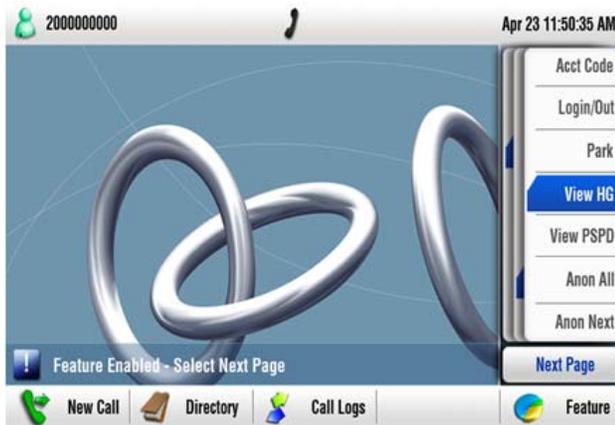
3503 Dedicated functional keys

- VM
- Transfer
- Conference
- Redial
- Hold
- Volume control
- Main Menu

- 3503 Dedicated backlit keys

- Mute
- Forward to VM
- Headset
- Speakerphone

- Customizable background image
- Highlighted mapped feature when enabled
- Blue backlit message indicator



3502 IP Phone

- Requires VCX 9.0 Business IP Phone License
- 95mm x 52mm, backlit, grayscale LCD display
 - 240 x 128 pixel resolution
 - Backlit intensity and contrast control
- Up to 6 simultaneous calls
- Two Gigabit Ethernet ports - PoE
- 5 backlit programmable buttons
 - 6th button acts as next page button to 3 deep menu
 - 15 total programmable buttons
 - Customizable digital soft labels
- 4 soft buttons & 4 way scroll/ok button for menu selection
 - Icon and text driven menu selections
- Linux operating system
- Full-duplex speakerphone
 - Including wideband support
- Headset port
- Class B emissions
- Hearing aid compatible
- Handset lifter ready



3502 Dedicated backlit keys

- Mute
- Forward to VM
- Headset
- Speakerphone

- 3502 Dedicated functional keys

- VM
- Transfer
- Conference
- Redial
- Hold
- Volume control
- Main Menu

- Blue backlit message indicator
- Highlighted mapped feature when enabled



3501 IP Phone

- Requires VCX 9.0 Basic IP Phone License
- 85mm x 28mm, backlit, grayscale LCD display
 - 192 x 64 pixel resolution
 - Backlit intensity and contrast control
- Up to 2 simultaneous calls
- Two Gigabit Ethernet ports - PoE
- 2 programmable buttons
- 4 soft buttons & 4 way scroll/ok button for menu selection
 - Text driven menu selections
- Linux operating system
- Full-duplex speakerphone
 - Including wideband support
- Headset port
- Class B emissions
- Hearing aid compatible
- Handset lifter ready
- Backlit message indicator
- Dedicated backlit keys
 - Mute
 - Headset
 - Speakerphone
- Dedicated functional keys
 - VM
 - Transfer
 - Conference
 - Redial
 - Hold
 - Volume control
 - Main Menu



3500 IP Phone

- Requires VCX 9.0 Basic IP Phone License
- Select region availability
 - 85mm x 28mm, grayscale LCD display
 - 192 x 64 pixel resolution
- Two Gigabit Ethernet ports - PoE
- Up to 2 simultaneous calls
- 2 programmable buttons
- 4 soft buttons & 4 way scroll/ok button for menu selection
 - Text driven menu selections
- Linux operating system
- Full-duplex speakerphone
- Headset port
- Class B emissions
- Hearing aid compatible
- Handset lifter ready
- Blue backlit message indicator
- Dedicated backlit keys
 - Mute
 - Headset
 - Speakerphone
- Dedicated functional keys
 - VM
 - Transfer
 - Conference
 - Redial
 - Hold
 - Volume control
 - Main Menu



3500B IP Phone

- Requires VCX 9.0 Basic IP Phone License
- Select region availability
- 85mm x 28mm, grayscale LCD display
 - 192 x 64 pixel resolution
- Two Fast Ethernet ports - PoE
- Up to 2 simultaneous calls
- 2 programmable buttons
- 4 soft buttons & 4 way scroll/ok button for menu selection
 - Text driven menu selections
- Linux operating system
- Full-duplex speakerphone
- Headset port
- Class B emissions
- Hearing aid compatible
- Handset lifter ready
- Blue backlit message indicator
- Dedicated backlit keys
 - Mute
 - Headset
 - Speakerphone
- Dedicated functional keys
 - VM
 - Transfer
 - Conference
 - Redial
 - Hold
 - Volume control
 - Main Menu



350x IP Phone Accessories

- Handsets

- Ergonomically designed weighting and contour for improved user comfortability



- Wall Plate

- Snap-in installation
- Designed to fit securely over standard phone jack wall plate
- Cable trough cut-outs for easy wire routing



- Stand

- Snap-in installation
- Rigid, reversible phone stand provides two configurable viewing angles (35° & 55°)



350x IP Phone Specifications

A summary of 350x IP Phone specifications is shown in this table.

	3500B	3500	3501	3502	3503
Maximum number of lines	2	2	2	6	8
Ethernet ports	2 (10/100), not AUTO_MDIX	2 (10/100/1000)	2 (10/100/1000)	2 (10/100/1000)	2 (10/100/1000)
Display	4 LCD Lines 3.5 inch grayscale	4 LCD Lines 3.5 inch grayscale	4 LCD Lines 3.5 inch backlit grayscale	8 LCD Lines 4.3 inch backlit grayscale	10 LCD Lines 5 inch backlit color anti-glare
Programmable buttons	2	2	2	15	21
Fixed Feature buttons	10	10	10	11	11
Soft keys	4	4	4	4	5
Four way cursor control with select key	Yes	Yes	Yes	Yes	Yes
Speakerphone	Full duplex	Full duplex	Full duplex	Full duplex	Full duplex
Headset compatibility	Yes	Yes	Yes	Yes	Yes
PoE support (802.3af)	Yes	Yes	Yes	Yes	Yes
Power usage watts (active/power save mode)	2.8W/2.4W	6.4W/4.4W	8.1W/5.7W	9.1W/5.8W	10.6W/5.3W
Supported codecs	G.711 μ /A, G.729A (Annex B)	G.711 μ /A, G.729A (Annex B)	G.722 & G.722.2 Wideband, G.711 μ /A, G.729A (Annex B)	G.722 & G.722.2 Wideband, G.711 μ /A, G.729A (Annex B)	G.722 & G.722.2 Wideband, G.711 μ /A, G.729A (Annex B)
Wideband audio handset/speakerphone	No/No	No/No	Yes/Yes	Yes/Yes	Yes/Yes

Commitment to the Environment:

- Administrator configurable energy save options
- First Energy Save Option
 - Screen save mode
- Second Energy Save Option
 - Power save mode
 - MWI LED flashes intermittently to signal keep alive
 - Up to 50% less power consumption than active mode
- Options available on all 350x Series Phones
- Energy Star 2.0 rated AC Power Adapters

350x IP Phone Guidelines:

- Attendant Console
 - 3105 Attendant Console is compatible with both 350x and 310x IP Phones
- Licensing
 - 3503 and 3502 IP Phones require VCX 9.0 Business License
 - 3501, 3500, and 3500B require VCX 9.0 Basic License
 - VCX 7.1 or older IP Phone licenses (Standard or Basic) will continue to work for the 350x IP Phones once the system is properly upgraded to 9.5 (and has the 9.0 RTU licenses)

3503 Button Mappings

This is the "Demo 3503" Template used in the VCX Demo Kit.

