



UNIFYING COMMUNICATIONS

## Understanding the Benefits of Upgrading to CX-E 9

AVST believes it is critical for customers to continually utilize the latest version of software. Proactive upgrades ensure optimal performance, improved security, continued feature enhancements, increased stability, and ongoing compatibility with emerging communications technology. The following feature matrix lists many of the features available with recent versions of CX-E. For a complete list, please refer to the *CX-E Software Release History* document, which is available from an authorized reseller.

| Feature                                                                                                                           | OS/2                | 5.x                  | 6.x                  | 7.x                  | 8.x              | 9         |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|----------------------|----------------------|------------------|-----------|
| <b>Capacity (Single System)</b>                                                                                                   |                     |                      |                      |                      |                  |           |
| Voice Ports                                                                                                                       | 64                  | 128                  | 128                  | 192                  | 752 <sup>1</sup> | 800       |
| Call Servers                                                                                                                      |                     |                      |                      |                      | 20               | 20        |
| Messages Stored                                                                                                                   | 50,000 <sup>2</sup> | 100,000 <sup>2</sup> | 200,000 <sup>2</sup> | 500,000 <sup>2</sup> | 1 million        | 5 million |
| Automatic Speech Recognition (ASR) Resources                                                                                      |                     |                      |                      | 48 <sup>3</sup>      | 500              | 800       |
| Text-to-Speech (TTS) Resources                                                                                                    | 8                   | 8                    | 8                    | 24                   | 500              | 800       |
| Tenants                                                                                                                           |                     |                      |                      |                      |                  | 100       |
| Voicemail Users                                                                                                                   | 4,000               | 8,000                | 8,000                | 20,000               | 40,000           | 60,000    |
| Atom® Users                                                                                                                       |                     |                      |                      |                      | 20,000           | 20,000    |
| Unified Messaging (UM) Users                                                                                                      | 2,000               | 4,000                | 4,000                | 10,000               | 20,000           | 60,000    |
| Personal Assistant (PA) Users                                                                                                     |                     |                      |                      | 10,000 <sup>3</sup>  | 20,000           | 60,000    |
| TeamQ® Agents                                                                                                                     |                     |                      |                      |                      | 250              | 250       |
| TeamQ® Supervisors                                                                                                                |                     |                      |                      |                      | 50               | 50        |
| <b>Platform</b>                                                                                                                   |                     |                      |                      |                      |                  |           |
| <b>CX Mobile Admin</b> – A web-based administration client designed for small footprint devices such as smart phones and tablets. |                     |                      |                      |                      | X                | X         |

<sup>1</sup> Limit 500 if the system has speech (ASR and/or TTS resources)

<sup>2</sup> Estimated based on typical hardware available during that time period

<sup>3</sup> Requires CallXpress Speech Server under 7.x

| Feature                                                                                                                                                                                                                                      | OS/2 | 5.x | 6.x | 7.x | 8.x            | 9              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|-----|----------------|----------------|
| <b>G.729</b> – SIP phones configured to use G.729 compression can place calls directly to CX-E without having to go through a gateway.                                                                                                       |      |     |     |     | X              | X              |
| <b>Global User Administration</b> – Administrators of multiple, networked telephony servers can centrally and simultaneously manage the subscriber and distribution list databases of all servers from a global view.                        |      | X   | X   | X   | X              | X              |
| <b>Inband Audio Call Progress for IP Integrations</b> – The system can analyze the audio stream to determine call progress rather than relying on IP signaling.                                                                              |      |     |     |     | X              | X              |
| <b>Inband DTMF Detection for IP Integrations</b> – The system can analyze the audio stream to detect DTMF tones rather than relying on receiving them via signaling.                                                                         |      |     |     |     | X              | X              |
| <b>Inband Fax Tone Detection for IP Integrations</b> – The system can analyze the audio stream to detect fax tones.                                                                                                                          |      |     |     |     | X              | X              |
| <b>IPv6</b> – Support for IPv6 networks.                                                                                                                                                                                                     |      |     |     |     | X <sup>4</sup> | X <sup>4</sup> |
| <b>Message Store Encryption – Support for encrypting messages at rest on the system server and call servers.</b>                                                                                                                             |      |     |     |     |                | X              |
| <b>Multiple Simultaneous Speech Recognition Languages</b> – Simultaneously use multiple speech recognition languages so that each caller can interact with the system in their preferred language.                                           |      |     |     |     | X              | X              |
| <b>Multiple Switch Integrations</b> – The server supports concurrent integration with multiple telephone systems.                                                                                                                            |      |     | X   | X   | X              | X              |
| <b>Multitenancy</b> – Service multiple companies, divisions, departments or locations on a single system with complete separation between them.                                                                                              |      |     |     |     |                | X <sup>4</sup> |
| <b>Networking Directory Synchronization</b> – Ability to automatically propagate the subscriber databases of networked servers with adds, changes, and/or deletions made on any system in the network.                                       |      | X   | X   | X   | X              | X              |
| <b>Neverfail® High Availability / Survivability</b> – High availability is achieved through port distribution across multiple survivable Call Servers combined with a Neverfail secondary hot standby System Server with automatic failover. |      |     |     |     | X              | X              |

