



Samsung SmartCentre Product Description

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Product Overview

1

SmartCentre is an application that integrates to the DCS 400si to give accurate, real time reports to assist Call Center Managers to effectively manage the operation of the Call Center. A highly visual interface can inform managers of parameters outside acceptable limits, such as too many calls waiting, longest waiting calls and abandoned calls, among others.

Historical reports add the ability to look back at previous days, weeks or months events. These events can be broken down to give the smallest details to an overview of this weeks answered and abandoned calls. Reports can be printed or exported to a spreadsheet for manipulation to charts, this can be immediate or scheduled.

Through the customers LAN, further Supervisors can be added to monitor their own department.

InView Wallboards can also be added to agents, extensions or supervisors desktops, an extra motivational tool to monitor their performance against group performance.

Product Description

2.1 General Features

This general description describes the features and functionality of the SmartCentre range of products. This section gives a summary overview of the main feature set and a description of the features available in each product range. The following features are available in the product.

2.1.1 Real Time Reporting

SmartCentre collates a multitude of real time parameters to enable real time monitoring and performance of a call center. SmartCentre is able to monitor lines, agents, extensions, and DIDs. These parameters may also include groups of devices.

The types of real time parameters collated by SmartCentre fall into two categories.

- **Real time status parameters**, such as the number of calls waiting to be answered.
- **Real time statistics parameters**, such as the number of answered or abandoned calls for the day so far.

Any number of real time data windows can be displayed within the workspace area of the SmartCentre application window.

2.1.2 Supervisors

Further supervisors can be distributed across the LAN allowing different departments to monitor their own groups activity.

2.1.3 Licensing

SmartCentre features and functionality is controlled with a security device called a dongle. This is attached to the PC's parallel port. This governs which product (SmartCentre V, VR or VAR) has been purchased and restricts the number of monitored agents, the number of simultaneously connected supervisors and the number of simultaneously connected InView Wallboards.

All products may operate up to 1000 agents, with 1000 extensions, 1000 DID's and 1000 lines. 500 groups and 100 supergroups are supported, allowing extremely flexible and comprehensive reporting.

2.1.4 Password Protection

Password protection of the product configuration, exit of the product, real-time screen templates and reporting templates is standard.

2.1.5 Security

All users must login to the SmartCentre server when starting up the application, using the user name and password specified by the supervisor. The supervisor can configure login user names and passwords at the SmartCentre server for anyone who is connected to the local area network to which the server is connected. More than one user can login on the same PC if required. This enables separate copies of the inView LAN Wallboard application to be started for each user. It is not possible for one user to concurrently login at more than one location.

2.1.6 Help File

There is a comprehensive context-sensitive help file with all products, which provides users with immediate on-line assistance on operation and programming.

2.1.7 Alarms

Audible and visual alarms may be programmed at the individual device or group level. They enable the supervisor to continue with their daily activities with the knowledge that any problems will be highlighted by means of an audible or visual alarm.

2.1.8 Flexible Reporting

Reports can be compiled using statistics relating to any shift pattern, as defined by the call center manager.

When compiling a report, the user defines the time period over which the report is compiled. This period may be defined to the nearest minute and is not limited to any time boundaries.

For example, a report can cover the period from 11.04 pm on Wednesday, May 21st to 3.43 am on Tuesday, June 3rd and can be set so it only includes information relating to the call center's night shift.

The resolution of event reports is to the second. For profile reports the user may set the resolution to any integral value of minutes, hours, days or weeks.

2.1.9 Automatic Reporting

The automatic reporting feature enables reports to be generated at user-defined times (and intervals). There is a choice of outputs available, more than one output option can be selected at any one time.

- **Print** – (SmartCentre VR and VAR.) After the report has been generated it will automatically be printed to the default printer.
- **Close on Completion** – After the report has been generated or has completed any other output options selected the report will be removed from the reporter screen.
- **Save to File** – (SmartCentre VAR.) The report will be saved after being generated to the file name specified. Every time this report is generated the name will be overwritten.
- **Export to File** – (SmartCentre VAR.) As save to file but will create a text file which can be opened in another application such as a spreadsheet package.

The reports may be scheduled to output a report every hour, day or week at a specified time. There are advanced scheduling options which include more control over interval, frequency, commencement date and period of the report.

2.1.10 Retrospective Analysis

Reports may be compiled even after software upgrades, using data collected from the original installation date. It is possible to perform more comprehensive analysis using an upgraded product on historical data collected using an entry-level product. Similarly, if a new report type is added, it can be used to analyze all previously collected data.

2.1.11 Forecasting

SmartCentre VAR's forecasting package is designed to allow the user to perform "what if" scenarios on historical data, by using a number of parameters over a set period of time.

2.1.12 Automatic Configuration

All individual devices will automatically be identified and added to the product configuration as they appear. These devices then simply require grouping according to user requirements.

2.1.13 Reader Boards

Up to six reader boards may be connected to each real-time client. Wallboard drivers supplied are compatible with the Shorekarn Messagemaker and a range of Spectrum Inc. wallboards, including:

- Shorekarn Messagemaker 2x16
- Spectrum 215C 1x15
- Spectrum 320C 1x20
- Spectrum 4120C 2x20

2.2 Environment

2.2.1 Minimum Hardware Requirements

Processor:	Pentium, 200 Mhz or faster
System RAM	32MB (64MB preferred)
Hard Drive	2 GB or larger
Display	SVGA
Modem	56KB internal with V.90
Sound Card	If present, will be used for alarms
Serial Ports	Minimum 1 - required for Switch Events
1 x Parallel Ports	Required for Licensing Dongle

2.2.2 Operating Systems

The SmartCentre Server and additional supervisors require Windows™ 98, Windows™ NT 4.0, workstation or server, service pack 4 minimum, or Windows™ 2000 professional as the PC operating system TCP/IP network protocol must be present and installed on the PC.