Add Button Mapping

Button Mapping Information

*Name: Demo 3503 Phone Profile

*Phone Type: 3503 Phone

Edit Button Mapping

Button Mapping Information

Name: Demo 3503 Phone Profile

Phone Type: 3503 Phone

Lock	Feature Type	Number / Index	Additional Argument	Label
<input checked="" type="checkbox"/>	Personal Speed Dial	1		PSPd Dial
<input checked="" type="checkbox"/>	System Speed Dial	1		Help Desk
<input checked="" type="checkbox"/>	Do Not Disturb			DND
<input checked="" type="checkbox"/>	Park			Park
<input checked="" type="checkbox"/>	Forced Account Codes			LD FAC
<input checked="" type="checkbox"/>	Customer Account and Billing Codes			Bill Code
<input checked="" type="checkbox"/>	Lock/Unlock Phone			Lck/Unlck
Page 2				
<input checked="" type="checkbox"/>	Anonymous Next			Anon Next
<input checked="" type="checkbox"/>	Busy Lamp Field			BLF
<input checked="" type="checkbox"/>	Camp On			Camp On
<input checked="" type="checkbox"/>	Malicious Call Trace			MCT
<input checked="" type="checkbox"/>	Extend Wrap Up			Wrap Xtn
<input checked="" type="checkbox"/>	Override Wrap Up			Wrap Ovr
<input checked="" type="checkbox"/>	COS Override			COS Over
Page 3				
<input checked="" type="checkbox"/>	Silent Monitor			Monitor
<input checked="" type="checkbox"/>	Barge In			Barge In
<input checked="" type="checkbox"/>	Block Monitor			Blk Montr
<input checked="" type="checkbox"/>	Directed Pickup			DirPickup
<input checked="" type="checkbox"/>	Send Beep			Send Beep
<input checked="" type="checkbox"/>	View ACD Group			View ACD
<input checked="" type="checkbox"/>	View Hunt Group			View HG

Secondary Bridged Extension 1:

Secondary Bridged Extension 2:

Secondary Bridged Extension 3:

Secondary Bridged Extension 4:



3502 Button Mappings

This is the "Demo 3502" Template used in the VCX Demo Kit.

Add Button Mapping

Button Mapping Information

*Name: Demo 3502 Phone Profile

*Phone Type: 3502 Phone

Edit Button Mapping

Button Mapping Information

Name: Demo 3502 Phone Profile

Type: 3502 Phone

Lock	Feature Type	Number / Index	Additional Argument	Label
<input checked="" type="checkbox"/>	Personal Speed Dial	1		PSPd Dial
<input checked="" type="checkbox"/>	System Speed Dial	1		Help Desk
<input checked="" type="checkbox"/>	Do Not Disturb			DND
<input checked="" type="checkbox"/>	Forced Account Codes			LD FAC
<input checked="" type="checkbox"/>	Customer Account and Billing Codes			Bill Code
Page 2				
<input checked="" type="checkbox"/>	Extend Wrap Up			Wrap Xtn
<input checked="" type="checkbox"/>	Override Wrap Up			Wrap Ovr
<input checked="" type="checkbox"/>	Park			Park
<input checked="" type="checkbox"/>	Directed Pickup			DirPickup
<input checked="" type="checkbox"/>	Busy Lamp Field			BLF
Page 3				
<input checked="" type="checkbox"/>	Send Beep			Send Beep
<input checked="" type="checkbox"/>	Hunt/ACD Group Mem Status			AgntLogin
<input checked="" type="checkbox"/>	View ACD Group			View ACD
<input checked="" type="checkbox"/>	View Hunt Group			View HG
<input checked="" type="checkbox"/>	Transfer To VMail			Xfer VM

Secondary Bridged Extension 1:

Secondary Bridged Extension 2:

Secondary Bridged Extension 3:

Note: Enabling the Lock check box for the feature will prevent users from changing it and will map the feature to all the phones of this type.



3501/3500/3500B Button Mappings

This is the “Demo 3501” Template used in the Demo – the 3500 and 3500B button mapping templates are similar.

Add Button Mapping

Button Mapping Information

*Name:

*Phone Type:

Edit Button Mapping

Button Mapping Information

*Name:

Phone Type:



Lock	Feature Type	Number / Index	Additional Argument	Label
<input checked="" type="checkbox"/>	Park			Park
<input checked="" type="checkbox"/>	Do Not Disturb			DND

Note: Enabling the Lock check box for the feature will prevent users from changing it and will map the feature to all the phones of this type.

Type of Service

You can assign the button mapping template default or ones created earlier for the various phone models.

Edit Type of Service

Type Of Service : Demo ToS All

Assign Button Mappings

2102 Business Phone:	2102 Default Template	<input type="button" value="v"/>
3102 Business Phone:	Demo 3102 Advanced Template	<input type="button" value="v"/>
3103 Manager Phone:	Demo 3103 Advanced Template	<input type="button" value="v"/>
3500 Phone:	Demo 3500 Phone Profile	<input type="button" value="v"/>
3500B Phone:	Demo 3500B Phone Profile	<input type="button" value="v"/>
3501 Phone:	Demo 3501 Phone Profile	<input type="button" value="v"/>
3502 Phone:	Demo 3502 Phone Profile	<input type="button" value="v"/>
3503 Phone:	Demo 3503 Phone Profile	<input type="button" value="v"/>

<input type="checkbox"/>	Provisioned Feature Name	Access Code	Action
<input type="checkbox"/>	Call Forward Busy	*467	Unassign
<input type="checkbox"/>	Call Forward Ring No Answer	*466	Unassign
<input type="checkbox"/>	Call Forward Universal	*465	Unassign
<input type="checkbox"/>	Caller Identity	*889	Unassign
<input type="checkbox"/>	Speed Dial	*601	Unassign
<input type="checkbox"/>	Directed Call Pickup	*455	Unassign
<input type="checkbox"/>	Remote Forward Universal	*468	Unassign
<input type="checkbox"/>	Silent Monitor and Barge In	*425, *428	Unassign
<input type="checkbox"/>	Camp On	*469	Unassign

Phone Profile

- Power Save configuration for 350x IP Phones
- In screen save mode, the phone displays it's logo on the screen
- In power save mode, screen is blank and phone MWI light blinks periodically slowly to indicate phone is in power save mode

* Name	Demo Phone Profile Advanced		
Description	Demo Phone Profile Advanced		
* Primary Call Processor	192.168.1.243		
* Secondary Call Processor	localhost		
* Registration Interval (Seconds)	3600		
* Max Allowed Contacts	5		
Display Name Format	{Unchanged}		
Date Time Display Format	MMM dd hh:mm:ss a		
Local Time Zone	[x] (GMT-05:00) Eastern Time (US and Canada)		
Observe Daylight Savings	<input checked="" type="checkbox"/>		
Music on Hold Number	5100		
Music on Hold File	music		
Voice Mail Number	5000		
Number of Lines	3		
Inside Ring Tone	Ring Tone 1 (Single)		
Private Ring Tone	Ring Tone 2 (Double)		
Outside Ring Tone	Ring Tone 3 (Triple)		
Call Waiting Ring Tone	Ring Tone 4 (Single)		
Bridge Line Ring Tone	Ring Tone 5 (Double)		
Hunt/ACD Group Ring Tone	Ring Tone 6 (Triple)		
Class of Service	Demo CoS All		
IPM Class of Service	201		
Type of Service	Demo ToS All		
Dial Plan	Demo DP All		
Call Center Names			
Security Mode	NONE		
Transport Protocol	UDP		
Play Security Tone	<input checked="" type="checkbox"/>		
Call Fallback	<input checked="" type="checkbox"/>		
Enable Voicemail	<input checked="" type="checkbox"/>		
Enable Screen Save	<input checked="" type="checkbox"/>	Timeout (Minutes)	5 (1-120)
Enable Power Save	<input checked="" type="checkbox"/>	Timeout (Minutes)	30 (1-120)
Default Phone Profile	<input checked="" type="checkbox"/>		
Enable Softphone	<input checked="" type="checkbox"/>		
Type of Softphone	Desktop Communicator Outlook Edition		

User Phone Settings

Screen save and Power save configuration can also be done on a per-phone basis

User Phone Settings

Phone: 1700

Settings

Number of Lines	<input type="text" value="3"/>
Number of Bridged Lines	<input type="text" value="2"/>
Date Time Display Format	MM dd HH:mm:ss
Local Time Zone	[x] (GMT-05:00) Eastern Time (US and Canada)
Observe Daylight Savings	<input checked="" type="checkbox"/>
Inside Ring Tone	Ring Tone 1 (Single)
Private Ring Tone	Ring Tone 1 (Double)
Outside Ring Tone	Ring Tone 1 (Triple)
Call Waiting Ring Tone	Ring Tone 2 (Single)
Call Fallback	<input checked="" type="checkbox"/>
Enable Screen Save	<input checked="" type="checkbox"/> Timeout (Minutes) <input type="text" value="5"/> (1-120)
Enable Power Save	<input checked="" type="checkbox"/> Timeout (Minutes) <input type="text" value="30"/> (1-120)

3503 IP Phone Background Image

- Administrators can load an appropriate background image for 3503 IP Phones
- This is not the screen saver, which is part of the phone software download from VCX and is not configurable
- One image for all 3503 phones
- Image must be sized 800 x 480 pixels

Users Menu > Phones > Phone Background Picture

Phones | Phone Profiles | **Phone Background Picture**

Use this page to upload phone background picture. The picture format should be jpeg, display resolution is 800 * 480, color depth is 24 bit, and the size can not greater than 200K bytes.

