

Aastra Solidus eCare™ Multimedia Contact Center Self-Service Applications

Aastra Solidus eCare™ Multimedia Contact Center is intelligently built to support three fundamental groups of applications - Agent Applications, Management & Provisioning Applications, Self-Service Applications.

All in all, these three highly effective groups of applications using Solidus eCare™ enable organizations to minimize total cost of ownership, maximize service availability and utilize tools to build long lasting customer relationships.

This suite of applications provides contact center managers and supervisors with superior tools to develop and manage the contact center operations. The applications enable an organization to compare and contrast the use of different resources, as well as analyze media inquiry processes and overall contact center efficiency.

Solidus eCare™ Script Manager

Solidus eCare Script Manager, a so called IVR (Interactive Voice Response) is a powerful application that can automate and provide advanced self services for customers. Self service applications such as Solidus eCare Script Manager reduce cost while providing a high level of customer satisfaction by allowing your customers 24 hours access to your business services. It also reduces the cost per customer interaction by providing more self service options which increases business efficiency.

Enterprises are increasingly turning to IVR systems to automate, and consequently reduce, the costs of common sales, service, inquiry and support calls to and from their companies. Solidus eCare Script Manager automatically manages incoming calls and can provide advanced customer handling to ensure common customer requests can be handled efficiently without human interaction. Whether used as a standalone system or as a front end to your contact center with integration to a complete Solidus eCare Multimedia Contact Center, the Solidus eCare Script Manager is flexible enough to suit all companies' needs. By using more automated services as a front end to your contact center, valuable agent resources are freed to handle more complex or important customer requests ensuring increased customer satisfaction and reduced customer churn.

Enhanced Customer Support with Improved Return on Investment

Solidus eCare Script Manager is an integrated module of Solidus eCare Multimedia Contact Center. The system can offer a span of traditional IVR services such as retrieving information (e.g., bank balances, flight status, order status, etc.) based on customer/PIN code identification and database lookup, to an advanced applications platform for a wide variety of voice and data applications. Solidus eCare Script Manager offers a lot more than traditional IVR systems.

In addition to getting responses via traditional touch-tone keypad entry, Solidus eCare Script Manager also enables input and responses to be gathered through spoken words using voice recognition. Moreover, it can also be used to place calls to deliver or gather information for reminder appointments, class enrollment, overdue bills, and other time-sensitive events and activities. The opportunities are endless.

With Solidus eCare Script Manager from Aastra, automated services that are analogous to IVR communication are no longer limited to voice but also available for text messages using mobile Short Message Service (SMS) which is the fastest growing communication medium among consumers. This enables enterprises to offer yet another form of media to their customers, thus allowing customers to access their services in the medium of their choice. Providing yet another flexible access is one of the key success-factors in increasing customer loyalty and satisfaction.

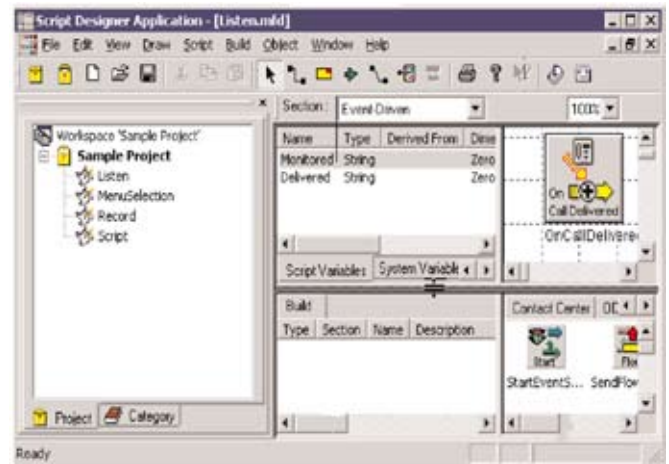
Solidus eCare Script Manager also utilizes the latest in IP technology providing a pure software based solution for media handling. This reduces the total cost of ownership as enterprises are no longer limited to a hardware-based IVR; they can now deploy an all-IP software based IVR, thus taking advantage of the benefits inherent to IP technology, i.e. high flexibility, fast implementation, upgrades, and unified infrastructure. IP-based media support requires less hardware; this allows a contact center can be set up more quickly, meaning less time to payback from the initial investment. Furthermore, the cost of implementing an IP call center is significantly lower, enabling customers to shift their investments from hardware to networking. The benefits are immense.