2.2.3 Options

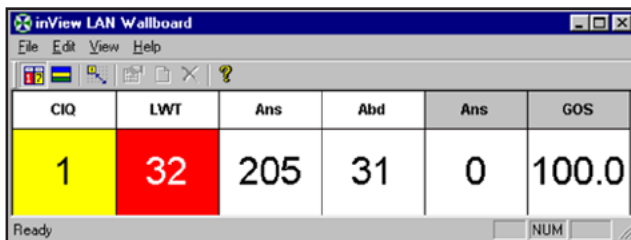
- A Network Interface Card must be present if further supervisors are required.
- A further serial port is required if a Physical Wallboard is required (Reader board).

2.3 SmartCentre Product Options

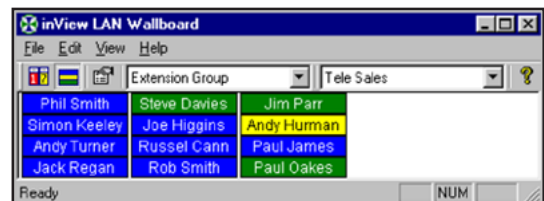
2.3.1 SmartCentre V

SmartCentre V is a Windows™ based product that can show key performance information and agent/extension status. It can be useful for agents, managers and senior managers – in fact anyone connected to the company Local Area Network (LAN).

SmartCentre V is a real time only package based on a single position inView LAN Wallboard (see Section 4 for more information). It can be configured for agent and extension status view (Busy Lamp Field) or 'wallboard' view enabling up to eight parameters from any of the 200 large character windows available relating to groups, agents, extensions, lines, and DIDs. These parameter windows have automatic labels that can be customized.



CIQ	LWT	Ans	Abd	Ans	GOS
1	32	205	31	0	100.0



Extension Group: Tele Sales		
Phil Smith	Steve Davies	Jim Parr
Simon Keeley	Joe Higgins	Andy Human
Andy Turner	Russet Cann	Paul James
Jack Regan	Rob Smith	Paul Oakes

2.3.2 SmartCentre VR

SmartCentre VR uses a full size window for its workspace. Within the workspace, many parameters can be laid out and displayed simultaneously. One real time template may be created and saved at any time.

The screenshot displays the Smart Centre MIS Demo software interface. The main window is titled "Smart Centre MIS Demo" and has a menu bar with "File", "View", "Setup", "Layout", "Messaging", "Wallboards", "Window", and "Help". Below the menu bar is a toolbar and a dropdown menu showing "North/South".

The interface is divided into several sections:

- Line Status : All Lines**: A table with columns "Line No.", "DID No.", "State", "Time", and "Dest. No.". The table lists lines L3700 through L3718. Line L3702 is highlighted in yellow and has a "RING" state with a time of 00:00:03. Line L3716 is highlighted in red and has a "RING" state with a time of 00:00:25.
- Calls Waiting**: A yellow box displaying the number "1".
- Longest Wait**: A yellow box displaying "00:02".
- Abandoned**: A white box displaying the number "4".
- Agent Status : Sales - North**: A table with columns "Agent No.", "Agent Name", "State", "Time", "Dest. No.", and "Dialed Digits". It lists agents A3200 through A3204. Agent A3203 is highlighted in green and has a "FREE" state with a time of 00:00:03.
- Calls Waiting**: A yellow box displaying the number "1".
- Longest Wait**: A red box displaying "00:25".
- Abandoned**: A yellow box displaying the number "1".
- Agent Status : Sales - South**: A table with columns "Agent No.", "Agent Name", "State", "Time", "Dest. No.", and "Dialed Digits". It lists agents A3205 through A3209. Agent A3205 is highlighted in blue and has a "WRAP" state with a time of 00:00:10.

The bottom status bar shows "Ready" on the left and "09:47:33" on the right.

A reporting package is also included within SmartCentre VR, which provides printed statistics for the last 31 days of activity.

Real Time

Displays may be configured to report on individual devices (agents, extensions), device groups or groups of groups (supergroups).

- Real Time Large Character Windows
- Real Time Wait and Queue Graphs
- Real Time Status Displays
- Real Time Statistics Displays

Reporting

Reports can contain any of the following items of information:

- Line Group Traffic Report
- Line Group Traffic Profile Report
- Agent Traffic Report
- Agent Traffic Profile Report
- DID Group Traffic Report
- DID Group Traffic Profile Report

- Wait Time Distribution Reports
- Call Time Distribution Reports
- Wrap Time Distribution Reports

Reports may be viewed on the screen and printed but may not be saved. The maximum period of an individual report is 31 days.

2.3.3 SmartCentre VAR

SmartCentre VAR is similar to SmartCentre VR but offers any number of real time templates to be created and saved, enhanced reporting features and functionality, in addition to being viewed on the screen and printed, reports may be saved and exported as text files or comma-delimited format to spreadsheet packages such as Microsoft™ Excel or Lotus 123, where information may be displayed in graphical format. Reports can be collated for the previous one-year of events.

SmartCentre VAR is able to support physical wallboards and any number of real time templates.

Reporting

The following report parameters are available in addition to SmartCentre VR:

- Agent Event Reports
- Agent Group Traffic Report
- Agent Group Traffic Profile Report
- Agent Utilization Report
- Agent Utilization Profile Report
- Contention Report
- Contention Profile Report
- Extension Event Report
- Extension Traffic Report
- Extension Traffic Profile Report
- Extension Group Traffic Report
- Extension Group Traffic Profile Report
- Extension Utilization Report
- Extension Utilization Profile Report
- DID Traffic Report
- DID Traffic Profile Report
- Line Traffic Report
- Line Group Event Report
- Forecasting Report
- Forecasting Profile Report

Detailed Description

3.1 Real time Reporting

SmartCentre VR and VAR collate a multitude of real time parameters to enable real time monitoring and performance of a call center.

These real time parameters relate to the fundamental devices monitored by SmartCentre, such as the line, the DID number, the extension, and the agent.

