

VISUAL message center

VISUAL Message Center

General Overview

VMC-GEN

tango04
Computing Group

Solutions for Advancing People

VISUAL Message Center General Overview

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How to Use this Guide

This chapter explains how to use Tango/04 User Guides and understand the typographical conventions used in all Tango/04 documentation.

Typographical Conventions

The following conventional terms, text formats, and symbols are used throughout Tango/04 printed documentation:

Convention	Description
Boldface	Commands, on-screen buttons and menu options.
<i>Blue Italic</i>	References and links to other sections in the manual or further documentation containing relevant information.
<i>Italic</i>	Text displayed on screen, or variables where the user must substitute their own details.
Monospace	Input commands such as System i commands or code, or text that users must type in.
UPPERCASE	Keyboard keys, such as CTRL for the Control key and F5 for the function key that is labeled F5.
	Notes and useful additional information.
	Tips and hints that will improve the users experience of working with this product.
	Important additional information that the user is strongly advised to note.
	Warning information. Failure to take note of this information could potentially lead to serious problems.

Chapter 1

Introduction

VISUAL Message Center is the centerpiece of Tango/04's 1-2-3 (Technology, Security, and Business) monitoring approach.

VISUAL Message Center is a multiplatform, client-server software system that monitors applications, databases, business processes, and more, thus avoiding the need for system operators or programmers to manually monitor all aspects of a company's infrastructure.

Improvements in efficiency within the IT department have a direct result on the business side as you will be able to reduce operating costs, provide your company with enhanced IT services, meet Service Level Agreements, and easily control all aspects of the Technology, Security, and Business processes of your company.

In most installations, VISUAL Message Center is used to:

- Effectively manage infrastructure problems according to service impact on critical business processes
- Alert operators to unexpected events, enabling them to take action before operations are affected
- Automate responses to common events or situations, so operators do not waste time with repetitive system management tasks
- Meet Service Level Agreements by being aware of potential problems before they occur

VISUAL Message Center requires little time to install and configure, but should be regularly fine-tuned to adapt it to your changing system environment.

1.1 Layers of the VISUAL Message Center Architecture

VISUAL Message Center consists of a variety of different components and software, which are divided into four layers, or groups, based on their function and their relationship to the other products.

The four layers of the VISUAL Message Center Architecture are listed as follows:

- The **Collection** layer: includes the ThinkServer engine using ThinAgents, Applications Agent, Performance Agent, and certain iSeries modules (see [Chapter 2 - Collection Layer](#) on [page 7](#) for further details).
- The **Correlation** layer: includes SmartConsole, Goals and Notifier see [Chapter 3 - Correlation Layer](#) on [page 14](#) for further details).

- The **Presentation** layer: includes SmartConsole Web Client, Reports, and Dashboards (see [Chapter 4 - Presentation Layer](#) on [page 23](#) for further details).
- **Middleware Components**: includes NiceLink, AccessServer, SharedObjects, PMDB, and Database Settings Administrator (see [Chapter 5 - Middleware Components](#) on [page 28](#) for further details).

[Figure 1](#) below shows how the different products interact within the architecture of VISUAL Message Center.

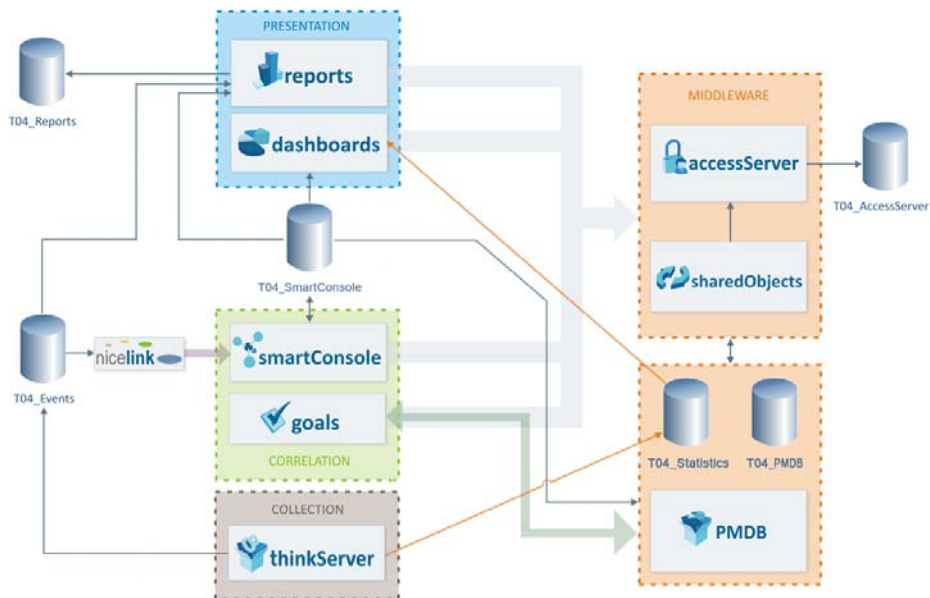


Figure 1 – VISUAL Message Center Architecture

1.1.1 Collection Layer

The collection layer includes ThinkServer using ThinAgents, Applications Agent, Performance Agent, and iSeries modules, and collects information in the form of events which are stored in databases for use by other VISUAL Message Center components.

ThinkServer and ThinAgents

ThinkServer is VISUAL Message Center's powerful availability, health, and security monitoring engine.

The VISUAL Message Center ThinkServer engine uses ThinAgents, a class of monitoring agents, to control the status of many different metrics that are critical to successful business operations. ThinkServer's ThinAgents are designed to effortlessly control the most common monitoring scenarios, and can be adapted to suit different needs as well.

The ThinAgents used by VISUAL Message Center ThinkServer are agentless monitors installed on ThinkServer. Agentless means that they are installed in ThinkServer, not on every system being monitored, thus making VISUAL Message Center easier to install and maintain, and less invasive. ThinAgents are primarily used to monitor and collect information from a variety of actions, health, operations, security, and more.

See [section 2.1 - ThinkServer and ThinAgents](#) on [page 7](#) for more information on ThinkServer and ThinAgents, and [section 2.2 - ThinAgent List](#) on [page 8](#) for an up-to-date list of each ThinAgent available.

Applications Agent

Applications Agent is a real-time text and log file processor that processes files as they are being filled with data. This makes information in the file available in real time, which permits greater control over and greater monitoring of the information. This functionality is useful if you have an application that explicitly generates text or log files (for example, a server or a database server), and can also help control almost any aspect of a system.

See [section 2.3 - Applications Agent](#) on [page 11](#) for more information on Applications Agent.

Performance Agent

Performance Agent monitors iSeries and Windows systems simultaneously, thus providing all information on a single screen which can be easily and quickly viewed to see information about the status of the main factors affecting the performance of your different systems.

See [section 2.4 - Performance Agent](#) on [page 11](#) for more information on Performance Agent.

iSeries Modules

The VISUAL Message Center iSeries Modules monitor iSeries systems.

See [section 2.5 - iSeries Architecture and Modules](#) on [page 11](#) for more information on iSeries Modules.

1.1.2 Correlation Layer

The correlation layer includes SmartConsole, Goals and Notifier, and gathers information from the databases to which ThinkServer and iSeries modules store events, filter the information, and automate actions based on the data available.

SmartConsole

SmartConsole channels and organizes events sent from ThinkServer and uses detailed rules and configuration for two-way alerting and automated self-management tasks via an intuitive graphical console.

See [section 3.1 - SmartConsole](#) on [page 14](#) for more information on SmartConsole.

Goals

Goals utilizes an engine which can connect to the SmartConsole or ThinkServer databases enabling it to retrieve data from VISUAL Message Center, which it uses to create Service Level Indicators (SLIs) in real time. These SLIs are then utilized to interpret the status of a predefined goal and the actions (if any) that need to be taken to ensure the goal is successful.

See [section 3.2 - Goals](#) on [page 20](#) for more information on Goals.

Notifier

Send and receive alerts and messages by text message (SMS) and e-mail, with escalation lists to ensure event acknowledgement and the execution of remote replies and commands.

See [section 3.3 - Notifier](#) on [page 21](#) for more information on Notifier.

1.1.3 Presentation Layer

The different products in the presentation layer, including SmartConsole Web Client, Reports, Dashboards, and Events, present historical and real-time information to users via the internet. This information comes from events stored in databases by products in the collection layer, correlation layer, or both, and is invaluable for staying aware of all issues that could have a potentially negative effect on your business processes.

SmartConsole Web Client

Keep abreast of any critical events from anywhere at any time using a Web browser to access your SmartConsole Kernels. Drill down for event details about a particular event to take action and resolve the issue as soon as possible, even when you are not at your desk.

See [section 4.1 - SmartConsole Web Client](#) on [page 23](#) for more information on the SmartConsole Web Client.

Reports

Reports is VISUAL Message Center's report manager which contains a wide range of reports to help you manage your Service Level Agreements, prepare for audits, and determine changes in trends using its historical reporting capabilities. Reports is flexible and scalable and allows you to customize any report to suit your needs.

Reports allows multiple users to run reports simultaneously. User access and privileges are managed by AccessServer which allows you to determine what users have access to which reports and manage what actions they can carry out for each report.

See [section 4.2 - Reports](#) on [page 24](#) for more information on Reports.

Dashboards

VISUAL Message Center Dashboards allows you to create custom dashboards and tables, showing the most important information about what's going on with your company's technology, security, and business in real time.

VISUAL Message Center Dashboards quickly and easily interprets the behavior of systems and presents the information in easy to read dashboards or tables directly in your Web browser.

ThinkServer monitors retrieve a constant stream of events which are stored in a database. These events are summarized by ThinkServer and saved in the same database, which is then used by Dashboards to provide vital real-time and summary data that, at a glance, can be used to compare any number of processes, systems, users, or even analyze trends historically or in real time, drastically improving proactivity, problem solving, and productivity.

See [section 4.3 - Dashboards](#) on [page 25](#) for more information on Dashboards.

1.1.4 Middleware Components

The Middleware layer is an important set of tools responsible for ensuring VISUAL Message Center components can communicate with each other, store information in a number of databases safely and securely, and more.

The following Middleware components are described in this document:

- NiceLink, the VISUAL Message Center communications protocol
- AccessServer, for VISUAL Message Center security

- SharedObjects, to manage common entities
- PMDB, for storing VISUAL Message Center data
- Database Settings Administrator, for database administration and management

NiceLink

VISUAL Message Center NiceLink consists of:

- The NiceLink Configurator, which provides a simple way of defining NiceLink systems.
- The NiceLink Network Protocol, which is the network communications protocol used by VISUAL Message Center products.
- The NiceLink Daemon, which is a component used by SmartConsole to read the database were ThinkServer and other products, such as Applications Agent, write events.



Note

The NiceLink Daemon must be installed on each monitored server in order to function correctly.

See [section 5.1 - NiceLink](#) on [page 28](#) for more information on NiceLink.

AccessServer

AccessServer is Tango/04's middleware product that provides security-related services to Tango/04 applications. AccessServer's authentication services are integrated with Windows user-provider systems, and AccessServer allows you to configure application security based on the current user profiles available in your systems, thereby negating the need to manage new user systems just for our products.

See [section 5.2 - AccessServer](#) on [page 29](#) for more information on AccessServer.

SharedObjects

Provides a simple interface to manage a number of common shared entities between VISUAL Message Center products.

See [section 5.3 - SharedObjects](#) on [page 30](#) for more information on SharedObjects.

PMDB

Provides a central repository for common statistical data that is used by VISUAL Message Center products and includes the management of several services designed to provide data where needed and the data sources required to store it.

See [section 5.4 - PMDB](#) on [page 30](#) for more information on PMDB.

Database Settings Administrator

Database Settings Administrator is a versatile tool designed to help you configure several important VISUAL Message Center settings. With the Database Settings Administrator you can:

- configure different database connection settings
- set up event signature levels
- configure the Tango/04 Maintenance Service in order to schedule database maintenance tasks.

See [section 5.5 - Database Settings Administrator](#) on [page 31](#) for more information on Database Settings Administrator.

1.2 Installing VISUAL Message Center

You can install VISUAL Message Center by downloading it from our Web site or from our product DVD. With either method, all components are installed from your PC.

Please see the [VISUAL Message Center Installation Overview](#) for details on installing the VISUAL Message Center Suite, or each product's individual installation guide for a more complete explanation of installation steps required.

Chapter 2

Collection Layer

This chapter explains the primary functions of the following products that make up the VISUAL Message Center Collection Layer, and includes:

- ThinkServer and the ThinAgents that make ThinkServer work
- Applications Agent
- Performance Agent
- iSeries Modules

The products that comprise the collection layer are VISUAL Message Center products designed to collect all data relevant to the successful operations of your business. The collection layer is the first step to processing events in VISUAL Message Center.

After events are retrieved in the collection layer, they move on to either the Correlation Layer, the Presentation Layer, or both.

For information on the Correlation Layer, see [Chapter 3 - Correlation Layer](#) on [page 14](#), and for information on the Presentation Layer, see [Chapter 4 - Presentation Layer](#) on [page 23](#).

2.1 ThinkServer and ThinAgents

ThinkServer, the heart of the VISUAL Message Center Monitoring Engine, monitors the availability, health, and security of many different systems, such as Windows or Unix, leading databases, such as Microsoft SQL Server, IBM DB2, and Oracle databases, and even applications running across different platforms, such as Unix, Linux, and iSeries, network equipment, and other devices.