Product Overview

Solidus eCare Script Manager from Aastra is fully customizable to suit any company business. The creation of inbound and outbound IVR call-flows is managed by an easy and simple graphical application. This application provides intuitive icons with easy drag and drop functionality. The creation of customized interaction flows can be changed and managed to suit the constant changes of your business environment.

Integrated with Aastra Solidus eCare™ Multimedia Contact Center

Solidus eCare Script Manager system is a fully modular system that can be deployed as a standalone or integrated solution with Solidus eCare. As an integrated system, the information collected from the automated service can be automatically passed to the Agent and 3rd party applications to provide seamless customer interaction and increased efficiency. Using Solidus eCare's intelligent skills based routing, based on the customer's input in the Script Manager, the system can route the callers to the best skilled agent and appropriate service group. Once the agent is connected to the customer, all information is seamlessly passed to the agent desktop and it also can be automatically sent to 3rd party applications which can trigger screen pops. This is all handled seamlessly for the agent which increases agent efficiency and productivity.



Solidus eCare Script Manager, script building window

In an integrated solution with Solidus eCare, enhanced benefits included consolidated real-time and historical reporting. Real-time reporting can show the real time call flow activity from the contact center management application. Historical reports can be generated from the time the customer enters the IVR system until they have been handled by an agent though the Solidus eCare reporting module, thus providing end to end analysis of your customer behavior and contact center dynamics. As an integrated solution, enterprises can unleash the full potential and benefits with deploying the Solidus eCare Multimedia Contact Center solution. Solidus eCare is a simple, secure and reliable solution for all your contact center business needs.

IP-based IVR

Solidus eCare Script Manager system supports pure IP media for handling any media request such as playing of prompts. This provides a pure software based solution with no reliance on expensive hardware boards. With IP-based media support, Aastra customers are able to deploy a pure software-based-only solution. This provides cost-saving benefits including easier configuration and installation, as there is less reliance on third-party hardware and drivers.

Solidus eCare™ Script Manager Integration Opportunities

Solidus eCare Script Manager system is simple to use while providing boundless integration opportunities that can be tailored to your business needs. The system can be integrated with 3rd party systems and databases which allows for high customization to suit all your business requirements. Utilizing the Script Manager components the following features are just the tip of the possibilities the system can offer:

- Utilizing Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) the system can be used to develop various applications. Example: Automated read-out of information from a database using Text-to-Speech. Using speech recognition to initiate changes in the system such as class registration or passwords.
- SMS (Short Message Service) support. The SMS functionality support can be extended to beyond supporting merely incoming and outgoing SMS messages, but to functionalities such as read-out of SMS messages via Text-to-speech, database update (as in the case of an SMS voting scenario), etc.
- Automated outbound calling based on a pre-defined threshold. With Solidus eCare Script Manager the activity is no longer merely limited to incoming calls; it can be triggered by an event. Example: Solidus eCare Script Manager can search the database at a predefined frequency and retrieve information of the customers who have an appointment for a specific date, or have an outstanding balance, and initiate the calls to these customers.

For advanced integration there is support for Visual Basic and Java scripting as well as support for C-hooks. The C-hooks can be placed in the call flow like any other IVR commands allowing everything to be highly customized to your business needs for unlimited integration possibilities.

Solidus eCare Script Manager is a simple yet highly flexible tool that will improve your business efficiency and agent productiv-

ity while increasing your customer satisfaction. Integrated with Solidus eCare it can unleash endless potential for your business and your customers.

