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Introduction

This guide provides detailed information about OMEGAMON® XE for CICS. This guide serves the following audiences:

- operators
- system programmers
- system administrators
- network administrators
- Candle sales force and field support

Why you should use this guide

This guide helps you understand how to use OMEGAMON XE for CICS. It supplements the online Help provided with OMEGAMON XE for CICS.

Candle recommends that you reference this document whenever you need additional information about the OMEGAMON XE for CICS product, its attributes, workspaces, and situations.
Contents of This Guide

Overview

This manual contains

- an introduction to OMEGAMON XE for CICS
- an introduction to the OMEGAMON XE for CICS attributes, workspaces, and predefined situations
- detailed information about the workspaces provided by OMEGAMON XE for CICS
- information that will assist you in contacting Candle Customer Support
Documentation Set

Overview

In addition to this User’s Guide, you should refer to the following documents that provide information for the Candle Command Center:

- OMEGAMON XE for CICS Configuration and Customization Guide, C351-6433
- OMEGAMON XE for OS/390 Configuration and Customization Guide, M351-6432
- Candle Management Workstation Administrator’s Guide, MW53-6049
- CandleNet Command Center Historical Data Collection User’s Guide, MW99-6404

Also, refer to the online Help for both the Candle Management Workstation and CandleNet Portal.
Adobe Portable Document Format

Printing this book

Candle supplies documentation in the Adobe Portable Document Format (PDF). The Adobe Acrobat Reader will print PDF documents with the fonts, formatting, and graphics in the original document. To print a Candle document, do the following:

1. Specify the print options for your system. From the Acrobat Reader Menu bar, select **File > Page Setup**… and make your selections. A setting of 300 dpi is highly recommended as is duplex printing if your printer supports this option.

2. To start printing, select **File > Print**… on the Acrobat Reader Menu bar.

3. On the Print pop-up, select one of the **Print Range** options for
   - All
   - Current page
   - Pages from: [ ] to: [ ]

4. (Optional). Select the Shrink to Fit option if you need to fit oversize pages to the paper size currently loaded on your printer.

Printing problems?

The print quality of your output is ultimately determined by your printer. Sometimes printing problems can occur. If you experience printing problems, potential areas to check are:

- settings for your printer and printer driver. (The dpi settings for both your driver and printer should be the same. A setting of 300 dpi is recommended.)
- the printer driver you are using. (You may need a different printer driver or the Universal Printer driver from Adobe. This free printer driver is available at www.adobe.com.)
- the halftone_GRAPHICS color adjustment for printing color on black and white printers (check the printer properties under **Start > Settings > Printer**). For more information, see the online help for the Acrobat Reader.
- the amount of available memory in your printer. (Insufficient memory can cause a document or graphics to fail to print.)

For additional information on printing problems, refer to the documentation for your printer or contact your printer manufacturer.
Contacting Adobe

If additional information is needed about Adobe Acrobat Reader or printing problems, see the Readme.pdf file that ships with Adobe Acrobat Reader or contact Adobe at www.adobe.com.

User Comment Form

Candle welcomes your comments and suggestions for changes or additions to this manual.

A user comment form, located at the back of the manual, provides simple instructions for communicating with the Candle Technical Documentation department.

Ordering additional product documentation

To order additional product manuals, contact your Candle Support Services representative.
Introducing OMEGAMON XE for CICS

Introduction
This chapter introduces you to the OMEGAMON XE for CICS.

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Overview

OMEGAMON XE for CICS can help you to address the increasing challenges presented by today’s technical environment. In this unit you learn about the operating environment in which the OMEGAMON XE for CICS resides.

What is OMEGAMON XE?

OMEGAMON XE is a suite of products that assists you in monitoring your mainframe and distributed systems on a variety of platforms using a variety of workstations.

It provides a way to monitor the availability and performance of all the systems in your enterprise from one or several designated workstations. It provides many useful reports you can use to track trends and understand and troubleshoot system problems. You can use OMEGAMON XE to:

- establish your own performance thresholds
- create situations, which are conditions to monitor
- create and send commands to systems in your managed enterprise by means of the Take Action feature. Take Action enables you to, for instance, restart a process that is not functioning properly or send a message
- create comprehensive reports about system conditions
- monitor for alerts on the systems and platforms you are managing
- trace the causes leading up to an alert
- define your own queries, using the attributes provided by OMEGAMON XE for CICS, to monitor conditions of particular interest to you

Components of the environment

The client-server-agent implementation includes

- a client, that can be
  - a CandleNet Portal workstation
Introducing OMEGAMON XE for CICS 13

OMEGAMON XE for CICS Operating Environment

- a Candle Management Workstation® (CMW™), used primarily for managing work groups and work lists, data items, and managed systems lists.

- a server, known as the Candle Management Server® (CMS™)

- a CandleNet Portal server that performs common CandleNet Portal functions and serves to lighten the CandleNet Portal client

- monitoring agents that collect and distribute data to a CMS. The OMEGAMON XE for CICS is such an agent.

An additional feature package, OMEGAMON DE®, is available with OMEGAMON XE. This feature package provides all the capability of OMEGAMON XE, plus additional capabilities as described later in this chapter.

What is CandleNet Portal?

CandleNet Portal is the user interface into your OMEGAMON XE product set. It provides a view of your enterprise from which you can drill down to more closely examine components of your systems environment. Its application window consists of a Navigator that shows all the systems in your enterprise where Candle agents are installed, and a workspace that includes table and chart views of system and application conditions.

CandleNet Portal runs situations at regular intervals to check that your applications and system resources are running, and running well. A failed test causes event indicators to appear in the Navigator.

CandleNet Portal offers two modes of operation: desktop and browser. In desktop mode, the application software is installed on your system. In browser mode, the system administrator installs the application on the web server and you start CandleNet Portal from your browser. In browser mode, the software is downloaded to your system the first time you log on to CandleNet Portal, and thereafter only when there are software updates.

What is the Candle Management Workstation?

- When using OMEGAMON XE for CICS, you use the Candle Management Workstation (CMW) to manage work groups and work lists, data items, and managed systems lists.
Further Information about the CMW and CandleNet Portal

For further information about CandleNet Portal, refer to the product’s online Help and to Administering OMEGAMON Products with CandleNet Portal.