Real time parameters are also collated for groups of devices such as line groups, DID groups, extension groups, and agent groups.

The types of real time parameters collated by SmartCentre fall into two categories.

1. Real time status parameters, such as the number of calls waiting to be answered in a queue, or the amount of time the call at the head of a queue has been waiting to be answered.
2. Real time statistics parameters, such as the number of abandoned calls for the day so far.

Any number of real time data windows can be displayed within the workspace area of the SmartCentre application window. Each window can be positioned, sized and configured according to your requirements. As this process will entail some effort, SmartCentre provides a window layout management facility that allows you to save the position, size and configuration of the real time data windows with a specified name.

Many of these data window layouts can be saved, each with a different name. You can then call up any of these saved layouts using the list box embedded in the toolbar of SmartCentre or by selecting a layout from the favorites toolbar (SmartCentre VAR only).

The real time data windows available are as follows:

- Line Status Window
- Extension Status Window
- Agent Status Window
- Line Statistics Window
- Line Group Statistics Window
- DID Statistics Window
- DID Group Statistics Window
- Extension Statistics Window
- Extension Group Statistics Window
- Agent Statistics Window
- Agent Group Statistics Window
- Calls In Queue Graph Window
- Wait Time Graph Window
- Large Character Window

3.1.1 Status Displays

Status displays are used to represent the current state of each device, whether it is busy, free, logged on or off, or ringing. There are three types of status display:

- Agent Status display
- Extension status display
- Lines status display

Line No.	State	Time	Dest. No.	Dest. Name	Dest. Group	Dialed Digits
L3700	INC	00:00:33	A3202	Jack Regan	Sales	16122554555
L3701	INC	00:01:10	E3213	Supervisor 2	Support	16138391035
L3702	INC	00:00:33	A3204	Damian Oakes	Support	16122554555
L3703	INC	00:02:04	A3200	Karen Duke	Sales	17706717799
L3704	FREE	00:01:02				
L3705	RING	00:00:09	A3205	Sean Kean	Support	
L3706	INC	00:01:03	A3207	Sue Campbell	Admin	18183798443
L3707	FREE	00:01:40				
L3708	FREE	00:00:32				
L3709	INC	00:00:49	A3201	Jim Parr	Sales	19138884500

3.1.2 Statistics Display

Statistics displays represent information gathered daily or at specified intervals throughout a 24-hour period. There are eight different types of Statistics Displays:

- Agent statistics display
- Agent group statistics display
- Extension statistics display
- Extension group statistics display
- DID statistics display
- DID group statistics display
- Line statistics display
- Line group statistics display

Lock	Service Provider B	Service Provider A
Calls Answered (Daily)	28	85
Calls Abandoned (Daily)	9	8
Calls Held (Daily)	0	12
Calls Outgoing (Daily)	60	53
Ave. Answered Time (Daily)	01:22	01:21
Ave. Wait Time (Daily)	00:11	00:10
Ave. Abandoned Time (Daily)	00:35	01:04
Ave. Held Time (Daily)	00:00	00:27
Ave. Outgoing Time (Daily)	01:27	00:52
Longest Answered Time (Daily)	01:33	02:11
Longest Wait Time (Daily)	00:19	00:19
Longest Abandoned Time (Daily)	00:36	01:29
Longest Held Time (Daily)	00:00	00:29
Longest Outgoing Time (Daily)	02:59	01:48
Long Waits Inc. Abandoned (Daily)	9	8
Long Waits Ex. Abandoned (Daily)	0	0
G.O.S. Inc. Abandoned (Daily)	75.7	91.4
G.O.S. Ex. Abandoned (Daily)	100.0	100.0

3.1.3 Calls In Queue Graph



Each call in queue graph window can present in a bar graphical form the number of calls that are currently queued on a series of line groups, DID numbers, DID groups, extension groups or agent groups.

The graph uses the correct status color to give an at a glance indication of the status of the queues. If too many call are waiting to be answered in a given queue as defined by the call waiting alarm limit for that queue, then part of the corresponding bar graph will turn red to indicate how many calls are exceeding the alarm threshold.

The bar graph can be shown horizontally or vertically, and can auto-scale to a proportion of the alarm limits configured for the displayed parameters if required.

3.1.4 Wait Time Graph Window



Each wait time graph window can present in a bar graphical form the wait time of longest waiting call currently queued on a series of line groups, DID numbers, DID groups, extension groups or agent groups.

The graph uses the correct status color to give an at a glance indication of the status of the longest wait time in each queue. If the longest wait time in a given queue exceeds the wait time alarm limit for that queue, then part of the corresponding bar graph will turn red to indicate how much over the alarm threshold the call has been waiting.

The bar graph can be orientated horizontally or vertically, and can auto-scale to a proportion of the alarm limits configured for the displayed parameters if required.

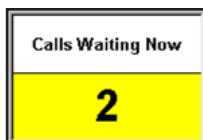
3.1.5 Large Character Window

Each large character window can present a single parameter for a single device or device group.



The parameters can either present real time call statistics such as number of calls abandoned for the day so far. Both interval call statistics and daily call statistics are supported.

OR



Real time status information such as number of calls waiting to be answered.

When displaying real time status data the correct background status color is used to give an at a glance indication.



The large character window is also capable of displaying plain text. This allows you to make up complete displays including a number of large character windows, some containing parameters, others containing plain text to provide labeling.