ThinkServer uses ThinAgents to make managing the status of critical metrics extremely easy by controlling hundreds of servers. Predefined ThinAgents are capable of monitoring a wide variety of scenarios and businesses can modify default settings in the manner that suits them best.

Figure 2 below shows how ThinkServer collects events from many different sources before sending the appropriate events to SmartConsole (see [section 3.1 - SmartConsole](#) on [page 14](#) for more information on SmartConsole) for correlation.

For more detailed information regarding ThinkServer see the [VISUAL Message Center ThinkServer User Guide](#).

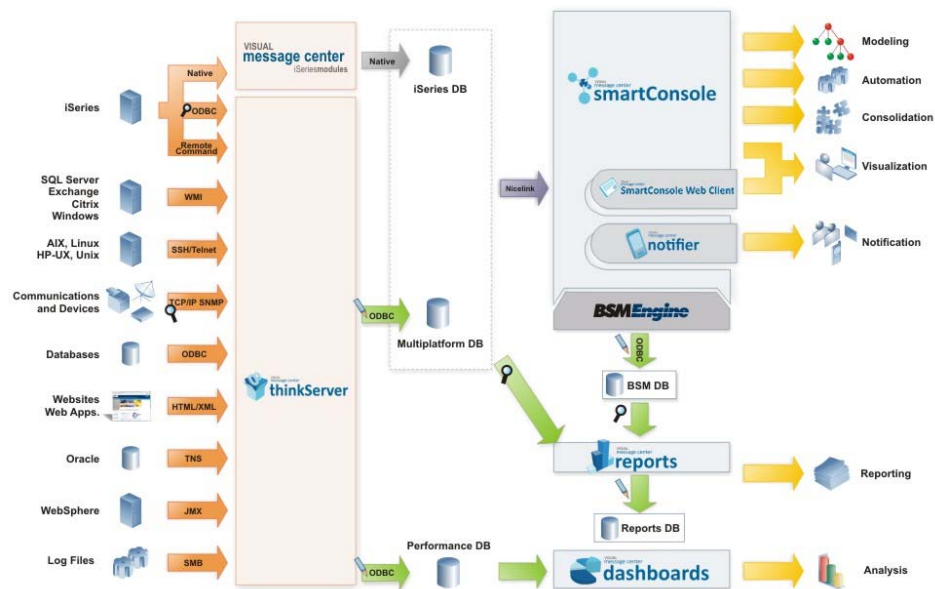


Figure 2 – ThinkServer Collects Information from Many Different Sources

2.2 ThinAgent List

ThinkServer uses easy to configure ThinAgents to monitor a wide range of system, database, and applications elements. This section provides a short list and description of the many ThinAgents currently available in ThinkServer.

ThinAgent branches in ThinkServer are arranged according to major monitoring areas, making it easier and faster to find and set up the monitoring agents you need to gain control over your IT infrastructure, applications and operations.

The ThinAgent branches are:

- End-User Experience
- Monitoring Engine
- Network Syslog
- Operations Agents
- Security Agents
- SLA Analytics

The following sections explain each ThinAgent group. For more detailed information on an individual ThinAgent, refer to the appropriate ThinAgent User Guide.

2.2.1 End-User Experience ThinAgents

The End-User Experience category of ThinAgents includes the following ThinAgents:

- **Universal Transaction ThinAgents**, which reproduce typical user transactions, measure the time it takes to complete them, and detect possible malfunctions.
- **Web Availability & Response Time ThinAgents**, which make sure your company's Web site is functioning correctly and available to customers and employees, and monitor the health of your company's Web site, response times, transaction response times, and content modifications.

2.2.2 Monitoring Engine ThinAgents

The Monitoring Engine category of ThinAgents includes the following ThinAgents:

- **Custom Monitor Extension Pack ThinAgents**, which provide customizable generic agents for monitoring Java applications, running Python scripts, creating WMI queries, and retrieving information from XML documents.
- **Data Adapter ThinAgents**, which allow users to run almost any SQL query imaginable on a database through ODBC and monitor applications to see the effect on business data.
- **HP Systems Insight Manager ThinAgents**, which facilitate the integration of health information coming from HP Insight Manager.
- **IBM Director ThinAgents**, which facilitate the integration of health information coming from IBM Director.
- **Knowledge Pack ThinAgents**, which provide monitoring solutions for different applications including:
 - BEA WebLogic Operations
 - Citrix Operations
 - Exchange Operations
 - Google Pagerank
 - JBoss Operations
 - Tomcat Operations
- **Network Basic ThinAgents**, which allow you to continuously monitor the status of all networked devices and services, detecting problems, slow downs, and measuring total downtime.
- **SNMP ThinAgents**, which retrieve SNMP variables from any device where the SNMP service is running and monitor network interfaces, printer health, SNMP traps, TCP connections, and TCP connections by service.
- **Test ThinAgents**, which can be used to check that ThinkServer is running correctly.

2.2.3 Network Syslog ThinAgent

The Network Syslog category of ThinAgents includes the following ThinAgent:

- **Syslog ThinAgents**, which receive and filter Syslog messages from remote network devices or servers.

2.2.4 Operations ThinAgents

The Operations category of ThinAgents includes the following ThinAgents:

- **IBM iSeries/System i ThinAgents**, which monitor iSeries health, job queues, jobs, services, and storage management.
- **Linux and Free BSD Operations ThinAgents**, which execute commands and scripts in Linux and Free BSD hosts and monitor tasks, memory, filesystems usage, CPU consumption, CPU abuse, server workloads, number of processes, processes per user, processes running, physical memory, and virtual memory (swap).
- **Oracle Operations ThinAgents**, which monitor alert logs, availability, databases, and performance of the Oracle server.

- **SQL Server Operations ThinAgents**, which monitor SQL server operations, including availability and performance.
- **UNIX Operations ThinAgents**, which retrieve basic UNIX, AIX, HP-UX, and Solaris health data such as file size information, CPU utilization, jobs with abusive CPU consumption, load averages, number of processes, physical memory use, and virtual memory (swap) use.
- **VMware Operations**, which monitor host CPU and memory utilization, and Virtual Machine CPU, Memory, Disk and Network Information on VMware ESX and ESXi platforms
- **WebSphere Application Server Operations ThinAgents**, which monitor the health, availability, and performance parameters of WebSphere application server operations.
- **Windows Operations ThinAgents**, which monitor the health, availability, and performance parameters of Windows operations.

2.2.5 Security ThinAgents

The Security category of ThinAgents includes the following ThinAgents:

- **Cisco PIX/ASA Security** for monitoring Cisco firewalls and retrieving information via syslog.
- **IBM iSeries/System i ThinAgents**, which control, manage, and monitor iSeries jobs, system values, and network attributes.
- **Linux and Free BSD Security ThinAgents**, which receive and filter Syslog messages from remote Linux and Free BSD systems.
- **Oracle Security ThinAgents**, which retrieve all the audit data from Oracle servers hosted on UNIX servers through Syslog.
- **SQL Server Security ThinAgents**, which monitor database activity, account management, executed SQL statements, accessed objects, and more, obtaining data from the SQL native traces.
- **UNIX Security ThinAgents**, which audit system activity according to client-defined security policies (account management, system changes, object access, and more).
- **Windows Security ThinAgents**, which audit system activity according to client-defined security policies (account management, system changes, object access, and more).

2.2.6 SLA Analytics ThinAgents

The SLA Analytics category of ThinAgents includes the following ThinAgents:

- **Historical ThinAgents**, which compute SLA values (on Service Control Points) to be included in Dashboards.
- **Real Time ThinAgents**, which compute SLA values (on Service Control Points) over the last hour, day, and month to be used in real-time alerts.



Important

This ThinAgent list is not definitive and is open to constant change. Depending on the VISUAL Message Center pack you have purchased, you may or may not have some or all of the above ThinAgents. For more information, please contact your local Tango/04 Business Partner.

2.3 Applications Agent

Applications agent allows you to monitor logs from practically any application, regardless of its format, reducing the risk that a critical failure goes unnoticed, and that performance, security, and productivity suffer as a result.

Applications Agent continuously reads information from files in real time (i.e. as soon as data is written by your applications) and allows you to define processing based on that information. The Applications Agent has an advanced, regular expression-based filtering engine that quickly discards irrelevant data from processed files.

Applications Agent is also capable of monitoring standard file systems (such as Windows NTFS): creation, deletion, modification, and file size changes can be monitored in real time.

By processing and analyzing up to millions of log lines per day from multiple sources, from a single console, and notifying you only in the event of a potential problem, Tango/04 Application Agent is the ultimate real time log monitor.

For more information, see the [VISUAL Message Center Applications Agent User Guide](#).

2.4 Performance Agent

VISUAL Message Center Performance Agent is Tango/04's solution for dynamically monitoring your iSeries and Windows systems, using minimal system resources and employing alarms to make users aware of any unwanted issues.

Performance Agent presents you with a single screen from which you can see, at a glance, the current status of the main factors affecting the performance of your system, letting you make any necessary changes quickly and effectively. Performance Agent collects, analyzes, and reacts to thousands of performance metrics many times per minute, and system usage trends can be easily displayed using predefined, or user-defined, charts.

Using the graphical on-screen prompts, simply tell each alarm what you want it to do when the alarm condition is detected, who you want to notify, and how you want them to be notified (including by e-mail and text message). Performance Agent can also tell the alarm to automatically take corrective action immediately without any user intervention.

For more information, see the [VISUAL Message Center iSeries Performance Agent User Guide](#).

2.5 iSeries Architecture and Modules

VISUAL Message Center's iSeries modules are complementary to the ThinAgents in ThinkServer. These monitoring agents allow you to monitor for anomalous events in your iSeries server. For example, if a job is waiting for an excessive length of time, or if a device is unavailable.

The agents interact with SmartConsole, so you can receive messages when anomalous events are produced. The console will then allow you to configure alarms to react when events occur, such as running iSeries commands or sending notification by e-mail or cell phone.

For more detailed information on the VISUAL Message Center iSeries Modules, see the [VISUAL Message Center \(iSeries Modules\) User Guide](#).

2.5.1 iSeries Architecture

iSeries Agents are run on an iSeries system, where they collect important information about the iSeries and generate events, which are written to a local database for use in SmartConsole, Reports, and Dashboards.

iSeries Agents store captured data on a local database - the partition where they are installed.

2.5.2 iSeries Modules

The following sections briefly explain VISUAL Message Center iSeries Modules.

iSeries Interactive Agent With Crash Preventer

The iSeries Interactive Agent forwards all interactive error messages to SmartConsole. Programmers and tech support receive detailed alerts, without relying on confusing end-user explanations. This allows IT to notice all interactive errors that occur instead of the few that users actually report, thus allowing them to proactively locate problem areas and trends which could lead to more serious problems. Messages can be replied to automatically, or an operator can reply to the message remotely, either from an interactive session or directly from SmartConsole.

Crash Preventer warns the user that a session is blocked, showing a two-line window that can be personalized to send specific messages depending on the user type or simply for using the appropriate local language. The small window leaves the application screen displaying the information that produced the error, and you can use iSeries Support Agent to capture and view it, allowing easier error detection.

iSeries Server Agent

The iSeries Server Agent monitors all iSeries message queues, jobs, devices, and systems history for all the iSeries on your network. The iSeries Server Agent includes the following monitors:

- Batch Monitor (BCH Agent)
- Device Monitor (DVM Agent)
- QHST System Log monitor (HST Agent)
- Job Activity Monitor (JAM Agent)
- Job Status Monitor (JBM Agent)
- Job Duration Monitor (JDM Agent)
- The Job Queue Status Monitor (JQM Agent)
- Spool Files Size Agent (SPF Agent)
- Spool Files by Job Agent (SPJ Agent)
- Spool Files by Output Queue (SPQ Agent)
- User Inactivity Monitor (UIN Agent)
- Restricted State Monitor (RST Monitor)

iSeries SQL Agent

The VISUAL Message Center iSeries SQL Agent's Interactive SQL Monitor and SQL Monitor provide a means to make the security of your relational database residing on iSeries/i5 systems much tighter, by capturing all the SQL statements executed on your systems and partitions.

SQL activity and suspicious actions can be sent to a corporate dashboard, be assigned a color-coded severity and status and used as another sensor of operational health for auditing purposes, monitoring projects, or major Business Service Management (BSM) initiatives.

For more information, see the [VISUAL Message Center iSeries SQL Agent User Guide](#).

iSeries Security Agent

The iSeries Security Agent provides the internal monitoring and auditing capabilities you need to protect your data, with the ability to respond automatically to security threats before damage is done. Advanced filter criteria mask iSeries complexities and let you fine-tune the iSeries Security Agent to pinpoint real security issues, rather than everyday user mistakes.

The power of VISUAL Message Center to respond automatically to security events makes this an intelligent, self-protecting solution for iSeries systems, complementing other products such as exit-point security or firewalls. In summary, the iSeries Security Agent can:

- Alert you in real time to any weakness or system intrusion
- Take automated actions to auto-protect your system from damage
- Integrate with other critical system management functionality

For more information, see the [VISUAL Message Center iSeries Security Agent User Guide](#).

iSeries Support Agent

With iSeries Support Agent, operators can remotely drill down to inspect any iSeries job and display otherwise inaccessible internal job information. Batch or interactive job problems can be diagnosed and solved in record time and with unbeatable efficiency.

Operators can correct critical running jobs, usually without the need to restart, avoiding database corruption and lengthy post-problem clean-up. Features such as remote screen capture, source code debugging, and on-the-job command entry (even on running batch jobs) make the iSeries Support Agent a uniquely dynamic problem-solving product.