Further information about using the CMW for user administration can be found in the Candle Management Workstation Administrator’s Guide as well as in the CMW online Help.

If you are an experienced CMW user, you should review the CandleNet Portal help topic called “CMW Users.” This topic addresses the similarities and differences of these user interfaces, provides guidance about each interface’s functionality, and a cross-reference listing that clarifies the products’ terminology.

What is OMEGAMON DE?

The OMEGAMON DE feature package for CandleNet Portal offers a dashboard view of your enterprise. This feature provides a single point of control from which you can manage the resources your business-critical applications rely on, including a range of operating systems, servers, databases, mainframes, and Web components. It enables you to pull together the data and functionality built into all the Candle monitoring solutions, such as OMEGAMON XE for OS/390. OMEGAMON DE provides all the capability of OMEGAMON XE, plus these additional capabilities:

- Multiple applications can be displayed in one workspace
  In a single workspace, you can build a table or chart with data from one type of monitoring agent, and another table or chart with data from a different agent. Within that workspace, you can show views from as many different agent types as are included on that branch of the Navigator.

- You can link application workspaces
  You can define a link from a workspace associated with one type of monitoring agent to a workspace associated with another type of agent.

- You can define enterprise-specific Navigator views
  The Navigator physical view shows the hierarchy of your managed enterprise by operating platform and type of Candle agent. The Navigator business view shows the hierarchy of any managed objects defined
through the CMW. You can also define Navigator views for any logical grouping, such as a departmental or site hierarchy.

- You can define a graphic view
  The graphic view enables you to retrieve and display real-time monitoring data from Candle agents. Using the graphic view, you can create a background image or import one, then place objects (Navigator items) on the image or have it done automatically using geographical coordinates. You can zoom in and you can add such graphics as floor plans and organization charts.

- OMEGAMON DE with Policy Management
  If your product supports the use of the Workflow Editor, you can find information about its use in CandleNet Portal Help and Administering OMEGAMON Products: CandleNet Portal. The Workflow Editor permits you to create new policies or modify any predefined policies for your product or policies created using the Candle Management Workstation.

**Historical data collection**

You can use the facilities of CandleNet Portal’s historical data collection function to store and save the data being collected by your OMEGAMON XE for OS/390 agent or agents. The historical data collection function permits you to specify

- the attribute group or groups for which data is to be collected
- the interval at which data is to be collected
- the interval at which data is to be warehoused (if you choose to do so)
- the location (either at the agent or at the CMS) at which the collected data is to be stored

Information about using the Historical Data Collection function can be found in the CandleNet Portal Help and in the Historical Data Collection Guide for OMEGAMON XE and CandleNet Command Center.

To ensure that data samplings are saved to populate your predefined historical workspaces, you must configure and start historical data collection. This requirement does not apply to workspaces using attribute groups that are historical in nature and show all their entries without you having to start data
collection. See the Historical Data Collection Guide for OMEGAMON XE and CandleNet Command Center for more information.

- You can integrate information provided by Candle’s Universal Agent

  Candle’s Universal Agent is an agent you can configure to monitor any data you collect. It lets you integrate data from virtually any platform and any source, such as custom applications, databases, systems, and subsystems. Your defined data providers are listed in the Navigator, and default workspaces are automatically created.
OMEGAMON XE for CICS

Overview
This unit describes OMEGAMON XE for CICS and the benefits it can provide to your organization.

User interface to OMEGAMON XE for CICS
OMEGAMON XE for CICS uses either
- the standard Candle Management Workstation interface on Windows NT, Windows 98, or Windows 2000
- the CandleNet Portal interface on Windows NT, Windows 98, and Windows 2000

Through the user interface, you have a consolidated view of multiple instances of OMEGAMON XE for CICS, each running on an individual OS/390 image. This permits you to monitor your MVS environment and resolve performance issues using
- product-specific attributes
- product-specific reports

Advanced monitoring facilities
OMEGAMON XE for CICS includes these advanced monitoring facilities:
- an at-a-glance picture providing the status of various aspects of a server
- the ability to simultaneously monitor multiple instances of MVS, each running on an individual OS/390 image, from one or more designated workstations
- the ability to define situations based on user-specified thresholds or on the status or a given resource to raise different types of alerts; for example, critical, warning, and informational
- the ability to determine whether a given process is running when it should not be, or is not running when it should be.
OMEGAMON XE for CICS

**Reporting capability**

OMEGAMON XE for CICS includes a reporting capability that provides the following types of information:

- Connection Analysis
- DB2 Summary
- DB2 Task Activity
- DBCTL Summary
- Dump Analysis
- Enqueue Analysis
- File Control Analysis
- Intercommunication Summary
- Internet Status
- Journal Analysis
- LSR Pool Status
- Message Queueing Analysis
- Region Overview
- Storage Analysis
- Task Class Analysis
- Temporary Storage Summary
- Terminal Storage Violations
- Transaction Analysis
- Transaction Storage Violations
- Transient Data Summary
- UOW Analysis
- UOW Enqueue Analysis
- VSAM Analysis

CandleNet Portal information is displayed in named workspaces. Within a given workspace, information may appear in tabular form like a CMW report. CandleNet Portal refers to this tabular format for information as a table view. Information may also be displayed in the workspace as charts, graphs, or other formats you can specify.
Benefits of using OMEGAMON XE for CICS

OMEGAMON XE for CICS provides these benefits.

*Increases knowledge*—with extensive reporting capabilities that provide real-time access to reliable, up-to-the-minute data. Thus, you can make faster, better informed operating decisions.

*Enhances system performance*—by letting you integrate, monitor, and manage your system, environment, console, and mission-critical applications. OMEGAMON XE for CICS alerts you when conditions in your environment meet threshold-based conditions. These alerts notify your system administrator to limit and control system traffic.

*Simplifies application and system management*—by managing applications, platforms, and resources across your system.

Prerequisite knowledge

For further information about the CMW and CandleNet Portal, refer to page 13 of this book. You should also be familiar with the capabilities of IBM’s MVS operating system as described in the OS/390 MVS library.

Planning and installation

For information on planning for and installing this product, refer to *Installing Candle Systems and the Candle Management Server on MVS*. 
Introduction

This chapter introduces you to the facilities of OMEGAMON XE for CICS.