- Click **Browse** to search the picture which you want to use to display on the background of phones.
- Click **Upload** to upload the phone background picture.
- Click **Reset** to reset the picture you chosen.

Upload Phone Background Picture

Phone Background Picture

Browse to the picture which you'd like to upload for IP Telephony system.

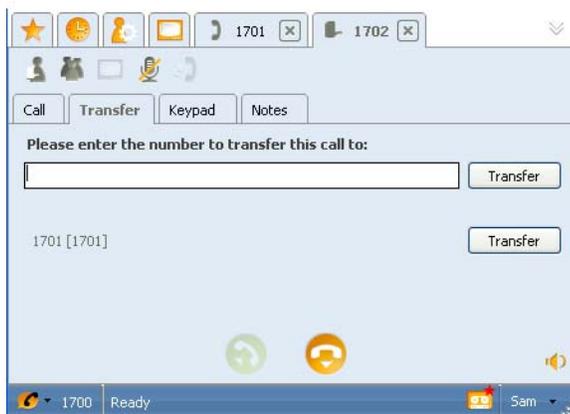
*

Desktop Communicator Enhancements

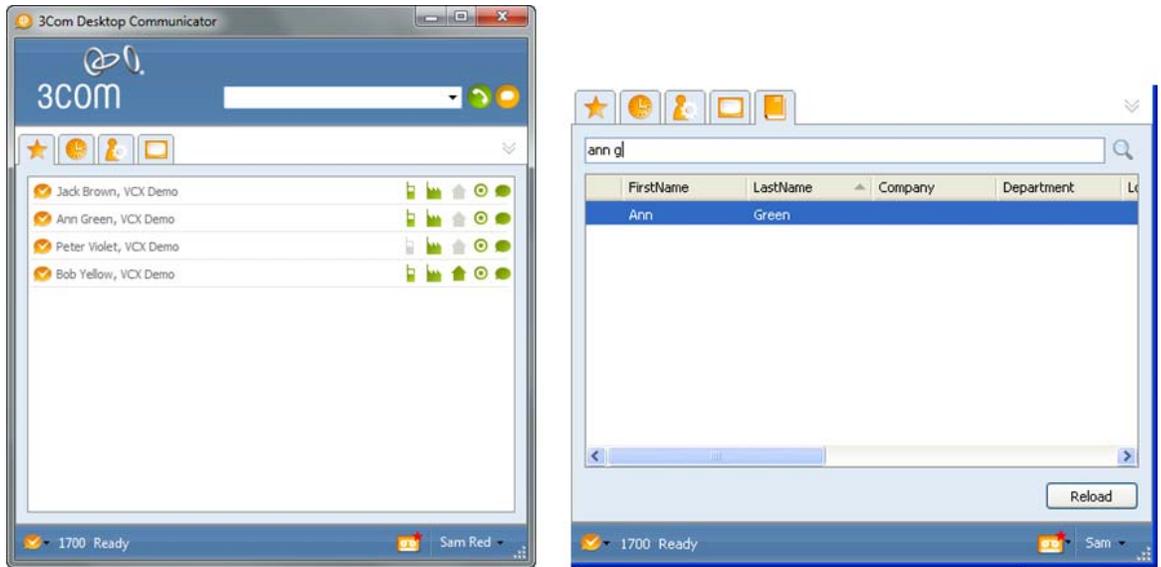
- Files can be shared/transferred using the Desktop Communicator
- Support for Windows 7 32-bit and 64-bit operating system
- Presence indicator moved to bottom left of window



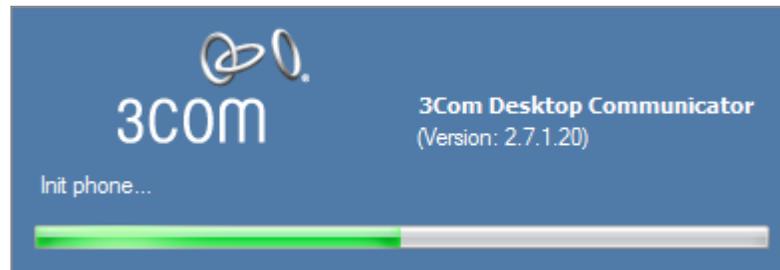
- Rejected calls are automatically routed to voice mail
- Change to Attended Transfer procedure



- Forward typing and searching for company name is enabled



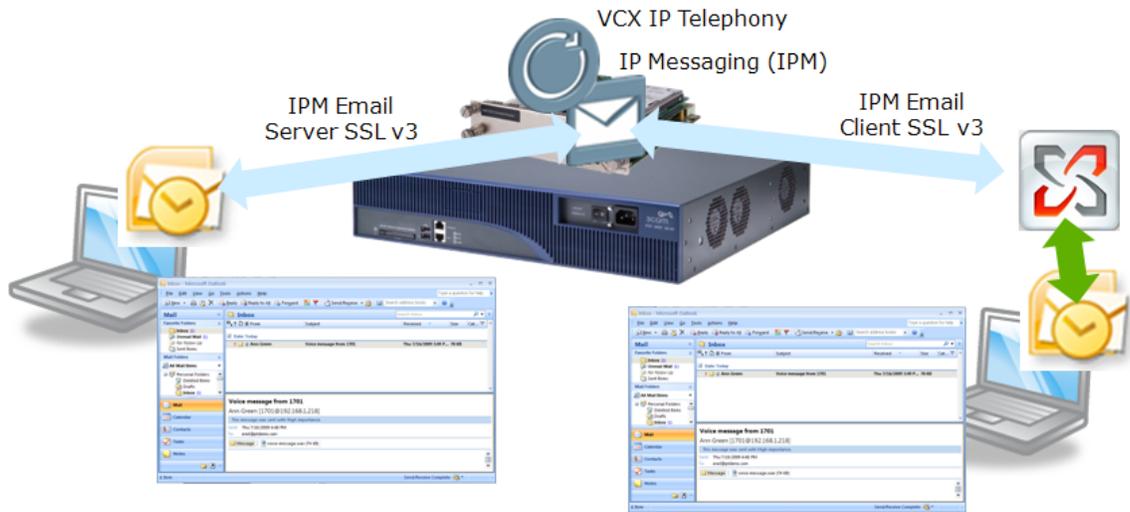
- MSI installation is supported
- Informational screen with version number appears at initialization



IP Messaging Enhancements

Secure IMAP Connections

- IP Messaging can provide secure IMAP connections using SSL v3 as the transport protocol
- IP Messaging email client and server both support SSL v3
- All data between email client and email server is encrypted when user reads, downloads, and sends emails



- This is a global IP Messaging setting via web provisioning
- IP Messaging email client and server both support SSL v3
- Server can be set to TCP and/or SSL
- Client can be set to TCP or SSL
- Import TLS Certificate and Private Key

Security Configuration

Email Options

Server Transport Protocol TCP SSL

Client Transport Protocol TCP

Import TLS Certificate and Private Key

Enter the path to the certificate file you'd like to import for IP Messaging system.