The table below represents every parameter available for each device or group of devices. The table has been grouped according to availability by product type using the key:

- L – Large Character Window
- W – Wallboard (external reader board)
- I – InView Wallboard (internal LAN)

Line Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
Line Number	L W I	L I	I
Line Name (Long/Short)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Abandoned (Interval/Daily)	L W I	L I	I
Calls Held (Interval/Daily)	L W I	L I	I
Calls Outgoing (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wait Time (Interval/Daily)	L W I	L I	I
Average Abandoned Time (Interval/Daily)	L W I	L I	I
Average Held Time (Interval/Daily)	L W I	L I	I
Average Outgoing Time (Interval/Daily)	L W I	L I	I

DDI Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
DDI Number	L W I	L I	I
DDI Name (long/Short)	L W I	L I	I
Calls Waiting	L W I	L I	I
Calls Waiting (including transferred)	L W I	L I	I
Longest Wait (secs)	L W I	L I	I
Longest Wait (mm:ss)	L W I	L I	I
Lines In Use	L W I	L I	I
HOQ Line Number	L W I	L I	I
HOQ Line Name (Long/Short)	L W I	L I	I
Calls Offered (Interval/Daily)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Abandoned (Interval/Daily)	L W I	L I	I
Calls Held (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wait Time (Interval/Daily)	L W I	L I	I
Average Abandoned Time (Interval/Daily)	L W I	L I	I
Average Held Time (Interval/Daily)	L W I	L I	I
Longest Answered Time (Interval/Daily)	L W I	L I	I
Longest Wait Time (Interval/Daily)	L W I	L I	I
Longest Abandoned Time (Interval/Daily)	L W I	L I	I
Longest Held Time (Interval/Daily)	L W I	L I	I
Long Waits Inc. Abandoned (Interval/Daily)	L W I	L I	I
Long Waits Ex. Abandoned (Interval/Daily)	L W I	L I	I
Grade Of Service (GOS) Inc. Abandoned (Interval/Daily)	L W I	L I	I
Grade Of Service (GOS) Ex. Abandoned (Interval/Daily)	L W I	L I	I

Extension Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
Extension Number	L W I	L I	I
Extension Name (long/Short)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Outgoing (Interval/Daily)	L W I	L I	I
Calls Intercom (Interval/Daily)	L W I	L I	I
Calls Ring On (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wrapup Time (Interval/Daily)	L W I	L I	I
Average Ring On Time (Interval/Daily)	L W I	L I	I
Average Outgoing Time (Interval/Daily)	L W I	L I	I
Average Intercom Time (Interval/Daily)	L W I	L I	I
Number Of Short Calls (Interval/Daily)	L W I	L I	I
Number Of Long Calls (Interval/Daily)	L W I	L I	I
G.O.S. (Interval/Daily)	L W I	L I	I

Agent Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
Agent Number	L W I	L I	I
Agent Name (long/Short)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Outgoing (Interval/Daily)	L W I	L I	I
Calls Intercom (Interval/Daily)	L W I	L I	I
Calls Ring On (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wrapup Time (Interval/Daily)	L W I	L I	I
Average Ring On Time (Interval/Daily)	L W I	L I	I
Average Outgoing Time (Interval/Daily)	L W I	L I	I
Average Intercom Time (Interval/Daily)	L W I	L I	I
Number Of Short Calls (Interval/Daily)	L W I	L I	I
Number Of Long Calls (Interval/Daily)	L W I	L I	I
G.O.S. (Interval/Daily)	L W I	L I	I

Line Group Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
Line Group Name	L W I	L I	I
Calls Waiting	L W I	L I	I
Calls Waiting (including transferred)	L W I	L I	I
Longest Wait (secs)	L W I	L I	I
Longest Wait (mm:ss)	L W I	L I	I
Lines In Use	L W I	L I	I
Lines Free	L W I	L I	I
Lines Busy Incoming	L W I	L I	I
Lines Busy Outgoing	L W I	L I	I
HOQ (Head of Queue) Line Number	L W I	L I	I
HOQ Line Name (Long/Short)	L W I	L I	I
HOQ DDI Number	L W I	L I	I
HOQ DDI Name (Long/Short)	L W I	L I	I
Calls Offered (Interval/Daily)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Abandoned (Interval/Daily)	L W I	L I	I
Calls Held (Interval/Daily)	L W I	L I	I
Calls Outgoing (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wait Time (Interval/Daily)	L W I	L I	I
Average Abandoned Time (Interval/Daily)	L W I	L I	I
Average Held Time (Interval/Daily)	L W I	L I	I
Average Outgoing Time (Interval/Daily)	L W I	L I	I
Longest Answered Time (Interval/Daily)	L W I	L I	I
Longest Wait Time (Interval/Daily)	L W I	L I	I
Longest Abandoned Time (Interval/Daily)	L W I	L I	I
Longest Held Time (Interval/Daily)	L W I	L I	I
Longest Outgoing Time (Interval/Daily)	L W I	L I	I
Long Waits Inc. Abandoned (Interval/Daily)	L W I	L I	I
Long Waits Ex. Abandoned (Interval/Daily)	L W I	L I	I
G.O.S. Inc. Abandoned (Interval/Daily)	L W I	L I	I
G.O.S. Ex. Abandoned (Interval/Daily)	L W I	L I	I

DID Group Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
DID Group Name	L W I	L I	I
Calls Waiting	L W I	L I	I
Calls Waiting (including transferred)	L W I	L I	I
Longest Wait (secs)	L W I	L I	I
Longest Wait (mm:ss)	L W I	L I	I
Lines In Use	L W I	L I	I
Lines Busy Incoming	L W I	L I	I
HOQ Line Number	L W I	L I	I
HOQ Line Name (Long/Short)	L W I	L I	I
HOQ DID Number	L W I	L I	I
HOQ DID Name (Long/Short)	L W I	L I	I
Calls Offered (Interval/Daily)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Abandoned (Interval/Daily)	L W I	L I	I
Calls Held (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wait Time (Interval/Daily)	L W I	L I	I
Average Abandoned Time (Interval/Daily)	L W I	L I	I
Average Held Time (Interval/Daily)	L W I	L I	I
Longest Answered Time (Interval/Daily)	L W I	L I	I
Longest Wait Time (Interval/Daily)	L W I	L I	I
Longest Abandoned Time (Interval/Daily)	L W I	L I	I
Longest Held Time (Interval/Daily)	L W I	L I	I
Long Waits Inc. Abandoned (Interval/Daily)	L W I	L I	I
Long Waits Ex. Abandoned (Interval/Daily)	L W I	L I	I
G.O.S. Inc. Abandoned (Interval/Daily)	L W I	L I	I
G.O.S. Ex. Abandoned (Interval/Daily)	L W I	L I	I