<sup>4</sup> Some limitations apply. See the Software Release Notice for more information.

| Feature                                                                                                                                                                                                                                                                                          | OS/2 | 5.x | 6.x | 7.x            | 8.x | 9 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|----------------|-----|---|
| <b>Neverfail Disaster Recovery</b> – With the addition of a Neverfail secondary or tertiary System Server at a remote location for disaster recovery, your data is protected against a fire, flood, hurricane, pro-longed power outage or any other major catastrophe that may occur.            |      |     |     |                | X   | X |
| <b>Secure SIP (SIP/TLS) &amp; Secure RTP (SRTP)</b> – Encrypts the SIP signaling and RTP audio stream of SIP-based voice calls to keep them safe from prying eyes.                                                                                                                               |      |     |     |                | X   | X |
| <b>Simple Network Management Protocol (SNMP) Support</b> – Allows the system to communicate with various system management applications that support SNMP.                                                                                                                                       |      | X   | X   | X              | X   | X |
| <b>Software-Based Licensing</b> – Use a software-only license that no longer requires a dongle to be connected to the system. Simplifies deployment, especially with virtualization.                                                                                                             |      |     |     |                | X   | X |
| <b>Virtualization using VMware</b> – Take advantage of the cost, disaster recovery, and server consolidation benefits virtualization brings in a VMware® vSphere™ environment.                                                                                                                   |      |     |     |                | X   | X |
| <b>Virtualization using Microsoft Hyper-V</b> – CX-E has been certified to run on Microsoft® Windows Server® Hyper-V®.                                                                                                                                                                           |      |     |     |                | X   | X |
| <b>Applications</b>                                                                                                                                                                                                                                                                              |      |     |     |                |     |   |
| <b>Advanced Call Screening</b> – Allows you to acknowledge an incoming call with a brief message before putting them into your voicemail or divert (transfer) the call to another subscriber when you are unable to take the call and want to transfer the caller to someone that can help them. |      |     |     | X <sup>5</sup> | X   | X |
| <b>Announce Availability</b> – Lets callers know what your current status is, such as “in a meeting” or “on vacation”, and when you are expected to return.                                                                                                                                      |      |     |     |                | X   | X |
| <b>Atom – AVST Total Office Manager</b> – Atom bundles many of the advanced features available in CX-E that boost productivity and efficiency, such as Unified Messaging, speech-enabled multi-lingual Personal Assistant, federated presence, location-based services, advanced call screening. |      |     |     |                | X   | X |

<sup>5</sup> CallXpress Speech Server does not support call divert (transfer)

