IBM

IBM Electronic Service Agent for xSeries

Version 5.04 Beta - Director Extension

User's Guide

Total Pages: 72

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About this User's Guide

Introduction

This guide provides the installation, configuration, activation, and operational instructions for Electronic Service Agent for xSeries™ - version 5.04 - Director Extension product, hereafter referred to as "Electronic Service Agent."

Who should read this guide

This guide is intended for IT administrators responsible for IBM Director. Readers should have extensive knowledge of their LAN environment, a general knowledge of operating systems and database functions, and should be familiar with or have a working knowledge of IBM Director.

Conventions used in this guide

This guide uses several typeface conventions for special terms and actions. These conventions have the following meaning:

Bold
Commands and other controls, keywords, and other information you should use literally appear in **bold**.

Italics
Variables that you must provide appear in *italics*.

Monospace
Examples of code or text you should type appear in `monospace`.

Chapter 1. Introducing Electronic Service Agent

What is Electronic Service Agent?

Electronic Service Agent is a "no-charge" software tool that resides on your IBM xSeries systems to monitor events and transmit system inventory information to IBM. Electronic Service Agent has two functions: automatic hardware problem reporting and system inventory collection for monitored systems. With these functions, xSeries Electronic Service Agent can monitor, track, and capture system inventory and hardware errors.

Automatic hardware problem reporting.
This agent monitors your xSeries servers for hardware errors. Hardware errors that meet certain criteria for criticality are automatically reported to IBM. Problems typically reported include power failures and system overheating (as detected by the Advanced Systems Management Adapter) and RAID drive failures.

Inventory collection
Electronic Service Agent also administers hardware and software inventory collections, and reports inventory changes to IBM. All information sent to IBM is stored in a secure IBM database and used for improved problem determination.

IBM Director relationship
Electronic Service Agent for xSeries version 5.04 is designed to be installed as an extension to your IBM Director Server version 5.20 system management application. Additionally, it can be installed on a Director Remote Console. You do not need to install Electronic Service Agent on each of your managed systems. Electronic Service Agent appears as a task in the **Tasks** pane of your IBM Director Console.

If you require more information about the techniques employed in using the IBM Director Console, refer to your IBM Director version 5.20 online help and User's Guide. A copy of the User's Guide is available in PDF format on your IBM Director program CD-ROM.

If you require more information about the IBM Director product, refer to the following IBM Director web site:.

http://www-1.ibm.com/servers/eserver/xseries/systems_management/xseries_sm.html

What's new in Electronic Service Agent version 5.04

Version 5.04 of Electronic Service Agent includes the following enhancements and new features:

- Ÿ   The list of supported machines has been expanded.
- Ÿ   Several defects have been fixed
- Ÿ   Electronic Service Eligible Systems group has been removed to improve scalability and performance.
- Ÿ   Enablement Management subtask has been added to improve scalability and performance.

Privacy and Security Features

Following are high-level descriptions of the security features surrounding Electronic Service Agent. These features are provided to protect both your privacy and transactions into IBM. Electronic Services has a reference document on this subject. It can be found at the following web site in the Electronic Service Agent category: https://www.ibm.com/support/electronic

Administrative User Access

Access to programs providing control over Electronic Service Agent client code, Electronic Service Agent control files and collected data is restricted to users with Administrative rights.

View of Service Agent information on web

Access and view of Service Agent information on the Electronic Services web site is controlled by IBM Registration IDs provided during the Electronic Service Agent activation process. The first ID in that field is considered the Administrator of the machine and can add more IDs as needed on the same web site. Follow this procedure:

1. Obtain an IBM Registration user ID. To do this, access this URL:
   http://www.ibm.com/registration/selfreg
2. Access the Advanced page of the Untargeted Electronic service Agent Configuration Notebook (see page 45) and fill in the IBM ID field.

Internal IBM view of the Service Agent information is granted only to Support Community representatives with appropriate authorization.

Privacy of company information

Information that is collected by Electronic Service Agent is limited to only machine inventory and error data. Inventory information collected includes:
Ø   Your support contact information, including names, phone numbers, and e-mail addresses
Ø   Your IBM Registration ID
Ø   System utilization, performance, system failure logs, part feature codes, part number, part serial number, part locations, software inventory, operating system applications, program temporary fixes (PTFs), the maintenance level, and configuration values

Inventory information does not include:
Ø   Company's financial, statistical, or personnel data
Ø   Client information
Ø   Business plans

Communication Security

In your networked environment, communication between Electronic Service Agent and IBM is encrypted using Secure Socket Layer (SSL). Electronic Service Agent has the ability to collect machine inventory information and transmit it to IBM on a scheduled basis.
Ø   All Service Agent transactions are outbound requests that are Hypertext Transfer Protocol Secure (HTTPS) secured through encryption.
Ø   Electronic Service Agent has no inbound capability and therefore cannot accept any incoming connection attempts. For example, the Service Agent client initiates a connection with IBM, similar to a Web browser, and then IBM replies. However, IBM never initiates a connection to a client environment.

System Enrollment with IBM

System enrollment is a security feature. During the enrollment process, Electronic Service Agent informs IBM's Electronic Service Agent database of the new IBM Director-managed system on your network. System information, including but not restricted to machine type, serial number, and configuration details, is sent to IBM, and subsequently the database returns unique system identifiers to the Electronic Service Agent on your system. Managed systems are identified by IBM using the unique system identifiers and system configuration information during all subsequent transactions between Electronic Service Agent and IBM.

BladeCenter Support

IBM BladeCenters utilize a relatively new server technology that has captured industry focus because of its highly-modular design. BladeCenters are designed for flexibility and rapid recovery from system failure. They integrate a wide variety of processing and O/S options in one physical enclosure with shared power, cooling, network connection, and system management services.

A BladeCenter comprises the following components:
- Blade Chassis – a 7U modular chassis, capable of housing up to 14 blade servers, that allows individual blades to share resources such as power, switch, management and blower modules.
- BladeServer (or Blade) - an independent server, with its own processors, memory, storage, network controllers, operating system and applications, that slides into a bay in the chassis and plugs into the backplane, sharing resources with other blades.
- Management Module - provides systems management to the BladeCenter and blades, detecting the presence, absence, and condition of all key components.
- Power Supplies, Blowers and Switches – are internally wired to the Management Module.