Solidus eCare™ Interactive Web Response

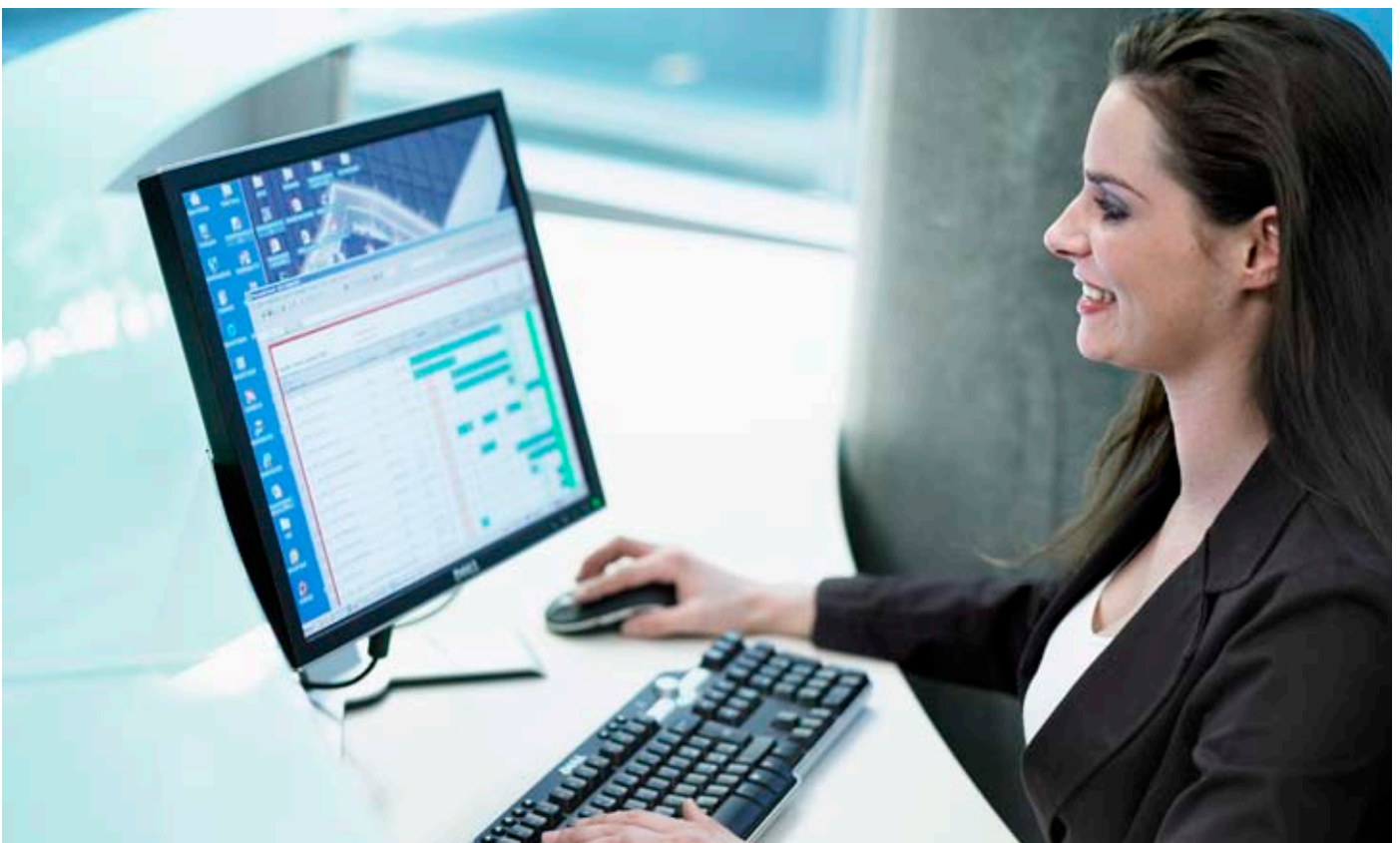
Virtual Agent

Virtual Agent is an interactive web response application that automates customer self-service. The Virtual Agent resides on the customer website and resolves customer enquiries without agent intervention through the use of customized knowledge bases. This enables contact centers to answer customer inquiries quickly and accurately using a knowledge base of answers, thereby minimizing costly agent interaction.

