

# **Unicenter® Service Desk**

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**Administration**

**Instructor Guide**

**UR386**



Computer Associates®

**EDUR38611IE**

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**B • Instructor Appendix**







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# Introduction

# Welcome

Slide 1



## Target Audience



Welcome to *Unicenter® Service Desk: Administration* training by Computer Associates. This course was specifically designed for application administrators and system engineers. In your jobs, you are responsible for recording, managing, and resolving situations reported by end users to your service desk. This course provides the information you need to take ownership of the product by applying policies and setting rules regarding data integrity, backups, and security.

Slide 2

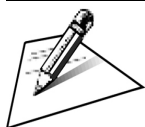


## Learning Path

In this course, you will learn how to maintain all the necessary aspects of Unicenter Service Desk including security policy, automation rules, notification, reference data, Service Level Agreements (SLAs), and the utilities to support Unicenter Service Desk and exchange data with other systems. This course also covers how to configure Unicenter Service Desk to meet the needs of the service desk manager and analysts. To learn about additional training solutions designed for your job role or this software product, visit:

[gems.ca.com/Gemsmarketing/CourseFinder.asp](http://gems.ca.com/Gemsmarketing/CourseFinder.asp)

Here you will find links to the Learning Paths, Course Catalogs, Registration Information, and Schedules. Learning Paths will help you determine the best training combination to enhance job performance, learn advanced skills, or become certified.



Instructor  
Notes

### Orient

Show slide 1. Welcome students to class.

Briefly describe your background and qualifications. Invite students to share their backgrounds and experience as application administrators and system engineers. State facility policies such as break times, smoking areas, and restroom locations.

Show slide 2.

Click the link to open your live Internet browser and display the Computer Associates Education course catalog site. Demonstrate GEMS navigation and show students how to find Learning Paths, Course Catalogs, Registration Information, and Schedules.

## About This Workbook

Each task in this course is presented using the following instructional events, which follow a specific sequence:



### Instructional Event

### Description

#### Instructor-led Discussion and Presentation

Topics and theory in tasks are shown by the instructor on the software, enabling you to understand not just *how* to perform the task, but *why*.



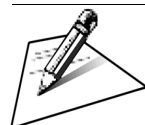
#### Interactive Demonstration

You will follow the step-by-step instructions outlined in this workbook on your own after the instructor-led discussion and demonstration. Your instructor is available to answer any questions or provide further guidance.



#### Skill Builder

You will build confidence applying the task just learned to real-world business problems written around a fictional scenario.



Instructor  
Notes

#### Explain

the types of exercises used throughout the course.

#### Instructor-Led Discussion and Presentation

Direct students' attention to what you are discussing. Allow them to use their computers at this time but *only* if you are sure they are taking in your important points. They will have the opportunity to perform tasks in the Interactive Demonstrations.

#### Interactive Demonstration

During Interactive Demonstrations, be available for students who want some private time with you. Try to avoid pacing around the room and looking over their shoulders. Indicate to students that you will come right over if they want you to; you are there for them, nothing you might be doing at your desk is more important than attending to a student who wants help.

#### Notify

students that Skill Builders are typically end-of-module assessments that combine several tasks into a single problem, to more effectively mimic the real world.

#### Notify

students that depending on the complexity of the task, we can skip Skill Builders and go straight to the next task at instructor discretion, and invite them to tell you when they feel comfortable with this practice.

## Conventions

The following conventions are used throughout your Student Workbook:

Convention	Use	Example
<b>Bold</b>	GUI elements	Click <b>OK</b> to continue. Select the <b>Name</b> text box.
<i>Italics</i>	New terms	A <i>dialog</i> is a window that appears to collect information from the user.
	Variable values	Enter a range from 0 to <i>n</i> , where <i>n</i> equals the number of tapes.
	Emphasis	Do <i>not</i> erase the backup tapes.
	Titles of books	See the <i>Unicenter TNG: Getting Started Guide</i> . Refer to the <i>Special Training Manual</i> by IBM.
"Quotation Marks"	Reference to module titles and headings	See "Administration" for more information.
Computer Text	Commands to be typed (exactly as written)	At the prompt, type: C:\Program Files\myfolder
<i>Computer Text Italics</i>	Variables to be replaced by the user with real values	At the prompt, type: C:\Program Files\ <i>folderName</i>
SMALL CAPS	Names of keys	To reboot, press CTRL+ALT+DEL.



Instructor  
Notes

**Refer** students to their Student Workbooks for this list of text conventions that will be used throughout the course.

Slide 3



## About This Course

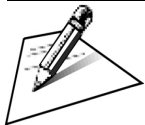
This course will impart all the skills required to perform the job role of an administrator of Unicenter Service Desk.

## Course Length

4 days

## Prerequisite Skills

- Familiarity with the Microsoft Windows operating system (Microsoft Windows 2000, Microsoft Windows NT, Microsoft Windows XP, or Microsoft Windows 2003)
- Familiarity with Microsoft Internet Explorer
- Basic understanding of customer requests and service desk principles of operation
- Basic understanding of databases and structured query language (SQL) is recommended
- Familiarity with the concepts and skills covered in course UR376: *Unicenter® Service Desk: Analyst Operations*



Instructor  
Notes

**State** the duration of the course, in days.  
**Ask** students if they all possess the prerequisite skills listed in their Workbooks.

Slide 4



## **Course Agenda**

### **Day 1**

#### **Module 1: Administer Unicenter Service Desk**

Task 1: Define the Role of a Unicenter Service Desk Administrator

Task 2: Define the Unicenter Service Desk Architecture

Task 3: Stop and Start Unicenter Service Desk

Task 4: Explore the Unicenter Service Desk Web Client Administration Page

#### **Module 2: Establish the Business Data Structure**

Task 1: Create and Modify Reference Data

Task 2: Create and Modify Configuration Item Support Data

Task 3: Create and Modify Transactional Record Support Data

Task 4: Create and Modify Transactional Record Operational Data

Task 5: Grant Access to the CA Worklist Using eTrust Embedded Identity and Access Management

#### **Module 3: Implement Security**

Task 1: Create Contacts and Groups



Instructor  
Notes

Cover the course agenda.

## Day 2

### **Module 3: Implement Security (continued)**

Task 2: Define the Levels of Unicenter Service Desk Security

Task 3: Create Access Types

Task 4: Create Data Partitions

### **Module 4: Administer Stored Queries**

Task 1: Create Stored Queries for the Scoreboard

Task 2: Create Time-based Stored Queries

## Day 3

### **Module 5: Manage Keyword Search**

Task 1: Create Knowledge Documents

Task 2: Develop Knowledge Document Content

Task 3: Administer Keyword Search

Slide 5

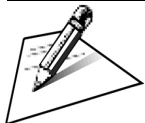


### **Module 6: Manage the Database**

Task 1: Manipulate Data in Bulk

Task 2: Archive and Purge Data

Task 3: Administer Options



Instructor  
Notes

## **Module 7: Administer Notifications**

Task 1: Enable Activity Notifications

Task 2: Create Activity Associations

Task 3: Create Object Contact Notifications

Task 4: Create Notification Methods

## **Day 4**

## **Module 8: Administer Service Level Agreements**

Task 1: Define SLA Components

Task 2: Create Macros

Task 3: Create Events

Task 4: Create Automatic Events

Task 5: Create Service Types

Task 6: Create Service Contracts

## **Module 9: Administer Surveys**

Task 1: Create Survey Templates

Task 2: Create Managed Surveys

To gain job competency using Unicenter Service Desk, you will practice these tasks in a business context, as well as have opportunities to solve problems on your own.



Instructor  
Notes



Slide 6



## Case Study: Really Big Corporation

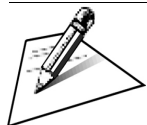
To simulate real-world business conditions, the fictional Really Big Corporation (RBC) will be used. You will be asked to play the role of a key stakeholder in RBC, to facilitate the learning process.

The growth of RBC is due to a number of mergers and acquisitions. Today, the conglomerate has business holdings in many diverse markets. Legacy systems and data present numerous challenges to RBC. With offices and subsidiaries scattered worldwide, RBC is continually looking for ways to streamline operations.

### Unicenter Service Desk at RBC

RBC provides many services to its internal and external customers. To facilitate smooth interactions between the service departments and end users, a service desk is deployed. A service desk is an interface between the end users and service departments. It provides information and solutions to the end users. For example, RBC customers connect to RBC databases for financial information such as account balance, payment status, and so forth.

To help ensure that problems encountered by customers and employees are resolved as quickly as possible, RBC has implemented Unicenter Service Desk. When a problem occurs, customers and employees can call the RBC Service Desk and get information and solutions to the problems.



Instructor  
Notes

**Explain**

that RBC is a *fictional* conglomerate that represents a typical large enterprise.

**Express**

the typical challenges this large enterprise faces with respect to how this product will solve these problems.

For example, for Unicenter Service Desk, these might be:

- Coordinating access rights to databases
- Defining security levels and types
- Managing and manipulating bulk data
- Administering SLAs and their components

Slide 7



## Course Objectives

After this course, you will be able to:

- Administer Unicenter Service Desk
- Establish the Business Data Structure
- Implement Security
- Administer Stored Queries
- Manage Keyword Search
- Manage the Database
- Administer Notifications
- Administer Service Level Agreements
- Administer Surveys



Instructor  
Notes



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# **Administer Unicenter Service Desk**

Slide 1-1



## Module Objectives:

*After this module, you will be able to:*

- Define the Role of a Unicenter Service Desk Administrator
- Define the Unicenter Service Desk Architecture
- Stop and Start Unicenter Service Desk
- Explore the Unicenter Service Desk Web Client Administration Page

## Module Overview

In this module, you will discover the various job functions required of a Unicenter Service Desk administrator. You will assume the role of administrator, and describe the Unicenter Service Desk architecture, including the physical relational database management system (RDBMS), Database Agent, object manager, web engine, and web browser.

You will start and stop Unicenter Service Desk in your work environment. Also, you will define the different aspects associated with the Unicenter Service Desk Web Client Administration page. This will help you increase your productivity performing the primary skills of a Unicenter Service Desk administrator.



Instructor  
Notes

Slide 1-2



## Task 1: Define the Role of a Unicenter Service Desk Administrator

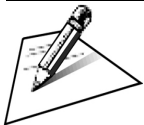
An administrator assumes the maintenance of the Unicenter Service Desk from implementers. Implementers lead the initial site plan, install the software, modify the database, and set up the initial security system.

Slide 1-3



The primary focus of a Unicenter Service Desk administrator is to help ensure the proper functioning of the Unicenter Service Desk for analysts and end users. To achieve this, an administrator must be able to:

- Implement and maintain Unicenter Service Desk Security, such as access types and data partitions
- Implement and maintain Unicenter Service Desk reference data, such as locations and organizations, used by transactional data records that include incidents and change orders
- Implement and maintain stored queries for Scoreboard nodes
- Maintain the Keyword Search system for an effective knowledge base
- Maintain all Unicenter Service Desk database records in the Management Database of Computer Associates (CA-MDB) using the appropriate utilities
- Implement and maintain the Activity Notification system
- Implement and maintain SLAs as service types and service contracts
- Implement and maintain surveys for end-user feedback



Instructor  
Notes

**Refer**

Spend minimal time on this task because the responsibilities of a Unicenter Service Desk administrator are detailed in the remainder of the course.

## Task Summary

An administrator is a key player in the Unicenter Service Desk management process. The administrator takes over the maintenance of Unicenter Service Desk from implementers. By understanding the responsibilities of this position, you will be better prepared to help ensure the proper functioning of the Unicenter Service Desk for analysts and end users.

Next, you will become familiar with the Unicenter Service Desk architecture.



Instructor  
Notes

Slide 1-4



## Task 2: Define the Unicenter Service Desk Architecture

From the previous task, three administrative responsibilities can be identified that require a clear understanding of the architecture of Unicenter Service Desk. These responsibilities are data partitions, stored queries, and activity notification message templates. Knowledge of the architecture of Unicenter Service Desk will help you master these responsibilities.

The architecture of Unicenter Service Desk has four major layers: Physical Database Layer, Logical Database Layer, Object Layer, and Client Layer. The graphic on the following page shows these layers:

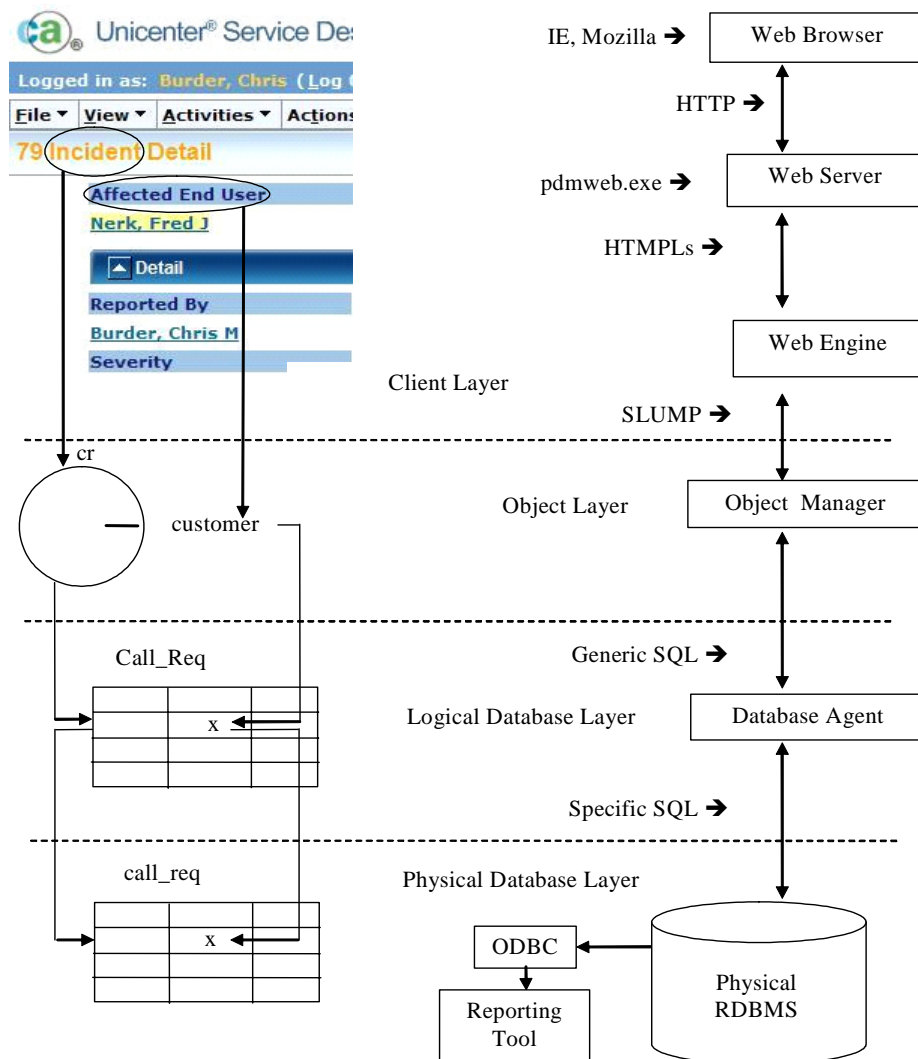


Instructor  
Notes

## ■ Administer Unicenter Service Desk

### Task 2: Define the Unicenter Service Desk Architecture

Slide 1-5



Instructor  
Notes

- Refer** Display the architecture in a flip chart and make sure it is visible for the entire course.
- Explain** Do not delve any deeper into the details of the architecture. The extra detail is needed and covered in UR395, *Unicenter Service Desk: Implementation*. Administrators do not use it and it is too much theory with no exercises.



Slide 1-6



## Define the Physical Database Layer

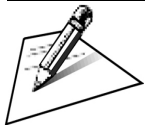
The Physical Database Layer contains the Computer Associates Management Database (CA-MDB). This database, known as *mdb*, is a set of tables in an RDBMS, such as *Ingres*®, the database product of Computer Associates, and Microsoft SQL Server.

The CA-MDB is used by many other Computer Associates products. Some of the CA-MDB tables are shared between Computer Associates products. These tables use the *ca\_<table name>* naming convention. When Unicenter Service Desk has information that supplements records in these tables and is used only by Unicenter Service Desk, that information is stored in a corresponding table with the *usp\_<table name>* naming convention. For example, contact details of people are stored in the CA-MDB in the *ca\_contact* table. When Unicenter Service Desk has additional information to store for these people, it is stored in the *usp\_contact* table. When you see a contact record in the Unicenter Service Desk Web Client, information is gathered from both tables to show you a composite view of both records.

Unicenter Service Desk also has its own tables in the CA-MDB. For example, incidents, problems, and requests are stored in the *Call\_Req* table.

For reporting purposes, products such as Unicenter® Service Intelligence, Unicenter® Dashboard, Crystal Reports, and Microsoft Access use an open database connectivity (ODBC) connection to *mdb*.

It is important that the physical Database Administrator (DBA) secures *mdb* and any ODBC connections to it so reporting personnel cannot write to the database and can only read the information required for reports.



Instructor  
Notes

<b>Explain</b>	the full set of RDBMS's that are supported by Unicenter Service Desk.
<b>Demonstrate</b>	Show <i>mdb</i> in Ingres Visual DBA or Microsoft SQL Enterprise Manager.
<b>Refer</b>	Postpone explaining security implications until the Define the Object Layer topic in this module.

Slide 1-7



## Define the Logical Database Layer

The Logical Database Layer contains the Database Agent process known as *<platform>\_agent*, for example, *ingres\_agent*. This process communicates with your chosen brand of an RDBMS. It takes generic structured query language (SQL) instructions from the Object Layer and translates them into specific SQL statements.

To achieve this, the Database Agent adheres to a Database Independent (DBI) set of table and field declarations, known as a *schema*. For example, incidents, problems, and requests are stored in the DBI or Logical table, *Call\_Req*, which are in turn stored in the Physical Layer *mdb* table known as *call\_req*.

The DBI schema gives you some advantages:

- If you decide to change your brand of RDBMS, you only need to install another set of Database Agents to enable Unicenter Service Desk to use the new RDBMS.
- Especially in large enterprises, the physical DBA personnel may not permit direct access to database manipulation tools. In Unicenter Service Desk, the pdm utilities enable the Unicenter Service Desk administrator to manipulate data by employing a Database Agent, thus freeing the Unicenter Service Desk from reliance on RDBMS staff for bulk data manipulation.
- The safest way for bulk data manipulation is to use the Database Agent that adheres to the DBI schema. If someone were to bulk load records into the CA-MDB any other way, they might not realize the importance of a referentially linked field and forget to provide correct data for that field, or any data at all. This would result in corruption of that record or creation of a duplicate record. For more information, see the module "Manage the Database."



Instructor  
Notes

### Demonstrate

a simple *pdm\_extract*, such as *pdm\_extract Priority*.

The third DBI schema advantage point is referring to S\_KEY fields for *pdm\_userload*. Wise use of these fields in schema declaration permits you to make sure that data is provided for fields to create those records by using *pdm\_userload*.

### Refer

The danger of *pdm\_load* will be addressed in the module "Manage the Database."

Slide 1-8



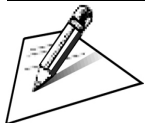
## Define the Object Layer

The Object Layer consists of the object manager, a process known as *domsrvr* or Domain Server. Object managers can reside on a Primary Server, by default, or a Secondary Server. By deploying Secondary Servers, your company can take advantage of load balancing for client access to Unicenter Service Desk in addition to Client Failover for continuity of service.

Regardless of the type of object manager your client is connected to, all object managers maintain objects and attributes in memory, as defined in the Object-Level schema. The object manager enables you to interact with copies of these objects, known as *proxy objects*, in your client. For example, when you use the Unicenter Service Desk Web Client to create a new incident, the object manager creates a new *cr* object in memory and shows you a web page depicting the proxy object. When you complete the fields on the web page and click Save, the object manager takes your information, populates the attributes of the real *cr* object in memory with the values you provided, and directs the Database Agent to store that object and its attributes as a record in the *Call\_Req* table with its various fields.

The object managers also run all the security in Unicenter Service Desk. Therefore, establishing access types and data partitions need only be done once to apply to any client connected to the object manager. There are two ways to bypass the object manager and its security, *pdm* utilities and physical RDBMS access. It is for this reason that utilities such as *pdm\_userload* will only run on the Primary Server in an administrative user context. The physical DBA secures access to the database.

To effectively maintain data partitions, stored queries, and activity notification message templates, you need to be able to set up the object manager to perform queries of objects and attributes. These queries are constructed in MAJIC, the language of the Object-Level schema. The queries are similar to SQL WHERE clauses, and can contain join statements, but use attributes of objects at the Object Layer.



Instructor  
Notes

- |               |   |
|---------------|---|
| <b>Define</b> | Domain Server. Object managers have a configurable area of responsibility or Domain. They can be told which clients to accept connections from. For more information, refer students to course UR395, <i>Unicenter Service Desk: Implementation</i> . |
| <b>Orient</b> | students with a <code>bop_sinfo</code> command, such as the <code>bop_sinfo -dafq pri</code> command.<br><br>Defer MAJIC queries until the appropriate modules.   |

A Unicenter Service Desk administrator has utilities to query the object manager, such as *bop\_sinfo*. This utility helps you construct these queries. In subsequent modules, you will perform these queries in detail.

Slide 1-9



## Define the Client Layer

The Client Layer consists of the *web engine* process, which is the true object manager client, a web server, usually Tomcat or IIS, and a web browser, usually Internet Explorer or Mozilla.

You access the Unicenter Service Desk Web Client using the following uniform resource locator (URL) for Tomcat:

`http://<web server>:8080/CAisd/pdmweb.exe`

Instructing the web server to run `pdmweb.exe` creates a connection for you to the web engine. When you use the web pages that comprise the Unicenter Service Desk Web Client, the web page information is converted by the web engine to object manager client information. For example, when you save updates to an incident, your web page information is given to the web engine to populate values for the attributes of a proxy *cr* object. The web engine passes this information to the object manager who populates the real *cr* object attributes and instructs the Database Agent to store the object as a record and fields in the *Call\_Req* table. The Database Agent then stores this information as a record in the *call\_req* table in the *mdb* physical database.

## Task Summary

To master your administrative responsibilities, you familiarized yourself with the architecture of Unicenter Service Desk and its four major layers: Physical Database Layer, Logical Database Layer, Object Layer, and Client Layer.

Next, you will stop and start the Unicenter Service Desk.



Instructor  
Notes

<b>State</b>	Both Unicenter Service Desk schemas, Object-Level and DBI-Level, are case-sensitive. Therefore, when using <i>pdm</i> or <i>bop</i> utilities, names of objects, attributes, tables, and fields are case-sensitive.
<b>Explain</b>	<p>A simple web page decode:</p> <ol style="list-style-type: none"> <li>1 In the Incident Detail window, press CTRL, right-click the white space, and choose View Source.</li> <li>2 Search for <code>propFactory</code> in the source file window. It appears as a <i>cr</i> object.</li> <li>3 Search for <code>Priority"</code>, <code>"</code>. The output shows <code>p r i o r i t y</code> as the attribute name.</li> </ol>

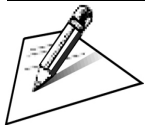
Slide 1-10



## Task 3: Stop and Start Unicenter Service Desk

When Unicenter Service Desk is installed on a Windows platform, the Unicenter Service Desk Server service is installed in Windows Services. From there, the Start, Stop, and Restart commands can control the service. It can also be useful to control Unicenter Service Desk from the command line or a batch file for unattended activities such as server maintenance. You can use the following commands:

- To stop Unicenter Service Desk, you use:
  - `pdm_halt` - This shuts down Unicenter Service Desk.
  - `net stop "Unicenter Service Desk Server"` - You surround the display name of the service in quotes because of spaces.
  - `net stop pdm_daemon_manager` - This uses the service name of the service.
- To start Unicenter Service Desk, you use:
  - `net start "Unicenter Service Desk Server"` - You surround the display name of the service in quotes because of spaces.
  - `net start pdm_daemon_manager` - This uses the service name of the service.
- To investigate the status of Unicenter Service Desk, you use:
  - `pdm_status` - This shows the status of all the Unicenter Service Desk daemons. It is only when `pdm_status` displays The Daemons are not running that Unicenter Service Desk is stopped.
  - `pdm_webstat` - This shows the status of web engine connections from Unicenter Service Desk Web Clients.



**Mention** `pdm_init` for UNIX or Linux.  
Show the `pdm_status` and `pdm_webstat` commands.

Instructor  
Notes

Slide 1-11



## Process Sets

When Unicenter Service Desk is started normally, a set of processes known as MAIN\_PROCSET runs. This is the default configuration of Unicenter Service Desk processes. Other process sets can be configured to start, such as Secondary Servers. You will use another standard process set known as DBADMIN later in this course. For more information on configuring additional process sets, see course UR395, *Unicenter Service Desk: Implementation*.

## Interactive Demonstration



**Task Purpose:** Stop and start Unicenter Service Desk.

As the Unicenter Service Desk administrator for RBC, you want to be able to stop and start Unicenter Service Desk from a command prompt. This will permit unattended stopping and starting whenever necessary.

- 1 Minimize the **Unicenter Service Desk** window, if necessary.
- 2 On the desktop, double-click **Services**.
- 3 Right-click **Unicenter Service Desk Server** and choose **Properties**.  
Take note of the Service name and the Display name.
- 4 Click **Cancel**.
- 5 Choose **File ► Exit**.
- 6 At the command prompt:
  - a Type `pdm_webstat` and press ENTER.  
Take note of the information displayed.
  - b Type `pdm_status` and press ENTER.  
Take note of the information displayed.



Instructor  
Notes

- c Type `net stop "Unicenter Service Desk Server"` and press ENTER.
- d Type `pdm_status` and press ENTER.

---

**Note • It is only when `pdm_status` displays** The Daemons are not running **that Unicenter Service Desk is truly stopped. Repeat the `pdm_status` command to see this message, if necessary.**

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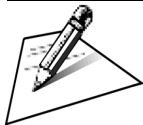
- e Type `net start pdm_daemon_manager` and press ENTER.
- f Type `pdm_status` and press ENTER.
- g Type `pdm_webstat` and press ENTER.
- h Type `pdm_halt` and press ENTER.
- i Type `pdm_status` and press ENTER.

---

**Note • It is only when `pdm_status` displays** The Daemons are not running **that Unicenter Service Desk is truly stopped. Repeat the `pdm_status` command to see this message, if necessary.**

---

- j Type `net start "Unicenter Service Desk Server"` and press ENTER.



Instructor  
Notes

- 7 Right-click the taskbar and choose **Task Manager**.
- 8 Select the **Processes** tab.
- 9 Click **Image Name** and check the list of processes for **Database Agents**, **object manager**, **web engine**, **web server**, and **Tomcat Controller**.
- 10 Choose **File ► Exit Task Manager**.
- 11 To find **object manager**, **web engine**, and **Tomcat Controller**, type `pdm_status` and press ENTER.

## **Task Summary**

You stopped and started your own Unicenter Service Desk. This will help you perform the primary skills of a Unicenter Service Desk administrator.

Next, you will log in to the Unicenter Service Desk Web Client and explore the Administration page.



Instructor  
Notes



Slide 1-12



## Task 4: Explore the Unicenter Service Desk Web Client Administration Page

When you are logged in to the Unicenter Service Desk Web Client and your security permits it, Unicenter Service Desk displays the Administration tab in addition to the Unicenter Service Desk and Keyword Search tabs. To display the Administration page, you select the Administration tab. Here, you can administer all the aspects of Unicenter Service Desk.

### Demonstration

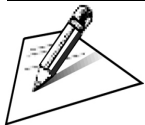


**Task Purpose:** Explore the Administration page of the Unicenter Service Desk Web Client.

- 1 Use your windows logon password to log in as administrator to Unicenter Service Desk Web Client.
- 2 Follow along while your instructor briefly explores the **Administration** page.

### Task Summary

You explored the Administration page of the Unicenter Service Desk Web Client. This will help you become familiar with this important administrative tool of Unicenter Service Desk.



Instructor  
Notes

#### Orient

Make the exploration of the Administration page as brief as possible because the elements of the Administration tab are the subject of later modules in this course.

## Assessment

1 Which responsibility is included in the role of the Unicenter Service Desk administrator?

- a Add fields to web pages
- b Ensure the integrity of data
- c Perform activities on tickets
- d Report a degradation of service

Correct answer: b

2 Which four tiers is Unicenter Service Desk architecture composed of?

- a Database, Client, web interface, web server
- b Physical Database, Logical Database, ODBC, Client
- c Physical Database, Logical Database, Object, Client
- d None of the above

Correct answer: c

3 After restarting the Unicenter Service Desk service, the administrator cannot connect to the object manager using the `bop_s i n f o` command. Which command does the administrator need to run to check if the object manager is running?

- a `pdm_halt`
- b `pdm_trace`
- c `pdm_status`
- d `pdm_webstat`

Correct answer: c

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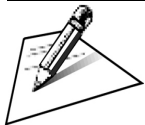
Instructor  
Notes

- 4 Which component provides the interface between the Unicenter Service Desk Web Client and the Object Manager?
- a ODBC
  - b Web engine
  - c Microsoft Access
  - d Unicenter Service Desk Server

Correct answer: b

- 5 What is the name of the Unicenter Service Desk service?
- a Unicenter Service Desk
  - b Unicenter Service Desk Server
  - c Unicenter Service Desk Object
  - d Unicenter Service Desk Daemon Server

Correct answer: b



Instructor  
Notes

Slide 1-13



## Module Summary

### *You should now be able to:*

- Define the Role of a Unicenter Service Desk Administrator
- Define the Unicenter Service Desk Architecture
- Stop and Start Unicenter Service Desk
- Explore the Unicenter Service Desk Web Client Administration Page

As a Unicenter Service Desk administrator, you defined the associated job functions. You defined parts of the Unicenter Service Desk architecture, including the web browser, web server, web engine, object manager, Database Agent, physical RDBMS, and Reporting Tool.

You performed a stop and start of the Unicenter Service Desk from Windows Services and the command prompt. You also explored the Administration page of Unicenter Service Desk Web Client.

In the next module, you will create and tailor the data records in the Unicenter Service Desk system.



Instructor  
Notes

# ■ 2

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## **Establish the Business Data Structure**

Slide 2-1



## Module Objectives

*After this module, you will be able to:*

- Create and Modify Reference Data
- Create and Modify Configuration Item Support Data
- Create and Modify Transactional Record Support Data
- Create and Modify Transactional Record Operational Data
- Grant Access to the CA Worklist Using eTrust Embedded Identity and Access Management

## Module Overview

RBC has opened a new office in Phoenix. It is important the office appears in the RBC Unicenter Service Desk database. As new employees are hired, it is also imperative that their roles, schedules, and contact information are all incorporated into the Unicenter Service Desk.

In your job, you need to establish and tailor the data records in the system. It is also important to enable the analyst to use Unicenter Service Desk to effectively create and update reference data, configuration items, and records. This way, analysts can use tickets effectively. Administrators can import CA Workflow for use in Unicenter Service Desk. They can then use Workflows on change orders and issues.

In this module, you will access, create, and update these Unicenter Service Desk components.



Instructor  
Notes

Slide 2-2



## Task 1: Create and Modify Reference Data

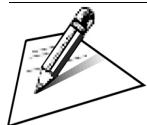
When Unicenter Service Desk is installed, some reference data is established for you, for example, types of contacts and time zones. Other reference data records are unique to your implementation of Unicenter Service Desk, such as sites, locations, and organizations. Therefore, these records must be created.

Slide 2-3



As an administrator of Unicenter Service Desk, one of your responsibilities is to create new and modify existing reference data records so your business data structure accurately reflects the operational procedures that are used by your business. Examples of reference data are shown in the following list:

- **Contact Types:** These classify the different kinds of people who interact with your Unicenter Service Desk system. For example, any contact type can be the *Affected End User* on a ticket, but only a person with a contact type of *Analyst* can be the *Assignee* on a ticket. If necessary, you can create additional contact types, or modify the predefined contact types. When defining users as contacts, you associate each with a contact type.
- **Timezones:** These are used on a Contact record. When a user logs in to Unicenter Service Desk Web Client, their time zone is used to offset any times presented to them by the correct amount. This happens only if the user is in a different time zone to the Unicenter Service Desk Server.
- **Positions:** These are found on a Contact record as a person's *Job Title*.
- **Workshifts:** These define permitted or blocked periods of time. These time definitions can then be used to:
  - Pause and resume the SLA clocks if the SLA does not promise twenty-four hour by seven-day coverage
  - Schedule availability and notifications for contacts
  - Schedule automatic archiving and purging of the database



Instructor  
Notes

### Contact Types

Focus on *analyst* and *group* contact types. Point out why they are different to any other contact type, such as child objects. They facilitate *analyst lists* and *group lists* as opposed to the generic *contact search*.

### Timezones

Point out that time zones are *only* used to offset display of time for a user from the *server time* when they log in to the Unicenter Service Desk Web Client.

### Workshifts

The full list of features that use workshifts is:

- Contacts: for notification and availability (auto assignment)
- Areas and categories: for auto assignment
- Continuous archive and purge: for rule schedules
- Events: for delay time schedules
- Service types: for delay time schedules
- Multi-site support: for replication schedules

## ■ Establish the Business Data Structure

### Task 1: Create and Modify Reference Data

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When defining a workshift, you can specify day ranges, date ranges, and time ranges.

When specifying a day range, you must specify the days in order, with Sunday (Sun) being the first day of the week. For example, type Sun - Sat to specify a seven-day range.

Date ranges are entered in MM/DD/YY format.

Time ranges can use the 24-hour clock, for example, 17:00 - 19:00, or the 12-hour clock, for example, 5 pm - 7 pm.

- **Sites:** These are collections of *locations*. Depending on the geographical size of your locations, the larger overall site might be a campus, a suburb, or a city, for example. Because locations reference sites, it is wise to define sites before locations, to minimize reworking of reference data.
- **Locations:** These precisely identify a specific physical place, such as the address of a particular company or an office address. Locations provide physical addressing information for contacts, configuration items, and organizations. Because organizations reference locations, define locations before organizations.
- **Organizations:** These describe the internal business units or divisions of your company or external customer companies that you provide service to. Organizations are used, for example, to identify the company with which a customer is associated.
- **Departments:** These provide additional location information for contacts and configuration items. They can be used as divisions of organizations, if required.
- **Cost centers:** These indicate the billing code information for a contact, organization, or configuration item.
- **States, provinces, and countries:** These are used on locations to assist with addressing information.



Instructor  
Notes

**Release 11** Departments, Cost Centers, and Countries are new in release 11.



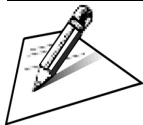


## Interactive Demonstration

**Task Purpose:** Create a new Position record.

A new position, Foreman, has been created in RBC. You need to create this position for use on a contact record as a Job Title.

- 1 If the Service Desk Web Client is not already open, click **Start** and then choose **Programs ► Computer Associates ► Unicenter ► Service Desk ► Service Desk Web Client**.
- 2 Type **Administrator** in the **User Name** field and type the password that you used to log in to the computer in the **Password** field.
- 3 Click **Log in**.
- 4 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 5 In the left pane, expand **Service Desk**, then **Application Data and Codes**, and select **Positions**.
- 6 To open the **Create New Position** window, click **Create New**.
- 7 In the **Symbol** field, type **Foreman** and click **Save**.
- 8 To return to the Service Desk Web Client, click **Close Window**.
- 9 To acquire a list of all positions and verify that the new position appears, click **Search**.
- 10 Select the **Service Desk** tab.
- 11 Choose **Search ► Contacts**.
- 12 To acquire the **Contact List**, in the right pane, click **Search**.



Instructor  
Notes

## ■ Establish the Business Data Structure

### *Interactive Demonstration*

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- 13 To open the **Update Employee** window for Richard Astor, right-click **astor, richard a** and choose **Edit**.
- 14 From the **Job Title** list, select **Foreman**.
- 15 Click **Save** and then click **Close Window**.

## Interactive Demonstration



**Task Purpose:** Create a new workshift.

RBC administration has requested that you create a new workshift, named Night Shift, that also marks June 18 and August 19 as holidays.

---

**Note •** Automatic assignment and the uses of workshifts are covered later in this course.

---

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Service Desk, Application Data, and Codes**, and select **Workshifts**.
- 3 Click **Create New**. The **Create New Workshift** window appears.
- 4 Complete the following fields:
  - a **Workshift:** Night Shift
  - b **Description:** Workshift for night shift employees
  - c **Schedule:** Sun - Thu {18:00 - 24:00} Mon - Fri {00:00 - 06:00} 06/18/06 {} 08/19/06 {}
- 5 Click **Save** and then click **Close Window**.



Instructor  
Notes

- 6 In the right pane, click **Search**.
- 7 Verify that the new workshift has been added.

## Interactive Demonstration



**Task Purpose:** Create a new site.

RBC has opened the new office in Phoenix. You are required to create a new Phoenix site contact for the new office. The site contact is the Phoenix office receptionist, Suzie Smith.

- 1 In the left pane, expand **Service Desk**, **Application Data**, and **Codes**, and then select **Sites**.
- 2 To open the **Create New Site** window, click **Create New**.
- 3 Type **Phoenix** in the **Site Name** field.
- 4 In the **Contact Name** field, type **Sm** and press **TAB**.
- 5 When the **Contact List** opens, select **Smith, Suzie**. The **Contact List** closes automatically.
- 6 Type **Phoenix Office** in the **Details** field.
- 7 Click **Save** and then click **Close Window**.
- 8 In the right pane, click **Search**.
- 9 Verify that the new site has been added and appears in the search results.



Instructor  
Notes

## Interactive Demonstration



**Task Purpose:** Create a new location.

Now that the site has been created for the new Phoenix office, you are required to create a new location for the address.

- 1 In the left pane, expand **Service Desk**, then **Application Data and Codes**, and select **Locations**.
- 2 To open the **Create New Location** window, click **Create New**.
- 3 Complete the following fields:
  - a **Name:** Phoenix Office
  - b **Site:** Phoenix
  - c **Description:** Phoenix main office
  - d **Address:** 123 Main Street
  - e **City:** Phoenix
  - f **State:** AZ
  - g **Zip/Postal:** 85045
  - h **Country:** United States
- 4 Click **Save**.
- 5 Click **Close Window**.
- 6 In the right pane, click **Show Filter**.
- 7 In the **Name** field, type P% and press ENTER.
- 8 Verify that **Phoenix Office** appears in the list.



Instructor  
Notes

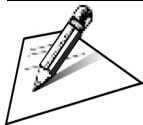


## Interactive Demonstration

**Task Purpose:** Create a new organization.

To complete the Phoenix office description, you must now create a new Phoenix Office Administration organization for all Phoenix office administration staff. This will enable you to establish the shared configuration item environment of the Phoenix office administration staff. See *Create and Modify Transactional Record Support Data* in this module. You also need to create the PhOA1 Cost Center to use as the billing code for this organization.

- 1 From the left pane, expand **Service Desk, Application Data, and Codes**, and select **Organizations**.
- 2 To open the **Create New Organization** window, click **Create New**.
- 3 Complete the following fields:
  - a **Name:** Phoenix Office Administration
  - b **Organization Number:** POA001
  - c **Phone Number:** 555-1234
  - d **Fax Number:** 555-4321
  - e **Contact Name:** Smith, Suzie
  - f **Service Type:** 48 Hr Resolution
- 4 To open the **Cost Center Search** window, click **Billing Code**.
- 5 To open the **Create New Cost Center** window, click **Create New**.



Instructor  
Notes

## ■ Establish the Business Data Structure

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### *Interactive Demonstration*

- 6 Complete the following fields:
  - a **Cost Center Name:** Ph0A1
  - b **Description:** Phoenix office administration billing reference
- 7 Click **Save**.
- 8 To return to the **Cost Center Search** window, close the active window.
- 9 In the **Cost Center Name** field, type P% and press ENTER.
- 10 To return to the **Create New Organization** window, from the **Cost Center** list, select **PhOA1**.
- 11 In the **Location** field, type Phoenix Office and then click **Save**.  
The **Phoenix Office Administration Organization Detail** window refreshes.
- 12 Click **Close Window**.
- 13 To refresh the **Organization** list, click **Search**.
- 14 Verify that **Phoenix Office Administration** appears in the list.
- 15 In the left pane, click **Cost Centers**. The **Cost Center List** appears.
- 16 Verify that **PhOA1** appears active in the list.



Instructor  
Notes



## Interactive Demonstration

**Task Purpose:** Create a new department.

You are required to create a new Front Desk department to define a more precise location for the receptionists. After departments are defined, RBC can improve communications and make it easier to locate employees by assigning each employee to one of those departments.

- 1 In the left pane, expand **Service Desk**, **Application Data**, and **Codes**, and select **Departments**.
- 2 To open the **Create New Department** window, click **Create New**.
- 3 Complete the following fields:
  - a **Department Name:** Front Desk
  - b **Description:** Front desk staff from office administration
- 4 Click **Save** and then click **Close Window**.
- 5 To refresh the **Department List**, click **Search**.
- 6 Verify that **Front Desk** appears in the list.



Instructor  
Notes



## Interactive Demonstration

**Task Purpose:** Update contact information.

Now that you have created a new department for the receptionists, the Phoenix office receptionist, Suzie Smith, needs to have her contact record updated to reflect her proper location, organization, department, and Cost Center.

- 1 In the left pane, expand **Security** and select **Contacts**.
- 2 In the **Last Name** field, type `smi%` and press ENTER.
- 3 In the **Contact List**, right-click **Smith, Suzie** and select **Edit** to open the **Smith, Suzie Update Employee** window.
- 4 Select the **Address** tab and type `Phoenix Office` in the **Location** field.
- 5 Select the **Organizational Info** tab and complete the following:
  - a **Functional Organization:** `Phoenix Office Administration`
  - b **Department:** `Front Desk`
  - c **Administrative Organization:** `Phoenix Office Administration`
  - d **Cost Center:** `Ph0A1`
- 6 Click **Save** and then click **Close Window**.

## Task Summary

You now have experience with creating and modifying reference data. This skill will help you ensure that your business data structure accurately reflects the operational procedures that are used by your business.

In the next task, you will create and modify configuration item support data.



Instructor  
Notes



Slide 2-4



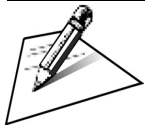
## Task 2: Create and Modify Configuration Item Support Data

Slide 2-5



On an Information Technology Infrastructure Library (ITIL)-based service desk, an asset that falls under the control of Configuration Management is a configuration item and resides in the Configuration Management Database or CMDB. The following records support and enhance the information that can be kept for each configuration item stored in the CA-MDB, and used by Unicenter Service Desk:

Record Name	Explanation
<b>Configuration item families</b>	Families are broad categories of configuration items, such as hardware, software, and services.
<b>Configuration item classes</b>	Classes are more specific categories in the broader family, for example, hubs, routers, and switches in the Hardware family.
<b>Company types</b>	These classifications identify the types of company providing configuration items, for example, Vendor or Lessor.
<b>Companies</b>	These identify the companies that make or supply your enterprise with configuration items, including the type of company and a primary contact. If you create a contact, you can associate a company with that contact using the Vendor field. In this way, a company contact can be notified by your service desk if that contact must deal with an affected configuration item.
<b>Models</b>	These contain specific information about the products that a particular company provides to your enterprise. For example, you might define a particular computer manufacturer as a company. Then, you define, as models, each one of the different computer models that the company makes and that you use in your enterprise.



Instructor  
Notes

### Notes

No extensions are provided with release 11. The 6.0 extensions migrate across to release 11.

### Company Types

These used to be Vendor Types.

### Companies

These used to be Vendors.