Before you install Electronic Service Agent, you need to verify that all BladeCenter machines, including Blades Chassis and Blades, are auto-discovered by IBM Director or manually enrolled, and that a physical inventory has been run for each machine. Specifically, when you use the New function on the IBM Director Console to add a Blade, you need to add it as both a Physical Platform and an IBM Director System. The New menu offers both these options, as shown below.
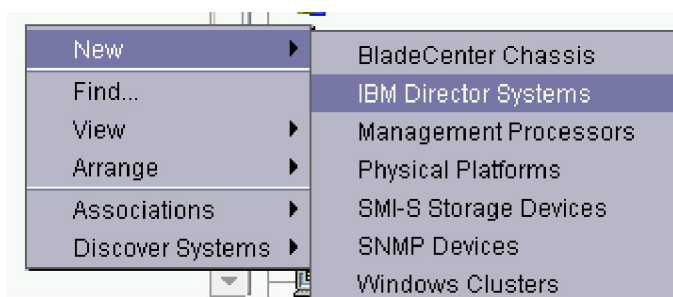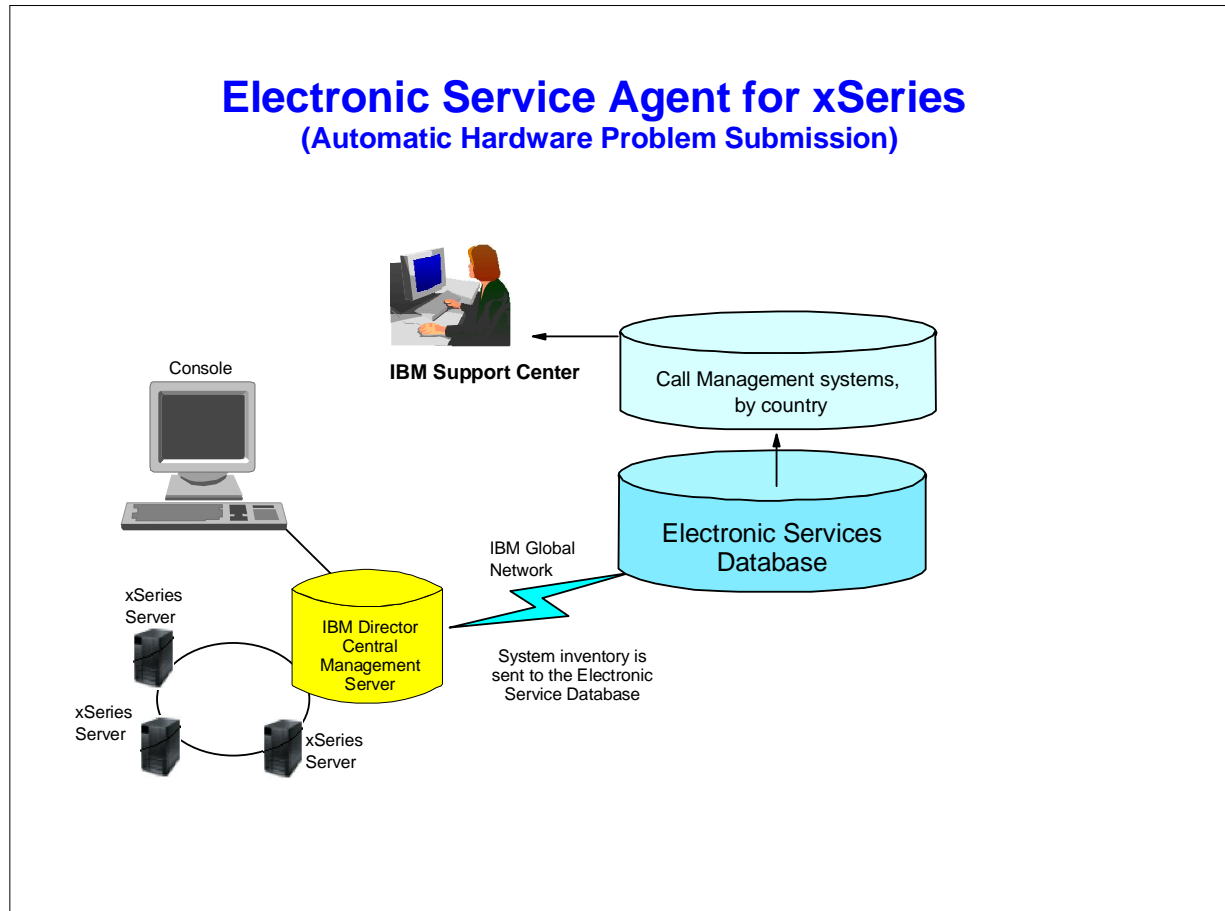

How Electronic Service Agent Works

When Electronic Service Agent is installed and configured, each of your managed systems must be enabled and enrolled for Electronic Service. Thereafter, Electronic Service Agent runs in your systems' background. Electronic Service Agent has two main functions:

Ÿ   To initiate a Service Request and send it to IBM when it detects managed system hardware errors that meet certain criteria for criticality
Ÿ   To perform information-gathering operations and hardware and software inventory updates and send this information to IBM

Initiating a Service Request

The information that Electronic Service Agent gathers is stored in your IBM Director Server and transmitted at weekly intervals to IBM using an Internet connection from your IBM Director Server to a service data receiver inside IBM's firewall. IBM holds this transmitted data, as shown in the diagram below.

Electronic Service Agent for xSeries
(Automatic Hardware Problem Submission)

Console

IBM Support Center

Call Management systems, by country

IBM Global Network

Electronic Services Database

xSeries Server

IBM Director Central Management Server

System inventory is sent to the Electronic Service Database

xSeries Server

xSeries Server

The process works as follows:

1.   An event is generated when a hardware error exceeds a preset threshold. Electronic Service Agent is pre-configured to capture specific hardware failure events and assign a level of severity to them.
     ú   The significance of an event is determined by the level of severity that has been assigned to it. These severity levels are utilized by Electronic Service Agent's event filtration process, which is optimized so that a low severity event does not mask the occurrence of an event of higher severity.
     ú   The types of problems that Electronic Service Agent typically reports to the call management system include power failures and system overheating (as detected by the Advanced Systems Management Adapter) and RAID drive failures.
2.   When Electronic Service Agent captures a significant event, it sends a Service Request to IBM
3.   From here the Service Request is forwarded to the call management system for the machine's country. Details sent with the Service Request include unique identifiers, system machine type and serial

   number, machine name (as displayed in IBM Director), company, contact person, location details, and other useful inventory and diagnostic information.

4. IBM responds to the Electronic Service Agent by returning a Service Request Number, Branch Number, and Country Code.

5. Electronic Service Agent generates an event using the information from IBM. This event, together with the Service Request Number, Branch Number, and Country Code, is recorded in IBM Director's Event Log and the History page of the targeted Electronic Service Agent Configuration Notebook.

Service Response for automatic requests

IBM accepts and logs automatic Service Requests generated by Electronic Service Agent at all times. IBM Support will handle the service request during normal business hours for that country, with respect to the support contract for the machine. When calling your local Center about a Service Request, please have the Service Request number available.

Gathering Inventory Information

Using Electronic Service Agent's Inventory Management feature, your systems' hardware and software inventory can be remotely monitored and stored in a secure IBM database. Electronic Service Agent collects and sends both standard inventory and diagnostic inventory to IBM.

Prior to using Electronic Service Agent, a complete hardware and software inventory collection must be completed using IBM Director. Inventory collections should be initiated by a systems administrator at the initial configuration stage of Electronic Service Agent. For details about performing system inventories, refer to the "Inventory Collection Operation" entry in your IBM Director online help. When inventory collection is complete, Electronic Service Agent checks for a recent inventory update for each system, as shown in the following diagram.
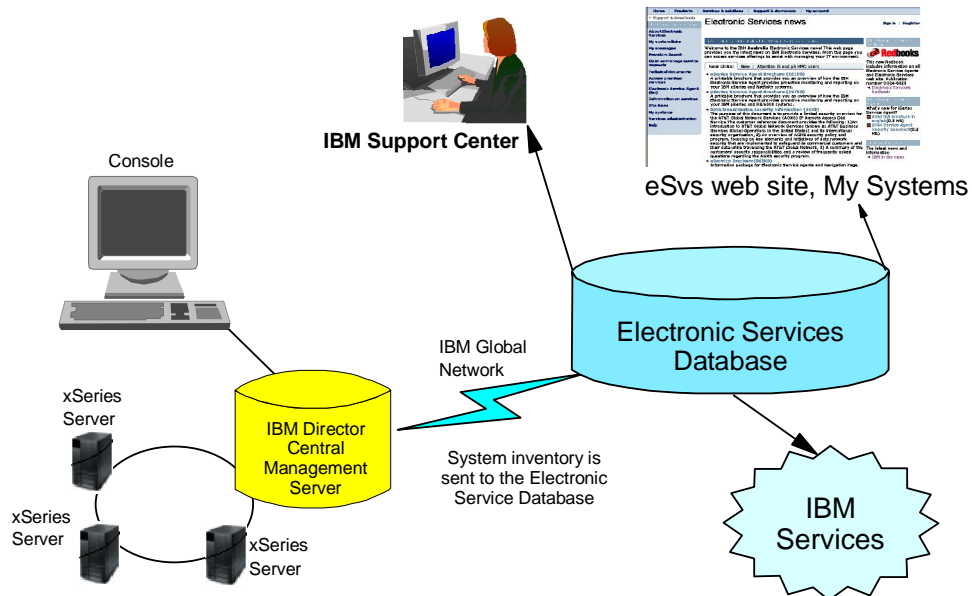
Standard inventory

Ÿ Managed systems are automatically enabled for Electronic Service Agent's standard inventory service at the time Electronic Service Agent is enabled.

Ÿ Electronic Service Agent checks for a recent standard inventory update for each system that is enrolled and enabled for Electronic Service. "Heartbeat" is carried out at weekly intervals on the day and time that are configured in Electronic Service Agent's untargeted scheduler page. The scheduler is available for update by users.

Ÿ An inventory refresh is initiated for any system that does not have a recent "heartbeat" on record.

Ÿ The specific items of standard inventory information that Electronic Service Agent collects and sends to IBM are configurable by users. For more information refer to Chapter 8, "Using the Untargeted and Targeted Notebooks" and your Electronic Service Agent online help.

Diagnostic inventory

Ÿ Managed systems are automatically enabled for Electronic Service Agent's diagnostic inventory service at the time Electronic Service is enabled.

Ÿ Specific items of diagnostic inventory information that Electronic Service Agent collects and sends to IBM are configurable by users.