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Understanding Attributes

What are attributes?
OMEGAMON XE for CICS gathers data from remote agents residing on the managed systems of your network and stores this data in system elements called attributes. You can use these attributes to build situations to monitor the performance of the managed systems you are concerned with.

Attributes correspond to the column names contained on the table views in associated OMEGAMON XE for CICS workspaces. Related attributes are grouped into attribute groups.

Using attributes
To use attributes effectively, you must first understand the structure of an attribute.

- An attribute is made up of an attribute group and an attribute item.
- An attribute group associates attributes that refer to some unique characteristic of the data that is being stored.
- An attribute item stores data for a particular property of an attribute group.

For example, in the attribute

\[\text{CICSpex\_Region\_Overview.CPU\_UTILIZATION}\]

CPU_Utilization is an attribute item that stores a value representing the percentage of CPU utilized by the CICS address space over the current interval in the CICSpex_Region_Overview attribute group.

Using attributes in situations
You use attributes to create situations that monitor the state of your URLs. A situation describes a condition you want to test. When you start a situation, CandleNet Portal compares the values you have assigned for the situation’s attributes with the values collected by OMEGAMON XE for CICS and
Understanding Attributes

registers an event if the condition is met. You are alerted to events by indicator icons that appear in the Navigator.

For more information on attributes
For complete descriptions of the attributes for OMEGAMON XE for CICS, refer to the OMEGAMON XE for CICS’s online Help.
Workspaces and table views

When using CandleNet Portal, information is displayed in workspaces. Within a given workspace, information is displayed in tabular form. CandleNet Portal refers to this tabular format for information as a table view. Information may also be displayed in the workspace as a chart, graph, or other format you can specify.

What is a workspace?

A workspace is the working area of the CandleNet Portal application window. At the left of the workspace is a Navigator that permits you to select the workspace you want to display. As part of the application window, the right side of the status bar shows the CandleNet Portal server name and port number to which the displayed information applies, as well as the ID of the current user.

As you select items in the Navigator, the workspace presents views pertinent to your selection. Each workspace has at least one view.

Every workspace has a set of properties associated with it. You can customize the workspace by working in the Properties editor to change the style and content of each view.

Another way to customize the workspace is to change the type of view or to add views to the workspace.

Be aware that the changes you make to the workspace are lost when you switch to another workspace unless you save them first.

Formats for CandleNet Portal information

CandleNet Portal information can be presented to you in any of the views below:

- Table view
- Pie chart view
- Bar chart view
Understanding OMEGAMON XE for CICS Information

- Plot chart view
- Needle gauge view
- Thermometer gauge view
- Notepad view
- Event console view, that shows the status of the situations associated with the system.
- Take Action view, that is used to send a command to the system.
- Terminal view, that enables you to start a 3270 or 5250 work session.
- Browser view, that permits you to open a browser to see HTML pages and Web sites.

**Associating workspaces with attributes**

There is a direct relationship between attributes and workspaces. An attribute group typically corresponds to a table view within a named workspace and attribute items correspond to columns in the table view.

Each CandleNet Portal workspace displays real-time information for many of the attributes. The information is available to you, independent of whether you are using OMEGAMON XE for CICS to monitor situations.

**For more information**

Continue reading to learn how to manipulate information presented to you by CandleNet Portal. For descriptions of the individual workspaces, see Chapter 4 of this guide and the OMEGAMON XE for CICS online Help.

**Using OMEGAMON XE for CICS information**

You can view information about each managed system that you are monitoring. Use this information to

- monitor the performance of each managed system, helping you to identify bottlenecks and evaluate tuning decisions
- select the most effective threshold values for situations you create
review status information when a change in the state of a given resource occurs; such as from OK to Warning or Critical

**Defining workspace properties**

Every workspace has a set of properties associated with it. You can customize the workspace by working in the Properties editor to change the style and content of each view. Changes you make to workspace properties, such as adding or editing a view are only temporary. They will be lost when you exit CandleNet Portal unless you save the workspace.

The properties of a workspace may be some or all of the following:

- **Query**: Specify what data should go in the chart or table
- **Filters**: Refine the view by filtering out unwanted data from the chart or table
- **Thresholds**: Establish threshold values and color indicators for a table view
- **Configuration**: Specify the script to run or the connection to make whenever you open the terminal view
- **Style**: Change the behavior and appearance of the view

**Investigating an event**

When the conditions of a situation have been met, the situation evaluates True, causing an event indicator to appear in the Navigator. You can investigate the event by opening its workspace.

The event workspace shows two table views, one with the values of the attributes when the situation evaluated True, and the other with the attributes’ current values.

The event workspace can also display a text view with any expert advice written by the situation’s author, and the Take Action view so you can send a command to the application started on that system.

**Adding a workspace to your favorites**

When using CandleNet Portal in browser mode, you can start it from any workstation by entering the URL for the web server where the browser mode client is installed. Each CandleNet Portal workspace also has a URL so that
you can save the workspace to your Favorites list or specify it as your home page.

Filtering information
To manually set up filtering for a given table view, place the cursor on the table view, press the right mouse button, and select Properties. From the displayed dialog, select the Filters tab. Here you can select the columns to display as well as set up the criteria for which rows to display. To save your filtering specifications, you must save the workspace before exiting.

Sorting Information
Sorting is handled by simply clicking on a column heading. Click once and the report will be sorted in ascending order. Click a second time to resort the report into descending order. A third click returns you to the report’s default sort.
Creating Take Action Commands

The Take Action feature

The Take Action feature lets you issue a command to any system in your network where one or more Candle agents are installed. You can implement Take Action commands from a workspace, from a situation, in an ad hoc mode, or by recalling a saved Take Action command.

Executing a saved Take Action command

Here is an example of using a saved Take Action command:

1. Right-click an item in the Navigator.
2. From the popup menu, select Take Action to display the Take Action dialog.
3. In the Take Action dialog’s Action area, select a saved Take Action command. To edit the command’s argument values, select the Arguments button. When you’re done, click OK.
4. In the Take Action dialog’s Destination System(s) area, select the target system or systems to which you want to send the Take Action command and click OK. This causes the command to be sent to the system or systems where it is executed.