The Virtual Agent integrates seamlessly with any Web site, enabling customers to type their queries in a natural language (English only). The Virtual Agent then responds instantly with relevant, accurate answers. The Virtual Agent is not confined to text-based responses. It also has the ability to push Web pages or stream multimedia demonstrations that enhance the customer's on-line experience.

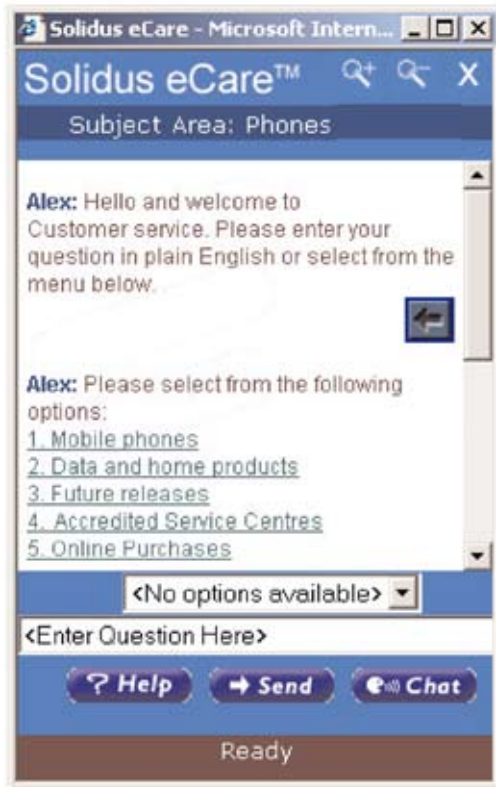
The Virtual Agent has the ability to push Web pages, files, presentation material and advertising information so the customer can receive the most comprehensive information. It is a fully customizable client to maintain the look and feel of the company's existing Web site.

It supports Natural Language (English only), Pull down menus, and a Keyword Interface and any interaction can be escalated automatically to human support using Solidus eCare's skills-based routing.



Solidus eCare™ Automatic E-mail Response

A big complaint today is that e-mails sent to companies are either not answered or take days to respond. With Solidus eCare Automatic E-mail response, customer inquiries can be responded to immediately, with accurate information, minimizing the need for more costly live agent contact.