For more information, see the [VISUAL Message Center iSeries Support Agent User Guide](#).

The Correlation Layer gathers all the data generated by events and applies various rules to it, making it easy for operators to determine where the areas for concern are. This is essential to the 1-2-3 (Technology, Security, and Business) philosophy as the correlation of events lets operators know if there is any kind of real or potential impact to business processes or security due to irregularities with technology.

Whatever the size of your IT department, the impact of technology on security and business processes is of utmost importance. VISUAL Message Center can be used to send you an alert every time a user repeatedly attempts to sign-in incorrectly, when routers are down, when Max CPU usage is detrimental to your infrastructure, when networks are down, and so much more.

For example, when a user is disabled for too many incorrect log-ins it is important to find out the reason why to see if they need immediate help. If it is a hacker, you need to be able to monitor your system immediately for any abnormal user behavior. You can set an alarm to alert you by e-mail or text message every time this occurs, or view real-time or historical information online.

3.1 SmartConsole

Using NiceLink, and/or your iSeries servers, VISUAL Message Center requests fresh data from your systems at a regular time interval set by users.

The thousands of events that are received from your applications and business processes, run through visual filters, and correlated by SmartConsole to determine which events to display in the SmartConsole message panels. This allows you to filter out events that are critical to your operations by configuring the criticalness level of different business processes.

You can organize events, as seen in [Figure 3](#), related to a particular business process into a single Business View, as seen in [Figure 8](#), to give you immediate insight into the health of this business process by showing the root cause of any problem.

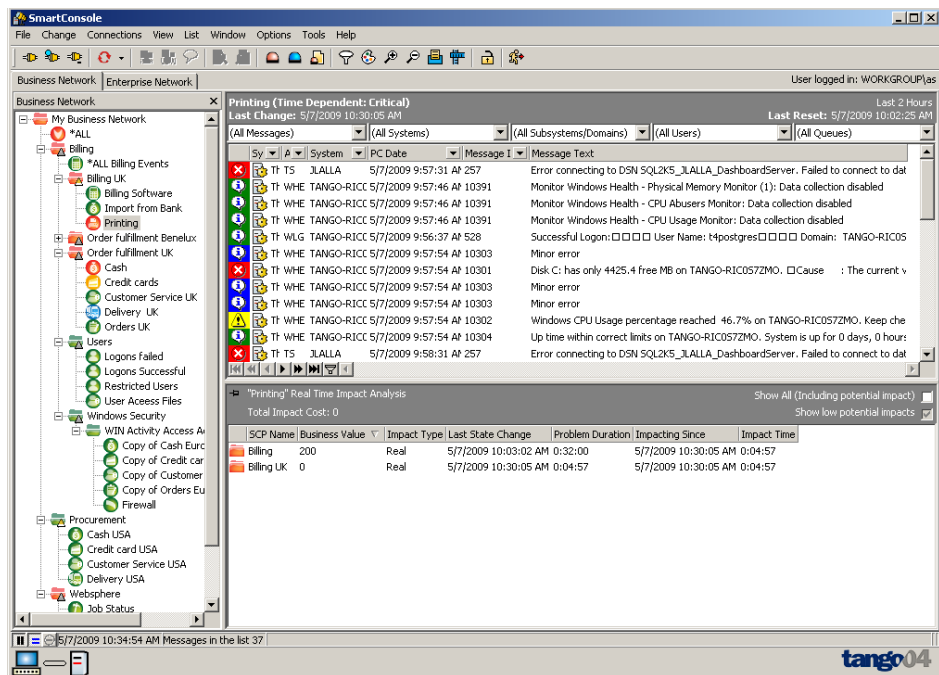


Figure 3 – Events in a SmartConsole Business View's messages panel

3.1.1 How SmartConsole Works

The flow of events arriving to SmartConsole starts with the collection of events from ThinkServer (via a NiceLink connection) or iSeries servers, after which SmartConsole starts processing the events. It manipulates events based on user-accessible configurations and performs a number of tasks such as setting off alarms, sending alerts, performing automated actions and action sets, and so forth depending on how critical the events are to your business.

Before starting to explain the event flow through VISUAL Message Center, we must introduce a few concepts to help you understand it better.

Filters

SmartConsole has a filter system that is used in most of the event processing elements. This filter system allows the user to select which events to process for each alarm and Business View.

ALEV

SmartConsole also has a scripting language that allows the user to perform advanced operations or change the information contained in an event. This powerful yet simple scripting language is called ALEV and is explained in greater detail in the *VISUAL Message Center SmartConsole User Guide* and the *ALEV Reference Manual*.

In-Memory Database

Once incoming events have been processed, they are stored in SmartConsole's in-memory database, which is then used to view the events. In addition to storing the new events it is possible to reserve a section of the database for historical events. Disk space in the database is automatically cleared at user-defined intervals.

The size of the database is very important as the oldest events will be overwritten if the database fills up and they will no longer be available for display in SmartConsole.

There is no limit to the size of SmartConsole's in-memory database other than the size of your machine's memory. SmartConsole processes events in the following features:

- Filters
- Preprocesses
- Alarms
- Criticalness
- Business Views

**Note**

If collecting large amounts of data simultaneously, make sure the configuration of the in-memory database is sufficient to contain all the incoming events. It is important to adjust the database to suit your organization's needs.

The flow of events inside SmartConsole starts with the collection of events from the servers.

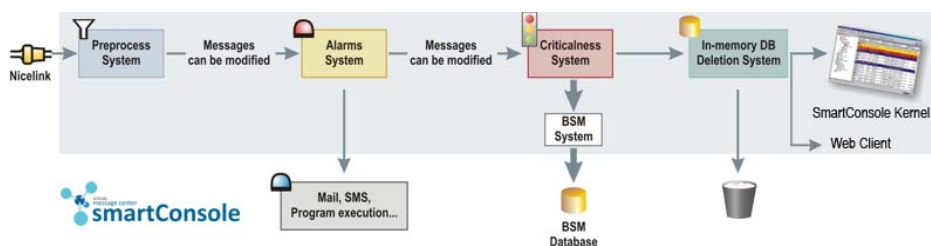


Figure 4 – Event Flow through SmartConsole

SmartConsole's collection system checks the servers for new events periodically. It also retrieves historical events if required. If a server cannot be reached, the collection system will continue to try to connect until it succeeds. You can set limits to the number of events SmartConsole retrieves and, if necessary, interrupt collection to execute it later. In addition to the automatic collection settings, you can manually retrieve both new and historic events at any time.

The collection system stores the last date of collection for each system and agent combination. Therefore it is important to make sure the date on all systems is correct and that no two systems have the same name.

When retrieving data, it may be useful to split collections from servers with many agents, such as a server containing a ThinkServer, from that of servers with few agents. This greatly reduces search time for records on the various servers and improves collection speed.

Use Database Settings Administrator to maintain your database, delete, or move old records. For more information on Database Settings Administrator, see [section 5.5 - Database Settings Administrator](#) on [page 31](#).

In summary, the collection system makes sure no events are lost, and that you are notified immediately of problem root cause of important events. The collection system is fully configurable and is described in detail in the [VISUAL Message Center SmartConsole User Guide](#).

3.1.2 SmartConsole Event Flow

The following sections briefly explain the flow of events through SmartConsole.

Preprocess System

After collection, events pass through the preprocess system which processes retrieved events. The system consists of an ordered list of preprocesses. Each preprocess contains:

- a filter that determines which events to process

- a group of processes to perform on the selected events.

Preprocesses are comprised of a set of ALEV scripts, which can change event information or run other tasks. When SmartConsole receives an event, it checks every preprocess filter to see if there is a match. If the event matches a preprocess filter, it executes the preprocess tasks on that event.

For each preprocess you can determine whether to stop or continue processing the event. In case it is stopped, the event is not processed by any more preprocesses and it will continue on to the alarms system. Otherwise, it continues on to the next preprocess for additional processing.

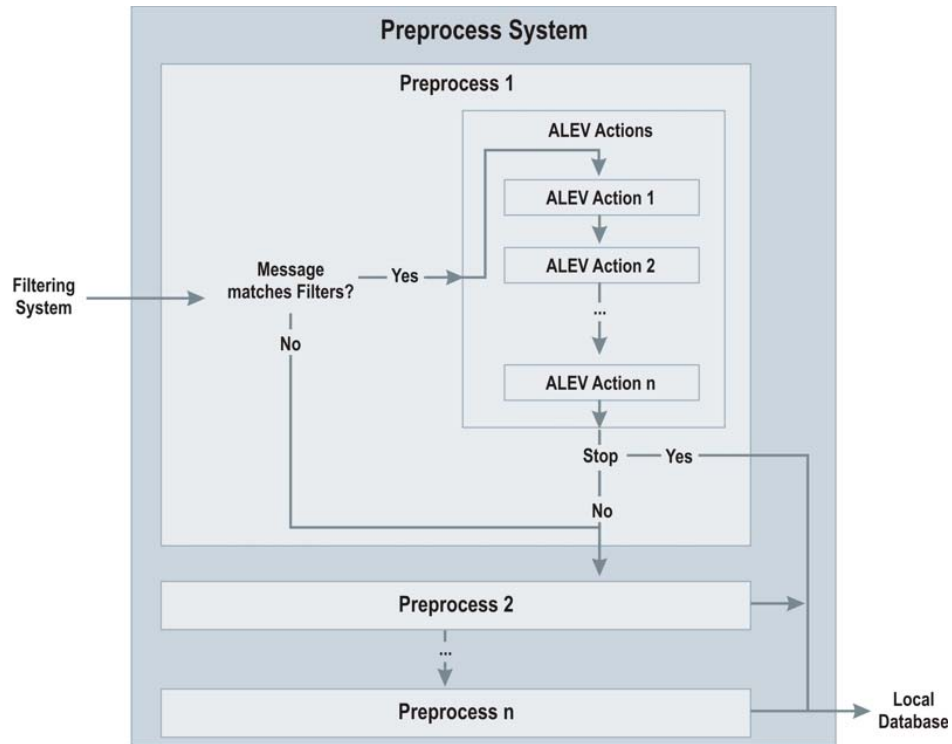


Figure 5 – SmartConsole Preprocess System

Alarms System

after passing the preprocess system, events are dispatched to the alarms system. The alarms system consists of a set of alarms and each alarm contains:

- a filter
- a set of actions to perform

User-defined ALEV scripts can be used in conjunction with standard alarm actions, not to mention pre- and post-actions, as well as action sets. Some available actions include:

- executing an application
- executing a remote AS/400 command
- sending an e-mail or text message
- and more

Just as in the preprocess system, the alarms system checks each event to see if there is a match between the event and the alarm filter. If an event matches an alarm filter, SmartConsole performs the configured alarm actions on the event.

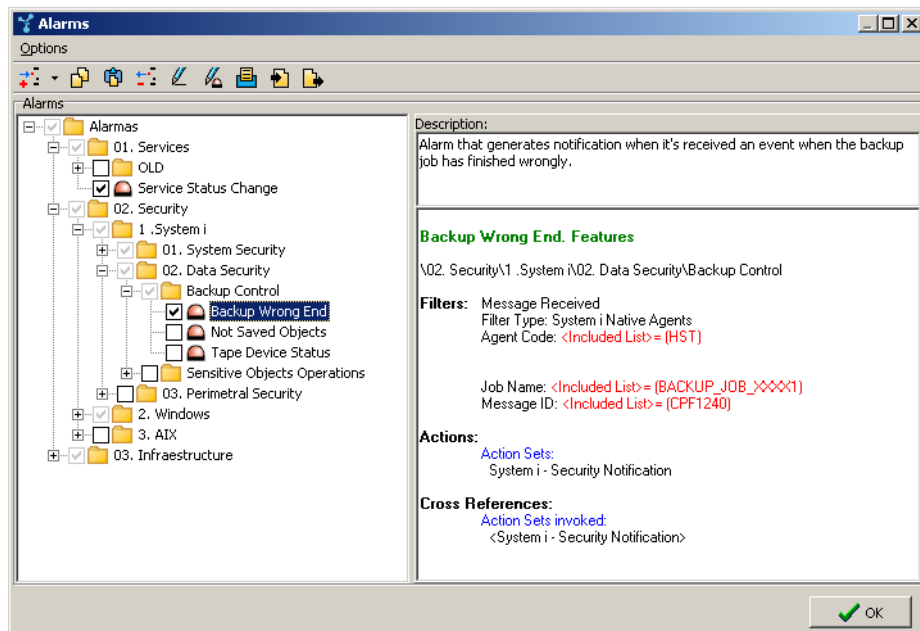


Figure 6 – SmartConsole alarms system being accessed via the Kernel interface

Criticalness System

Finally the event reaches the criticalness system. This is a more advanced system that involves more complex operations than the other systems.