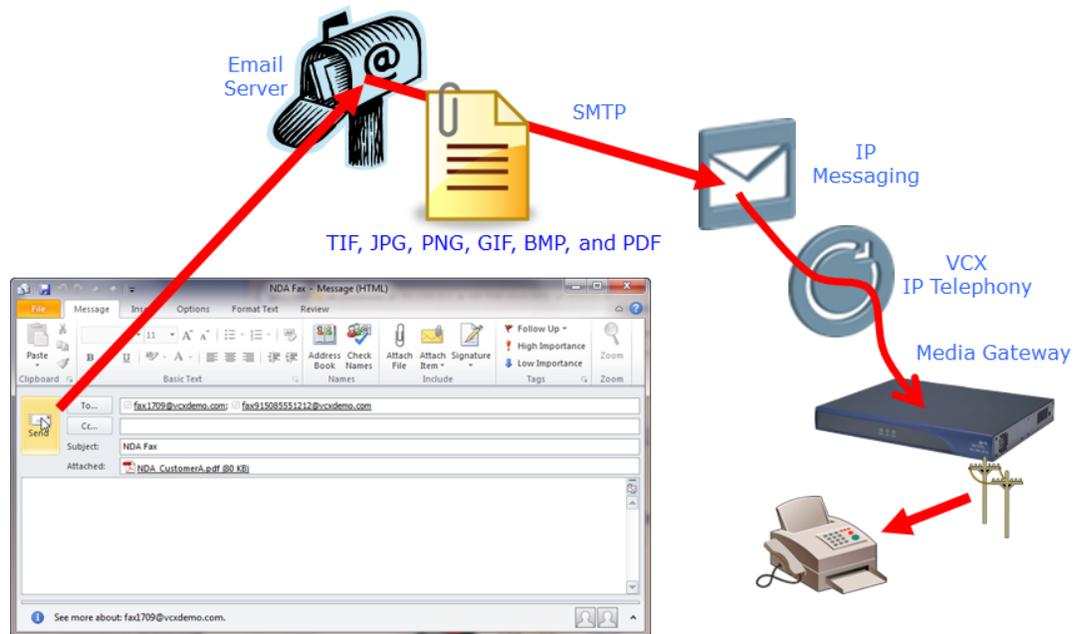
*

Enter the path to the private key you'd like to import for IP Messaging system.

*

Electronic Fax Sending

- IPM works as a fax server, which sends the electronic faxes to specified fax machines through voice gateways and the PSTN



- Up to 20 fax destinations can be specified in one email
- IPM retries after 60 seconds for up to 6 attempts
- IPM sends a return receipt message for each destination indicating success or failure
- Two formats to send faxes from email:
 - <fax destination number>@fax
 - Use when IPM is email server for email client
 - Fax<fax destination number>@<IPM domain name>
 - Use when IPM is email server for email client
 - Use when IPM interfaces to an external email server

IP Messaging Mailbox Seat License Bundles

- New IP Messaging Mailbox Seat License Bundles
 - Corresponds to VCX Phone License Bundles (50, 250, 1000)
- 50 Mailbox Seat License Bundle
 - 3Com SKU 3CBVIPML50, HP Product Number JC515A
- 250 Mailbox Seat License Bundle
 - 3Com SKU 3CBVIPML250, HP Product Number JC514A
- 1,000 Mailbox Seat License Bundle
 - 3Com SKU 3CBVIPML1000, HP Product Number JC513A

IP Telephony Enhancements

Call Admission Control (CAC) Enhancement

- CAC settings can be made at the secondary server
 - CAC settings are different between primary and secondary
 - CAC settings on primary are only valid for primary
 - CAC settings on secondary are only valid for secondary
 - CAC data is replicated between primary / secondary VCX servers – branch to region or primary / secondary regional servers
 - CAC is tightly coupled to the network topology
 - Primary and secondary VCX servers may have different network topologies
 - Thus, different CAC Network Regions and Site Links should be configured on them separately
 - CAC data configured on primary is replicated but not used by secondary if configured – same vice versa
- When a primary server is unavailable and users register with the secondary server, CAC rules administered on the secondary server are applied for calls to/from these users

VCX Extension Length Enhancement

The length of a VCX extension has been increased from 10 to 15 as a maximum number of digits.

Add Phone

Phone Information

* Number of Phones to create: 1

* Starting Phone Extension: 111222333444555

* Display Name: New User

* Phone Password: ●●●●

* Confirm Password: ●●●●

Location: HQ

Exclude from Phone Book:

Profile Information

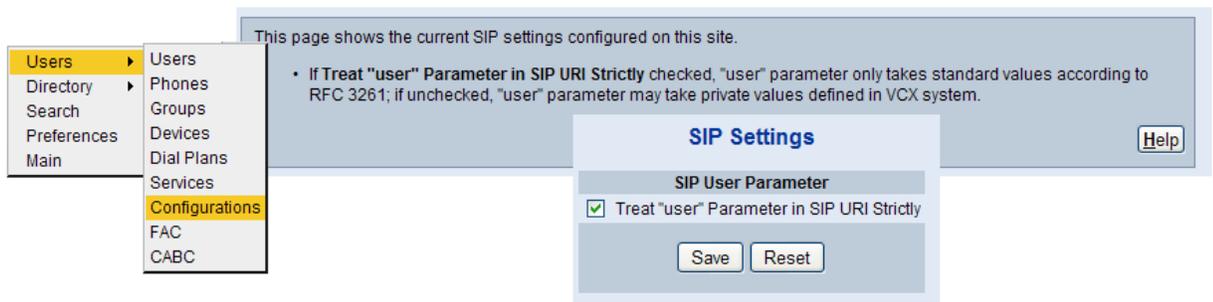
Phone Profile: demoprofileadvanced

Save Cancel Reset

<input type="checkbox"/>	Phone Address ▲	Display Name	Phone Profile	User Name	MAC	Status	Actions
<input type="checkbox"/>	111222333444555	New User	demoprofileadvanced			Disabled	Features Call Coverage Button Mappings Call Restrictions Registrations Call History Selective Ringing Users Settings Delete

Standard SIP User parameter support

- Added global parameter to define SIP “user” parameter usage
 - Proprietary – Use when a VCX 9.5 system has to communicate to a pre-VCX 9.5 system
 - VCX has used the SIP user parameter in a proprietary fashion with valid values “ip”, “phone”, “callp” and “pstn”
 - This leads to problems when the VCX sends SIP messages with “user=callp” or “user=pstn” to 3rd party equipment
 - RFC 3261 – Use when a VCX 9.5 system does not have to communicate to a pre-VCX 9.5 system
 - The allowed values for this parameter as defined in RFC 3261 are only “ip” and “phone”
 - Administration via CLI or web provisioning
- Added a proprietary parameter, vcx-user, to contain the proprietary information formerly held in the “user” parameter



Conference User Group/Class Support

- Tabs added to User menu
 - Added to support statistics on a per-group basis
- User Groups
 - Added to support definition of privilege groups
- User Classes
 - Added to support definition of privilege groups
- Added as a placeholder, these fields are not currently used



- User Groups
 - Added to support statistics on a per-group basis

The screenshot shows the 'Edit User Group' form and the 'User Groups' list page. The form is titled 'Edit User Group' and contains a 'User Group Information' section with a text input field for '* Group Name' containing 'userGroup1'. Below the input field are 'Save', 'Cancel', and 'Reset' buttons. The 'User Groups' list page shows a table with columns for 'Name' and 'Actions'. The table contains three rows: 'Default User Group', 'userGroup1', and 'userGroup2'. The 'userGroup1' and 'userGroup2' rows have 'Members' and 'Delete' links in the 'Actions' column. The page also includes a filter dropdown set to 'Name' and a 'Go' button.

- User Classes
 - Added to support definition of privilege groups

The screenshot shows the 'Edit User Class' form and the 'User Classes' list page. The form is titled 'Edit User Class' and contains a 'User Class Information' section with fields for '* Class Name' (Admin), '* Admin Role' (Conf Admin), '* Max Schedule Conferences(Range 0-99999)' (99999), and '* Max Conference Ports(Range 0-99999)' (99999). Below the fields are 'Save', 'Cancel', and 'Reset' buttons. The 'User Classes' list page shows a table with columns for 'Class Name', 'Admin Role', 'Max Allowed Confs', 'Max Allowed Conf Ports', and 'Actions'. The table contains four rows: 'Admin', 'Default User Class', 'Manager', and 'User'. The 'Admin', 'Manager', and 'User' rows have 'Members' and 'Delete' links in the 'Actions' column. The page also includes a filter dropdown set to 'Class Name' and a 'Go' button.