Ø Electronic Service Agent does not collect and send diagnostic inventory information to IBM at weekly intervals. This information is collected from managed systems and sent to IBM when Electronic Service Agent sends an automatic service request. Standard inventory information is also sent to IBM at this time in addition to the weekly "heartbeat" transmissions.

Administering Electronic Service Agent

In order for any of your systems to be properly monitored by IBM using Electronic Service Agent, you must:

Ø Properly prepare your network (refer to Chapter 2, "Preparing your network," on page 13).
Ø Properly install Electronic Service Agent (refer to Chapter 3, "Obtaining and installing Electronic Service Agent" on page 16).
Ø Properly configure Electronic Service Agent (refer to Chapter 6, "Configuring Electronic Service Agent," on page 24).
Ø Enable each managed system for Electronic Service either individually or as part of a group (refer to Chapter 7, "Enabling and Enrolling Systems for Electronic Service Agent," on page 35).
Ø Ensure that each managed system is enabled for Electronic Service Agent's Service Request Service if required (refer to Chapter 8, "Using the Targeted and Untargeted Notebooks" on page 36). The Service Request Service is enabled by default when Electronic Service Agent's Service Request Service is enabled, but you can disable it. If you do this, Electronic Service Agent will not report managed system hardware failures to IBM.
Ø Ensure that each managed system is enabled for Electronic Service Agent's diagnostic inventory service when required (refer to Chapter 8). The diagnostic inventory service is enabled by default when Electronic Service Agent's Service Request service is enabled, but you can disable it. If you do this, Electronic Service Agent will not collect and send diagnostic inventory information to IBM.

Receiving Updates

You can download updated versions of Electronic Service Agent or user's guides when they are available from the following web sites:

http://www.ibm.com/support/electronic , select Electronic Service Agent category

Getting Help

For information about help and technical support, please see "Chapter 10. Getting Help and Technical Assistance" on page 59.

Chapter 2. Preparing Your Network

To prepare your environment for installing, configuring, and using Electronic Service Agent, complete the following steps:

Ÿ   Ensure that your network's management server, Director Console, and managed systems are configured with the correct processor speed and adequate amounts of free disk space, virtual memory, and RAM. See "Hardware Requirements" below.

Ÿ   Install IBM Director version 5.20. **Version 5.04 of Electronic Service Agent is only compatible with this version of IBM Director.** Refer to the user documentation for detailed system requirements and installation directions.

Ÿ   Verify that all machines planned for Electronic Service Agent support, including Blades and Blade Chassis, have been auto-discovered by IBM Director or manually entered.

Ÿ   Ensure that IBM Director has completed initializing the physical inventory for the machines to be supported by Electronic Service Agent by checking the physical inventory using the IBM Director console. All supported systems must be initialized prior to Electronic Service Agent enrollment.

Hardware Requirements

This section contains information about the minimum requirements that must be met when you install Electronic Service Agent. Because a system configured with the minimum requirements might perform poorly in a production environment, consider the following suggestions:

Ÿ   The microprocessor speed, memory, and disk space minimum requirements are *in addition to* whatever resources are necessary for the software already installed on the system.

Ÿ   Conduct a performance analysis to ensure that the system has sufficient capacity to handle the additional requirements of running Electronic Service Agent

The following table lists the minimum microprocessor speed, random access memory (RAM), and disk space needed.

Requirements	
Microprocessor (speed)	Pentium (1GHz)
RAM Memory	256MB (2GB recommended)
Disk Space	128 MB
Monitor	Super VGA monitor with the screen resolution set to at least 800 x 600, and 256 colors
Connectivity	WAN via dial-up modem or Internet

In addition, System Management BIOS (SMBIOS) 2.1 or later is required for all systems.
Note: Dial-up modem is supported only on Windows.

Software Supported

Operating Systems

To prepare your environment for installing and configuring Electronic Service Agent, please complete the following steps:

Ÿ   **IBM Director Server**

Red Hat Enterprise Linux AS and ES, version 4.0, for x86
Red Hat Enterprise Linux AS and ES, version 5.0, for x86
SUSE LINUX Enterprise Server 9 for x86
SUSE LINUX Enterprise Server 10 for x86
Windows 2000, Advanced Server and Server Editions
Windows Server 2003, R2, Standard, Enterprise, and Web Editions

Ÿ **IBM Director Console**
Red Hat Enterprise Linux AS and ES, version 4.0, for x86
Red Hat Enterprise Linux AS and ES, version 5.0, for x86
SUSE LINUX Enterprise Server 9 for x86
SUSE LINUX Enterprise Server 10 for x86
Windows 2000, Advanced Server, Professional, and Server Editions
Windows XP Professional Edition
Windows Server 2003, R2, Standard, Enterprise, and Web Editions

Ÿ **IBM Director Agent**
Please see the Director 5.20 Documentation for supported operating systems for Director Agent.

Databases
The following databases are supported:
Ÿ   Apache Derby
Ÿ   DB2 FP 5
Ÿ   SQL 2000
Ÿ   SQL 2005

Information Requirements
Record information requested in the table below. You will use this information when configuring the Electronic Service Agent program. See the series of panels in Chapter 6, "Configuring Electronic Service Agent," page 21, for a better idea of the information you will have to supply.

Configuration Information

Setting	Your details
IBM Director Server <u>Country</u> location.	
<u>Company</u> details: **Name, Telephone Number, Telephone Extension, email, Enterprise** or **ECI ID (optional).**	
<u>Contact</u> details: **Name, Telephone Number, Telephone Extension, email.**	
<u>Location</u> of your managed systems within your company premises: **Building, Floor, Office, Address, City, Post code, State/Province.**	

Fill in the table as follows:

Ÿ   <u>Country</u>: the country where your management server is located

Note: During the configuration process, the management server country will also be assigned as the default for the following:
ú   Company country: country location for your registered company address
ú   Managed systems' country: country where your managed systems reside
ú   Contact person country: country location where the person that your company has nominated to act as a contact for IBM service representatives resides
ú   If any of your systems reside in different country locations, then you should record these countries. You can change the default country locations later using the Electronic Service Agent Configuration Notebook. Refer to the online help for further details.

Ÿ   <u>Company</u>: supply requested details
Note: The Enterprise or ECI ID field is optional. Your company may have an Enterprise number or an ECI ID that is used for customer identification and unique service terms and conditions. Your purchasing team may be able to provide an Enterprise number, and your help desk may be able to provide an ECI ID. ECI ID is also known as ESC+ID or an ECCO ID.

Ÿ   <u>Contact</u> details. This is the person that your company has nominated to act as a point of contact for IBM representatives when a hardware failure occurs in any of your systems.

Ÿ   <u>Location</u> details of your managed systems. The location details allow IBM's service representatives to locate your managed systems if they need to be dispatched to your company premises with replacement parts to rectify a system hardware failure. If you record your IBM Director Server location details incorrectly, IBM's service delivery will be delayed. Similarly, if you record your managed systems' location details incorrectly, IBM service representatives will not be dispatched to the correct site location after a hardware problem has been reported.

Before installing and running the Electronic Service Agent for xSeries program, read the README document that is accessible as part of the download package. See "Obtaining Electronic Service Agent" on page 16 for details about downloading.

Chapter 3. Obtaining and Installing Electronic Service Agent 5.04

Obtaining Electronic Service Agent

Electronic Service Agent 5.04 is only available on IBM's internal web site:

http://esa.beaverton.ibm.com/Builds/latestDE/5639-n89-de504beta.exe

To request user/password information call your IBM Support Center.

ú

Installing Electronic Service Agent on Linux

These instructions assume you are using an X11 window manager to perform the actual installation. The setup program is an X application

To install Electronic Service Agent on your IBM Director Server:

1. Log in as the user root. Do not 'su' to become the user root; the product will not install properly.
2. 'cd' to the directory where you stored the installation program.
3. Execute the following command:

   ./5639-n89-de504.bin

4. At the Electronic Service Agent Setup panel, click **Next** to continue with the program setup.
5. If you accept the terms and conditions of the License Agreement, click **Yes** to continue with the setup program.
6. Click **Finish** to complete the installation.

Possible Installation Problems

Ÿ If Windows 2000 SP4 is installed after the DB2 database has been configured, SP4 will close port 1521. Port 1521 is the listener port for the DB2 database. To reopen this port, DB2 must be reinstalled on the server.

Ÿ If the agents on the Director server are locked out, consult the Director 5.20 Configuration Guide and ensure the Director Server is set to "encrypted".