Extension Group Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
Extension Group Name	L W I	L I	I
Calls Waiting	L W I	L I	I
Calls Waiting (including transferred)	L W I	L I	I
Longest Wait (secs)	L W I	L I	I
Longest Wait (mm:ss)	L W I	L I	I
Extensions Free	L W I	L I	I
Extensions Busy	L W I	L I	I
Extensions Busy Incoming	L W I	L I	I
Extensions Busy Outgoing	L W I	L I	I
Extensions Busy Intercom	L W I	L I	I
Extensions Busy Wrap-up	L W I	L I	I
Extensions Unavailable	L W I	L I	I
HOQ Line Number	L W I	L I	I
HOQ Line Name (Long)	L W I	L I	I
HOQ Line Name (Short)	L W I	L I	I
HOQ DID Number	L W I	L I	I
HOQ DID Name (Long)	L W I	L I	I
HOQ DID Name (Short)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Outgoing (Interval/Daily)	L W I	L I	I
Calls Intercom (Interval/Daily)	L W I	L I	I
Calls Ring On (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wrapup Time (Interval/Daily)	L W I	L I	I
Average Ring On Time (Interval/Daily)	L W I	L I	I
Average Outgoing Time (Interval/Daily)	L W I	L I	I
Average Intercom Time (Interval/Daily)	L W I	L I	I
Longest Answered Time (Interval/Daily)	L W I	L I	I
Longest Outgoing Time (Interval/Daily)	L W I	L I	I
Number Of Short Calls (Interval/Daily)	L W I	L I	I
Number Of Long Calls (Interval/Daily)	L W I	L I	I
G.O.S. (Interval/Daily)	L W I	L I	I

Agent Group Parameters	SmartCentre VAR	SmartCentre VR	SmartCentre V
Agent Group Name	L W I	L I	I
Calls Waiting	L W I	L I	I
Calls Waiting (including transferred)	L W I	L I	I
Longest Wait (secs)	L W I	L I	I
Longest Wait (mm:ss)	L W I	L I	I
Agents Logged On	L W I	L I	I
Agents In Use	L W I	L I	I
Agents Free	L W I	L I	I
Agents Logged Off	L W I	L I	I
Agents Busy	L W I	L I	I
Agents Busy Incoming	L W I	L I	I
Agents Busy Outgoing	L W I	L I	I
Agents Busy Intercom	L W I	L I	I
Agents Busy Wrap-up	L W I	L I	I
Agents Unavailable	L W I	L I	I
HOQ Line Number	L W I	L I	I
HOQ Line Name (Long/Short)	L W I	L I	I
HOQ DID Number	L W I	L I	I
HOQ DID Name (Long/Short)	L W I	L I	I
Calls Answered (Interval/Daily)	L W I	L I	I
Calls Outgoing (Interval/Daily)	L W I	L I	I
Calls Intercom (Interval/Daily)	L W I	L I	I
Calls Ring On (Interval/Daily)	L W I	L I	I
Average Answered Time (Interval/Daily)	L W I	L I	I
Average Wrapup Time (Interval/Daily)	L W I	L I	I
Average Ring On Time (Interval/Daily)	L W I	L I	I
Average Outgoing Time (Interval/Daily)	L W I	L I	I
Average Intercom Time (Interval/Daily)	L W I	L I	I
Longest Answered Time (Interval/Daily)	L W I	L I	I
Longest Outgoing Time (Interval/Daily)	L W I	L I	I
Number Of Short Calls (Interval/Daily)	L W I	L I	I
Number Of Long Calls (Interval/Daily)	L W I	L I	I
G.O.S. (Interval/Daily)	L W I	L I	I

INVIEW Wallboards

The inView LAN Wallboard shows key performance information and agent/extension status. It can be useful for agents, managers and senior managers – in fact anyone connected to the company Local Area Network (LAN) has the ability to load InView (license permitting).

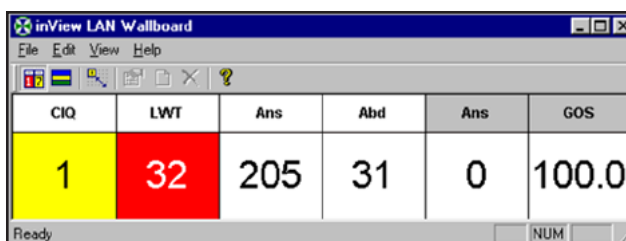
The inView LAN Wallboard is a Windows-based product that can show two different views and can be customized using standard window tools such as “click and drag”, toggle buttons and a tool bar. Each time a view is opened, it defaults to the last saved display and configuration under the login name.

The inView LAN Wallboard also includes an internal messaging system. This allows inView LAN Wallboard users to send messages to each other, either directly or via agent names.

The inView LAN Wallboard is a network application that can be a strong motivational tool for agents, as well as enabling senior managers to keep in touch of call center performance. Users can monitor their own or general call center performance information. Users can find out the status of agents or extensions in any group within or outside the call center (as long as they are connected to the same telephone switch).

4.1 Wallboard View

The user can select any of the 200 large character windows available, either call center or personal agent statistics (the background coloring of the labels distinguishes the two – gray for personal parameters, white for call center parameters). All parameter windows have automatic labels that can be customized. Labels can be displayed without their associated parameter value if required.