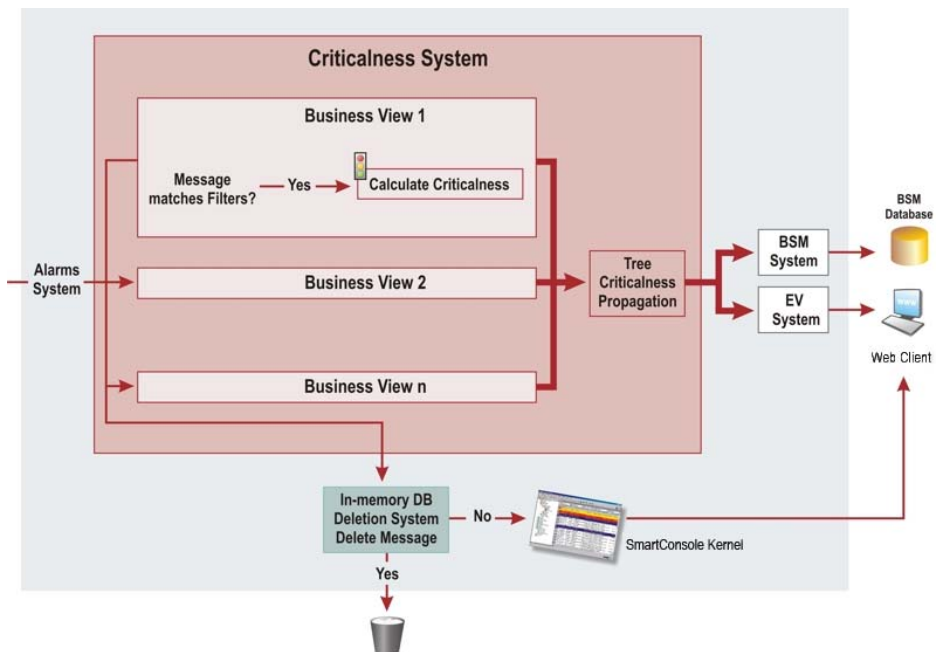


Figure 7 – SmartConsole criticalness system

The Criticalness system consists of Business Views which receive events that match their filters and sets the criticalness state of the Business View according to an event's severity or criticalness.

A Business View can represent a business or an infrastructure component, so you will know whether there is a problem in any critical component of your business by looking at the color of the Business Views.

Once criticalness of a Business View is determined, the criticalness is passed on to the Enterprise Views and Service Level Agreement Analytics and Reporting for proper action to be taken.

Finally, Business Views are designed to show the status of any number or variety of events from your company, allowing you to drill down to problem root causes, or any level desired. Business Views are organized in a Service Model and can propagate the criticalness state to a parent folder following a set of configurable rules.

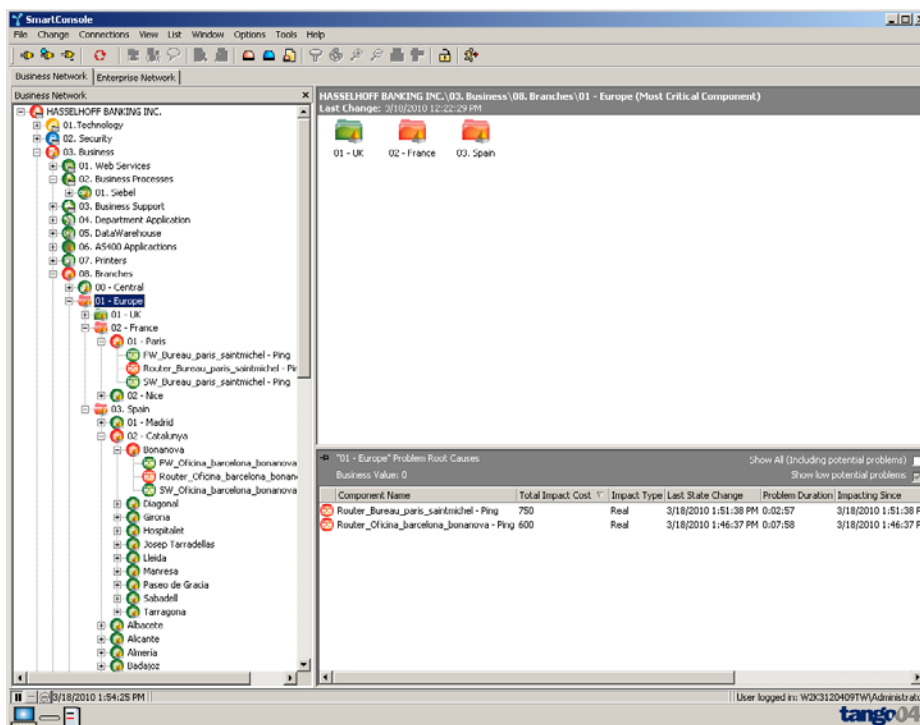


Figure 8 – Business Views

Business View icons change color according to the arrival of important events, and can be viewed through Enterprise Views, where dynamic icons are presented in clear and easy to read graphical displays, as seen in Figure 9, to give you a real-time picture of your business's operating health.

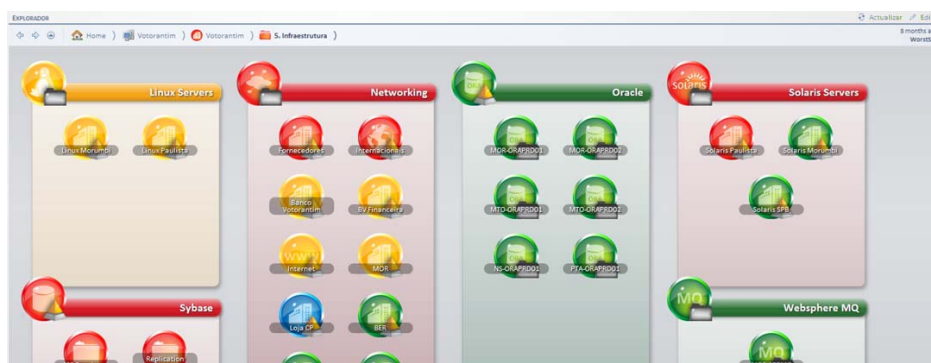


Figure 9 – Enterprise Views

SmartConsole Web Client then lets you access all the Enterprise View information you need to know via the internet in real time, simply, and quickly.

For more information on the SmartConsole Web Client, see [section 4.1 - SmartConsole Web Client](#) on [page 23](#).

In-Memory Database deletion system

Finally, an event follows on to the next system in SmartConsole: the in-memory database deletion system.

This system determines whether or not to store the event in the in-memory database. Events that are deleted at this stage are not available for display in the SmartConsole message panels. Events that are not deleted are stored in the in-memory database and are available for display in the SmartConsole message panels and in both SmartConsole and SmartConsole Web Client.

3.1.3 Service Level Agreement Analytics and Reporting

The Service Level Agreement Analytics and Reporting feature in SmartConsole is an IT approach that looks at the whole business rather than a collection of inter-related technology components. Instead of focusing on the status of servers, printers, the network, or other technical components, the focus is on the health of online order processing, production lines, or the payroll application.

A traditional IT management system tells you that a production job has failed. The Service Level Agreement Analytics and Reporting system tells you that one of your offices has lost all network connections and that this problem has been caused by the failure of a router at the office in question. Service Level Agreement Analytics and Reporting also indicates the implications of the downtime and the impact on the business one event has compared to other events. By assigning Business Values based on the number of customers at a particular branch, for example, prioritizing incident responses is simple.

IT systems are aligned to business processes, so it is easy to determine the business impact of a problem. This ultimately reduces downtime and improves service levels, since IT personnel can focus on the high-priority, business-relevant issues first.

In a broader definition of Service Level Agreement Analytics and Reporting, everything that impacts the service is also included. This may include real-time alerts on key business performance indicators (KPIs), such as lower transaction rates, number of users connected to a system, or plain business metrics such as sales in the last hour and factory quality deviations in a critical product line.

Component Name	Total Impact Cost	Impact Type	Last State Change	Problem Duration	Impacting Since	Impact Time	Full Path
FW_Office_Times Square - Ping	900	Real	3/18/2010 12:34:52 PM	3:22:50	3/18/2010 12:34:52 PM	3:22:50	08. Branches(02. USA)01.
Router_Bureau_paris_saintmichel - Ping	750	Real	3/18/2010 1:51:38 PM	2:06:04	3/18/2010 1:51:38 PM	2:06:04	08. Branches(01. Europe)01.
Router_Oficina_barcelona_bonanova - Ping	600	Real	3/18/2010 1:46:37 PM	2:11:05	3/18/2010 1:46:37 PM	2:11:05	08. Branches(01. Europe)01.
RouterCat_Vlan6 - Ping	0	Potential (Low)	3/18/2010 12:30:21 PM	3:27:21			08. Branches(00. Central)01.
RouterCat_Vlan101 - Ping	0	Potential (Low)	3/18/2010 8:33:00 AM	7:24:42			08. Branches(00. Central)01.
RouterCat - SNMP Interface Status - Vlan6	0	Potential (Low)	3/18/2010 8:33:00 AM	7:24:42			08. Branches(00. Central)01.
RouterCat - SNMP Interface Status - Vlan101	0	Potential (Low)	3/10/2010 5:33:29 PM	7 Days, 22:24:13			08. Branches(00. Central)01.
FW(Virtual) - Ping eth2c0	0	Potential (Low)	3/18/2010 8:32:58 AM	7:24:44			08. Branches(00. Central)01.
FW(Virtual) - Ping eth3c1	0	Potential (Low)	3/18/2010 8:32:58 AM	7:24:44			08. Branches(00. Central)01.
FW101 - Ping eth2c0	0	Potential (Low)	3/18/2010 8:32:58 AM	7:24:44			08. Branches(00. Central)01.
FW101 - Network Interfaces - eth2	0	Potential (Low)	3/18/2010 8:33:00 AM	7:24:42			08. Branches(00. Central)01.
FW101 - Ping eth3c1	0	Potential (Low)	3/18/2010 8:32:58 AM	7:24:44			08. Branches(00. Central)01.

Figure 10 – Service Level Agreement Analytics and Reporting Business Impact Values Displayed

3.2 Goals

Goals is the Web-based VISUAL Message Center tool that enables the monitoring of an organization's goals in real time to ensure they are successfully completed.

We have already explained that ThinkServer and SmartConsole are capable of monitoring the business aspects of an organization rather than just the IT side and of providing information regarding the consequences of specific events on the business. Goals takes this concept even further and by analyzing the goals an organization has in place and the data it receives from the ThinkServer and SmartConsole, it can tell the organization in real time if they are going to successfully meet all their goals and if not what the consequences in *real terms* will be.

3.2.1 How it works

ThinkServer can monitor systems to provide KPIs that are related to goals and can be sent to SmartConsole and Goals.

Goals can interpret both the raw data direct from ThinkServer (KPIs) or the processed data via SmartConsole which applies rules to the data to determine its health status. Details of a goal are recorded in Goals and it uses this information to analyze the data it receives to create Service Level Indicators (SLIs) in real time, which indicate the status of the goal at that specific time.

By calculating the status of a goal in real time, Goals can perform automated responses if necessary, designed to ensure the correct action is taken to meet the terms of a corporate goal such as an SLA. Goals can also use the information to make predictions regarding the future state of the goal, which in turn can also trigger specific actions.

This means that Goals has the power to recognise if an event at 8am has the potential to cause the non-compliance of a goal at 6pm, and automatically trigger specific actions if required to ensure this does not happen.

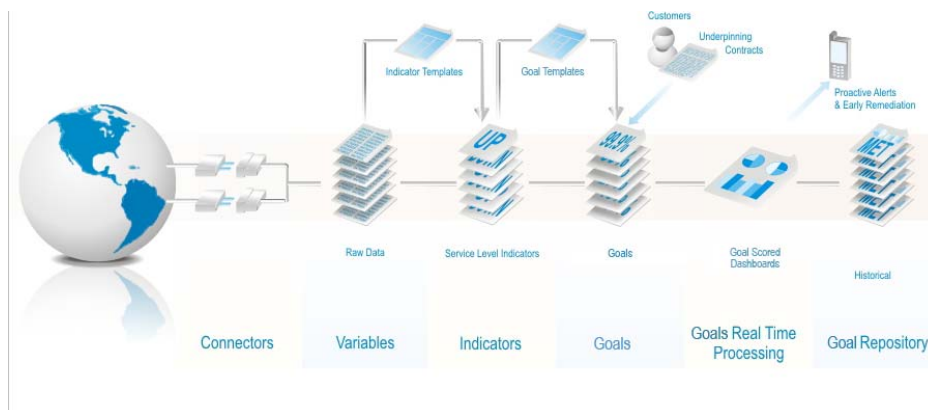


Figure 11 – Goals workflow

For further information on how to use Goals, please refer to the [VISUAL Message Center Goals User Guide](#).

3.3 Notifier

With Notifier, you can introduce text message and e-mail support into your own applications. This function is invaluable for allowing operators to control your system when they are out of the office, as Notifier allows you to send and reply to events via text message or e-mail.

Code	Receiver	Status	Expires In	Step	Message
BHDP	System Administrator <+34661074098>	Waiting reply	02:44	1 of 3	NWOLF, /, 10304, 7/18/2007
BERD	Show window <Alert1>	Waiting reply	03:23	3 of 3	NWOLF, /, 10304, 7/18/2007
BESM	Show window <Alert1>	Waiting reply	03:24	3 of 3	NWOLF, /, 10304, 7/18/2007
BEVJ	Show window <Alert1>	Waiting reply	03:24	3 of 3	NWOLF, /, 10304, 7/18/2007
BEYG	Show window <Alert1>	Waiting reply	03:24	3 of 3	NWOLF, /, 10304, 7/18/2007
BHAT	Show window <Alert1>	Waiting reply	03:24	3 of 3	NWOLF, /, 10304, 7/18/2007
BHJJ	System Administrator <+34661074098>	Waiting reply	03:57	1 of 3	NWOLF, /, 10304, 7/18/2007
BHGM	Administrator <nwolf@tango04.net>	Waiting reply	04:59	2 of 3	NWOLF, /, 10304, 7/18/2007

Figure 12 – Notifier Message Grid

Applications can be modified to send messages informing operators when critical processes have been finalized correctly (or not).