Ÿ If using the DB2 Database and experience connection problems with the database after updating Windows 2003 to SP2, reinstall the DB2 Listener software.

Ÿ Once in awhile during installation of Electronic Service Agent, the install program will "hang" on a panel after the files have been copied to your system. As part of the installation process, an uninstall program is created, and this step takes longer than the steps that download files to your system. Give the installer an adequate amount of time to complete its actions.

   If you are sure the installation program is in a "hang" state, you can go to the window that you launched the product in, and type Ctlr+C. Or close the terminal window. The installation is complete.

Ÿ If you get the following errors:

```
Can't connect to X11 window server using ':0.0' as the value of the
DISPLAY variable.
```
OR
```
Xlib: connection to ":0.0" refused by server
Xlib: No protocol specified
```

   The application is unable to run in graphical mode.

You need to allow connections to your X server from your local machine. The X11 security

mechanism does not allow other users than root to connect to your desktop.
To give permission to any user on your local machine, execute the following command as root:

 # xhost +

If you prefer to restrict the access only to specific users on the local machine or a given host,
please refer to the "xhost" command manual.

Do not run the installer with the –console or –silent flags; your product will not install properly.

Installing Electronic Service Agent on Windows

To install Electronic Service Agent on your IBM Director Central Management Server:
1. Double-click on your **5639_n89_de504.exe** file to run the setup program and begin the installation process.
2. At the Language Option screen, select the language option that you want to use, and then click **OK**.
3. At the Electronic Service Agent Setup screen, click **Next** to continue with the program setup.
4. If you accept the terms and conditions of the License Agreement, click **Yes** to continue with the setup program.
5. If you accept the terms and conditions of the Communications Charges Agreement, click **Yes** to continue with the setup program.
6. At the Question dialog box, click **Yes** to view the READMEfile, and then click **Next**.
7. At the Setup Complete screen, select **Yes** to restart your system now.
8. Click **Finish** to complete the installation.

Uninstalling Electronic Service Agent (Linux)

To permanently remove Electronic Service Agent from your server:
1. Log in as the user root. Do not 'su' to become the user root; the product will not uninstall properly.
2. Execute the following command:

$$\text{/opt/IBM/director/proddata/esa/\_uninstall/uninstaller.bin}$$

3. At the Electronic Service Agent Setup panel, click **Next** to continue with the program setup.
4. Click **Finish** to complete the uninstall.

Uninstalling Electronic Service Agent (Windows)

To permanently remove Electronic Service Agent from your server, to do the following:

1. From the Windows desktop, click **Start**.
2. Select **Settings->Control Panel**->**Add/Remove Programs**->**Electronic Service Agent(tm) for xSeries Version 4.1->Add/Remove**.
3. At the Language Selection screen, select the language of your choice from the pull-down list, then click **OK**

4. At the Question dialog box, select **Yes** to confirm you want to remove Electronic Service Agent product from your system.
5. At the Question dialog box, select **Yes** to restart your computer now or **No** to restart your computer later, and then click **OK**
6. At the Set-up screen, click **Finish**.
7. For completely removing stored configuration data see **Uninstalling Previous Installation** in this chapter

Reinstalling Electronic Service Agent

If you properly install and fully configure Electronic Service Agent version 5.04 and then decide to uninstall this version, your global configuration details will remain stored on your management server. When you reinstall Electronic Service Agent, your previous global configuration settings will be utilized by this installation. You will not be required to configure any settings before using the agent and will therefore not be presented with the Configuration Wizard panels. You can, however, change the configuration settings after reinstallation using the Electronic Service Agent Configuration Notebook.

On the other hand, in order to have a completely new installation of Electronic Service Agent follow the steps in the next section paragraph.

Uninstalling Previous Installations Configuration Data

These steps must be followed prior to have a totally new Electronic Service Agent installation.

1. Uninstall any previous version of Electronic Service Agent
2. Stop IBM Director
3. Delete all files with names starting with "com.ibm.eservice" in C:\Program Files\IBM\Director\data directory
    (C:\Program Files\IBM\Director on Windows and /opt/ibm/director on Linux are IBM Director's default installation locations)
4. Install Electronic Service Agent.

Chapter 4. Installing Electronic Service Agent on a Remote IBM Director Console

You can administer Electronic Service Agent using a remote IBM Director Console.

Note: Electronic Service Agent version 5.04 must be installed on the management server version 5.20 **first**. Then install Electronic Service Agent on **all** Remote Consoles managed by the management server. Any down-level version of Electronic Service Agent on any active Remote Console will generate a down-level version error on the management server.

Before Installing

1. Ensure that the system you want to use as a Remote Console is included in the list of supported servers detailed in your IBM Director version 5.20 user documentation.

2. Follow the instructions detailed in Chapter 2, "Preparing your network."

3. Install the IBM Director Console version 5.20 component on the server that you want to use as a Remote IBM Director Console. Insert your IBM Director CD-ROM into the server then select **Console** on the Select Components panel.

Installing on Windows

To install Electronic Service Agent version 5.04 on the Remote Console system:

1. Double-click on your **5639_n89_de504.exe** file to run the setup program and begin the installation process.
2. At the Language Option screen, select the language option that you want to use, and then click **OK**.
3. At the Electronic Service Agent Setup screen, click **Next** to continue with the program setup.
4. If you accept the terms and conditions of the License Agreement, click **Yes** to continue with the setup program.
5. If you accept the terms and conditions of the Communications Charges Agreement, click **Yes** to continue with the setup program.
6. At the Question dialog box, click **Yes** to view the readme file, and then click **Next**.
7. At the Setup Complete screen, select **Yes** to restart your system now.
8. Click **Finish** to complete the installation.

Installing on Linux

Note: These instructions assume you are using an X11 window manager to perform the actual installation. The setup program is an X application.

To install Electronic Service Agent version 5.04 on the Remote Console system:
1. Log in as the user root. Do not 'su' to become the user root; the product will not install properly.
2. 'cd' to the directory where you stored the installation program.
3. Execute the following command:

./5639-n89-de504.bin

4. At the Electronic Service Agent Setup panel, click **Next** to continue with the program setup.
5. If you accept the terms and conditions of the License Agreement, click **Yes** to continue with the setup program.
6. Click **Finish** to complete the installation.

Chapter 5. Managing Contact and Location Information

The configuration of Electronic Service Agent using accurate contact and location information is fundamental for IBM's service delivery.

Contact information
> Defines the contact details (including **Name, Country or Region, Telephone number, extension** and **email address**) of the person you have nominated within your company who will act as a point of contact. When Electronic Service Agent sends a Request for Service to IBM, IBM will contact this person during the process of resolving your company's managed systems' hardware problems.

Location information
> Defines the location details of your managed systems (including **Building/Floor/Office, Address, City, Postal Code, State/Province,** and **Country** or **Region**)

The Electronic Service Agent interface is designed to accommodate the following three scenarios:

Ÿ Scenario 1: Your management server and managed systems reside in the same country/region
Ÿ Scenario 2: Your management server and managed systems reside in two different countries/regions
Ÿ Scenario 3: Your management server resides in a different country/region from your managed systems, and additionally your managed systems reside in a number of countries/regions

At the initial configuration stage of Electronic Service Agent you will be asked to configure a country/region for your systems. If your systems (including management server) reside in more than one country/region (scenarios 2 and 3 above), you should select the country/region where your management server resides.

By default, the country/region that you select for your management server will also be set for the following:

Ÿ Company country/region: country/region for your registered company address.
Ÿ Managed systems country/region: country/region where your managed systems reside.
Ÿ Contact person country/region: country/region where the person that your company has nominated as a point of contact for IBM service representatives resides.

You should change the country/region settings and other details if required later using Electronic Service Agent's Targeted and Untargeted Configuration Notebook as follows:

Ÿ Company country/region: Assign a country/region using the Company page of the <u>untargeted</u> Electronic Service Agent Configuration Notebook

Ÿ Managed systems country/region:

 ú If your managed systems reside in one country/region: Assign the global country/region using the Locations page of the <u>untargeted</u> Electronic Service Agent Configuration Notebook.

ú   If your managed systems reside in more than one country/region: Assign a country/region to any number of your managed systems using the Contact/Location page and associated Location editor panel of the <u>targeted</u> Electronic Service Agent Configuration Notebook.

Ÿ   Contact person country/region:

ú   If your managed systems reside in one country/region: Assign the global contact persons' country/region using the Contacts page of the <u>untargeted</u> Electronic Service Agent Configuration Notebook.

