



Aastra Solidus eCare™ Multimedia Contact Center Management & Administration Applications

Aastra Solidus eCare™ Multimedia Contact Center is intelligently with to support three fundamental groups of applications – Agent Applications, Management & Administration 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.

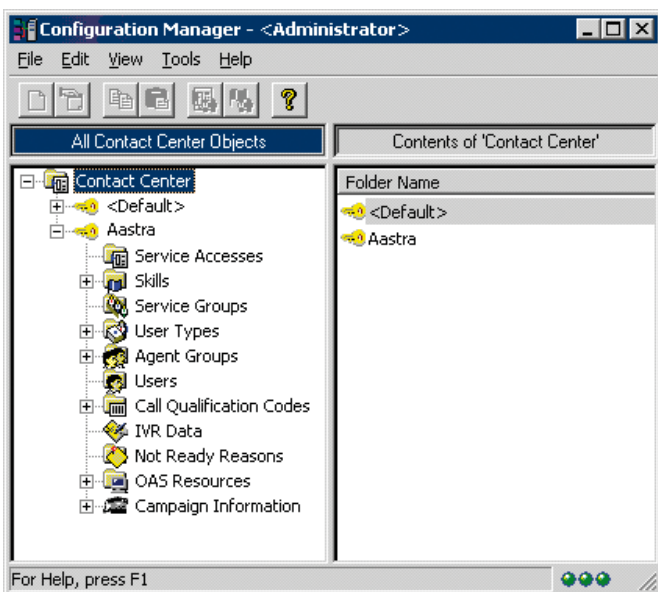
Solidus eCare™ Administration

The administration applications and interfaces provide contact center managers the resources to dynamically and proactively manage all aspects of contact center activity and integrate with external business applications. The applications and interfaces include:

- Configuration Manager
- Internet Suite Creator (also known as Knowledge Base Manager)
- Centralized Management
- Clustering

Configuration Manager

Configuration Manager is a management tool for Solidus eCare solutions. The Configuration Manager graphical user interface provides an integrated environment to manage all configuration information within a contact center regardless of the number of sites such as setting up call flows, rules and guidelines as well as to define all configurable parameters within a skills-based contact center. Configuration Manager together with the Setup application are the applications that enable the configuration of various sites in a Virtual Contact Center.



Configuration Manager window

Configuration Manager is a client/server application that will allow multiple users to access configuration data according to user's privileges and object permissions. Only users with appropriate authority can access Configuration Manager.

Permission to access, read, or write data per data object can be configured for users, for complete flexibility and security in managing configuration data.

Employing highly intuitive interfaces and wizards, the user is guided through complex set-ups and configurations to:

- Set contact center system properties whether it is single-site or a Virtual contact center with multiple media servers in many sites
- Configure service accesses
- Create IVR scripts
- Establish service groups
- Set up skill sets
- Set up users and user types, with a specific set of access privileges
- Define Call Qualification Codes
- Define and Display IVR Data
- Define reasons for being Not Ready
- Create call campaigns
- Verify configuration
- Create tenants
- Access other applications
- Provide full support for tenanting. I.e. configuring each tenant separately
- The ability to load another Solidus system's data
- Outbound Campaign Management
- Campaign Script Builder to develop questions-and-answer flows to support agents in outbound campaigns and provide consistent customer service and increased productivity.

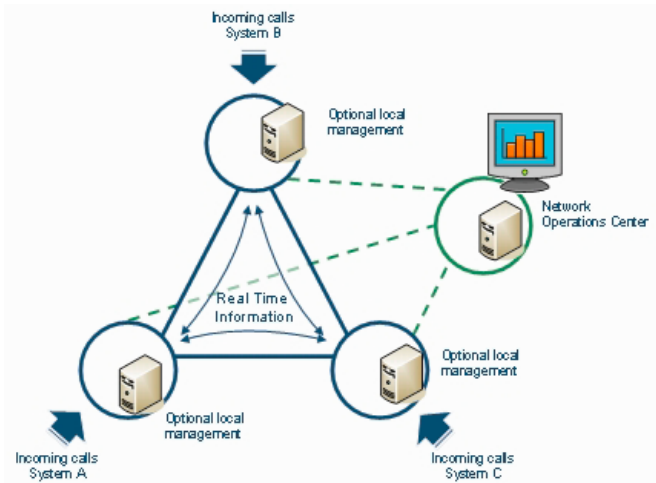
Internet Suite Creator

The Internet Suite Creator (also known as the Knowledge Base Manager) is an intuitive management tool that enables users to create and edit the knowledge base, thus providing relevant information to their customers. Many types of content can be added to the knowledge base, including text, diagrams, links to Web pages, advertising messages and multimedia presentations. The knowledge base becomes an increasingly valuable resource for both customer and staff with the possibility to update and extend it without disruptions of service. It provides the mechanism to deliver quick, consistent response to customers through text, diagrams, link to Web pages, advertising messaging, and multimedia presentations.