## ■ Establish the Business Data Structure

### Task 2: Create and Modify Configuration Item Support Data

Record Name	Explanation
Service statuses	These identify the readiness condition of configuration items, such as in service, in repair, or discontinued. Defining the service status enables you to track the availability and use of configuration items in your enterprise.
Configuration items	<p>These are the devices, software, and services that make up your business infrastructure. The information associated with a configuration item uniquely identifies the configuration item and indicates its precise location. Configuration item records:</p> <ul style="list-style-type: none"><li>■ Identify configuration items by name, class, and family</li><li>■ Specify inventory information</li><li>■ Specify additional properties, for example, DNS Name, IP Address, MAC Address</li><li>■ Enable the logging and viewing of comments associated with the configuration item</li><li>■ Specify location information for the configuration item</li><li>■ Specify service information, such as a service type, for the configuration item</li><li>■ Enable the viewing and definition of contacts and organizations assigned to the configuration item</li><li>■ Identify hierarchical relationships between configuration items</li><li>■ Enable the viewing of tickets associated with the configuration item</li></ul>



#### Configuration Items:

Discuss in as much detail as you think the students require. Move to the interactive demonstrations when the students are happy to do so.

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It is not necessary to define all the information in the previous table for all configuration items. Provide as much as possible so if a problem occurs, you have a thorough and effective collection of all the critical information your service desk needs to begin solving a problem the moment it is reported.

## Interactive Demonstration



**Task Purpose:** Create a new configuration item family and configuration item class.

The business has decided to invest in new biometric access devices to improve the security of its premises and employees. You are required to create a new configuration item family to collectively organize these devices. Then you will need to create a new configuration item class for retinal scanners.

- 1 In the left pane, expand **Service Desk, Application Data, and Configuration Items**, and then select **Configuration Item Families**.
- 2 Click **Create New**.
- 3 Complete the following fields:
  - a **Name:** Security
  - b **Description:** Security devices for physical access
- 4 Click **Save** and then click **Close Window**.
- 5 To refresh the **Configuration Item Family** list, click **Search** and verify that the new family appears.
- 6 From the left pane, expand **Service Desk, Application Data, and Configuration Items**, and select **Configuration Item Classes**.
- 7 To open the **Create New Configuration Item Class** window, click **Create New**.



Instructor  
Notes

## ■ Establish the Business Data Structure

### *Interactive Demonstration*

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- 8 Complete the following fields:
  - a **Class:** Retinal Scanner
  - b **Family:** Security
  - c **Description:** Retinal scanning devices
- 9 Click **Save** and then click **Close Window**.
- 10 Click **Show Filter** and then type r% in the **Class** field.
- 11 To refresh the **Configuration Item Class List**, click **Search** and verify that the **Retinal Scanner** class appears.

### **Interactive Demonstration**



**Task Purpose:** Create a new company record.

You need to create a new company record for the maker of the retinal scanners, Further Sight Corporation. Additionally, you need to create a new company type record for biometric device manufacturers.

- 1 From the left pane, expand **Service Desk, Application Data, and Configuration Items**, and select **Companies**.
- 2 Click **Create New**.
- 3 Type Further Sight Corporation in the **Company Name** field.
- 4 To open the **Company Type Search** window, click **Company Type**.
- 5 To view a list of available company types, click **Search** and then click **Create New**.
- 6 Type Biometric Device Manufacturer in the **Name** field.
- 7 Click **Save**.



Instructor  
Notes

- 8 To return to the **Company Type** list, click **Close Window**.
- 9 Click **Search** to update the list.
- 10 To return to the **Create New Company** window, click **Biometric Device Manufacturer**.
- 11 Type **Retinal scanner manufacturer** in the **Description** field.
- 12 Click **Save** and then click **Close Window**.
- 13 To refresh the **Company List**, click **Search** and verify that **Further Sight Corporation** appears.

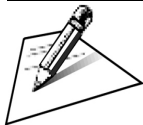
## Interactive Demonstration



**Task Purpose:** Create a new model record.

You are required to create a new model record for the OptiClever Retinal Scanner that is made by Further Sight Corporation.

- 1 In the left pane, expand **Service Desk**, **Application Data**, and **Configuration Items**, and then select **Models**.
- 2 To open the **Create New Manufacturer Model** window, click **Create New**.
- 3 Complete the following fields:
  - a **Name:** OptiClever
  - b **Company:** Further Sight Corporation
  - c **Class:** Retinal Scanner
  - d **Description:** Biometric access device



Instructor  
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## ■ Establish the Business Data Structure

### *Interactive Demonstration*

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- 4 Click **Save** and then click **Close Window**.
- 5 To refresh the **Manufacturer Model List**, click **Search**.
- 6 Verify that **OptiClever** appears.

## Interactive Demonstration



**Task Purpose:** Create a new configuration item.

You are required to create a new configuration item record for the retinal scanner that permits access from reception to the private areas of the Phoenix office.

- 1 In the left pane, expand **Service Desk** and **Application Data**, and then select **Configuration Items**.
- 2 Click **Create New**.
- 3 Complete the following fields:
  - a **Name:** PhRetScan1
  - b **Class:** Retinal Scanner
  - c **Serial Number:** 12345-6789
- 4 Click **Continue** and complete the following fields:
  - a **Notes:** Retinal scanner at Phoenix office reception
  - b **Model:** OptiClever
- 5 Select the **Service** tab.
- 6 Complete the following fields:
  - a **Cost Center:** Ph0A1
  - b **Responsible Organization:** Phoenix Office Administration



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- c **Maintenance Organization:** Service Desk
  - d **Priority:** select 1
  - e **Supply Vendor:** Further Sight Corporation
  - f **Responsible Vendor:** Further Sight Corporation
  - g **Maintenance Vendor:** Further Sight Corporation
- 7 Select the **Location** tab.
- 8 Complete the following fields:
- a **Location:** Phoenix Office
  - b **Floor:** 1
  - c **Room Location:** Reception
- 9 Click **Save**.
- 10 Select the **Contacts** tab.
- 11 To open the **Contact Search** window, click **Update Contacts**.
- 12 In the **Last Name** field, type S*m*i% and press **ENTER**.
- 13 Select **Smith, Suzie** and click the right arrow.
- 14 Click **OK**.
- 15 To verify the contents, select the **Inventory** tab.
- 16 To verify the contents, select the **Service** tab.



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*Task Summary*

## **Task Summary**

You now have experience using configuration item support data. You created configuration item families and classes and added records using them. You also updated records to provide employee access to these records. These skills will help you support and enhance the information that can be kept for each configuration item stored in the CA-MDB, and used by Unicenter Service Desk.

In the next task, you will create and modify transactional record support data.



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Slide 2-6



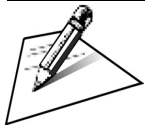
## Task 3: Create and Modify Transactional Record Support Data

Unicenter Service Desk uses different types of tickets to support transactions with end users. The following records, referenced on tickets, support the transaction process:

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Record	Explanation
Priority codes	Priority codes indicate a ranking order by which the service desk responds to a ticket. These are available on all types of tickets.
Impact codes	Impact codes measure the significance of a ticket for the functioning of the system. These are available on incidents, problems, requests, and change orders.
Urgency codes	Urgency codes measure the significance of the request for users of the system. These are available on incidents, problems, and requests.
Severity codes	Severity codes identify the extent of the damage to equipment affected by a request. These are available on incidents, problems, and requests.
Product codes	Product codes define the products or services you provide to the end-user base. These are available only on issues.
Reason codes	Reason codes define why an end user has raised an issue. These are available only on issues.
Reporting method codes	Reporting method codes define how an end user raises an issue. These are available only on issues.



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## ■ Establish the Business Data Structure

### Task 3: Create and Modify Transactional Record Support Data

Record	Explanation
Role codes	Role codes define the function of the end user in their company. These are available only on issues.
Root causes	Root causes are the initial reason for an incident, problem, or request usually attributed to the ticket at resolution time. Classification of incidents, problems, and requests using area codes is frequently different from the root cause determined after a resolution has been reached.
Timers	Timers act as a stopwatch with various thresholds that give the analyst indications of elapsed time. You can define how long the timer remains at each threshold, and have the timer change color, beep, or display a reminder as it reaches each threshold. A service desk analyst cannot control the stopwatch; only an administrator can control it.
Announcements	Announcements are sent to users through Unicenter Service Desk. They help decrease the time spent on incoming calls and improve productivity through the proactive resolution of tickets and communication of information to affected users. Most service desks do not permit every analyst to create announcements because of their potential visibility and their span. The control of announcements usually rests with the Level 1 Duty Supervisor. A Level 1 Analyst can draw the supervisor's attention to any situation requiring an announcement. It is possible to set up interfaces with external systems to enable automatic announcement creation.



#### Root Causes Example

The end user cannot log on to workstation (Incident Area = Networks.Login) resolved as end-user forgot password and locked out account (root cause = User Error)

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## Task 3: Create and Modify Transactional Record Support Data

Record	Explanation
<b>Personalized responses</b>	Personalized responses are new in release 11. These records enable analysts to quickly insert preconfigured text messages into activity descriptions, easing the process of analyst paperwork.
<b>Sequence numbers</b>	Sequence numbers are automatically assigned to tickets when they are opened. You can customize how tickets are numbered by including a unique prefix or suffix in the numbering scheme for each one. For example, if you want to track requests by month, you can add a month identifier as a prefix or suffix to the request numbering scheme.

On an ITIL-based service desk, the vast majority of transactions are dealt with using incidents. The prioritization of incidents defines the order in which incidents must be resolved. Unicenter Service Desk uses a read-only field, known as *Incident Priority*, for this purpose.

Incident Priority supports the ITIL concept of prioritization, based on business impact and urgency. *Impact* is the extent of the disruption of services provided to the business and *urgency* is how quickly the incident must be resolved.

In Unicenter Service Desk, the impact and urgency records have a *Value* field. When you select an impact and urgency record for an incident, the two values are added together to produce the Incident Priority value.

Currently, the impact and urgency values do not support a linear scale of Incident Priority. For example, a High-Impact, High-Urgency incident has the same Incident Priority as a Medium-Low Impact, Medium-Low Urgency incident.

When using the Incident Priority mechanism, it is wise to re-order the Impact codes such that Incident Priority is a linear scale, 0 being lowest and 10 being highest. The following interactive demonstration takes you through one way to achieve this.



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#### Personalized Responses

Like with announcements, a Unicenter Service Desk administrator might decide to control the creation and content of personalized response records to only a few authorized people, due to the nature of the text and frequency at which the content might be sent.

#### Sequence Numbers

Suffixes are covered in detail in the module "Manage the Database," when you will show a use for the ticket number suffix that brings the sequence number back to a smaller number of characters.

Discourage students from using the ticket prefix because if they eventually implement Multi-Site support, the prefix is used so Global analysts can be sent to the correct Region from the Master Region. Therefore, students will need to think carefully about what prefix conventions to use for all their Regions to maintain uniqueness, remain relatively short, and help ensure it is as intuitive as possible for everybody, end users included.



## Interactive Demonstration

**Task Purpose:** Re-order codes.

For the business to have a linear Incident Priority scale, in which higher Incident Priorities are more critical than lower ones, you will re-order the impacts so they match the urgencies.

- 1 In the left pane, expand **Administration**, **Application Data**, and **Codes**, and then select **Impacts**.
- 2 Right-click 1 and choose **Edit**.
- 3 Change the content of the **Description** field to:  
LOW Impact
- 4 Click **Save**.
- 5 To return to the **Impact List**, click **Close Window**.
- 6 Right-click 2 and choose **Edit**.
- 7 Change the content of the **Description** field to:  
MEDIUM-LOW Impact
- 8 Click **Save**.
- 9 To return to the **Impact List**, click **Close Window**.
- 10 Right-click 4 and choose **Edit**.



### Alternative

Another way to achieve a linear Incident Priority scale is to adjust the Value fields of Impacts and Urgencies.

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- 11 Change the content of the **Description** field to:  
MEDIUM-HIGH Impact
- 12 Click **Save**.
- 13 To return to the **Impact List**, click **Close Window**.
- 14 Right-click 5 and choose **Edit**.
- 15 Change the content of the **Description** field to:  
HIGH Impact
- 16 Click **Save**.
- 17 To return to the **Impact List**, click **Close Window**.
- 18 Click **Search** to reload the **Impact List** and verify that the impact levels have all been altered.

## Interactive Demonstration



**Task Purpose:** Create a root cause.

You need to create the Software root cause and re-organize the Documentation Error and User Error root causes into one hierarchical tree.

- 1 In the left pane, expand **Administration**, **Application Data**, and **Codes**, and select **Root Causes**.
- 2 Click **Create New**.
- 3 Complete the following fields:
  - a **Symbol:** Software
  - b **Description:** Related to a software failure



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## ■ Establish the Business Data Structure

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### *Interactive Demonstration*

- 4 Click **Save**.
- 5 To return to the **Root Causes** list, click **Close Window**.
- 6 Right-click **Documentation error** and choose **Edit**. The **Documentation error Update Root Cause** window appears.
- 7 In the **Symbol** field, clear the contents and type **Error . Documentation** in its place.
- 8 Click **Save**.
- 9 To return to the **Root Causes** list, click **Close Window**.
- 10 To open the **User error Update Root Cause** window, right-click **User error** and choose **Edit**.
- 11 In the **Symbol** field, clear the contents and type **Error . User** in its place.
- 12 Click **Save**.
- 13 To return to the **Root Causes** list, click **Close Window**.
- 14 Select the **Service Desk** tab.
- 15 Choose **File ► New Incident**.
- 16 Click **Root Cause**.
- 17 To verify that the errors appear correctly, expand **Error**.
- 18 Close the windows.



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## Interactive Demonstration

**Task Purpose:** Create an announcement.

You are required to create an announcement that advises everyone of the outage of the NYPrinter2 printer so the technician can rectify the Error 21 trouble it is having.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Administration** and **Service Desk** and then select **Announcements**.
- 3 To open the **Create New Announcement** window, click **Create New**.
- 4 In the **Text** field, type the following information:

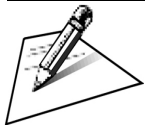
The printer, NYPrinter2, will be unavailable for use until 18:00 today so the technician can rectify the "Error 21" trouble it is having. Please refer to this Knowledge Document:

---

**Note •** Ensure that this message ends with a colon and then a space.

---

- 5 From the **Announcement Type** list, select **ADVISORY**.
- 6 To open the **Date Helper**, click **Close Date/Time**.
- 7 Select a date and click **OK**.
- 8 To open the **Knowledge Search** window, click **Knowledge Doc ID**.
- 9 In the **Keywords for Advanced Search** field, type `print%` and press **ENTER**.
- 10 Click **Error 21 (Print Overrun) on an HP Printer**.
- 11 Click **Insert Document**.



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- 12 To return to the **Announcements** window, click **Save** and then click **Close Window**.
- 13 Select the **Service Desk** tab.
- 14 To verify that the message appears in the **Announcements** list, choose **View ▶ Refresh**.

## Interactive Demonstration



**Task Purpose:** Create a response.

You need to create a personalized response for all analysts to use when resolving tickets.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Administration** and **Service Desk** and then select **Personal Responses**.
- 3 To open the **Create New Personalized Response** window, click **Create New**.
- 4 Type `Standard Resolve Text` in the **Name** field.
- 5 In the **Response** field, type the following message:  
  
Dear end user ,  
  
We believe that we have now resolved the trouble that is referenced in this ticket. We will contact you shortly to verify your satisfaction with this resolution.  
  
Thank you for using our Service Desk.
- 6 Click **Save**.
- 7 To return to the **Personalized Response** list, click **Close Window**.



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- 8 Select the **Service Desk** tab.
- 9 Click **File** and choose **New Incident**.
- 10 Select **Activities** and **Update Status**.
- 11 From the **New Status** list, select **Resolved**.
- 12 From the **Personalized Response** list, select **Standard Resolve Text**.
- 13 Select the **User Description** field.

The field is populated with the personalized response text.

- 14 Close the **Status Change Incident** and **Create New Incident** windows.

## **Task Summary**

You changed priority and impact levels, root causes, announcements, and responses. You also created and modify transactional record support data. When you are familiar with record support data, tickets can be organized more efficiently.

In the next task, you create and modify transactional record operational data.



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## Task 4: Create and Modify Transactional Record Operational Data

In addition to providing information, certain records that support transactional data affect how a ticket is handled. For incidents, problems, and requests, these records are the status and area codes. For change orders and issues, they are the status and category codes.

Slide 2-9



### Identify Incident, Problem, and Request Status Codes

*Status codes* describe the overall progress of a ticket towards resolution and closure. They affect the handling of incidents, problems, and requests in three major ways:

- They make the ticket active or inactive.
- They pause or resume SLA clocks.
- They set a resolved date and time on the ticket.

Unicenter Service Desk comes with predefined status codes. You can also make new ones or modify existing ones.

### Identify Incident, Problem, and Request Area Codes

*Area codes* classify incidents, problems, and requests. They enable the automatic population of certain values onto the ticket, for example group, service type, and survey. Area codes also enable the gathering of information required to resolve the ticket using properties. In addition, they make automatic assignment of a ticket possible.

Unicenter Service Desk comes with predefined area codes. You can also make new ones or modify existing ones.



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## Hierarchical Area Codes

Areas can be organized into a hierarchy by using the period character in the Symbol field of an area, for example Software.Network. This simplifies the choice of area codes on a system with many area codes. If there are many area codes, ticket classification can be more granular and so can the reporting on different types of situations experienced by end users.

## Automatic Assignment

Workshifts, groups, and locations can be associated with areas to enable the load-balanced assignment of tickets to available analysts. When a ticket is created, any associated workshift is first evaluated. If the current time is available in the workshift, associated groups are then evaluated to find any available analysts. The analyst with the least assigned tickets receives the new ticket.

If locations are also associated with the area, automatic assignment only happens if the configuration item or affected end user matches one of the locations. Groups matching the locations of the configuration item or affected end user and groups with no locations, but associated with the area, are then evaluated for available analysts.

This process effectively eases the workload of the team leaders of groups of analysts. If each analyst is made available for automatic assignment and a workshift is also associated to the analyst for availability, the only time a team leader needs to administer their group is when a particular analyst is unexpectedly absent.



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## Interactive Demonstration

**Task Purpose:** Create a status code.

For Unicenter Service Desk to reflect when an incident or problem is waiting for parts, you need to create the Awaiting Parts status code and test its operation.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Administration**, **Service Desk**, and **Requests/Incidents/Problems**, and then select **Status**.
- 3 Click **Create New**.
- 4 Complete the following fields:
  - a **Symbol:** Awaiting Parts
  - b **Code:** AP
  - c **Description:** Waiting for parts to resolve
- 5 Clear **Status Valid for Requests**.
- 6 To return to the **Request/Incident/Problem Status** list, click **Save** and then click **Close Window**.
- 7 To refresh the list, click **Search**.
- 8 Verify that the new item appears.
- 9 Select the **Service Desk** tab.
- 10 In the left pane, expand **Incidents** and **Assigned** and select **All**.
- 11 Right-click an incident number and choose **Update Status**.
- 12 From the **New Status** list, select **Awaiting Parts**.



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- 13 Click **Save**.
- 14 To return to the **Incident List**, click **Close Window**.
- 15 Click **Search**.
- 16 Verify that the status is changed correctly.

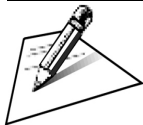
## Interactive Demonstration



**Task Purpose:** Create an area code.

For the business to have a classification for wireless networks-related incidents, problems, and requests, you want to create the Networks.Wireless area code. On a ticket using this area, you want the analyst to ask the user for, or determine, the MAC address of the wireless network card and optionally also the 802.11 version.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Administration**, **Service Desk**, and **Requests/Incidents/Problems** and then select **Area**.
- 3 Click **Create New**.
- 4 Complete the following fields:
  - a **Symbol:** Networks.Wireless
  - b **Description:** Wireless network related tickets
- 5 Click **Save**.
- 6 To open the **Create New Property Template** window, click **Add Property**.



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## ■ Establish the Business Data Structure

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### *Interactive Demonstration*

- 7 Complete the following fields:
  - a Sequence: 10
  - b Code: MAC
  - c Label: MAC address
  - d Description: Wireless network adapter MAC address
- 8 Check **Value Required** and type 000C29D4E2FC in the **Examples** field.
- 9 To return to the **Request/Incident/Problem Area Detail** window, click **Save**.
- 10 To open the **Create New Property Template** window, click **Add Property**.
- 11 Complete the following fields:
  - a Sequence: 20
  - b Code: 802V
  - c Label: 802.11 version
  - d Description: Wireless network adapter 802.11 version
- 12 Type a, b, g in the **Examples** field.
- 13 To return to the **Request/Incident/Problem Area Detail** window, click **Save**.



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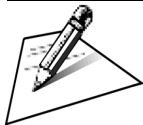


## Interactive Demonstration

**Task Purpose:** Configure automatic assignment of the Networks.Wireless area code.

You need to configure the automatic assignment of tickets to analysts in any of the LAN groups during regular business hours. Except for the group manager, make any analysts who are members of the LAN groups available for assignment to these tickets. Test the operation of this new area code.

- 1 In the **Request/Incident/Problem Area Detail** window for the Networks.Wireless area code, select the **Auto Assignment** tab.
- 2 To open the **Update Request/Incident/Problem Area** window, click **Edit**.
- 3 Scroll down and check **Auto Assignment Enabled**.
- 4 To open the **Group Search** window, click **Update Groups**.
- 5 In the **Group Name** field, type %LAN% and press ENTER.
- 6 From the **Groups Available** list, select all items and click the right arrow.
- 7 To return to the **Update Request/Incident/Problem Area** window, click **OK**.
- 8 To return to the **Request/Incident/Problem Area Detail** window, click **Save**.
- 9 To open the **Workshift Search** window, click **Update Workshifts**.
- 10 To open the list of **Workshifts Available**, click **Search**.
- 11 Select **Regular** and click the right arrow.
- 12 To return to the **Request/Incident/Problem Area Detail** window, click **OK**.
- 13 Scroll to the end to verify that all newly added elements appear and then click **Close Window**.



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## ■ Establish the Business Data Structure

### *Interactive Demonstration*

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- 14 Click **Search** and verify that the new symbol appears in the **Request/Incident/Problem Area** list.
- 15 In the left pane, expand **Administration** and **Security** and then select **Groups**.
- 16 In the **Group Name** field, type %LAN% and click **Search**.
- 17 In the **Group** list, repeat the following steps for each group:
  - a In the **Name** column, right-click the group, and to open the window for that group, choose **Edit**.
  - b Select the **Members** tab.
  - c Check **Available** next to every member who is not a manager.
  - d Click **Save** and then click **Close Window**.
- 18 Select the **Service Desk** tab.
- 19 Click **File** and choose **New Incident**.
- 20 Type Abercrombie , June in the **Affected End User** field.
- 21 To open the **Incident Area Selection**, in the **Incident Area** field, type n% and press ENTER.
- 22 To return to the **Create New Incident** window, expand **Networks** and select **Wireless**. The **Incident Area** field is automatically populated with **Networks.Wireless**.
- 23 Type User cannot connect to the network in the **Description** field.
- 24 Select the **Properties** tab.
- 25 Type 0a1b2c3d4e5f in the **Mac Address Value** field.
- 26 Type g in the **802.11 Version Value** field.



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- 27 To refresh the window, click **Save**.
- 28 Examine the **Assignee** field.

---

**Note** • If the assignee is administrator, automatic assignment failed. To try to find out why, look at the *Activities* tab of the incident. If the assignee is not administrator, investigate the contact record for that person to verify that the assignee is a member of one of the LAN groups.

---

## Interactive Demonstration



**Task Purpose:** Configure an area.

You need to configure the Software area so users must specify a lower-level area of software rather than selecting just the Software area. Make the Software area code inactive and test the operation of this modification.

- 1 In the **Unicenter Service Desk** window, select the **Service Desk** tab.
- 2 To open the **Create New Incident** window, click **File** and choose **New Incident**.
- 3 In the **Incident Area** field, type **s** and press **TAB**.
- 4 To return to the **Create New Incident** window, in the **Incident Area Selection** window, click **Software**.

---

**Note** • The Incident Area field is automatically populated with the word **Software**.

---

- 5 To close the **Create New Incident** window without saving the changes, click **Cancel**.
- 6 Select the **Administration** tab.



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## ■ Establish the Business Data Structure

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### *Interactive Demonstration*

- 7 In the left pane, expand **Administration**, **Service Desk**, and **Requests/Incidents/Problems** and then select **Area**.
- 8 In the **Symbol** column, right-click **Software** and choose **Edit**.
- 9 From the **Record Status** list, select **Inactive**.
- 10 To return to the **Request/Incident/Problem Area** list, click **Save** and then click **Close Window**.
- 11 To refresh the list, click **Search**.
- 12 Select the **Service Desk** tab.
- 13 To open the **Create New Incident** window, click **File** and choose **New Incident**.
- 14 In the **Incident Area** field, type **s** and press **TAB**.
- 15 Try to select **Software**.

---

**Note** • **Software is no longer available for selection.**

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- 16 Expand **Software** and you can now select any of the other options.
- 17 To close the window without saving the changes, click **Cancel**.



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## Change Order and Issue Status Codes

Like the incident, problem, and request status codes, change order and issue status codes are used to describe the overall progress of a ticket towards resolution and closure. They affect the handling of change orders and issues in the same ways:

- They make the ticket active or inactive.
- They pause or resume SLA clocks.
- They set a resolved date and time on the ticket.

Unicenter Service Desk comes with predefined status codes and you can make new ones or modify existing ones.

## Change Order and Issue Categories

Categories perform the same functions for change orders and issues that area codes perform for incidents, problems, and requests. In addition to default values, properties, and automatic assignment, categories also enable parent-child capability. However, a category that already has a small piece of work in it would not permit further children.

An important aspect of a category is that it also enables Workflow to be associated with change orders or issues of this kind. You can create traditional Workflow Task templates, as existed for Unicenter Service Desk version 6.0 and earlier, or you can associate the more powerful CA Workflows with a category.



Instructor  
Notes



## Interactive Demonstration

**Task Purpose:** Create a new Change Category.

You need to create the New.Employee change order category to provide a classification for new employee related change orders. Import the New Employee Workflow into CA Workflow and associate the Workflow with the New.Employee change order category so it can be used on a change order. Verify that the newly configured Workflow operates correctly on a change order.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Administration, Service Desk, Change Orders** and select **Categories**.
- 3 To open the **Create New Change Category** window, click **Create New**.
- 4 Complete the following fields:
  - a **Symbol:** New.Employee
  - b **Code:** NE
  - c **Description:** To provision a new employee for the business
- 5 Click **Save** and then click **Close Window**.
- 6 Click **Start** and then choose **Programs ► Computer Associates ► Unicenter ► Service Desk ► Workflow IDE**.
- 7 Type ServiceDesk in the **User Name** and **Password** fields.
- 8 To log in, click **OK**.
- 9 To open the **Open** dialog, choose **File ► Import ► Process Definition**.
- 10 From the **Look in** field, select **D**.



Instructor  
Notes

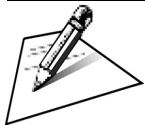
- 11 Double-click **Class Files**, **UR386**.
- 12 Select **UR386 - New Employee.xml** and then click **Open**.
- 13 From the **Name** list, select **UR386 - New Employee** and then click **Open Definition**.
- 14 To review the content of the upper right pane, expand the viewing area.
- 15 In the left pane, right-click **UR-386 - New Employee** and choose **Close**.

---

**Note •** If prompted, do not save changes.

---

- 16 To return to the **Service Desk**, click **File** and choose **Exit**.
  - 17 To reload the **Change Category List**, click **Search**.
  - 18 Right-click **New.Employee** and choose **Edit**.
  - 19 Select the **Workflow** tab.
  - 20 Select **Use CA Workflow**.
- The **Workflow Definition List** opens automatically.
- 21 To return to the **Update Change Category** window, click **UR386 - New Employee**.
  - 22 Verify the contents.
  - 23 Click **Save**.
  - 24 To return to the **Change Category List**, click **Close Window**.
  - 25 Select the **Service Desk** tab.



Instructor  
Notes

## ■ Establish the Business Data Structure

### *Interactive Demonstration*

---

- 26 To open the **Create New Change** window, choose **File ▶ New Change Order**.
- 27 Complete the following fields:
  - a **Requestor:** Administrator
  - b **Affected End User:** Administrator
  - c **Category:** New.Employee
  - d **Order Description:** New employee workflow test
- 28 Click **Save**.
- 29 Select the **Workflow Tasks** tab.
- 30 Click **View** and choose **Refresh**.
- 31 To locate the Workflow Task **Applic. Form**, listed as **Pending**, scroll down.
- 32 To open the CA Workflow login screen, click the name of the pending task.
- 33 Type Administrator in the **User Name** field.
- 34 In the **Password** field, type ServiceDesk and click **Log In**.
- 35 Scroll through the list until you find the **Activity Name** of **Applic. Form** for the change order number you created earlier.
- 36 On the same row as **Applic. Form**, click **Perform**.
- 37 Complete the following fields:
  - a **First Name:** John
  - b **Last Name:** Doe
- 38 From the **Shoe Size** list, select 10.5 and click **Submit**.



Instructor  
Notes

- 39 When the Task list re-opens, verify that the confirmation message indicates successful completion.
- 40 Return to the Change Detail window.
- 41 Choose View ► Refresh.
- 42 To verify that the task is completed, scroll through the Workflow Task List.

---

**Note** • The Workflow will not be completed during class time. That activity is covered in the course *UR376 Unicenter Service Desk: Analyst Operations*.

---

## Task Summary

In this task, you created and updated status and area codes. In addition, you created and modified categories. The task also covered importing Workflows and how to associate them with a change order. This means that you can update ticket information to help ensure that each ticket is dealt with efficiently. In the next task, you will see how access to Workflows can be provided by *eTrust* Embedded Identity and Access Management (*eTrust* Embedded IAM).



Instructor  
Notes

Slide 2-10



## Task 5: Grant Access to the CA Worklist Using eTrust Embedded Identity and Access Management

eTrust Identity and Access Management (eTrust IAM) is a central repository of user information or identities. It defines their authentication and access to other applications. Unicenter Service Desk uses one version of this product, named eTrust Embedded Identity and Access Management (eTrust Embedded IAM). If you have several Computer Associates products installed, some of them might be using eTrust Embedded IAM to store identities and access policies.

Slide 2-11



The eTrust IAM repository of user records is one of the following two sources:

- An external LDAP directory
- Its own internal tables in the CA-MDB

eTrust IAM has an LDAP interface for use when it is configured to use the CA-MDB.

---

**Note •** The tables used by eTrust IAM in the CA-MDB are different from those used by Unicenter Service Desk.

---

One of the advantages of using CA Workflow is that those involved in the tasks do not have to be declared in your contact table. If all you need to do is tell someone that a piece of work is to be done, CA Workflow can send them an email. However, because CA Workflow uses eTrust Embedded IAM as the repository of user information, you need to create that user in eTrust Embedded IAM and give them an email address. You can also create users in eTrust Embedded IAM to permit access to the CA Worklist. Then, any user can complete their tasks, fill out the relevant electronic forms, and make approvals or rejections whenever they are notified.



Instructor  
Notes



If a person exists in the Unicenter Service Desk contact table who needs to be notified of an assigned task in CA Workflow, the Workflow can extract that person's contact information and perform a Unicenter Service Desk notification. However, if that person needs access to the CA Worklist, an eTrust Embedded IAM user account needs to be created for them.

## Interactive Demonstration



**Task Purpose:** Create a user for access to the CA Worklist.

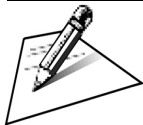
Jonathan Jenkins is the Manager of the Chicago LAN Group. When he hires a new employee, he needs access to the CA Worklist to complete the Application Form for that new employee. You want to create a user in eTrust Embedded IAM for Jonathan Jenkins to give him access to the CA Worklist.

---

**Note •** Steps 1 through 10 verify that Jonathan Jenkins cannot log in to the CA Worklist. If you are already satisfied that this is the case, you can skip forward to step 11.

---

- 1 In the **Unicenter Service Desk** window, select the **Service Desk** tab.
- 2 To open the **Create New Change** window, click **File** and choose **New Change Order**.
- 3 Complete the following fields:
  - a **Requester:** Jenkins, Jonathan
  - b **Affected End User:** Jenkins, Jonathan
  - c **Category:** New.Employee
  - d **Assignee:** Administrator
  - e **Order Description:** Jonathan requires a new employee



Instructor  
Notes

## ■ Establish the Business Data Structure

### *Interactive Demonstration*

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- 4 Click **Save**.
- 5 Select the **Workflow Tasks** tab.
- 6 Click **View** and choose **Refresh**.
- 7 Scroll through the list to locate **Applic. Form**.
- 8 To open the **CA Workflow Login** window, click **Applic. Form**.
- 9 In the **User Name** field, type `jenjo01` and click **Log In**.

The following error message appears:

Error Connecting to the Process Manager, check your PM URL.

In this case, the error means that no user account exists for Jonathan Jenkins in eTrust Embedded IAM.

- 10 Close the **CA Worklist** window.
- 11 Click **Start** and then choose **Programs ► Computer Associates ► eTrust ► eTrust Embedded IAM ► Embedded IAM UI**.

---

**Note** • Click to advance through any security alerts that appear.

---

- 12 From the **Application List**, select **Service Desk**.
- 13 Type `Administrator` in the **User Name** field.
- 14 In the **Password** field, type `ServiceDesk` and click **Log In**.
- 15 Select the **Manage Identities** tab.
- 16 To refresh the **Users** pane, click **Go**.
- 17 Click **New User**.



Instructor  
Notes

18 Complete the following fields:

- a Name: j enj o01
- b First Name: Jonathan
- c Last Name: Jenkins

19 Click **Add Application User Details**.

---

**Note • Do not add Jonathan Jenkins to either group. Workflow Administrators is for those who need access to the CA Workflow IDE. Workflow Process Initiators is for those who need to test CA Workflows.**

---

20 Click **Save** and verify that the following confirmation appears:

Global User created successfully.

21 Click **Close** and then click **Log Out**.

22 Close the **Identity and Access Manager** window and return to the **Service Desk** window.

23 To make a new change order, repeat steps 1 through 7.

24 To open the **CA Workflow Login** window, click **Applic. Form** on the new **Change Order**.

25 In the **User Name** field, type j enj o01 and click **Log In**.

26 Verify that **Applic. Form** appears for the new Change Order under **Activity Name** and that **Perform** appears under **Perform Task**.

27 To review the **New Employee Application Form**, click **Perform**.



Instructor  
Notes

## Task Summary

You now have experience creating and configuring a user to grant access to the CA Worklist using eTrust Embedded IAM. When you grant users access to the CA Worklist, it enables them to complete assigned tasks and also automates notification procedures relating to their workload. You can assign a task to a particular user and, drawing contact information from eTrust Embedded IAM, CA Workflow sends the instruction directly to that user.



Instructor  
Notes



## Skill Builder: Configure Transactional Record Operational Data

### Business Problem

In an effort to simplify and improve the processing of requests, RBC has decided to reduce the number of request status codes to Open, Acknowledge, Work In Progress, and Closed. In the change orders area, personnel need to differentiate between the current Hold status and a Hold at end user request. They also need to suspend the event clock when the status of a change order is Suspended.

In the issues area, personnel need five new categories to make it easier to differentiate between repairs, contract changes, and warranty work in their product lines. The new categories are *Warranty.Repair*, *Warranty.Extension*, *Service.Repair*, *Service.NewContract*, and *Service.Extension*. All five are assigned to the ATM Card Banking Systems group with a service type of *04hr resolution*. There are no Workflow tasks assigned and no properties.

### Hint

Simplify the request list by restating the problem as tasks in an outline fashion organized by areas.

- 1 To reduce the number of request status codes, change the active flag of all status codes to Inactive except for Open, Acknowledge, Work In Progress, and Closed.
- 2 Differentiate between change orders:
  - a Create a new status named **Hold at End-user Request** based on the values found in the existing status named Hold.
  - b Change the existing status code named **Suspended** so it stops the event clock.



Instructor  
Notes

See the solution to the skill builder in the appendix "Skill Builder and Assessment Solutions."

## ■ Establish the Business Data Structure

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### *Skill Builder: Configure Transactional Record Operational Data*

- 3 Create new categories for issues:
  - a Create a new category named Warranty.Repair. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Warranty repair or replacement.
  - b Create a new category named Warranty.Extension. Set the group to ATM Card Banking Systems and the Service type to 04hr resolution. The description is Extend customer's warranty.
  - c Create a new category named Service.Repair. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Non-warranty service repair.
  - d Create a new category named Service.NewContract. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Create a non-warranty service contract.
  - e Create a new category named Service.Extension. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Extend customer's non-warranty service contract.



Instructor  
Notes

## Assessment

- 1 What information is stored in the Root Cause record?
  - a The classification of the origin of the change order
  - b The classification of an incident, problem, or request
  - c The initial reason for an incident, problem, or request
  - d The extent of the damage to equipment affected by a request

Correct answer: c

- 2 When a new user is created in *eTrust* Embedded IAM, where, by default, is that information stored?
  - a Active directory
  - b In the CA-MDB
  - c Common Asset Viewer
  - d The USD contact table

Correct answer: b

- 3 When Unicenter Service Desk is installed, which types of data are already loaded?
  - a Codes, asset classes, and contacts
  - b Codes, activity notification, and asset classes
  - c Configuration items, requests, and change orders
  - d Codes, configuration items, requests, and asset classes

Correct answer: b



Instructor  
Notes

## ■ Establish the Business Data Structure

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### *Assessment*

4 Which places have one or more physical locations?

- a Sites
- b Locations
- c Departments
- d Organizations

Correct answer: a

5 What are the devices, software, and services that make up your business infrastructure named?

- a Assets
- b Models
- c Configuration items
- d Configuration items classes

Correct answer: c



Instructor  
Notes



Slide 2-12



## Module Summary

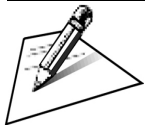
***You should now be able to:***

- Create and Modify Reference Data
- Create and Modify Configuration Item Support Data
- Create and Modify Transactional Record Support Data
- Create and Modify Transactional Record Operational Data
- Grant Access to the CA Worklist Using eTrust Embedded Identity and Access Management

After completing this module, you have learned how to construct and maintain a variety of records and data. You are also now able to configure Worklist access through eTrust IAM.

You can now establish and alter reference data records to assist analysts in maintaining configuration items. You can also use tickets more effectively. You have also enabled the use of Workflow on change orders and issues so business processes are completely tracked. Finally, you have used newly developed Workflows on change orders and issues.

In the next module, you will implement security by creating contacts and groups and their access types.



Instructor  
Notes

## ■ Establish the Business Data Structure

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### *Module Summary Assessment*



Instructor  
Notes

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# Implement Security

Slide 3-1



## Module Objectives

***After this module, you will be able to:***

- Create Contacts and Groups
- Define the Levels of Unicenter Service Desk Security
- Create Access Types
- Create Data Partitions

## Module Overview

As the Unicenter Service Desk administrator for RBC, it is your responsibility to maintain the ongoing security requirements of your service desk. This entails the creation of contacts, groups, access types, and data partitions. With these mechanisms, you can effectively control access to Unicenter Service Desk.



Instructor  
Notes

Slide 3-2



## Task 1: Create Contacts and Groups

An important part of establishing a working service desk is defining the users who are going to access it. In Unicenter Service Desk, users are defined as *contacts*.

Slide 3-3



## Define Contact Record Information

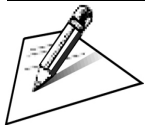
A user's contact record defines all the information about the user that the system needs. This information is used in many ways throughout the system.

### Basic Identification Information

Basic identification information includes the user's name and contact type. A contact's name is used as the primary identifier when selecting a contact or filling in contact information in other contexts. The contact type is used to define the context in which this person uses Unicenter Service Desk.

### Login Information

Login information is used to verify a user to the system at login time. All users use their system login ID as the user name when logging in to Unicenter Service Desk. The user name is then used as the basis for identifying the user in the contact table.



Instructor  
Notes

## **Security Information**

Security access is determined by the access type assigned in a user's contact record or by a default access type, depending on how the system security is set up. In addition, a user's access type can be assigned based on their membership in an LDAP directory group.

A user's access type determines all aspects of their security, including how they are authenticated to the system, which web interface they see, and what product functionality they can access.

Security management is accessed from the Administration tab of the Unicenter Service Desk Web Client.

## **Service Type Information**

A contact's service type defines the level of service a user is to receive. SLAs are negotiated with Unicenter Service Desk customers, and service types serve as the mechanism for Unicenter Service Desk to implement SLAs. By associating a service type with a user's contact record, you can help guarantee that when a ticket is created identifying that user as the end user affected, the service type for the ticket will be at least as good as the contact's service type.

## **Automatic Assignment Information**

You can set up analyst contacts to determine if and when they are eligible for automatic assignment. Automatic assignment is valid only for analyst contacts. It is an available feature for incidents, problems, and requests and is defined as part of the Area definition. It is further linked to the groups to which the analyst belongs.



Instructor  
Notes

## Notification Messages

A contact's notification information includes their contact information, such as various email addresses and phone numbers, that might be used for notification purposes. It also includes the method to use for different urgency levels and the work shifts during which they are to receive notifications.

Organizational information, such as location, organization, and department, lets you arrange contacts based on the organization to which they belong. For example, associating a contact with a location links the contact to a physical address and also helps in determining automatic assignment. The organization can be assigned a service type, making it easier to manage SLAs by organization rather than by individual contacts.

## User Configuration Items

Linking configuration items to a contact is a way to let analysts know about the user's environment when working on tickets for that contact. Configuration items can also be linked indirectly to a contact through the organization. If configuration items are associated with the contact or the contact's organization, whenever a ticket is opened with them as the affected end user, the configuration item information will automatically be available when the analyst views the ticket in detail.

The contact's configuration items are known as private configuration items, and the organization's configuration items are known as shared configuration items.



Instructor  
Notes

Slide 3-4



## Organize Users into Groups

A *group* is a collection of contacts that represents a specific area of responsibility in your service desk. Defining groups enables you to assign responsibility for resolving a ticket when that responsibility is shared among several individuals.

For example, you might have a San Francisco Human Resources group, which is responsible for dealing with personnel issues in the San Francisco office of your organization. When an employee in that office has a problem, you can assign it to the San Francisco Human Resources group for resolution.

In Unicenter Service Desk, groups are implemented using the predefined group contact type, making a group a special type of contact. A group has the same basic information as a contact. Groups are one of the keys to automatically assigning requests.

## Interactive Demonstration



**Task Purpose:** Add a new employee contact record.

- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Administration** and **Security** and then select **Contacts**.
- 3 To open the **Create New Contact** window, click **Create New**.
- 4 Complete the fields as follows:
  - a **Last Name:** Yew
  - b **First Name:** Anne
  - c **System Login:** yewan01

---

**Note •** Populate as much of the record as possible at this time.

---



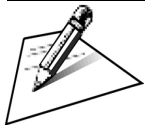
Instructor  
Notes

**Warn** students *emphatically* that, in Service Desk r11, there is the possibility of creating groups of end users. There is no standard way of preventing these groups from being chosen as the group assignee of a ticket. Because assignment denotes responsibility, and end users do not have the skills or opportunity to resolve tickets, this can lead to a dangerous situation where such a ticket is forgotten about and it breaches SLAs. Ways of dealing with this situation include:

- Naming conventions
- Data partitions



- 5 From the **Contact Type** list, select **Employee**.
- 6 From the **Time Zone** list, select **Central Time**.
- 7 From the **Data Partition** list, select **Employee**.
- 8 From the **Access Type** list, select **Employee**.
- 9 Select the **Notification** tab.
- 10 Complete the fields as follows:
  - a **Telephone Number**: 555-1234
  - b **Fax Number**: 555-4321
  - c **Email Address**: yewan01@company.com
- 11 Select **Notification** from all four of the **Notifications Method** lists: **Low**, **Normal**, **High**, and **Emergency**.
- 12 Select the **Organizational Info** tab.
- 13 Type **Reception** in the **Department** field.
- 14 Select the **Remarks** tab.
- 15 Type **Seattle Office Receptionist** in the **Contact Notes** field.
- 16 To return to the **Contact Search** window, click **Save** and then click **Close Window**. If the search filter does not appear, click **Show Filter**.
- 17 To verify that the new contact appears in the **Contact List**, in the **Last Name** field, type **Ye%** and click **Search**.
- 18 In the left pane, expand **Administration** and **Security** and then select **Groups**.
- 19 To open the **Create New Group** window, click **Create New**.