More information

For detailed information about creating and using Take Action commands, see the online Help for CandleNet Portal.
Performing Administrative Functions

Overview

Use CandleNet Portal to perform most of the administrative functions for your product. User administration functions are performed by the Candle Management Workstation. Information about performing administrative tasks can be found in the CandleNet Portal / SME Administrator’s Guide and the Candle Management Workstation Administrator’s Guide. Also refer to the online Help for administration provided by CandleNet Portal.
OMEGAMON XE for CICS
Predefined Situations

Introduction

This chapter introduces you to the way in which you work with OMEGAMON XE for CICS predefined situations.

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Introduction to Situations

What is a situation?
A situation is a logical expression involving one or more system conditions. Situations are used to monitor the condition of systems in your network. You can manage situations from CandleNet Portal by using the situation editor.

For the most current information about situations, refer to the CandleNet Portal / SME Administrator’s Guide or the online Help provided with CandleNet Portal.

What is a predefined situation?
The Candle agents you use to monitor your system environment are shipped with a set of predefined situations that you can use as-is or modify to meet your requirements.

Predefined situations are precoded to check for system conditions common to many enterprises. Using predefined situations can improve the speed with which you can begin using the OMEGAMON XE for CICS. You can examine and, if necessary, change the conditions or values being monitored by a predefined situation to those best suited to your enterprise.

**Note:** Candle suggests that if you choose to modify a predefined situation, you first make a copy to ensure fallback if necessary.
Using Situations

Overview

You manage situations from CandleNet Portal using the Situation editor. This unit describes the Situation editor and its functions:

- Creating a situation
- Saving a situation
- Displaying a situation
- Editing a situation
- Starting, stopping, or deleting a situation
- Investigating the event workspace for a situation

The Situation editor

In the CandleNet Portal Navigator, right-click either the name or the icon of a system, agent, or attribute group. Select situations from the pop-up menu that is displayed.

The Situation editor opens. The left frame of the Situation editor initially lists the situations associated with the Navigator item you selected. When you click a situation name or create a new situation, the right frame opens with the following tabs:

- **Condition**: See, add to, and edit the condition being tested
- **Distribution**: See the systems to which the situation is assigned and assign the situation to systems
- **Expert Advice**: Write comments or instructions to be read in the event workspace
Creating a situation

You can create and customize your own situations to monitor specific conditions in your enterprise.

1. Decide on which system you want the situation to run, then right-click either the name or icon of the system, agent, or attribute group in the Navigator.

2. Select **Situations** from the popup menu.
   The Situation editor opens.

3. Click **New Situation**.
   The Enter New Situation Name dialog opens.

4. Type a name for the situation and click **OK**.
   The Select Attribute dialog opens.

5. Click a name in the Group list to see its attributes in the Item list.

6. Click an attribute name in the Item list, then **OK**.
   The properties for the new situation display, with the attribute you just selected as the first column.

7. In the Condition tab, edit the condition, interval and status.

8. Click the Distribution tab to see and assign the systems to monitor.

9. Click the Expert Advice tab to enter text viewable from the event workspace.

10. Click the Action tab to enter a command to be invoked when the situation fires.

11. Click the Until tab to reset a true situation when another situation becomes true or when a specified time interval elapses.

---

**Action**

Specify a command to be sent to the system.

You can also enter take action commands by adding a take action view to a workspace, selecting Take Action from the pop-up menu for an item in the Navigator’s physical view, or creating take action commands and saving them for later use.

**Until**

Reset a true situation when another situation becomes true or a specified time interval elapses
12. When you are finished creating the situation, click **Apply** to save your changes and start the situation; or, click **OK** to save your changes, start the situation, and exit the Situation editor.

The Situation editor checks the syntax of each expression you enter. If you type an improper value for an attribute, such as "abc" for Disk Size, the cell turns red and the situation is not saved until you correct the error.

**Saving a situation**

When you save a situation, it is stored on the Candle Management Server hub and is viewable at any other CandleNet Portal console whose CNP server is connected to the same CMS hub. The CNP server and CNP consoles must be recycled (restarted) before the situation can be observed from other consoles.

In the unlikely event that two users attempt to save a situation with the same name, an error occurs, ensuring that one situation does not overwrite another.

To save the situation:

1. In the Situation editor, click **Apply** to save and start the situation.
2. Exit by clicking **OK**.

   If you decide not to save your new situation or the changes you have made to an existing situation, exit the Situation editor by clicking **Cancel**.

**Displaying a situation**

To examine the condition written for a situation, open it in the Situations editor. For a given situation, the editor opens showing five tabs: Condition, Distribution, Expert Advice, Action, and Until.

1. In the Navigator, right-click a system or any level below.
   
   You can right-click either the name or icon of a system, any of its Candle agents, or attribute groups. If you have already selected an event and opened its workspace, you can right-click the situation name.

2. Select **Situations** from the popup menu; or, if you right-clicked a situation name, click **Edit Situation** and skip step 3.

   The Situation editor opens. The Situation tree lists the situations for the object level chosen.
Using Situations

3. Click the situation to see its properties or, if you don’t see the situation in the tree, click the Situations Filter to see more.

   **Note:** If you still don’t see the situation you are looking for, click Cancel and locate the system to which the situation has been distributed. Then repeat these steps.

**Editing a situation**

To fine tune a situation, use the Situation editor to edit it.

1. Display a situation (see “Displaying a situation” on page 35).

2. On the Condition tab, edit the condition, interval, or status.

3. Click the Distribution tab to see and assign the systems to monitor.

4. Click the Expert Advice tab to enter text viewable from the event workspace.

5. Click the Action tab to enter a command to be invoked when the situation fires.

6. Click the Until tab to create the conditions under which to reset a true situation.

7. When you are finished editing the situation, click Apply to save your changes and start the situation; or, click OK to save your changes, start the situation, and exit the Situation editor.

   The Situation editor edits the syntax of each expression you enter. If you type an improper value for an attribute, such as "30000" for % User Time, the cell turns red and the situation is not saved until you correct the error.

**Starting, stopping, or deleting a situation**

Whenever you create or edit a situation, it starts running as soon as you click Apply or OK to close the Situation editor. You can stop and restart a situation at any time. Use Delete to permanently remove a situation.

**Acknowledging an event**

When the conditions of a situation are met, the situation becomes true and an event indicator appears over the system name and all related items in the Navigator.

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An event indicator is a colored icon that appears on top of a managed system’s icon in the Navigator. It indicates a change in the status of a situation running on that managed system. You can investigate an event by opening its workspace. The Navigator shows only one event indicator for an item. If several situations have become True, the event indicator represents the situation that has the highest severity.