VCX User Name Display Format Enhancement

- Configure how name is displayed in the User table on web interface
- IP Conferencing features
 - User Group
 - User Class

The screenshot shows the 'Edit User' web interface. It is divided into several sections: Personal Information, Phone Features, Conference Features, and Web Login Information. The 'Display Name Format' dropdown menu is highlighted with a red box and set to '{First Name} {Middle Name} {Last Name}'. The 'User Group' and 'User Class' dropdown menus in the 'Conference Features' section are also highlighted with a red box and set to 'userGroup1' and 'Admin' respectively. Other fields include Title, First Name (Sam), Middle Name, Last Name (Red), Country/Region (United States of America), E-mail (sred@iptdemo.com), Job Title, Phone Language (English), and Phone Font Size (Standard). At the bottom, there are 'Save', 'Cancel', and 'Reset' buttons.

- New columns for users data import template

P	Q	R	S	T
MACADDR	MACLOCK	DISPLAYFORMAT	USERGROUP	USERCLASS
00:e0:bb:12:05:31	1		0 Default User Group	Default User Class

Global Directory Enhancement

- Automatically detects differences between different VCX versions, allowing VCX 9.5 and later systems to have Global Directory synchronized even with differences in release level

IP Phone MIB Enhancement

- IP phones (310x, 350x, or 3rd party devices) can be discovered through VCX Devices on IMC
- Requires IMC PLAT 3.3 SP1, VSM 3.5 5402

IP Phone List									
<input type="button" value="Delete"/>									
1-8 of 8. Page 1 of 1.							Items per Page: 8 15 [50] 100 200		
<input type="checkbox"/>	Status	Label^	Number	Type	IP Address	Server Label (IP)	Latest Online Time	Details	Modify
<input type="checkbox"/>	On line	Brown Jack	1704	3503 Phone	192.168.1.134	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 21:16:42		
<input type="checkbox"/>	On line	Green Ann	1701	3502 Phone	192.168.1.184	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 20:51:42		
<input type="checkbox"/>	On line	Phone1 Analog	1709	Trusted Phone	192.168.1.233	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 21:14:37		
<input type="checkbox"/>	On line	Red Sam	1700	Desktop Communicator Outlook Edition	192.168.1.143	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 20:50:42		
<input type="checkbox"/>	Off line	Violet Peter	1703	3501 Phone	192.168.1.160	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-05-14 09:06:06		
<input type="checkbox"/>	On line	Violet Peter	1703	3501 Phone	192.168.1.152	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 20:51:20		
<input type="checkbox"/>	On line	White George	1708	Trusted Phone	192.168.1.233	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 21:14:19		
<input type="checkbox"/>	On line	Yellow Bob	1702	Desktop Communicator Outlook Edition	192.168.1.137	VCX Enterprise MIM vcxmsr3(192.168.1.243)	2010-06-08 20:45:03		

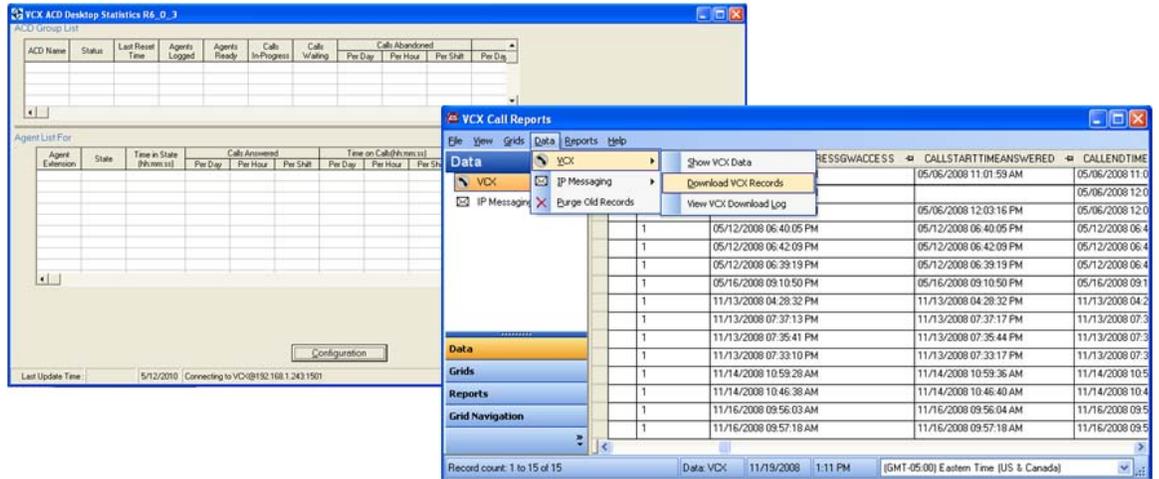
Phone Display Multi Language Enhancement

- For VCX V7000 and VCX Connect solutions, the user name or phone's display name can support Unicode (UTF-8)
- Users can input multi-language data into these fields, such as Chinese, French, Spanish, Japanese, Korean, etc.

VCX Application Enhancements

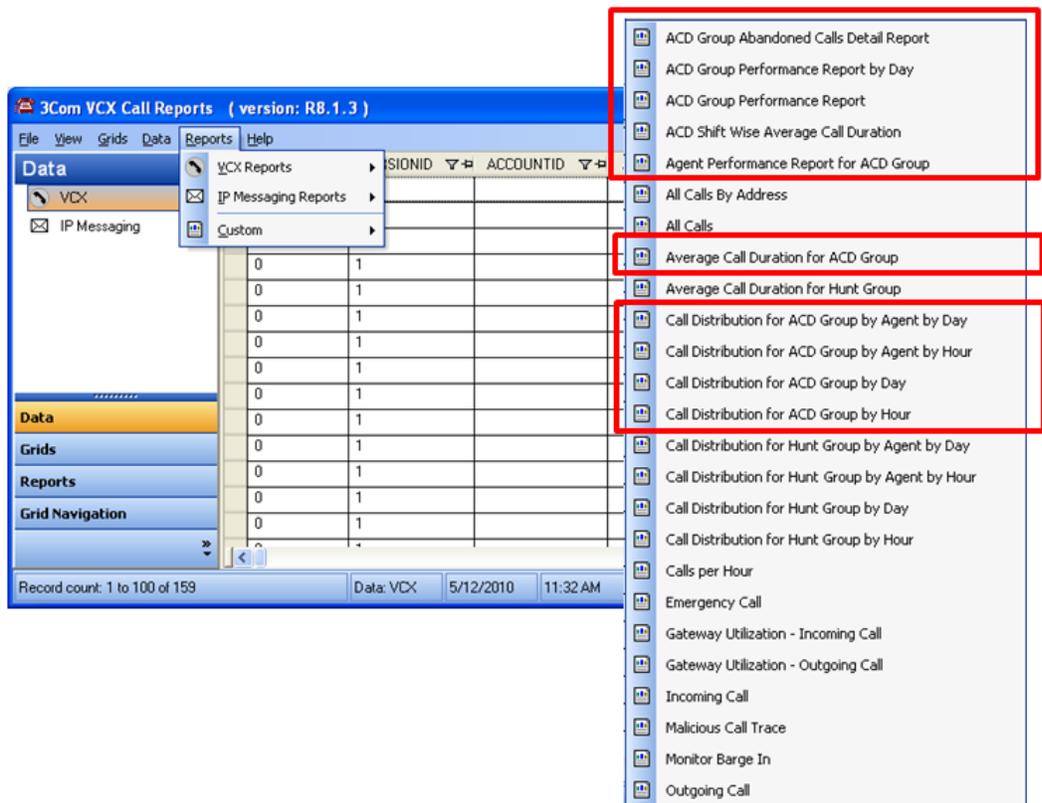
Supported on 32-bit Windows 7 operating systems

- VCX Call Detail Record (CDR) Reporting
- VCX Automatic Call Distribution (ACD) Real Time Statistics



Automatic Call Distribution (ACD) Call Detail Reports (CDR)

- Standard reports provided with VCX Call Detail Record (CDR) Reporting application



Example of ACD Group Abandoned Calls:



ACD Group Abandoned Calls Detail Report
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 8:51:54AM
 Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Group Extension	Group Name	Start Time	End Time	Calling Number	Wait Time In Queue (HH:MM:SS)
1770	mo ACD Group Line	3/2/2010 1:52:22PM	3/2/2010 1:52:37PM	1701	00:00:15
		3/2/2010 1:49:30PM	3/2/2010 1:49:53PM	1700	00:00:23
		3/2/2010 1:52:04PM	3/2/2010 1:52:15PM	1701	00:00:11
		3/2/2010 1:51:24PM	3/2/2010 1:51:32PM	1700	00:00:08
		3/2/2010 1:48:58PM	3/2/2010 1:49:24PM	1700	00:00:26
		1770 Total Abandoned Calls:			
Report Total Abandoned Calls:				5	

Example of ACD Group Performance Report by Day:



ACD Group Performance Report by Day
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 8:53:26AM
 Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Date	Group Name / Extension	Total Calls Received	Total Calls Answered	Total Calls Abandoned	Total Calls Overflowed out	Average Calls In Queue	Max Calls In Queue	Average Wait Time In Queue (HH:MM:SS)	Max Wait Time In Queue (HH:MM:SS)	Average Talk Time (HH:MM:SS)
3/2/2010	Demo ACD Group Linear - 1770	11	5	5	1	1	1	00:00:13	00:00:30	00:03:46
Totals For 3/2/2010:		11	5	5	1	1	1	00:00:13	00:00:30	00:03:46
2/3/2010	- 1770	2	2	0	0	0	0	00:00:13	00:00:17	00:00:13
Totals For 2/3/2010:		2	2	0	0	0	0	00:00:13	00:00:17	00:00:13
Grand Totals:		13	7	5	1	0	1	00:00:13	00:00:30	00:02:45

Example of ACD Group Performance Report:



ACD Group Performance Report
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 8:54:23AM
 Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Group Extension	Total Calls Received	Total Calls Answered	Total Calls Abandoned	Total Calls Overflowed out	Average Calls In Queue	Max Calls In Queue	Average Wait Time In Queue (HH:MM:SS)	Max Wait Time In Queue (HH:MM:SS)	Average Talk Time (HH:MM:SS)
Demo ACD Group Linear - 1770	13	7	5	1	0	1	00:00:13	00:00:30	00:02:45
Grand Totals:	13	7	5	1	0	1	00:00:13	00:00:30	00:02:45



Example of ACD Shift Wise Average Call Duration:



ACD Shift Wise Average Call Duration
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 8:55:00AM

Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Shift ID	Group Extension	Group Name	Total Number of Calls	Total Call Duration (HH:MM:SS)	Average Call Duration (HH:MM:SS)
Always open					
	1770	Demo ACD Group Linear	11	00:20:44	00:01:53
Totals for Shift ID :			11	00:20:44	00:01:53
Grand Totals :			11	00:20:44	00:01:53

Example of Agent Performance Report for ACD Group:



Agent Performance Report for ACD Group
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 8:55:47AM

Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Agent Extension	Group Extension	Group Name	ACD Calls Answered	Total Call Duration (HH:MM:SS)	Average Talk Time for ACD Calls (HH:MM:SS)	Incoming Non-ACD Calls Answered	Outgoing Non-ACD Calls
1703							
	1770	Demo ACD Group Linear	2	00:10:52	00:05:26	-	-
Totals for 1703:			2	00:10:52	00:05:26	8	18
1704							
	1770	Demo ACD Group Linear	3	00:07:59	00:02:40	-	-
Totals for 1704:			3	00:07:59	00:02:40	9	9
Grand Totals :			5	00:18:51	00:03:46	-	-

Example of Average Call Duration by ACD Group:



Average Call Duration By ACD Group
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 9:05:21AM

Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Group Extension	Group Name	Total Number of Calls	Total Call Duration (HH:MM:SS)	Average Call Duration (HH:MM:SS)
1770	Demo ACD Group Linear	11	00:20:44	00:01:53
Grand Totals :		11	00:20:44	00:01:53



Example of Call Distribution for ACD Group by Agent by Day:



Call Distribution for ACD Group by Agent by Day
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 9:06:05AM

Page 1 of 1

*** Note : This report was generated based on "All" Time Zones**

Date	Group Name / Extension	Member Extension	Total Calls	Total Call Duration (HH:MM:SS)	Average Call Duration (HH:MM:SS)
03/02/2010					
	Demo ACD Group Linear - 1770	1703	2	00:10:52	00:05:26
		1704	3	00:07:59	00:02:40
Totals For 03/02/2010 :			5	00:18:51	00:03:46
Grand Totals :			5	00:18:51	00:03:46

Example of Call Distribution for ACD Group by Agent by Hour:



Call Distribution for ACD Group by Agent by Hour
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 9:06:43AM

Page 1 of 1

*** Note : This report was generated based on "All" Time Zones**

Date	Hour (between Hours HH:MM)	Group Name / Extension	Member Extension	Total Calls	Total Call Duration (HH:MM:SS)	Average Call Duration (HH:MM:SS)
3/2/2010						
	13:00 - 14:00	Demo ACD Group Linear - 1770	1704	3	00:07:59	00:02:40
			1703	2	00:10:52	00:05:26
Totals For 3/2/2010 :				5	00:18:51	00:03:46
Grand Totals :				5	00:18:51	00:03:46

Example of Call Distribution for ACD Group by Day:



Call Distribution for ACD Group by Day
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 9:07:18AM

Page 1 of 1

*** Note : This report was generated based on "All" Time Zones**

Date	Group Extension	Group Name	Total Calls	Total Call Duration (HH:MM:SS)	Average Call Duration (HH:MM:SS)
3/2/2010					
	1770	Demo ACD Group Linear	11	00:20:44	00:01:53
Totals For 3/2/2010:			11	00:20:44	00:01:53
Grand Totals:			11	00:20:44	00:01:53



Example of Call Distribution for ACD Group by Hour:



Call Distribution for ACD Group by Hour
From 1/1/2010 12:00:00 AM to 12/31/2010 11:59:59 PM

5/11/2010 9:08:22AM

Page 1 of 1

* Note : This report was generated based on "All" Time Zones

Date	Hour (between Hours HH:MM)	Group Extension	Group Name	Total Calls	Total Call Duration (HH:MM:SS)	Average Call Duration (HH:MM:SS)
3/2/2010						
	13:00 - 14:00	1770	Demo ACD Group Linear	11	00:20:44	00:01:53
Totals For Hour (13:00 - 14:00):				11	00:20:44	00:01:53
Totals For 3/2/2010 :				11	00:20:44	00:01:53
Grand Totals :				11	00:20:44	00:01:53

VCX now runs on HP Servers

- V7005 Unified Communications Server
 - HP DL120G6
 - 1 Xeon 4Core X3430 2.4GHz CPU
 - 2 1G RAM
 - 1 250G (SATA) DISK
 - 2 GE
 - 1 DVD-ROM
 - 1 400W Power Supply
- Used for:
 - VCX Connect 200 Unified Communications Series
 - VCX V7000 Unified Communications Series Unified Communications V7005Server



HP DL120G6

- V7205
 - HP DL360G6
 - 1 Xeon 4 core E5530 2.4GHz CPU
 - 6 1G RAM
 - 2 146G DISK (2.5 SAS, RAID 1)
 - 2 GE
 - 1 DVD/CD-RW COMBO
 - 2 460W Power Supplies
- Used for:
 - VCX V7000 Unified Communications Series Unified Communications V7205Server