Instructor  
Notes

## ■ Implement Security

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### *Interactive Demonstration*

- 20 Complete the fields as follows:
  - a **Group Name:** Receptionists \*
  - b **Email Address:** receptionists@company.com
- 21 Select **Notification** from all four of the **Notifications Method** lists: **Low**, **Normal**, **High**, and **Emergency**.
- 22 Select the **Organizational Info** tab.
- 23 Type Reception in the **Department** field.
- 24 Select the **Remarks** tab.
- 25 Type \* Warning. Never assign tickets to this group! in the **Contact Notes** field.
- 26 Select the **Members** tab and click **Update Members**.
- 27 In the **Last Name** field, type Ye% and click **Search**.
- 28 From the **Members** list, select **Yew, Anne** and click the right arrow.
- 29 To return to the **Create New Group** window, click **OK**.
- 30 To return to the **Group Search** window, click **Save** and then click **Close Window**.
- 31 To verify that Receptionists \* appears in the **Groups List**, in the **Group Name** field, type R% and click **Search**.



Instructor  
Notes

## Task Summary

In this task, you added an employee and group contact record. Adding contact records helps define the users who are going to access the service desk and contributes to its efficiency.

Next, you will define the levels of Unicenter Service Desk security.



Instructor  
Notes

Slide 3-5



## Task 2: Define the Levels of Unicenter Service Desk Security

As discussed in the module “Administer Unicenter Service Desk,” the Object Manager controls all Unicenter Service Desk security. There are three levels of security:

- System-Level: This secures whole collections of objects. This level of security is implemented by the Function Access tab of an access type.
- Record-Level: This controls access to records in DBI tables, based on values in the fields of those records. This level of security is implemented by data partitions.
- Column-Level: This controls access to the same field in every record; thus, a column in a DBI table. This level of security is implemented by web page adaptations.

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**Note** • Web page adaptations are an implementation skill and are covered in course UR395, *Unicenter Service Desk: Implementation*.

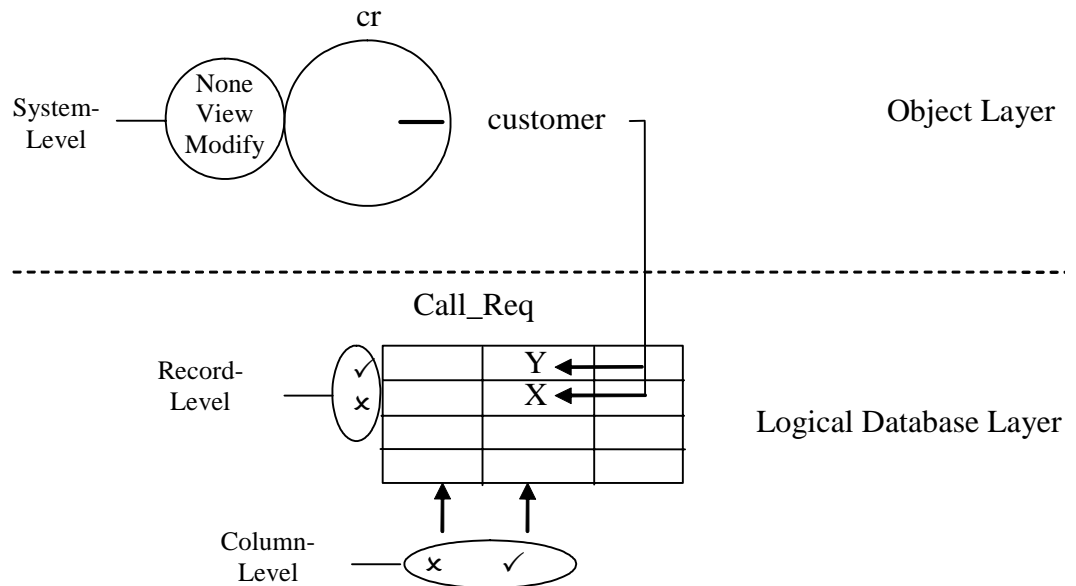
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Instructor  
Notes

**Defer** detailed discussion of access types and data partitions until the appropriate task.

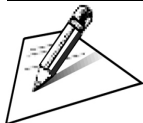
Slide 3-6



System-Level security settings are evaluated for a contact before any data partitions. For example, if someone needs to create incidents, they must be assigned Modify to Requests in their access type. They are then further restricted by their data partition, if required. A web page adaptation can completely remove the Assignee field of an incident if the person is not permitted to see any assignees.

## Task Summary

In this task, you defined the levels of Unicenter Service Desk security. This helps increase the security of your service desk. Next, you will create access types.



Instructor  
Notes

Slide 3-7



## **Task 3: Create Access Types**

Defining access types and relating them to contacts is the key to setting up security in Unicenter Service Desk.

Slide 3-8



Using access types, you can control all security-related aspects of your service desk, including:

- Access and grant levels
- Web interface defaults
- Function access privileges
- User authentication
- Internal logs
- Customization form group
- Data partition

Several access types are included with Unicenter Service Desk, and, as the system administrator, you can modify them or define new ones.

When the access types for your system are set up as desired, you need to assign access types to the contacts, or users, for your service desk. You can do this directly by choosing a value for the Access Type field in the user's contact record. You can also do this by defining one of the access types as a default that is used for contacts that do not have an access type explicitly defined. Assigning access types to users is part of the overall process of setting up users.



Instructor  
Notes

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**Guide** students through the Detail access type.



## Interactive Demonstration

**Task Purpose:** Add an access type for Repair Technicians.

A Repair Technician's default document must be incidents. Repair Technicians must be able to:

- View internal logs
- Use the ITIL form group
- Make new contacts for customers and employees, though not for analysts or administrators
- Create and work on all ticket types
- Add and modify configuration items, but only use codes such as Priorities
- Dismiss notifications after they have read them
- See administrative data such as events, but have no access to security data
- Use the Analyst Web User Interface, but only with Analyst Views, which have no Administration tab

For testing, a password is not required to log in to the access type. In Keyword Search, the access type must only be able to view Knowledge Categories, but must be able to work with Knowledge Documents. They are not able to ignore any approvals processes.

You now want to create an access type for Repair Technicians and associate it with the Seattle Support Analyst, Frank Wood.

- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Administration** and **Security** and then select **Access Types**.



Instructor  
Notes

## ■ Implement Security

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### *Interactive Demonstration*

- 3 To open the **Create New Access Type** window, click **Create New**.
- 4 Complete the fields as follows:
  - a **Symbol**: Repair Techs
  - b **Description**: Access Type for Repair Technicians
- 5 From the **Preferred Document** list, select **Incident**.
- 6 Select **View Internal Logs**.
- 7 From the **Customization Form Group** list, select **ITIL**.
- 8 From the **Access Level** list, select **Analyst**.
- 9 From the **Grant Level** list, select **Cust/Emp**.
- 10 From each of the following lists, select **Modify**:
  - a **Requests**
  - b **Change Orders**
  - c **Issues**
  - d **Inventory**
  - e **Notify**
- 11 From each of the following lists, select **View**:
  - a **Reference Data**
  - b **Admin**
- 12 Select the **Web Interface** tab.
- 13 From the **Web User Interface Type** list, select **Analyst**.



Instructor  
Notes



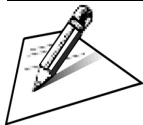
- 14 Select **Service Desk Analyst**.
- 15 Select the **Web Authentication** tab.
- 16 From the **Validation Type** list, select **Open-Always allow access**.
- 17 To return to the **Access Type List**, click **Save** and then click **Close Window**.
- 18 In the left pane, expand **Administration** and **Security** and then select **Contacts**.
- 19 In the **Last Name** field, type **W%** and click **Search**.
- 20 To open the **wood, frank Analyst Detail** window, click **wood, frank**.
- 21 Click **Edit**.
- 22 From the **Access Type** list, select **Repair Techs**.
- 23 To return to the **Contact List**, click **Save** and then click **Close Window**.

## Interactive Demonstration



**Task Purpose:** Log in as Frank Wood to test the access type.

- Can Frank change a contact into an analyst contact? (No)
- Can Frank create new tickets? (Yes)
- Can Frank create a new configuration item? (Yes)
- Can Frank modify Priority codes? (No)
- Can Frank see an **Administration** tab in his client? (No)
- Can Frank delete a Knowledge Category? (No)
- Can Frank create a Knowledge Document? (Yes)



Instructor  
Notes

## ■ Implement Security

### *Interactive Demonstration*

---

- 1 Open a second **Unicenter Service Desk** window and log in using woofr01 with no password.
- 2 Select the **Service Desk** tab.
- 3 To open the **Profile Browser Contact Search** window, choose **View ► Profile Browser**.
- 4 To obtain a complete list of contacts, click **Search**.
- 5 To open the contact information for June Abercrombie, click **Abercrombie, June**.
- 6 To edit June Abercrombie's contact record, in the **Contact** pane, click **Edit This Contact**.
- 7 From the **Access Type** list, select **Analyst**.
- 8 Click **Save**.

---

**Note** • At this point, an error message appears stating You do not have adequate authority to set Contact to Analyst Access Type.

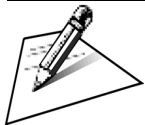
---

- 9 To return to the **Profile Browser** window, click **Close Window**.
- 10 To return to the **Unicenter Service Desk** window, click **Close Window**.
- 11 To open the **Create New Incident** window, choose **File ► New Incident**.
- 12 Type Wood , Frank in the **Affected End User** field.
- 13 Type Test in the **Description** field.
- 14 Click **Save** and then click **Close Window**.
- 15 To open the **Create New Problem** window, choose **File ► New Problem**.



Instructor  
Notes

- 16 Type Wood , Frank in the **Affected End User** field.
- 17 Type Test in the **Description** field.
- 18 Click **Save** and then click **Close Window**.
- 19 To open the **Create New Request** window, choose **File ► New Request**.
- 20 Type Wood , Frank in the **Affected End User** field.
- 21 Type Test in the **Description** field.
- 22 Click **Save** and then click **Close Window**.
- 23 To open the **Create New Change** window, choose **File ► New Change Order**.
- 24 To automatically complete the **Affected End User** field, type Wood , Frank in the **Requester** field and press TAB.
- 25 Type Test in the **Order Description** field.
- 26 Click **Save** and then click **Close Window**.
- 27 To open the **Create New Issue** window, choose **File ► New Issue**.
- 28 Type Wood , Frank in the **Affected End User** field.
- 29 Type Test in the **Description** field.
- 30 Click **Save** and then click **Close Window**.
- 31 To open the **Create New Configuration Item** window, choose **File ► New Configuration Item**.
- 32 Type TestCI in the **Name** field.
- 33 In the **Class** field, type Workstation and click **Continue**.



Instructor  
Notes

## ■ Implement Security

### *Interactive Demonstration*

---

- 34 Click **Save** and then click **Close Window**.
- 35 In the left pane, expand **My Queue** and select **My Incidents**.
- 36 To open the **Update Incident** window, right-click the first incident in the list and choose **Edit**.
- 37 Verify that **Priority** is set to **None**.
- 38 Select **Activities** and **Escalate**.
- 39 Select **Priority** of 5 and click **Accept**.

---

**Note** • This proves that Frank can use reference data. He cannot edit it though because when logged in as Frank Wood, there is no Administration tab.

---

- 40 Select the **Keyword Search** tab.
- 41 To open the **Knowledge Categories** window, choose **View ► Knowledge Categories**.
- 42 To verify that only two options appear, in the left pane, right-click **Network**. The two options are:
  - a **New Knowledge Document**
  - b **Refresh Document List**
- 43 Open the **Unicenter Service Desk** window where you are logged in as administrator.
- 44 Select the **Keyword Search** tab.
- 45 To open the **Knowledge Categories** window, choose **View ► Knowledge Categories**.



Instructor  
Notes

- 46 To see that five options appear, in the left pane, right-click **Network**. The options are:
  - a **New Knowledge Document**
  - b **New Category**
  - c **Edit Category**
  - d **Delete Category**
  - e **Refresh Document List**
- 47 Click **Close Window**.
- 48 Return to the **Knowledge Categories** window into which you logged in as Frank Wood.
- 49 To open the **Create New Document** window, right-click **Network** and choose **New Knowledge Document**.
- 50 Type **Test** in each of the following fields:
  - a **Title**
  - b **Summary**
  - c **Problem**
  - d **Resolution**
- 51 Click **Save** and then click **Close Window**.
- 52 To refresh the **Knowledge Document List**, click **Search**.
- 53 Locate the newly created **Test** and verify the details.
- 54 Click **Close Window** and click **Log Out**.



Instructor  
Notes

## **Task Summary**

In this task, you created an access type. This helps control all security-related aspects of your service desk and facilitates a more secure system.

Next, you will create data partitions.



Instructor  
Notes

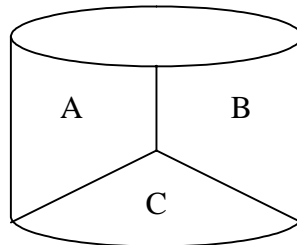
Slide 3-9



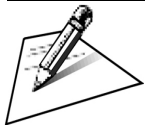
## Task 4: Create Data Partitions

*Data partitions* implement Record-Level security in Unicenter Service Desk. The purpose of a data partition is to restrict access to some records in DBI tables, based on the values in certain fields of those records. For example, a requirement might exist for analysts in Organization A to only see incidents whose end users are also in Organization A. If the same were true for organizations B and C, and the analysts for each organization were subject to a data partition that enforced that requirement, the table that stores incidents is effectively partitioned with regard to those analysts. In other words, an analyst in Organization A thinks that they can see all incidents on their Scoreboard, but in reality they can only see the incidents for Organization A. The same applies to analysts in organizations B and C as shown in the following graphic:

Slide 3-10



For these analysts, the database is essentially partitioned, hence the term data partition. This mechanism is ideal for a service desk outsourcing company but it equally applies internally to a single company using Unicenter Service Desk, whenever there is a requirement for people to be restricted to some records of a table and not others.



Instructor  
Notes

**Defer**

detail until later; make sure that students are happy with the overall idea and goal of data partitions.

Slide 3-11



## Define Data Partition Components

A data partition consists of a set of constraints. Each constraint identifies the controlled table that is being restricted, the *constraint type*, and a *constraint test*.

Constraint types specify what the user can do in the data partition. If the constraint test evaluates as *true*, which is a pass, the constraint type is permitted. If the constraint test evaluates as *false*, which is a fail, the constraint type is not permitted.

The following table shows the six constraint types:

Type	Pass the Constraint Test	Fail the Constraint Test
<b>View: Automatically applied to all lists selected by a user in the data partition, in addition to any selection criteria explicitly specified by the user</b>	The records can be seen.	The records cannot be seen.
<b>Pre-Update</b>	The window displaying the record allows changes to be made.	The window displaying the record does not allow changes to be made.
<b>Update</b>	Changes to the record can be successfully saved.	Changes to the record cannot be saved.
<b>Create</b>	The record can be created.	The record cannot be created.



Instructor  
Notes

**Explain** Pre-Update in comparison to Update.

**Explain** The vast majority of security concerns are dealt with using View Constraints. If contacts cannot view records, they cannot alter them. This is why joins are often needed in View Constraints—to fashion the required query to effectively prevent access to certain records. When most of the records are blocked from view, smaller, more direct queries using other constraint types isolate any other special security requirements for the remaining records. This helps to minimize the degradation of Object Manager performance.



Type	Pass the Constraint Test	Fail the Constraint Test
Delete	The record can be deleted.	The record cannot be deleted.
Defaults: Specifies values assigned to empty fields in a new record at the time the record is stored	The values populate the fields.	The values do not populate the fields.

Slide 3-12

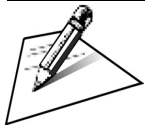


## Constraint Types are Not Permissions

Constraint types are not permissions. For example, if you constrain someone to view incidents where they are the affected end user and if they are not further constrained, they can make changes to those incidents; View does *not* mean read-only.

Think of constraint types as a boundary around records. If someone who is subject to the data partition passes the test, they can do what the constraint type specifies in that boundary.

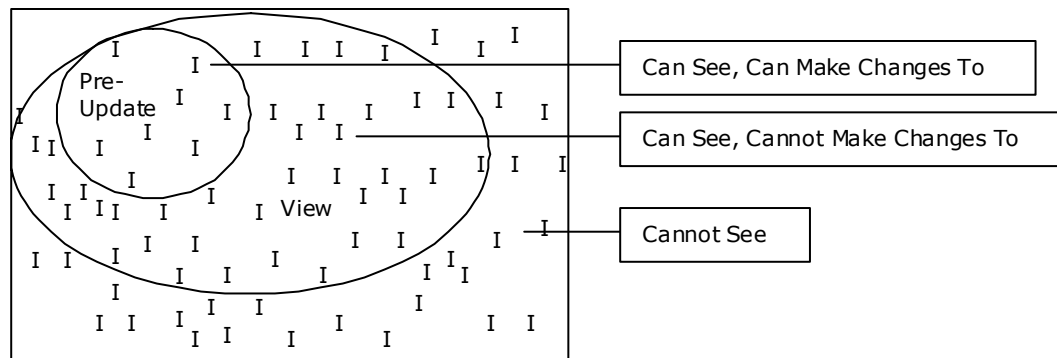
Therefore, to achieve the level of security that you require, you often need more than one constraint for the same table with a different constraint type. For example, if you further constrain the user to fail a Pre-Update constraint type, they cannot modify any incidents they can see outside that boundary.



Instructor  
Notes

**Point Out** that Defaults is not a security measure, but a convenience. Another way to populate values automatically is to use a ticket template.

Slide 3-13



Because a contact can be subject to only one data partition at a time, all the constraints specifying all the constraint types in every controlled table needs to be in that one data partition.

Data partitions are assigned to contacts and access types, which is the default data partition. There is only one data partition per contact or access type, and a data partition assigned to a contact normally overrides the data partition assigned to the contact's access type.

Slide 3-14



## Constraint Tests

Because the Object Manager runs all Unicenter Service Desk security, you must construct constraint tests in MAJIC, the object definition meta-language. These tests closely resemble an SQL WHERE clause but do not use physical or logical database table or field names. Attributes of Object Manager objects are used instead.

For example, to constrain someone from Organization A so they can only see other contacts from Organization A, you specify:

```
organization.name = 'A'
```



Instructor  
Notes

**Students**

might wonder what good the Update constraint type is. In the graphic on this page, notice the Pre-Update set of incidents. With an additional Update Constraint, it would be possible to deny saving an incident if, in the constraint test, many values were in a particular combination, and only then.

The Object Manager will convert this object-level query into a DBI-level SQL WHERE clause that mentions the table and field names:

```
ca_contact.organization_uuid = ca_organization.id AND
ca_organization.org_name = 'A' OUTER_JOIN ca_contact.id =
usp_contact.id
```

This SQL query will then be assigned to a Database Agent to query the CA-MDB.

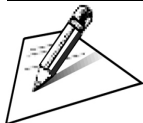
The previous query is rather inflexible; it only applies to people in Organization A. If the requirement was changed to *People can only see other contacts from the same Organization*, the query becomes more useful. To achieve this, the special word, *@root*, can be used to specify *the person who is subject to this Data Partition*. The query would then become:

```
organization = @root.organization
```

This query works regardless of the particular organization involved.

You can take advantage of the following operators for your constraint tests:

Testing Value Type	Use
String (text)	=, != (not equal to)
Arithmetic (number)	=, <> (not equal to), <, <=, >, >=
Logical	AND, OR, NOT
SQL	LIKE: Enables use of the % wildcard in text searches IN: Enables sub-select statements



Instructor  
Notes

The next topic will provide the steps to perform any object-level query.

Slide 3-15



## Master the Steps Required to Perform Any Object-Level Query for Data Partitions

- 1 Analyze the high-level requirement to isolate the three important parts of a data partition constraint:
  - The controlled table
  - The constraint type
  - The constraint test

An example is the high-level requirement *Analysts can only see Hardware Incidents*. The word *Incidents* identifies the table whose records we want to constrain, in other words, to see some incidents and not others. The word *see* identifies the constraint type; what we *can* do if we pass the test, and what we *cannot* do if we fail the test. The words *Hardware Incidents* identify the constraint test, in other words, *where* the incidents are *Hardware*. The word *analysts* might mislead you. It has nothing to do with constructing a constraint test. These are the contacts who will be subject to this data partition.

- 2 Identify the controlled table:
  - If the required table is not in the list of controlled tables, we cannot create a data partition constraint to secure its records.
  - To identify the correct controlled table, open a web page window of one of the records, press and hold CTRL, right-click the white space, and select **View Source**. In Notepad, search for **propFactory**. The propFactory value is the name of the object that is shown by the Object Manager.



Instructor  
Notes

<b>Show</b>	students how to perform all these steps.
<b>Emphasize</b>	This is the most difficult topic of the entire course. It is also the most important for students to grasp to be effective security administrators of Unicenter Service Desk. Therefore, spend as much time on this topic and the interactive demonstration as required, even at the expense of less important topics in the course.
<b>Explain</b>	The list of controlled tables can be added to with pdm_extract and pdm_userload. Bear in mind the performance degradation that can occur due to additional Object Manager querying and caching. If you have time, you can add the Act_Log table and prevent viewing of Field Update activities.

- Query the Object Manager about which table stores the object using:

```
bop_sinfo -q <object name>
```

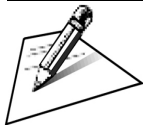
- Verify the table is in the list of controlled tables using the **Administration** tab of the Unicenter Service Desk Web Client. For example, if you open an **Incident Detail** window, you find that the object you are looking at is a *cr* object. The Object Manager notifies you that *cr* objects are stored in the *Call\_Req* table, which is in the list of controlled tables.

- 3 Identify the constraint type. The constraint type is the common verb that matches one of the constraint types in the high-level requirement. For example, the high-level requirement listed previously has the word *see* as its common verb. Of the six constraint types, the one that most closely applies is View.
- 4 Construct the constraint test:

The choice of controlled table has already informed the Object Manager which object will be constrained. Therefore, you need to identify the correct attribute of that object with which to start the object-level query. This attribute is the one that shows the information you want to test for.

To find the attribute name:

- a Open a web page window that shows those objects and note the name of the field label where you see the required information.
- b Press and hold CTRL, right-click the white space, and choose **View Source**. A search for **propFactory** will verify that you are looking at the correct object. If you do not find the object name you expected, you might have opened the wrong web page window.



Instructor  
Notes

**Show** students how to perform all these steps.

## ■ Implement Security

*Master the Steps Required to Perform Any Object-Level Query for Data Partitions*

---

- c In Notepad, search for:

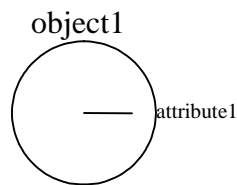
```
<field label>","
```

---

**Note •** The quote-comma-quote appended to the field label helps ensure that you will find the correct source information because it occurs only once in the file.

---

- d The next word is the attribute name. Drawing a map of the query so far will help to keep you on the right track:



You need to query the Object Manager whether the information you want to test for is directly stored in that attribute, or whether what is stored there is a reference to other objects whose attributes are storing that information. This is because a relational database is underneath, storing a record only once, and referring to it when needed.

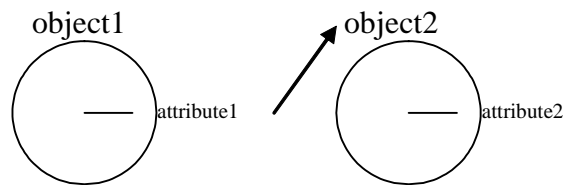


Instructor  
Notes

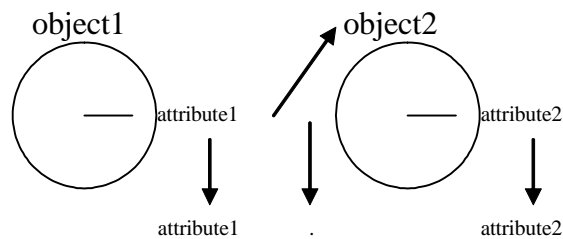
**Show** students how to perform all these steps.

You can use `bop_sinfo -d <object name>` to find out:

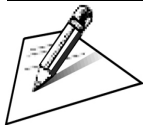
- If the attribute is listed with the word **VALUE**, the information is directly stored there and you have reached the end of the query. Note also the data type, string, integer and so forth.
- If the attribute is listed with a type of **REL**, another object name is also mentioned and a reference to that object is stored. In this case, update the map as shown in the following graphic and go back to the preceding step 4a, but this time for the next related object. Repeat the process until the information you want to test for is directly stored.



- Now that the map is complete, the query can be constructed as follows:



It is written as `attribute1.attribute2 = value`. Object names are not specified. The Object Manager selects which objects to use based on your initial choice of controlled table for the starting object and your choices of attributes, which relate to other objects as defined by the MAJIC schema.



Instructor  
Notes

**Show** students how to perform all these steps.

## ■ Implement Security

### *Master the Steps Required to Perform Any Object-Level Query for Data Partitions*

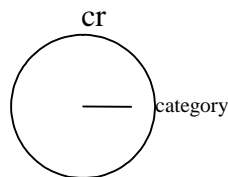
---

Also, the period (.) shown in the second graphic on the previous page expresses the relationship to another object, the arrow pointing up and right. The data type you noted earlier will determine which operators are permitted and if the value needs to be enclosed in single quotes (').

For example, the choice of *Call\_Req* as the controlled table has already informed the Object Manager that *cr* objects will be constrained. Therefore, you need to identify the correct attribute of the *cr* object with which to start the object-level query. This attribute is the one that can show the word Hardware.

To find the attribute name:

- Open an **Incident Detail** window for a Hardware incident and note the name of the field label where you see the word "Hardware". This field label is called "Incident Area".
- Press and hold CTRL, right-click the white space, and choose **View Source**. A search for **propFactory** will verify that you are looking at *cr*, which is the correct object.
- Search for Incident Area", " in Notepad.
- The next word is the attribute name, in this case the *category* attribute. Drawing a map of the query so far will help to keep you on the right track:



Instructor  
Notes

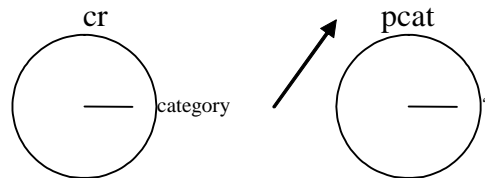
**Show** students how to perform all these steps.



You need to query the Object Manager to determine if the *category* attribute stores the word Hardware or a reference to another object having an attribute that stores the word Hardware. You can use `bop_sinfo -d cr` to find out:

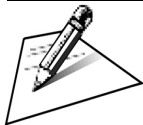
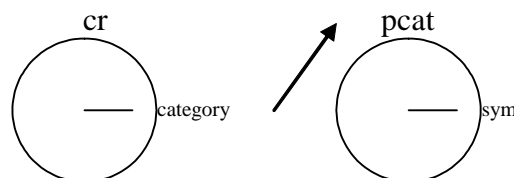
```
category                SREL  string  --> pcat
```

From the previous output, you can see that the *category* attribute of a *cr* object references *pcat* objects. Update the map as shown in the following graphic:



You now repeat the process, this time for *pcat* objects.

- Open the Request/Incident/Problem Area Detail window for Hardware and note the name of the field label where you see the word Hardware.
- Press and hold CTRL, right-click the window, and choose View Source. A search for propFactory will verify that you are looking at the correct object, in this case *pcat*.
- Search for Symbol " , " in Notepad.
- The next word is the attribute name, in this case *sym*. Update the map as shown in the following graphic:



Instructor  
Notes

<b>Show</b>	students how to perform all these steps.
<b>Point out</b>	to students that their administrative experience will enable them to pick the right web page to verify that they are looking at the correct related object.
<b>Explain</b>	that while the Symbol and Description fields have the word Hardware, Symbol is required and therefore the best choice.

## ■ Implement Security

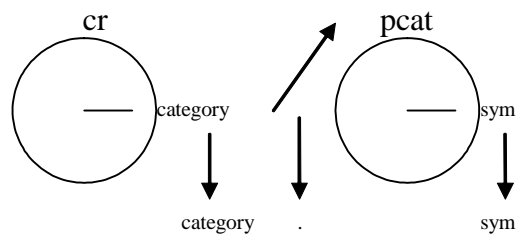
### Create the Data Partition Constraint Record

---

- You need to query the Object Manager to determine what is stored in the *sym* attribute. It might be the word Hardware or a reference to another object that stores the word Hardware in one of its attributes. You can use `bop_sinfo -d pcat` to display the following output:

```
sym          VALUE string (30)
```

From the previous output, you can see that the *sym* attribute does directly store the word Hardware because of the word VALUE. Therefore the map is complete and you can construct the following query:



It is written as:

```
category.sym = 'Hardware'
```

---

**Note** • Single quotes are used because of the string data type.

---

## Create the Data Partition Constraint Record

Now that you have worked out all the required information on paper, you can create the data partition constraint record.

To create a new data partition, on the Administration tab, expand Security and Data Partitions and then select Data Partition List. Click Create New. Name the data partition, click Save, and click New Constraint.



Instructor  
Notes

**Show** students how to perform all these steps.

If you create constraints in the data partition, the system fills in the Data Partition Name for you. Select the Table Name, the Constraint Type, and type the constraint test into the Constraint field. You can also type a custom message in the Error Message field which will display if the test fails for a Pre-Update, Update, Create, or Delete constraint type.

When you click Save, you can then reopen the constraint by selecting it. If you then select the SQL Translation tab, you will see the DBI SQL statements that comprise your object-level query. You cannot write the SQL statements directly.

For example:

**Table Name:** Call\_Req

**Constraint Type:** View

**Constraint:** category.sym = 'Hardware'

Gives an SQL translation of:

```
Call_Req.category = Prob_Category.persid AND  
Prob_Category.sym = 'Hardware'
```

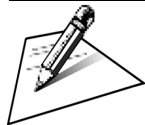
Slide 3-16



## **Convert the Constraint Test into a High-Performance Test**

The data partition constraint test that you have created was relatively straightforward to construct; this is because you saw the information you wanted to test in the Unicenter Service Desk Web Client.

It is preferable to create these tests this way because, even though it seems laborious, it can be verified at every step along the way.



Instructor  
Notes

**Show** students how to perform all these steps.

## ■ Implement Security

### Convert the Constraint Test into a High-Performance Test

If, however, your test contains a period on the left side of the operator, an object-level join, the performance of the test can be optimized. Only in View Constraints is an object-level join permitted; therefore, for all other constraints, you must optimize the query to remove any joins.

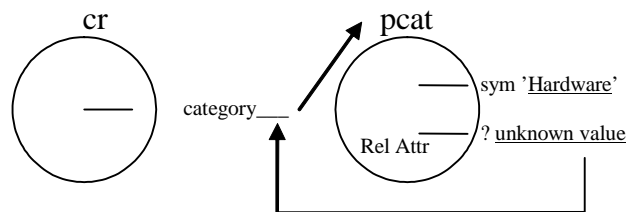
For example, the analysis of the SQL Translation on the previous page shows the Object Manager searching through all records in the *Prob\_Category* table to find the one with a *sym* of Hardware, its *persid* value, and using that value to match with the *category* field of records in the *Call\_Req* table. There might be thousands of records in the *Prob\_Category* table. Therefore, this is a very inefficient query.

If you were to test only for the value stored in the *category* field in the *Call\_Req* table, the Object Manager would not have to search the *Prob\_Category* table at all. This would improve performance.

For example, the query needs to look like: `category = X`.

In MAJIC, every object is defined with a Relative Attribute (*Rel Attr*). The value of this attribute is stored in the attribute of a referencing object.

For example, the value of the Relative Attribute of a *pcat* object is stored as a reference in the *category* attribute of a *cr* object.



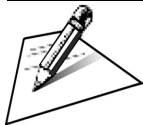
Instructor  
Notes

**Show** students how to perform all these steps.

If you can find the relative attribute value for the *pcat* object that has a *sym* of 'Hardware', you can use that value to test the *category* attribute of *cr* objects, thereby removing the *.sym* from the query. Relative attribute values are usually not visible in the client; you must extract the value from the database.

To do this, you need to perform the following:

- a Find the name of the relative attribute of the referenced object using:  
`bop_sinfo -f <object name>`
- b Find the table that stores the referenced object using:  
`bop_sinfo -q <object name>`
- c Find the field names of the referenced object using:  
`bop_sinfo -da <object name>`
  - The field that stores the attribute you want to remove from the constraint test—the known attribute value
  - The field that stores the relative attribute value—the unknown attribute value
- d Extract the *Rel Attr* value from the database using the information gained in steps a, b, and c using:  
  
`pdm_extract -f "SELECT <unknown field> FROM <table>  
WHERE <known field> = <known value>"`
- e Find the data type of the *Rel Attr* to format the constraint test correctly.
- f Remove *.attribute* from the end of the constraint test and test for the newly obtained value. The data type, for example, integer, string, or uuid, determines if single quotes are required.



Instructor  
Notes

- Show** students how to perform all these steps.
- Point out** to students that, for data partitions only, they can see all the table and field names on the SQL Translation tab and, therefore, do not need to follow steps a through c. This is a generic procedure; it is needed to make high-performance stored queries.

## ■ Implement Security

### *Convert the Constraint Test into a High-Performance Test*

---

For example:

- a Find the name of the relative attribute of the pcat object using `bop_sinfo -f pcat` to generate the following result:  

```
Rel Attr      = persistent_id
```
- b Find the table that stores the referenced object using `bop_sinfo -q pcat` to generate the following result:  

```
Prob_Category
```
- c Find the field names of the referenced object using `bop_sinfo -da pcat` and looking for the following output:
  - The field that stores the attribute you want to remove from the constraint test—the known attribute value
  - The field that stores the relative attribute value—the unknown attribute value

The result is:

```
persistent_id      VALUE string (60)  DDict(persid)
sym                VALUE string (30)
```

---

**Note** • The DDict name is the field name of the attribute. If an attribute has no DDict name, the field name is the same as the attribute name.

---

- d Extract the *Rel Attr* value from the database using the information gained in steps a, b, and c using `pdm_extract -f "SELECT persid FROM Prob_Category WHERE sym = 'Hardware'"`  

```
TABLE Prob_Category
  persid
  { "pcat:5101" }
```



Instructor  
Notes

**Show** students how to perform all these steps.

- e Find the data type of the *Rel Attr* to format the constraint test correctly in previous step c, `persistent_id` is a `string` data type.
- f Remove `.sym` from the end of the constraint test and test on the newly obtained value:

```
category = 'pcat:5101'
```

## Interactive Demonstration: Part One



**Task Purpose:** Create a data partition for the Repair Technicians in Seattle.

As the RBC Unicenter Service Desk administrator, you want to help ensure that technicians can *see* any incidents, problems, or requests assigned to the Seattle Support group, but only *work on* those that are also assigned to them. From the preceding requirement, you must identify the three important pieces of information to build the data partition constraint records:

- Table name
- Constraint type
- Constraint (test)

---

**Note** • The words *incidents*, *problems*, and *requests* are the records that will be constrained by the data partition constraint. Identify the correct table name for the data partition constraint by opening Incident, Problem, and Request windows, viewing the source of the window, and finding the value of `propFactory`.

---

- 1 Log in as the administrator.
- 2 Select the **Service Desk** tab.
- 3 To open the **Create New Incident** window, choose **File ► New Incident**.



Instructor  
Notes

- Show** how much shorter the SQL Translation is with the high-performance query—no join to other tables, direct testing of the controlled table, and so on.
- See** the *Instructor Appendix* for additional data partition exercises. It is vital that students gain as much experience as possible in converting the high-level requirement into the object-level query. Create the constraint record, but do not test it on a contact unless you have already determined that you have ample time to do so.

- 4 Press and hold CTRL and then right-click the white space in the **Create New Incident** window.
- 5 Choose **View Source**.
- 6 To search for **propFactory**, select **Edit** and choose **Find**.  
This shows the object as a *cr* object.
- 7 Close **Notepad**.
- 8 To close the **Create New Incident** window, click **Close Window**.

The following steps show that **Problems** and **Requests** are also *cr* objects. If content with this, go to step 21.

- 9 To open the **Create New Problem** window, choose **File ► New Problem**.
- 10 Press and hold CTRL and then right-click the white space in the **Create New Problem** window.
- 11 Select **View Source**.
- 12 To search for **propFactory**, choose **Edit ► Find**.  
This shows the object as a *cr* object.
- 13 Close **Notepad**.
- 14 To close the **Create New Problem** window, click **Close Window**.
- 15 To open the **Create New Request** window, choose **File ► New Request**.
- 16 Press and hold CTRL and then right-click the white space in the **Create New Request** window.
- 17 Select **View Source**.



Instructor  
Notes



- 18 To search for **propFactory**, choose **Edit ► Find**.

This shows the object as a *cr* object.

- 19 Close **Notepad**.

- 20 To close the **Create New Request** window, click **Close Window**.

In each case, the value of **propFactory** is **cr**. Therefore, incidents, problems, and requests must be stored in one table. You need to find out which table this is.

- 21 Open a command prompt window.

- 22 At the prompt, type `bop_s info -q cr` and press **ENTER**.

The output shows the Table Name as *Call\_Req*. You can check the list of controlled tables to see if the returned Table Name *Call\_Req* is there.

- 23 Return to the **Unicenter Service Desk** main window and select the **Administration** tab.

- 24 In the left pane, expand **Security** and **Data Partitions** and then select **Data Partition Controlled Tables**.

The *Call\_Req* table appears in the list. A data partition constraint record can be created to secure records in this table.



Instructor  
Notes



## Interactive Demonstration: Part Two

**Task Purpose:** Identify which constraint type to use for the data partition constraint record.

In the requirement listed at the start of the previous interactive demonstration, there are two items, *see* and *work on*, that translate as constraint types. Two data partition constraint records are needed for this data partition. You need to open a new data partition constraint record to look at the constraint types:

- 1 On the **Administration** tab, select **Data Partition Constraints**.
- 2 To open the **Create New Data Partition Constraint** window, click **Create New**.

Notice that the constraint type list contains the word **View**. **View** is the constraint type that most closely matches the word *see*. Also, notice that the constraint type list contains the words **Pre-Update** and **Update**. Two constraint types, **Pre-Update** and **Update** most closely match the words *work on*. You must choose **Pre-Update** so technicians do not waste time filling out a record only to have the Save denied.

- 3 Click **Close Window**.

## Interactive Demonstration: Part Three



**Task Purpose:** Construct the View constraint test.

Because two data partition constraint records are required, there are two constraint tests are required. You need to construct the View constraint test first. To find the correct starting point for the test, open an incident record and identify the window label for the field that denotes the group assignee of an incident. From the previous interactive demonstration, you know that you are dealing with *cr* objects. You need to find the name of the *cr* object attribute for the **Group** window label:

- 1 Select the **Service Desk** tab.
- 2 To open the **Create New Incident** window, choose **File ► New Incident**.



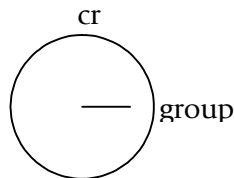
Instructor  
Notes

- 3 Press and hold CTRL and then right-click the white space in the **Create New Incident** window.
- 4 Choose **View Source**.
- 5 Search for the **Group** window label. Append " , " to the search text so the search text is `Group" , "`

This combination appears only once in the source file. The next word shows the attribute of the `cr` object as **group**.

- 6 Close **Notepad**.

Now, draw a diagram to act as a map of the information discovered to aid in the construction of the constraint test:



Although you can see the name of a group in the window, that word might not be stored there to test. To determine this, query the Object Manager whether the words **Seattle Support** are directly stored there or whether what is stored there is a reference to another record in the database that has the words **Seattle Support** in it. You can do this by using the `bop_sinfo` utility to investigate the `group` attribute of the `cr` object:

- 7 At the prompt, type `bop_sinfo -d cr` and press ENTER.
- 8 To locate `group SREL uuid --> grp`, scroll through the results.



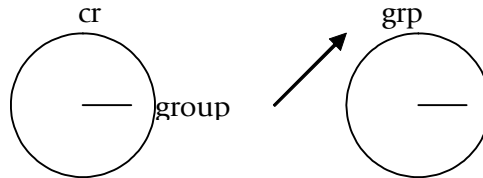
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Notes

## ■ Implement Security

### *Interactive Demonstration: Part Three*

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The word SREL indicates that the words **Seattle Support** will not be stored for **group** but a reference to one of the *grp* objects is stored instead. Now, update the map as follows:



The reference data is unknown presently so you need to test for the words **Seattle Support**. To do this, you need to know which attribute of a **grp** object might have the value of **Seattle Support**. Group records can be seen in the client so you open the **Seattle Support Group Detail** window and identify the window label for the field that denotes the name of the group—in other words, **Group Name**. You need to find the name of the **grp** object attribute for the **Group Name** window label:

- 9 Minimize the command prompt window.
- 10 In **Unicenter Service Desk**, select **Search** and **Groups**.
- 11 In the **Group Name** field, type **sea%** and click **Search**.
- 12 To open the **Seattle Support Group Detail** window, click **Seattle Support**.
- 13 Press and hold **CTRL** and then right-click the white space in the **Seattle Support Group Detail** window.
- 14 Choose **View Source**.
- 15 Search for the **Group Name** window label. Append " , " to the search text so the search text is **Group Name", "**. This combination appears only once in the source file. The next word shows the attribute of the **grp** object as **last\_name**.
- 16 Close **Notepad**.



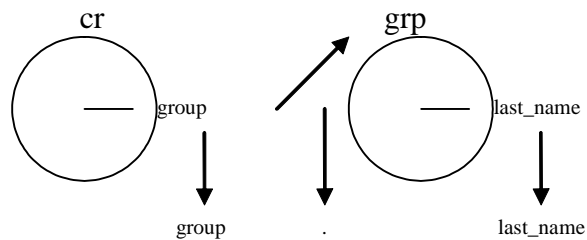
Instructor  
Notes

To find out if the words **Seattle Support** are stored directly in the **last\_name** attribute of the **grp** object, you can use the **bop\_sinfo** utility:

17 At the command prompt, type **bop\_sinfo -d grp** and press ENTER.

18 To locate **last\_name VALUE string (100)**, scroll through the results.

Because **last\_name** has the word **VALUE** associated with it instead of some kind of **REL**, it means that the data is directly stored there. When the attribute that directly stores the data to be tested is reached, the map is complete and the constraint test can be built. You update the map as follows:



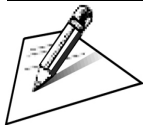
You can now build the constraint test: `group.last_name = 'Seattle Support'`

---

**Note** • Object names are *never* mentioned; a period expresses the SREL reference. String values are enclosed in single quotes.