The event workspace for a situation contains four views to help you investigate the cause of an alert and take any necessary actions:

<table>
<thead>
<tr>
<th>Initial Situation Values</th>
<th>Shows the values of the attributes when the situation fired. You can see the situation formula by moving the mouse pointer over a value that caused the event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Situation Values</td>
<td>Shows the current values of the attribute group (or groups) used in the situation. You can see the situation formula by moving the mouse pointer over a value whose attribute was used in the formula</td>
</tr>
<tr>
<td>Take Action</td>
<td>Enables you to send a command to an application started on that system</td>
</tr>
<tr>
<td>Expert Advice</td>
<td>Appears if there was any written by the author of the situation</td>
</tr>
</tbody>
</table>

You can create an acknowledgement to indicate that you have seen the event and have taken ownership of the problem. Raised events that show a blue checkmark in the Navigator have been acknowledged. You can clear the event by resetting the situation. However, when you reset a situation, you can no longer acknowledge it.

**OMEGAMON XE for CICS predefined situations**

A list of the predefined situations provided with OMEGAMON XE for CICS, together with the situations’ descriptions and formulas, can be found in the online Help distributed with the product.
Using Situations
Introduction

This chapter describes the OMEGAMON XE for CICS workspaces shipped with the product.

Chapter contents

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Introducing OMEGAMON XE for CICS Workspaces

Overview

In Chapter 2, in the unit “Understanding OMEGAMON XE for CICS Information” on page 25, you learned about using CandleNet Portal to work with the workspaces provided by OMEGAMON XE for CICS. In this chapter, we will describe each of the workspaces and how you might use it to monitor your MVS system.

Workspaces provided by OMEGAMON XE for CICS

The following workspaces are described in the units that follow:

Table 1. CICS Workspaces for CandleNet Portal

<table>
<thead>
<tr>
<th>Workspace</th>
<th>Provides information on...</th>
<th>Associated Attribute Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICS_region_name</td>
<td>monitoring components within every region</td>
<td>Region Analysis</td>
</tr>
<tr>
<td>Connections Analysis</td>
<td>connections, workloads, transactions, and links among CICS regions</td>
<td>Connections Analysis</td>
</tr>
<tr>
<td>Databases</td>
<td>the status of DB2, task activity for the CICS region, and DBCTL</td>
<td>DB2 Summary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DB2 Task Activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DBCTL Summary</td>
</tr>
<tr>
<td>DB2 Summary</td>
<td>whether or not a CICS region is attached to DB2</td>
<td>DB2 Summary</td>
</tr>
<tr>
<td>DB2 Task Activity</td>
<td>task activity and DB2 transactions for the CICS region</td>
<td>DB2 Task Activity</td>
</tr>
<tr>
<td>DBCTL Summary</td>
<td>the status of the CICS database control (DBCTL) interface</td>
<td>DBCTL Summary</td>
</tr>
<tr>
<td>Message Queuing Analysis</td>
<td>the MQ connection</td>
<td>MQ Connection Details</td>
</tr>
</tbody>
</table>
Each workspace provided by OMEGAMON XE for CICS contains a table view that provides information about the state of the underlying MVS resources. (A table view is analogous to a Candle Management Workstation report.) In addition, the workspace contains other charts or graphs that
Introducing OMEGAMON XE for CICS Workspaces

expand upon the information provided in one or more of the table view’s columns.

Accessing a workspace

You can access a workspace in several ways:

- By selecting its name from the list provided in the CandleNet Portal Navigator
- By right-clicking an item in the Navigator and selecting a workspace from the pop-up menu that is displayed
- By right-clicking in a column of a table view and selecting a workspace from the pop-up menu that is displayed

Descriptions of each of these report groups follow.
Region Analysis Report

Overview

This report or table view lets you review operations for every region of a CICSplex. You can analyze this data to detect system problems before they have a negative impact on operations.

The CICS Region Analysis report provides data on more than 30 items for you to evaluate. For example, it provides information about:

- short-on-storage (SOS) conditions for the DSA and EDSA
- the number of tasks that are waiting for buffers and strings
- the number of enqueues for a resource that also has tasks waiting for it
- the numbers of active tasks and total tasks within a region expressed as a percentage of their defined limits
- the percentages of CPU, dynamic storage area (DSA), and extended dynamic storage area (EDSA) being used
- the number of connections, AIDs, and ICEs
- the maximum contiguous free space in the local system queue area (LSQA) and operating system core (OSCOR)
- the number of control intervals (CIs), transient data strings, and temporary storage strings being used by the transient (DFHINTRA) and the auxiliary temporary storage (DFHTEMP) datasets
- status of information for the Web interface and MQ adapter
- the occurrence of system and transaction dumps
- storage violations
- I/O rate and page rate per second
- transactions and program compressions per minute
- VTAM action control block (ACB)

You can view either a current CISC Region Analysis report for the current interval or an historical version for a time span that you specify.
This report group also provides access to the CICS Region Summary chart.

**Report fields and definitions**

For a list of report fields and definitions for each field, access the online help for the CICS Region Analysis report.

**Accessing region analysis information from CandleNet Portal**

To access region analysis information:

1. From the Navigator, select **Region Analysis**.
2. The Region Analysis workspace opens. Within this workspace, you can view the CICS Region Overview table view, Minimum Tasks Percent needle gauge, CPU Utilization needle gauge, and Transaction Rate plot chart.
Connections Analysis Report

Overview

The CICS Connections Analysis report lets you determine activity and workloads across TORs. It enables you to determine the efficiency of multiregion operation (MRO) and intersystem communication (ISC) links and detect capacity constraints that could cause bottlenecks.

For example, you can readily determine
- the number of connections between this region and others
- the number of transactions per minute
- the number of active LU2
- CPU usage
- link usage
- the balance of work across Terminal Owning Regions (TORs)
- the number of automatic initiate (AIDs) associated with the worst performing MRO and ISC connections

Report fields and definitions

For a list of report fields and definitions for each field, access the online help for the CICS Connections Analysis report.