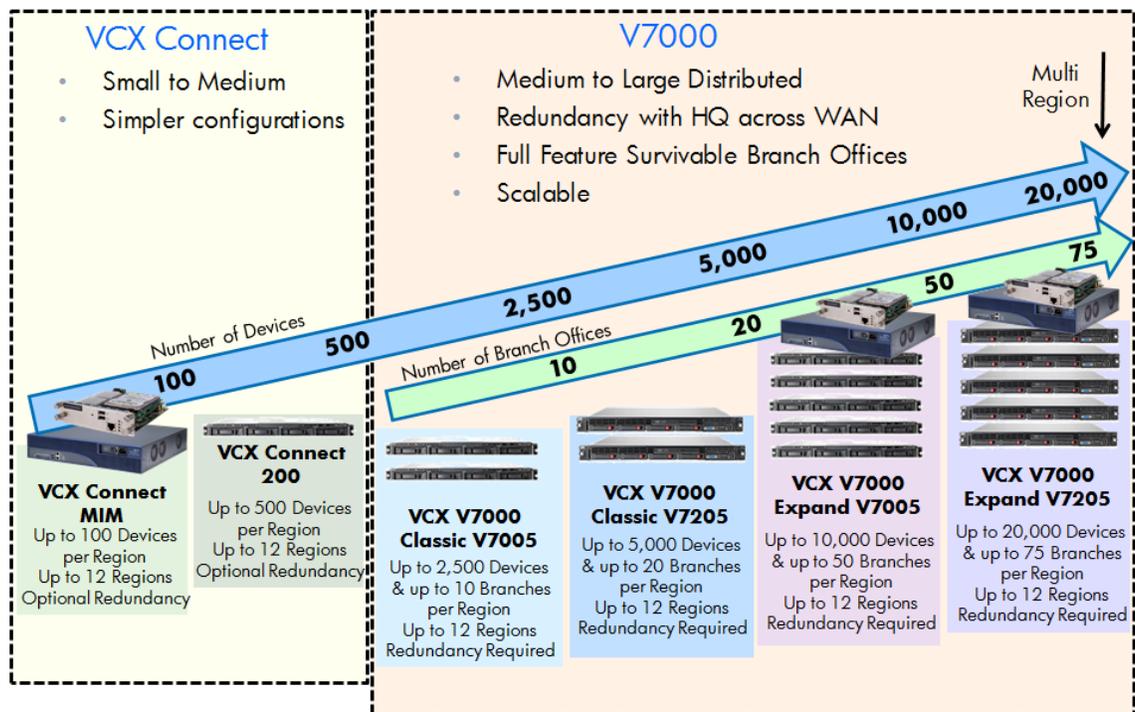


HP DL360G6



Scalability Enhancements

- VCX Connect Unified Communications Series
 - VCX Connect MIM and VCX Connect 100 now supports up to **12 regions**
 - VCX Connect 200 now supports up to **500 devices/mailboxes per region**, up to **12 regions**, and up to **3,000 devices/mailboxes enterprise-wide**
 - Improved scalability achieved with existing IBM x-Series x3250M2 and HP ProLiant DL120 G6 servers
- VCX V7000 Unified Communications Series Classic configuration
 - V7005 with HP ProLiant DL120 G6 servers now support up to **2,500 devices/mailboxes per region**, up to **10 VCX Branch Offices per region**, up to 12 regions, and up to 7,500 devices/mailboxes enterprise-wide
 - V7205 with HP ProLiant DL360 G6 servers now support up to **5,000 devices/mailboxes per region**, up to **20 VCX Branch Offices per region**, up to 12 regions, and up to 15,000 devices/mailboxes enterprise-wide
- VCX V7000 Unified Communications Series Expand configuration
 - V7005 with HP ProLiant DL120 G6 servers now support up to **10,000 devices/mailboxes per region**, up to **50 VCX Branch Offices per region**, up to 12 regions, and up to 30,000 devices/mailboxes enterprise-wide
 - V7205 with HP ProLiant DL360 G6 servers now support up to **20,000 devices/mailboxes per region**, up to **75 VCX Branch Offices per region**, up to 12 regions, and up to 60,000 devices/mailboxes enterprise-wide



VCX IP Telephony Regional Office Capacities

VCX capacities on a per-region or per-Regional Office basis are shown in this table.

System Specification	VCX Connect MIM	VCX Connect 200	VCX Enterprise Classic V7005	VCX Enterprise Classic V7205	VCX Enterprise Expand V7005	VCX Enterprise Expand V7205
Max Devices per Region	100	500	2,500	5,000	10,000	20,000
Max Devices per Regional Office	100	500	2,500	5,000	0*	0*
Max Branch Offices per Region	0	0	10	20	50	75
Max Regions per Enterprise	12	12	12	12	12	12
Max Devices per Enterprise	600	3,000	7,500	15,000	30,000	60,000
Max Analog Devices per R.O.	100	500	500	1,500	0	0
Max Analog Devices per Enterprise	600	3,000	5,000	5,000	5,000	10,000
Max T1/E1 channels per R.O.	48/64	192/256	384/500	768/1024	0	0
Max IPM Voice Ports per R.O.	30	120	120	160	160	200
Max IPM Mailboxes per Region	600	3,000	2,500	5,000	10,000	20,000
Max IPM Mailboxes on Central Server	600	3,000	7,500	15,000	30,000	60,000
Max Text To Speech Ports	10	20	20	30	30	50
Max Email Auto Delivery per Region	100	500	2,500	2,500	2,500	2,500
Max Email IMAP Sync per Region	25	100	100	100	100	100
Max Email Unified Inbox per Region	100	500	1,500	1,500	1,500	1,500

* there are no users at the Regional Office in a VCX Expand configuration. All users are configured on branch offices. The Regional Office of a VCX Expand serves as the central administration and secondary servers for all the branches.

VCX IP Telephony Branch Office Capacities

VCX capacities on a per-Branch Office basis are shown in this table.

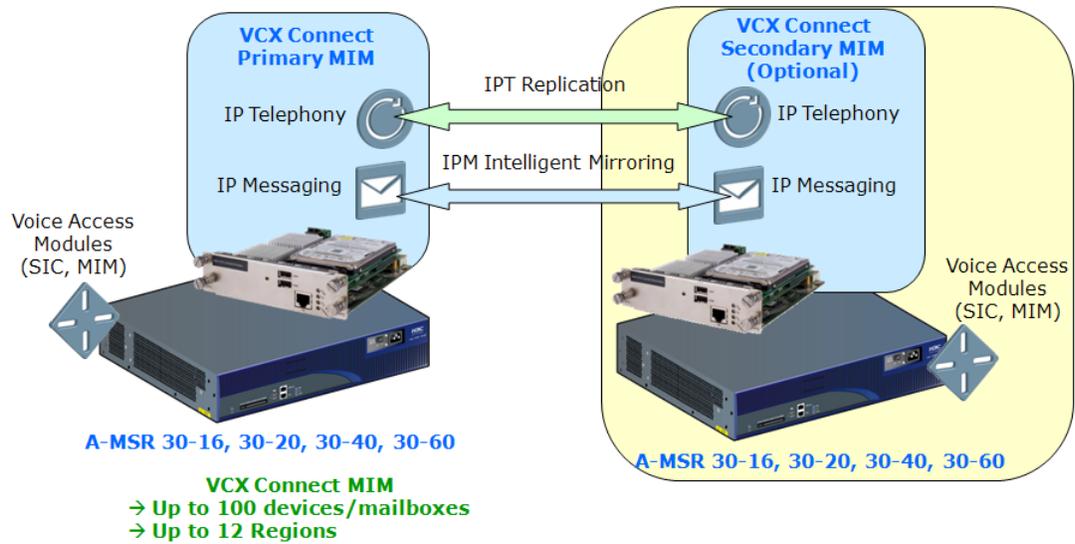
System Specification	VCX Enterprise Branch MIM	V6x00	V7005	V7205
Max Devices per Branch Office	100	100	2,500	5,000
Max Analog devices per Branch Office	100	100	500	1,500
Max T1/E1 channels per Branch Office	96/128	96/128	384/500	768/1024
Max IPM Voice Ports per Branch Office	30	30	120	160
Max IPM Mailboxes per Branch Office	100	100	2,500	5,000
Max Text To Speech Ports	10	10	20	30
Max Email Auto Delivery per Branch	100	100	250	1,500
Max Email IMAP Sync per Branch	25	25	100	100
Max Email Unified Inbox per Branch	50	50	1,500	1,500

VCX 9.5 Capacity Notes:

- The Regional Office and Branch Office values are valid only for the new hardware platforms (i.e. V7005-HP DL120G and V7205 – HP DL260G), other older servers still need to use the VCX 9.0 system capacity values
 - However, VCX Connect 200 on IBM 3250M2 servers will be able to scale to the VCX Connect 200 9.5 values
- Not recommended to add sites which use VCX V7000 Branch MIM or V6x000 to Global Directory if the number of devices enterprise-wide served by VCX exceeds 6,000
 - Global Directory synchronization on these servers consumes much of the CPU and memory system resources due to the parsing of the Global Directory XML file and database operations
 - Otherwise, these sites will not be able to handle new call requests