ú   If your managed systems reside in more than one country/region: Assign a country/region to any number of your managed systems' contact persons using the Contact/Location page and associated Contact editor panel of the <u>targeted</u> Electronic Service Agent Configuration Notebook.

Important: If you configure your IBM Director Server or managed systems locations incorrectly, IBM's service delivery may be delayed.

Chapter 6. Configuring Electronic Service Agent

Introduction

After you have installed Electronic Service Agent, you must configure a number of settings before you can use it to monitor your managed systems and perform any other administrative tasks.

Electronic Service Agent provides you with an easy-to-use Configuration Wizard. It is displayed when you launch the Electronic Service task in these situations:
- ú   For the first time after installing Electronic Service Agent version 5.04.
- ú   After you have exited from the configuration process without having completed it.

The Electronic Service Agent Configuration Wizard

The Configuration Wizard leads you step by step through the configuration process. You use the information that you recorded during the configuration process, as described in the "Record Information" step in Chapter 2, "Preparing your network."

To launch the Configuration Wizard so that you can configure global settings for Electronic Service Agent:

1. Start IBM Director. You see the IBM Director Console window with Electronic service in the Tasks pane.
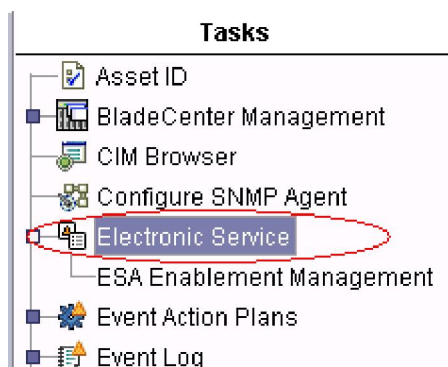
2. Double-click on the Electronic Service task. You see the Introduction panel.
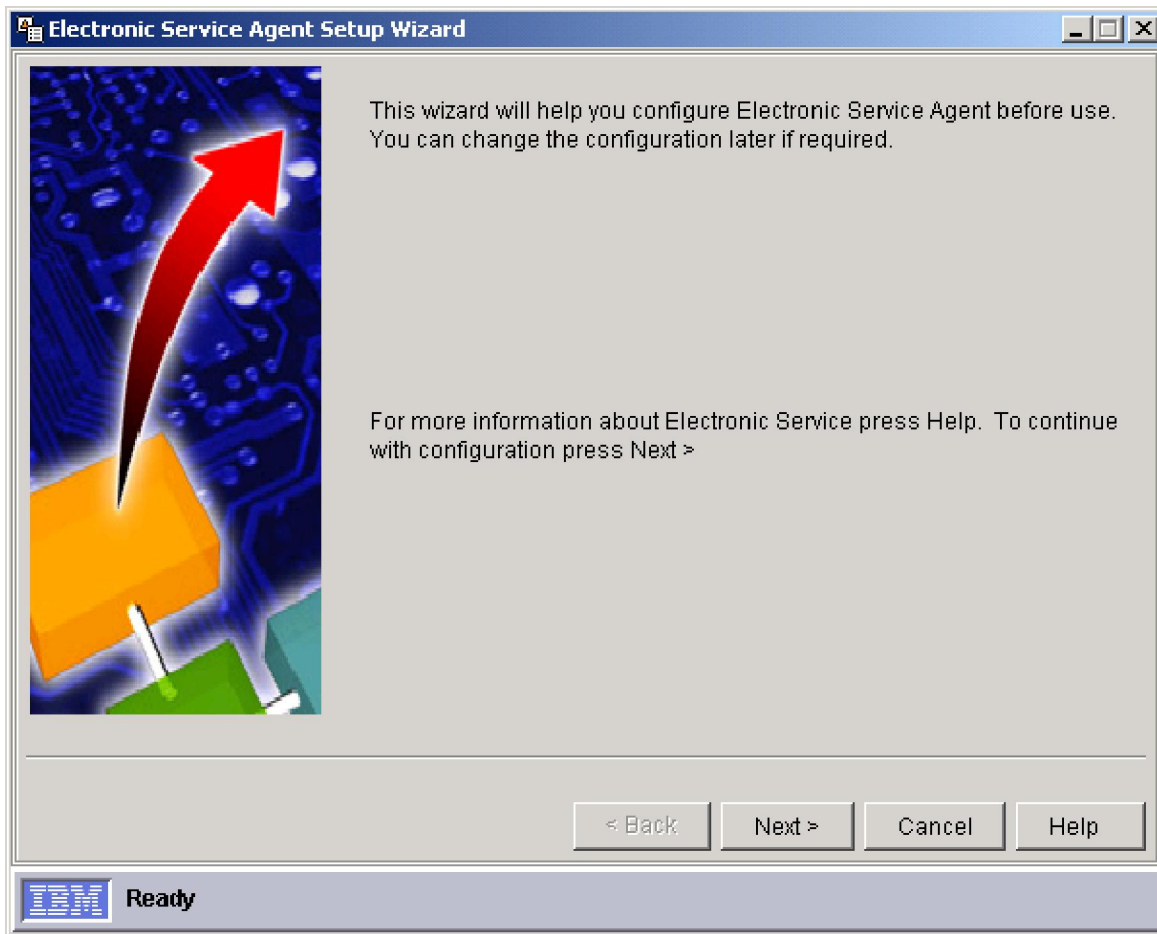
3. Click **Next**. You see the Country/Region panel .
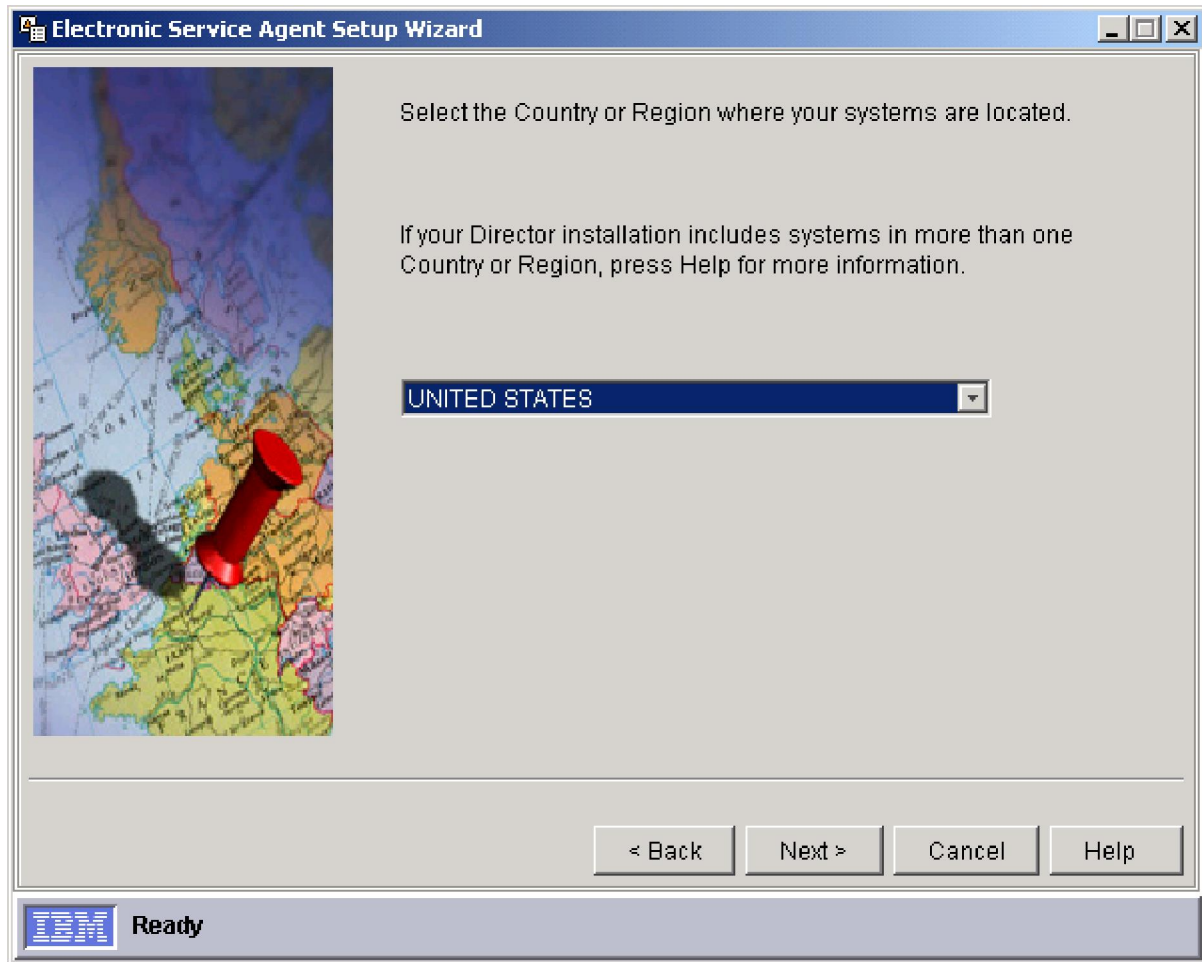
4. The Country/Region panel allows you to select the country/region in which your management server resides.
   - ú Note: During the configuration process the management server country will also be assigned as the default for the following:
      - Ÿ Company country: country location for your registered company address.
      - Ÿ Managed systems' country: country where your managed systems reside.
      - Ÿ Contact person country: country location where the person that your company has nominated to act as a point of contact for IBM service representatives resides.
   - ú <u>If any of your systems reside in different country locations, you can change the default country locations later using the Electronic Service Agent Configuration Notebook. Refer to the online help for further information.</u>
   - ú **Important**: If your IBM Director Server location is configured incorrectly, IBM's service delivery may be delayed.
5. Click **Next.** One of these events occurs:
   - ú On Windows you see the Communications Configuration screen, which lets you select a connection type to IBM - dialup or Internet.
   - ú On Linux, only an existing Internet connection is supported. The Setup Wizard displays the Internet Connnection Configuration panel.
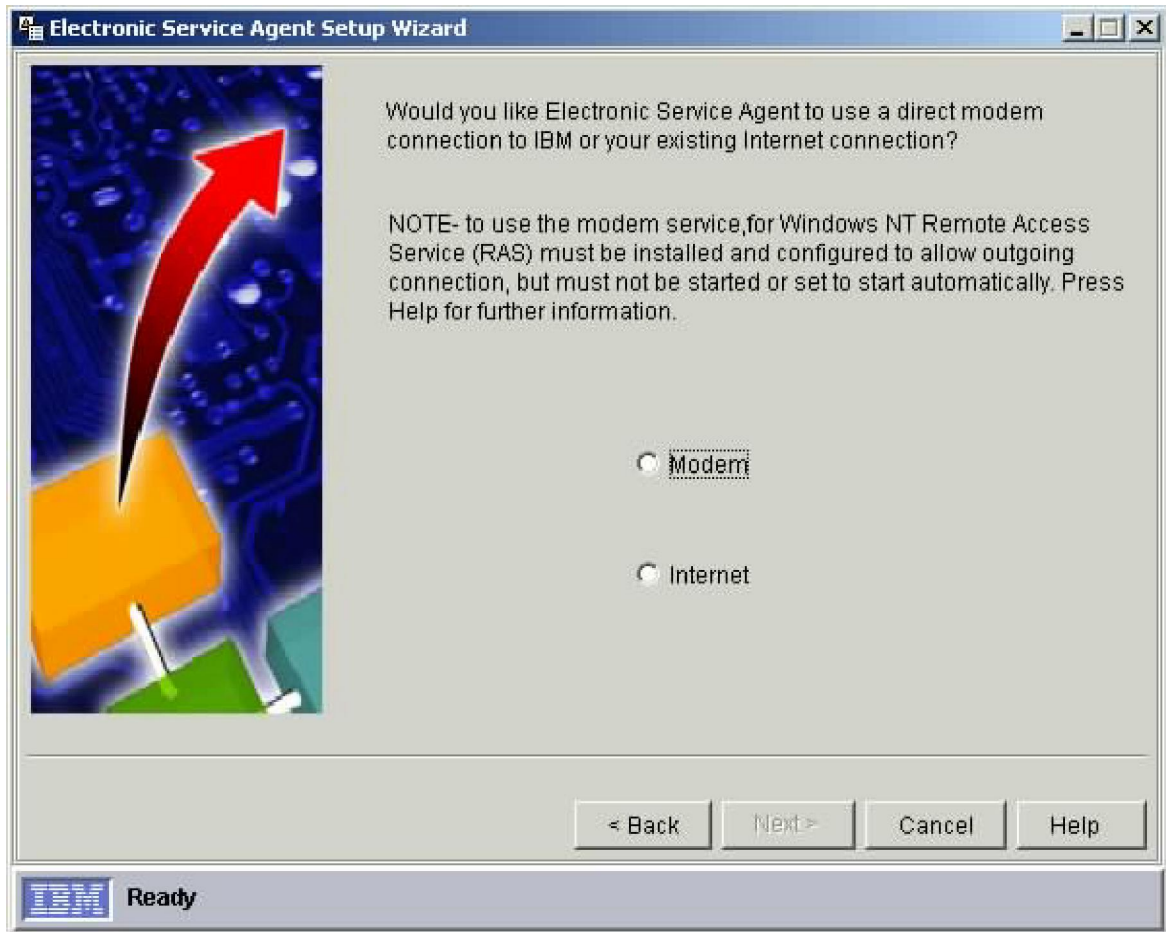
6. If your operating system is Windows, you may select **modem** to use your modem connection.