---

19 Minimize the command prompt window.



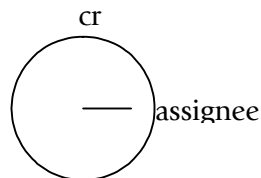
Instructor  
Notes



## Interactive Demonstration: Part Four

**Task Purpose:** Repeat the process for the Pre-Update constraint test.

- 1 Return to the **Create New Incident** window or open a new one.
- 2 Press and hold CTRL and then right-click the white space in the **Create New Incident** window.
- 3 Choose **View Source**.
- 4 Search for the window label of **Assignee**. Append " , " to the search text so **Assignee", "** is the search text. This combination appears only once in the source file. The next word shows the attribute of the *cr* object as **assignee**.
- 5 Close the source file window and draw the following map:

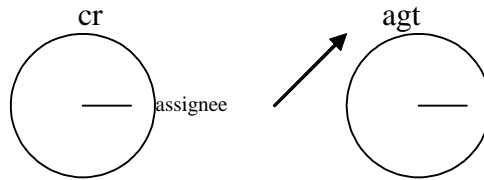


- 6 In the command prompt window, type `bop_sinfo -d cr` and press ENTER.
- 7 To locate `assignee SREL uuid --> agt`, scroll through the results.



Instructor  
Notes

8 Update the map as follows:



This time, if you want to test for a particular assignee, you would need to include every assignee in the Seattle Support group, which would be inefficient and tedious. You can use the special term *@root*, which refers to the logged in user who is subject to this data partition. This will make the constraint test flexible, so it works for whoever it is applied to. According to the Object Manager, *@root* is always a *cnt* or *agt* object because data partitions are always applied to *cnt* or *agt* objects. These two objects represent people.

An *agt* object is actually a child object or a subset of *cnt* objects. The *agt* objects are created from *cnt* objects with a contact type of Analyst with the express purpose of choosing only analysts as the assignee on a ticket. However, you still need to test a value of an attribute. The attribute used with *@root* is always the relative attribute, *Rel Attr*, of a *cnt* object. You need to find which attribute this is by using the *bop\_sinfo* utility:

- 9 At the prompt, type `bop_sinfo -f agt` and press ENTER.
- 10 Scroll through the results to locate *Rel Attr = id*.

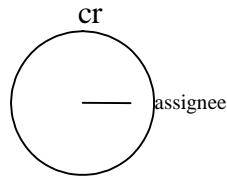


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Notes

#### Clarify

You can clarify child objects to students if necessary. Here is your opportunity to explain the producer line of a `bop_sinfo -f` output. Students need to know why, when they select an assignee, an *Analyst* selection list appears instead of a *Contact* selection list. It is also an opportunity to explain the *any\_contact* option.

The *Rel Attr* value is always directly stored in the attribute of a referencing object—in this case, *cr* object, **assignee** attribute. Therefore, when using *@root*, you do not need to follow the SREL. Hence, the map reverts to the first stage as follows:



The map is complete because you are now testing, with *@root*, the value directly stored in the **assignee** attribute of the *cr* object. The constraint test can now be built:

```
assignee = @root.id
```

## Interactive Demonstration: Part Five



**Task Purpose:** Create the data partition and add the two constraints to it.

You now have all the information required to build the two data partition constraint records. First, you need to create the data partition named Repair Techs and add the two constraints to it:

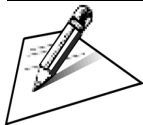
- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Administration**, **Security**, and **Data Partitions** and then select **Data Partition List**.
- 3 To open the **Create New Data Partition** window, click **Create New**.
- 4 Type **Repair Techs** in the **Data Partition** field.
- 5 Type **Data Partition for Repair Technicians** in the **Description** field.
- 6 Click **Save**.



Instructor  
Notes



- 7 To open the **Create New Data Partition Constraint** window, click **New Constraint**.
  - 8 Type `Call_Req` in the **Table Name** field.
  - 9 From the **Constraint Type** list, select **View**.
  - 10 Type `group.last_name = 'Seattle Support'` in the **Constraint** field.
  - 11 Click **Save**.
  - 12 To return to the **Data Partition Detail** window, click **Close Window**.
  - 13 To open the **Create New Data Partition Constraint** window, click **New Constraint**.
  - 14 Complete the fields as follows:
    - a **Table Name:** `Call_Req`
    - b **Constraint Type:** `Pre-Update`
    - c **Constraint:** `assignee = @root.id`
    - d **Error Message:** You cannot make changes to this record because you are not the Assignee!
  - 15 Click **Save** and then click **Close Window**.
- You need to assign the data partition to the **Repair Techs** access type and log in as Frank Wood to verify functionality.
- 16 In the left pane, expand **Security** and select **Access Types**.
  - 17 To open the **Repair Techs Access Type Detail** window, click **Repair Techs**.
  - 18 Click **Edit**.



Instructor  
Notes

## ■ Implement Security

### *Interactive Demonstration: Part Five*

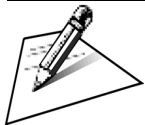
---

- 19 Type **Repair Techs** in the **Data Partition Name** field.
- 20 Select **Override Contact Data Partition?**.
- 21 Click **Save**.
- 22 To return to the **Access Type List**, click **Close Window**. Now, consider the following:
  - a Can Frank see any incidents, problems, or requests that are *not* assigned to the Seattle Support group? (No. If there are none, use the client logged in as administrator to make one.)
  - b Can Frank make changes to any incidents, problems, or requests that are *not* assigned to him? (No)
- 23 Open a second **Unicenter Service Desk** window using **woofr01** to log in.
- 24 Select the **Service Desk** tab.
- 25 In the left pane, review the contents of the following **Scoreboard** nodes:
  - a **Requests ▶ Assigned**
  - b **Requests ▶ Unassigned**
  - c **Problems ▶ Assigned**
  - d **Problems ▶ Unassigned**
  - e **Incidents ▶ Assigned**
  - f **Incidents ▶ Unassigned**
  - g **My Queue**
- 26 Return to the **Unicenter Service Desk** main window into which you are logged as administrator.



Instructor  
Notes

- 27 To open the **Create New Incident** window, choose **File ► New Incident**.
- 28 Complete the fields as follows:
  - a **Affected End User:** Administrator
  - b **Group:** Seattle Support
  - c **Description:** DP Test
- 29 Click **Save** and then click **Close Window**.
- 30 To open the **Create New Problem** window, choose **File ► New Problem**.
- 31 Complete the fields as follows:
  - a **Affected End User:** Adm
  - b **Group:** Seattle Support
  - c **Description:** DP Test
- 32 Click **Save** and then click **Close Window**.
- 33 To open the **Create New Request** window, choose **File ► New Request**.
- 34 Complete the fields as follows:
  - a **Affected End User:** Adm
  - b **Group:** Seattle Support
  - c **Description:** DP Test
- 35 Click **Save** and then click **Close Window**.
- 36 Return to the **Unicenter Service Desk** main window into which you are logged in as Frank Wood.



Instructor  
Notes

## ■ Implement Security

### *Interactive Demonstration: Part Five*

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- 37 Select the **Service Desk** tab and click **Update Counts**.
- 38 To verify that **DP Test** appears, in the left pane, expand **Incidents** and **Assigned** and then select **All**.
- 39 To verify that **DP Test** appears, expand **Problems** and **Assigned** and then select **All**.
- 40 To verify that **DP Test** appears, expand **Requests** and **Assigned** and then select **All**.
- 41 Right-click the request number and choose **Edit**. At this point, the following message appears:  
You cannot make changes to this record because you are not the Assignee!
- 42 Click **Close Window** and return to the **Unicenter Service Desk** main window into which you are logged as administrator.
- 43 Expand **Requests** and **Assigned** and then select **All**.
- 44 Right-click the number corresponding to **DP Test** and choose **Edit**.
- 45 Type Wood , Frank in the **Assignee** field.
- 46 Click **Save** and then click **Close Window**.
- 47 Return to the **Unicenter Service Desk** main window into which you are logged as Frank Wood.
- 48 Right-click the request number corresponding to **DP Test** and choose **Edit**.
- 49 In the **Description** field, type change after the existing content.
- 50 Click **Save** and then click **Close Window**.
- 51 Log out and close the **Unicenter Service Desk** main window into which you were logged as Frank Wood.



Instructor  
Notes

## Interactive Demonstration: Part Six



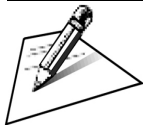
**Task Purpose:** Remove the last *.attribute* from every part of the constraint test.

The data partition works as intended. However, in the View constraint, because of the object joins involved (the periods), the Object Manager pulls entire joined tables, which reduces performance. You want to optimize the constraint test by removing the last *.attribute* from every part of the constraint test. That is, the constraint test will look like `group = X`. To do this, you need to:

- Find the table that stores the referenced object.
- Find the field that stores the attribute you want to remove from the constraint, in this case, the *last\_name* attribute of the *grp* object.
- Find the field that stores the *Rel Attr* value, which is always stored in the attribute of the referencing object, in this case, the *group* attribute of the *cr* object.
- Extract the *Rel Attr* value from the database using the information gained.
- Find the data type of the *Rel Attr* to format the constraint correctly.
- Remove the *.attribute* from the end of the constraint test and use the newly obtained value to test. The data type—integer, string, uuid, and so forth—determines whether single quotes are required.

The easiest way to find the table and field names is to analyze the **SQL Translation** tab of the View constraint:

- 1 Return to the **Unicenter Service Desk** main window, into which you are logged in as **Administrator**, and select the **Administration** tab.
- 2 In the left pane, expand **Security** and **Data Partitions**, and then select **Data Partition List**.
- 3 Right-click **Repair Techs** and choose **View**.



Instructor  
Notes

## ■ Implement Security

### *Interactive Demonstration: Part Six*

---

- 4 Right-click the *Call\_Req* constraint for the **View** constraint type and choose **View Condition**.

- 5 Select the **SQL Translation** tab and notice the following query:

```
Call_Req.group_id = ca_contact.id AND  
ca_contact.last_name = 'Seattle Support'
```

This SQL query causes the Database Agent to call up the entire **ca\_contact** table and search it for **Seattle Support**. When the **Seattle Support** record is found, the Database Agent uses the **id** of that record to test against the records in the *Call\_Req* table.

You need to extract the **id** from the **ca\_contact** table where the **last\_name** is **Seattle Support**, using the `pdm_extract` utility:

- 6 At the command prompt, type:

```
pdm_extract -f "SELECT id FROM ca_contact WHERE last_name =  
'Seattle Support'"
```

and press ENTER.

The **id**, for example, `2BE54D9B1E73514A88A2B1ECA1AFC114` appears in quotes. This is the value you need to test to remove the `last_name` from the constraint test.

- 7 Copy the **id** value derived from the previous step to the clipboard or to a text file.

Before building the high-performance constraint test, you can retrieve the data type of the **group** attribute of the *cr* object that stores the **id** value using the `bop_sinfo` utility:

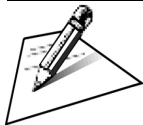
- 8 Type `bop_sinfo -d cr` and press ENTER.
- 9 Scroll through the list to locate **group SREL uuid --> grp**.



Instructor  
Notes

A Universally Unique Identifier (uuid) is a very large hexadecimal number. Because of the hexadecimal characters A-F, the value must use single quotes. The whole number is preceded with the special character, U, denoting that a uuid follows. This special character is necessary so the number is not handled as a string by the Object Manager. Now, you have all the information required to optimize the constraint test. You can modify the constraint test and view the **SQL Translation** tab to see how much shorter and better performing the new SQL query is.

- 10 Minimize the command prompt window and return to the **Data Partition Constraint Detail** window.
- 11 Click **Edit** and select the **Constraint** tab.
- 12 Clear the contents of the **Constraint** field.
- 13 In the **Constraint** field, type `group = U ' '` and then paste the **uuid** value that you copied in preceding step 8 between the two single-quote characters.
- 14 Click **Save**.
- 15 Right-click the *Call\_Req* constraint for the **View** constraint type and choose **View Condition**.
- 16 Select the **SQL Translation** tab and notice the query, for example:  
`Call_Req.group_id = U '2BE54D9B1E73514A88A2B1ECA1AFC114 '`  
This query does not leave the table that is being constrained. It has minimal database performance impact.
- 17 To return to the command prompt window, click **Close Window** twice.
- 18 Close the command prompt window.



Instructor  
Notes

### **Task Summary**

You learned how to create a data partition that helps to ensure technicians can see any incidents, problems, or requests assigned to their group, but only work on those that are also assigned to them. This way, there is no confusion among technicians because they have high visibility of their assigned tasks. As a result, the Unicenter Service Desk will operate more efficiently.



Instructor  
Notes



## Skill Builder: Create a Data Partition

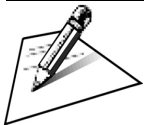


### Business Problem

RBC provides internal support services to their own organization. This large organization contains a lot of professional groups and assignees.

Due to security concerns, RBC recently introduced a new policy that restricts analysts to view only tickets from their own group. In addition, this new policy also states that analysts can only update tickets assigned to them. Daniel Schiller is a new hired assignee who has just joined the Chicago Networks group.

You need to create a new data partition for Daniel Schiller. Create the partition so he can see any incidents, problems, or requests assigned to the Chicago Networks group, but can only update those that are assigned to him.



Instructor  
Notes

See the solution to the skill builder in the appendix "Skill Builder and Assessment Solutions."

## **Assessment**

1 How are users referred to in Unicenter Service Desk?

- a Groups
- b Objects
- c Contacts
- d Attributes

Correct answer: c

2 Which level of security secures whole collections of objects?

- a System-Level
- b Record-Level
- c Column-Level
- d Service-Desk level

Correct answer: a

3 What is the key to setting up security in Unicenter Service Desk?

- a Partitioning
- b Creating DBI tables
- c Defining contacts and permissions
- d Defining access types and relating them to contacts

Correct answer: d



Instructor  
Notes

4 What comprises a data partition?

- a A set of records
- b A set of contacts
- c A set of attributes
- d A set of constraints

Correct answer: d



Instructor  
Notes

Slide 3-17



## Module Summary

***You should now be able to:***

- Create Contacts and Groups
- Define the Levels of Unicenter Service Desk Security
- Create Access Types
- Create Data Partitions

As the Unicenter Service Desk administrator for RBC, you set control of the assigned contacts, provided groups as an assignment responsibility, and provided finer control of security. This enables you to effectively control access to Unicenter Service Desk and improve efficiency in your organization.



Instructor  
Notes

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# **Administer Stored Queries**

Slide 4-1



## Module Objectives

*After this module, you will be able to:*

- Create Stored Queries for the Scoreboard
- Create Time-based Stored Queries

## Module Overview

Stored queries provide customized information on the scoreboard that is relevant to each user. As a Unicenter Service Desk administrator for RBC, you are responsible for creating stored queries, which users can choose for customizing their scoreboards. In your role, you also develop stored queries that count objects in a time frame. These skills will help you increase end-user satisfaction and systems productivity.



Instructor  
Notes

Slide 4-2



## Task 1: Create Stored Queries for the Scoreboard

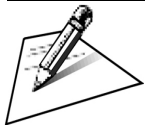
Slide 4-3



The purpose of a stored query is to provide a count of objects on a node on the scoreboard. When you customize your scoreboard or the scoreboard for an access type, you assign a stored query to scoreboard nodes. You can choose from the list of stored queries that are supplied with Unicenter Service Desk or you can create your own.

Creating a stored query is very similar to creating a data partition constraint. You stipulate to the object manager the object to use in the stored query. You also specify a WHERE clause, which is an object-level query. This query can contain object-level joins, denoted as periods. The major difference between creating a stored query and a data partition constraint is the starting attribute for the object-level query. The starting attribute must be an attribute of the object you are trying to count. For example, if you want to provide the configuration management staff with a *count of In Repair Configuration Items*, open a Configuration Item Detail window. Then, identify the window label that permits you to specify *In Repair* in the Status field on the Inventory tab.

From this point on, the process is similar to constructing data partition constraint tests. The same operators are available for stored query WHERE clauses. The same requirement exists to optimize the query if it has object-level joins in it—this time purely from a performance aspect.



Instructor  
Notes

## ■ Administer Stored Queries

### Task 1: Create Stored Queries for the Scoreboard

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Slide 4-4



The object manager must cache the stored queries used by all clients. Not only is this a concern for performance, it also means that if you change a stored query, there are only two ways you can verify that the modification is working properly. You can log out and back in because this forces the object manager to re-cache your stored queries. Alternatively, you can delete the node and add it back to your scoreboard. This forces the object manager to re-cache that individual stored query.

When you are constructing stored query WHERE clauses, there is a special word, *@cnt*, that can be used to refer to the contact who has this node on their scoreboard. This special word can also be used in the *Label* of a stored query to make the stored query applicable to whoever is using it.

For instance, *@cnt.location.name* in the Label is replaced with the location name of the contact. In another example, a stored query counting contacts in the same organization as the person using the stored query will be:  
*organization = @cnt.organization.*



Instructor  
Notes

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<b>Use</b>	<i>@root</i> for data partitions and <i>@cnt</i> for stored queries.
<b>See</b>	the "Instructor Appendix" for additional Stored Query exercises. It is important that students gain the experience of translating the high-level requirement into the object-level query. Only test the query on the scoreboard if you have already determined that you have enough time to do so.



## Interactive Demonstration Part 1



**Task Purpose:** Create a stored query.

As the Unicenter Service desk administrator for RBC, you want to create a stored query that counts and displays a list of Active Hardware incidents. To do this, you need to determine which object the Incident window shows and which attribute of the object denotes it is active.

---

**Note •** While you work through the procedure, you will draw and update a mapping diagram to help you understand the construction of the stored query.

---

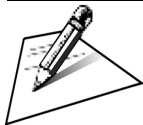
- 1 On the **Service Desk** tab, choose **File ► New Incident**.

---

**Note •** Notice that the **Active?** field denotes if the incident is active.

---

- 2 Press and hold **CTRL**, right-click the white space in the **Create New Incident** window, and choose **View Source**. The source file window opens.
- 3 Search for **propFactory** in the source file window. It appears as a **cr** object.
- 4 Search for the window label of **Active?** by appending “,” to the search text. The **Active?,”** combination appears once in the source file window. The next word is **active**, which is the attribute of the **cr** object.
- 5 Close the source file window.



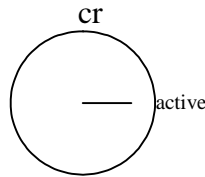
Instructor  
Notes

## ■ Administer Stored Queries

### Interactive Demonstration Part 1

---

- 6 Draw a diagram mapping the information discovered. An example of the diagram is depicted in the following graphic:



Even though you can see the word **YES** in the **Active?** field in the **Incident** window, it might not be stored there. To find out, you query the object manager to determine which of the following is stored there:

The word YES

A reference to another object that contains the word YES

- 7 Open a command prompt window.
- 8 At the prompt, type `bop_sinfo -d cr` and press ENTER.

The `bop_sinfo` utility is used to investigate the *active* attribute of the *cr* object to find:

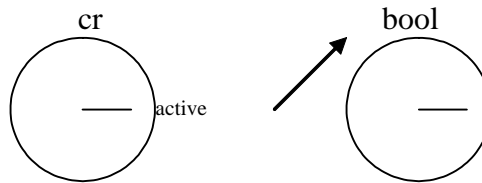
```
active SREL integer --> bool
```

SREL indicates that a reference to one of the *bool* objects, not the word YES, is stored in the *active* attribute of a *cr* object.



Instructor  
Notes

- 9 Update the map as shown in the following graphic:



The reference data is still unknown, so you still want to test for the word YES. To do so, you need to know which attribute of a *bool* object might contain the value YES. Unfortunately, *bool* objects cannot be seen in the client, so you need to query the object manager to see which attribute is a likely candidate.

- 10 Type `bop_sinfo -da bool` and press ENTER.

The only string-valued attribute that is not for internal use is *sym*. Also, *sym* has the word *VALUE* associated with it instead of some kind of *REL*, which means that the data is directly stored there.

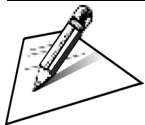
To verify that *sym* is the correct attribute to use for the stored query, you find the name of the table that stores *bool* objects and extract it from the database.

- 11 To find the table name, type `bop_sinfo -q bool` and press ENTER.

The output shows that `Boolean_Table` is the name of the table.

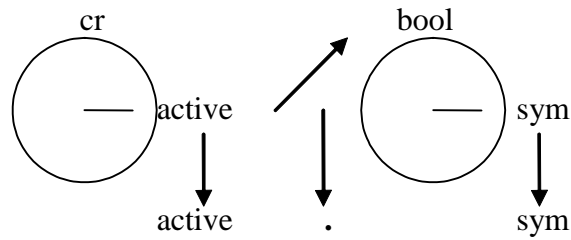
- 12 To extract the table from the database, type `pdm_extract Boolean_Table` and press ENTER.

From this output, you see that the *sym* field contains the word YES. Now that you have found the attribute that directly stores the data to be tested, you can update the map.



Instructor  
Notes

13 Update the map as shown in the following graphic:



You can now build the first part of the query, which is *active.sym* = 'YES'. Follow these guidelines:

- *Never* mention object names.
- A period expresses the SREL reference.
- String values are enclosed in single quotes.



Instructor  
Notes

## Interactive Demonstration Part 2



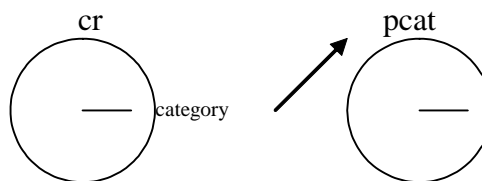
**Task Purpose:** Create the incident area part of the stored query.

After determining the object shown on the Incident window and the attribute that denotes it is Active, the next step as the Unicenter Service Desk administrator for RBC is to create the incident area part of the query. In this case, it is for Hardware.

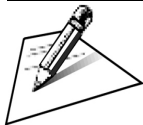
- 1 Press and hold CTRL, right-click the white space in the **Create New Incident** window, and choose **View Source**.
- 2 Search for the window label of **Incident Area** by appending “,” to the search text. The `Incident Area`,” combination appears once in the source file window. The next word is `category`, which is the attribute of the `cr` object.
- 3 Close the source file window.
- 4 Open a command prompt window.
- 5 At the prompt, type `bop_sinfo -d cr` and press ENTER.

The output, `category SREL string --> pcat`, shows that the *category* attribute of a *cr* object has an SREL to *pcat* objects.

- 6 Update the map, as shown in the following graphic:



This time, incident area records can be seen in the client, so you can find the attribute easily by opening the **Hardware Incident Area Detail** window.



Instructor  
Notes

## ■ Administer Stored Queries

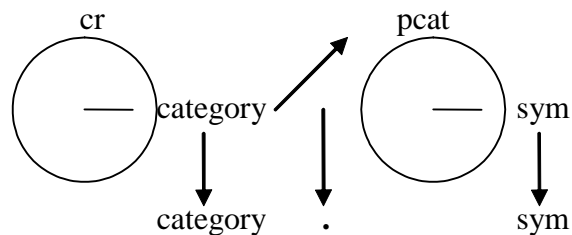
### Interactive Demonstration Part 2

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- 7 Return to the **Unicenter Service Desk Incident** window and click **Cancel**.
- 8 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 9 Expand **Service Desk** and **Requests/Incidents/Problems** and select **Area**.
- 10 Select **Hardware**.
- 11 Press and hold **CTRL**, right-click the white space of the **Request/Incident/Problem Area Detail** window, and choose **View Source**.
- 12 Search for `propFactory` in the source file window. It appears as a `pcat` object, which verifies that the map is correctly drawn so far.
- 13 Search for the window label of `Symbol` by appending  `, "` to the search text. The `Symbol" , "` combination appears once in the source file window. The next word is `sym`, which is the attribute of the `pcat` object.
- 14 At the prompt, type `bop_sinfo -d pcat` and press **ENTER**.

The output, `sym VALUE string (30)`, shows that the `sym` attribute of a `pcat` object does directly store values like "Hardware"; the word `VALUE` tells you this. The data type, `string`, also matches storing a word like "Hardware".

- 15 Update the map as shown in the following graphic:



Instructor  
Notes

The incident area part of the query becomes *category.sym* = 'Hardware'. The two parts of the stored query need to be logically combined using AND to work properly. The resulting query becomes *active.sym* = 'YES' AND *category.sym* = 'Hardware'. This stored query will generate incidents, problems, and requests. Because you want only incidents, you need to limit the search of this stored query to incidents.

## Interactive Demonstration Part 3



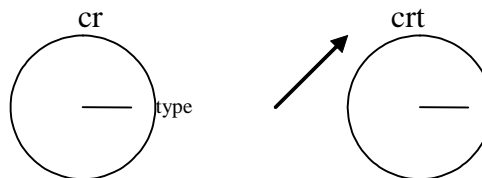
**Task Purpose:** Include the *type* attribute of *cr* objects in the stored query.

As the Unicenter Service Desk administrator for RBC, you have successfully created a stored query for Active Hardware Incidents, Problems, and Requests. To limit the search of this stored query to incidents, you need to include the *type* attribute of *cr* objects. The *type* attribute cannot be seen on a window, so you need to investigate it by using *bop\_sinfo*.

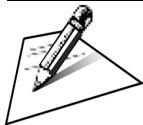
- 1 At the prompt, type `bop_sinfo -d cr` and press ENTER.

The output, `type SREL string --> crt`, shows that the *type* attribute of a *cr* object has an SREL to *crt* objects.

- 2 Update the map, as shown in the following graphic:



The *crt* objects do not have screens, so you need to find the table that stores them and extract it to find the word "Incident."



Instructor  
Notes

## ■ Administer Stored Queries

### Interactive Demonstration Part 3

---

- 3 At the prompt, type `bop_sinfo -q crt` and press ENTER.

The output shows that `Call_Req_Type` is the name of the table.

- 4 Type `pdm_extract Call_Req_Type` and press ENTER.

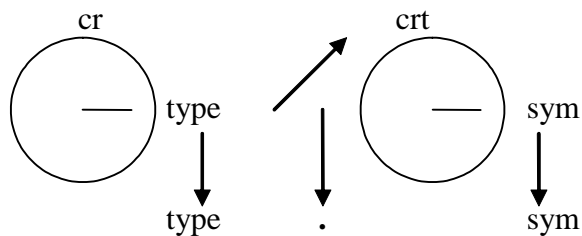
From this output, you see that the `sym` field does store the word "Incident."

Because the object-level query uses attribute names, you need to query the object manager to determine which attribute of a `crt` object has its value stored in the `sym` field.

- 5 At the prompt, type `bop_sinfo -da crt` and press ENTER.

Notice that the `sym` attribute has no *DDict name*, indicating that the `sym` attribute is stored in the `sym` field.

- 6 Update the map, as shown in the following graphic:



The third part of the query is `type.sym = 'Incident'`.

Now you have the required information to build the entire query, which is:  
`active.sym = 'YES' AND category.sym = 'Hardware' AND type.sym = 'Incident'`

As the Unicenter Service Desk administrator for RBC, you can now create the stored query based on the three components you previously developed.

- 7 Select the **Administration** tab.



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Notes



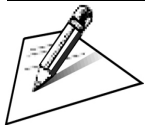
- 8 Expand Service Desk and Application Data.
- 9 Select Stored Queries.
- 10 Click Create New.
- 11 Complete the following fields:
  - a Code: AHWI
  - b Type: Request
  - c Label: Active Hardware Incidents
  - d Where Clause: `active.sym = \'YES\' AND category.sym = \'Hardware\' AND type.sym = \'Incident\'`

---

**Note •** In stored queries, backslashes are required for single-quoted strings.

---

- 12 Click Save.
- 13 Click Close Window.
- 14 Select the Service Desk tab.
- 15 Choose File ► Customize Scoreboard.
- 16 Expand My Queue and select My Queue.
- 17 To open the Stored Query Search window, click Node's Stored Query.
- 18 In the Label field, type ac% and click Search.
- 19 Click Active Hardware Incidents.
- 20 Click Add New Node.



Instructor  
Notes

## ■ Administer Stored Queries

### *Interactive Demonstration Part 3*

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- 21 To return to the scoreboard, click **Finished**.
- 22 Expand **My Queue** and select **Active Hardware Incidents**.
- 23 Choose **File ► New Request**.
- 24 Complete the following fields:
  - a **Affected End User:** Administrator
  - b **Requested Area:** Hardware
  - c **Status:** Open
  - d **Description:** stored query test
- 25 Click **Save**.
- 26 Click **Close Window**.
- 27 In the **Scoreboard** pane, click **Update Counts**.
- 28 Select **Active Hardware Incidents**.

Notice that the count of Active Hardware incidents has *not* increased because a request was created.

- 29 Choose **File ► New Incident**.
- 30 Complete the following fields:
  - a **Affected End User:** Administrator
  - b **Requested Area:** Hardware
  - c **Status:** Open
  - d **Description:** stored query test



Instructor  
Notes

31 Click **Save**.

32 In the **Scoreboard** pane, click **Update Counts**.

Notice that the count of Active Hardware incidents has increased because an incident was created.

33 In the **Incident Detail** window, click **Edit**.

34 Change the **Incident Area** to **Email**.

35 Click **Save**.

36 In the **Scoreboard** pane, click **Update Counts**.

Notice that the count of Active Hardware incidents has decreased because the incident is no longer Hardware.

37 In the **Incident Detail** window, click **Edit**.

38 Change the **Incident Area** to **Hardware**.

39 From the **Status** list, select **Closed**.

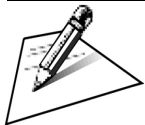
40 Click **Save**.

Notice that the incident is no longer Active.

41 Click **Close Window**.

42 Click **Update Counts**.

Notice that the count of Active Hardware incidents has not changed because even though the incident is Hardware, the incident is Closed, and therefore no longer Active.



Instructor  
Notes

## Interactive Demonstration Part 4



**Task Purpose:** Modify the stored query for high performance.

The stored query works as intended. However, because of the object joins—denoted by periods—it causes the object manager to query entire joined tables, which is very bad for performance. As the Unicenter Service Desk administrator for RBC, you want to optimize the query by removing the last *.<attribute>* from every part of the query.

You want the query to look like the following:

*active = X AND category = Y AND type = Z*

To do this, you need to:

- Find the relative attribute, *Rel Attr*, of the referenced objects. In this case, the referenced objects are *bool*, *pcat*, and *crt*. It is the value of this attribute that is always stored directly in attributes of the referencing object, which in this case is *cr*.
  - Find the table that stores the referenced objects.
  - Find the field names for the attributes of the referenced objects to extract the *Rel Attr* value from the database for the referenced object. For example, extract the *Rel Attr* value for the *sym* of Hardware from the table that stores *pcat* objects.
  - Find the data type of the relative attribute to format the object-level query properly.
  - Remove the *.<attribute>* from the end of each part of the query and use the newly obtained values to test on. The data type—integer, string, and so on—determines if single quotes are required.
- 1 At the prompt, type `bop_sinfo -f bool` and press ENTER.

Notice that *Rel Attr* is enum



Instructor  
Notes

- 2 Type `bop_sinfo -da bool` and press ENTER.

Notice that `enum` is an integer data type. Also, you can see that *enum*, the value wanted, and *sym*, the value known, have the same field names.

- 3 Type `bop_sinfo -q bool` and press ENTER.

The output shows `Boolean_Table` is the table that stores `bool` objects.

- 4 Type `pdm_extract -f "SELECT enum FROM Boolean_Table WHERE sym = 'YES'"` and press ENTER.

Notice that the integer value for `enum` is 1

- 5 Type `bop_sinfo -f pcat` and press ENTER.

Notice that `Rel Attr` is `persistent_id`

- 6 Type `bop_sinfo -q pcat` and press ENTER.

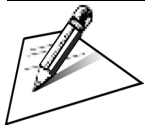
The output shows `Prob_Category` is the table that stores `pcat` objects.

- 7 Type `bop_sinfo -da pcat` and press ENTER.

Notice that `persistent_id` is a string data type. Also, you can see that `persistent_id`, the value wanted, has a `DDict` name of `persid`, the field name. As well, *sym*, the value known, has the same field name.

- 8 Type `pdm_extract -f "SELECT persid FROM Prob_Category WHERE sym = 'Hardware'"` and press ENTER.

Notice that the string value for *persid* is "pcat:5101"



Instructor  
Notes

## ■ Administer Stored Queries

### Interactive Demonstration Part 4

---

- 9 Type `bop_sinfo -f crt` and press ENTER.

Notice that `Rel Attr` is `code`

- 10 Type `bop_sinfo -q crt` and press ENTER.

The output shows `Call_Req_Type` is the table that stores `crt` objects.

- 11 Type `bop_sinfo -da crt` and press ENTER.

Notice that `code` is a *string* data type. Also, you can see that `code`, the value wanted, and `sym`, the value known, have the same field names.

- 12 Type `pdm_extract -f "SELECT code FROM Call_Req_Type WHERE sym = 'Incident'"` and press ENTER.

Notice that the string value for `code` is "I".

Therefore, the high-performance query becomes:

*active = 1 AND category = 'pcat:5101' AND type = 'I'*

For comparison, create a new stored query and add it to the scoreboard for verification.

- 13 Select the **Administration** tab.
- 14 Expand **Service Desk** and **Application Data**.
- 15 Select **Stored Queries**.
- 16 Click **Create New**.



Instructor  
Notes

- 17 Complete the following fields:
  - a **Code:** AHWI - HP
  - b **Type:** Request
  - c **Label:** Active Hardware Incidents - HP
  - d **Description:** High Performance Version
  - e **Where Clause:** active = 1 AND category = \'pcat:5101\' AND type = \'I\'
- 18 Click **Save**.
- 19 Click **Close Window**.
- 20 Select the **Service Desk** tab.
- 21 Choose **File ► Customize Scoreboard**.
- 22 Expand **My Queue** and select **Active Hardware Incidents**.
- 23 In the **Node's Stored Query** field, type ac and click **Add New Node**.
- 24 Select **Active Hardware Incidents - HP**.
- 25 Click **Add New Node**.
- 26 Expand **My Queue**.
- 27 To return to the scoreboard, click **Finished**.
- 28 Expand **My Queue** and select **Active HW Incidents - HP**.
- 29 Choose **File ► New Incident**.



Instructor  
Notes

- 30 Complete the following fields:
  - a **Affected End User:** Administrator
  - b **Incident Area:** Hardware
  - c **Status:** Open
  - d **Description:** hp stored query test
- 31 Click **Save**.
- 32 Click **Close Window**.
- 33 In the **Scoreboard** pane, click **Update Counts**.

The nodes of both Active Hardware Incidents reflect the same new count.

### **Task Summary**

You created a stored query to provide a count of objects on a scoreboard node. This skill will help you reduce response time for common requests from end users.

In the next task, you will create a timespan record covering the period from now until three weeks in the future, and then create a stored query that references that timespan.



Instructor  
Notes



Slide 4-5



## Task 2: Create Time-based Stored Queries

It can be very useful to develop stored queries that count objects in a time frame, such as a count of problems opened in the last seven days or a count of configuration items whose warranty is due to expire during the next two months.

Slide 4-6



A changing time frame is the challenge for an administrator. For example, you might want to know how often to re-evaluate the last seven days. Unicenter Service Desk addresses these concerns with timespan codes. With a timespan, you define:

- The past, present, or future start of the timespan
- The past, present, or future end of the timespan
- The frequency of timespan re-evaluation, known as the Trigger Time

A timespan is named using its Symbol field. This name is also used to refer to the timespan in a stored query. You can use two functions to refer to a timespan, `StartAtTime('\<Timespan_Symbol>')` and `EndAtTime('\<Timespan_Symbol>')`.

Because the timespan symbol is passed as an argument to each function, there can be no spaces in the symbol of a timespan. For example, if the timespan starts five weeks ago and ends now, an appropriate symbol is `PAST_5_WEEKS`.

When you use a timespan in a stored query, you use arithmetic operators to test across the boundaries of the timespan. This is because the date attribute data type is stored in the database as an integer, which is the number of seconds since January 1, 1970. For example, to test for incidents, problems, and requests opened in the last seven days, assuming a timespan named `PAST_7_DAYS` has been defined correctly, the stored query WHERE clause is:

```
open_date >= StartAtTime('\PAST_7_DAYS\')
```

---

**Note** • A greater than (>) symbol means later in time whereas the less than (<) symbol means earlier in time.

---



Instructor  
Notes

**Show** students how to create a timespan code.



## Interactive Demonstration

**Task Purpose:** Create a time-based stored query.

The configuration management team has asked you, the Unicenter Service Desk administrator for RBC, for a count on their scoreboards of configuration items whose warranty is due to expire in the next three weeks. You need to create a timespan record covering the period from now until three weeks in the future, and create a stored query that references that timespan.

Because dates are stored in the database as Epoch Time, the number of seconds since January 1, 1970, and therefore an integer data type, you can use arithmetic operators in the stored query to reference the Start Time and End Time of the timespan. You test the stored query on the scoreboard.

- 1 Select the **Administration** tab.
- 2 Expand **Service Desk, Application Data, and Codes**.
- 3 Select **Timespans**.
- 4 Click **Create New**.
- 5 Complete the following fields:

a Symbol: `NEXT_3_WEEKS`

---

**Note** • Timespan symbols are not permitted to have spaces.

---

b Code: `N3W`

c **Description:** From now until 3 weeks, re-evaluate each day at midnight



Instructor  
Notes

d End Time/Day: +21

e Trigger Time/Day: +1

6 Click **Save**.

7 Click **Close Window**.

You need to find out which attribute of a configuration item shows the end of its warranty.

8 In the left pane, click **Configuration Items**.

9 In the **Name** field, type a% and click **Search**.

10 Right-click **Accounting Software** and choose **View**.

11 Press and hold CTRL and then right-click the white space in the **Accounting Software Configuration Item Detail** window.

12 Choose **View Source**.

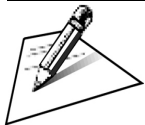
13 Search for the window label of *Warranty End Date* by appending “,” to the search text. The *Warranty End Date*,” combination appears once in the source file window. The next word is *warranty\_end*, which is the attribute of the *nr* object on which you need to test.

14 Close the source file window.

15 Click **Close Window**.

16 In the left pane, click **Stored Queries**.

17 Click **Create New**.



Instructor  
Notes

## ■ Administer Stored Queries

### *Interactive Demonstration*

---

- 18 Complete the following fields:
  - a **Code:** CIWE3W
  - b **Type:** Assets
  - c **Label:** CIs Warranty Expire in 3 weeks or less
  - d **Where Clause:** warranty\_end <= EndAtTime(\ 'NEXT\_3\_WEEKS\ ')  
AND warranty\_end >= StartAtTime(\ 'NEXT\_3\_WEEKS\ ')
- 19 Click **Save**.
- 20 Click **Close Window**.
- 21 Select the **Service Desk** tab.
- 22 Choose **File ► Customize Scoreboard**.
- 23 Expand **My Queue** and select **My Queue**.
- 24 In the **Node's Stored Query** field, type **CI** and click **Add New Node**.
- 25 Expand **My Queue**.
- 26 To return to the scoreboard, click **Finished**.
- 27 Expand **My Queue** and select **CIs Warranty Expire in 3 weeks or less**.

Notice that the count is currently zero (0). You will now modify a configuration item to test the stored query.
- 28 Click **Clear Filter**.
- 29 Click **Show Filter**.
- 30 In the **Name** field, type **a%** and click **Search**.
- 31 Right-click **Accounting Software** and choose **Edit**.



Instructor  
Notes

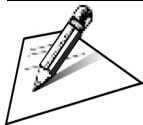
- 32 Select Warranty End Date.
- 33 Change the date to within three weeks from now.
- 34 Click OK.
- 35 Click Save.
- 36 Click Close Window.
- 37 Click Update Counts.
- 38 Click CIs Warranty Expire in 3 weeks or less.

Notice that the count is now one (1) and that **Accounting Software** appears in the **Configuration Item** list.

## Task Summary

As the Unicenter Service Desk administrator, you created a timespan record from now until three weeks in the future, and then you created a stored query that references that timespan. Also, you tested the stored query on the scoreboard.

Time-based stored queries can be very useful for obtaining statistical information about issues that arise during a particular time period. This information can be useful for resource planning.



Instructor  
Notes



## Skill Builder: Create Time-based Stored Queries

### Business Problem

The IT Manager at RBC has asked the Unicenter Service Desk administrator for a count on IT Managers' scoreboards of all active or inactive Issues from the last three days.

The Unicenter Service Desk administrator needs to perform three activities:

- Create a timespan record covering the period from now until three days in the past.
- Create one stored query that references the timespan.
- Test the stored query on the scoreboard.

As the Unicenter Service Desk administrator for RBC, perform all the steps necessary to implement the changes that have been requested by IT management at RBC.

### Hint

- Determine which object the Issue window shows.
- Determine which attribute of an issue object denotes when it was opened.



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See the solution to the skill builder in the appendix "Skill Builder and Assessment Solutions."

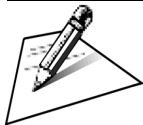
## Assessment

- 1 What are two functions of the bop\_sinfo utility? (Choose two.)
- a Finds table names for objects
  - b Investigates the attributes of an object
  - c Automatically generates mapping diagrams
  - d Displays scoreboard information from the command prompt

Correct answer: a and b

- 2 What do timespans do?
- a Update scoreboard counts
  - b Find tables that store the referenced objects
  - c Permit the definition of time-based stored queries
  - d Calculate the open time for requests, incidents, and problems

Correct answer: c



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Slide 4-7



## Module Summary

***You should now be able to:***

- Create Stored Queries for the Scoreboard
- Create Time-based Stored Queries

As the Unicenter Service Desk administrator for RBC, you created a stored query to provide a count of objects on a scoreboard node. Next, you created a timespan record, and then you created a time-based stored query. Also, you tested the stored query on the scoreboard. These skills will help you increase end-user satisfaction and system productivity.

In the next module, you will manage Keyword Search.



Instructor  
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## **Manage Keyword Search**

Slide 5-1



## **Module Objectives**

***After this module, you will be able to:***

- Create Knowledge Documents
- Develop Knowledge Document Content
- Administer Keyword Search

## **Module Overview**

As an RBC administrator, it is important that you help analysts share knowledge with each other. You can do this by building a knowledge base that presents analysts with established solutions for resolving end-user requests effectively and efficiently.

Knowledge management is one of the integrated functions that makes Unicenter Service Desk an intelligent and sophisticated service desk application. Unicenter Service Desk stores solutions that have been implemented to resolve problems. Analysts can quickly resolve end-user issues by accessing the stored solutions and implementing them.

To achieve these goals, you will create and develop content for Knowledge Documents. This enables your organization to resolve end-user issues and be more cost-effective.

Effective management of Keyword Search improves the efficiency of access to the knowledge base. It helps increase the speed and accuracy of searches so analysts can quickly find the information they need.



Instructor  
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Slide 5-2



## Task 1: Create Knowledge Documents

End users can contribute knowledge to the knowledge base through the Submit Knowledge feature of the Unicenter Service Desk Web Client. Analysts, engineers, managers, and administrators can create Knowledge Documents directly through:

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- The Knowledge Documents scoreboard node
- Knowledge Categories from the View menu
- The Submit Knowledge feature from the Solution activity on a ticket

Knowledge Documents are returned when you perform a keyword search. They contain the problem statement and a description of the solution for resolving the problem. When you require a solution to a problem, you can search the knowledge base using Keyword Search. Keyword Search examines words in the ticket description field and lists the documents that match against the words in the search. Then, you can select the solution that best addresses the problem.

Building Knowledge Documents for Keyword Search is a two-step process, submitting Knowledge Documents and approving, or publishing, them.

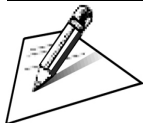
While creating a document for the knowledge base, you specify a title and summary of the document, a problem statement, and steps for resolving the problem. You can also categorize the document and transfer it to the owner of the category.