CIQ	LWT	Ans	Abd	Ans	GOS
1	32	205	31	0	100.0

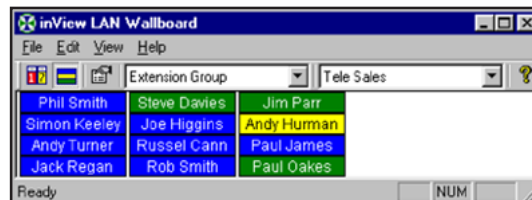
This wallboard view shows four general call center parameters – Calls in Queue (CIQ), Longest Wait Time (LWT), Number of Calls Answered (ANS) and Abandoned (ABD). There are two personal call center parameters – Call Answered (ANS) and Grade of Service (GOD) – distinguished by the different background color of their labels. This allows agents to quickly and easily see how their performances compare with that of the overall call center.

4.2 Agent and Extension Status View

The status of any member of an agent or extension group can be viewed using the 'Status View'. Users can select whether to view agent information or extension information by selecting the required type from the dropdown list box on the toolbar. The group to be viewed is selected from the second dropdown list box on the toolbar. The status of each group member is color coded in the following way:

- Gray for logged-off
- Blue for busy
- Green for available
- Yellow for ring and ring-on.

Users can choose long or short names and scroll bars appear if the information cannot fit within the borders. Please note that there are no alarms on this window.



4.3 Security

All users must login to the SmartCentre server when starting up the application, using the user name and password specified by the supervisor. The supervisor can configure login user names and passwords at the SmartCentre server for anyone who is connected to the local area network to which the server is connected. The number of active InView LAN Wallboard clients running at any one time is limited by the number specified in the license agreement.

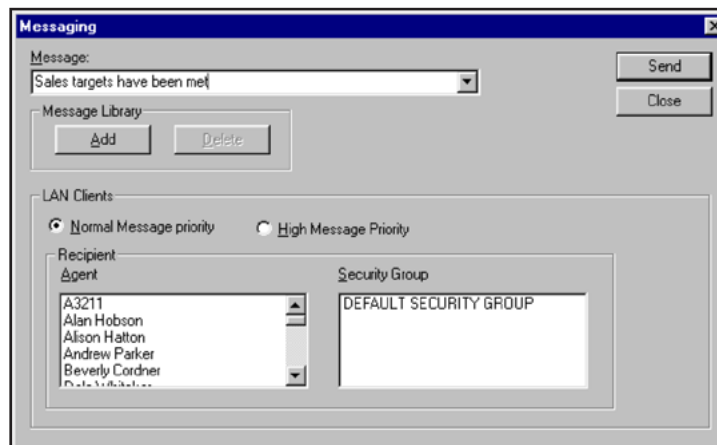
More than one user can login on the same PC if required. This enables separate copies of the inView LAN Wallboard application to be started for each user. It is not possible for one user to concurrently login at more than one location.

If the user login has a password associated with it, that password will be needed to unlock the wallboard view (if it has been locked) and also to close down the inView LAN Wallboard.

InView users can send a message of up to 256 characters to any other inView LAN Wallboard User, Agent, or Agent Group depending on his or her Message Access Level.

The appearance of the message depends on the priority level selected. There are two levels of priority: Normal and High. The different levels produce a message with a different appearance to inform the recipient to act accordingly.

There is a facility within the messaging to allow the user to store up to ten frequently used messages in a message library. These messages can then be quickly recalled whenever required. Messages are added and removed using the Add and Delete Message Library buttons, and are recalled by selecting them from the Message list.



This dialog shows a message with the text “Sales targets have been met” that will be sent to all agents in the group ‘All Sales’, with a message priority of Normal.

4.4 INVIEW Wallboard Requirements

1. Windows™ 95, 98, Windows™ 2000 or Windows™ NT 4.0 running at the client PC.
2. TCP/IP installed at both the clients and the SmartCentre server.
3. A Dongle with a license to run a number of concurrent inView LAN Wallboards.
4. The SmartCentre server must be run on a Windows™ 98, Windows™ NT or Windows™ 2000 machine if it is to support inView LAN Wallboards.

Alarms Management

5

Many different types of alarms are indicated on the real time data windows by the presence of the color red. However, to see visual indication of these alarms you need to have the correct real time data window visible. This is not always possible.

To combat this problem, SmartCentre provides an Alarms Window that presents all the alarms that are active in the SmartCentre. Also SmartCentre can be configured to issue an audible indication when a new alarm is triggered.

On multiple supervisor installations, each SmartCentre Supervisor may only require to see a subset of the alarms issued across the whole system. To facilitate this, each SmartCentre Supervisor can set up filters to block alarms that they do not wish to see.

Alarms are triggered when thresholds have been reached such as time and number of calls.

5.1 Alarms Window

This is a separate window from the SmartCentre application window that provides a list of alarms in chronological order (most recent first) that are currently active in the system. Each item in the alarms list presents the following information.

- Type of device that is causing the alarm.
- Name of the device that is causing the alarm.
- Type of alarm.

When the alarms window is minimized, if a new alarm is triggered, the icon is animated and brought into view for a short time. An audible noise can also be heard at the same time if you have enabled audible alarms and a SoundBlaster compatible card is installed in the PC with relevant drivers.

On multiple supervisor installations, each SmartCentre Supervisor can set up filters to block alarms that they do not wish to see.

The following type of alarms are supported:

5.1.1 Long Wait

Call has been waiting to be answered for too long. Applicable to lines, line groups, DID, DID groups, extension groups and agent groups.

5.1.2 Long Queue

Too many calls are waiting to be answered in the queue group. Applicable to line groups, DID, DID groups, extension groups and agent groups.

5.1.3 Line Contention

Too many lines are allocated on calls. Applicable to line groups, DID's and DID groups.

5.1.4 Extension Contention

Too many extensions are not available to take calls within the named extension group.

5.1.5 Agent Contention

Too many agents are not available to take calls within the named agent group.

5.1.6 Long Free

Extension/Agent has been free to take calls for too long.

5.1.7 Long Ring On

Extension/Agent has been ringing for too long.

5.1.8 Long Call

Extension/Agent has been on a call for too long.