| Feature                                                                                                                                                                                                                                                                                                                      | OS/2 | 5.x | 6.x | 7.x            | 8.x | 9 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|----------------|-----|---|
| <b>Auto Attendant Scheduling and Schedule Override</b> – Insert a Schedule mailbox anywhere within an auto attendant tree where branching may need to occur based on time of day/day of week, holidays, unplanned closures, etc. Override the schedule using the admin clients or over the phone.                            |      |     |     |                | X   | X |
| <b>Auto Login</b> – From an external telephone, captured ANI/caller ID information will recognize the caller as a subscriber, prompting the caller to enter his/her security code.                                                                                                                                           |      | X   | X   | X              | X   | X |
| <b>AVST Mobile</b> – An easy to use, yet feature rich application for Android and iPhone that allows you to manage your business calls and contacts while maintaining mobile number protection. Also allows you to manage your messages, availability, and mailbox settings.                                                 |      |     |     |                | X   | X |
| <b>AVST Mobile Web</b> – A small footprint web application that allows you to quickly set your availability from any mobile device with a web browser.                                                                                                                                                                       |      |     |     |                | X   | X |
| <b>Calendar Management</b> – Microsoft Exchange or IBM® Notes® based UM users can listen to meetings and appointments for a given day, create new appointments and meetings, and accept/decline meeting requests from others.                                                                                                |      |     |     | X <sup>6</sup> | X   | X |
| <b>Call Recording</b> – Record your conversation so that you can listen to what was said at a later time.                                                                                                                                                                                                                    |      |     |     | X <sup>3</sup> | X   | X |
| <b>Call Transfer</b> – Transfer your current call to another subscriber or to another device completely hands-free such as when you want to transition from your mobile phone to your office phone or vice versa when you enter or leave the office.                                                                         |      |     |     | X <sup>3</sup> | X   | X |
| <b>Call Waiting (Whisper)</b> – When you are on a call, Personal Assistant can discreetly enter the line and whisper to you that another call is coming in.                                                                                                                                                                  |      |     |     | X <sup>3</sup> | X   | X |
| <b>Citrix® Terminal Services Compatibility</b> – The CX-E graphical user interface (GUI) can be viewed and accessed remotely using Citrix, enabling remote users to have a fully featured CX-E GUI on their desktop PCs. Saves time for administrators deploying UM since all CX-E software can reside on the Citrix server. |      |     |     | X              | X   | X |

<sup>6</sup> CallXpress Speech Server does not support IBM Notes

| Feature                                                                                                                                                                                                                                      | OS/2 | 5.x | 6.x | 7.x            | 8.x | 9 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|----------------|-----|---|
| <b>Click-to-Call from Contact Card</b> – Call (Live Reply) a contact directly from the Microsoft Outlook® Contact Card accessible many ways, including the Global Address Book.                                                              |      |     |     |                | X   | X |
| <b>Contact Dialing / Management</b> – UM users can dial people in their Microsoft Outlook Contacts or IBM Notes Address Book simply by saying the person’s name.                                                                             |      |     |     |                | X   | X |
| <b>Distribution List Management</b> – Users can add and remove members to distribution lists they sponsor.                                                                                                                                   |      |     |     | X              | X   | X |
| <b>Distribution List Notification Suppression</b> – Distribution lists can be set to suppress one of more of the following notification types – Message Waiting Indication, SMS/SMTP, Immediate Message Notification and Message Forwarding. |      |     |     | X              | X   | X |
| <b>Federated Presence &amp; Calendar Integration</b> – Atom can utilize Instant Messaging presence information, as well as calendar events, to intelligently route calls to the appropriate device and determine how callers are greeted.    |      |     |     |                | X   | X |
| <b>Find-me/Follow-me</b> – Directs your calls to the right location – work, mobile, home office – based on your schedule so you never miss an important call.                                                                                |      |     |     | X <sup>3</sup> | X   | X |
| <b>Force Security Code Change</b> – An alternative to using Setup Tutorial, administrators can force subscribers to change only their security code the next time they log in to their mailbox.                                              |      |     |     | X              | X   | X |
| <b>Google® Gmail Integration</b> – Provide unified messaging capabilities such as storing voice/fax messages in Gmail for a single inbox and listening to email messages over the phone.                                                     |      |     |     |                | X   | X |
| <b>Google Gmail Message Waiting Indication (MWI)</b> – When storing voice/fax messages in Gmail, the system can light the message waiting lamp on users’ phones when they have unread messages.                                              |      |     |     |                |     | X |
| <b>Google Calendar &amp; Contacts</b> – Users can call contacts, see which contact is calling, listen to calendar events and use calendar events to automate availability state changes.                                                     |      |     |     |                | X   | X |