### Interactive Demonstration



**Task Purpose:** Create a new Knowledge Category and Knowledge Document using the Keyword Search page.

- 1 Select the **Keyword Search** tab.
- 2 From the **View** menu, choose **Knowledge Categories**.



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#### Explain

Keyword Search offers less functionality than the full Unicenter Service Desk Knowledge Tools product, which can be purchased separately. Unicenter Service Desk Knowledge Tools offers the following additional functionalities: Subscribe, Related Tickets, Custom Knowledge Document Templates, Knowledge Report Card, a Category Browser, E-mail Solution, Knowledge Document bookmarking, Go button access on Analyst web interface, and Search Configuration Options (using Service Desk ticket fields to filter Knowledge Document search). Unicenter Service Desk Knowledge Tools also provides an HTML Editor, Permissions for Categories / Documents, and FAQ functionality and Ratings.

#### Remind

Tell students that a person's capabilities with regard to Keyword Search, such as create and delete, are defined in their access type.

## ■ Manage Keyword Search

### *Interactive Demonstration*

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- 3 From the **File** menu, choose **New Category**.
- 4 Type **Windows** in the **Title** field.
- 5 Click **Save**.
- 6 To return to the **Knowledge Categories** window, click **Close Window**.
- 7 Click **Windows**.
- 8 To create a new document, from the **File** menu, choose **New Knowledge Document**.
- 9 Complete the fields as follows:

Field	Text
Title	How much RAM does my computer have?
Summary	How much RAM does my computer have?
Problem	How much RAM does my computer have?
Resolution	Follow these steps: <ol style="list-style-type: none"><li>a Click the Show Desktop icon near the Start button.</li><li>b On the desktop, right-click My Computer and choose Properties.</li><li>c The amount of RAM is shown at the bottom of the General tab.</li></ol>

- 10 Click **Save**.

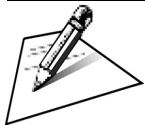


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## Task Summary

You are now familiar with the process of creating a Knowledge Document using Keyword Search. Knowledge Documents are the building blocks of a knowledge base and help analysts spread information throughout the company.

Next, you will develop Knowledge Document content.



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Slide 5-4



## **Task 2: Develop Knowledge Document Content**

A quality knowledge base is a direct result of refining the content and properties of Knowledge Documents. It is important to provide quality Knowledge Document content to improve the effectiveness and usability of the document. In addition, you can format the content with HTML to augment its presentation.

Slide 5-5



On the Categories tab, you can perform several category functions when creating or managing a document. You can also specify the primary category for the document and create category and document links to other related categories and documents.

In Keyword Search, the primary category must be chosen for a Knowledge Document to be published. In the full Unicenter Service Desk Knowledge Tools product, a Knowledge Document inherits its document permissions from its primary category. It is advisable to properly implement primary categories if you plan to use Unicenter Service Desk Knowledge Tools in the future.

### **Interactive Demonstration**



**Task Purpose:** Format the content of a Knowledge Document.

- 1 To view the Knowledge Document from a user perspective, click **User View**.
- 2 Review the text in the **Resolution** field.
- 3 To return to the **Update Document** window, click **Close Window**.
- 4 Copy and paste the content of `D:\ClassFiles\UR386\resolution.txt` into the **Resolution** field of the Knowledge Document.
- 5 Click **Save**.
- 6 To view the changes, click **User View**.
- 7 To return to the **Update Document** window, click **Close Window**.



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Slide 5-6



## Attach Images

You can add images to a Knowledge Document to improve its presentation or provide additional information. Images are stored in an images repository before they are included in a Knowledge Document. Storing an image in a common repository enables multiple copies of the image to be used in several documents without using additional storage space.

## Interactive Demonstration



**Task Purpose:** Embed an image in a Knowledge Document.

- 1 On your taskbar, click **Show Desktop**.
- 2 On the desktop, right-click **My Computer** and choose **Properties**.
- 3 To take a screen shot of the window, press ALT and PRNT SCRN.
- 4 To close the **System Properties** window, click **OK**.
- 5 To paste the copied image of the window, open **Microsoft Paint** and press CTRL+V.
- 6 Save the image as **Ram.jpg** in the **D:\ClassFiles\UR386** folder and close **Microsoft Paint**.
- 7 Maximize the **Unicenter Service Desk** window.
- 8 Select the **Administration** tab.
- 9 Expand **Attachments Library**.
- 10 Click **Repositories**.
- 11 In the right pane, expand **Images**.
- 12 Right-click **Default** and choose **Add File**.



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### Explain

Before starting the interactive demonstration, explain that the screen shot must first be taken, saved, and uploaded to the images repository. To get the information you require to reference the uploaded image on the Knowledge Document, you must extract it from the database. You use the extracted information to reference the screen shot in the Knowledge Document.

## ■ Manage Keyword Search

### *Interactive Demonstration*

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- 13 Click **Browse**.
- 14 Navigate to D:\ClassFiles\UR386\Ram.jpg and click **Open**.
- 15 Click **Upload**.
- 16 Click **OK**.
- 17 Open a command prompt window and type the following command:  

```
pdm_extract -f "SELECT id, repository FROM Attachment  
WHERE orig_file_name = 'Ram.jpg'"
```
- 18 Write down the ID number and the repository text string values.
- 19 Return to **How much RAM does my computer have? Update Document**.
- 20 Type `<P align=center></P>` at the end of the **Resolution** field.

---

**Note** • Replace *repository text string* and *id number* with the values you noted earlier.

---

- 21 Click **Save**.
- 22 To view the embedded image, click **User View**.
- 23 Close the Knowledge Document.
- 24 Close the command prompt window.



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Notes



Slide 5-7



## Add Links

You can link a Knowledge Document to other Knowledge Documents to guide end users to relevant information or additional resources. When you view the Knowledge Document, these links appear in the See also panel.

## Interactive Demonstration



**Task Purpose:** Link a Knowledge Document to another Knowledge Document.

You want to categorize the Knowledge Document in both of the Microsoft Windows categories and link it to the Domain Logon Denied Knowledge Document because sometimes a lack of RAM causes a domain logon denial.

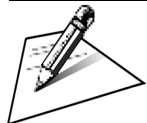
- 1 In the **Update Document** window, select the **Categories** tab.
- 2 In the **Categories** pane, select **Network**.
- 3 In the **Documents** pane, right-click the number of the **Domain Logon Denied** document and choose **Link this Document**. **Domain Logon Denied** appears in the **Document Links** pane.
- 4 Click **Save**.

Slide 5-8



## Attach Files

On the Attachments tab, you can attach supplemental files or URLs to the document. You can also upload a file into the attachment repositories if it is permitted by your access type.



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Notes

## **Interactive Demonstration**



**Task Purpose:** Attach a file to a Knowledge Document.

As an alternative to attaching an image to a Knowledge Document, you want to create and attach a text file to the Knowledge Document that describes alternative steps to determine the amount of RAM. This attached text file will eventually become a full Knowledge Document.

- 1 Click **Show Desktop**.
- 2 Right-click the desktop and choose **New ► Text Document**.
- 3 Name the file `How much RAM using winmsd.txt` and open it.
- 4 Type the following:
  1. Click **Start** and then choose **Run**.
  2. Type `winmsd` and press **Enter**.
  3. In the left pane, click **System Summary**.
  4. In the right pane, the **Total Physical Memory** Item shows how much RAM you have.
- 5 Save and close this file.
- 6 Open the **Update Document** window.
- 7 Select the **Attachments** tab.
- 8 In the **Repositories** pane, under **Knowledge**, right-click **Default** and choose **Add File**.
- 9 In the **Add File** window, navigate to the `How much RAM using winmsd.txt` file and click **Open**.



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- 10 In the **Name** field, type **How much RAM using winmsd** and click **Upload**.
- 11 Click **OK**.
- 12 In the **Files** pane, right-click **How much RAM using winsmd** and choose **Attach this File**.

Slide 5-9



## Add Comments

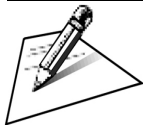
On the **Comments** tab, you can add, view, edit, and delete comments for the document. Customers and analysts can type comments in the **Comment** box that appears when a document is opened. The **Comments** tab also enables you to delete comments that are logged for the document.

## Interactive Demonstration



**Task Purpose:** Add a comment to a Knowledge Document.

- 1 In the Knowledge Document, select the **Comments** tab.
- 2 Click **Add Comment**.
- 3 Type The attached file, “How much RAM using winmsd.txt”, will become a full Knowledge Document later. in the **Comment** field.
- 4 Click **Save**.
- 5 Click **Close Window**.
- 6 To view the comment in the **Comment List**, click **Search**.



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Slide 5-10



## **View History**

On the History tab, you can track the actions performed on the document and when they were performed. You can also use this tab to see the users associated with changes.

### **Interactive Demonstration**

**Task Purpose:** View the history of the Knowledge Document.

- 1 Select the **History** tab.
- 2 In the **Event List**, select **Attachment (How much RAM using winmsd)** was linked.
- 3 To return to the **Event List**, click **Close Window**.



Slide 5-11



## **Edit Attributes**

On the Attributes tab, you can assign:

- Author
- Owner
- Subject expert
- Start, expiration, and review dates

You can view:

- The ratings of the document
- How many times the document has been accessed
- How many times it was voted by users as being helpful
- How many times analysts said it resolved their situation on a ticket



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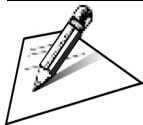
## Interactive Demonstration



**Task Purpose:** Set Knowledge Document attributes.

You want to set attributes before finally publishing the Knowledge Document, which will make the Knowledge Document available for searching. Finally, perform a search and find the Knowledge Document.

- 1 Select the **Attributes** tab.
- 2 Type `clay , joe` in the **Assignee**, **Owner**, and **Subject Expert** fields.
- 3 Click **Review Date**.
- 4 Select a date that is three months from the current date and click **OK**.
- 5 Click **Save**.
- 6 Click **Publish**.
- 7 Click **OK**.
- 8 To close the message that appears, click **OK**.
- 9 Click **Close Window**.
- 10 In the **Unicenter Service Desk** window, select the **Keyword Search** tab.
- 11 In the **Keywords for Advanced Search** field, type `ram` and click **Search**.
- 12 In the **Knowledge Document** list, click **How much RAM does my computer have?**.
- 13 Click the **Domain Logon Denied** link.
- 14 Click **Close Window**.



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- 15 To view the attachment, click **How much RAM using winmsd**.
- 16 To close the attachment, choose **File ► Close**.
- 17 Click **Close Window**.

### **Task Summary**

You now have experience of creating and developing Knowledge Documents. You also made changes to a document and reviewed its history. These actions are essential for creating an effective knowledge base for sharing information across an organization.

Next, you will administer Keyword Search.



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Slide 5-12



Slide 5-13



## Task 3: Administer Keyword Search

Any large knowledge base needs to be managed so its stored knowledge can be efficiently dispersed to all users. Such management tasks include:

- Adding special terms, synonyms, and noise words
- Managing attachment and image repositories
- Changing parse and search settings
- Editing field mappings
- Changing survey settings
- Re-indexing the knowledge base

Slide 5-14



### Add Special Terms

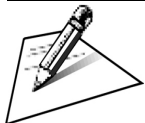
*Special terms* are expressions that must appear as a single word during the search process although the term can consist of more than one word or contain special characters. For example, words that have special characters include the forward slash in *TCP/IP*, the hyphen in *dial-up*, or the underscore in *LOCAL\_SERVER*. When deciding which words to define as special terms, consider valid words that can be divided during the search process because they have a special character.

Slide 5-15



### Add Synonyms and Noise Words

A *synonym* is a word that has the same meaning as another word. For example, PC and computer are considered to be synonyms of each other. In Keyword Search, you can define synonyms for terms that you believe can appear in knowledge searches. When a user searches for a particular word and there is information in your knowledge base corresponding to a defined synonym for that word, the information is returned by the search. You can define multiple synonyms for the same word.



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When you define a synonym pair, the reverse pairing is automatically defined. If three or more words are to be synonyms for each other, additional pairings need to be defined.

Noise words do not generally contribute to the search process and can be ignored. For example, prepositions, such as *a*, *an*, *the*, *of*, and *to*, are often identified as noise words. In Keyword Search, you can define additional terms as being noise words.

## Interactive Demonstration

**Task Purpose:** Add special terms, synonyms, and noise words.

You want to add *windows nt* as a special term, set up a three-way synonym between *tcp/ip*, *tcp*, and *ip*, and add *huge* as a noise word.

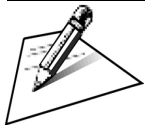
- 1 In the left pane, click **Special Terms**.
- 2 To open the **Create New Special Term** window, click **Create New**.
- 3 Type *windows nt* in the **Special Term** field.
- 4 Click **Save**.
- 5 Click **Close Window**.
- 6 To refresh the **Special Terms List**, click **Search**.
- 7 In the left pane, click **Synonyms**.
- 8 To open the **Create New Synonym** window, click **Create New**.
- 9 Type *tcp* in the **Keyword** field.
- 10 Type *ip* in the **Synonym** field.
- 11 Click **Save**.
- 12 Click **Close Window**.



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- 13 Click **Create New**.
- 14 Type tcp/ip in the **Keyword** field.
- 15 Type ip in the **Synonym** field.
- 16 Click **Save**.
- 17 Click **Close Window**.
- 18 Click **Create new**.
- 19 Type tcp/ip in the **Keyword** field.
- 20 Type tcp in the **Synonym** field.
- 21 Click **Save**.
- 22 Click **Close Window**.
- 23 In the left pane, click **Noise Words**.
- 24 Click **Create New**.
- 25 Type huge in the **Noise Word** field.
- 26 Click **Save**.
- 27 Click **Close Window**.



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Slide 5-16



## **Manage Attachment and Image Repositories**

Attachments and images are uploaded using a web server and stored in a repository. When an analyst needs to review a stored attachment, the file is retrieved using a web browser and is viewed locally. The stored file remains in the repository.

You can use one large repository or several small ones. Your repository organization is determined by your business practices and needs. Moving or combining repositories is made easy by the fact that all the attributes concerning a particular repository are defined in the repository record. Only the repository and the file name are associated with each ticket.

The Repositories page is used to maintain a library structure of folders and image files. On this page, you can also create your own folder structure for the library. The files and libraries appear in a list format and can be viewed one level at a time by clicking through the folders, revealing the files in each folder.

Slide 5-17



## **Change Parse and Search Settings**

Parse settings define the settings used to parse documents in the knowledge base. On the Parse Settings page, you can specify parse settings that are used during searches. The text in selected fields of each document in the knowledge base is parsed into keywords that are compared to the keywords extracted from the search text typed by a user in the main window. These settings control how this process occurs. For example, the Maximum Search Keywords field instructs the system to limit the number of keywords parsed to the value in this field. The default value for this field is 20. Other controls determine whether similar words and noise words are removed from the list of keywords.

The search settings set the default search options for the Knowledge tab and the Knowledge Search pane. The Search Options page sets the keyword search options used for searches performed in the main window in Keyword Search. An end user can change their search settings on the Advanced Search page or in the Preferences window.



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## Interactive Demonstration

**Task Purpose:** Modify parse and search settings.

You want to increase the limit of keywords per search to 25.

- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Administration**, **Knowledge**, and **Search**.
- 3 Click **Parse Settings**.
- 4 In the right pane, type 25 in the **Maximum Search Keywords** field.
- 5 Click **Save**.

Slide 5-18



## Edit Field Mappings

The Field Mappings pane enables you to specify which Unicenter Service Desk fields populate automatically from the Keyword Search Knowledge Document information. You can also use this pane to indicate if that information must overwrite the existing contents of the field.

## Interactive Demonstration



**Task Purpose:** Edit field mappings.

You want to stop the population of incident, problem, and request areas from Knowledge Categories.

- 1 Select the **Service Desk** tab.
- 2 Choose **File ► New Incident**.
- 3 Select the **Knowledge** tab.
- 4 Type email problem in the **Keywords for Advanced Search** field.



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## ■ Manage Keyword Search

### *Interactive Demonstration*

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- 5 Click Search.
- 6 In the Knowledge Document List, click Email is staying on the server and not downloading.
- 7 In the Solution Survey, select Yes.
- 8 Click Submit.

---

**Note** • Notice that the Incident Area field automatically populates with the word *Email*.

---

- 9 To close the Create New Incident window, click Cancel.
- 10 Select the Administration tab.
- 11 In the left pane, expand Service Desk Integration.
- 12 Click Field Mapping.
- 13 In the Service Desk Integration pane, in the Service Desk column, in the Problem/Incident/Request Area row, clear Populate empty Service Desk values.
- 14 Click Save.
- 15 Choose File ► New Incident.
- 16 Select the Knowledge tab and type email problem in the Keywords for Advanced Search field.
- 17 Click Search.
- 18 In the Knowledge Document List, click Email is staying on the server and not downloading.
- 19 In the Solution Survey, select Yes.



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Notes

20 Click **Submit**.

---

**Note** • Notice that the Incident Area field is not automatically populated.

---

21 To close the Create New Incident window, click **Cancel**.

Slide 5-19



## Change Survey Settings

Solution Survey Settings options enable you to remove or display the various voting and surveying functions for Knowledge Documents.

## Interactive Demonstration

**Task Purpose:** Modify survey settings.

You want to remove the How helpful was this document? section from all Knowledge Documents.

- 1 Select the **Keyword Search** tab.
- 2 Type ram in the **Keyword for Advanced Search** field.
- 3 Click **Search**.
- 4 To view the **Solution Survey**, click **How much RAM does my Windows PC have?**.

---

**Note** • Notice the section named How helpful was this document?.

---

- 5 Click **Close Window**.
- 6 Select the **Administration** tab.



Instructor  
Notes

## ■ Manage Keyword Search

### *Re-Index the Knowledge Base*

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- 7 In the left pane, expand **Solution Survey**.
- 8 Click **Survey Settings**.
- 9 In the right pane, clear **Display 'How helpful was this document?'**.
- 10 Click **Save**.
- 11 Select the **Keyword Search** tab.
- 12 To view the change in the **Solution Survey**, click **How much RAM does my Windows PC have?**.
- 13 Click **Close Window**.

Slide 5-20



## **Re-Index the Knowledge Base**

Certain changes to the knowledge base require the knowledge tables to be re-indexed for those changes to be recognized. You need to re-index the knowledge base after you change:

- Noise words
- Special terms
- Synonyms
- Parse settings

Knowledge base re-indexing is also advised after importation of large numbers of Knowledge Documents. The `pdm_k_reindex` utility performs this function.



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Notes

## Interactive Demonstration



**Task Purpose:** Re-index the knowledge base.

You want to verify that the synonyms and noise word created earlier work properly. To do this, you must re-index the knowledge base.

- 1 Click **Show Filter**.
- 2 Type `tcp/ip` in the **Keywords for Advanced Search** field.
- 3 Click **Search**.
- 4 Click **Show Filter**.
- 5 Type `tcp` in the **Keywords for Advanced Search** field.
- 6 Click **Search**.

---

**Note** • Notice that no documents were found using `tcp` as a search word.

---

- 7 Click **Show Filter** and type `huge` in the **Keywords for Advanced Search** field.
- 8 Click **Search**.

---

**Note** • Notice that no documents were found using `huge` as a search word. Therefore, `huge` is not yet recognized as a noise word.

---

- 9 Click **Start** and then choose **Run**.
- 10 Type `cmd` in the **Open** field.
- 11 Click **OK**.
- 12 Type `pdm_k_reindex -h` and press **ENTER**.



Instructor  
Notes

## ■ Manage Keyword Search

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### *Interactive Demonstration*

- 13 Type `pdm_k_reindex`
- 14 Type `exit` to close the command prompt window.
- 15 In the **Unicenter Service Desk** window, click **Show Filter**.
- 16 Type `huge` in the **Keywords for Advanced Search** field and click **Search**.

---

**Note** • Notice the error message stating that the search text does not contain any significant words. This means that `huge` is now being recognized as a noise word.

---

## Task Summary

In this task, you increased the keyword search limit, added special terms, and set up synonyms. You also altered display and noise words. Proper management of Keyword Search provides fast and efficient access to the knowledge base. This can reduce calls to help desk employees. Finally, you performed a re-indexing process and verified that all changes had taken effect correctly.



Instructor  
Notes



## Assessment

- 1 How can end users contribute knowledge to the knowledge base?
  - a Through knowledge Categories from the View menu
  - b Through the Knowledge Documents scoreboard node
  - c Through the Submit Knowledge feature from the Solution activity on a ticket
  - d Through the Submit Knowledge feature of the Unicenter Service Desk Web Client

Correct answer: d

- 2 After which two actions do you need to re-index the knowledge base? (Choose two.)
  - a Adding a noise word
  - b Changing parse settings
  - c Changing survey settings
  - d Adding a Knowledge Document

Correct answer: a and b



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Notes

## ■ Manage Keyword Search

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### *Assessment*

- 3 When performing a search, Keyword Search automatically matches the Problem field of Knowledge Documents with which field of a ticket?
- a Area
  - b Type
  - c Summary
  - d Description

Correct answer: d



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Slide 5-21



## Module Summary

*You should now be able to:*

- Create Knowledge Documents
- Develop Knowledge Document Content
- Administer Keyword Search

You can now create a new Knowledge Document, format the content of that document, and embed an image. Additionally, you can categorize a document and link it to another document. In this module, you created and attached a text file and made a comment in the document regarding the text file. You also altered the display and noise words.

Knowledge Documents enable you to document the knowledge and experience gained in solving problems. Keyword Search enables you to locate this information quickly. This means that your organization will be more cost-effective because you will be able to respond more effectively if the same problems occur again.

In the next module, you will manage the database.



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Notes

## ■ Manage Keyword Search

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### *Module Summary*



Instructor  
Notes

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# Manage the Database

Slide 6-1



## **Module Objectives**

***After this module, you will be able to:***

- Manipulate Data in Bulk
- Archive and Purge Data
- Administer Options

## **Module Overview**

The Unicenter Service Desk system at RBC requires regular database management. You will back up, restore, extract, load, and import information into the databases using Unicenter Service Desk utilities. You will also archive and purge tables to help ensure efficient database operation.

Unicenter Service Desk utilities enable you to modify database records more quickly and less expensively than with the Client interface. They also help to reduce the administrative effort required in the cleanup of old data.



Instructor  
Notes

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## Task 1: Manipulate Data in Bulk

It is important to have the necessary skills to manipulate database records through the Unicenter Service Desk utilities. These utilities offer more efficient handling of large numbers of records at once than is possible in the Unicenter Service Desk Client.

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## Identify Unicenter Service Desk Database Concepts

As discussed in the module "Administer Unicenter Service Desk," Unicenter Service Desk, along with many other Computer Associates products, uses the CA-MDB to store data. The physical database is named *mdb* and contains three kinds of tables:

- Tables for other products that are not recognized by Unicenter Service Desk
- Tables Unicenter Service Desk shares with other products
- Tables for Unicenter Service Desk only

To enable Unicenter Service Desk to use tables that it shares or uses exclusively, the Database Agents and pdm utilities need information regarding the tables and fields. They gain this information through the Logical or DBI Schema.

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**Note** • To learn how to declare and modify this Schema, see course UR395, *Unicenter Service Desk: Implementation*.

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The Schema is then merged into a file named *ddict.sch*, the *Data Dictionary* of Unicenter Service Desk. From this Data Dictionary, tables and fields are built into the database. The Database Agents and pdm utilities adhere to the DBI Schema that exists in the Data Dictionary. This Schema is case-sensitive.



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## Identify DBI Table and Field Names

As the administrator of Unicenter Service Desk, you will often want to bulk-load or extract data into the database. For this purpose, you can use pdm utilities such as pdm\_extract and pdm\_userload. To use these utilities, you need to know the table and field names at the DBI level. There are three ways of finding the names:

- Use Unicenter Service Desk documentation, specifically the *Unicenter Service Desk Modification Guide, Appendix A, Data Element Dictionary, and Appendix B, Objects and Attributes*. This method does not show any tables or fields that your company has added to the database.
- View the `ddict.sch` file, located in the *install-directory/site* folder. This method shows all tables and fields that are known to Unicenter Service Desk but risks damaging a key file required for the proper operation of Unicenter Service Desk.
- Locate the web page showing the records, find the object and attribute names, and use the `bop_sinfo -qda object name` command. The output will display the table name that stores those objects and that some attributes have a *DDict* name, the DBI field name of the object attribute. The attributes without a *DDict* name have the same name for the DBI field. This is the preferred method.

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**WARNING • The utilities mentioned in the following sections are very powerful data manipulation tools. If not properly used, they have the potential to destroy data. Always make sure you have a backup of any data that might be affected before restoring or loading data into Unicenter Service Desk.**

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## Back Up and Restore Tables

You can back up the contents of a single database table, multiple database tables, or your entire Unicenter Service Desk database using the database backup utility, pdm\_backup. The output of the backup utility is an ASCII file that the pdm\_restore, pdm\_userload, and pdm\_load utilities can use.



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**Point out** the danger of inspecting the `ddict.sch` file; it is an output of the `schmerge` process but also an input to the `xxx_build` process. Therefore, if an inadvertent change was made to `ddict.sch`, nothing might happen for months until that table needs to be rebuilt. When the table is then rebuilt, the Object Manager will not be able to store an object or attribute properly. To be safe, make sure that a secure backup copy of `ddict.sch` is created.

**Demonstrate** the various ways to find table and field names.



The database restore utility, `pdm_restore`, loads an output file from `pdm_backup` to the Unicenter Service Desk database. This restores, clears, and replaces all existing database records.

## Interactive Demonstration



**Task Purpose:** Perform a full backup of the Unicenter Service Desk.

- 1 Log out of and close the **Unicenter Service Desk** window.
- 2 Open a command prompt window.
- 3 Type `md c:\backup` and press ENTER.
- 4 Type `cd \backup` and press ENTER.
- 5 Type `pdm_backup -h` and press ENTER.

Review the switches for the `pdm_backup` command.

- 6 Type `pdm_backup -f sdbkp ALL` and press ENTER.

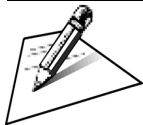
The following message appears:

Unicenter Service Desk services will be stopped to complete this operation. Would you like to continue? [y/n]:

- 7 Type `y` and press ENTER.

Watch the backup proceed. Continue to the next step when the following message appears:

PDM\_Backup completed.



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- 8 To restart Unicenter Service Desk, type `net start pdm_daemon_manager` and press ENTER.

A message appears indicating that Unicenter Service Desk services are starting.

- 9 To verify the backup file:

- a Open `C:\backup\sdbkp\sdbkp.bkup.` in Notepad.

Notice that important configuration files are backed up as commented text. Also notice that all the database tables for Unicenter Service Desk are backed up as uncommented text, suitable for `pdm_restore` or `pdm_userload`.

- b Close the file and return to the command prompt window.

A message appears stating that the Unicenter Service Desk Server Service started successfully.

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## **Extract Records**

The `pdm_extract` utility extracts data from the Unicenter Service Desk database and produces output in different formats. You can process this data or submit it to other software applications, such as spreadsheets or databases. With `pdm_extract`, you can:

- Dump the entire Unicenter Service Desk database
- Dump one or more database tables
- Extract specific information from the database and produce output in one of the following three formats:
  - Output compatible with `pdm_userload`
  - Comma-separated value (CSV) output
  - Informal report-style output



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Two utilities, `pdm_userload` and `pdm_load`, can be used to load records into the database. When tables are being defined in the DBI Schema, fields can be designated as `S_KEY`, or *Secondary Key* fields. These fields must contain data for `pdm_userload` to create the record in the database. Therefore, they serve as a mechanism that can help ensure the integrity of certain information.

When no secondary keys have been defined on a DBI table, `pdm_userload` cannot be used to create records. In this case, `pdm_load` can be used with the `-i` switch, indicating that `pdm_load` can ignore secondary keys. One use of secondary keys is to avoid the creation of duplicate records; therefore, extreme care must be taken when using `pdm_load -i` to load records.

When updating existing database records from a file, `pdm_userload` and `pdm_load` without the `-i` switch update the proper records if the `KEY` field, usually `id`, is included in the file.

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## Dereference Data

The `pdm_deref` utility processes ASCII-formatted input to exchange data found in one database table for data found in another database table. This utility converts data from different sources into one of the following three formats:

- Output compatible with `pdm_userload`, suitable for loading into the Unicenter Service Desk database
- CSV output
- Informal report-style output

A dereferencing rule file can be used with `pdm_deref`. The rules in this file permit the translation of data in to and out of Unicenter Service Desk. This is one way that automated data conversion interfaces can be set up between Unicenter Service Desk and other applications when there is a need for external data.



Instructor  
Notes



## **Interactive Demonstration**

**Task Purpose:** Import the list of Windows Services as Configuration Items.

First, you create the Configuration Item Class named Windows Service.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Service Desk**, expand **Application Data**, expand **Configuration Items**, and select **Configuration Item Classes**.
- 3 In the right pane, click **Create New**.
- 4 In the **Create New Configuration Item Class** window, type **Windows Service** in the **Class** field.
- 5 In the **Description** field, type **CI Class for Windows Services** and click **Save**.
- 6 Click **Close Window**.

Next, export the list of Windows Services to the `services.txt` file.

- 7 On the desktop, double-click **Services**.
- 8 In the left pane, right-click **Services** and choose **Export List**.
- 9 In the **Export List**, navigate to the `C:\backup` folder and type **Services** in the **File Name** field.
- 10 Click **Save**.
- 11 Close the **Services** window.

Next, fix the list record for the Windows Time service.

- 12 Open the `C:\backup\services.txt` file in Notepad.

Make sure that Notepad has **Word Wrap** turned off.



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Notes

- 13 In the `services.txt` - Notepad window, locate the **Windows Time** line.
- 14 Place the cursor at the end of this line.
- 15 To bring the next line up to the end of the **Windows Time** line, press **DELETE**.

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**WARNING • Do not delete any tab characters.**

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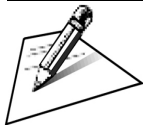
- 16 Save and close the `services.txt` file.

The `services.txt` file has field names of Name, Description, Status, Startup Type, and Log On As. You decide not to import the Status information and choose the following Configuration Item fields from the Unicenter Service Desk Web Client to display the services information:

Services File Field	Configuration Item Display Field
Name	Name
Description	Notes
Startup Type	Product Version
Log On As	Financial Reference
---	Class

To build the file for `pdm_userload`, you need to know the object name for Configuration Items, the table name that stores Configuration Item objects, the attributes of a Configuration Item object whose values show in the desired display fields, and the database field names for those attributes. To find this information, you open a Configuration Item and run the `bop_sinfo` utility.

- 17 Return to the **Unicenter Service Desk** window.



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- 18 In the left pane, expand **Service Desk**, expand **Application Data**, and select **Configuration Items**.
- 19 To show the list, in the right pane, click **Search**.
- 20 From the **Configuration Item List**, in the **Name** column, select **Accounting Software**.
- 21 Press and hold CTRL, right-click the white space in the **Accounting Software Configuration Item Detail** window, and select **View Source**.
- 22 Search for propFactory  
  
The object is displayed as an *nr* object.
- 23 Search for the window label of **Name**. Append “ , ” to the search text so the search text is Name “ , ” because this combination will appear only once in the source file.  
  
The next word displays the attribute of the *nr* object as **name**.
- 24 Search for the window label of **Notes**. Use Notes “ , ” as the search text. This combination will appear only once in the source file.  
  
The next word displays the attribute of the *nr* object as **description**.
- 25 Search for the window label of **Product Version**. Use the search text Product Version “ , ”. This combination will appear only once in the source file.  
  
The next word displays the attribute of the *nr* object as **product\_version**.
- 26 Search for the window label of **Financial Reference**. Use Financial Reference “ , ” as the search text. This combination will appear only once in the source file.  
  
The next word displays the attribute of the *nr* object as **financial\_num**.



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- 27 Search for the window label of **Class**. Use `Class "`, `"` as the search. This combination will appear only once in the source file. The next word displays the attribute of the `nr` object as **class**.
- 28 Close the source file and close the **Accounting Software Configuration Item Detail** window.
- 29 Return to the command prompt window.
- 30 Type `bop_sinfo -qda nr` and press ENTER.

From the output, you can view the following information about the **ca\_owned\_resource** table:

File Field	CI Web Field	CI Attribute	CI DB Field
Name	Name	name	resource_name
Description	Notes	description	resource_description
Status	X	X	X
Startup Type	Product Version	product_version	product_version
Log On As	Financial Reference	financial_num	nr_financial_id*
X	Class	class	resource_class

\* This field is in the `usp_owned_resource` table and requires a separate load at the end.



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In the following steps, you will open the `services.txt` file in Microsoft Excel and do the following:

- a Cut the **Log On As** column and paste it to a separate sheet, then save it as `services2.txt`, a tab-delimited file.
  - b Delete the **Status** column.
  - c Add the **Class** column, auto filled with **Windows Service**.
  - d Add the auto-filled columns of braces around each row.
  - e Save the `services.txt` file as a tab-delimited file.
- 31 In Microsoft Excel, open the `C:\backup\services.txt` file.
  - 32 Highlight all the information in the **Log On As** column, and cut it to the clipboard.
  - 33 Create a new Microsoft Excel file. Paste the data from the clipboard to column **A** in this new spreadsheet.
  - 34 To save this new Microsoft Excel file:
    - a Choose **File ► Save As**. The **Save As** dialog appears.
    - b Navigate to your `C:\backup` folder.
    - c In the **File name** box, type `services2.txt` and click **Save**.
    - d Click **OK**.
    - e Click **Yes**.
    - f Close this file. The `services.txt` window appears.
  - 35 Delete the **Status** column.



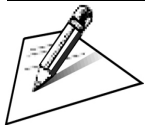
Instructor  
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- 36 Type `Class` in the first cell of column **D**.
- 37 Type `Windows Service` in the second cell of column **D**.
- 38 Auto-fill the text **Windows Service** from the second cell of column **D** to the last row of the **services** sheet.
- 39 Type `}` in the last row of column **E**.
- 40 Auto-fill from the last row of column **E** back up to the second cell of column **E**.
- 41 Insert a new column to the left of column **A**.
- 42 Type `{` in the second cell of the new column **A**.
- 43 Auto-fill cell **A2** to the last row of the **services** sheet.
- 44 Save the file and close the **services.txt** window.

Next, you will open the `services.txt` file in Notepad and:

- a Insert the `TABLE` statement in the first line.
  - b Fix the text format for proper database loading.
  - c Fix the header line except for the `Class` field.
- 45 In Notepad, open the `services.txt` file.
- 46 With the cursor in the upper left of the window, type `TABLE`  
`ca_owned_resource` and press `ENTER`.
- 47 Choose **Edit ▸ Replace**. The **Replace** dialog appears.
- 48 On the third line from the top, select the tab character between `{` and `Alterter`.
- 49 Copy and paste this tab character into the **Find what** field of the **Replace** dialog.



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- 50 Type “,” in the **Replace with** field.
- 51 Click **Replace All**. The program will automatically conduct a search and replace operation.
- 52 Continue to replace character sets as follows:

Replace	With
“ “	“
{ “ ,	{
, ” }	}
, ” ,	, ” ” ,

- 53 In the **Replace** dialog, click **Cancel**.
- 54 In the **services.txt - Notepad** window, replace the second line of text with the following:

```
resource_name resource_description product_version Class
```

---

**Note** • Insert a tab character at the beginning of the second line of text.

---

- 55 Save the **services.txt** file and exit it.

Next, you create a dereferencing file, **services.deref**, which will replace the text **Windows Service** with its id, which is stored on the configuration item for its **Class**. You then run **pdm\_deref** to generate **services.dat**, the loadable data file.

- 56 Create a new text file and name it **services.deref** in the **C:\backup** folder. This will open the **Rename** dialog.



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57 Click Yes.

58 Open `services.deref` in Notepad.

59 Type the following:

```
Deref
{
input = Class

output = resource_class

rule = "SELECT id FROM ca_resource_class WHERE name = ?"
}
```

60 Save and close the file.

61 Open the command prompt window and navigate to the `C:\backup` folder.

62 Type the following and press ENTER:

```
pdm_deref -s services.deref services.txt > services.dat
```

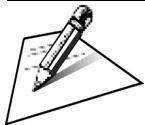
63 Return to Windows Explorer and select the `C:\backup` folder.

64 In WordPad, open the `services.dat` file.

65 Note that **resource\_class** has replaced **Class** in the field header line and that the id number of the **Windows Service** Class has replaced its name in each record.

66 Write down this id number here:\_\_\_\_\_. You will need this number later.

67 Close the `services.dat` - WordPad window.



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Next, you will load the `services.dat` file into the database using `pdm_load` because there are no secondary keys on `ca_owned` tables for `pdm_userload` to succeed. You will avoid duplicate record creation in this case only because these records have never been loaded into the database before.

68 Return to the command prompt window.

69 Type the following and press ENTER:

```
pdm_load -f services.dat -i -v
```

The program loads the data. If `pdm_load` worked, the following appears:

Ending Totals:

Total tables: 1

Total rows: xxx

Total inserts: xxx

Total updates: 0

Total errors: 0

Also, if `pdm_load` was successful, **Total rows** and **Total inserts** equal the number of braced rows in `services.txt` that you saw in Microsoft Excel.

You want to load the **Log On As** data into the **Financial Reference** field of the **Configuration Item** window. This data is stored in the `nr_financial_id` field of the `usp_owned_resource` table. You need to use the id of the **Configuration Items** that have just been loaded into the `ca_owned_resource` table to load the **Log On As** data for each configuration item.



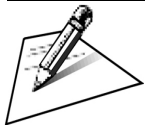
Instructor  
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First, you extract the id and name details of the **Windows Service Configuration Items** previously loaded into the `services3.txt` file. Then you open the `services3.txt` file as a comma separated data file in Microsoft Excel and:

- a Sort rows alphabetically to match how they appear in the original `services.txt` file and put the data into the `services3.txt` file in the last column.
  - b Add closing braces to the last column.
  - c Delete the `resource_name` column.
  - d Save the tab-delimited `services4.txt` data file.
- 70 In the command prompt window, type the following, replacing *resourceclassid* with the number you wrote down earlier:  

```
pdm_extract -f "SELECT id, resource_name FROM  
ca_owned_resource WHERE resource_class = resourceclassid"  
> services3.txt
```
- 71 Press ENTER.  

The number of records extracted is the same as the number that were loaded earlier with `pdm_load`.
- 72 Open Microsoft Excel.
- 73 Choose **Data ► Import External Data ► Import Data**. The **Select Data Source** dialog appears. To select the data source:
  - a From the **Files of type** list, select **All Files**.
  - b Navigate to the `C:\backup` folder.



Instructor  
Notes

## ■ Manage the Database

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### *Interactive Demonstration*

- c Select `services3.txt` and click **Open**. The **Text Import Wizard** dialog appears.
- d Click **Next**.
- e Under **Delimiters**, clear **Tab** and check **Comma**.
- f Click **Finish**.

The **Import Data** dialog appears.

- g Click **OK**.

74 Select row 3 through to the last row.

75 From the **Data** menu, choose **Sort**.

76 To sort the data:

- a From the **Sort by** list, select **Column B**.
- b Click **OK**.

The rows are now sorted alphabetically by resource name.

77 In Microsoft Excel, open the `services2.txt` file. This opens the **Text Import Wizard** dialog.

78 Click **Next**.

79 Click **Finish**.

80 In the `services2.txt` spreadsheet, select and copy column A.

81 Select **Book1** and paste the contents of `services2.txt` into column C, starting at row 2.

82 Type `}` in cell D3.



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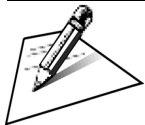
- 83 Auto-fill from cell D3 to the last row.
- 84 Delete column B.
- 85 Save the file as `services4.txt` and make sure it is a tab-delimited file.
- 86 Close the `services4.txt` window.

Next, you use Notepad to amend the `services4.txt` file as follows:

- a Fix the **TABLE** statement.
  - b Fix the text format to perform proper database loading.
  - c Fix the header line.
- 87 Open `services4.txt` in Notepad.
- 88 Change **TABLE** `ca_owned_resource` to the following:  

```
TABLE usp_owned_resource
```
- 89 From the **Edit** menu, choose **Replace**. The **Replace** dialog appears.
- 90 On the second line from the top, select the tab character between “ and `id`.
- 91 Copy this tab character and paste it into the **Find what** field of the **Replace** dialog.
- 92 Click **Replace All**.  

The program will automatically conduct a search and replace operation.
- 93 Replace “ “ “ with “ , ”
- 94 Replace “ { “ with {
- 95 Replace } with “ }



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96 Click **Cancel**.

97 In the **services4.txt** - **Notepad** window, edit the second line of text to read `id  
nr_financial_id` and in front of `id`, insert a tab character.

98 Save the changes and close the **services.txt** - **Notepad** window.

Finally, you load the `services4.txt` file into the database and verify that a Windows Service configuration item appears as intended in the Unicenter Service Desk Web Client.

99 At the command prompt, type `pdm_userload -f services4.txt -v` and press ENTER.

Wait until the data loads.

If `pdm_userload` worked properly, the following appears:

Ending Totals:

Total tables: 1

Total rows: xxx

Total inserts: xxx

Total updates: 0

Total errors: 0

Also, if `pdm_userload` worked properly, **Total rows** and **Total inserts** equal the number of braced rows in `services4.txt` that you saw in Microsoft Excel.

100 Return to the **Unicenter Service Desk** window and log in as administrator, if necessary.



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101 Select the **Service Desk** tab.

102 From the **Search** menu, choose **Configuration Items**. **Configuration Items Search** appears in the right pane.

103 Type **Windows Service** in the **Class** field.

104 Click **Search**. The search results appear in the right pane.

105 Under the **Name** column, click **Alerter**. The **Alerter Configuration Item Detail** window appears.

Note that **Service Name** appears in the **Name** field, **Description** appears in the **Notes** field, **Startup Type** appears in the **Product Version** field, and **Log On As** appears in the **Financial Reference** field.

106 Click **Close Window**.

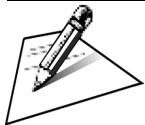
Slide 6-8



## Import Knowledge into Tables

You can use the `pdm_kit` utility to import knowledge from third-party knowledge base vendors. You can import your own data by declaring a user-defined format in a header file. You can also import Knowledge Categories with Knowledge Documents or separately.

When `pdm_kit` finishes, the re-index operation starts automatically, generating the file `EBR_REINDEX.LOG` in the `$NX_ROOT\log` folder.



Instructor  
Notes



## **Interactive Demonstration**

**Task Purpose:** Mirror the Service Desk Area codes as Keyword Search Categories.

You extract the Area names from the database, format the data for loading into the database, and load the file using `pdm_kit`.

- 1 Open the command prompt window.
- 2 Navigate to the `C:\backup` folder.
- 3 Type the following and press ENTER:  

```
pdm_extract -f "SELECT sym FROM Prob_Category" -u >
pcat.txt
```
- 4 Type `notepad pcat.txt` and press ENTER.
- 5 In the first line, select everything before the word **Applications**.
- 6 Copy this selection to the clipboard.
- 7 From the **Edit** menu, choose **Replace**.
- 8 Type `Top>` in the **Replace with** field.
- 9 Click **Replace All**.
- 10 Type `" }` in the **Find what** field and clear the **Replace with** field.
- 11 Click **Replace All**.
- 12 Replace `.` with the `>` symbol.
- 13 Click **Cancel**.
- 14 Save the changes and close the `pcat.txt - Notepad` window.
- 15 Type `pdm_kit -f pcat.txt -t CAT -x` and press ENTER.



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If any error messages appear, it does not necessarily mean the import is incorrect. You can verify the load by selecting the **Keyword Search** tab and choosing **View ► Knowledge Categories**.