In addition to providing invaluable technical information in real time, Notifier can also be used to give operators control over the behavior of any variety of applications or processes such as:

Correlation Layer

- When a process is completed, the application can ask an operator via text message or e-mail whether a save should be performed or not
- Notify delivery personnel of changes in delivery routes to their cell phone
- Send sales personnel updated information of product pricing and availability

In an iSeries environment, for example, VISUAL Message Center monitors any message queue on your iSeries machine. This allows you to create a specific message queue for managing text messages or e-mails.

For further information on how to use Notifier, please refer to the [Notifier Configuration Guide](#).

The final layer in the VISUAL Message Center solution is the Presentation Layer, which enables you to take the information that has been collected and filtered and present it in a number of visually stunning and flexible solutions. This enables your operators to see exactly what they need to see, wherever they have access to the internet and at whatever time they desire.

4.1 SmartConsole Web Client

SmartConsole Web Client builds on the functionality previously delivered by Web SmartConsole but is much more powerful than its predecessor, providing multi-console, multi-user, online event correlation for VISUAL Message Center.

4.1.1 Business Views and Auto-Enterprise Views

SmartConsole Web Client gives you access to information from Auto-Enterprise Views, Business Views, and events from anywhere you have an Internet connection. It is continuously updated in real time, allowing you to monitor crucial information across the globe.

In the Web client you can see Auto-Enterprise Views based on your Business Folders, and there is no need to configure them as in the SmartConsole Kernel. Business Views reflect the current status at all times and you can view related events to identify problems as they occur.

In SmartConsole Web Client you can also create users and roles to ensure operators have the information they need to do their jobs, while simultaneously restricting access to sensitive information. From your browser you can manipulate the events, choose which ones you want to show and share, and customize the alarm and action sets you create for desired events.

SmartConsole Web Client is easy to install and configure, enabling you to extend your monitoring capabilities and manage crucial systems worldwide.

4.1.2 Multiconsole

Many Web Client users can work simultaneously in several SmartConsole Kernels, each using a Web browser that delivers a customized view designed specifically for each user's needs and privileges. This means that SmartConsole Web Client only provides the information needed from each of your SmartConsole Kernels, tailor made for the user, whether they are interested in IT, Operations, or Accounting data.

4.1.3 Share Messages

SmartConsole Web Client enables you to share not only message but entire panels as a URL links to any of your users, no matter the domain. Any of the panels available in the product can be shared, be it the analysis, Business View messages panel, or Service Model browser.

4.1.4 Automation

There are many tasks and responses that can be automated to save you time and work. In SmartConsole, for example alarms and action sets can perform multistep tasks on your behalf, events can be manipulated between each of the many SmartConsole processing layers, and alarms and action sets have repetition controls so they will not become problematic.



Figure 13 – Auto-Enterprise Views in SmartConsole Web Client. Notice that Business Folders often demonstrate different criticalness states from their Enterprise View

For more information on installing and using VISUAL Message Center SmartConsole Web Client, see the [SmartConsole Installation Guide](#) and the [SmartConsole Web Client User Guide](#).

4.2 Reports

Reports is VISUAL Message Center's report manager which contains a wide range of reports to help you manage your Service Level Agreements, prepare for audits, and determine changes in trends using its historical reporting capabilities. Reports is flexible and scalable and allows you to customize any report to suit your needs.

Reports are available in various formats and can be scheduled to run automatically, generated in real time, or executed on demand by authorized users. Reports can be saved to a wide range of file formats including PDF, Excel (XLS), and Word (RTF). Reports also distributes reports by e-mail.

Reports allows multiple users to run reports simultaneously. User access and privileges are managed by AccessServer which allows you to determine what users have access to which reports and manage what actions they can carry out for each report.

Reports offers full support for SQL Server, DB/2 for iSeries, DB/2 for Windows, PostgreSQL, MySQL, and Oracle.

[Figure 14](#) below shows a good example of a detailed Service Control Point report produced by Reports which shows all the valuable information needed for any Service Control Point to help make your business and operations function smoothly.

For more information on installing and using VISUAL Message Center Reports, see the [Reports Installation Guide](#) and the [Reports User Guide](#).

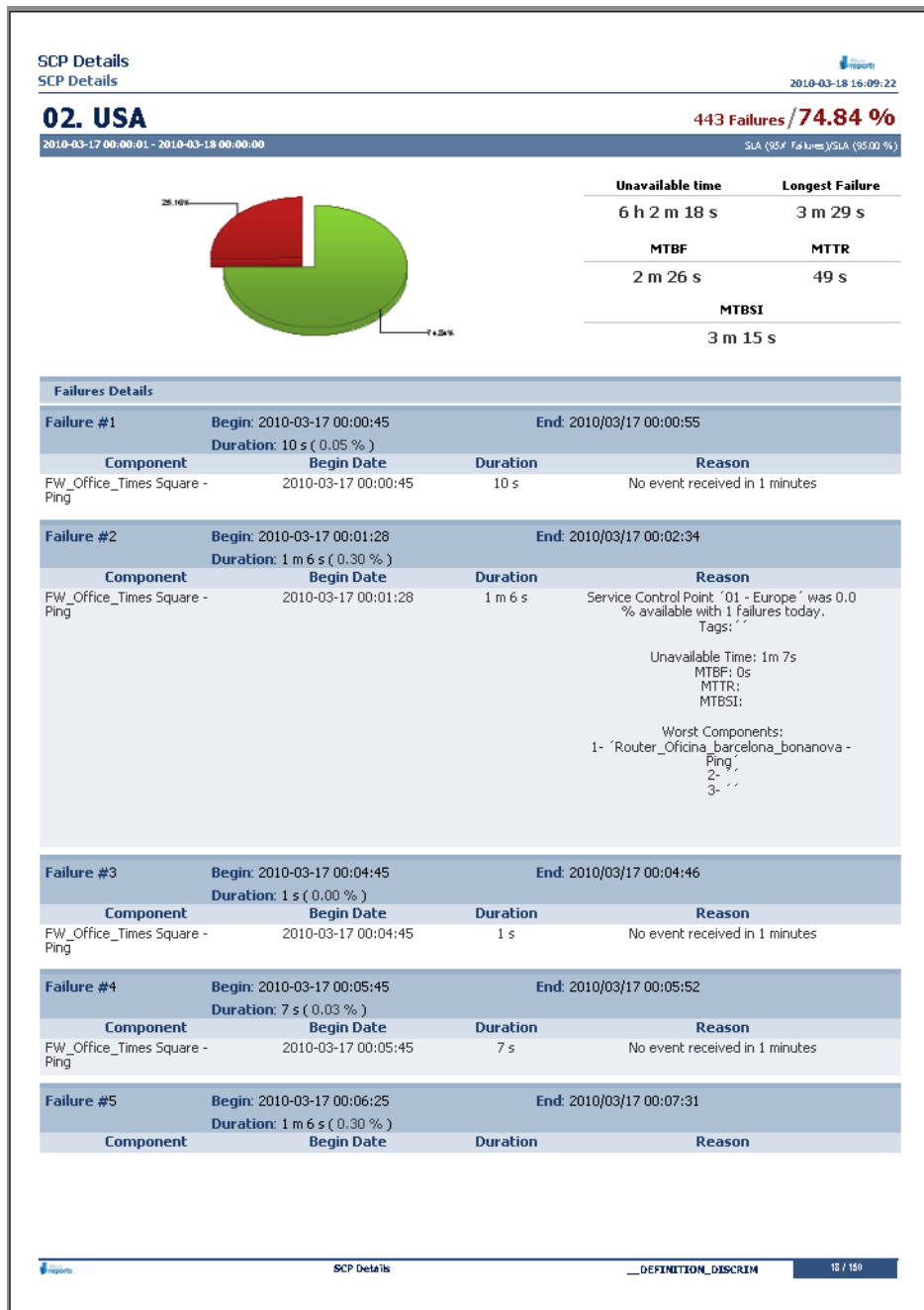


Figure 14 – Reports example

4.3 Dashboards

VISUAL Message Center Dashboards allows you to create real-time custom dashboards showing the variables that matter most to you. Dashboards quickly and easily interprets the behavior of systems and presents the information in easy to read charts, icons, or tables directly in your Web browser.

How the information is published depends on how you need to interpret the data. The power of Dashboards is that you decide whether you want to view the information in a variety of fully customizable charts, tables, gauges, state icons, and more.

To summarize, VISUAL Message Center Dashboards benefits business by providing:

- Visual presentation of performance measures
- The ability to identify and correct negative trends

- Measurement of efficiencies and inefficiencies
- The ability to make more informed decisions based on collective business intelligence
- Alignment of strategies and business goals
- Complete and instant visibility of all systems

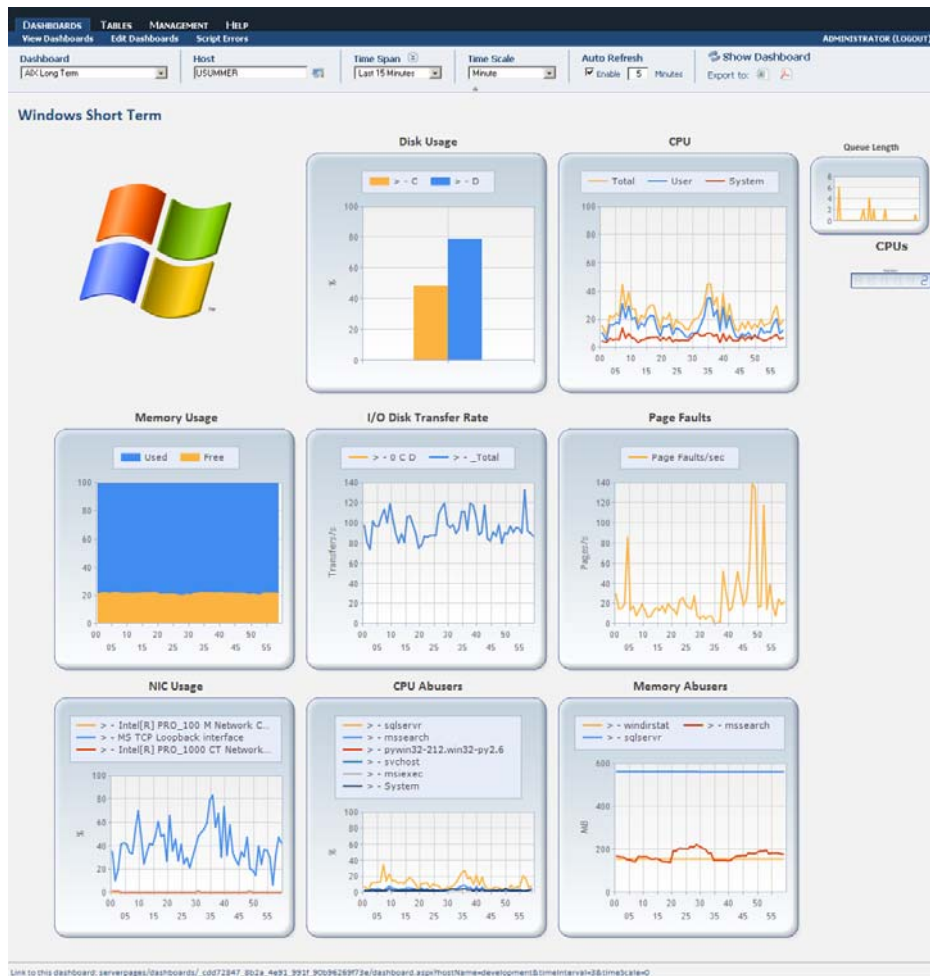


Figure 15 – Dashboards example

ThinkServer monitors retrieve a constant stream of events. Dashboards capitalizes on this information as it is generated and updates its charts and tables immediately, providing vital information at a glance that can be used to compare any number of processes, systems, users, or even analyze trends in real time.

By tracking the data provided by a monitor, Dashboards enables users to:

- **Be pro-active:** Recognize and react to prevent potential problems
- **Solve problems:** Trace problems back to their root cause
- **Improve productivity:** Manage stock and monitor sales

Dashboards can not only help you control the performance of your systems but also your business, providing up to the minute information regarding stock levels or sales performance and trends across your entire business in one clear and simple dashboard.

Furthermore, with preconfigured default dashboards you can begin monitoring a wide range of common situations immediately, without the need to first configure data collection or create a single dashboard.

Presentation Layer

For more information on installing and using VISUAL Message Center Dashboards, see the [Dashboards Installation Guide](#) and the [Dashboards User Guide](#).

Tango/04 utilizes a number middleware components, none of which collect, correlate, nor present data. However, they are essential to the proper functioning, management, security, and use of VISUAL Message Center.

Essential Tango/04 middleware components include:

- NiceLink
- AccessServer
- SharedObjects
- PMDB
- Database Settings Administrator

5.1 NiceLink

VISUAL Message Center NiceLink consists of:

- The NiceLink Configurator
- The NiceLink Network Protocol
- The NiceLink Daemon

5.1.1 NiceLink Configurator

The NiceLink Configurator provides an easy way to define NiceLink systems. Once you have defined your network, every NiceLink enabled product will recognize it, and will be able to connect to every system in the network.