Centralized Management

Centralized Management allows multiple Solidus eCare systems to to a central node in which real time information and historical data is collected and compiled for management to get a complete view of current and historical activity throughout the complete installation.

Each Solidus eCare system can be networked using RTI (Real Time Interface) to intelligently route calls between each system.



Centralized Management connects a Network Operations Center (NOC) to multiple independent Solidus eCare systems.

The Network Operations Center (NOC) provides real time data continuously and historical data in intervals. If the NOC loses connection to the monitored contact centers, it will reconnect as soon as possible and update the historical database with the activities that have occurred during that time.

The NOC requires Information Manager, Report Manager licenses as well as Configuration Manager with correct privileges.

A NOC can be used to monitor traffic in a multi tenanted system as well. It will give the host administrator a real time and historical view of all tenants combined.

Clustering

The components of Solidus eCare can be clustered for higher availability and system stability. The Solidus eCare server can be clustered 1+1 and the Open Application Server (OAS) can be clustered 1-4 + 1. The media servers connected to each OAS act as active media resources and can be dimensioned in a n+1 fashion.

Solidus eCare™ Management

The management applications provide contact center supervisors with the resources to dynamically and proactively manage all aspects of contact center activity. The applications include:

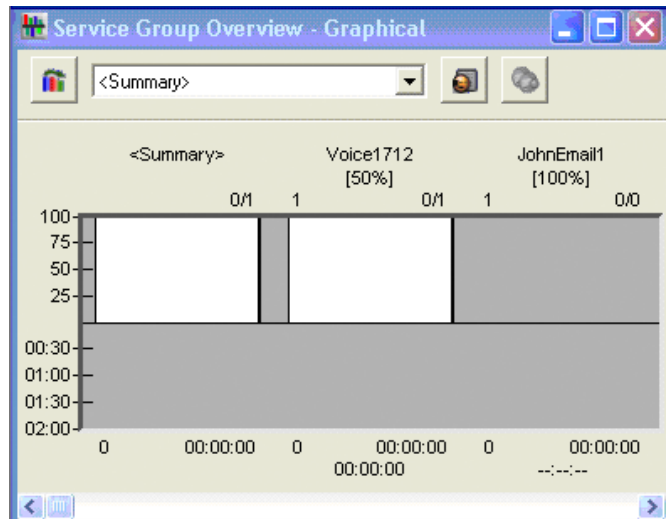
- Information Manager
- Report Manager

Information Manager

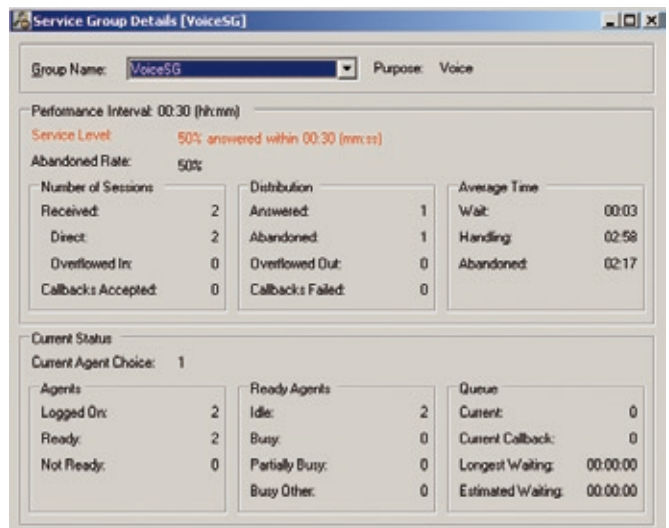
Information Manager allows users to view real time information on service accesses, groups and agents. Information Manager enables managers to configure and save viewing preferences for services and staffing.

Information Manager is a true multimedia real time information application where supervisors can view contact center activity across voice calls, Web chat, e-mail, and SMS, as well as performance and traffic alarms, as it happens.

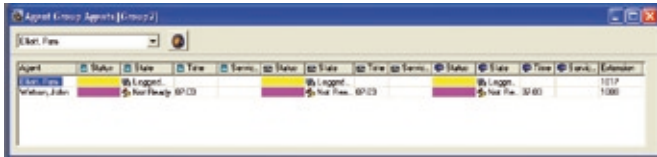
Information Manager is also the place for managing wall displays including a virtual wall display function that ensures that the staff is aware of the current contact center activity status.



Information Manager – Service Group window



Information Manager – Agent Group Agents window



Information Manager – Service Group Detail window

Information Manager connected to a NOC will display all attributed contact center groups, agents and traffic summarized into one consolidated overview.