- 16 Open the **Unicenter Service Desk** window.
- 17 Select the **Keyword Search** tab.
- 18 From the **View** menu, choose **Knowledge Categories**. Wait for the page to load.
- 19 From the menu in the left pane, select the categories. Verify that the categories and sub-categories that were loaded with `pdm_kit` appear.

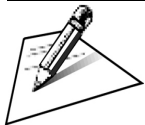
Slide 6-9



## Maintain the Spell Check Dictionary

You can maintain the Unicenter Service Desk server-based spell-checking dictionary using the `pdm_lexutil` utility. Word files, known as *lexicons*, or individual words can be added to or deleted from the dictionary.

When you use `pdm_lexutil`, changes are recorded in the `$NX_ROOT\site\mods\lexicons\userdict.tlx` file. This file, and therefore your customized dictionary, are preserved when you upgrade to the next version of Unicenter Service Desk.



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## **Interactive Demonstration**



**Task Purpose:** Convert the Spell Checker from American English to British English and add a word to the Spell Checker.

- 1 On the **Unicenter Service Desk** main window, select the **Service Desk** tab.
- 2 From the **File** menu, choose **New Incident**. The **Create New Incident** window appears.
- 3 Type **color** in the **Description** field.
- 4 Click **Spelling**.

The spell check completes with no errors found.

- 5 Type **colour** in the **Description** field.
- 6 Click **Spelling**.

The **Spell Check Results** window appears. Notice the suggested spelling of **color**.

- 7 Click **Close**.
- 8 From the main menu, choose **Cancel**. The **Create New Incident** window closes.
- 9 Return to Windows Explorer and navigate to the **C:\Program Files\CA\Unicenter Service Desk\site\mods\lexicons** folder.
- 10 In WordPad, open the **userdict.tlx** file.  
Notice that only three words exist in the user dictionary.
- 11 In WordPad, close the **userdict.tlx** file.
- 12 In the left pane of Windows Explorer, open the **C:\Program Files\CA\Unicenter Service Desk\lexicons** folder.



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Notes

- 13 In **WordPad**, open the `ssceca.tlx` file.
- 14 Click **Search**. The **Find** dialog appears.
- 15 Type `colour` in the **Find what** field and press **ENTER**.
- 16 Click **Cancel**. This closes the **Find** dialog.

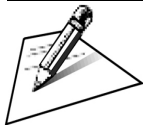
---

**Note** • To deal with British spelling of words, such as *colour*, words that have *color* in them also have an *e* associated with them, indicating exclude. However, words that have *colour* in them also have an *i* associated with them for include.

---

- 17 Close the `ssceca.tlx` - **WordPad** window.
- 18 Open a command prompt window and navigate to the `C:\Program Files\CA\Unicenter Service Desk\lexicons` folder.
- 19 Type `pdm_lexutil -a -f ssceca.tlx` and press **ENTER**.
- 20 In the **Unicenter Service Desk** window, choose **File ▶ New Incident**.
- 21 Type `color` in the **Description** field.
- 22 Click **Spelling**. The **Spell Check Results** window appears.
- 23 Click **Close**.
- 24 Type `colour` in the **Description** field.
- 25 Click **Spelling**.

The spell check completes with no errors found.



Instructor  
Notes

## ■ Manage the Database

### *Interactive Demonstration*

---

- 26 Click **Close**.
- 27 In the **Create New Incident** window, click **Cancel**.
- 28 Return to Windows Explorer and select the C:\Program Files\CA\Unicenter Service Desk\site\mods\lexicons folder.
- 29 In **WordPad**, open the `userdict.tlx` file.  
  
Notice that all the words from the `ssceca.tlx` dictionary file have been added to the user dictionary.
- 30 Close the `userdict.tlx - WordPad` window.
- 31 Return to the **Unicenter Service Desk** window.
- 32 On the **Service Desk** tab, choose **File ► New Incident**.
- 33 Type `firewire` in the **Description** field.
- 34 Click **Spelling**.  
  
The **Spell Check Results** dialog appears. Note that the **Suggestions** list does not contain this word.
- 35 Click **Close**.
- 36 To close the **Create New Incident** window, click **Cancel**.
- 37 Return to Windows Explorer and navigate to the C:\Program Files\CA\Unicenter Service Desk\site\mods\lexicons folder.
- 38 In **WordPad**, open the `userdict.tlx` file.
- 39 Perform a search for the `firewire` word.  
  
Notice that it is not found in the file.



Instructor  
Notes

- 40 Click **OK**.
- 41 Click **Cancel**.
- 42 Close the **userdict.tlx - WordPad** window.
- 43 Return to the command prompt window.
- 44 Type `pdm_lexutil -a firewire` and press **ENTER**.
- 45 Return to the **Unicenter Service Desk** window.
- 46 On the **Service Desk** tab, choose **File ► New Incident**.
- 47 Type `firewire` in the **Description** field.
- 48 Click **Spelling**.

The spell check completes with no errors found.
- 49 Click **Close**.
- 50 To close the **Create New Incident** window, click **Cancel**.
- 51 Return to Windows Explorer and navigate to the `C:\Program Files\CA\Unicenter Service Desk\site\mods\lexicons` folder.
- 52 In **WordPad**, open the `userdict.tlx` file.
- 53 Perform a search for the `firewire` word.

Notice that it is now in the dictionary.
- 54 Close the **userdict.tlx - WordPad** window.



Instructor  
Notes

Slide 6-10



## Resequence Record Numbering

Recall that different process sets can be used to start Unicenter Service Desk. One such process set is named *DBADMIN*. When this set of processes starts, no Object Manager can run, which means that no Clients can connect to the Unicenter Service Desk. However, pdm utilities can use a Database Agent to manipulate data in the database.

For example, in a very high-volume service desk environment, the Incident reference number can become very long. Resequencing the number back to 1 each year can keep the reference number reasonably short. To do this, you would need to change the suffix of the number to avoid any duplicate reference numbers.

During the resequencing process, it is very important that no Client can connect to the Unicenter Service Desk and create a ticket because you are adjusting the reference numbering. For this purpose, you can use the *DBADMIN* process set.

The following interactive demonstration takes you through this procedure.

## Interactive Demonstration



**Task Purpose:** Shorten a ticket reference number.

To control the length of ticket numbers, you want to add a *year* suffix and then resequence back to 1 at the new year. For example, the last ticket of 2006 might be 498652307658-06, and the first of 2007 might be 1-07.

First, set the -06 suffix and test it on an Incident.

- 1 In the **Unicenter Service Desk** main window, select the **Administration** tab.
- 2 In the left pane, expand **Service Desk** and select **Sequence Numbers**. The **Sequence Number Control List** appears in the right pane.
- 3 In the **Symbol** column, select **Request/Incident/Problem Num**. The **Request/Incident/Problem Num Sequence Number Control Detail** window appears.



### Reminder

Show students, using *bop\_sinfo*, that the *ref\_num* attribute of a *cr* object is a 30-character string.

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- 4 Click **Edit**. The **Request/Incident/Problem Num Update Sequence Number Control** window appears.
- 5 Type **-06** in the **Suffix** field.
- 6 Click **Save**. The **Request/Incident/Problem Num Sequence Number Control Detail** window appears.
- 7 Click **Close Window**.
- 8 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
- 9 From the **File** menu, choose **New Incident**. The **Create New Incident** window appears.

---

**Note •** The Incident number now includes a suffix.

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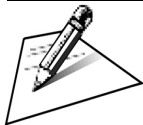
- 10 Click **Cancel**.

Next, you will extract the suffix record and the reference number record. Then you will modify the suffix from **-06** to **-07** and the reference number back to **0** from its current value.

- 11 Return to the command prompt window and navigate to the **C:\backup** folder.
- 12 Type the following and press **ENTER**:

```
pdm_extract -f "SELECT * FROM Sequence_Control WHERE code  
= 'cr'" > reseq.txt
```

Notice that one row was extracted.



Instructor  
Notes

- 13 Type the following and press ENTER:

```
pdm_extract -f "SELECT * FROM Key_Control WHERE key_name  
LIKE 'cr%'" >> reseq.txt
```

Notice that one row was extracted.

- 14 Type `notepad reseq.txt` and press ENTER.

The **reseq.txt - Notepad** window appears. Make sure that **Word Wrap** is off.

- 15 In the fourth line of text, change -06 to -07 and in the seventh line of text, change to 0 the value of the number that appears after **crkeyctl**.

- 16 Save the changes and close the **reseq.txt - Notepad** window.

Next, you will restart Unicenter Service Desk in DBADMIN mode to have exclusive access to the database during this operation. Then, you will load the modified records and restart Unicenter Service Desk normally. To have an accurate cut-over of sequence number from one year to the next, nobody can be permitted to create a ticket at this time.

- 17 At the command prompt, type `pdm_halt` and press ENTER.

- 18 To verify that Unicenter Service Desk services are stopped, type `pdm_status` and press ENTER. If the services are fully stopped, `pdm_status` returns the following message:

The Daemons are not running.

Repeat the `pdm_status` command to see this message, if necessary.

- 19 Type `pdm_d_mgr -s DBADMIN` and press ENTER. Wait for the cursor to reappear.

- 20 Type `pdm_userload -f reseq.txt -v` and press ENTER.



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Notes

If the `pdm_userload` worked properly, you will see the following:

Ending Totals:

Total tables: 2

Total rows: 2

Total inserts: 0

Total updates: 2

Total errors: 0

- 21 Type `pdm_halt` and press ENTER.
- 22 To verify that Unicenter Service Desk services are stopped, type `pdm_status` and press ENTER. If the services are fully stopped, `pdm_status` returns the following message:

The Daemons are not running.

Repeat the `pdm_status` command to see this message, if necessary.

- 23 Type `net start pdm_daemon_manager` and press ENTER.

Wait for the command prompt cursor to return to you before proceeding.

Lastly, you will verify that the first new Incident reference number is 1-07.

- 24 Return to the **Unicenter Service Desk** window and log in as administrator.



Instructor  
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## ■ Manage the Database

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### *Interactive Demonstration*

- 25 Choose **File ► New Incident**. The **Create New Incident** window appears. Notice that the incident number is **1-07**.
- 26 Click **Cancel**.

### **Task Summary**

You have manipulated database records in a variety of ways. Using the Unicenter Service Desk utilities, you can now efficiently handle a number of records at a time. In the next task, you will work with rules to archive and purge database tables.



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Slide 6-11



## Task 2: Archive and Purge Data

Over time, your Unicenter Service Desk will accumulate many inactive database records. These records consist mainly of tickets that have been closed, as well as the activity and event logs for those tickets. To conserve database space, you can configure *Archive and Purge rules* that define a schedule for archiving and purging these records from the database.

All the main objects that you archive and purge have rules predefined in Unicenter Service Desk. Child objects are also archived and purged. For example, when you archive and purge *cr* objects, such as incidents and so on, the associated *alg* objects, such as activities, are also archived and purged.

Slide 6-12



To schedule your archive and purge rules, you can choose to use existing workshift codes or to define additional ones, which is covered in the module “Establish a Business Structure.” Workshift codes enable the Archive and Purge server process, *arcpur\_svr*, to perform the archive and purge only during those permitted times in the workshift.

When configuring the rules, you can set them for Archive Only. This is a test mode to verify that the Archive and Purge works as expected.

You can create new rules for site-specific archive and purge requirements. To do this, you edit the file `install-directory/site/cfg/xxx_arcpur_cfg.xml` and then restart Unicenter Service Desk. By default, there is a separate file for non-ITIL as opposed to ITIL configurations of Unicenter Service Desk.



### Reminder

Show students that all the main rules are predefined but they are all *Inactive*; however, the search is default *Active-Only*.

Show students the `arcpur_cfg.xml` and `itil_arcpur_cfg.xml` files.

Instructor  
Notes

## **Interactive Demonstration**



**Task Purpose:** Configure Continuous Archive and Purge.

As the administrator, you are concerned about old notification messages taking up database space. You want to configure Continuous Archive and Purge so notifications older than 30 days are automatically archived and purged from the database during non-business hours.

- 1 On the **Service Desk** tab, choose **View ▶ Notification History**.
- 2 From the **Message Status** list, select **Incoming FYI**.
- 3 Click **Latest Sent Date**. The **Date Helper** window appears.
- 4 From the **Month** list, select **September** and from the **Year** list, select **2005**.
- 5 Click **OK**.
- 6 In the **Notification History** window, click **Search**. Notice that there are 31 search items returned.
- 7 Click **Close Window**.
- 8 Select the **Administration** tab.
- 9 In the left pane, select **Archive and Purge** and then select **Archive and Purge Rules**. The **Archive and Purge Rule List** appears in the right pane.
- 10 Click **Show Filter**.
- 11 From the **Status** list, select **Inactive**.
- 12 Click **Search**.
- 13 Click **Notify Log Header** and choose **Edit**. The **Notify Log Header Update Archive and Purge Rule** window appears.



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Notes

- 14 From the **Status** list, select **Active**.
- 15 In the **Schedule** field, select **Non-Business-Hours**.
- 16 Type `1 r . t x t` in the **Archive File Name** field.
- 17 Under **Operation Type**, select **Archive and Purge**.
- 18 Type `30` in the **Days Inactive** field.
- 19 Click **Save**. The **Notify Log Header Archive and Purge Rule Detail** window appears.
- 20 Click **Run Now**. The archive and purge process starts.
- 21 Click **Close Window**.
- 22 From the **Archive and Purge Rule List**, select **Search**.
- 23 Click **Show Filter**.
- 24 From the **Status** list, select **Active**.
- 25 Click **Search**. In the list, notice that **Notify Log Header** is the only active rule.
- 26 In the left pane, select **Archive and Purge History**. The **Archive and Purge History List** appears in the right pane. Note the end time and the number **31** in the **Main Objects Purged** column.
- 27 Return to Windows Explorer and navigate to the `C : \Program Files\Unicenter Service Desk` folder. In WordPad, open the `NX . env` file.
- 28 Perform a search for the rule word.
- 29 Click **Cancel**. This closes the **Find** dialog. Note the path of the archive folder.



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## ■ Manage the Database

### *Interactive Demonstration*

---

- 30 Close the **NX.env - WordPad** window.
- 31 In Windows Explorer, select the **C:\Program Files\Unicenter Service Desk\site\data\archive** folder.
- 32 In Notepad, open the **\_lr.txt** file that has today's date. Notice the records in this file that have been archived and purged from the database.
- 33 Close the file and return to the **Unicenter Service Desk** window.
- 34 Select the **Service Desk** tab.
- 35 From the **View** menu, choose **Notification History**.
- 36 From the **Message Status** list, select **Incoming FYI**.
- 37 Click **Latest Sent Date**. The **Date Helper** window appears.
- 38 From the **Month** list, select **September** and from the **Year** list, select **2005**.
- 39 Click **OK**.
- 40 Click **Search**. The **Notification History** window appears. Notice that the 31 records no longer appear.
- 41 Click **Clear Filter** and then click **Show Filter**.
- 42 From the **Message Status** list, select **Incoming FYI**.
- 43 Click **Search**. Notice that only messages from the last 30 days are displayed.
- 44 Click **Close Window**.



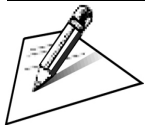
Instructor  
Notes



## Task Summary

You now have experienced archiving and purging records from the database. These are essential database management tasks that help to reduce the database size and help the database to operate more efficiently. In addition, archiving and purging might help to avoid database crashes that might cost your organization time and money. You have worked with rules for archiving and purging.

In the next task, you will administer various Unicenter Service Desk options.



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Slide 6-14



Slide 6-15



Slide 6-16



## **Task 3: Administer Options**

The environment template file, `nx.env`, contains environment variables for the Unicenter Service Desk. Although you can modify the file directly, it is highly recommended that you use the Options Manager to make any changes to the variables. Modifications made directly to `nx.env` can adversely affect the operation of the service desk product.

The Options Manager enables you to modify the functionality of Unicenter Service Desk. You can install, uninstall, or modify any or all options. Some of these options require you to specify a value when they are installed or modified. The description of the option, available in the Online Help documentation, indicates what values the Options Manager accepts, if any.

Many of the options are preconfigured and installed during Unicenter Service Desk installation. Other options are configured by your implementer. As a Unicenter Service Desk administrator, you might never change many of the options. You must, however, become familiar with every option to more fully understand the way your system works.



Instructor  
Notes

## Interactive Demonstration



**Task Purpose:** Install options.

You want to enable automatic updates of the Scoreboard counts for analysts, enable automatic placement of % characters at the end of text strings in searches, and raise the number of kept Archive and Purge history records to 75. The first option requires a restart of the web engine and the other two require a restart of the entire Unicenter Service Desk. You will set these options, restart Unicenter Service Desk, and verify the functionality of the first two options.

- 1 On the **Service Desk** tab, choose **Search ▶ Contacts**. The **Contact Search** window appears in the right pane.
- 2 Type `ber` in the **Last Name** field.
- 3 Click **Search**. Notice that no contacts are found.
- 4 Click **Show Filter**.
- 5 Type `ber%` in the **Last Name** field.
- 6 Click **Search**. The search results appear in the right pane. At least one contact is found.
- 7 In the left pane, choose **File ▶ New Incident**.
- 8 Type `administrator` in the **Affected End User** field.
- 9 Type `auto update test` in the **Description** field.
- 10 Click **Save and Close Window**.
- 11 On the **Service Desk** tab, choose **Search ▶ Incidents**. The **Incident Search** window appears in the right pane.
- 12 Type `administrator` in the **Assignee** field.



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Notes

- 13 Click **Search**. The items returned by the search are listed in the right pane.

---

**Note** • The search returns a number of incidents. The My Incidents node on the Scoreboard indicates one less incident.

---

- 14 Click **Update Counts**. My Incidents now indicates the same number as the list.
- 15 Select the **Administration** tab.
- 16 In the left pane, expand **Options Manager** and select **Web**. The **Option List** appears in the right pane.
- 17 Under the **Options** column, click **web auto update**. The **web\_auto\_update Options Detail** window appears.

---

**Note** • This option has a minimum value of 60 seconds. Also note that this requires restarting the Unicenter Service Desk web engine.

---

- 18 In the **web\_auto\_update Options Detail** window, click **Edit**. The **web\_auto\_update Update Options** window appears.
- 19 Type 60 in the **Option Value** field.
- 20 Click **Install**.
- 21 Click **Refresh**.
- 22 Click **Close Window**.
- 23 Under the **Options** column, click **web wildcard search**. The **web\_wildcard\_search Options Detail** window appears.
- 24 Click **Help on this Option**. Note that this requires restarting the Unicenter Service Desk server.



Instructor  
Notes

- 25 Close the **Help** window.
- 26 In the **web\_wildcard\_search Options Detail** window, click **Edit**. The **web\_wildcard\_search Update Options** window appears.
- 27 Click **Install**.
- 28 Click **Refresh**.
- 29 Click **Close Window**.
- 30 In the left pane, under **Options Manager**, click **Archive and Purge**. The **Option List** appears in the right pane.
- 31 In the **Option** column, right-click **rule history length** and choose **Edit**. The **rule\_history\_length Update Options** window appears.
- 32 Type 75 in the **Option Value** field.
- 33 Click **Save**. The **rule\_history\_length Options Detail** window appears.
- 34 Click **Help on this Option**. Note that this requires restarting the Unicenter Service Desk server.
- 35 Close the **Help** window.
- 36 Click **Close Window**.
- 37 In the **Unicenter Service Desk** main window, click **Log Out**.
- 38 Close the **Unicenter Service Desk Login** window.
- 39 On the taskbar, click **Show Desktop**.
- 40 On the desktop, double-click **Services**. The **Services** window appears.



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## ■ Manage the Database

### *Interactive Demonstration*

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- 41 In the right pane, right-click **Unicenter Service Desk Server** and choose **Restart**. The **Service Control** window appears. Wait for Unicenter Service Desk to restart.
- 42 Close the **Services** window.
- 43 Start the **Unicenter Service Desk Web Client** and log in as administrator.
- 44 Select the **Service Desk** tab. Wait for the **Scoreboard** to load.

---

**Note** • Auto update at <time> <timezone> appears at the top of the left pane.

---

- 45 Expand **My Queue**.
- 46 Choose **File ► New Incident**.
- 47 Type **Administrator** in the **Affected End User** field.
- 48 Type **auto update test 2** in the **Description** field.
- 49 Click **Save**. The **Incident Detail** window appears.
- 50 Click **Close Window**.

After one minute, the **My Incidents Scoreboard** node will have incremented by one.

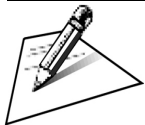
- 51 From the **Search** menu, choose **Contacts**.
- 52 Type **ber** in the **Last Name** field.
- 53 Click **Search**. The **Contact List** appears with at least one contact listed.



Instructor  
Notes

## Task Summary

You now have experience using the Options Manager to install options and update environment variable values. These options enable you to customize Unicenter Service Desk according to your organizations needs.



Instructor  
Notes



## **Skill Builder: Make a Mass Change to the Database**

### **Business Problem**

The Auto Assignment feature was activated on the production system last week. Policies were built and deployed but no analysts are being assigned to tasks because the available flags in their contact records are not enabled.

As quickly and safely as possible, set the analyst available flags to 1. It does not matter if you include non-analysts in your update but it would be better if you only updated active analysts.

### **Hint**

Use `pdm_extract` to find the data you need, Notepad to make the changes, and `pdm_userload` to load the changes back into the table. Do not forget to make a backup copy in case something goes wrong.



Instructor  
Notes

See the solution to the skill builder in the appendix "Skill Builder and Assessment Solutions."



## Assessment

- 1 Which command can be used to load records into the database if no secondary key has been defined in the DBI table?
  - a pdm\_load -i
  - b pdm\_load -s
  - c pdm\_userload -i
  - d pdm\_userload -s

Correct answer: a

- 2 Which statement describes a consequence of starting the DBADMIN process set?
  - a The database is automatically backed up.
  - b Object Manager runs with limited functionality.
  - c Clients cannot connect to the Unicenter Service Desk.
  - d The Unicenter Service Desk marks old data records for archiving.

Correct answer: c



Instructor  
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## ■ Manage the Database

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### *Assessment*

- 3 What is the name of the Unicenter Service Desk server-based spell-checking dictionary utility?
- a pdm\_ddict
  - b pdm\_spdict
  - c pdm\_lexutil
  - d pdm\_lexicon

Correct answer: c

- 4 What is the name of the Archive and Purge server process?
- a pur\_srvr
  - b archv\_srvr
  - c srvr\_arcpur
  - d arcpur\_srvr

Correct answer: d



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Slide 6-17



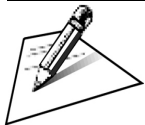
## Module Summary

*You should now be able to:*

- Manipulate Data in Bulk
- Archive and Purge Data
- Administer Options

With the Unicenter Service Desk utilities, you can modify large amounts of data quickly and economically. You can archive and delete old data quickly and securely, and you can install and update options to alter the environment variables.

In the next module, you will configure the Unicenter Service Desk Activity Notifications system.



Instructor  
Notes

## ■ Manage the Database

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### *Module Summary*



Instructor  
Notes



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# **Administer Notifications**

Slide 7-1



## Module Objectives

***After this module, you will be able to:***

- Enable Activity Notifications
- Create Activity Associations
- Create Object Contact Notifications
- Create Notification Methods

## Module Overview

RBC wants to manage the volume and efficiency of notifications sent about activity on tickets. With Unicenter Service Desk, the service department can set up notification messages to be sent automatically to the appropriate analysts when any activity occurs on a ticket.

In this module, you will configure the Unicenter Service Desk Activity Notifications system. You will set up activity notifications to be sent automatically when an activity occurs on a ticket. Using activity associations, you will create new activity types for notification and reporting. Using object contact notifications, you will set up users in your contact table to receive automatic notifications for tickets. You will also create notification methods to specify how notification messages are delivered to people.



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Slide 7-2



## Task 1: Enable Activity Notifications

To enable activity notifications, you perform the following tasks:

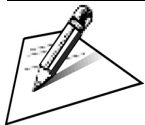
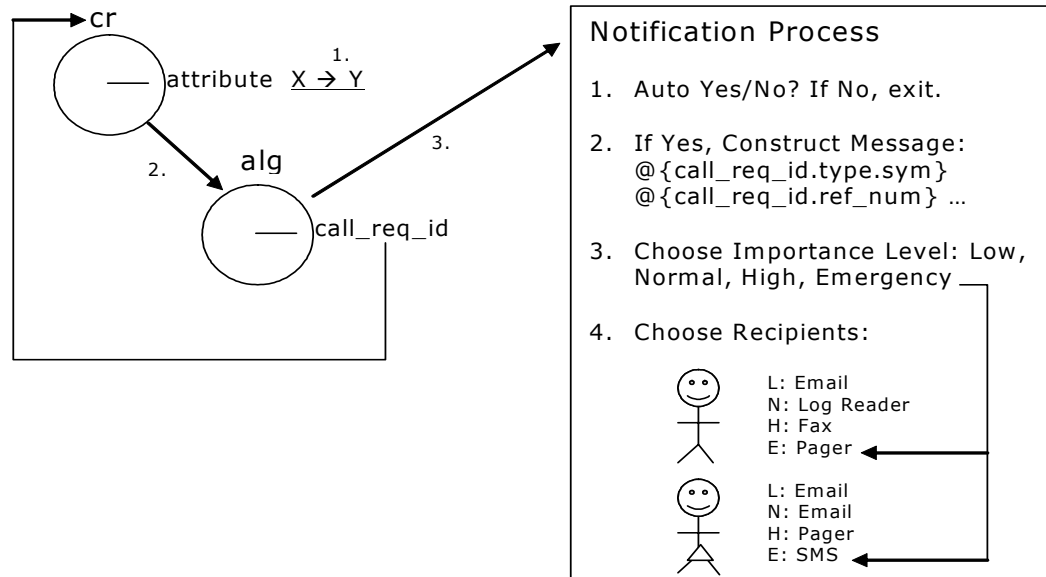
- Identify the activity notification process.
- Identify the starting point for object-level join statements.
- Set up the Activity Notification system.

Slide 7-3



## Identify the Activity Notification Process

The steps of the Activity Notification process are shown in the following graphic:



Instructor  
Notes

## ■ Administer Notifications

### Identify the Activity Notification Process

---

The left side of the previous graphic depicts the following actions:

- 1 Whenever an attribute of a ticket object has a change in its value, a new activity log object is created. For example, if the status of a ticket changes from Resolved to Closed, a Close activity is generated.
- 2 For *cr* objects, new *alg* objects are created; for *chg* objects, new *chgalg* objects are created; and for *iss* objects, new *issalg* objects are created. Activity log objects are displayed on the Activities tab of a ticket. The ideal time to notify Contacts about tickets is when something has happened to the ticket.
- 3 The creation of activity log objects is used as the start of the notification process.

In the notification process, the following actions occur:

- 1 Unicenter Service Desk determines if Auto Notification is enabled.
- 2 If Auto Notification is enabled, a message is constructed. This can contain hard-coded information in addition to information extracted from database records, such as the reference number of the ticket, through object-level join statements.
- 3 This message is sent out at one of the four notify levels of importance: Low, Normal, High, or Emergency.
- 4 A list of recipients is assembled in various ways from the contact table. Each contact can be assigned four notification methods. As shown in the previous graphic, if the message is sent at the Emergency level, one contact receives a pager message, while the other receives a Short Messaging Service (SMS) message on their cellular telephone.



Instructor  
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**Explain** Point out to students that the object-level joins do not have operators this time. You follow RELs until you reach the information you want to extract for the message.

Hard-coded information appears outside of the @{}, object-level joins appear inside.

The output from the command *bop\_sinfo -d alg* shows that *call\_req\_id* SRELs to *cr* objects, where most relevant information for the message is. This is why most object-level joins for *cr* objects start with *call\_req\_id*.



Slide 7-4



## Identify the Starting Point for Object-Level Join Statements

Compared with Data Partitions and Stored Queries, object-level join statements are easiest for activity notification message templates. This is because the starting point for the statement is always:

- For *cr* objects, an attribute of an *alg* object
- For *chg* objects, an attribute of a *chgalg* object
- For *iss* objects, an attribute of an *issalg* object
- For *mgs* objects, an attribute of an *mgsalg* object

Slide 7-5



## Set up the Activity Notification System

In the following tasks, you will perform the necessary steps to configure all aspects of the Activity Notification System.

### Activity Notifications

Activity notification records are the types of activities that appear on the Activities tab of a ticket. Unicenter Service Desk has predefined activity types such as *Callback*, *Research*, and *Update Status*. These activity types are also available on the Activities menu of a ticket. Other predefined activity types such as *Initial* and *Close* are generated when the appropriate situation has happened on a ticket. If something happens on a ticket, and there is no specific activity for it, an activity of type *Field Update* is generated.



Instructor  
Notes

## ■ Administer Notifications

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### *Activity Notifications*

An activity notification record can be separately enabled for:

- cr objects: incidents, problems, and requests
- chg objects: change orders
- iss objects: issues
- mgs objects: managed surveys

To configure an Activity Notification record for a ticket, you:

- 1 Select the appropriate ticket tab.
- 2 Select Auto Notification.
- 3 Select an importance level for the message.
- 4 Adjust the message contents if necessary.
- 5 Choose the recipient list from:
  - a Object Contacts: contact attributes of the ticket
  - b Contacts: a hard-coded list of Contacts
  - c Contact Types: all Contacts of a particular type



Instructor  
Notes

In the following tasks, you will perform the necessary steps to configure all aspects of the Activity Notification System.

## Interactive Demonstration



**Task Purpose:** Notify analysts and provide them with details when they are assigned tickets.

- 1 In the **Unicenter Service Desk** window, select the **Administration** tab.
- 2 In the left pane, expand **Notifications** and then select **Activity Notifications**.
- 3 In the **Activity Notification List**, click **List All**.
- 4 Right-click **Transfer** and choose **Edit**.
- 5 In the **Transfer Update Activity Notification** window:
  - a From the **Object Type** list, select **Requests/Incidents/Problems**.
  - b Select the **Message Template** tab.
- 6 In the **Notification Message Body** field, type What the transferring Analyst said: @{description} under the **Description** entry.
- 7 Click **Edit HTML Message**.



Instructor  
Notes

## ■ Administer Notifications

### *Interactive Demonstration*

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- 8 In the window that appears:
  - a From the **Insert** menu, choose **Horizontal Rule**.
  - b From the **Insert** menu, choose **New Line**.
  - c Copy the text:  
`@{call_req_id.type.sym} Description`
  - d Paste this on the first line under the **Horizontal Rule**.
- 9 Delete the copied text and type:  
What the transferring Analyst said:
- 10 On the line under this title, type:  
`@{esc_style=html keeplinks=yes justify=line:description}`
- 11 To return to the **Transfer Update Activity Notification** window, click **OK**.
- 12 Select the **Object Contacts** tab.
- 13 To open the **Object Contact Notification Search** window, click **Update Object Contacts**.
- 14 To open the **Notification Recipients Update** window, click **Search**.
- 15 From the **Object Contact List**, select **Assignee** and click the right transfer arrow. **Assignee** now appears in the **Notification Recipients** list.
- 16 Click **OK** and then click **Save**. The **Transfer Activity Notification Detail** window appears.
- 17 To verify the contents, select the **Message Template** tab.
- 18 To resume working with the **Activity Notification List**, click **Close Window**.



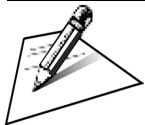
Instructor  
Notes

Next, you will verify the functionality of the **Transfer Activity Notification** by configuring Devonna Ake's **Contact** record to use the notification method named **Notification** for all **Notify Levels**.

- 19 In the left pane, expand **Security** and select **Contacts**.
- 20 In the **Contact Search** window, in the **Last Name** field, type ake and click **Search**.
- 21 In the **Contact List**, under **Name**, right-click ake, devonna and choose **Edit**.
- 22 In the ake, devonna **Update Analyst Detail** window, on the **Notification** tab, select **Notification** as the **Method** for the **Low**, **Normal**, **High**, and **Emergency** importance levels and then click **Save**.
- 23 To return to the **Contact List**, click **Close Window**.

Next, you will transfer a ticket to Devonna Ake, which generates the notification message.

- 24 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
- 25 From the **Scoreboard**, expand **My Queue** and select **My Incidents**.
- 26 To open the **Transfer Incident** window, in the **Incident List**, right-click an incident number and choose **Transfer**.
- 27 Type ake , devonna in the **New Assignee** field.
- 28 Type Test of Transfer Notification in the **User Description** field.
- 29 Click **Save**.
- 30 To refresh the **My Incidents** scoreboard node, click **Update Counts**.
- 31 To verify that the transferred incident is no longer in the list, select **My Incidents** again.



Instructor  
Notes

## ■ Administer Notifications

### *Interactive Demonstration*

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Finally, you log in as Devonna Ake to verify receipt of the notification message.

- 32 Minimize the **Unicenter Service Desk** window.
- 33 Start another Unicenter Service Desk Web Client. Use devak01 to log in.
- 34 To open the **Notification Log Reader** window, from the **View** menu, choose **Log Reader**.
- 35 To open the **Notification Detail** window, under **Header**, click **Incident Transfer**.
- 36 Verify that the notification appears correctly and then click **Close Window**.
- 37 In the **Notification Log Reader** window, click **Close Window**.
- 38 In the **Unicenter Service Desk** main window, expand **My Queue** and select **My Incidents**.
- 39 Verify that the transferred incident appears in the **Incident List**.
- 40 Click **Log Out**.

### **Task Summary**

In this task, you set up notification messages to be sent automatically to the appropriate analysts when any activity occurs on a ticket. This enables you to increase the efficiency of activity notifications and save the service department time and effort.

In the next task, you will create activity associations.



Instructor  
Notes

Slide 7-6



## Task 2: Create Activity Associations

Activity associations are the records that connect attributes of tickets with types of activities. For example, when the value of the Priority attribute changes, it is the activity association for Priority that determines an activity of type Escalate is generated.

Slide 7-7



Recall that if an attribute of a ticket does not have an association with a special activity type, it is associated with the Field Update activity type. As administrator, you can create new activity notification records, or activity types. You can then create a new activity association record that connects an attribute of a ticket to your new activity type instead of Field Update. This feature enables you to separately notify and report on your new type of activity.

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**Note** • Unicenter Service Desk supports only one activity association per object attribute.

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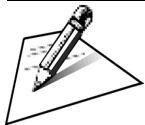
Create an activity association to establish notifications for attributes of objects that do not support a separate notification.

### Interactive Demonstration



**Task Purpose:** Notify and report when the value of the *severity* attribute is modified on a ticket.

It is not possible to notify analysts when the value of the *severity* attribute is modified because a **Field Update** activity is generated. **Field Update** activities are generated for many other changes in attribute values, for example, the *description* attribute of the ticket. The administrator investigates this situation.



Instructor  
Notes

## ■ Administer Notifications

### *Interactive Demonstration*

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- 1 Resume working with the Unicenter Service Desk Web Client into which you are logged as Administrator.
- 2 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
- 3 From the **Scoreboard**, expand **My Queue** and select **My Incidents**.
- 4 To open the **Update Incident** window, in the **Incident List**, right-click an incident number and choose **Edit**.
- 5 In the **Update Incident** window, in the **Description** field, type **modified** and then click **Save**.
- 6 In the **Incident Detail** window, click **Edit**.
- 7 In the **Update Incident** window, from the **Severity** list, select **4** and click **Save**.
- 8 In the **Incident Detail** window, select the **Activities** tab. Notice that changing **Severity** or **Description** generates a **Field Update** activity.
- 9 Click **Close Window**.

Next, you will copy another **Activity Notification** record to create the **Severity Modified** record more easily.

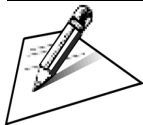
- 10 In the **Unicenter Service Desk** main window, select the **Administration** tab.
- 11 From the left pane, expand **Notifications** and select **Activity Notifications**.
- 12 In the **Activity Notification List**, under **Symbol**, right-click **Callback** and choose **View**.
- 13 In the **Callback Activity Notification Detail** window, choose **File ► Copy**.



Instructor  
Notes



- 14 In the **Create New Activity Notification** window:
  - a Type **Severity Modified** in the **Symbol** field.
  - b Type **SM** in the **Code** field.
  - c Clear **Change Orders** and **Issues**.
  - d Click **Save & Continue**.
- 15 In the **Severity Modified Update Activity Notification** window, type **Severity** attribute of the ticket has been modified in the **Description** field.
- 16 On the **Message Template** tab, select **Auto Notification**.
- 17 Select the **Object Contacts** tab and select **Update Object Contacts**.
- 18 In the **Object Contact Notification Search** window, in the **Symbol** field, type **as** and click **Search**.
- 19 In the **Notification Recipients Update List**, from the **Object Contact List**, select **Assignee** and click the right transfer arrow. **Assignee** now appears in the **Notification Recipients** list.
- 20 To resume working with the **Severity Modified Update Activity Notification** window, click **OK**.
- 21 Click **Save**.
- 22 In the **Severity Modified Activity Notification Detail** window, click **Close Window**.
- 23 To refresh the list, in the **Activity Notification List**, click **Search**.
- 24 Click **List All** and verify that **Severity Modified** appears in the list.



Instructor  
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## ■ Administer Notifications

### *Interactive Demonstration*

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Next, the administrator modifies the **Activity Association** record for **Severity** from **Field Update** to the new **Severity Modified** activity.

- 25 In the **Unicenter Service Desk** main window, select the **Administration** tab.
- 26 Expand **Notifications** and click **Activity Associations**.
- 27 In the **Activity Association List**:
  - a Click **Show Filter**.
  - b Type Sev% in the **Symbol** field.
  - c Click **Search**.
- 28 In the **Activity Association List**, under **Symbol**, right-click **Severity** and choose **Edit**.
- 29 In the **Severity Update Activity Association Type** window:
  - a From the **Activity Type** list, select **Severity Modified**.
  - b Click **Save**.
  - c Click **Close Window**.

Next, you will verify that changing the value of the **Severity** attribute on a ticket assigned to Devonna Ake generates the new **Severity Modified** activity record.

- 30 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
- 31 From the **Scoreboard**:
  - a Expand **Incidents**.
  - b Expand **Assigned**.
  - c Select **All**.



Instructor  
Notes

- 32 In the **Incident List**, right-click an incident assigned to Devonna Ake and choose **Edit**.
- 33 In the **Update Incident** window, change the value of **Severity**.
- 34 Type severity modified test after the existing description in the **Description** field.
- 35 Click **Save**.
- 36 On the **Activities** tab, verify that the **Severity Modified** activity appears.
- 37 Click **Close Window**.

Finally, the administrator logs in as Devonna Ake to verify receipt of the **Severity Modified** notification message.

- 38 Minimize the **Unicenter Service Desk** window.
- 39 Start another Unicenter Service Desk Web Client using devak01 to log in.
- 40 To open the **Notification Log Reader** window, from the **View** menu, choose **Log Reader**.
- 41 To open the **Notification Detail** window, click **Incident Severity Modified**.
- 42 Verify that the notification message appears and then click **Close Window**.
- 43 In the **Notification Log Reader** window, click **Close Window**.
- 44 In the **Unicenter Service Desk** main window, click **Log Out**.

## Task Summary

In this task, you created an activity association that enables you to send separate notifications for a new type of activity. In the next task, you will create object contact notifications.



Instructor  
Notes

Slide 7-8



## Task 3: Create Object Contact Notifications

Some attributes of tickets relate to users in your contact table, for example, Affected End User and Assignee. Other users in your contact table can also be interested in a ticket and will therefore need to be notified when something happens to the ticket. In these cases, you can create new object contact notification records that reference these other interested users. This new record can then be chosen as a recipient of notification on the Objects tab of the Activity Notification record.

Slide 7-9



When creating a new object contact notification, you specify the new person using an object-level query, including joins if appropriate. The starting point for your query is an attribute of the ticket. For example, to include the Supervisor of the Assignee in the notification, the object-level query becomes `assignee.supervisor_contact_uuid`. See the following interactive demonstration for more details.

Create an object contact notification to establish notifications to people who are interested in tickets, but who cannot receive notifications for these tickets.

### Interactive Demonstration



**Task Purpose:** Notify the supervisor of an analyst assignee when tickets are transferred to that analyst.

First, you modify Devonna Ake's Contact record with her supervisor, Gary Donin, and find the name of the attribute that references the supervisor of an analyst on a Contact record.

- 1 Resume working with the **Service Desk Web Client** into which you are logged as Administrator.
- 2 In the **Unicenter Service Desk** main window, select the **Administration** tab.
- 3 In the left pane, expand **Security** and select **Contacts**.



Instructor  
Notes

- 4 In the **Contact List**, right-click **Devonna Ake** and choose **Edit**.
  - 5 In the **ake, devonna Update Analyst** window, select the **Organizational Info** tab.
  - 6 To open the **Contact Search** window, click **Supervisor**.
  - 7 In the **Organization** field, type **ser** and click **Search**.
  - 8 In the **Contact List**, under **Name**, right-click **Donin, Gary** and choose **Select**.
  - 9 In the **ake, devonna Update Analyst** window, click **Save**.
  - 10 In the **ake, devonna Analyst Detail** window, press **CTRL**, right-click the white space, and choose **View Source**.
  - 11 Search for the window label of **Supervisor**. Append “ , ” to the search text so the search text is **Supervisor”, ”**. This combination will appear only once in the source file. The next word shows the attribute as **supervisor\_contact\_uuid**.
  - 12 Close the source file.
  - 13 In the **ake, devonna Analyst Detail** window, click **Close Window**.
- Next, find the name of the **Assignee** attribute on an incident.
- 14 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
  - 15 Expand **Incidents/Assigned** and select **All**.
  - 16 In the **Incident List**, right-click an incident and choose **View**.
  - 17 In the **Incident Detail** window, press **CTRL**, right-click the white space, and choose **View Source**.



Instructor  
Notes

## ■ Administer Notifications

### *Interactive Demonstration*

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18 Search for the window label of **Assignee**. Append “,” to the search text so the search text is **Assignee,”**. This combination will appear only once in the source file. The next word shows the attribute as **assignee**.

19 Close the source file.

20 In the **Incident Detail** window, click **Close Window**.

Now, create an **Object Contact Notification** record with an object attribute name of **assignee.supervisor\_contact\_uuid**.

21 In the **Unicenter Service Desk** main window, select the **Administration** tab.

22 In the left pane, expand **Notifications** and select **Object Contact Notifications**.

23 In the **Object Contact Notification List**, click **Create New**.

24 In the **Create New Object Contact Notification** window:

a Type Assignee’s Supervisor in the **Symbol** field.

b From the **Object Type** list, select **Request**.

c Type `assignee.supervisor_contact_uuid` in the **Object Attribute Name** field.

d Type The supervisor of an assignee on a cr object in the **Description** field.

25 Click **Save** and then click **Close Window**.

Alter the **Transfer** activity to include the new assignee's supervisor for notification.

26 In the **Unicenter Service Desk** main window, select the **Administration** tab.

27 In the left pane, expand **Notifications** and select **Activity Notifications**.

28 In the **Activity Notification List**, click **Show Filter**.



Instructor  
Notes

- 29 In the **Symbol** field, type **t** and click **Search**.
  - 30 Under **Symbol**, right-click **Transfer** and choose **Edit**.
  - 31 In the **Transfer Update Activity Notification** window, at the top of the **Object Contacts** tab, click **Update Object Contacts**.
  - 32 In the **Object Contact Notification Search** window, in the **Symbol** field, type **a** and click **Search**.
  - 33 In the **Notification Recipients Update** window, from the **Object Contact List**, select **Assignee's Supervisor** and click the right transfer arrow. **Assignee's Supervisor** now appears in the **Notification Recipients** list.
  - 34 To resume work in the **Transfer Update Activity Notification** window, click **OK**.
  - 35 Click **Save**.
  - 36 In the **Transfer Activity Notification Detail** window, verify that **Assignee** and **Assignee's Supervisor** appear in the **Object Contact List**.
  - 37 Click **Close Window**.
- Finally, transfer an incident to Devonna Ake and verify that her supervisor, Gary Donin, also received a notification.
- 38 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
  - 39 From the **File** menu, select **New Incident**.
  - 40 In the **Create New Incident** window:
    - a Type **adm** in the **Affected End User** field.
    - b In the **Description** field, type **test** and click **Save**.