| Feature                                                                                                                                                                                                                                                                                                                                                               | OS/2 | 5.x | 6.x | 7.x            | 8.x | 9 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|----------------|-----|---|
| <b>Greeting Expiration</b> – The greeting callers hear can be controlled per availability state, which can either automatically change or be manually set to expire, effectively making it possible to set an expiration date for the out of office greeting.                                                                                                         |      |     |     |                | X   | X |
| <b>IMAP Email Server Support</b> – Users of messaging servers that comply with IMAP4 compliant servers can manage all of their voice, fax, and email messages in one central location both from email inboxes or the telephone user interface.                                                                                                                        |      |     |     | X              | X   | X |
| <b>Integrated Client Access (ICA)</b> – Voice messages and fax messages can now be stored in CX-E and accessed by any IMAP4 compatible email client, minimizing use of storage space on the email server.                                                                                                                                                             |      |     |     | X              | X   | X |
| <b>Live Reply to External Calls</b> – Users can reply to an outside call with a live call, just as it works with internal extensions. The system captures the ANI/Caller ID information from the call or prompts the caller to enter a callback number which will allow the subscriber to press the Live Reply key to be connected with the outside telephone number. |      | X   | X   | X              | X   | X |
| <b>Location-Based Services</b> – The AVST Mobile client can utilize Wi-Fi detection or geo-fencing to identify locations. Atom then utilizes the user’s location to intelligently route calls to the appropriate device and determine how callers are greeted.                                                                                                        |      |     |     |                | X   | X |
| <b>Message Undelete</b> – Users have the option of restoring deleted messages before logging off a session.                                                                                                                                                                                                                                                           |      | X   | X   | X              | X   | X |
| <b>Microsoft Exchange and IBM Notes Integration</b> – Unified messaging integration with Microsoft Exchange or IBM Notes.                                                                                                                                                                                                                                             |      | X   | X   | X              | X   | X |
| <b>Missed Call Notification</b> – Notifies you of missed calls whenever the caller does not leave a message.                                                                                                                                                                                                                                                          |      |     |     | X <sup>3</sup> | X   | X |
| <b>Multiple Exchange Servers</b> – Supports an unlimited number of Microsoft Exchange servers configured with server-based unified messaging.                                                                                                                                                                                                                         |      | X   | X   | X              | X   | X |
| <b>Multiple Extension MWI</b> – The system can provide message waiting indication (MWI) for multiple extensions associated with a subscriber mailbox.                                                                                                                                                                                                                 |      |     |     | X              | X   | X |

| Feature                                                                                                                                                                                                                                                   | OS/2 | 5.x | 6.x | 7.x | 8.x            | 9              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|-----|----------------|----------------|
| <b>NotifyXpress</b> – Adds broadcast notification/messaging capabilities to CX-E for appointment reminders, payment reminders, political campaigns and much more.                                                                                         |      |     |     |     | X              | X              |
| <b>NotifyXpress Text Notification</b> – Notification via text message (SMS) to reach a wider audience more reliably. Notification campaign can consist of calls, text messages or a mix of both.                                                          |      |     |     |     |                | X              |
| <b>Out-of-Office</b> – Record a greeting to be used when you will be out of the office for an extended period of time, eliminating the need to re-record your personal greeting upon your return.                                                         |      | X   | X   | X   | X              | X              |
| <b>Partial Message Enumeration</b> – For subscribers whose email accounts contain extremely large numbers of new or saved messages, this feature enables the system to retrieve messages incrementally in small groups instead of retrieving all at once. |      | X   | X   | X   | X              | X              |
| <b>Place Call from Contacts</b> – Users may place a call from the GUI to an entry in the Microsoft Outlook Contacts database in the same manner as the Live Reply feature.                                                                                |      | X   | X   | X   | X              | X              |
| <b>Read/Unread Messages</b> – The system can present unread messages first and hold read messages to the end of the list. Messages are also preceded by an announcement informing subscribers of the kind of message about to play.                       |      |     |     | X   | X              | X              |
| <b>Reply All</b> – Reply to all recipients of a message for better group/team collaboration.                                                                                                                                                              |      |     |     |     | X <sup>4</sup> | X <sup>4</sup> |
| <b>Retrieve Messages by Sender</b> – Voice User Interface (VUI) users can find messages from a specific sender quickly and easily using simple voice commands.                                                                                            |      |     |     |     | X              | X              |
| <b>Schedule-based Presence and Availability</b> – Automate changes to your availability/presence by establishing your normal daily/weekly schedule. Easily override your normal schedule through a phone or web browser.                                  |      |     |     |     | X              | X              |
| <b>Security Code Reset</b> – Subscribers have the ability to reset their own security code using Web PhoneManager™ without requiring the assistance of a system administrator.                                                                            |      |     |     |     | X              | X              |