Accessing connections analysis information from CandleNet Portal

To access connection analysis information,

1. From the Navigator, select Connection Analysis.

2. The Connection Analysis workspace opens. Within this workspace, you can view the Connection Analysis table view and Link Utilization bar chart. The predefined Connections Analysis workspace contains the
- Link Utilization bar chart, which shows the percentages of total, secondary, and primary links in use
Connections Analysis Report

- Connections Analysis table view, which shows activity and workloads across terminal owning regions (TORs)

The Connections Analysis table view helps you analyze the efficiency of multiregion operation (MRO) and intersystem communication (ISC) links and detect capacity constraints that could cause bottlenecks. For example, you can readily determine:

- the number of connections between a selected region and others
- the number of transactions per minute
- the number of active LU2
- CPU usage
- link usage
- the balance of work across Terminal Owning Regions (TORs)
- the number of automatic initiate (AIDs) associated with the worst performing MRO
- and ISC connections

The workspace displays provided by the Connections Analysis attributes.

See also:

- Attribute Groups Used by Predefined Workspaces
- Organization of the Predefined Workspaces
DB2 Summary Report

The predefined DB2 Summary workspace contains the DB2 Summary table view which shows whether or not a CICS region is attached to DB2. This table view displays data provided by the DB2 Summary attributes.

This workspace also contains a take action view that lets you enter console commands and a 3270 terminal session.

See also in online Help:

Attribute Groups Used by Predefined Workspaces
Organization of the Predefined Workspaces
DB2 Task Activity Report

The predefined DB2 Task Activity workspace contains the:

- DB2 Task Activity table view, which shows task activity for each monitored CICS region and provides information on threads, waits, and abending DB2 transactions

- DB2 Thread Activity bar chart, which compares percentages of threads in use, threads in wait, and threads in abort states

This workspace displays data provided by the DB2 Task Activity attributes.

See also in online Help:

- Attribute Groups Used by Predefined Workspaces
- Organization of the Predefined Workspaces
The predefined DBCTL Summary workspace contains the Database Control for IMS table view. This table view shows the status of the CICS database control (DBCTL) interface for the monitored CICS region. This table view displays data provided by the DBCTL Summary attributes.

This workspace also contains an event console which shows status changes in situations.

See also in online Help:
Attribute Groups Used by Predefined Workspaces
Organization of the Predefined Workspaces
MQ Connections Details Report

Overview

The CICS MQ Connection Details report lets you evaluate how the MQ connection for message queueing may be affecting operations in your CICS environment. It gives you information about such items as:

- the status of the MQ connection
- API calls logged for an MQ connection
- the number of MQ calls that resulted in commits and backouts
- the number of MQ calls that were successfully completed
- the counts for specific types of MQ requests, for example, the number of calls applications issued for getting messages from the queue
- busy task control blocks (TCBs)

If you discover a problem, you can zoom directly to OMEGAMON II for CICS to get more information about the region. You can also create situations based on the various columns in this report. For example, you can create situations that monitor connection status and the number of busy CICS-MQ TCBs.

Report fields and definitions

For a list of report fields and definitions for each field, access the online help for the CICSplex MQ Connection Details report.

Accessing message queuing information from CandleNet Portal

To access message queuing information,

1. From the Navigator, select **Message Queuing Analysis**.
2. The Message Queuing Analysis workspace opens. Within this workspace, you can view the Message Queuing Analysis table view, Message Queuing Requests bar chart, and Busy TCBs thermometer gauge.
Service Class Analysis by Region Report

Overview

The Service Class Analysis by Region report identifies the CICS regions in which tasks within a service class completed in the reported time span. The default analysis includes the following information:

- collection interval end date and time
- CICS region name
- response time goal
- number of completed transactions
- performance data, such as the average transaction response time and corresponding performance indexes, and percent-of-goal information

Report fields and definitions

For a list of report fields and definitions for each field, access the online help for the Service Class Analysis by Region report.

Accessing service class analysis by region information from CandleNet Portal

To access service class analysis information for a region,

1. From the Navigator, select **Service Level Analysis**.
2. Right-click a row in the Service Level Analysis table view. Select Service Class Analysis by Region from the pop-up menu to open the workspace. Within this workspace, you can view the Service Class by Region table view and a browser view.
Storage Analysis Report

The predefined Storage Analysis workspace contains the

- Dynamic Storage Analysis table view, which provides an overview of dynamic storage area being used for a single CICS region
- DSA Utilization and EDSA Utilization needle gauges, which show the percentages of dynamic storage and the extended dynamic storage areas being used
- CICS Storage Allocation bar chart, which compares the storage limit, the storage allocated, and the storage in use for the DSA and the EDSA.

The Dynamic Storage Analysis table view helps you determine if there are any storage-related problems, such as an SOS condition. The table view reports

- the limit set for storage in kilobytes
- the amount of allocated storage in use in kilobytes
- the amount of storage in use in kilobytes
- the percentage of storage being used
- SOS conditions.

This workspace displays data provided by the Storage Analysis attributes.

See also in online Help:

Attribute Groups Used by Predefined Workspaces
Organization of the Predefined Workspaces
Task Class Analysis Report

The predefined Task Class Analysis workspace contains the

- Task Class Distribution bar chart, which shows what percentages of the class limit are being used by active and queued tasks
- Task Class Analysis table view, which shows activity limits reached within a transaction class or within a queue for a transaction class.

The table view lets you view information about peak activity and the

- number of times a transaction class limit has been reached
- current task count in each transaction class
- number of tasks that can be queued.

This workspace displays data provided by the Task Class Analysis attributes.

See also in online Help:

Attribute Groups Used by Predefined Workspaces
Organization of the Predefined Workspaces
The predefined Temporary Storage Summary workspace contains the
- Shared Pool Status bar chart, which compares the number of defined and connected pools
- Shared Temporary Storage I/O bar chart, which compares the number of read and write requests
- Temporary Storage Summary table view, which provides information about shared queues.

The table view of the shared queues which are accessed by multiple CICS jobs
- shows you how many shared pools are defined and connected
- provides information on read and write activity.

This workspace displays data provided by the Temporary Storage Summary attributes.

See also in online Help:
Attribute Groups Used by Predefined Workspaces
Organization of the Predefined Workspaces
Transaction Analysis Report

Overview
The CICS Transaction Analysis report provides a system-wide view of executing transactions. This comprehensive view of transactions enables you to identify problem transactions across CICS regions and MVS images for the CICSplex.