Instructor  
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## ■ Administer Notifications

### *Interactive Demonstration*

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- 41 In the **Incident Detail** window, from the **Activities** menu, select **Transfer**.
- 42 In the **Transfer Incident** window, clear the contents of the **New Assignee** field and then type Ake , Devonna in this field.
- 43 Type supervisor notify test in the **Description** field.
- 44 Click **Save**.
- 45 In the **Incident Detail** window, click **Close Window**.
- 46 From the **View** menu, select **Notification History**.
- 47 In the **Notification History** window, from the **Message Status** list, select **Incoming FYI**.
- 48 Click **Search**.
- 49 Verify that Devonna Ake and Gary Donin each received a notification message regarding the new incident transfer.
- 50 Click **Close Window**.

## **Task Summary**

In this task, you created an object contact notification. This enabled you to establish an automatic notification to a user in your contact list who previously did not receive notifications. You also practiced sending notification messages.

In the next task, you will create notification methods.



Instructor  
Notes



Slide 7-10



## Task 4: Create Notification Methods

Notification methods describe how notification messages are delivered to users. Each contact in Unicenter Service Desk can be assigned four notification methods, one for each level of importance: Low, Normal, High, and Emergency.

A notification method typically calls a script to send a message. Unicenter Service Desk makes the notification message available to the script using environment variables.

Slide 7-11



The predefined notification methods are:

- Email: Simple Mail Transfer Protocol (SMTP)
- Fax
- Pager: Alphanumeric
- Notification: Unicenter Service Desk Web Client Log Reader

You can also create notification methods. To do so, find a utility that transmits information, such as a command-line SMS utility, and pass the contents of appropriate environment variables to that utility using a script.

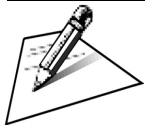
### Interactive Demonstration



**Task Purpose:** Create a new notification method that sends notifications to the Windows Application Log.

First, you need to create a batch file that shows which environment variable contains the message. Next, create the **Notification Method** record to run the batch file.

- 1 Open Windows Explorer.
- 2 Expand C : and select backup in the **Folders** pane.



Instructor  
Notes

## ■ Administer Notifications

### *Interactive Demonstration*

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- 3 Right-click a blank portion of the right pane and choose **New ► Text Document**.
- 4 In the **Name** field, type `applog.bat` to name the new text document and press **ENTER**.
- 5 When the **Rename** warning appears, click **Yes**.
- 6 Right-click **applog.bat** and choose **Edit**.
- 7 Type `set` on the first line and type `pause` on the second line.
- 8 From the **File** menu, choose **Save** and close the file.
- 9 Resume working with the **Unicenter Service Desk** main window.
- 10 Select the **Administration** tab.
- 11 In the left pane, expand **Notifications** and select **Notification Methods**.
- 12 In the **Notification Method List**, click **Create New**.
- 13 In the **Create New Notification Method** window:
  - a Type `Win App. Log` in the **Symbol** field.
  - b Type `Send to Windows Application Log` in the **Description** field.
  - c Type `launchit c:\\backup\\applog.bat` in the **Notification Method** field. Notice that because the backslash character is the Unicenter Service Desk escape character, two backslashes are required to properly format a Microsoft Windows path.
  - d Click **Save**.
- 14 In the **Win App. Log Notification Method Detail** window, click **Close Window**.
- 15 To refresh the list and verify that the new notification appears, in the **Notification Method List**, click **Search**.



Instructor  
Notes

Next, as administrator, you will modify your own **Contact** record to use the new notification method.

- 16 In the **Unicenter Service Desk** main window, select the **Administration** tab.
- 17 In the left pane, expand **Security** and select **Contacts**.
- 18 In the **Contact Search** window:
  - a Type adm in the **Last Name** field.
  - b Click **Search**.
- 19 In the **Contact List**, under **Name**, right-click **Administrator** and choose **Edit**.
- 20 In the **Administrator Update Analyst** window, from the **Normal** list, select **Win App. Log** and click **Save**.
- 21 In the **Administrator Analyst Detail** window, click **Close Window**.

Next, test the functionality of the new notification method by modifying the severity of an incident where the administrator is the assignee. From this, you can identify the environment variable that holds the notification message.

- 22 In the **Unicenter Service Desk** main window, select the **Service Desk** tab.
- 23 From the **Scoreboard**, expand **My Queue** and select **My Incidents**.
- 24 In the **Incident List**, right-click an incident and choose **Edit**.
- 25 In the **Update Incident** window, change the value of **Severity** and click **Save**. Unicenter Service Desk then runs the batch file and a command prompt window, which displays all the environment variables, appears.
- 26 Look through these variables. The most suitable variable for our purposes is **NX\_NTF\_MESSAGE**.



Instructor  
Notes

## ■ Administer Notifications

### *Interactive Demonstration*

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27 Close the command prompt window by pressing any key.

Next, modify the **Severity Modified** activity notification to properly format the notification message for the **Windows Application Log** and then modify the batch file to send the notification message to the **Windows Application Log** using the **eventcreate** utility.

28 In the **Unicenter Service Desk** main window, select the **Administration** tab.

29 In the left pane, expand **Notification** and select **Activity Notifications**.

30 In the **Activity Notification List**:

- a Click **Show Filter**.
- b Type **sev** in the **Symbol** field.
- c Click **Search**.

31 In the **Activity Notification List**, under **Symbol**, right-click **Severity Modified** and choose **Edit**.

32 In the **Severity Modified Update Activity Notification** window, format the **Notification Message Body** field on the **Notification Message Template** tab so there are no new-line characters in the field. The field looks like the following:

```
@{call_req_id.type.sym} @{call_req_id.ref_num}  
@{type.sym}, Assigned to:  
@{call_req_id.assignee.combo_name}, Customer:  
@{call_req_id.customer.combo_name}, Description:  
@{call_req_id.description}. Use the following URL to view  
@{call_req_id.type.sym}: @{call_req_id.web_url}
```

33 Click **Save** and **Close Window**.

34 Open Windows Explorer.

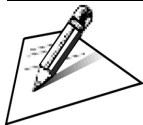


Instructor  
Notes

- 35 Expand C : and select backup in the **Folders** pane.
- 36 Right-click **applog.bat** and choose **Edit**.
- 37 Delete the contents of the file.
- 38 Type `eventcreate /ID 1 /L Application /SO USD_Notify /T Information /D "%NX_NTF_MESSAGE%"` on the first line. Note that the quotation marks are required.
- 39 From the **File** menu, choose **Save** and close the file.
- 40 Minimize Windows Explorer.

Finally, verify functionality of the **Severity Modified** activity notification by modifying the severity of an incident where you are the **Assignee**.

- 41 Maximize the **Incident Detail** window and click **Edit**.
- 42 In the **Update Incident** window, change the value of **Severity** and click **Save**.
- 43 In the **Incident Detail** window, click **Close Window**.
- 44 Minimize the **Unicenter Service Desk** window and return to the desktop.
- 45 To open the **Computer Management** window, right-click the icon with the name of your computer and choose **Manage**.
- 46 In the left pane, from **Computer Management (local)**, expand **System Tools/Event Viewer** and select **Application**.
- 47 Open the **USD\_Notify** event and review the contents in the **Description** field.



Instructor  
Notes

## Task Summary

In this task, you created a new notification method that sends notifications to the Windows Application Log. First, you created a Notification Method record to run a batch file that shows which environment variable contains the message. Next, you tested the functionality of the new notification method by modifying the severity of an incident where the administrator is the assignee. Then, you modified the Severity Modified activity notification to format and send the notification message. Finally, you verified the functionality of the Severity Modified activity notification by modifying the severity of an incident where you are the Assignee.

These tasks enabled you to set up notification methods and describe how notification messages are delivered to the appropriate analysts. This helps ensure that analysts respond to ticket activity with appropriate urgency and increases turnover time on high-severity tickets.



Instructor  
Notes

## Assessment

- 1 When an attribute of a cr object has a change in its value, which new object is created?
  - a alg object
  - b chg object
  - c issalg object
  - d chgalg object

Correct answer: a

- 2 When the value of an attribute of a ticket changes, what determines the type of activity that is generated?
  - a The activity log object of the ticket
  - b The activity notification for the ticket
  - c The activity association of the attribute
  - d The predefined activity types available on a ticket

Correct answer: c



Instructor  
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## ■ Administer Notifications

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### *Assessment*

- 3 What is the function of object contact notifications?
- a They enable you to identify the member of your contact table that is assigned a ticket.
  - b They enable you to identify the members of your contact table that receive automatic notifications.
  - c They enable you to set up the notification methods for notifications to members of your contact table.
  - d They enable you to set up members of your contact table as new recipients of automatic notifications.

Correct answer: d

- 4 How many notification methods can each recipient of automatic notifications be assigned?
- a One
  - b Two
  - c Four
  - d Eight

Correct answer: c



Instructor  
Notes



Slide 7-12



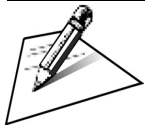
## Module Summary

*You should now be able to:*

- Enable Activity Notifications
- Create Activity Associations
- Create Object Contact Notifications
- Create Notification Methods

In this module, you managed the volume and efficiency of notifications sent out about activity on tickets. Using the Unicenter Service Desk Activity Notifications system, you set up activity notifications to be sent automatically when an activity occurs on a ticket. Using activity associations, you created new activity types for notification and reporting. Using object contact notifications, you set up users in your contact table to receive automatic notifications for tickets. You also created notification methods to specify how notification messages are delivered to users.

In the next module, you will administer Service Level Agreements.

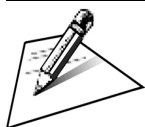


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Notes

## ■ Administer Notifications

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### *Module Summary*



Instructor  
Notes

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# **Administer Service Level Agreements**

Slide 8-1



## Module Objectives

*After this module, you will be able to:*

- Define SLA Components
- Create Macros
- Create Events
- Create Automatic Events
- Create Service Types
- Create Service Contracts

## Module Overview

An SLA is an agreement between a service provider—a service desk—and an end-user organization that specifies in measurable terms the level of service that will be provided.

Unicenter Service Desk supports SLAs by enabling organizations to track the condition of a ticket and to take certain actions based on the state of the ticket at any time during the life of that ticket. As the administrator for RBC, you can use macros, events, service types, and service contracts to manage SLAs with the end user.



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Slide 8-2



## Task 1: Define SLA Components

In Unicenter Service Desk, service types enable you to track and take action on tickets automatically to help you avoid breaching SLAs with your users.

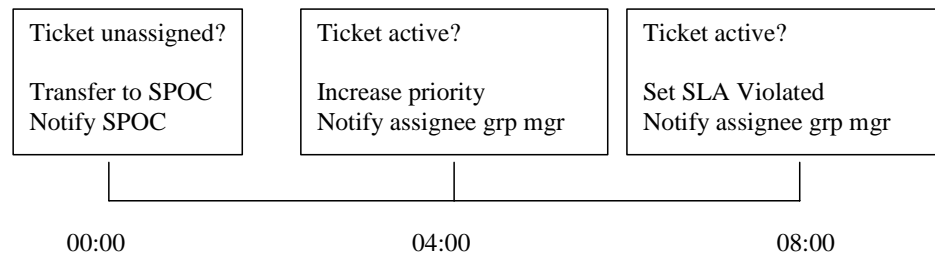
For example, consider three basic milestones for an eight-hour restore-time SLA:

- 1 If a ticket is unassigned more than five minutes after its creation, transfer it to the Single Point of Contact (SPOC) Level 1 Supervisor and notify them.
- 2 If, after four hours, the ticket is still active, increase the priority and notify the assignee and group manager.
- 3 If, after eight hours, the ticket is still active, flag the ticket as SLA Violated, which shows a red reference number, and notify the assignee and group manager.

Slide 8-3



The first two milestones help you avoid breaching the SLA. The third helps you isolate and report on already breached tickets. You can visualize the milestones in a timeline with time starting from ticket creation:



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### *Task 1: Define SLA Components*

In Unicenter Service Desk, the SLA milestones are named *events*. Each event is comprised of:

- A delay time from ticket creation
- A condition, which is a test of the ticket
- One or more actions, for example, Transfer, Notify, and so on

Conditions and actions are performed by macros. The events that describe the particular level of service a ticket needs are placed together into a service type record.

Many SLAs are not promised on a 24 hours a day, 7 days a week; some levels of service are only committed to between, for example, 8 a.m. to 5 p.m. In these cases, you can use workshift codes to pause the delay times during hours not covered by the SLA so your service desk is not unfairly disadvantaged by false SLA breaches. Workshifts can be associated with individual events or with an overall service type.

### **Task Summary**

Service types enable you to automatically track and take action on tickets to help you avoid breaching SLAs with your users. This helps ensure that the agreed measurable level of service is provided to your users and promotes customer satisfaction. Now that you are familiar with defining SLA components, you will create macros.



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Slide 8-4



## Task 2: Create Macros

Macros are used to implement the conditions and actions used by events. Macros are snippets of SPEL code that you can use to perform tasks automatically. Some Unicenter Service Desk macros are already defined for you and cannot be altered. Other macros can be created by the administrator.

Slide 8-5



## Define Macro Types Used for Event Actions

There are six types of macros. Four of these types, Action, Attach Event, Execute Remote Reference, and Multiple Notification, can be used as actions of an event. You cannot make new Action macros. If you need an event to run a new kind of Action, use the Action macro named *Run the Event Script*.

Two macro types, Condition and Site-defined Condition, can perform condition tests for events.

### Action Macros

Unicenter Service Desk has a set of predefined Action macros, which address a long list of standard actions that you might want to use for a related event. The predefined Action macros cannot be added, altered, or deleted through the user interface.

### Attach Event Macros

When a ticket has an attached event, one of the possible actions is an Attach Event macro. This macro has the function of attaching *another* event to the ticket. When configuring an Attach Event macro, you specify the *other* event that will be attached to the ticket by this macro.

---

**Note** • You will create an Attach Event macro in the Create Events task in this module.

---



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## Execute Remote Reference Macros

The Remote Reference table contains records that define how Unicenter Service Desk can access and run external applications. Execute Remote Reference macros use these records to run appropriate external applications from an event. Ideally, these applications will not require user intervention because the macro will run them as an event Action at an important milestone in the life of a ticket. For example, writing to the operating system logs or sending information to other products like Unicenter® Network and Systems Management (Unicenter NSM) for alerts are good candidates for inclusion as Remote References.

## Multiple Notification Macros

Similar to the Automatic Notification system, Multiple Notification macros can be used to send a custom message at a chosen importance level to a list of recipients.

Object-level queries can be used to extract information for the message. This time, the starting point of the query is an attribute of the object on which the macro is performing tasks. For example, if you create a Multiple Notification macro for Requests, such as *cr* objects, you would use the syntax `@{ref_num}` to extract the reference number of the ticket on which the macro is performing tasks.



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## Interactive Demonstration



**Task Purpose:** Send a Warning event to the Windows Application Log when a ticket is totally unassigned.

As a Unicenter Service Desk administrator, you first need to create a Remote Reference in Unicenter Service Desk that can run the Windows command to generate the event. You then need to create a Remote Reference macro to run the Remote Reference. You will then create an event that has the macro as an Action and test the event on a ticket.

---

**Note •** For interactive demonstration purposes, the *Delay Time* of the service desk event will be shortened to five seconds.

---

- 1 On the **Administration** tab, expand **Service Desk**, expand **Application Data**, and select **Remote References**.
- 2 Click **Create New**.
- 3 In the **Create New Remote Reference** window, complete the following fields:
  - a **Symbol:** Unassigned to Win App. Log
  - b **Code:** UWAL
  - c **Description:** Sends the Unassigned message to the Windows Application Log
  - d **NT Server, Unix Server, or Unix Client Exec Command:** eventcreate / ID 1 /L Application /SO USD\_Macro /T Warning /D "\"A ticket has neither an Assignee nor a Group, please log in to Unicenter Service Desk and investigate\""
- 4 From the **Architecture Type** list, select **win**.



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**Perform** Have students perform this interactive demonstration or demonstrate the use of Unicenter NSM r11 Event Management and the `cawto` command. You must gauge the level of interest in Unicenter NSM because students without Unicenter NSM will be more interested in the Windows Application Log.

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### *Interactive Demonstration*

- 5 Click **Save**.
- 6 Click **Close Window**.

Next, you need to create the **Execute Remote Reference** macro that runs the **Remote Reference**.

- 7 On the **Administration** tab, expand **Events and Macros** and select **Macros**.
- 8 Click **Create New**.
- 9 In the **Create New Macro** window, type **Send Win App. Log** in the **Symbol** field.
- 10 From the **Object Type** list, select **Request**.
- 11 From the **Macro Type** list, select **Execute Remote Reference**.
- 12 Click **Continue**.
- 13 Select **Remote Reference**. This opens the **Remote Reference Search** window.
- 14 Click **Search**.
- 15 In the **Symbol** column, select **Unassigned to Win App. Log**.  
**Unassigned to Win App. Log** now appears in the **Remote Reference** field.
- 16 Type **Runs the Unassigned to Win App. Log Remote Reference** in the **Macro Description** field.
- 17 Click **Save**.
- 18 Click **Close Window**.

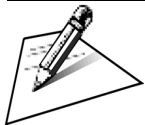
As an administrator, you create the service desk event that tests the ticket for no assignee and no group and runs the **Execute Remote Reference** macro if True.

- 19 On the **Administration** tab, expand **Events and Macros** and select **Events**.



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Notes

- 20 Click **Create New**.
- 21 In the **Create New Event** window, complete the following fields:
  - a **Name:** If unass. send Win App. Log
  - b **Description:** If ticket is totally unassigned, send an event to the Windows Application Log
  - c **Delay Time:** 00:00:05
- 22 From the **Object Type** list, select **Request**.
- 23 Select **Allow time resetting**.
- 24 From the **On Done Event Flag** list, select **Save History**.
- 25 Click **Save** and then click **Edit**.
- 26 Click **Condition**.
- 27 In the **Macro List**, select **assignee & group not assigned**.
- 28 Select the **Action Information** tab.
- 29 Click **Update Actions on True**.
- 30 From the **Type** list, select **Execute Remote Reference**.
- 31 Click **Search**.
- 32 To move the **Send Win App. Log** Action to the **Actions on True** list, click >>.
- 33 Click **OK**.
- 34 Click **Save**.
- 35 Click **Close Window**. You will now test the functionality on an Incident.



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## ■ Administer Service Level Agreements

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### *Interactive Demonstration*

- 36 Select the **Service Desk** tab.
- 37 In the left pane, expand **Incidents**, expand **Assigned**, and select **All**.
- 38 In the **Incident List**, right-click an Incident and choose **Edit**.
- 39 Delete the text in the **Assignee** and **Group** fields.
- 40 Click **Save**.
- 41 Choose **Actions ► Attach Service Type Event**.
- 42 Type **if%** in the **Service Type Event** field and click **OK**. The window refreshes and displays the **Delay Time**.
- 43 Click **OK**.
- 44 Choose **View ► Event History**. The status of the event associated with the **assignee & group not assigned** Condition is **Complete**.
- 45 Click **Close Window**.
- 46 On the taskbar, click **Show Desktop**.
- 47 On the desktop, right-click the icon with the name of your computer.
- 48 Choose **Manage**.
- 49 In the left pane, expand **Event Viewer** and select **Application**.
- 50 In the list, double-click the **USD\_Macro** event.
- 51 Observe the information.
- 52 Click **Cancel**.
- 53 Close the **Computer Management** window.



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## Interactive Demonstration

**Task Purpose:** Create a Multiple Notification macro that notifies the assignee of a ticket that has an excessively long waiting time for parts.

---

**Note •** You will use this macro in the Create Events task in this module.

---

- 1 On the **Administration** tab, expand **Events and Macros** and select **Macros**.
- 2 Click **Create New**.
- 3 Type **Notify Assignee Re Parts** in the **Symbol** field.
- 4 From the **Macro Type** list, select **Multiple Notification**.
- 5 From the **Object Type** list, select **Request**.
- 6 Click **Continue**.
- 7 In the **Create New Macro Notify Assignee Re Parts** window, complete the following fields:
  - a **Macro Description:** Notify the Assignee that a ticket has been awaiting parts for too long
  - b **Notification Message Title:** @ {type.sym} @ {ref\_num} @ {status.sym} too long
  - c **Notification Message Body:** @ {type.sym} @ {ref\_num} has been @ {status.sym} for too long. Please investigate.
- 8 From the **Notify Level** list, select **High**.
- 9 Click **Save**.
- 10 Select the **Objects** tab.



Instructor  
Notes

- 11 Click **Update Object Contacts**.
- 12 Click **Search**.
- 13 In the **Object Contact List**, select **Assignee**.
- 14 Click **>>**.
- 15 Click **OK**.
- 16 Click **Close Window**.

Slide 8-6



## **Define Macro Types Used for Event Conditions**

### **Condition Macros**

Condition macros are predefined in Unicenter Service Desk by Computer Associates. They consist of many standard condition tests that you might want to perform on a ticket.

When you want to perform a test on a ticket, it is wise to review the available Condition macros to see if a test already exists for your needs. If the test you want does not already exist, you can create a Site-defined Condition macro.

### **Site-defined Condition Macros**

Site-defined Condition macros are especially useful when your implementer has created additional attributes of ticket objects. In these cases, the Site-defined Condition macros enable you to bring these new attributes into use for SLA milestone testing. For example, if you have a new attribute of *cr* objects representing the assignee's supervisor, you can test the value of that attribute against another contact-style attribute, such as affected end user, assignee, or a particular contact from the list of contacts.



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Site-defined Condition macros enable you to logically sequence multiple attribute tests in the one macro, group them in terms of AND or OR, and provide parentheses capability, such as opening and closing groups, to change the order of evaluation of the tests.

## Interactive Demonstration



**Task Purpose:** Create a Site-defined Condition macro that checks if a ticket that has an excessively long waiting time for parts and if it has a configuration item associated with it.

---

**Note •** You will use this macro in the Create Events task in this module.

---

- 1 In the **Macro List**, click **Create New**.
- 2 Type **Check Awaiting Parts** in the **Symbol** field.
- 3 From the **Macro Type** list, select **Site-defined Condition**.
- 4 From the **Object Type** list, select **Request**.
- 5 Click **Continue**.
- 6 Type **Check if a ticket is awaiting parts and it has a Configuration Item associated** in the **Macro Description** field.

---

**Note •** Your macro description can have a maximum of 80 characters.

---

- 7 Click **Save**.
- 8 In the **Conditions** pane, click **Add Condition**.



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Notes

- 9 In the **Create New Atomic Condition** window, complete the following fields:
  - a **Sequence**: 10
  - b **Description**: Check Awaiting Parts
  - c **Select an Attribute**: Status
- 10 From the **Choose Operator** list, select **Equals**.
- 11 From the **Select Attribute or Data Value** list, select **Data Value**. The window refreshes with a **Data Value** field.
- 12 Type A in the **Data Value** field.
- 13 Select **Data Value**.
- 14 In the **Name** column, select **Awaiting Parts**.
- 15 Click **Save**.
- 16 In the **Conditions** pane, click **Add Condition**.
- 17 In the **Create New Atomic Condition** window, complete the following fields:
  - a **Sequence**: 20
  - b **Description**: Check associated Configuration Item
- 18 Type AS in the **Select an Attribute** field.
- 19 Select **Select an Attribute**.
- 20 In the **Symbol** column, select **Asset**.
- 21 From the **Choose Operator** list, select **Not Empty/Null**.



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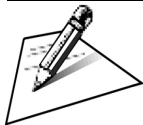


22 Click **Save**.

23 Click **Close Window**.

## **Task Summary**

You learned how to create macros. Unicenter Service Desk has a set of predefined Action macros, which address a long list of standard actions that you might want to use for a related event. These predefined Action macros help to increase your efficiency by performing standard tasks automatically and enable you to focus resources more effectively. Next, you will learn how to create events.



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Slide 8-7



## Task 3: Create Events

Macros by themselves do not do anything. After you create macros, you must associate them with events. When creating events, selecting the object type restricts the choice of Condition and Action macros that can be used to only those that work for that object type.

### Interactive Demonstration



**Task Purpose:** Create a timed event.

As the administrator for RBC, you are required to create an event that, after eight hours, checks if a ticket is waiting for parts and if it has a configuration item associated with it. If it does, the event must notify the assignee of the ticket that has an excessively long waiting time for parts.

---

**Note** • For interactive demonstration purposes, the *Delay Time* of the service desk event will be shortened to five seconds.

---

- 1 On the **Administration** tab, expand **Events and Macros** and select **Events**.
- 2 Click **Create New**.
- 3 In the **Create New Event** window, complete the following fields:
  - a **Name:** Awaiting Parts Too Long
  - b **Description:** Notify assignee if a ticket is awaiting parts after eight hours.
  - c **Delay Time:** 00:00:05
- 4 From the **Object Type** list, select **Request**.
- 5 Select **Allow time resetting**.

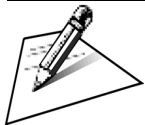


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**Describe** Explain the details of an event to students.  
Tell students about the multi-purpose Text field, primarily used with Transfer macros.

- 6 From the **On Done Event Flag** list, select **Save History**.
  - 7 Click **Save**.
  - 8 In the **Awaiting Parts Too Long Event Detail** window, click **Edit**.
  - 9 Click **Condition**.
  - 10 In the **Symbol** column, select **Check Awaiting Parts**.
  - 11 Select the **Action Information** tab.
  - 12 Click **Update Actions on True**.
  - 13 From the **Type** list, select **Multiple Notification**.
  - 14 Click **Search**.
  - 15 To move the **Notify Assignee Re Parts** Action to the **Actions on True** list, click **>>**.
  - 16 Click **OK**.
  - 17 Click **Save**.
  - 18 Click **Close Window**.
- You now test the functionality of the timed event on an Incident by manually attaching the event to the Incident using ticket actions.
- 19 Select the **Service Desk** tab.
  - 20 Choose **File ► New Incident**.
  - 21 Type **pecora , tony** in the **Affected End User** field.
  - 22 From the **Status** list, select **Awaiting Parts**.



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### *Interactive Demonstration*

- 23 In the **Configuration Item** field, type NY and press TAB.
- 24 In the **Name** column, select NYPrinter2.
- 25 Type test awaiting parts event in the **Description** field.
- 26 Click **Save**.
- 27 Choose **Actions ► Attach Service Type Event**.
- 28 In the **Service Type Event** field, type a% and click **OK**. The page refreshes and displays the **Delay Time**.
- 29 Click **OK**.
- 30 In the **Incident Detail** window, choose **View ► Event History**.
- 31 Observe the status of the **Check Awaiting Parts** Condition. It must be listed as **Complete**.
- 32 Click **Close Window**.
- 33 In the **Incident Detail** window, click **Close Window**.
- 34 On the **Service Desk** tab, choose **View ► Notification History**.
- 35 In the **Notification History** window, from the **Message Status** list, select **Incoming FYI**.
- 36 Click **Search**.
- 37 Select the **Incident Awaiting Parts too long** message header.
- 38 Observe the information.
- 39 Click **Close Window**.
- 40 In the **Notification History** window, click **Close Window**.



Instructor  
Notes



## Interactive Demonstration

**Task Purpose:** Create an Attach Event macro that, if used, attaches the Awaiting Parts Event to the ticket.

- 1 On the **Administration** tab, expand **Events and Macros** and select **Macros**.
- 2 Click **Create New**.
- 3 Type **Attach Awaiting Parts** in the **Symbol** field.
- 4 From the **Macro Type** list, select **Attach Event**.
- 5 From the **Object Type** list, select **Request**.
- 6 Click **Continue**.
- 7 Type **Attaches the Awaiting Parts Event to a ticket** in the **Macro Description** field.
- 8 Select **Event**.
- 9 Select **Awaiting Parts Too Long**.
- 10 Click **Save**.
- 11 Click **Close Window**.

## Task Summary

You learned how to create events. Macros must be associated with events to enable your organization to benefit from the efficiencies provided by automating standard actions. Next, you will create automatic events.



Instructor  
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Slide 8-8



## Task 4: Create Automatic Events

An automatic event is attached to every object of the object type that is associated with the event. Automatic events are created in the same way that you created events previously. However, automatic events are enabled by using Options Manager settings. There are three sets of automatic events options, one each for cr, chg, and iss objects. For example, to implement the automatic events for Incidents, Problems, and Requests, the following options must be installed and set:

- **Auto\_events:** This option must be installed for auto events to operate.
- **Auto\_events\_count:** This option specifies how many auto events will be used. When **auto\_events** is installed, the count can be from one through nine. If you have five auto events, but the count is set to 4, only the first four auto events will be operational.
- **Auto\_events\_name:** This option specifies the root name of each auto event. The default value for auto events related to Requests is Auto Request Event; however, this can be changed. Whatever value you use, all auto events must use that name with a number suffix. The first auto event in the list would be named Auto Request Event 1. The second in the list would be Auto Request Event 2, and so on.

---

**Note •** You install the **auto\_events** option only after the events have been created. Turning on automatic events before events exist will seriously impair performance.

---



Instructor  
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### Explain

It is vital that students realize that automatic events are attached to every ticket of the object type that is associated with the event.

Tell students that events that appear in every SLA, or *common* events, can be implemented as automatic events. This prevents the creation of too many Event records, but the downside is that events of an SLA are now partly defined in the SLA and partly elsewhere, as automatic events, causing possible confusion.

Explain why performance degradation occurs if **auto\_events** is turned on before the automatic events are created. In this case, animator and object manager try to find the automatic events for the newly created ticket but they do not yet exist.



## Interactive Demonstration

**Task Purpose:** Assign any ticket that is totally unassigned for more than five minutes to the Service Desk Supervisor, Devonna Ake.

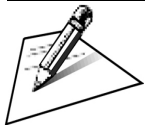
First, as the RBC administrator, you need to create the event.

---

**Note** • For interactive demonstration purposes, the *Delay Time* of the service desk event will be shortened to five seconds.

---

- 1 On the **Administration** tab, expand **Events and Macros** and select **Events**.
- 2 Click **Create New**.
- 3 In the **Create New Event** window, complete the following fields:
  - a **Name:** Auto Request Event 1
  - b **Description:** If unassigned more than 5 minutes, transfer to Supervisor
- 4 From the **Object Type** list, select **Request**.
- 5 Select the **Configuration Information** tab.
- 6 On the **Configuration Information** tab, complete the following fields:
  - a **Delay Time:** 00:00:05
  - b **Text:** devak01
- 7 Select **Allow time resetting**.
- 8 From the **On Done Event Flag** list, select **Save History**.
- 9 Click **Save**.



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### *Interactive Demonstration*

- 10 Select the **Action Information** tab.
- 11 Click **Update Actions on True**.
- 12 In the **Symbol** field, type t% and click **Search**.
- 13 To move the **Transfer to Event Contact** Action to the **Actions on True** list, click >>.
- 14 Click **OK**.
- 15 Select the **Configuration Information** tab.
- 16 Click **Edit**.
- 17 In the **Condition** field, type a and press TAB.
- 18 Select **assignee & group not assigned**.
- 19 Click **Save**.
- 20 Click **Close Window**.

Next, you need to configure the auto events options.

- 21 In the left pane, select **Options Manager** and **Request Mgr**.
- 22 Select **auto\_events**.
- 23 Click **Help on this Option**.
- 24 Observe the **Note**. This requires a restart of the Unicenter Service Desk Server. Close the window.
- 25 In the **auto\_events Options Detail** window, click **Edit**.
- 26 Click **Install**.
- 27 Click **Refresh**.



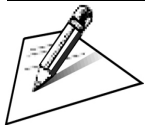
Instructor  
Notes



- 28 Observe the **Action Status** field.
- 29 Click **Close Window**.
- 30 On the taskbar, click **Show Desktop**.
- 31 Click **Start** and then choose **Programs ► Administrative Tools ► Services**.
- 32 In the right pane, right-click **Unicenter Service Desk Server**.
- 33 To open a **Service Control** window, choose **Restart**. Wait for the restart to complete.
- 34 Close the **Services** window.

You will now test the functionality of the auto events options.

- 35 On the desktop, click **Start** and then choose **Programs ► Computer Associates ► Unicenter ► Service Desk ► Service Desk Web Client**.
- 36 Log in as administrator
- 37 Select the **Service Desk** tab.
- 38 Choose **File ► New Incident**.
- 39 In the **Create New Incident** window, complete the following fields:
  - a **Affected End User**: Administrator
  - b **Description**: auto event test
- 40 Delete the text from the **Assignee** field.
- 41 Click **Save**.
- 42 Click **Close Window**.



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### *Interactive Demonstration*

- 43 In the left pane, expand **Incidents**, expand **Assigned**, and select **All**.
- 44 Select the Incident you created in the **Incident List**. The Incident has been assigned to Devonna Ake.
- 45 Click **Close Window**.

### **Task Summary**

In this task, you created an automatic event. Common events in SLAs can be implemented as automatic events, preventing the creation of too many event records and increasing the efficiency of your organization. Next, you will create service types.



Instructor  
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Slide 8-9



## Task 5: Create Service Types

Defining macros and events established the individual milestones in an SLA. Service types bring together all the events that comprise the SLA into one controlling record.

When a service type is applied to a ticket, all the events that comprise the service type are attached to the ticket and a count begins of their delay times.

Slide 8-10

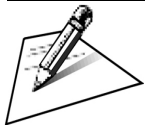


## Apply Service Types to Tickets

An analyst can manually choose which service type to apply to a ticket on the Service Type tab. This, however, is a very inefficient and error-prone method of ensuring the correct service type is associated with a particular ticket.

Unicenter Service Desk has automated the application of service types to tickets by enabling you, as administrator, to associate service types with the following entities:

- Contacts
- Organizations
- Configuration Items
- Areas/Categories
- Priority



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When any, or all, of these entities have an associated service type, that service type is, by default, applied to the ticket. In this way, you can separately track a promise to an organization and a promise for a configuration item. This behavior is known as *Service Souping*. Having multiple service types and their events attached to a ticket can seem confusing, so you can simplify the situation using Service Contracts. You will create Service Contracts in the Create Service Contracts task in this module.

The Options Manager option, *classic\_sla\_processing*, facilitates a simpler SLA model, known as a *Service Matrix*. In this model, each service type is assigned a ranking number, one being the most important. When multiple entities apply their associated service types to a ticket, only the service type with the highest ranking is attached to the ticket, and only its events run.

Slide 8-11



## Minimize the Number of Service Types Required

A service type record enables you to create three separate timelines: one each for cr, chg, and iss objects. This feature then enables you to minimize the number of service types you need if you envisage your levels of service promised as levels of quality, or grades, rather than a fixed time until SLA violation. For example, if you have a service type named A-1, the SLA violation for Incidents, Problems, and Requests might be only a matter of hours. For change orders though, your A-1 level of service might be an SLA violation of days or weeks.

Service types also enable you to change the delay time of an event while it is being used in the service type. This feature can minimize the number of events that you might need to create if the only difference between them is the delay time.



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Notes

**Explain** Ranking of service types is no longer used on tickets by default. Therefore, all service type events appear on a ticket from an affected end user, organization, Configuration Item, and so on. This enables separate tracking of the different SLAs for the entities of a ticket, such as end user, Area, and so on. To control the number of service types and events attached, use Service Contracts.

**Alert** Warn students that if service type events use a different delay time to that of the event, it is critical that no one changes the event delay time to match that of the Service Type event. This is a possibility because a user can become too used to seeing the Service Type event delay time. This would affect any record that uses that event in another way, for example, as an Automatic or Manually Attached event.

Slide 8-12



## Monitor Delay Times Using Time-To-Violation

Unicenter Service Desk has a Time-To-Violation (TTV) daemon that can monitor the delay times in effect for all tickets. It can then provide you with two important features:

- A Projected Violation Time so anyone viewing the Service Type tab of the ticket can see how much longer it will be until the SLA is violated.
- An optional highlighting of the ticket reference number if, by default, it is due to violate an SLA on the current day.

For a ticket to be eligible for TTV, the service type associated with the ticket must have one event that has the Set SLA Violation for Actions on True/False Macro check box checked. For correct projected violation times, this must be the last event that marks the violation of the SLA.

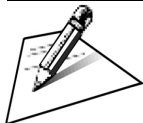
### Interactive Demonstration



**Task Purpose:** Create an SLA service type for Network Printer Configuration Items.

The important milestones for RBC are:

- At eight hours from ticket creation, perform Awaiting Parts test and actions.
- At 24 hours from ticket creation, if the ticket is still Active, increase priority and notify the assignee.
- At 36 hours from ticket creation, if the ticket is still Active, this is an SLA breach. As a result:
  - Set SLA Violation for Actions to True. This enables the TTV daemon to calculate a Projected Violation Time for the ticket.
  - Start the SLA Violation Incrementing Counter. This changes the ticket number to red.



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## ■ Administer Service Level Agreements

### *Interactive Demonstration*

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- Add an SLA Expired Activity Log entry.
- Notify the assignee and the group manager.

The event for the first milestone previously mentioned already exists. First, create the events for the second and third milestones and the Active test macro.

---

**Note** • For interactive demonstration purposes, the *Delay Time* of the service type events will be shortened to one, two, and three minutes respectively.

---

- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Events and Macros** and select **Events**.
- 3 Click **Create New**.
- 4 In the **Create New Event** window, complete the following fields:
  - a **Name:** At 24 Hours Active
  - b **Description:** Notify Assignee, Increase Priority
  - c **Delay Time:** 00:01:00
- 5 From the **Object Type** list, select **Request**.
- 6 Select **Allow time resetting**.
- 7 From the **On Done Event Flag** list, select **Save History**.
- 8 Click **Save**.
- 9 Click **Edit**.
- 10 Click **Condition**.
- 11 Click **Create New**.



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Notes

- 12 Type **Ticket Active** in the **Symbol** field.
- 13 From the **Macro Type** list, select **Site-defined Condition**.
- 14 From the **Object Type** list, select **Request**.
- 15 Click **Continue**.
- 16 Type **Is Ticket Active?** in the **Macro Description** field.
- 17 Click **Save**.
- 18 Click **Condition**.
- 19 Click **Show Filter**.
- 20 From the **Type** list, select **Site-defined Condition** and click **Search**.
- 21 Right-click **Ticket Active** and choose **View**.
- 22 Click **Add Condition**.
- 23 In the **Create New Atomic Condition** window, complete the following fields:
  - a **Sequence**: 10
  - b **Description**: **Is Active**
- 24 In the **Select an Attribute** field, type **ac** and press **TAB**. The page refreshes with **Active** in the **Select an Attribute** field.
- 25 From the **Select Attribute or Data Value** list, select **Data Value**. The page refreshes with the **Data Value** field.
- 26 Type **YES** in the **Data Value** field.
- 27 Click **Save**.



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## ■ Administer Service Level Agreements

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### *Interactive Demonstration*

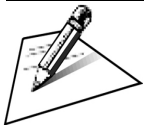
- 28 To return to the **At 24 Hours Active Update Event** window, click **Close Window** twice.
- 29 Click **Update Actions on True**.
- 30 Click **Search**.
- 31 From the **Possible Actions** list, select **Notify Assignee**.
- 32 Click **>>**.
- 33 Select **Increase Priority** and click **>>**.
- 34 Click **OK**.
- 35 Click **Save**.
- 36 Click **Cancel**.
- 37 Select the **Configuration Information** tab.
- 38 Click **Edit**.
- 39 Type **Ticket Active** in the **Condition** field.
- 40 Click **Save**.
- 41 Select the **Action Information** tab.
- 42 Click **Close Window**.
- 43 In the **Event List**, click **Create New**.
- 44 In the **Create New Event** window, complete the following fields:
  - a **Name:** **At 36 Hours Active**
  - b **Description:** **SLA Violate, SLA Expired, Notify Assignee, Group Manager**



Instructor  
Notes



- 45 From the **Object Type** list, select **Request**.
- 46 Select the **Configuration Information** tab.
- 47 Type **00:03:00** in the **Delay Time** field.
- 48 Select **Allow time resetting**.
- 49 From the **On Done Event Flag** list, select **Save History**.
- 50 Click **Save**.
- 51 Click **Edit**.
- 52 Type **Ticket Active** in the **Condition** field.
- 53 Select the **Action Information** tab.
- 54 Select **Set SLA Violation for Actions on True Macro**.
- 55 Click **Update Actions on True**.
- 56 Click **Search**.
- 57 From the **Possible Actions** list, select **Add Activity Log - SLA Expired** and click **>>**.
- 58 Select **Notify Assignee** and click **>>**.
- 59 Select **Notify Group Manager** and click **>>**.
- 60 Select **Set SLA Violation = Violated** and click **>>**.
- 61 Click **OK**.
- 62 Click **Save**.
- 63 Click **Close Window**.



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## ■ Administer Service Level Agreements

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### *Interactive Demonstration*

Next, you need to create the service type and add the three events to it.

- 64 In the left pane, select **Service Desk** and **Service Types**.
- 65 Click **Create New**.
- 66 In the **Create New Service Type** window, complete the following fields:
  - a **Symbol:** Network Printers
  - b **Ranking:** 5
  - c **Description:** SLA for Network Printer Configuration Items
- 67 Click **Save**.
- 68 On the **Requests** tab, click **Add Service Type Event**.
- 69 In the **Create New Service Type Event** window, complete the following fields:
  - a **Name:** Milestone 1
  - b **Event:** Awaiting Parts Too Long
  - c **Delay Time:** 00:01:00
- 70 Click **Save**.
- 71 Click **Add Service Type Event**.
- 72 In the **Create New Service Type Event** window, complete the following fields:
  - a **Name:** Milestone 2
  - b **Event:** At 24 Hours Active
  - c **Delay Time:** 00:02:00
- 73 Click **Save**.



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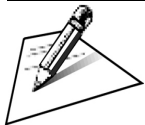
- 74 Click **Add Service Type Event**.
- 75 In the **Create New Service Type Event** window, complete the following fields:
  - a **Name:** Milestone 3
  - b **Event:** At 36 Hours Active
  - c **Delay Time:** 00:03:00

76 Click **Save**.

77 Click **Close Window**.

Next, you will associate the service type with **NYPrinter2** and test the service type functionality on an Incident.

- 78 In the left pane, expand **Service Desk**, expand **Application Data**, and select **Configuration Items**.
- 79 Type **NY%** in the **Name** field and press **ENTER**.
- 80 Right-click **NYPrinter2** and choose **Edit**.
- 81 Select the **Service** tab.
- 82 Type **Network Printers** in the **Service Type** field.
- 83 Click **Save**.
- 84 Click **Close Window**.
- 85 Select the **Service Desk** tab.
- 86 Choose **File ► New Incident**.
- 87 Type **Administrator** in the **Affected End User** field.



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## ■ Administer Service Level Agreements

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### *Interactive Demonstration*

- 88 From the **Priority** list, select 3.
- 89 Type c l a y , j o e in the **Assignee** field.
- 90 In the **Group** field, type %LAN% and press TAB.
- 91 Select **New York LAN Group**.
- 92 Type NYPr i n t e r 2 in the **Configuration Item** field.
- 93 Type SLA Test in the **Description** field.
- 94 Click **Save**.
- 95 Select the **Service Type** tab.
- 96 Choose **View ► Refresh**.
- 97 Observe the status of the **Network Printers** service type.  
  