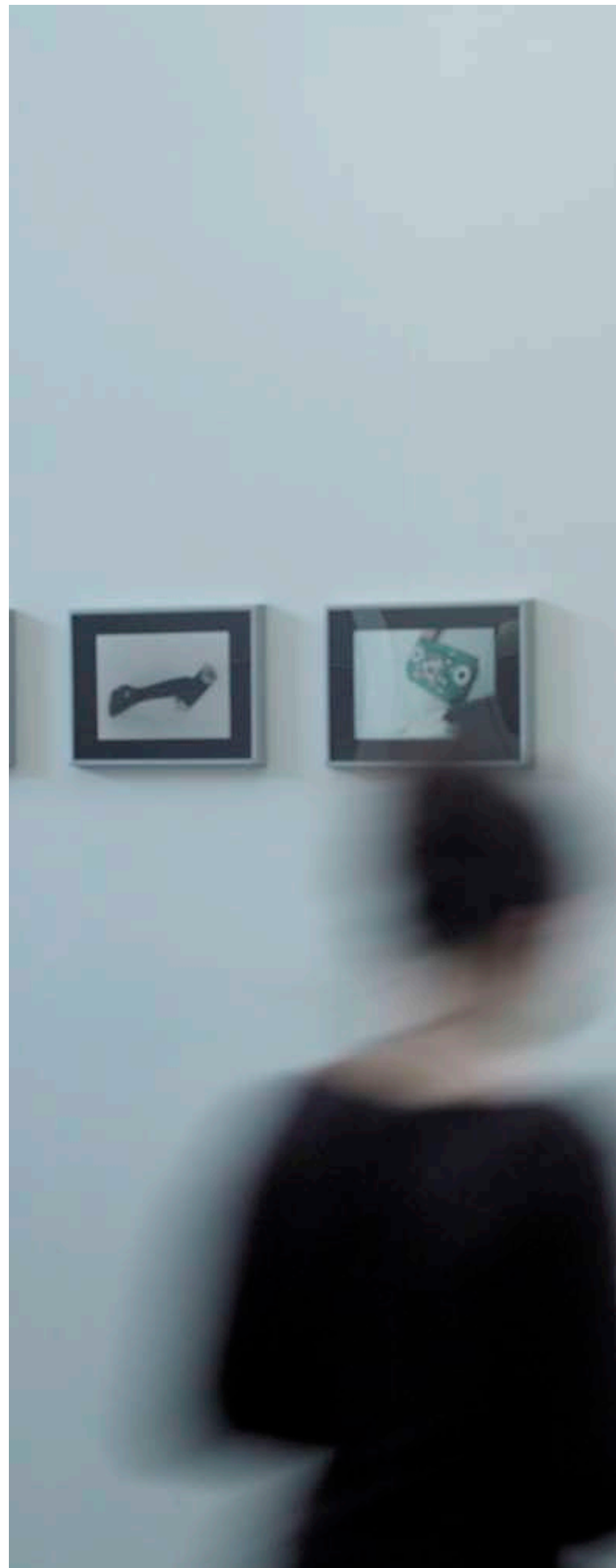


Solidus eCare Interactive Web Response, chat window

The Automatic E-mail Response functionality requires the Desktop Manager E-mail Agent and the knowledge base built with the Internet Suite Creator.

The intuitive knowledge base is capable of performing intelligent content search of incoming e-mails (English only). The content of the e-mail is analyzed and a proposed answer from the database is automatically issued. A confidence threshold can be configured through Configuration Manager. If the proposed response satisfies this threshold, then the Solidus eCare system can be directed to release the e-mail back to the customer. Conversely, if the threshold is not satisfied, then the e-mail will be routed to the agent for editing, prior to sending the e-mail back to the customer. The system can be configured to always send the response to the agent for approval prior to issuing the e-mail back to the customer.

E-mail and auto e-mail functionality require Solidus eCare connection to a Mail Server either the Microsoft Exchange Server or Lotus Domino. Dedicated mailboxes are defined from within the mail server. These mailboxes are associated with service groups configured for handling e-mail within the Solidus eCare routing context. In this way, multiple mailboxes can be configured, each associated with a different service group. The configuration of these mailboxes is done directly through the mail server.





Technical Specifications

Software and Hardware Requirements

The Solidus eCare components can be installed on one server or distributed to multiple servers. Configurations of the servers are dependent on traffic intensity and requirements on redundancy.

Solidus eCare Minimum Software and Hardware Requirements

Refer to the latest 3rd Party Compatibility Matrix and the Alex library containing Customer Product Information for Solidus eCare and OAS on the MediaKit including the Alex viewer application for the latest up to date software compatibility and hardware requirements. The 3rd Party Compatibility Matrix can be found on the Partner Portal.

The Alex library can also be viewed and downloaded from CPI Extranet. User and Passwords credentials for CPI Extranet can be obtained from the knowledge base at Service Plaza.