The NiceLink Configurator provides a common front end for NiceLink enabled products which allows users to always work with the same simple, intuitive, and well known interface. If a user wants to select a new system, change the properties of system, change the configuration of the network, or change anything related to any system or to the network, it is done through the NiceLink Configurator.

5.1.2 NiceLink Network Protocol

The NiceLink Network Protocol is the network communications protocol used by VISUAL Message Center products.

5.1.3 NiceLink Daemon

The NiceLink Daemon is a component used by SmartConsole to read the database were ThinkServer and other products, such as Applications Agent, write events. The NiceLink Daemon must be installed on each monitoring server in order to function correctly.

For details regarding configuring, installing, and working with NiceLink see the [NiceLink User Guide](#).

5.2 AccessServer

In order to securely access VISUAL Message Center products, AccessServer serves as the security protocol users use to enter into VISUAL Message Center SmartConsole, Reports, Dashboards, and Events to view critical information related to your company's business operations and IT infrastructure.

AccessServer is easy to install, and must be installed before SmartConsole, Reports, Dashboards, and Events in order to register each product into AccessServer. This measure provides security from the very beginning, before a product is used for the first time, and every time thereafter.

AccessServer provides the following security-related services to Tango/04 applications:

- **Authentication Services:** seamlessly integrating Tango/04 applications with user provider systems already available in your company (only Windows-based user provider systems at the moment, but others can be supported if required). AccessServer allows you to configure an application's security based on the current user profiles available in your systems, negating the need to manage new user systems just for our products.
- **Authorization Services:** allows you to define and fine-tune an application's security privileges based on application roles, system users and system groups.
- **Auditing Services:** provides the basis for common and flexible auditing requirements.

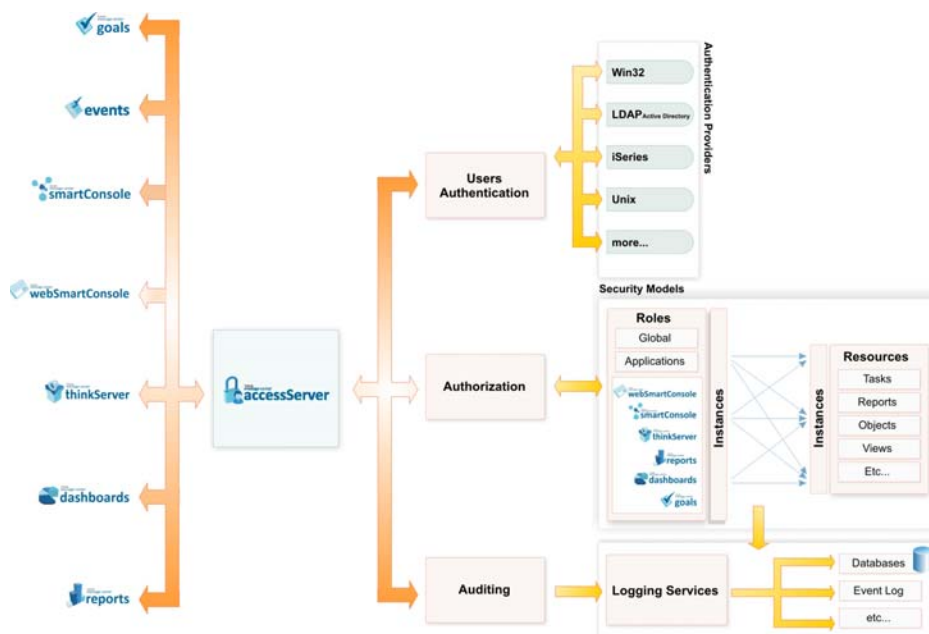


Figure 16 – AccessServer integration with VISUAL Message Center

As AccessServer's functions and use are unique to each product, see the appropriate AccessServer chapter or section in the document for the product for which you require more information.

Please also refer to the [AccessServer Tools and Procedures guide](#).

5.3 SharedObjects

SharedObjects provides an interface that is accessed from within various other Web based VISUAL Message Center products, enabling the configuration of a number of shared entities. As the Web based solution grows, so too will the role of SharedObjects, guaranteeing all common Web based services are streamlined and stable.

5.3.1 Calendar Services

Calendar Services are provided by SharedObjects in order to manage the time periods and intervals that VISUAL Message Center products are active. In other words, calendars are defined in each product in order to specify when data should be analyzed, providing a framework of time periods which are used to automatically switch the data analysis on or off.

For example a business hours calendar which includes business hours for normal working days and records details of the Christmas holiday period will be useful if you want to exclude non-business hours and the holiday period from any calculations that a VISUAL Message Center product may make. This ensures accurate and flexible data analysis is always guaranteed no matter the circumstances.

For more information on SharedObjects, please refer to the [VISUAL Message Center SharedObjects User Guide](#).

5.4 PMDB

PMDB is a centralized data aggregation engine that provides improved performance and communications by distributing statistical data securely between the various tools of your VISUAL Message Center solution.

5.4.1 PMDB Configurator

The PMDB Configurator manages the services available to other VISUAL Message Center products and is accessed via the individual products that utilize PMDB.

PMDB Configurator manages the following services:

- Periods
- Filters
- Retention policies
- Data sources
- PMDB management (location of the PMDB Engine and DSN details)

5.4.2 PMDB Engine

The PMDB Engine manages the database storage of VISUAL Message Center statistical data generated by Goals (further VISUAL Message Center products will soon be integrated with PMDB) providing filters to control the input and output of specific data.

A PMDB data source is created in order to store data from VISUAL Message Center Goals which in turn can be used by other VISUAL Message Center products such as Dashboards.

With future added integration for ThinkServer, the PMDB Engine will provide a truly pivotal part of the VISUAL Message Center solution, ensuring all key components are in communication. Dashboards will

for example be able to directly analyze information from Goals in real time and provide forecasts or indicate trends.

The workflow of data from VISUAL Message Center products to and from the PMDB Engine is illustrated in [Figure 1](#) on [page 2](#).



Note

The creation of the PMDB data source is explained in the [VISUAL Message Center Installation Overview](#) document.

5.5 Database Settings Administrator

Database Settings Administrator allows users to configure every database connection setting they may have for each VISUAL Message Center product. Database Settings Administrator has tabs for each VISUAL Message Center product that uses data sources, thus facilitating easy and rapid access to information about all databases and data sources in service for the VISUAL Message Center suite:

- ThinkServer
- Dashboards
- SmartConsole Web Client
- SmartConsole
- AccessServer

Most VISUAL Message Center users employ each of the above products, all of which require database configurations. Therefore, database management is of vital importance.

[Figure 17](#) shows a typical VISUAL Message Center database set up. For more information on Database Settings Administrator, see the [Database Settings Administrator User Guide](#).

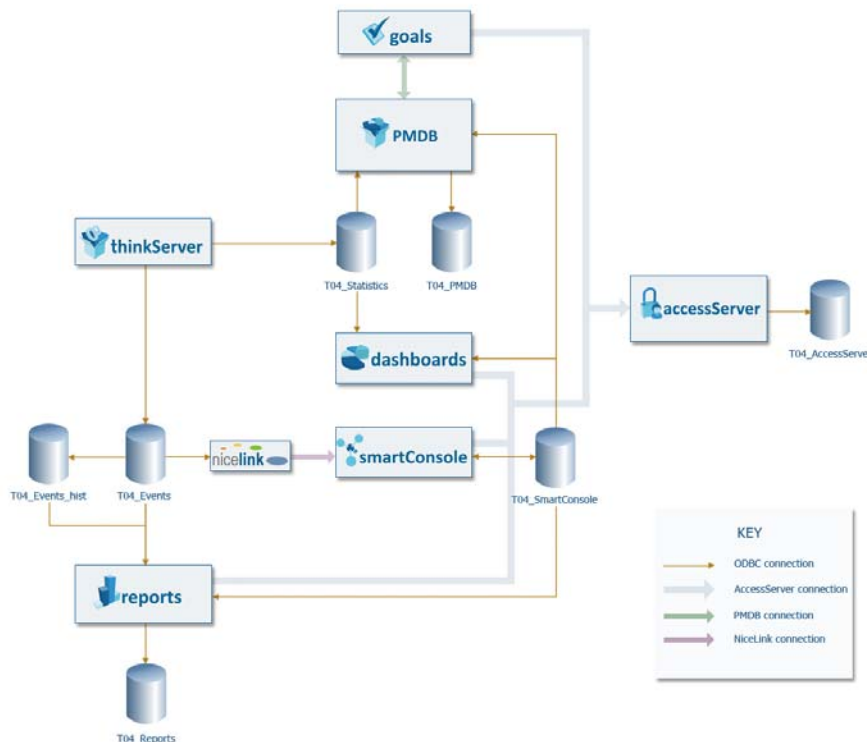


Figure 17 – VISUAL Message Center database configuration

Appendix A

Contacting Tango/04

North America

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PO BOX 3301
NH 03458 Peterborough
USA

Phone: 1-800-304-6872 / 603-924-7391
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Fax: +39 0161 259277
info@tango04.it
www.tango04.it

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Fax: +56 2 2340865
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www.barcelona04.com

A

AccessServer

Tango/04's security application. It provides authentication and authorization services (like User Management and single sign-on) to all Tango/04 apps. Part of the Monitoring Engine (VMC-Mxx).

Action

A task that SmartConsole performs automatically when an Alarm is triggered. Actions include: writing to the Event Log, Executing an OS/400 command, Sending an e-mail, and more.

Action Set

A set of Actions that SmartConsole performs automatically when an Alarm is triggered.

Actor

An Actor, who plays an Application Role in Tango/04 apps, can be any Windows user or group, or another Application Role.

Advanced Assistance Services

A credit-based help system for Tango/04 Customers who need occasional help with their Monitoring Solution.

Agent Code (SmartConsole)

A ThinAgent's three-letter identification code. Each event arriving to SmartConsole from ThinkServer has this unique identification code, so you can: tell which ThinAgent the event came from; filter for events coming from a specific ThinAgent.

Agent Code (ThinkServer)

Represented by the variable `VSMAGENTID`, this is a ThinAgent's three-letter identification code.

Agentless

Agents installed in ThinkServer—not in the target machine—are considered agentless because they do not involve installing on/consuming client resources.

Alarm

A SmartConsole filter that enables the user to be notified of certain events, perform actions, etc. An alarm may or may not include audible/visible alerts.

ALEV

iSeries Agents use a scripting language that allows the user to perform advanced operations or change the information contained in a message. This powerful yet simple scripting language is called ALEV and is explained in the Arithmetic-Logic Expression eValuator (ALEV)1.5 - Reference Manual. Part of the Monitoring Engine (VMC-Mxx).

Analysis Panel

The bottom panel of SmartConsole (Web Client) wherein the user can see the components being affected by a selected component experiencing a non-harmless health state. In the SmartConsole desktop client this panel is known as the Problem Root Cause panel.

Application Role

An Application Role is a user's level of importance in a Tango/04 application. By default, three Application Roles exist: Viewer, Creator, and Administrator. New roles can also be created.

Applications Agent

A Legacy Monitoring Engine-standard product. Reads any real-time text file (from servers, applications etc.).

Auto-Enterprise View

The default way that SmartConsole Web Client displays the inner componenets of a selected Business Folder. It is for the sake of organization, as the user can see any subfolders and all the corresponding Business Views placed in their actual folders. An Auto-Enterprise View is not an Enterprise View.

B

Batch Queues Monitor

Included with VISUAL Message Center iSeries Base and the VISUAL Message Center Suite for Operations. Allows the monitoring of messages from any iSeries message queues. Not sold separately.

BEA WebLogic Operations Agent

A group of ThinAgents that monitor WebLogic Servers for bandwidth events and JMS messages exchanged between applications. Comes standard with the Monitoring Engine's ThinkServer.

Browser Panel

The SmartConsole panel (at upper right) showing the components included in a selected Service Model Business Folder. As long as a folder is selected on the Service Model, Auto-Enterprise Views appear in this panel in SmartConsole Web Client.

BSM

See *Business Services Management*.

Business Category

A user-defined label for any SmartConsole Business Component. This property can be reused in VISUAL Message Center Reports and VISUAL Message Center Goals.

Business Folder

A folder anywhere on the SmartConsole Service Model. It can contain other Business Folders, Business Views, and SCPs. Business Folders are usually identifiable by a folder icon.

Business Network

The entire “Service Model” (or “Tree”) in the desktop SmartConsole interface.

Business Services Management (BSM)

A Monitoring Engine add-on that includes: nonstandard SLA Analytics and Reporting ThinAgents in ThinkServer; the ability to have SCPs and Total Impact Cost in SmartConsole; nonstandard BSM reports in Reports; special dashboards in Dashboards.

Business Value

A numeric weight given to a SmartConsole SCP, it represents the cost to your business that an event has on a monitored service or application. It is a user-defined number that should reflect lost profits, lost customers, or the like.

Business View

In VISUAL Message Center SmartConsole, a Business View represents an IT element of a business service or process. Business Views are the ends of the *branches* in the Service Model (*tree*). They group relevant incoming events and change Health status accordingly.

Business View Message Panel

In SmartConsole, the Browser panel becomes the Business View Message Panel when the user drills down, on the Service Model, to a Business View. The events (messages) corresponding to the Business View are listed in the panel.

C

Calendar

Created online via SharedObjects, a Calendar can be used across the range of Tango/04 apps to have an application consider only those days and hours set forth in the Calendar when handling events.

Child Reports

The number of reports that have been launched from a report template.