When you open this report, a dialog box may appear, enabling you to create a custom report filtered by:
- transaction ID
- user ID
- terminal ID

This report contains current data collected on demand for such items as:
- accumulated CPU time used by the task
- amount of execution time used by the transaction
- the type of wait for the transaction
- IDs assigned to the CICS system, MVS system, program, terminal, transaction, and user

Report fields and definitions
For a list of report fields and definitions for each field, access the online help for the CICS Transaction Analysis report.

Accessing transaction analysis information from CandleNet Portal
To access transaction analysis information,
1. From the Navigator, select **Transaction Analysis**.
2. The Transaction Analysis workspace opens. Within this workspace, you can view the Transaction Analysis table view and Transaction Processor Utilization bar chart.
Transient Data Queues Report

The predefined Transient Data Queues workspace contains the

- Transient Data Queues table view, which provides information about trigger level settings for transient data queues and the length of transient data queues.

- Transient Data Pool Utilization bar chart, which indicates the queue level of the intrapartition destination and number of records by which the queue exceeds the trigger level.

This workspace displays data provided by the Transient Data Queues attributes.

See also in online Help:

Attribute Groups Used by Predefined Workspaces
Organization of the Predefined Workspaces
UOW by Region Report

Overview
The UOW by Region report contains a summary of active or completed transactions in a given CICS region for a particular unit-of-work (UOW). It provides the total amount of time transactions spent in various processing states for each CICS region.

You can use this report to
- locate regions responsible for performance degradation
- fine-tune business transactions based on overall response time

It enables you to determine the
- amount of accumulated CPU time for a task
- amount of time the tasks in the unit-of-work spent being dispatched
- number of transactions executed on behalf of the unit-of-work
- amount of elapsed time the task spent waiting for various operations to complete
- version of CICS in use, CICS region job name, and MVS system ID

Report fields and definitions
For a list of report fields and definitions for each field, access the online help for the UOW by Region report.

Accessing UOW information from CandleNet Portal
To access connection analysis information,
1. From the Navigator, select Transaction Analysis.
2. Right-click a row in the Transaction Analysis table view.
3. Select Units of Work from the pop-up menu. The Units of Work workspace opens. Within the this workspace, you can view the Units of Work by Region and Units of Work by Transaction table views.
UOW by Transaction Report

Overview
The UOW by Transaction report contains a list of individual transactions (active or done) that executed in a particular CICS region. Each report row indicates the amount of time a transaction spent in various processing states. You can use this report to:

- locate regions responsible for performance degradation
- fine-tune business transactions based on overall response time

The UOW by Transaction report enables you to determine the:

- status of a task
- accumulated CPU time for a task
- amount of time the tasks spent being dispatched and redispached
- total amount of elapsed time a task spent waiting for various operations to complete
- amount of time tasks spent waiting for
  - exceptions
  - I/O requests
  - VSAM temporary storage I/O requests
  - VSAM transient data I/O requests
  - journal requests
  - MRO operations
  - user input from the terminal
- version of CICS in use, CICS region job name, and MVS system ID

Report fields and definitions
For a list of report fields and definitions for each field, access the online help for the UOW by Region report.
Accessing UOW by transaction information from CandleNet Portal

The connection summary information is provided in the Units of Work workspace. See page 58 for information.
CICS VSAM Analysis Report

Overview
The CICS VSAM Analysis report provides details about the VSAM datasets allocated to a selected CICS region.

Because CICS dumps, traces, transient data, and auxiliary temporary storage reside in VSAM datasets, you can use this report to locate a VSAM dataset experiencing string waits or excessive control interval (CI) or control area (CA) splits. Such conditions can adversely affect CICS performance.

This report contains current data collected on demand for such items as
- the number of data CA and data CI splits for the VSAM dataset
- the number of index CA and CI splits for the VSAM dataset
- the numbers of new data and index extents taken by the VSAM dataset
- mode of access CICS uses to open the dataset
- type of VSAM dataset
- total time-outs from VSAM datasets in record-level sharing (RLS) mode
- the status of the VSAM dataset
- statistics for the number of strings defined, the strings being used, and the strings with requests queued against them

Report fields and definitions
For a list of report fields and definitions for each field, access the online help for the CICS VSAM Analysis report.

Accessing VSAM analysis information from CandleNet Portal
To access VSAM analysis information,
1. From the Navigator, select VSAM Analysis.
2. The VSAM Analysis workspace opens. Within this workspace, you can view the VSAM Analysis table view and VSAM String Utilization bar chart.
Introduction

Candle Corporation is committed to producing top-quality software products and services. To assist you with making effective use of our products in your business environment, Candle is also committed to providing easy-to-use, responsive customer support.

Precision, speed, availability, predictability—these terms describe our products and Customer Support services.

Included in this Guide to Candle Customer Support is information about the following:

Base Maintenance Plan ............................................................. 64
  – Telephone Support
  – eSupport
  – Description of Severity Levels
  – Service-level objectives
  – Recording and monitoring calls for quality purposes
  – Customer Support Escalations
  – Above and Beyond

Enhanced Support Services ...................................................... 68
  – Assigned Support Center Representative (ASCR)
  – Maintenance Assessment Services (MAS)
  – Multi-Services Manager (MSM)

Customer Support Contact Information ................................. 70
  – Link to Worldwide Support Telephone and E-mail information
Base Maintenance Plan

Overview
Candle offers a comprehensive Base Maintenance Plan to ensure that you realize the greatest value possible from your Candle software investments. We have more than 200 technicians providing support worldwide, committed to being responsive and to providing expedient resolutions to support requests. Technicians are available worldwide at all times during the local business day. In the event of an after-hours or weekend emergency, our computerized call management and forwarding system will ensure that a technician responds to Severity One situations within one hour. For customers outside of North America, after-hours and weekend support is provided in English language only by Candle Customer Support technicians located in the United States.

Telephone support
Candle provides consistently reliable levels of service—thanks to our worldwide support network of dedicated experts trained for specific products and operating systems. You will always work with a professional who truly understands your problem.

We use an online interactive problem management system to log and track all customer-reported support requests. We give your support request immediate attention by routing the issue to the appropriate technical resource, regardless of geographic location.

**Level 0 Support** is where your call to Candle Customer Support is first handled. Your support request is recorded in our problem management system, then transferred to the appropriate Level 1 support team. We provide Level 0 manual interaction with our customers because we support more than 170 products. We feel our customers would prefer personal interaction to a complex VRU or IVR selection menu.