Alex library product number: EN/LZN 748 0017/1

Minimum server and client PC requirements

Server requirements (minimum)

- A Pentium 4 2.4 GHz Microsoft® Windows® 2003 compatible server
- An SVGA monitor that can be configured to display in High Resolution Mode (1024 x 768 recommended) with 32 bit True color
- 2 GB RAM
- A mouse or other pointing device that is 100% Microsoft compatible
- DVD-ROM drive
- Hard disk space of at least 10 GB
- Ethernet Network Interface Card
- Microsoft Windows 2003 Server Standard or Enterprise Edition (Enterprise edition is mandatory for clustering)
- Microsoft SQL Server Version 2005 (sw) or Microsoft SQL Server Version 2005 Express (sw) only for Minivoice
- Microsoft Exchange Client if Exchange e-mail is used Outlook 2003 (sw)
- Lotus Notes if Domino e-mail is used Notes 6.5.1 or 7.0 (with Domino 6.5 or 7.0 (sw))

Client requirements (minimum)

- CPU of 1.5 GHz with 512 MB or better, Microsoft Windows 2000/XP compatible PC
- An SVGA monitor is optional that can be configured to display in High Resolution Mode (1024 x 768 recommended) with 32 bit true color
- 512 MB RAM
- One communication port available for wall display connections if wall displays are to be used
- A mouse or other pointing device that is 100% Microsoft compatible
- DVD-ROM drive (If not installing from a network drive)
- Hard disk space of at least 5 GB
- Ethernet Network Interface Card

- Windows 2000 with Service Pack 4, Windows XP Professional with Service Pack 2 (sw)

Solidus eCare Internet Suite Exchange Service (minimum)

- CPU of 1.5 GHz with 1GB of RAM and a 5 GB hard drive
- Java 2 SDK, Standard Edition (sw)
- New Atlanta ServletExec (sw)
- Seagate Software Crystal Report Professional or Developer Editions (sw)

Solidus eCare with Knowledge Base Manager (minimum)

- CPU of 1.5 GHz with 1GB of RAM and an 10 GB hard-drive
- Windows 2003 Server (sw)

OAS Recommended Hardware and Software Requirements

Server hardware requirements

OAS 6.0 and Solidus eCare 6 supports a total of up to 20 OAS servers, regardless of the number of MX-ONE™ Telephony Server/ MX-ONE™ Telephony Switch in a Virtual Contact Center. Due to restrictions in the PBX there can be a maximum of four OASs on each site.

Each OAS can have up to six media servers per site.

The Open Application Server components can be installed on one server PC or distributed on up to three Server PCs. This server PC including options has been productified as part of our product offering and is orderable via the normal ordering routines. It is highly recommended to use this server PC for all the customer installations.

Configurations of the server PCs are dependent on traffic intensity, types of applications used and requirements on redundancy.

Minimum server requirements

- CPU of 2.3 GHz, single, hyper-threaded or multiple processors. For higher traffic performance, a higher-grade machine will be required.
- An SVGA monitor is optional that can be configured to display in High Resolution Mode (1024 x 768 recommended) with 32 bit true color
- 2 GB RAM or better
- A mouse or other pointing device that is 100% Microsoft compatible
- DVD-ROM drive
- Hard disk space of at least 16 GB
- Ethernet Network Interface Card
- As many PCI-X slots as the number of Intel Dialogic boards in each media server (for non VoIP Media Servers only)

Media Hardware Requirements

Up to two digital (PRI) media or 3 analog media Dialogic boards per server (for non VoIP Media Servers only). Analog and digital boards cannot be mixed in the same Media Server.

- Analog Media
 - 12-Channels Dialogic analog board (D/120JCT-LS) for USA and Canada
 - 12-Channels Dialogic analog board (D/120JCT-EURO) for all countries **except** USA and Canada
 - Analog cable connecting the MX-ONETM Telephony Switch to OAS

- CT Bus cable (TSR 899 54), ordered separately, and used when system is equipped with more than one Dialogic board in the same server
- Digital Media
 - 23-Channels Dialogic digital T1 board (D/480JCT) for USA and Canada
 - 30-Channels Dialogic digital E1 board (D/600JCT) for all countries **except** USA and Canada
 - Digital cable connecting the MX-ONETM Telephony Switch to OAS
 - CT Bus cable (TSR 899 54), ordered separately, and used when system is equipped with more than one Dialogic board in the same server
- IP Media
 - No hardware is required for the IP Media interface