Ÿ   If you select **modem**, you see a screen that lets you enter modem data.

Fill in these fields**:**

ú   **Modem:** Select a modem from the pull-down list.

ú   **Region**: Select the region in which your IBM Director Central Management Server is located from
     the pull-down list.

    Ÿ   The options displayed here are restricted by the choice of Country/Region that you have made
     in the Country/Region screen of the Configuration Wizard.

    Ÿ   This field is disabled if the country/region that you have selected in the Country/Region screen
     of the Configuration Wizard does not have any associated regions.

ú   **City**: Select the City in which your IBM Director Central Management Server is located from the
     pull-down list.

    Ÿ   This field offers a choice of cities relevant to the region you have selected above.

    Ÿ   If the Region field is disabled, the City field offers a list of options appropriate for the
     country/region that you have selected in the Country/Region screen of the Configuration
     Wizard.

ú **Number to dial**: The city that you have selected from the pull-down list of the **City** field determines which telephone number is displayed by default in this field.

Note: You should modify the number displayed to one that is of a local dialing form. For example, remove the area code or add a local dialing prefix. This will minimize your call charges. Your telephone number should not exceed 32 characters.

ú **Test connection**: Initiates a test of the current settings and displays the Connection Test window for you to monitor the progress of the test that you are performing.

Ÿ If you select **Internet**, you see the Internet Connection Configuration panel.
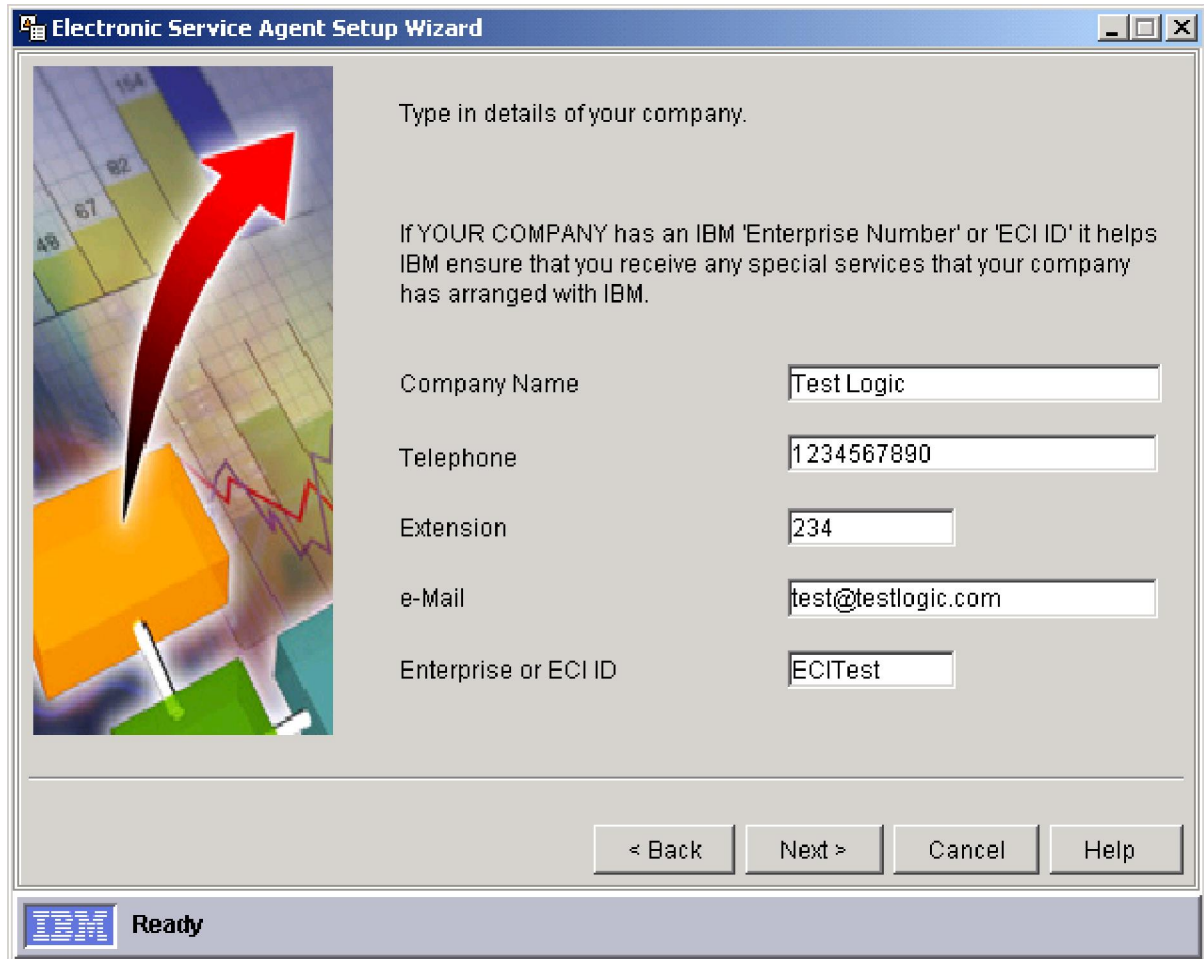
Fill in these fields:

ú **Use proxy:** Enables the proxy controls.
Note that the proxy must support HTTPS tunneling. In some networks this is a different proxy from the standard HTTP proxy. Your network administrator can tell you the values you need for the proxy host and port settings. These are the same values as you would use for the 'Secure' proxy setting in the system Internet settings.

ú **Proxy address:** Enter either a dotted decimal IP address or a DNS host name of the proxy.

    ü **Port number**: Enter the port number of the proxy.
    ü **Use Authentication**: Enables the authentication controls.
    ü **User ID**: enter the user ID, maximum 20 characters, specified by your network administrator.
    ü **Password**: enter the password, maximum 20 characters, specified by your network administrator.
    ü **Confirm password**: enter the password again.
    ü **Test connection**: Initiates a test of the current settings and displays the Connection Test window for you to monitor the progress of the test that you are performing.

7. Click **Next**. You see the Company configuration panel.

Fill in the fields:
    ü **Company Name:** the name of your company, maximum 30 characters.
    ü **Telephone**: the telephone number of your nominated contact person, usual maximum 30 characters; country dependent. In Canada or the United States, maximum 10 digits.
    ü **Extension**: displayed only if required for the country/region you selected. Character restrictions are country dependent. In Canada or the United States, maximum 4 digits.
    ü **E-mail**: e-mail address, maximum 256 characters.

ú **Enterprise or ECI ID**: This field is optional and accepts Enterprise or ECI IDs up to 10 characters. Your company may have an enterprise number or an ECI (Electronic Customer Interface) ID. These numbers are used by IBM to identify customers and their associated unique service agreement terms and conditions. Your purchasing team may be able to provide an ECI ID. An ECI ID is also known as **ESC + ID** or **ECCOID**.

8. Click **Next**. You see the Contact Configuration panel.
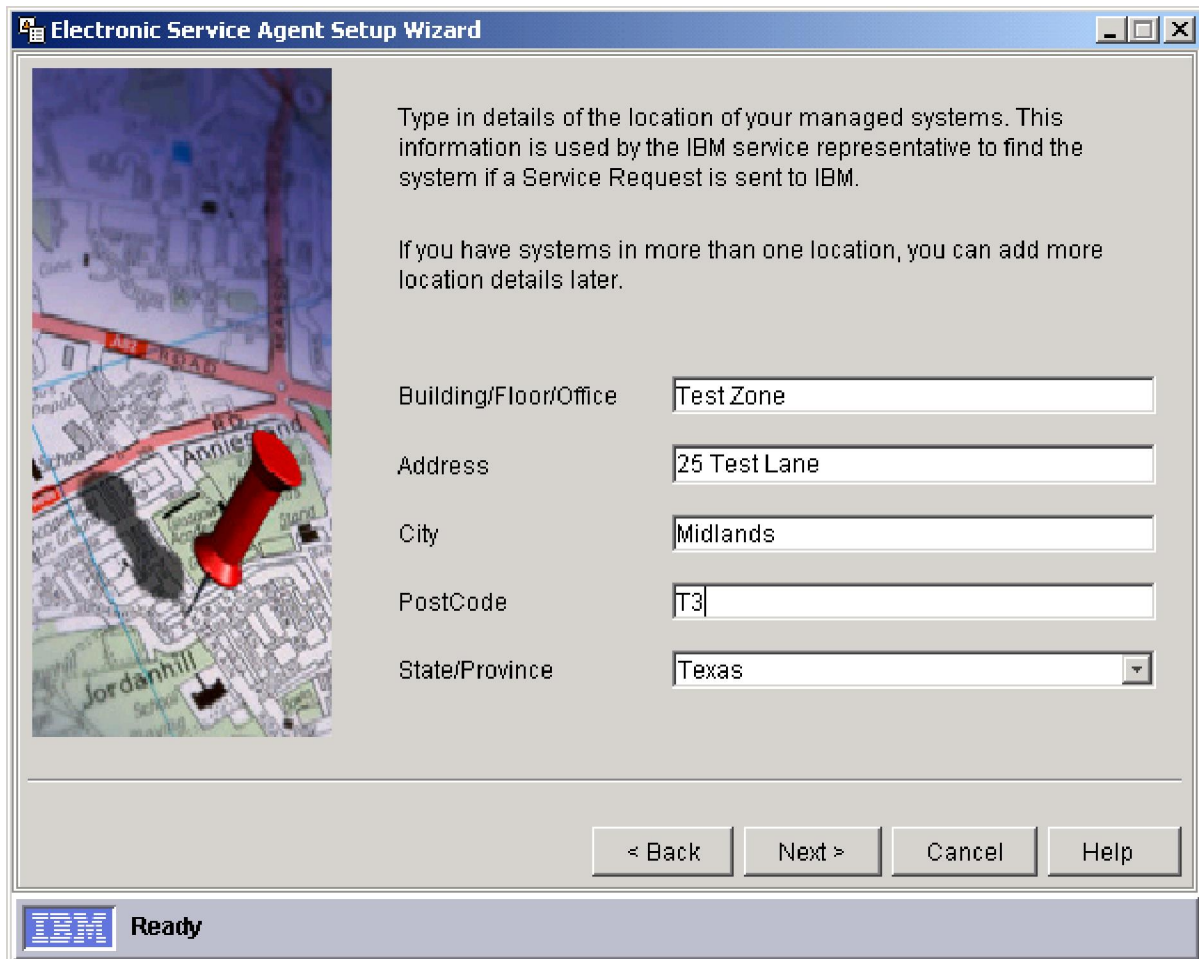
Use the Contact Configuration panel to configure the details of the person you have nominated within your company who will act as a point of contact. When Electronic Service Agent sends a Service Request to IBM, IBM will contact this person during the process of resolving your company's managed systems' hardware problems.

Fill in the fields:
ú **Name**: name or job title of your nominated contact person, maximum 22 characters. This field accepts English or Latin characters only.
ú **Telephone**: the telephone number of your nominated contact person, usual maximum 30 characters; country dependent. In Canada or the United States, maximum 10 digits.
ú **Extension**: displayed only if required for the country/region you selected. Character restrictions are country dependent. In Canada or the United States, maximum 4 digits.
ú **E-mail:** e-mail address, maximum 256 characters.

ú **Note**: If your IBM Director Server and managed systems reside in different locations or your managed systems reside in a number of different locations or both, you must change the country/regions where the relevant contact persons for these managed systems reside, either individually or on a group basis. To do this:

    a. Complete this initial configuration stage using the Electronic Service Agent Configuration Wizard.

    b. Change the setting using the Contact/Location page of the <u>targeted</u> Electronic Service Agent Configuration Notebook or the Contacts page of the <u>untargeted</u> Electronic Service Agent Configuration Notebook to make changes.