Note the progressive completion of the service type events and a Projected Violation Time. Refresh if required.
- 98 When all the service type events have completed, select the **Activities** tab.  
  
Note the increase in priority, the **sla expired** Activity Log entry and the red Incident number, and **Incident Detail** words.
- 99 Click **Close Window**.
- 100 In the left pane, expand **Incidents**, expand **Assigned**, and select **All**.  
  
Note the Incident number in red.
- 101 Choose **View ► Notification History**.
- 102 From the **Message Status** list, select **Incoming FYI** and click **Search**.



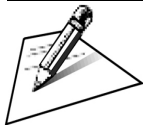
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103 Observe the messages related to the Incident.

104 Click **Close Window**.

## **Task Summary**

In this task, you created a service type. By using Unicenter Service Desk, you automate the application of service types to tickets enabling your organization to reduce errors and help ensure the correct service type is associated with a particular ticket. Next, you will create service contracts.



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Slide 8-13



## Task 6: Create Service Contracts

In a complex service desk environment, you might have thousands of Areas and Categories for tickets. You might also have hundreds of service types. However, only some of the Areas, Categories, and service types usually apply to each end-user organization.

Slide 8-14



To simplify an analyst's choices for Areas, Categories, and service types, you can use Service Contracts. A Service Contract is associated with an end-user organization and consists of:

- Private service types that can only be used in the Service Contract.
- Related Areas and Categories that are the only ones that can be used on a ticket where the end user's organization is subject to the Service Contract.
- Mapped Entities, such as Contacts, Configuration Items, and Priorities that can only use the private service types defined for the Service Contract.

Using some or all of these Service Contract features simplifies the choices for analysts who create tickets for end users in these organizations and the SLA processing for these organizations.

### Interactive Demonstration



**Task Purpose:** Create and assign a service contract.

As the RBC Unicenter Service Desk administrator, you are required to create a service contract and assign it to the Phoenix Office Administration organization.

- 1 Select the **Administration** tab.
- 2 In the left pane, select **Service Desk** and **Service Contracts**.
- 3 Click **Create New**.



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**Explain** Additional mapped entities, such as Impacts, can be created by Computer Associates Technology Services.

- 4 In the **Create New Service Contract** window, complete the following fields:
  - a **Name:** Phoenix Contract
  - b **Contract Number:** PAZ001
  - c **Client Contact:** Smith, Suzie
  - d **Description:** Service Contract for Phoenix organization
- 5 Click **Save**.
- 6 On the **Administration** tab, select **Service Desk, Application Data, Codes, and Organizations**.
- 7 Right-click **Phoenix Office Administration** and choose **Edit**.
- 8 Select **Service Contract**.
- 9 Click **Search**.
- 10 Click **Phoenix Contract**.
- 11 Click **Save**.
- 12 Click **Close Window**.
- 13 In the **Phoenix Contract Service Contract Detail** window, choose **View ► Refresh**.

Next, you will create a private service type for this contract so only this organization can use this service type.

- 14 Click **Add Private Service Type**.



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## ■ Administer Service Level Agreements

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### *Interactive Demonstration*

- 15 In the **Create New Service Type** window, complete the following fields:
  - a **Symbol:** Phoenix ST1
  - b **Ranking:** 6
  - c **Description:** Private Service Type for Phoenix Organizations
- 16 Click **Save**.
- 17 Click **Add Service Type Event**.
- 18 In the **Create New Service Type Event** window, complete the following fields:
  - a **Name:** PSTE1
  - b **Event:** At 24 Hours Active
  - c **Delay Time:** 00:02:00
- 19 Click **Save**.
- 20 Click **Add Service Type Event**.
- 21 In the **Create New Service Type Event** window, complete the following fields:
  - a **Name:** PSTE2
  - b **Event:** At 36 Hours Active
  - c **Delay Time:** 00:04:00
- 22 Click **Save**.
- 23 Click **Close Window**.



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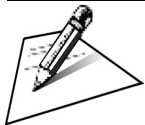


Next, you will create a private area for this contract to simplify choosing the correct area on a ticket for this organization.

- 24 Select the **Request Areas** tab.
- 25 Click **Add New Request Area**.
- 26 In the **Create New Request/Incident/Problem Area List**, complete the following fields:
  - a **Symbol:** Phoenix.Security
  - b **Organization:** Phoenix Office Administration
  - c **Description:** Security Troubles in Phoenix Organization
- 27 Click **Save**.
- 28 Click **Close Window**.

Next, you will map Suzie Smith and the PhRetScan1 Retinal Scanner configuration item to this service contract so the choice of service type is made easier. Notice that no other service types are available.

- 29 Select the **Contacts** tab.
- 30 Click **Map Single Contact**.
- 31 Select **Service Type**.
- 32 Select **Phoenix ST1**.
- 33 Type Smith, Suzie in the **Contact** field.
- 34 Click **Save**.
- 35 Select the **Configuration Items** tab.



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## ■ Administer Service Level Agreements

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### *Interactive Demonstration*

- 36 Click **Map Single CI**.
- 37 Select **Service Type**.
- 38 Select **Phoenix ST1**.
- 39 Type **PhRetScan1** in the **Configuration Item** field.
- 40 Click **Save**.
- 41 Click **Close Window**.

You will now test the functionality of the service contract on an Incident.

- 42 Select the **Service Desk** tab.
- 43 Choose **File ► New Incident**.
- 44 Type **Smith, Suzie** in the **Affected End User** field.
- 45 Select **Incident Area**.

Notice that only the private areas are available for Suzie.

- 46 Select **Phoenix.Security**.
- 47 Type **PhRetScan1** in the **Configuration Item** field.
- 48 Type **Service Contract Test** in the **Description** field.
- 49 Click **Save**.
- 50 On the **Service Type** tab, observe the **Phoenix ST1** service type and its events, which are present because of the Service Contract.
- 51 Click **Close Window**.
- 52 From the **Service Desk** menu, choose **Search ► Contacts**.



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- 53 In the **Last Name** field, type **ab%** and click **Search**.
- 54 In the **Name** column, right-click **abercrombie, june** and choose **Edit**.
- 55 In the **abercrombie, june Update Employee** window, click **Service Type**. Notice that June Abercrombie's contact record cannot be assigned the private service type.
- 56 To return to the **Unicenter Service Desk Main Window**, click **Close Window** twice.

## **Task Summary**

You learned how to create a Service Contract. Service Contract features simplify the choices for analysts who create tickets for end-user organizations and the SLA processing for these organizations. This makes the analyst's job easier and helps improve organizational efficiency.



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## **Assessment**

- 1 What are the three basic aspects of an event?
  - a Delay, condition, and action
  - b Delay, resolution time, and availability
  - c Availability, problem classification, and resolution time
  - d Service types, automatic events, and Manually Attached events

Correct answer: a

- 2 Which two macro types can perform condition tests for events? (Choose two.)
  - a Action
  - b Condition
  - c Attach Event
  - d Site-defined Condition
  - e Executive Remote Reference

Correct answer: b and d

- 3 When is the correct time to install the auto\_events option?
  - a At any time
  - b After the events have been created
  - c While the events are being created
  - d Before the events have been created

Correct answer: b



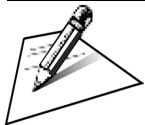
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- 4 How many separate timelines does a service type record enable you to create?
- a Only one for cr objects
  - b Only one for iss objects
  - c Only one for chg objects
  - d One each for cr, chg, and iss objects

Correct answer: d

- 5 Which option do service types usually apply to?
- a The analyst
  - b The assignee
  - c The administrator
  - d The end-user organization

Correct answer: d



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Slide 8-15



## Module Summary

*You should now be able to:*

- Define SLA Components
- Create Macros
- Create Events
- Create Automatic Events
- Create Service Types
- Create Service Contracts

As the Unicenter Service Desk administrator for RBC, you sent a Warning event to the Windows Application Log when a ticket was totally unassigned, created a Multiple Notification macro that notifies the assignee of a ticket that has an excessively long waiting time for parts, and created a Site-defined Condition macro that checks if a ticket has a waiting time for parts and has a configuration item associated with it. You also created a timed event, an Attach Event macro, and a service type for Network Printer configuration items.

Unicenter Service Desk supports SLAs by enabling organizations to track the condition of a ticket and to take certain actions based on the state of the ticket at any time during the life of that ticket. This helps an organization to provide an agreed level of service and promotes customer satisfaction.

In the next module, you will create Survey Templates and Managed Surveys.



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# **Administer Surveys**

Slide 9-1



## Module Objectives

*After this module, you will be able to:*

- Create Survey Templates
- Create Managed Surveys

## Module Overview

Customer surveys are an administrative feature of Unicenter Service Desk. At RBC, you can use surveys to systematically collect and analyze customer feedback about your service desk performance. This enables your organization to better understand customer issues, helps increase your organization's efficiency, improves service desk performance, and increases customer satisfaction. It is important to carefully design the content of surveys to help ensure that you acquire honest feedback from end users. This module will help you develop the structure of an end-user survey and implement records that control the life cycle of surveys sent to targeted respondents.



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Slide 9-2



## Task 1: Create Survey Templates

*Survey Templates* are Unicenter Service Desk records that an administrator uses to define a survey. They consist of introduction and completion messages, questions, answers, and comment fields.

Slide 9-3

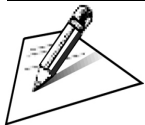


A survey is typically sent to a customer when a ticket is closed. You can customize the Submit Cycle to send a survey after a certain number of tickets are closed rather than after each ticket. For example, a Submit Cycle of 100 means that a survey is sent after 100 tickets close, thus randomizing which end user receives a survey.

The Stricter Rules option permits an end user to respond to a survey only once. This prevents *skewing* of the survey results.

After a Survey Template is created, it is enabled using the Activity Notifications system. Typically, end-user surveys are sent on closure of tickets; therefore, the Survey Template is associated with the Close activity and is known as the Default survey. Survey Templates can also be associated with Areas and Categories. When this happens, these surveys override the Default survey when a ticket of that kind is closed.

Email is usually the most convenient notification method for surveys. In an email notification, the message title is the subject and the message body is the text of the message. A URL to access the survey is automatically included at the end of the message body. The end user receives an email containing the URL, clicks the URL, and fills out the survey using a web browser. When they click Submit on the survey form, the results are recorded in the database. An activity log is generated when a survey notification is sent, Survey Sent, and when one is received back from an end user, Survey Received.



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## **Interactive Demonstration**



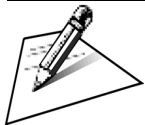
**Task Purpose:** Create a new Survey Template to send to end users when a Wireless Network ticket is closed.

- 1 In the **Unicenter Service Desk** main window, in the left pane of the **Administration** tab, expand **Service Desk** and **Surveys**.
- 2 Select **Survey Templates**.
- 3 In the right pane, click **Create New**.
- 4 In the **Create New Survey** window, complete the following fields:
  - a **Survey Name:** Wireless Net
  - b **Survey Introduction:** Please take a moment to complete our Wireless Network Survey.
  - c **Survey Completion Message:** Thank you for taking the time to tell us about your Wireless Network experience.
- 5 Click **Save**.
- 6 In the **Survey Question List**, click **Add Question**.
- 7 Type 10 in the **Sequence** field.
- 8 Type Did the trouble that you had with the Wireless Network impact your Business Productivity? in the **Question text** field.
- 9 Click **Save**.
- 10 In the **Survey Answer List**, click **Add Answer**.



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- 11 Complete the following fields in the **Create New Survey Answer Template**:
  - a **Sequence**: 10
  - b **Answer Text**: Yes
- 12 Click **Save**.
- 13 To create another answer for your question, click **Add Answer**.
- 14 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 20
  - b **Answer Text**: No
- 15 Click **Save**.
- 16 To return to the **Wireless Net Survey Detail** window, click **Close Window**.
- 17 To add another question to your survey, in the **Survey Question List**, click **Add Question**.
- 18 Type 20 in the **Sequence** field.
- 19 Type Did we resolve your trouble with the Wireless Network in a timely fashion? in the **Question text** field.
- 20 Click **Save**.
- 21 In the **Survey Answer List**, click **Add Answer**.
- 22 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 10
  - b **Answer Text**: Yes



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## ■ Administer Surveys

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### *Interactive Demonstration*

- 23 Click **Save**.
- 24 To create another answer for your question, click **Add Answer**.
- 25 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 20
  - b **Answer Text**: No
- 26 Click **Save**.
- 27 To return to the **Wireless Net Survey Detail** window, click **Close Window**.
- 28 To add a third question to your survey, in the **Survey Question List**, click **Add Question**.
- 29 In the **Create New Survey Question Template**, complete the following fields:
  - a **Sequence**: 30
  - b **Comment Label**: Additional Comments
  - c **Question Text**: Please rate how satisfied you are with our resolution to the trouble you had with the Wireless Network.
- 30 Select **Include Comments** and **Response Required**.
- 31 Click **Save**.
- 32 In the **Survey Answer List**, click **Add Answer**.
- 33 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 10
  - b **Answer Text**: Very Dissatisfied



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- 34 Click **Save**.
- 35 To create another answer for your question, click **Add Answer**.
- 36 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 20
  - b **Answer Text**: Dissatisfied
- 37 Click **Save**.
- 38 To create another answer for your question, click **Add Answer**.
- 39 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 30
  - b **Answer Text**: Neither Satisfied nor Dissatisfied
- 40 Click **Save**.
- 41 To create another answer for your question, click **Add Answer**.
- 42 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence**: 40
  - b **Answer Text**: Satisfied
- 43 Click **Save**.
- 44 To create another answer for your question, click **Add Answer**.



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## ■ Administer Surveys

### *Interactive Demonstration*

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- 45 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence:** 50
  - b **Answer Text:** Very Satisfied
- 46 Click **Save**.
- 47 To return to the **Wireless Net Survey Detail** window, click **Close Window**.
- 48 To add a fourth question to your survey, in the **Survey Question List**, click **Add Question**.
- 49 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence:** 40
  - b **Question Text:** Please select all of the services we provide that you find useful:
- 50 Select **Response Required?** and **Multiple Response Question**.
- 51 Click **Save**.
- 52 In the **Survey Answer List**, click **Add Answer**.
- 53 In the **Create New Survey Answer Template**, complete the following fields:
  - a **Sequence:** 10
  - b **Answer Text:** Web client access to the service desk
- 54 Click **Save**.
- 55 To create another answer for your question, click **Add Answer**.



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- 56 In the **Create New Survey Answer Template**, complete the following fields:
- a **Sequence:** 20
  - b **Answer Text:** Email access to the service desk
- 57 Click **Save**.
- 58 To create another answer for your question, click **Add Answer**.
- 59 In the **Create New Survey Answer Template**, complete the following fields:
- a **Sequence:** 30
  - b **Answer Text:** Telephone to the service desk
- 60 Click **Save**.
- 61 To create another answer for your question, click **Add Answer**.
- 62 In the **Create New Survey Answer Template**, complete the following fields:
- a **Sequence:** 40
  - b **Answer Text:** Knowledge base access
- 63 Click **Save**.
- 64 To create another answer for your question, click **Add Answer**.
- 65 In the **Create New Survey Answer Template**, complete the following fields:
- a **Sequence:** 50
  - b **Answer Text:** Email notifications from the service desk
- 66 Click **Save**.



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## ■ Administer Surveys

### *Interactive Demonstration*

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- 67 To create another answer for your question, click **Add Answer**.
  - 68 In the **Create New Survey Answer Template**, complete the following fields:
    - a **Sequence**: 60
    - b **Answer Text**: Telephone calls from service desk analysts
  - 69 Click **Save**.
  - 70 To return to the **Wireless Net Survey Detail** window, click **Close Window**.
- Next, you will preview the Survey Template to see how it will look to an end user.
- 71 To review the questions added, in the **Wireless Net Survey Detail** window, click **View Survey**.
  - 72 Click **Close Window**.
  - 73 To close the **Wireless Net Survey Detail** window, click **Close Window**.
  - 74 In the **Customer Survey List**, click **Search** to refresh the pane.

The **Wireless Net** survey is now visible in the list. At this point, you will configure a standard Close survey.

### **Interactive Demonstration**



**Task Purpose:** Configure the Close activity to send the standard Close survey, *Satisfaction*, and test functionality.

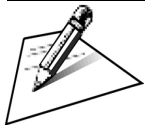
- 1 In the **Unicenter Service Desk** window, in the left pane of the **Administration** tab, expand **Notifications** and **Activity Notifications**.
- 2 In the **Activity Notification List**, click **Close**.
- 3 Click **Edit**.



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- 4 From the **Object Type** list, select **Requests/Incidents/Problems**.
- 5 Select the **Survey** tab.
- 6 Choose **Send Survey?**.
- 7 Type **Satisfaction** in the **Default Survey** field.
- 8 From the **Notification Method** list, select **Notification**.
- 9 Click **Save**.
- 10 Click **Close Window**.
- 11 Select the **Service Desk** tab.
- 12 Choose **File ▶ New Incident**.
- 13 Complete the following fields:
  - a **Affected End User:** Administrator
  - b **Description:** Test standard Close survey
- 14 From the **Status** list, select **Closed**.
- 15 Click **Save**.
- 16 Note the number of the incident here: \_\_\_\_\_
- 17 Click **Close Window**.
- 18 Choose **View ▶ Log Reader**.
- 19 To open the **Incident Survey** message and view the number noted in step 16, click the message header.



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## ■ Administer Surveys

### *Interactive Demonstration*

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- 20 Copy the URL at the bottom of the pane and paste it into the **Address** bar of a browser window.
- 21 Take the survey and click **Submit**.
- 22 Close the browser window.
- 23 To return to the **Unicenter Service Desk** main window, click **Close Window** twice.

### **Interactive Demonstration**



**Task Purpose:** Configure a Wireless Net survey to be sent to an end user when a Networks.Wireless ticket is closed and test its functionality.

- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Service Desk** and **Requests/Incidents/Problems**.
- 3 Select **Area**.
- 4 In the right pane, right-click **Networks.Wireless** and choose **Edit**.
- 5 Type **Wireless Net** in the **Survey** field.
- 6 Click **Save**.
- 7 Click **Close Window**.
- 8 Select the **Service Desk** tab.
- 9 Choose **File ► New Incident**.
- 10 Type **Administrator** in the **Affected End User** field.
- 11 In the **Incident Area** field, type **n%** and press **TAB**.
- 12 In the **Incident Area** window, select **Networks** and **Wireless**.



Instructor  
Notes

- 13 Type survey override test in the **Description** field.
- 14 From the **Status** list, select **Closed**.
- 15 Click **Save**.
- 16 In the **Incident Detail** window, select the **Activities** tab.  
Note the **Survey Sent** activity type with the **Wireless Net** survey sent.
- 17 Note the number of the incident here: \_\_\_\_\_
- 18 Click **Close Window**.
- 19 Choose **View ► Log Reader**.
- 20 To open the **Incident Survey** message and view the number noted in step 17, click the message header.
- 21 Copy the URL at the bottom of the pane and paste it in to the **Address** bar of a browser window.
- 22 Take the survey and click **Submit**.
- 23 Close the browser window.
- 24 To return to the **Service Desk** main window, click **Close Window** twice.

## Task Summary

You are now familiar with creating and customizing Survey Templates, which enable your organization to better understand customer issues and improve service desk performance. You have practiced configuring a standard Close survey and overriding that to send a specific survey. These surveys help acquire information from your customers, which can be used to improve organizational efficiency.

In the next task, you will learn how to create Managed Surveys.



Instructor  
Notes

Slide 9-4



## Task 2: Create Managed Surveys

*Managed Surveys*, like incidents, are transactional data records in Unicenter Service Desk. When you associate a Survey Template with a Managed Survey, you can select a list of recipients to take the survey. These people are known as targeted respondents.

Slide 9-5



A Managed Survey has status codes that describe the progress of a particular survey to a group of targeted respondents. For example, while configuring the Managed Survey, the status is *Configuration In Progress*. When you are ready to begin the survey, you would use the status of *Survey Period Open*.

Managed Surveys, like incidents, have assignees. It is the assignee's responsibility to update the status of the Managed Survey appropriately. To assist this, the Managed Survey also has activities and can have attached events. These enable the assignee to be notified at suitable times during the Managed Survey.

Managed Surveys have *Initial* and *Reminder* notification messages that can be sent to targeted respondents. Unlike activity-based notifications, these messages are manually sent when the assignee of the Managed Survey deems necessary.

Due to the transactional nature of Managed Surveys, they can be used by any business unit of the enterprise to survey any targeted respondents, as long as those respondents exist as contacts in Unicenter Service Desk.

### Interactive Demonstration



**Task Purpose:** Create a new Managed Survey that will send a selected survey to a specific group of users.

- 1 Select the **Administration** tab.
- 2 In the left pane, expand **Service Desk, Surveys, and Managed Surveys**.
- 3 Select **Managed Survey List**.



#### Explain to students

The Assignee and Group of a Managed Survey are the people responsible for monitoring the progress of that survey and adjusting the Managed Survey Status field accordingly.

You can create additional Managed Survey Status Codes if needed.

Instructor  
Notes

- 4 In the **Managed Survey List**, click **Create New**.
- 5 Complete the following fields:
  - a **Name:** MSFacOrg1
  - b **Description:** To send the Annual Survey to everyone in the facilities organization
  - c **Survey:** Annual
- 6 From the **Managed Survey Status** list, select **Configuration in progress**.
- 7 Select the **Contacts** tab.
- 8 Click **Update Contacts**.
- 9 In the **Organization** field, type **Facilities** and click **Search**.
- 10 Select all of the contacts except **New York Facilities**, **Seattle Facilities**, **Dallas Facilities**, and **Chicago Facilities**.
- 11 Click >> to add the selected contacts.
- 12 Click **OK**.
- 13 Click **Save**.
- 14 Select the **Initial Message** tab.
- 15 Click **Edit**.
- 16 From the **Notify Method** list, select **Email**.



Instructor  
Notes

- 17 Complete the following fields:
  - a **Initial Message Title:** Service Desk Annual Survey
  - b **Initial Message Body:** Please complete our Service Desk Annual Survey.
- 18 Select the **Reminder Message** tab.
- 19 From the **Notify Method** list, select **Email**.
- 20 Complete the following fields:
  - a **Reminder Message Title:** Service Desk Annual Survey
  - b **Reminder Message Body:** Please do not forget to complete our Service Desk Annual Survey.
- 21 Click **Save**.

With the Managed Survey created and configured, you can now send the initial notification message.

### **Interactive Demonstration**



**Task Purpose:** Start the Managed Survey Period and send out the initial notification message.

The administrator wants to verify the Managed Survey by looking at Carmen Vega's Notification and Survey.

- 1 In the **Managed Survey Detail** window, click **Edit**.
- 2 From the **Managed Survey Status** list, select **Survey Period Open**.
- 3 Select the **Initial Message** tab.
- 4 Click **Save**.



Instructor  
Notes

- 5 Click **Send Initial Notification**. A status message appears: **The notification process has started**.
- 6 Click **OK**.
- 7 Click **Close Window**.
- 8 Select the **Service Desk** tab.
- 9 Choose **View ► Notification History**.
- 10 From the **Message Status** list, select **Incoming FYI**.
- 11 Click **Search**.
- 12 Select **Service Desk Annual Survey** for the recipient, Carmen Vega.
- 13 Copy the URL at the bottom of the pane and paste it in to the **Address** bar of a browser window.

Notice that the Survey Greeting is for Carmen Vega.

---

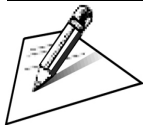
**Note • Do not take the survey at this time because you are already familiar with submitting surveys.**

---

- 14 Close the browser window.
- 15 To return to the service desk, click **Close Window** twice.

## Task Summary

You now have experience creating and using a Managed Survey. You can use Managed Surveys to acquire the information your company needs from targeted respondents, which improves service desk performance and increases customer satisfaction.



Instructor  
Notes

## **Assessment**

- 1 In a Submit Cycle of 100, how many tickets are closed before a survey is sent?
  - a 10
  - b 50
  - c 100
  - d 500

Correct answer: c

- 2 Managed Surveys are used to acquire information from which demographic?
  - a Random customers
  - b All targeted customers
  - c Targeted respondents who exist as contacts in Unicenter Service Desk
  - d Targeted customers who do not exist as contacts in Unicenter Service Desk

Correct answer: c

- 3 How do you set up survey notification?
  - a Use the Request itself.
  - b Use the Request Area feature.
  - c Use the Activity Notifications system.
  - d Use the Managed Survey Administrator.

Correct answer: c



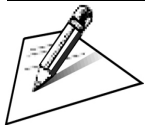
Instructor  
Notes



4 What is the most common notification method for surveys?

- a Fax
- b Email
- c Pager
- d Telephone

Correct answer: b



Instructor  
Notes

Slide 9-6



## Module Summary

***You should now be able to:***

- Create Survey Templates
- Create Managed Surveys

In this module, you created and managed surveys. Surveys are a useful method of collecting data and customer feedback. Data is stored in a database and can be further analyzed to assist your company to discern trends and make informed decisions regarding process improvement.



Instructor  
Notes

Slide 9-7



## Course Summary

*You should now be able to:*

- Administer Unicenter Service Desk
- Establish the Business Data Structure
- Implement Security
- Administer Stored Queries
- Manage Keyword Search
- Manage the Database
- Administer Notifications
- Administer Service Level Agreements
- Administer Surveys

A service desk is the interface between end users and customer service analysts. When a problem occurs, end users call the service desk to speak to an analyst. The administrator maintains and configures Unicenter Service Desk to meet the needs of the enterprise, the service desk manager, and analysts. This helps ensure the service desk operates efficiently.



Instructor  
Notes

## ■ Administer Surveys

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### *Course Summary*



Instructor  
Notes



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# **Skill Builder and Assessment Solutions**



## Skill Builder: Module 2 – Configure Transactional Record Operational Data

### Business Problem

In an effort to simplify and improve the processing of Requests, RBC has decided to reduce the number of Request status codes to Open, Acknowledge, Work In Progress, and Closed. In the change orders area, personnel need to differentiate between the current Hold status and a Hold at end user Request. They also need to suspend the event clock when the status of a change order is Suspended.

In the issues area, personnel need five new categories to make it easier to differentiate repairs, contract changes, and warranty work in their product lines. The new categories are *Warranty.Repair*, *Warranty.Extension*, *Service.Repair*, *Service.NewContract*, and *Service.Extension*. All five are assigned to the ATM Card Banking Systems group with a service type of *04hr resolution*. There are no Workflow tasks assigned and no properties.

### Hint

Simplify the Request list by restating the problem as tasks in an outline fashion organized by areas.

- 1 To reduce the number of Request status codes, change the active flag of all status codes to Inactive except for Open, Acknowledge, Work In Progress, and Closed.
- 2 Differentiate between change orders:
  - a Create a new status named Hold at End-user Request based on the values found in the existing status named Hold.
  - b Change the existing status code named Suspended so it stops the event clock.



Notes

- 3 Create new categories for issues:
  - a Create a new category named Warranty.Repair. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Warranty repair or replacement.
  - b Create a new category named Warranty.Extension. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Extend customer's warranty.
  - c Create a new category named Service.Repair. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Non-warranty service repair.
  - d Create a new category named Service.NewContract. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Create a non-warranty service contract.
  - e Create a new category named Service.Extension. Set the group to ATM Card Banking Systems and the service type to 04hr resolution. The description is Extend customer's non-warranty service contract.



Notes

## Software Solution

- 1 Change the active flag of all status codes to **Inactive** except for **Open**, **Acknowledge**, **Work In Progress**, and **Closed**:
  - a On the **Administration** tab, choose **Administration ► Service Desk ► Requests ► Status**.
  - b To open the **Update Request Status** window, right-click the **Closed-Unresolved Hold** symbol and choose **Edit**. Change the value of **Record Status** to **Inactive** and click **Save**. Click **Close Window**.
  - c Repeat step b for each of the following symbols: **Hold**, **Researching**, **Resolved**, and any other symbols except for **Open**, **Acknowledge**, **Work In Progress**, and **Closed**.
  - d Click **Search** and examine the list. The **Request Status List** is expected to display only **Open**, **Acknowledge**, **Work In Progress**, and **Closed**. If more status codes are displayed in the **Request Status List**, repeat step b for each of the other symbols.
- 2 Create a new status named **Hold at End User Request** based on the values found in the existing status named **Hold**:
  - a On the **Administration** tab, choose **Administration ► Service Desk ► Change Orders ► Status**.
  - b To open the **Change Order Status Detail** window for the **Hold** status, click the **Hold** symbol.
  - c Choose **File ► Copy**.
  - d In the new record, set the value of **Symbol** to **Hold at End User Request** and the value of **Code** to **EUHOLD** and then click **Save**.
  - e To return to the **Change Order Status List** window, click **Close Window**.



Notes



- 3 Change the existing status code named **Suspended** to stop the event clock:
  - a Scroll to the bottom of the **Status** list, right-click the **Suspended** status line, and choose **Edit**.
  - b In the open **Update** window, select **Stop Service Type Events**.
  - c To close the **Update Change Order Status** window, click **Save** and **Close Windows**.
- 4 Create a new category named **Warranty . Repair** and set the group to **ATM Card Banking Systems** and the service type to **04hr resolution**. The description is **Warranty repair or replacement**:
  - a On the **Administration** tab, choose **Administration ► Service Desk ► Issues ► Category**.
  - b To create the first new category, choose **Create New Button**.
  - c Type **Warranty . Repair** in the **Symbol** field.
  - d Type **WARREP** in the **Code** field.
  - e Set **Service Type** to **04hr resolution**.
  - f Type **Warranty repair or replacement** in the **Description** field.
- 5 Create a new category named **Warranty . Extension** and set the group to **ATM Card Banking Systems** and the service type to **04hr resolution**. The description is **Extend customer's warranty**:
  - a To start the second Issue Category, in the **Issue Category Detail** window, click **Save** and then choose **File ► Copy**.
  - b Type **Warranty . Extension** in the **Symbol** field.
  - c Type **WAREXT** in the **Code** field.



Notes

- d Type Extend customer's warranty in the **Description** field.
  - e To start the third Issue Category, in the **Issue Category Detail** window, click **Save** and then choose **File ► Copy**.
  - f Type Service . Repair in the **Symbol** field, SERREP in the **Code** field, and Non-warranty service repair in the **Description** field.
  - g To start the fourth Issue Category, in the **Issue Category Detail** window, click **Save** and then choose **File ► Copy**.
  - h Type Service . New Contract in the **Symbol** field, SERNEW in the **Code** field, and Create a non-warranty service contract in the **Description** field.
  - i Click **Save**.
- 6 Create a new category named Service . Repair and set the group to **ATM Card Banking Systems**. Then, set the service type to **04hr resolution**. The description is Non-warranty service repair:
- a To start the fifth Issue Category, on the **Issue Category Detail** window, choose **File ► Copy**.
  - b Type Service . Extension in the **Symbol** field.
  - c Type SEREXT in the **Code** field.
  - d Type Extend customer's non-warranty service contract in the **Description** field.
  - e Click **Save**.
- 7 Click **Close Window**.
- 8 Click **Search** and examine the list.



Notes



## Skill Builder: Module 3 – Create a Data Partition

### Business Problem

RBC provides internal support services to its own organization. RBC is a large organization that contains a lot of professional groups and assignees.

Due to security concerns, RBC recently instituted a new policy that restricts analysts to view only the tickets from their own group. In addition, this new policy also states that analysts can only update tickets assigned to them. Daniel Schiller, is a new hired assignee, just joined to the Chicago Networks group.

You need to create a new data partition for Daniel Schiller. Create the partition so he can see any incidents, problems, or Requests assigned to the Chicago Networks group, but only update those that are assigned to him.

### Software Solution

- 1 Start the Unicenter Service Desk.
- 2 From the **Administration** menu, choose **Administration ► Security ► Data Partitions ► Data Partition List**.
- 3 Click **Create New** and type `View_Own_Group` in the **Data Partition** field.
- 4 Type `Chicago Networks` group in the **Description** field.
- 5 Click **Save**.
- 6 Click **New Constraint**.
- 7 Click **Table Name**.



Notes

## ■ Skill Builder and Assessment Solutions

### *Skill Builder: Module 3 – Create a Data Partition*

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- 8 Click **Call\_Req**.
- 9 In the **Constraint Type** field, select **View** from the list.
- 10 Type `group.last_name = ' Chicago Networks '` in the **Constraint** field.
- 11 Click **Save**.
- 12 Click **New Constraint**.
- 13 Click **Table Name**.
- 14 Click **Call\_Req**.
- 15 In the **Constraint Type** field, select **Update** from the list.
- 16 Type `assignee = @root.id` in the **Constraint** field.
- 17 Click **Save** and close the **Data Partition Detail** window.
- 18 From the **Service Desk** menu, choose **Search ► Contacts**.
- 19 In the **Contact Search** pane, type **Schiller** in the **Last Name** field.
- 20 Click **Search**.
- 21 Open the **Daniel Schiller** record, click **Edit**, and set **Data Partition** to **View\_Own\_Org**.
- 22 Open each analyst and set **Data Partition** to **View\_Own\_Group**.
- 23 Click **Close Window**.
- 24 Log out of the web browser.
- 25 Log in to the web browser as Daniel Schiller.
- 26 From the **Service Desk** menu, choose **Search ► Requests**.



Notes

- 27 Click **Search**.
- 28 View the Requests that were assigned to the Chicago Networks group.
- 29 Update the Requests that were assigned to Daniel Schiller.



Notes



## Skill Builder: Module 4 - Create Time-based Stored Queries

### Business Problem

The IT Manager at RBC has asked the Unicenter Service Desk administrator for a count on IT Managers' scoreboards of all active or inactive Issues from the last three days.

The Unicenter Service Desk administrator needs to perform three activities:

- Create a timespan record covering the period from now until three days in the past.
- Create one stored query that references the timespan.
- Test the stored query on the scoreboard.

As the Unicenter Service Desk administrator for RBC, perform all the steps necessary to implement the changes that have been requested by IT management at RBC.

### Hint

- Determine which object the Issue window shows.
- Determine which attribute of an issue object denotes when it was opened.



Notes

## Software Solution

- 1 Determine which attribute specifies the open date of Issues:
  - a On the **Service Desk** tab, choose **File ► New Issue**.
  - b Press and hold **CTRL**, right-click the white space in the **Create New Issue** window, and choose **View Source**.
  - c Search for `propFactory` and notice that it shows the Object as an `iss` object.
  - d Close the **Source File** window.
  - e In a command prompt window, type `bop_sinfo -d iss` and press **ENTER**.
  - f Review the output of the `open_date` attribute.
- 2 Create a Timespan that defines the last three days:
  - a Select the **Administration** tab.
  - b Expand **Service Desk**, **Application Data**, and **Codes** and select **Timespans**.
  - c Click **Create New**.
  - d Populate the fields as follows:
    - i **Symbol:** `Last_3_Days`
    - ii **Code:** `L3D`
    - iii **Description:** `Last 3 days from current date`
    - iv **Start Time/Day:** `-3`
    - v **Trigger Time/Day:** `+1`



Notes

## ■ Skill Builder and Assessment Solutions

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### *Skill Builder: Module 4 - Create Time-based Stored Queries*

- e Click **Save**.
  - f Click **Close Window**.
- 3 Create the stored query:
  - a In the left pane, click **Stored Queries**.
  - b Click **Create New**.
  - c Populate the fields as follows:
    - i **Code**: ISSDAY3
    - ii **Type**: Issues
    - iii **Label**: All Issues opened in the last 3 days
    - iv **Where Clause**: `open_date > StartAtTime(\ 'Last_3_Days\ ')`
  - d Click **Save**.
  - e Click **Close Window**.
- 4 Test the stored queries on the Scoreboard:
  - a Select the **Service Desk** tab.
  - b Choose **File ► Customize Scoreboard**.
  - c Expand **My Queue** and select **My Queue**.
  - d Type ISSDAY3 in the **Node's Stored Query** field and click **Add New Node**.
  - e Expand **My Queue**.
  - f To return to the Scoreboard, click **Finished**.



Notes



- g Click **Update Counts**.
- h Expand **My Queue** and select the new stored query.



Notes



## Skill Builder: Module 6 - Make a Mass Change to the Database

### Business Problem

The Auto Assignment feature was activated on the production system last week. Policies were built and deployed but no analysts are being assigned to tasks because the available flags in their contact records are not enabled.

As quickly and safely as possible, set the analyst available flags to 1. It does not matter if you include non-analysts in your update but it would be better if you only updated active analysts.

### Hint

Use `pdm_extract` to find the data you need, Notepad to make the changes, and `pdm_userload` to load the changes back into the table. Do not forget to make a backup copy in case something goes wrong.

### Software Solution

- 1 First, some basic research is required. You need to know the name of the data table, its primary key field, and the field name that requires change. The best source is the data dictionary file (`ddict.sch`) in the site directory:
  - a Open a command prompt window and type the following to view the dictionary file:  

```
notepad c:\program files\ca\unicenter service  
desk\site\ddict.sch
```
  - b Press CTRL+F, type `TABLE ca_contact` in the **Find** dialog, and click **Find Next**.



Notes

- c Notice that the `ca_contact` table contains a lot of information but the availability flag is not present. This is because the `ca_contact` table contains contact information that is common to all Unicenter applications. There must be another table that contains Unicenter Service Desk-specific information. That table is named `usp_contact`.
- d In the **Find** dialog, change the search to look for `TABLE usp_contact`
- e There are two special fields in this table you will need:
  - i **id**: This is the primary key for records in this table. No two records have the same id number.
  - ii **c\_available**: The availability flag is an integer. You need to make certain all the entries have the value set to 1 for true.

You now know the names of the three items you will need: the name of the table (**usp\_contact**), the name of the primary key (**id**), and the field to change (**c\_available**).

- f You can now close Notepad.
- 2 Returning to the command prompt window, you are ready to export the data to a text file where you can use an editor to make changes. Do not forget to make a backup copy:
- a At the prompt, type:

```
pdm_extract -f "SELECT id, c_available FROM  
usp_contact" > c:\working\available.dat
```
  - b At the prompt, type:

```
pdm_extract -f "SELECT id, c_available FROM  
usp_contact" > c:\working\available.bak
```



Notes

- 3 Now you are ready to work with the extracted file. You must replace all instances of the `c_available` value with the `1` value. It is a best business practice to always put the id number first so the field you want to change is prefixed by a comma. This helps ensure that you will not accidentally alter the contents of the `id` field.
  - a At the prompt, type `notepad c:\working\available.dat`
  - b Start the Search and Replace function by selecting `CTRL+H`.
  - c Replace all instances of `,` with `, 1` and remember to include the commas.
  - d When finished, exit Notepad and choose **Yes** to save the changes.
- 4 Type `pdm_userload -f c:\working\available.dat` to import your changes back into the database. Remember, you can recover the data if something goes wrong by using this command on the backup file.
- 5 You can verify the results with a simple extract. Type:  

```
pdm_extract -f "SELECT * FROM usp_contact WHERE  
c_available <> 1"
```



Notes

## Assessment Answers

### Module 1

Question 1: b

Question 2: c

Question 3: c

Question 4: b

Question 5: b

### Module 2

Question 1: c

Question 2: b

Question 3: b

Question 4: a

Question 5: c

### Module 3

Question 1: c

Question 2: a

Question 3: d

Question 4: d

### Module 4

Question 1: a and b

Question 2: c



Notes

## Module 5

Question 1: d

Question 2: a and b

Question 3: d

## Module 6

Question 1: a

Question 2: c

Question 3: c

Question 4: d

## Module 7

Question 1: a

Question 2: c

Question 3: d

Question 4: c

## Module 8

Question 1: a

Question 2: b and d

Question 4: b

Question 5: d

Question 6: d



Notes

## Module 9

Question 1: c

Question 2: c

Question 3: c

Question 4: b



Notes

## ■ Skill Builder and Assessment Solutions

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*Skill Builder: Module 6 - Make a Mass Change to the Database*



Notes



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## Instructor Appendix

## **Instructor's Notes: Additional Data Partition and Stored Query WHERE Clauses**

The hardest part for students with these topics is in translating the high-level, English language requirements into the WHERE Clause syntax.

On the morning of Days 2, 3 and 4, do a couple of these WHERE Clause scenarios each day. If you prefer, make up some of your own. The intent is not just to give more experience, but also to teach an additional concept for each exercise. Write the English on the white-board, allow the students time to solve it, then go through the process to construct the WHERE Clause. Do not spend time "proving" that it works (the students gained this experience in the Interactive Demonstrations) unless you are ahead of time.

## Instructor's Notes: Data Partitions (new concept in parentheses)

- 1 Analysts can make other people but cannot give them a Data Partition or an Access Type. (IS NULL or = "")  
Table: ca\_contact  
Constraint Type: Create  
Constraint Test: domain IS NULL AND access\_type IS NULL
- 2 People can only work on "Networks" Incidents, Problems and Requests. (Rel Attr persistent\_id, Rel Attr is not always id, must be found)  
Table: Call\_Req  
Constraint Type: Pre-Update  
Constraint Test: category.sym = 'Networks'  
High Performance: category = 'pcat:5102'
- 3 First-Level Analysts can only choose "first-level" Areas. (NOT LIKE, periods restrict the levels of hierarchy)  
Table: Prob\_Category  
Constraint Type: View  
Constraint Test: sym NOT LIKE '%.%'
- 4 People can choose Configuration Items of any family (except that "Hardware" Configuration Items must be "In Service") on Incidents, Problems and Requests. (Results in a Cartesian Product Error. Therefore this must be done without joins, the High Performance way.)  
Table: ca\_owned\_resource  
Constraint Type: View  
Constraint Test: family.sym != 'Hardware' OR (family.sym = 'Hardware' AND status.sym = 'In Service')  
High Performance: family <> 600 OR (family = 600 AND status = 2600)
- 5 People cannot see "Field Update" activities on Incidents, Problems and Requests. (Controlled Table does not exist, add it with pdm\_extract and pdm\_userload, restart Object Manager)  
Table: Act\_Log  
Constraint Type: View  
Constraint Test: type.sym != 'Field Update'  
High Performance: type != 'aty:5608'
- 6 Analysts can only work on Incidents, Problems and Requests assigned to any groups of which they are a member. (Do not expect the students to perform this one. Show an IN instead. Draw the map so the students can see the relation between the attributes)  
Table: Call\_Req  
Constraint Type: Pre-Update  
Constraint Test: group.group\_list.member IN (@root.id)

## Instructor's Notes: Stored Queries (new concept in parentheses)

- 1 Active "Hardware" Incidents. (3 tests ANDed together)  
Object Type: Request  
Where Clause: active.sym = \YES\ AND category.sym = \Hardware\  
AND type.sym = \Incident\  
High Performance: active = 1 AND category = \pcat:5101\ and type = \I\
- 2 People who have an SLA. (Do not need to follow REL as we are not testing for a value, but rather is a value there or not)  
Object Type: Contacts  
Where Clause: service\_type IS NOT NULL
- 3 Change Orders whose "Need By" date is more than 3 weeks old.  
(Make new Time Span code 'PAST\_3\_WEEKS', Start = -21 days, End now)  
Object Type: Change Order  
Where Clause: need\_by < StartAtTime(\PAST\_3\_WEEKS\)
- 4 Configuration Items whose warranty is due to expire within 5 weeks.  
(Make new Time Span code 'NEXT\_5\_WEEKS', End using month and day fields, Start now)  
Object Type: Assets  
Where Clause: warranty\_end >= StartAtTime(\NEXT\_5\_WEEKS\)  
AND warranty\_end < EndAtTime(\NEXT\_5\_WEEKS\)