| Feature                                                                                                                                                                                                                                                                                                                     | OS/2 | 5.x | 6.x | 7.x | 8.x | 9 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|-----|-----|---|
| <b>Silent Acknowledgement</b> – Convey a pre-recorded message to a caller letting them know when you expect to be able to call them back without having to record anything.                                                                                                                                                 |      |     |     |     | X   | X |
| <b>Single Sign-On for Web PhoneManager</b> – Redirects authentication to an Identity Provider such as Active Directory® Federation Services (ADFS) so that users can access their CX-E mailbox using their LAN credentials.                                                                                                 |      |     |     |     | X   | X |
| <b>SMS Notification</b> – Receive message notification through a SMS-enabled device, receiving notification that a voice or fax message has arrived, the sender (if subscriber, Caller ID, or ANI information is available), the date and time the message was received, and the number of unread messages in your mailbox. |      | X   | X   | X   | X   | X |
| <b>SMTP Email Notification</b> – Support for email notification of incoming messages via SMTP. Optionally, the voice message can be attached as a .WAV file to the email. The email can also contain the URL to Web PhoneManager as a shortcut for Secure UM users.                                                         |      |     |     | X   | X   | X |
| <b>Speech-based Auto Attendant</b> – Harness the power of voice to build powerful and intuitive self-service applications that can drive your business productivity 24/7.                                                                                                                                                   |      |     |     |     | X   | X |
| <b>Speech Directory Groups</b> – Narrow the auto attendant directory to only the subscribers that are members of the group or groups you specify, which improves the recognition rate for companies with duplicate or similar sounding names.                                                                               |      |     |     |     | X   | X |
| <b>Strong Security Code Support</b> – Highly secure approach to subscriber security code creation and usage. Limits use of trivial or easy to guess security codes, as well as prohibiting use of previously used security codes.                                                                                           |      |     |     | X   | X   | X |
| <b>TeamQ</b> – Provides robust informal call center capabilities for small teams of up to 25. Perfect for help desks, support groups and other collaborative teams where answering the phone is a shared responsibility.                                                                                                    |      |     |     |     | X   | X |
| <b>TeamQ Call Recording</b> – Provides basic call recording capabilities that can be configured to record all calls to agents, all calls to specific agents only or agents can choose which calls to record.                                                                                                                |      |     |     |     |     | X |



| Feature                                                                                                                                                                                                                    | OS/2 | 5.x | 6.x | 7.x | 8.x | 9 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-----|-----|-----|---|
| <b>Trusted Login</b> – System administrators can define telephone numbers that are allowed to log a user into the system automatically without requiring the subscriber to enter their mailbox number or security code.    |      |     |     | X   | X   | X |
| <b>UCConnect™</b> – A Microsoft .NET Open Development Framework that allows you to rapidly create custom IVR applications that enhance your customer experience and streamline your business processes.                    |      |     |     |     | X   | X |
| <b>Unlimited Greetings</b> – The Availability feature can now support an unlimited number of greetings that users can record and switch between.                                                                           |      |     |     |     | X   | X |
| <b>Voice User Interface (VUI)</b> – Subscribers use easy to remember spoken commands to manage their messages, place calls to other system users, place calls directly to phone numbers and manage their mailbox settings. |      |     |     |     | X   | X |
| <b>XMediusFAX® Integration</b> – Integrate CX-E with XMediusFAX for unified messaging, single number voice/fax, advanced fax message notification via MWI, SMS, Outcall, etc., telephone access to fax messages and more.  |      |     |     |     | X   | X |

## About AVST

With more than 30 years of continuous innovation, Applied Voice & Speech Technologies, Inc. (AVST) is a trusted developer of software-based Unified Communications solutions for businesses of all sizes. To learn more about AVST, please visit [www.avst.com](http://www.avst.com) or you can follow us at [Twitter](#), [Facebook](#) or [LinkedIn](#).

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