5.1.9 Long Busy

Extension/Agent has been busy for too long.

5.1.10 Long Wrap Up

Extension/Agent has been in wrap up for too long.

5.1.11 Long Unavailable

Extension/Agent has been unavailable to take calls for too long.

SmartCentre Historical Reports

6.1 Reports

SmartCentre Reporter is a stand alone application that can be used to collate reports that analyze the past performance of your call center.

Reports can analyze the performance/usage of the following:

- Lines
- DID Numbers
- Extensions
- Agents
- Line Groups
- DID Groups
- Extension Groups
- Agent Groups

A report is broken down in a number of individually configurable report items. Each item usually only analyzes one of the above categories of device/device group.

6.2 Report Templates

Report templates are highly likely to be used in order to use data that is relevant to the type of report required. The report template defines what items comprise the report and what is the configuration of each item. The table below shows available parameters by product type.

Report Type	SmartCentre VAR	SmartCentre VR	SmartCentre V
Agent Event Report	•		
Agent Group Traffic Profile Report	•		
Agent Group Traffic Report	•		
Agent Traffic Profile Report	•	•	
Agent Traffic Report	•	•	
Agent Utilization Profile Report	•		
Agent Utilization Report	•		
Contention Profile Report	•		
Contention Report	•		

Report Type	SmartCentre VAR	SmartCentre VR	SmartCentre V
DID Group Traffic Profile Report	•	•	
DID Group Traffic Report	•	•	
DID Traffic Profile Report	•		
DID Traffic Report	•		
Extension Event Report	•		
Extension Group Traffic Profile Report	•		
Extension Group Traffic Report	•		
Extension Traffic Profile Report	•		
Extension Traffic Report	•		
Extension Utilization Profile Report	•		
Extension Utilization Report	•		
Forecasting Profile Report	•		
Forecasting Report	•		
Line Group Event Report	•		
Line Group Traffic Profile Report	•	•	
Line Group Traffic Report	•	•	
Line Traffic Report	•		
Wait Time Distribution Report	•	•	
Wrapup Time Distribution Report	•	•	
Call Time Distribution Report	•	•	

6.3 Historical Report Filters

Standard reports tend to show statistics in isolation of each other, i.e., DID and Agent reports. Filtering allows customization of such reports to give a greater degree of detail, or you may wish to filter out unwanted information. An example of this would be a number of DIDs routed to the same agents. Filters can be used to determine the performance of each agent per DID call.

Report Filter	SmartCentre VAR	SmartCentre VR	SmartCentre V
Agent Filter	•	•	
Agent Group Filter	•	•	
Agent Queue Group Filter	•	•	
DID Filter	•		
DID Group Filter	•	•	
Dialed Digits Filter	•	•	
Extension Filter	•		
Extension Group Filter	•		
Extension Queue Group Filter	•		
Line Filter	•		
Line Group Filter	•	•	

6.4 Historic Report Feature Availability by Product

Feature	SmartCentre VAR	SmartCentre VR	SmartCentre V
Enable Report Creation	Yes	Yes	No
Enable Saved Report Opening	Yes	No	No
Enable Save Report	Yes	No	No
Enable Spreadsheet Export	Yes	No	No
Enable Print	Yes	Yes	No
Enable ODBC Export	No	No	No
Enable Report Template Creation	Yes	Yes	No
Max Reporting Period (days)	366	31	No
Number of Stored Report Templates	Unlimited	Unlimited	No
Number of Stored Auto Report Schedules	Unlimited	Unlimited	No

6.5 Auto-Report Scheduling

The Report scheduler, allows simple or more advanced reports to be run automatically.

- 1 Hourly - Reports will be run hourly at the specified minutes past the hour.
- 2 Daily - Reports will be run daily at the specified time.
- 3 Weekly - Reports will be run weekly on the specified day, at the specified time.

For more advanced auto report scheduling, there are three selections available:

- 1 Interval reporting - Reports are generated at the end of every specified interval, i.e. every four hours, or every three days.
- 2 Commencement date - Allows the user to specify the initial date and time at which the auto report schedule will be first active.
- 3 Reporting Period - the reporting period is configurable. For example a report can be generated weekly, on Sunday for the period from the previous Sunday to Friday 5 pm.

Forecasting

7.1 Overview

The forecasting package is designed to allow the user to perform “what if” scenarios on their historical data. This is achieved as follows:

Over a period the following parameters are calculated:

- 1) The total number of incoming calls.
- 2) The average incoming call time (including held time, but excluding wrap-up time) on the line side of the call.
- 3) The average waiting time of an incoming answered call on the line side.
- 4) The number of available agents.
- 5) The average wrap-up time per incoming call.
- 6) The average amount of time each agent spent unavailable excluding wrap-up time.

You then may specify a series of modifications to be performed on the above parameters.

7.1.1 Forecasting Limitations

Because a standard calculation is used in the forecasting, it does not take into account site-specific factors that can influence the results. To enable meaningful results to be reported, a correction factor is calculated. This correction factor depends upon the response time of agents to a ringing call, the number of agents available, the call distribution pattern, the routing of calls through the switch to name a few. It follows that a correction factor calculated for a Monday between 09:00 and 10:00 might not be the same as the correction factor required for the following Monday at the same time.

Because an agent does not spend 100% of the report time logged on and available, the average number of available agents in a group is usually less than the actual number of agents in that group. To make the report figures more meaningful, the number of agents reported always relates to the actual number of agents in the group, taking into account their availability.

This means, for example, if a modification of calls +25% is applied to a set of calculated parameters, the result is what could have reasonably been expected, had the number of calls at that time been 25% higher than they actually were. If on the following Monday the number of calls was indeed 25% higher than the previous Monday then, in reality, the actual figures will probably be different from the ones calculated due to the unpredictable nature of call distribution patterns, etc.