The real time data presented is continuously updated in graphic and tabular format. Information Manager displays the real time status of the various Solidus eCare components together with statistical information of the contact center services and resources. Some of the components displayed include service objects like service access and service groups as well as resource objects such as agent groups and agents.

The layout of opened real time windows can be reorganized and saved as a preferred setting. The preferred windows setting may be accessed manually or automatically once Information Manager is reactivated. Multiple preferred layouts may be stored for each user.

Object permissions allow users in a contact center to have limited access to contact center objects. These permissions are possible to set as high as service accesses and service groups, and as detailed as agent level.

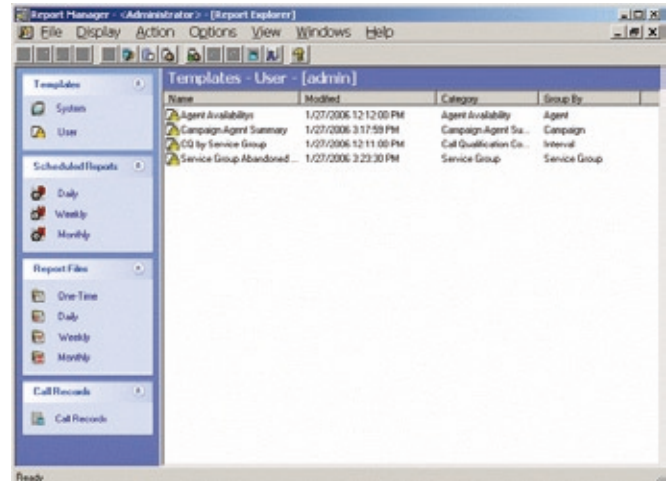
The Virtual Wall Display shows a mixture of text and real time data similar to the external wall display but is displayed in Information Manager. This can be used as an alternative to the external wall display by allowing concise real time information of the contact center on a computer screen to be projected onto a plasma projector or television for all agents to view. Information that is sent to the wall display also can be configured to show on the virtual wall display.

Report Manager

Solidus eCare's Report Manager is a client/server application that provides flexible reporting capabilities by allowing contact center management to generate customized data tables. The formats of the contact center reports are configurable. The system provides a set of predefined templates. However, the contact center management may design templates to meet the needs of their organization.

Report Manager provides improved insight into an organization's contact center activity. The data may be used to demographically present calls received by the contact center as well as customer requested services. The analysis of this data enhances an organization's sensitivity to the specific market environment factors that influence it and also enables the organization to respond to these factors more effectively.

The reports generated with this application enable an organization to evaluate complex issues including asset management, internal cost optimization, resource efficiency and effectiveness.



Report Manager – Flexible reporting

This information can be analyzed in both tabular and inbuilt graphical format so as to:

- Enhance services offered to the target audience.
- Stimulate customer demand.
- Keep a finger on the pulse of current and prospective customers, with a view to improving future business.
- Strengthen internal marketing strategies to increase efficiency and effectiveness.
- Identify strategic advantages for the development of new and unique products and services.

Solidus eCare Report Manager supports various exceptions, unlimited number of columns in reports, open report categories and improved mixed media reporting, including combining groups to create automatic summaries.

Solidus eCare records all contact center events including Script Manager (Interactive Voice Response) activity so that analyses on call flow and contact center design are able to be performed. The data is stored in an open database and retrieved by Report Manager for report generation and review.

Report Manager connected to a NOC can in addition present all this data consolidated from multiple Solidus eCare systems.

Solidus eCare™ Interfaces for server integration

The Solidus eCare Interfaces for server integration can be used to integrate with external business applications. The applications and interfaces include:

- Real Time Interface
- Agent Service Open API

Real Time Interface

The Solidus eCare Real Time Interface provides the ability for individual Solidus eCare systems to be networked together and function as one large virtual center. Additionally, it exposes the real time agent as well as service access and service group performance data through a Component Object Model (COM) to third-party application development; this enables alternative applications to be integrated with Solidus eCare for enhanced customer satisfaction.

This can for example be used when call volumes become high enough in one center to trigger hold time alarms, and user-configured threshold settings will enable the call to be diverted to another contact center.

Agent Service Open API

The Solidus eCare Agent Service Open API provides an open interface that is implemented in a COM (Component Object Model) object, allowing clients to connect to the Agent Service and receive events about Desktop Manager agent activity. The purpose of this interface is to allow integration with Solidus eCare on the Server side, rather than at each individual desktop client.

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 Mininvoice
- 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 support a total of up to 20 OAS servers, regardless of the number of MX-ONE™ Telephony Server or MX-ONE™ Telephony Switch sites 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-ONE™ 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-ONE™ 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