OAS Automatic Speech Recognition and Text-To-Speech requirements

Customers that wish to install Automatic Speech Recognition (ASR) or Text-To-Speech (TTS) for their IVR system need to take the following under consideration:

- Hardware must be purchased that supports the ASR and TTS usage
 - For the servers, this means sufficient CPU and memory (RAM)
 - For the boards, this means to have a board that supports ASR & TTS
 - Currently the D/600JCT, D/480JCT and D/120JCT are all supporting ASR & TTS

Note: Currently there is a maximum of 120 concurrent ASR calls per site and a maximum of 120 concurrent TTS calls

Minimum software requirements

OAS Server

- Microsoft Windows 2003 Server with SP 1 Standard or Enterprise Edition (Enterprise edition is mandatory for clustering)
- Microsoft Data Access Component 2.8
- Dialogic SR 6.0 (Supplied via Aastra)
- Nuance Speech Recognition System Version 8.5 (Supplied via Aastra)
- Nuance TTS Real Speak 4.0 (Supplied via Aastra)

OAS Clients

- Microsoft Windows 2003 SP1, Microsoft Windows 2000 with Service Pack 4, or Microsoft Windows XP Service Pack 2 or later

SQL Server

- Microsoft SQL Server 2005

PBX requirements

- Aastra MX-ONE™ Telephony Switch (BC13), Latest Service Pack (sw)
- Aastra MX-ONE™ Telephony Server 2.1, 3.0, 3.1, 3.2, Latest Service Pack (sw)

Requirements for connection to Aastra MX-ONE™ Telephony Server and MX-ONE™ Telephony Switch

- One NIU card including related MX-ONE™ Telephony Switch licenses. For optimum performance, we recommend one NIU

board in every LIM that contains any object related to the CTI server (i.e. any telephone device or ACD/CTI group) and that there should be at least 2 NIU boards per system; this will share the load between the LIMs.

- ELU29/14
MX-ONE™ Telephony Switch analog board for USA and Canada
- ELU29/11
MX-ONE™ Telephony Switch analog board for all countries **except** USA and Canada
- TLU76/1
MX-ONE™ Telephony Switch digital E1 – ISDN
- TLU77/1
MX-ONE™ Telephony Switch digital T1 – ISDN
- IPLU
MX-ONE™ Telephony Server / MX-ONE™ Telephony Switch IP board required for the IP interface

Clustering software, hardware and network requirements

The following requirements must be considered for a clustered environment:

Software Requirements

- Windows Server 2003, Enterprise Edition installed on all computers in the cluster. (latest service pack)
- All nodes in the cluster must be of the same architecture.
- The system must be using a name-resolution service.
- All nodes in the cluster must be in the same domain

Hardware Requirements

- For Windows Server 2003, Enterprise Edition, Microsoft supports only complete server cluster systems chosen from the Windows Catalog.
- If installing a server cluster with a storage area network (SAN), and plan to have multiple devices and clusters sharing the SAN with the cluster, the hardware components must be compatible.
- Two mass-storage device controllers in each node in the cluster: SCSI, iSCSI, or Fibre Channel for cluster storage on server clusters that are running Windows Server 2003, Enterprise Edition.
- Two Peripheral Component Interconnect (PCI) network adapters in each node in the cluster.
- Identical hardware in all cluster nodes.

Network Requirements

- Unique NetBIOS name.
- WINS or DNS server, or Hosts file.
- Static IP addresses for each network adapter on each node.
- The nodes in the cluster must be able to access a domain controller.
- Each node must have at least two network adapters
- Using teaming network adapters on all cluster networks concurrently is not supported
- Network Teaming is recommended for public network connection.
- Cluster software operates on IP failover which only functions within the same subnet