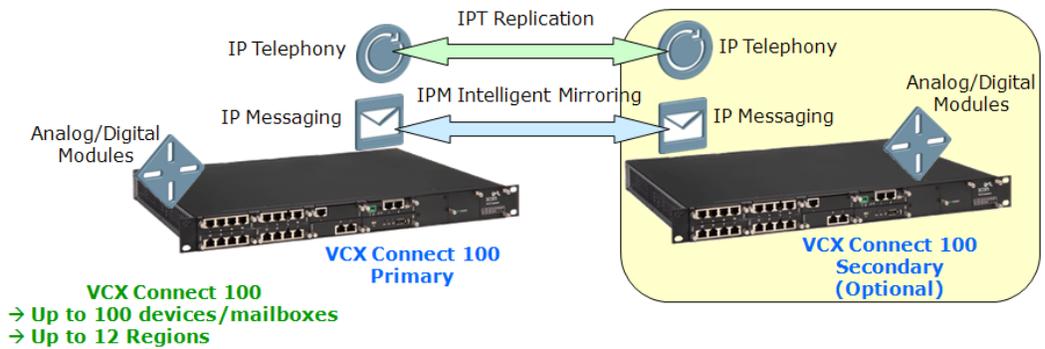
VCX Connect Unified Communications MIM on MSR Series

The following diagram illustrates the capacities for VCX Connect MIM Regional Office servers.



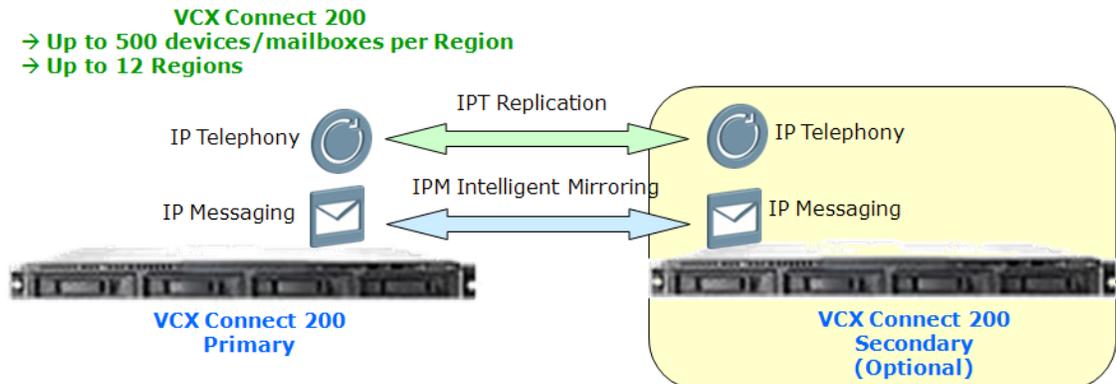
VCX Connect 100 Unified Communications Series

The following diagram illustrates the capacities for VCX Connect 100 Regional Office servers.



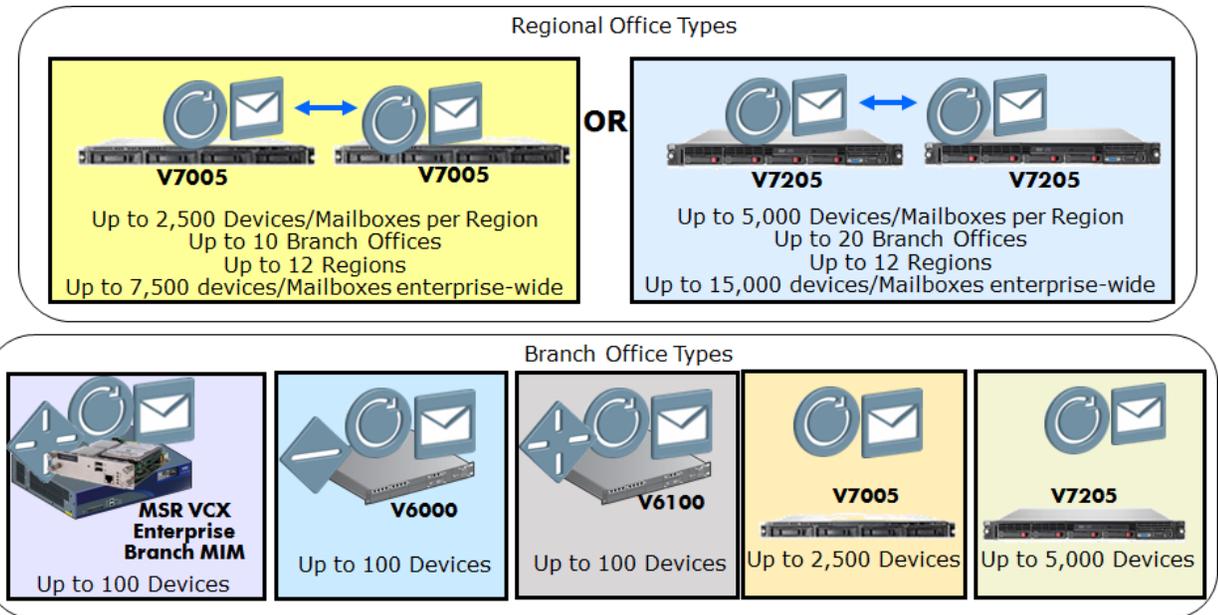
VCX Connect 200 Unified Communications Series

The following diagram illustrates the capacities for VCX Connect 200 Regional Office servers.



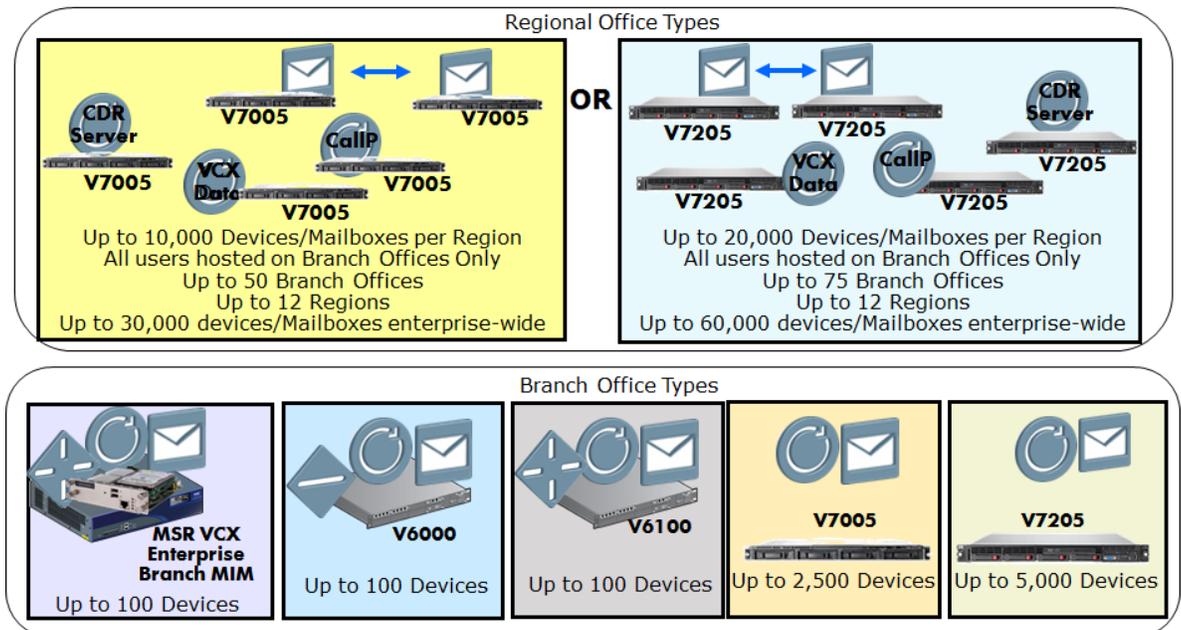
VCX V7000 Unified Communications Series Classic Configuration

The following diagram illustrates the capacities for VCX V7000 Classic Regional Office and Branch Office servers.



VCX V7000 Unified Communications Series Expand Configuration

The following diagram illustrates the capacities for VCX V7000 Expand Regional Office and Branch Office servers.



For more information

To read more about VCX IP Telephony solutions, go to www.procurve.com/products/unified-communications/index.htm



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