Cisco PIX/ASA Security Agent

These ThinAgents monitor your Cisco PIX and ASA firewall devices. This Agent does not come standard with the Monitoring Engine. Product code VMC-TSN.

Citrix Operations Agent

A sold-standard group of standard.ThinAgents that monitor Citrix farms and MetaFrame servers for processes, sessions, bandwidths, performance, datastore availability, users, and application load level, among other things.

Commander

The ThinkServer DOS-command line tool that enables users to quickly and easily list, start and stop monitors, and view events.

Connector

Determines where data used by Goals will come from. Connectors can be of type SmartConsole or ThinkServer.

Contact

A third party that is involved with a particular SLA (or goal) in VISUAL Message Center Goals. Contacts usually include: the name of the company, a primary contact person, and e-mail and phone details.

Contract

The binding SLA between you (your IT department or your organization) and another party, entered in VISUAL Message Center Goals. Contracts include: contact details for both parties, start and end dates, etc.

Crash Preventer

A product for the iSeries platform that is included with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base.

Criticalness

The health-state of a Business Component in SmartConsole: Harmless, Minor, Warning or Critical.

Criticalness Propagation

The way by which a Business Component in a Harmless, Minor, Warning or Critical state affects a parent component. User-defined, can be set to: Cause/Effect, Simple Redundancy, Custom Rules, etc.

Custom Command Agent

This ThinAgent group lets you execute single or multiple commands and scripts on remote Windows and Linux/UNIX systems, controlling the output returned. It has a wide range of use. A standard Agent.

D

Dashboards

VISUAL Message Center Dashboards is Tango/04's real-time dashboard application. Including many predefined dashboards, it lets users view everything from system performance to business trends. The dashboards include charts, tables, gauges, and can handle SmartConsole branches, and can be shared across installations. Product code VMC-DSB.

DashboardServer

A legacy product, it was replaced by VISUAL Message Center Dashboards.

Data Adapter Agent

This ThinAgent group allows you to collect a wide variety of events for ThinkServer using SQL queries via ODBC connections. Pre- and post- queries are also used to modify these events to your liking. Monitoring Engine-standard.

Data Collector for Goals

A group of ThinAgents acting in ThinkServer to collect the data that Goals needs. This Agent is sold and used by Tango/04 Customers without a Monitoring Engine (a Customer having just Goals, for example). It has product code VMC-TOG.

Data Monitor for iSeries

Available for both Reads (DMI-REA) and Changes (DMI-BAS), and in an Express version as well (DMI-EXP), these products monitor IBM DB2 UDB databases, and comes with best-practices that are useful in security auditing. It is installed on the server you wish to monitor.

Database Settings Administrator

Tango/04's database management program for all Tango/04 apps. It lets you create each application's database, manage event signatures, variables, and define retention policies. Part of the Monitoring Engine (VMC-Mxx).

Debugging Agent (powered by VDW)

VISUAL Message Center Debugging Agent is an iSeries debugging product that enables a user to monitor and control Jobs, applications, Security, system information. It displays problematic source code and lets the user run commands and modify variables. Formerly known as VISUAL Debugger for Windows. Product code VDW.

Dependencies

A relationship between one SmartConsole alarm and another. Specifically, if the first alarm is triggered, then the second one is automatically triggered as well.

Device Monitor

A product for the iSeries platform that is included with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base. It notifies the user of the statuses of drivers, devices, and communication lines.

E

Element ID

Used in ThinkServer—in Data Collection for Dashboards—it is a user-defined text variable that appears with an event (to distinguish it from others) when a monitor is producing multiple events per recollection.

Enterprise Problem Solver

A Legacy product, code EPS.

Enterprise View

Provides a top-down, high-level view in SmartConsole. Constructed using Service Model elements, you can add Business Views, Business Folders and SCPs to an Enterprise View, create custom backgrounds and place the selected elements exactly where you need to. You can even create links to other Enterprise Views or URLs, offering quick access to important information.

Escalation List

A list of e-mails/mobile phone numbers (for SMS) by which SmartConsole tries to contact operators when an alarm is triggered. SmartConsole tries first to contact the operator at the bottom of the list, and

if no reply is received (or receipt of message delivered) within a certain amount of time, it moves up the list, attempting to contact the next operator, until an answer or appropriate response is received. The Escalation List is editable in Notifier, which handles the sending of the e-mails and SMS (text) messages for SmartConsole.

Events Integrity Agent

This Monitoring Engine-standard Agent (one ThinAgent, in this case) provides security to the *T4EventLob* table. It verifies the digital signatures of events and detects unauthorized modifications or deletions.

Exchange Server Operations Agent

There are two of these Agents: one for Exchange 2003, and the other for Exchange 2007-2010. They both include several ThinAgents that monitor the performance of the Exchange mail system itself as well as the relevant databases, services, DAGs, mailboxes, etc. Product code VMC-TOE.

Exclusion Range

A period of time in a Calendar that is not considered by a Tango/04 application in which the Calendar is used.

F

Filters

Used widely by VISUAL Message Center products to facilitate the easy retrieval of specific data.

Folder

See *Business Folder*.

G

Global Variables

ALEV variables that the user can define in SmartConsole, for use in scripts.

Goals

VISUAL Message Center Goals is a Tango/04 product that provides real-time calculation for SLAs and goals making sure you reach important service goals and avoid failures that can impact on your clients or can come from your suppliers.

H

Health

There are five possible health values that represent the current monitor status: *unknown*, *critical*, *warning*, *minor*, and *success*. The user can define monitor health conditions with the Health and Actions Wizard. When defining the health condition assignment you can use any of the variables available in the monitor. Every time the data source state is refreshed the configured health scripts are executed to assign the new monitor health.

Health Action (ThinkServer)

A Python script that a ThinkServer monitor runs when an event is found to match the conditions of a Health state.

HP Systems Insight Manager Agent

A group of ThinAgents that capture, from your current HP Systems Insight Manager software, the statuses and performances of your HP logical disks and controllers, memory modules, hardware fans and temperature, network interface adapters, physical disks and controllers, power supplies and consumptions, processors and CPUs. Standard with Monitoring Engine.

Hyperhashing

Tango/04 technology that boosts the efficiency of SmartConsole filters so that incoming events are processed up to 99% faster.

IBM Director SNMP Agent

This Agent is made up of one ThinAgent that lets you incorporate the physical and virtual IBM infrastructure currently monitored by IBM Director. Processing, disks and memory, configuration, and device-health events appear in ThinkServer. Comes standard with the Monitoring Engine; not sold separately.

Impact Analysis

SmartConsole's way of showing a user how one component is affecting another (how a Business View is affecting SCPs, for example).

Indicator

In VISUAL Message Center Goals, an Indicator performs the calculation (and/or Python expression) for each inflowing variable instance. An Indicator's output is compared against the conditions of a corresponding goal; this determines the goal's status.

Interactive Agent

A product for the iSeries platform that is only available as part of the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base. It monitors for any interactive error in the system and allows for automatic freezing of the user session. Not sold separately.

iSeries Agentless Security

Only available as part of the VISUAL Security Suite - Security Package (VSS) and the VMC iSeries Security Agent, these ThinAgents are partly agentless and return Security events based on job inactivity, system and network attributes, etc. Not sold separately.

iSeries Audit Journal

Available as part of either the VMC iSeries Security Agent or the VISUAL Security Suite - Security Package (VSS). Spawns events based on the iSeries Audit Journal. Not sold separately.

iSeries Operations ThinAgents

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, these ThinAgents are partly agentless and return Operations events based on queues, jobs, OUTFILE output, etc. Not sold separately.

iSeries Performance Agent

VISUAL Message Center iSeries Performance Agent also known as VCW, is included in the VISUAL Message Center Suite for Operations as well as VISUAL Control Center. Available as a standalone product. It monitors the performance of iSeries systems. Product code VCW-ISE.

iSeries Performance Manager

VISUAL Message Center iSeries Performance Manager is included in VISUAL Control Center, and is made up of two products: VISUAL Control for Jobs and VISUAL Control for Pools. It boosts system response time and automates job control and optimizes memory for pools. Product code VMC-VJP.

iSeries Security Agent

VISUAL Message Center iSeries Security Agent is also available as a standalone product, this Agent comes as part of the VISUAL Security Suite - Security Package (VSS). It is particularly useful for Security auditing and automated protection. Product code VMC-SEC.

iSeries SQL Agent

VISUAL Message Center iSeries SQL Agent includes the iSeries SQL Interactive Monitor and the iSeries SQL Monitor. It is useful in securing iSeries SQL databases and increasing application availability. Product code VMC-SQL.

iSeries Support Agent

VISUAL Message Center iSeries Support Agent also known as VISUAL Support, is included in the VISUAL Message Center Suite for Operations as well as VISUAL Control Center. It has a Remote Control functionality and is especially beneficial to programmers/technicians in situations where applications are undergoing big changes. Product code VMC-RST

iSeries Restricted State Monitor

VISUAL Message Center iSeries Restricted State Monitor requires either the Monitoring Engine or VISUAL Message Center iSeries Base. It delivers informational events when an iSeries system goes into a restricted state. Product code VSP.

J

JBoss Operations Agent

A ThinAgent group that comes standard with the Monitoring Engine (not sold apart). They monitor JBoss Application Servers and produce events related to memory pools, threads, CPU, and message queues.

JMX Generic Agent

This (single) ThinAgent is shipped with the Monitoring Engine, and is not sold individually. It monitors target MBeans and their attributes for Java application resource usage, response times and server performance.

Job Activity Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, this ThinAgent is useful in reporting unfinished or prematurely finished iSeries jobs. Not sold separately.

Job Duration Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, this ThinAgent produces events when an iSeries job exceeds predefined times. Not sold separately.

Job Status Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, this ThinAgent produces events if an active job has spent too long in a given abnormal state, such as MSGW or INEL. Not sold separately.

Job Que Status Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, this ThinAgent monitors job queues for the presence of problems such as full or blocked queues, jobs in excessive HLD or RLS, etc. Not sold separately.

K

KeyInfo

An XML file that you create with NiceLink Configurator. It contains the serial number and MAC address of a system for which you need a product activation key.

L

Label

A user-defined piece of text that appears on a dashboard.

Launch

To run a report based on a template in VISUAL Message Center Reports.

Link Generator

A VISUAL Message Center Dashboards dashboard sharing tool. A dashboard shared this way can be used—with full functionality, if desired—by another Dashboards user..

Linux Operations Agent

A nonstandard ThinAgent group for Linux and FreeBSD Operations. They spawn events related to physical and virtual memory, CPU, processes, file systems, etc. Product code VMC-TOL.

Linux Security Agent

A non-standard ThinAgent group for Linux and FreeBSD Security. They monitor, via SSH or Syslog, user and group activity, file systems, audit logs, etc. Product code VMC-TSL.

M

Managed Administration Services

A service offered by Tango/04 whereby a Customer's Monitoring Solution is managed remotely.

Message Panel

Also known as the Message Grid, this is the upper panel in SmartConsole that shows the events filtering in to a Business View.

Monitor

Any instance of a ThinAgent. For example, to monitor the Availability of two different computers on your network you create two different monitors from the Network Basic Agent's Ping ThinAgent—one for each IP address.

Monitoring Engine

Tango/04's standard monitoring solution. It is composed of ThinkServer (with its various standard ThinAgents), SmartConsole (and its Web Client), Reports, and also the following middleware: AccessServer, Database Settings Administrator, Notifier, NiceLink, SharedObjects, and Scheduler. It also includes two Web Portal Users. Product code VMC-Mxx.

Multiple Copy

An action on any part or parts of the SmartConsole Service Model or Enterprise Views, it involves the duplication of the copied component(s) while renaming the pasted component(s). You can save a Multiple Copy for use later, by exporting it (this is only possible in the desktop console).

N

Narrow Table

The type of table in VISUAL Message Center Dashboards that typically includes one host, several variables (aligned vertically).

Network Basic Agent

A Monitoring Engine-standard ThinAgent group that monitors ports, POP3, SMTP, and performs pings to check network devices.

Network Operations Agent

This ThinAgent group does not come standard with the Monitoring Engine. It monitors Cisco Operations (memory, processors, temperature, interfaces, top flows). Product code VMC-TON.

Network Syslog Agent

A non-standard ThinAgent that captures events from the Syslog Daemon for use in ThinkServer (and thus, all other VISUAL Message Center apps). Product code VMC-TNW.

NiceLink

A network protocol created by Tango/04 to manage different communication protocols, such as TCP/IP, PPC and SNA Server, allowing VISUAL Message Center SmartConsole (and other Tango/04 products) to communicate with servers running different operating systems and different network protocols. Part of the Monitoring Engine (VMC-Mxx).

Non Resilient Mode

A SmartConsole operation mode that disregards events sent to the console at times when it is off. Faster than the resilient mode, especially in cases where the console has been down a long time.

Notifier

Notifier allows VISUAL Message Center SmartConsole (as an Alarm Action, for instance) to send SMS messages or e-mail from a mobile phone connected to a PC (the "server" phone) or an SMTP mail

server to another mobile device (the “receiver” phone) or e-mail address, and reply to a message from any device via the server phone or via e-mail.

O

Operations Knowledge Module for IBM i

This product can be added on to: the Monitoring Engine with the VISUAL Message Center Suite for Operations, or the Monitoring Engine with VISUAL Message Center iSeries Base. System i features and functions in ThinkServer, SmartConsole, Reports and Dashboards. Product code VMC-KIO.