**Level 1 Support** is the service provided for initial support requests. Our Level 1 team offers problem determination assistance, problem analysis, problem resolutions, installation assistance, and preventative and corrective service information. They also provide product usage assistance.
**Level 2 Support** is engaged if Level 1 cannot provide a resolution to your problem. Our Level 2 technicians are equipped to analyze and reproduce errors or to determine that an error is not reproducible. Problems that cannot be resolved by Level 2 are escalated to Candle’s Level 3 R&D support team.

**Level 3 Support** is engaged if a problem is identified in Candle product code. At Level 3, efforts are made to provide error correction, circumvention or notification that a correction or circumvention is not available. Level 3 support provides available maintenance modifications and maintenance delivery to correct appropriate documentation or product code errors.

**eSupport**

In order to facilitate the support process, Candle also provides eSupport, an electronic full-service information and customer support facility, via the World Wide Web at www.candle.com/support/. eSupport allows you to open a new service request and update existing service requests, as well as update information in your customer profile. New and updated service requests are queued to a support technician for immediate action. And we can respond to your request electronically or by telephone—it is your choice.

eSupport also contains a continually expanding knowledge base that customers can tap into at any time for self-service access to product and maintenance information.

The Candle Web Site and eSupport can be accessed 24 hours a day, 7 days a week by using your authorized Candle user ID and password.

**Description of Candle severity levels**

Responses to customer-reported product issues and usage questions are prioritized within Candle according to Severity Code assignment. Customers set their own Severity Levels when contacting a support center. This ensures that we respond according to your individual business requirements.

**Severity 1 Crisis**

A crisis affects your ability to conduct business, and no procedural workaround exists. The system or application may be down.

**Severity 2 High**

A high-impact problem indicates significant business effect to you. The program is usable but severely limited.
Candle has established the following service-level objectives:

<table>
<thead>
<tr>
<th>Call Status</th>
<th>Severity 1 Goal</th>
<th>Severity 2 Goal</th>
<th>Severity 3 Goal</th>
<th>Severity 4 Goal</th>
<th>Severity 5 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Call Time to Answer</td>
<td>90% within one minute</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 Response (Normal Business Hours)</td>
<td>90% within 5 minutes</td>
<td></td>
<td></td>
<td>90% within one hour</td>
<td></td>
</tr>
<tr>
<td>Level 2 Response (Normal Business Hours)</td>
<td>Warm Transfer</td>
<td>90% within two hours</td>
<td></td>
<td></td>
<td>90% within eight hours</td>
</tr>
<tr>
<td>Scheduled follow-up (status update)</td>
<td>Hourly or as agreed</td>
<td>Daily or as agreed</td>
<td>Weekly or as agreed</td>
<td></td>
<td>Notification is made when an enhancement is incorporated into a generally available product.</td>
</tr>
</tbody>
</table>

The above information is for guideline purposes only. Candle does not guarantee or warrant the above service levels. This information is valid as of October 1999 and is subject to change without prior notice.
Recording and Monitoring Calls for Quality Purposes

Candle is committed to customer satisfaction. To ensure that our customers receive high levels of service, quality and professionalism, we’ll monitor and possibly record incoming and outgoing Customer Support calls. The information gleaned from these calls will help us serve you better. If you prefer that your telephone call with Candle Customer Support in North America not be monitored or recorded, please advise the representative when you call us at (800) 328-1811 or (310) 535-3636.

Customer Support Escalations

Candle Customer Support is committed to achieving high satisfaction ratings from our customers. However, we realize that you may occasionally have support issues that need to be escalated to Candle management. In those instances, we offer the following simple escalation procedure:

If you experience dissatisfaction with Candle Customer Support at any time, please escalate your concern by calling the Candle support location closest to you. Ask to speak to a Customer Support manager. During standard business hours, a Customer Support manager will be available to talk with you or will return your call. If you elect to hold for a manager, you will be connected with someone as soon as possible. If you wish a return call, please tell the Candle representative coordinating your call when you will be available. After contacting you, the Customer Support manager will develop an action plan to resolve your issue. All escalations or complaints received about support issues are logged and tracked to ensure responsiveness and closure.

Above and Beyond

What differentiates Candle’s support services from our competitors? We go the extra mile by offering the following as part of our Base Maintenance Plan:

- Unlimited multi-language defect, installation and operations support
- eSupport using the World Wide Web
- Regularly scheduled product updates and maintenance provided at no additional charge
- Over 200 specialized technicians providing expert support for your Candle products
Enhanced Support Services

Overview

Our Base Maintenance Plan provides a high level of software support in a packaged offering. However, in addition to this plan, we have additional fee-based support services to meet unique customer needs.

The following are some examples of our added-value support services:

- **Assigned Support Center Representative Services (ASCR)**
  - An assigned focal point for managing support escalation needs
  - Proactive notification of available software fixes
  - Proactive notification of product version updates
  - Weekly conference calls with your ASCR to review active problem records
  - Monthly performance reviews of Candle Customer Support service levels
  - Optional on-site visits (extra charges may apply)

- **Maintenance Assessment Service (MAS)**
  - On-site assessment services
  - Advice about product maintenance and implementation
  - Training your staff to develop efficient and focused procedures to reduce overall cost of ownership of your Candle software products
  - Analysis of your Candle product environment: versions, updates, code correction history, incident history and product configurations
  - Reviews to ensure that purchased Candle products and solutions are used effectively

- **Multi-Services Manager (MSM)**
  Multi-Services Manager provides highly valued services to customers requiring on-site full time expertise to complement their technical resources.
  - Dedicated on-site Candle resource (6 months or one year) at your site to help ensure maximum use and effectiveness of your Candle products
Enhanced Support Services

- Liaison for all Candle product support activities, coordination and assistance with implementation of all product updates and maintenance releases
- Works with your staff to understand business needs and systems requirements
- Possesses technical and systems management skills to enhance your staff’s knowledge and expertise
- Other projects as defined in Statement of Work for MSM services
Customer Support Contact Information

Link to Worldwide Support Telephone and E-mail information

To contact Customer Support, the current list of telephone numbers and e-mail addresses can be found on the Candle Web site, www.candle.com/support/.

Select Support Contacts from the list on the left of the page.
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