In conclusion, the results produced by the forecasting package are calculated from a set of rules that may not apply perfectly to every site. Even though every effort has been made correct these figures on a site-by-site basis, the results should be used for indication purposes only.

7.1.2 Forecasting Report

A forecasting report calculates the actual number of calls, average call time, average wait time and number of available agents over a specified time period using specified line and agent groups. It then provides an estimate of how one of these parameters would vary depending on specific modifications made to the other three. The specified modifications can be applied individually - resulting in a series of estimates, or they can be applied collectively - resulting in a single estimate.

The report is presented in a modification per row format. Pagination of the report will occur if there are too many modifications to fit in the height of a page.

7.1.3 Forecasting Profile Report

A forecasting report calculates the actual number of calls, average call time, average wait time and number of available agents over a series of uniform time bands using specified line and agent groups. It then provides an estimate of how one of these parameters would vary depending on specific modifications made to the other three. The specified modifications can be applied individually - resulting in a series of estimates per time band, or they can be applied collectively - resulting in a single estimate per time band. The interval time controlling the time bands can be anything from 1 minute up to 999 weeks.

The report is presented in a time band per column format. Pagination of the report will occur if either there are too many time bands to fit in the width of a page or there are too many modifications to fit in the height of a page.

External Wallboards (Reader Boards)

8.1 Managing Wallboards

Each SmartCentre workstation can drive up to six wallboards simultaneously, each one displaying different real time data. The main function of wallboards is to provide motivation to agents within the call center by displaying performance statistics in real time.

Wallboard drivers supplied are compatible with the Shorekarn Messagemaker and a range of Spectrum Inc. wallboards, including:

- Shorekarn Messagemaker 2x16
- Spectrum 215C 1x15
- Spectrum 320C 1x20
- Spectrum 4120C 2x20

The wallboards currently support two text sizes:

8.1.1 Small

In this mode a wallboard can display one or two rows of characters depending on the wallboard type. This mode is typically used to display a lot of real time performance information on one wallboard. Up to six parameters can reasonably be displayed.

8.1.2 Large

In this mode a wallboard can display one row of characters. This mode is typically used to display scrolling messages across the wallboard.

8.1.3 Wallboard Templates

A wallboard template defines what an individual display on a wallboard should look like. Contained within the definition of a wallboard template is the position and types of real time parameters that are to be displayed along with the position and text of any associated labels. A template can also define the contents of a scrolling message if required.

You can create as many wallboard templates as you need to manage the wallboards connected to the SmartCentre workstation.

8.1.4 Wallboard Schedules

A wallboard schedule defines a sequence of wallboard templates that should be displayed on a wallboard. Contained within the definition of a wallboard schedule is the amount of time to display each template before moving to the next template in the sequence. When the schedule has finished displaying the last template in the sequence it starts at the first template again.

You can create as many wallboard schedules as you need to manage the wallboards connected to the SmartCentre workstation. See the following topics for more information.

8.2 Configuring a wallboard

Wallboards are configured by attaching a series of 'wallboard schedules', each associated with a different shift. Each wallboard schedule is only active during the shift that is associated with it. An audible noise can be programmed whenever a displayed parameter goes into the alarm state.

8.2.1 Configuring Shifts

Shifts are used both in SmartCentre and SmartCentre Reporter to control the calculation of real time daily call statistics, wallboard display management and historical report generation.

Their most powerful function is in the generation of historical reports where only calls that were completed inside the shift times are used to collate call statistics data.

You can create as many shifts as you require for management purposes. An example of a shift for a typical working may be 08:30 to 17:30 Monday to Friday, office closed Saturday and Sunday.

The converse of the above shift would be the out of hours shift defined as 00:00 to 08:30 followed by 17:30 to 24:00 Monday to Friday, 00:00 to 24:00 Saturday and Sunday.

It is also possible to define shift times such as 18:00 to 32:00 which would be interpreted as a shift starting in the evening at 18:00 and ending next morning at 06:00.

8.2.2 Wallboard Messages

SmartCentre provides a facility for sending temporary messages to the wallboards. This facility acts as an override to the normal operation of the wallboards. The duration the temporary message is displayed can be set before normal operation resumes.

8.2.3 Using hot keys to control the wallboards

The hot key CTRL+n can be used to control the display of a wallboard where n is the number (1 to 6) of the wallboard to be controlled. The effect of CTRL+n is as follows:

If a temporary message is on the wallboard the message will be cleared.

If the wallboard is displaying multiple templates within a schedule then the next template in the schedule will be brought into view.

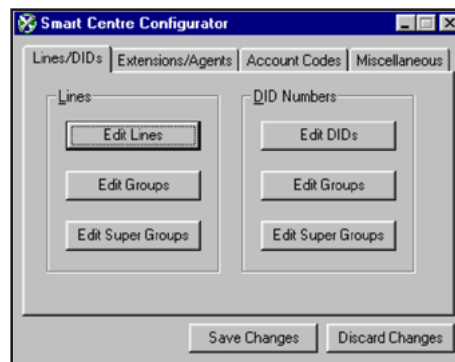
The hot key CTRL+0 has the affect of issuing the above described hot key control to all the wallboards simultaneously.

SmartCentre Configurator

9

The purpose of SmartCentre Configurator is to allow the configuration of those components that are common to both the SmartCentre and SmartCentre Reporter. In the case of networked configurations it is possible to setup one configuration file which covers the whole site.

The items SmartCentre Configurator deals with are the creation and configuration of lines, DID numbers, extensions, agents and their associated groups and super groups.



Within the configuration of the above devices and device groups, alarm thresholds can be specified that control when real time alarms are triggered. Configuration of statistics analysis thresholds can be set that control how the real time call statistics are calculated and how the historical reporter calculates and presents its data.

In addition to this, SmartCentre Configuration deals with some miscellaneous issues.

- The configuration of shifts used for real time and historical management.
- The configuration of the valid call thresholds that define what is a valid incoming, outgoing call, etc. across the whole system.