Oracle Operations Agent

Includes a wealth of ThinAgents; for Availability, Performance, and Alert Log, to name a few. Product code VMC-TOO.

Oracle Security Agent

ThinAgents that return Profile-, Role-, Login- and User-Manipulation events. Product code VMC-CSO.

P

Paste as Link

An action in SmartConsole whereby you are able to paste any Service Model component(s) onto another as a link. A pasted Business Folder icon appears with an arrow on it to indicate that it is a link, whereas the icon of a pasted Business View does not.

Player

A SmartConsole Web Client feature. Show a rolling, live presentation of desired Enterprise Views. Can be shared.

PMDB

Used by VISUAL Message Center to manage data source configuration and retention policies.

Policy Compliance for Windows

An Agent including several ThinAgents. They notify you when Windows Policies are changed, etc. Useful in Auditing for Regulatory Compliance. Product code VMC-TWP.

Portal User

A Tango/04 Portal User is an AccessServer-registered user for all desktop and Web applications. Two Tango/04 Portal Users are included with the Monitoring Engine. Extra Portal Users are sold in packages of Users under product code VMC-USE.

Post Event Group Action

An action that a ThinkServer monitor performs for an event group after Health rules are applied.

Post Health Check Action

An action that a ThinkServer monitor performs for each incoming event after Health rules are applied.

Pre Event Group Action

An action that a ThinkServer monitor performs for an event group before Health rules are applied.

Pre Health Check Action

An action that a ThinkServer monitor performs for each incoming event before Health rules are applied.

Preprocess

A combination of a filter that screens events and an ALEV expression that modifies them as soon as they reach SmartConsole (before appearing in the console).

Problem Root Cause Panel

In SmartConsole (the desktop client), this is the panel at bottom-right when any Business Folder is selected. It shows all the Business Views contained in the folder, their Total Impact, etc.

Python Generic Agent

Included with the Monitoring Engine, this ThinAgent can run any user-defined Python script at a specified time interval. Does not recollect data (used for scripting).

R

Range Set

A group of weekdays with desired hours (from a 24-hour scale) that you add to a Calendar. The days and hours set forth in a range set are the beginnings of a Calendar: the range set sets the days and hours that events will be considered.

Repetitions

SmartConsole alarm controls that determine if an alarm will repeat (or not), etc., if it has recently triggered.

ReportingSystem

A legacy product, replaced by VISUAL Message Center Reports.

Reports

A VISUAL Message Center module that allows you to create a variety of reports in real time or report on historical data. It uses ODBC to connect to data stored in the VISUAL Message Center databases and creates reports that allow you to view historical message information, Security, Auditing policies, User Usage/Accounting data, Performance Data, SLAs and more. This Web-based application is shipped with the Monitoring Engine.

Resilient Mode

An operation mode that allows SmartConsole to recuperate events that have occurred while the console was off or disconnected.

Restricted State Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, it produces events based on (QSYSOPR) messages when the iSeries system is in a restricted state. Not sold separately.

Role

See *Application Role*.

S

Scheduler

A piece of middleware that enables the execution of Tasks that you schedule in Dashboards and Reports.

Scorecard

A page within VISUAL Message Center Goals where the user sees the statuses of all goals. Goals has real-time, historical, and summary scorecards. Each are filterable (they can show specific goals if desired).

SCP

See *Service Control Point*.

Security Model

The product-specific security configuration stored by AccessServer for each Tango/04 product. A Security Model is important because it holds all the user permissions you have configured in a product.

Selector

A selection field in dashboards whereby the user chooses which data he wants the dashboard to show when he clicks the Show Dashboard button.

Service Level Agreement (SLA)

An agreement between an organization and a service provider, including those services provided by IT within the organization. In VISUAL Message Center SLAs are monitored by SLA Analytics ThinAgents in ThinkServer. In Goals: any goal. In SmartConsole: an SLA can be represented by an SCP on the Service Model. In Reports, BSM Reporting based on SCPs in SmartConsole is essentially SLA Reporting.

Service Control Point (SCP)

A type of folder that is used in Business Services Management (BSM) projects in VISUAL Message Center SmartConsole. Service Control Point (SCP) is a BSM concept and represents any critical element of a business, such as an application, a service, a business process, and more. SCPs have Business Values.

Severity

SmartConsole determines the Severity of each event coming in from ThinkServer. Severity then translates into Criticalness via the rules the user sets forth (in SmartConsole) for the four states (of Criticalness): Harmless, Minor, Warning and Critical.

SharedObjects

A repository for common data used by several VISUAL Message Center products (like calendars). It includes the PMDB statistical database which provides multidimensional statistical data, centralized access to BSM databases and forecasting functions.

SLA

See *Service Level Agreement*.

SLA Analytics

A group of ThinAgents that enable historical and real-time SLA events and reporting based on your SLAs. Sold separately. Product code VMC-MSL.

SmartConsole

VISUAL Message Center's client console. It has a desktop interface as well as a Web interface (SmartConsole Web Client). SmartConsole correlates events from ThinkServer via NiceLink and can perform actions on them (according to filters), simply display them in the console, or manage them to show the status of your business in corresponding locations on the Service Model.

SmartConsole Branch

A group of SmartConsole components shown in a dashboard exactly as they appear in a SmartConsole Service Model. In Dashboards the user can assign a display title, hyperlinks, and more for it.

SmartConsole Component

Any item on the SmartConsole Service Model (a.k.a. tree). The types of components are: Basic Service Control Point, Service Control Point, Business Folder, Business View.

SmartConsole Web Client

The Web-based client for VISUAL Message Center SmartConsole.

SNMP Agent

A group of ThinAgents for Network and Printer health, TCP Connections, and more. Shipped with the Monitoring Engine.

Spool Files by Job Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, it produces events when an iSeries job is using more spool files than allowed. Not sold separately.

Spool Files by Output Queue Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, it produces events when there are more spool files per output queue than allowed. Not sold separately.

Spool Files by Size Monitor

Included (exclusively) with both the VISUAL Message Center Suite for Operations and VISUAL Message Center iSeries Base, it produces events when it detects larger spool files than allowed. Not sold separately.

SQL Server Operations Agent

Has ThinAgents for Availability (like the Logical Disks Usage ThinAgents) and Performance (like the CPU Abuse ThinAgents). Not included with the standard Monitoring Engine, this Product code VMC-TOS.

T

Tag

A categorization of a report in Reports . . . like *Security*, *ThinkServer*, or *BSM*. Reports can have several tags at once. You can search for reports by clicking on tags.

Task

A scheduled macro with a defined trigger(s) in Dashboards and Reports. Tasks appear in the Scheduled Items list.

ThinAgent

Classes of monitors installed on ThinkServer. Many ThinAgents come standard with VISUAL Message Center ThinkServer, and many are available as will differ depending on what libraries you have on your server at the time of installation. A few examples are the Port, Ping, and SMTP Connect.

ThinkServer

The server component of VISUAL Message Center ThinkServer. ThinkServer contains all the reusable logic and stores the configuration the user sets in the ThinkServer Configurator. Therefore the ThinkServer can run independently from the Configurator. The ThinkServer usually runs as a Windows Service on your machine.

ThinkServer Configurator

The graphical client component of VISUAL Message Center ThinkServer. Here you can configure monitors, connect to one or more ThinkServers on your system, and view messages received from the ThinkServer. Note: a ThinkServer Configurator can be connected to more than one ThinkServer, and one ThinkServer may be connected to more than one ThinkServer Configurator.

Total Impact Cost

The sum of the Business Values of affected SmartConsole components. Shows operators which problems are affecting the business most negatively.

Trigger

A user-defined time-based definition that tells Dashboards or Reports when to run a macro. A component of Scheduler.

U

Universal File Reader Agent

Includes ThinAgents for Files and Folders. Reads logs. Comes standard with the Monitoring Engine.

Universal Transaction Agent

For SAP, Citrix, ActiveX control-using browser apps, and more. Available as a Monitoring Engine add-on. Includes a script runner (on monitored system). Product code VMC-TUC.

UNIX Operations Agent

ThinAgents for AIX, HP-UX and Solaris file systems, processes, and system health. Sold separately. Product code VMC-TSU.

UNIX Security Agent

A group of ThinAgents sold to complement the Monitoring Engine. They supply ThinkServer with events based on User Activity and Management, Files Systems etc. Product code VMC-TSU.

User Activity Monitor

Included with all iSeries suites (not sold separately). Generates events if user inactivity breaches a threshold of time.

User Message Variables

User-defined SmartConsole variables. They are per-message variables (they can have different values depending on the event). These variables can be used with ALEV.

V

Variable Instance

A VISUAL Message Center Goals concept. A single occasion whereby a desired variable (and its value, at that particular time) is passed to a Connector.

VISUAL Control Center

Includes VMC iSeries Performance Manager, the VMC iSeries Performance Agent (a.k.a. VCW), VISUAL Support Pro, and VISUAL Control Performance Planner. No Monitoring Engine required. Product code VCC.

VISUAL Control for Jobs

A single product. No Monitoring Engine required. Product code VCJ.

VISUAL Control for Pools

A single product. No Monitoring Engine required. Product code VCP.

VISUAL Control LPAR Tuner

Legacy product, code LPT.

VISUAL Control Performance Planner - All LPAR E.

A single product. No Monitoring Engine required. However, either the VMC iSeries Performance Agent or the VISUAL Message Center Suite for Operations *is* required. This product is also known as Performance Navigator. Product code VPP-IFL.

VISUAL Debugger 5250

A source-level interactive debugger that serves as support for batch and remote iSeries jobs. Product code VD.

VISUAL Message Center for iSeries/IBM i

The VISUAL Message Center Monitoring Engine for iSeries. Product code VMC-Mxx.

VISUAL Message Center iSeries Base

Includes several iSeries agents. A Monitoring Engine add-on. Product code VMC-BAS.

VISUAL Message Center Suite for Operations

An iSeries Monitoring Suite. Includes VISUAL Message Center iSeries Base, the VMC iSeries Performance Agent (a.k.a. VCW), VISUAL Support Pro, and VMC iSeries Restricted State Monitor. Product code SUI-OPE.

VISUAL Remote Control

Requires VISUAL Support Pro, but not the Monitoring Engine. Product code VSP-VRC.

VISUAL Security Suite - Security Package (VSS)

Includes the VMC iSeries Security Agent, Data Monitor for iSeries Express, and the VMC iSeries SQL Agent. Product code SUI-SEC.

VISUAL Support Pro

Available only with the VISUAL Message Center Suite for Operations. Inspects details of iSeries jobs. Product code VSP.

VMware Operations Agent

A Monitoring Engine add-on, it has ThinAgents for Role Management, VMs, Hosts, Datastores, Logons/Logoffs etc. Product code VMC-TSV.

VMware Security Agent

Sold separately. ThinAgents for Role Management, VMs, Hosts, Datastores, Logons/Logoffs etc. Product code VMC-TSV.

W

Web Availability and Response Time Agent

Monitors that tell you how long Web transactions are taking on Consumer sites, their Availabilities and Contents, etc. Web 2.0-friendly. An End-User Experience Agent. Product code VMC-TWS.

Web SmartConsole

A Legacy product. The former Web interface for VISUAL Message Center SmartConsole (SmartConsole Web Client being the current one).

WebSphere Application Server Operations Agent

Agents for both Version 5.x and Version 6.x. The Agents includes ThinAgents for Thread pools, sessions, Enterprise Beans, and the J2C Connection Pool, etc. It is not shipped standard with the Monitoring Engine. Product code VMC-TOW.

WebSphere MQ Operations Agent

Safeguards Web applications. Includes several ThinAgents that create events about MQ Channels, the Queue Manager, and message traffic, among others. Product code VMC-TOQ.

Wide Table

The type of table in VISUAL Message Center Dashboards that typically includes several hosts (aligned vertically, and several variables (aligned horizontally).

Windows Operations Agent

Allowing deep insight into Windows Server Operations (Availability, Performance, Compliance etc.), this large collection of ThinAgents, which is sold apart from the Monitoring Engine, also delivers events about Services, Terminal Services, and File Systems. Product code VMC-WAD.

Windows Performance Agent

VISUAL Message Center Windows Performance Agent is a standalone product with code VCW-WIN. Does not require Monitoring Engine.

Windows Security Agent

A collection of ThinAgents, this Agent provides events based on Security: User/Computer, File, Domain Policy/Trust, Active Directory, and Event Log events appear in SmartConsole Business Views and predefined reports can be generated in Reports.

WMI Generic Agent

A ThinkServer staple, the ThinAgent runs WMI queries against as many local/remote Windows systems as you desire and returns provides disk, service, process, system configuration and Event Log events.

X

XML Generic Agent

Included with the Monitoring Engine, this ThinAgent reads any XML log/file anywhere to deliver events concerning service applications.

About Tango/04 Computing Group

Tango/04 Computing Group is one of the leading developers of systems management and automation software. Tango/04 software helps companies maintain the operating health of all their business processes, improve service levels, increase productivity, and reduce costs through intelligent management of their IT infrastructure.

Founded in 1991 in Barcelona, Spain, Tango/04 is an IBM Business Partner and a key member of IBM's Autonomic Computing initiative. Tango/04 has more than a thousand customers who are served by over 35 authorized Business Partners around the world.

Alliances



Partnerships

- IBM Business Partner
- IBM Autonomic Computing Business Partner
- IBM PartnerWorld for Developers Advanced Membership
- IBM ISV Advantage Agreement
- IBM Early code release
- IBM Direct Technical Liaison
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