9. Click **Next**. You see the Location Configuration panel.

Fill in the fields: It is important that you configure your managed systems' location details accurately. The location details that you type here will enable IBM's service representatives to locate the defective managed systems within your company premises so that they can repair them.

ú **Building, Floor, Office**: the location within your company premises of your managed systems, maximum 22 characters.

ú **Address**: the address details of your managed systems, maximum 30 characters.

ú **City**: the city in which your managed systems reside, maximum 30 characters.

ú **Post Code**: the postal code appropriate for your managed systems, maximum 10 characters.

ú **State/Province**: This field is dependent upon the country/region that you selected.
  Ÿ If the country/region you selected has a defined list of states or provinces, the state/province is selectable from a pull-down list.
  Ÿ If the country/region does not have a defined list of states or provinces, type the state/province, maximum 30 characters, or type **none**.
  Ÿ By default, the list of states/provinces displayed is dependent upon the country/region location of your management server. If your systems reside in more than one country location, you should change this field. To do this:
    ú Complete this initial configuration stage using the Electronic Service Agent Configuration Wizard.
    ú Change the setting using the Contact/Location page of the <u>targeted</u> Electronic Service Agent Configuration Notebook or the Contacts page of the <u>untargeted</u> Electronic Service Agent Configuration Notebook.
10. Click **Next**. You see the Finish Configuration panel.
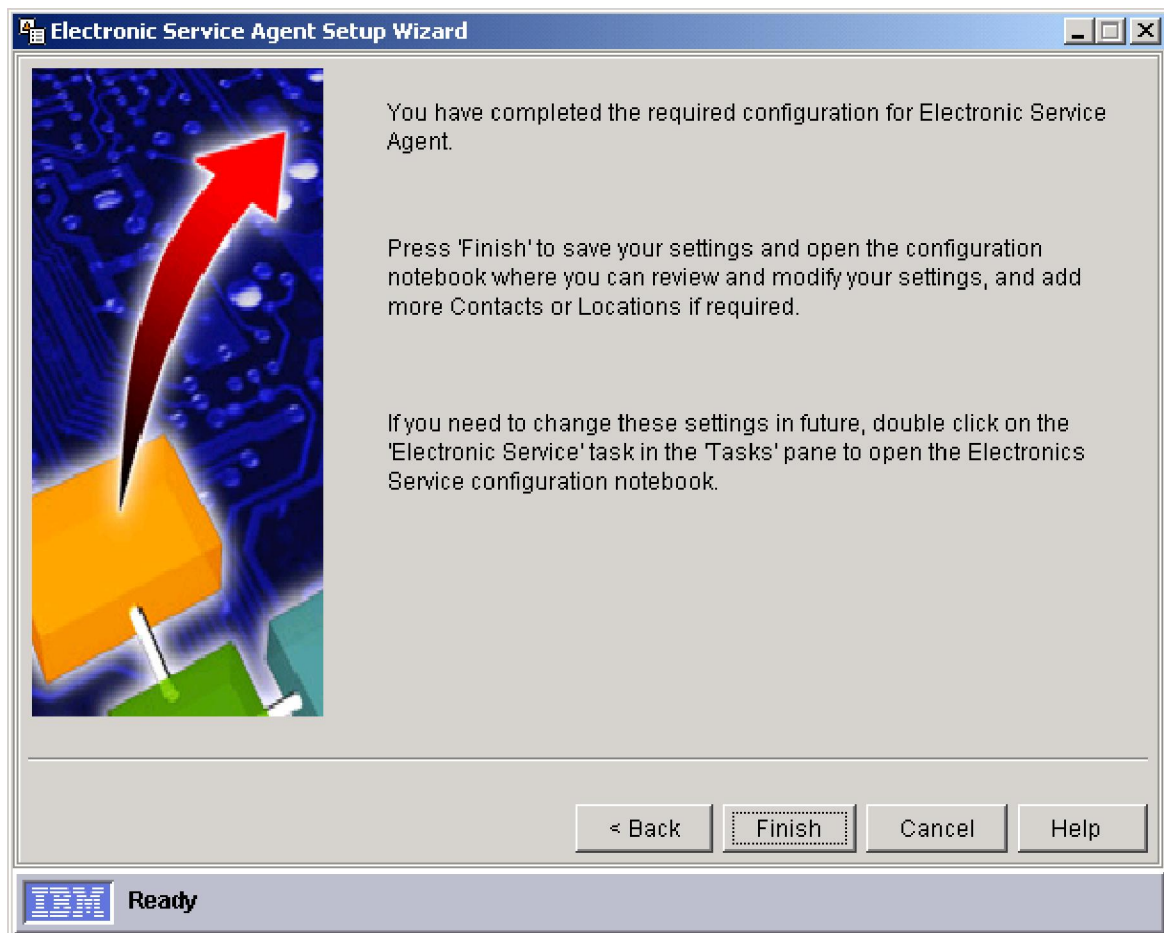
ú This panel is displayed when you have properly configured settings for all of the Electronic Service Agent Configuration Wizard panels.
ú If you need to change these global configuration settings in future, you can do so using the untargeted Electronic Service Agent Configuration Notebook.
ú Click **Finish**. The untargeted Electronic Service Agent Configuration Notebook is automatically displayed. Electronic Service Agent is now ready for you to perform administrative tasks.

ú   Before running Electronic Service Agent, use your IBM Director Console to perform an initial systems inventory. For details of performing system inventories refer to the "Inventory Collection Operation" entry of your IBM Director online help.

Chapter 7. Enabling Systems for Electronic Service

Before attempting to use Enablement Managment task, ensure that you have properly installed (chapter 3) and configured (chapter 6) Electronic Service Agent. In addittion, an Inventory Collection must also be performed on each managed system before it can be enabled for Electronic Service.
.

Enabling one or more managed systems for Electronic Service

Option 1.   Untargeted Initialization.
Simply make a double-click on Enablement Managment subtask.
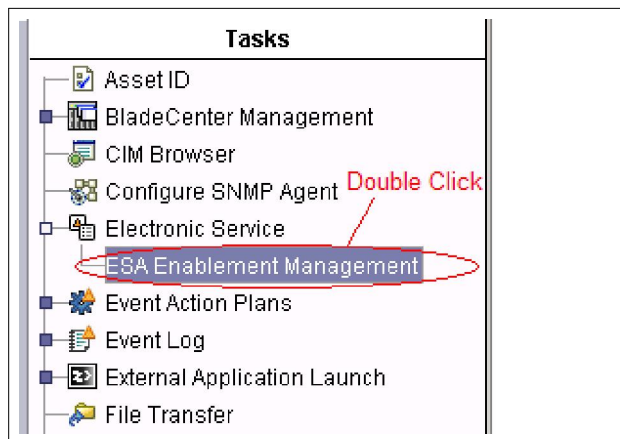
Option 2. Targeted Initialization
Select the specific systems you want to enable for Electronic Service Agent and then drag and drop them onto ESA Enablement Managment subtask.
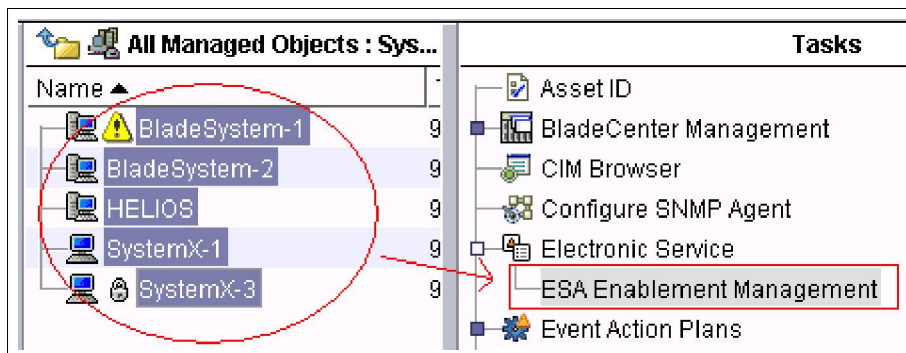
Either Option 1 or Option 2 was your choice, the subtask will perform an eligibility process and then only display the eligible systems for Electronic Service.

NOTE: *An eligible system is the one which is supported by Electronic Service for its processing.*

At this point, you will see the ESA Enablement Management Panel being displayed. On the Eligible Systems list, you will only see systems that are supported by Electronic Service. Now you can decide
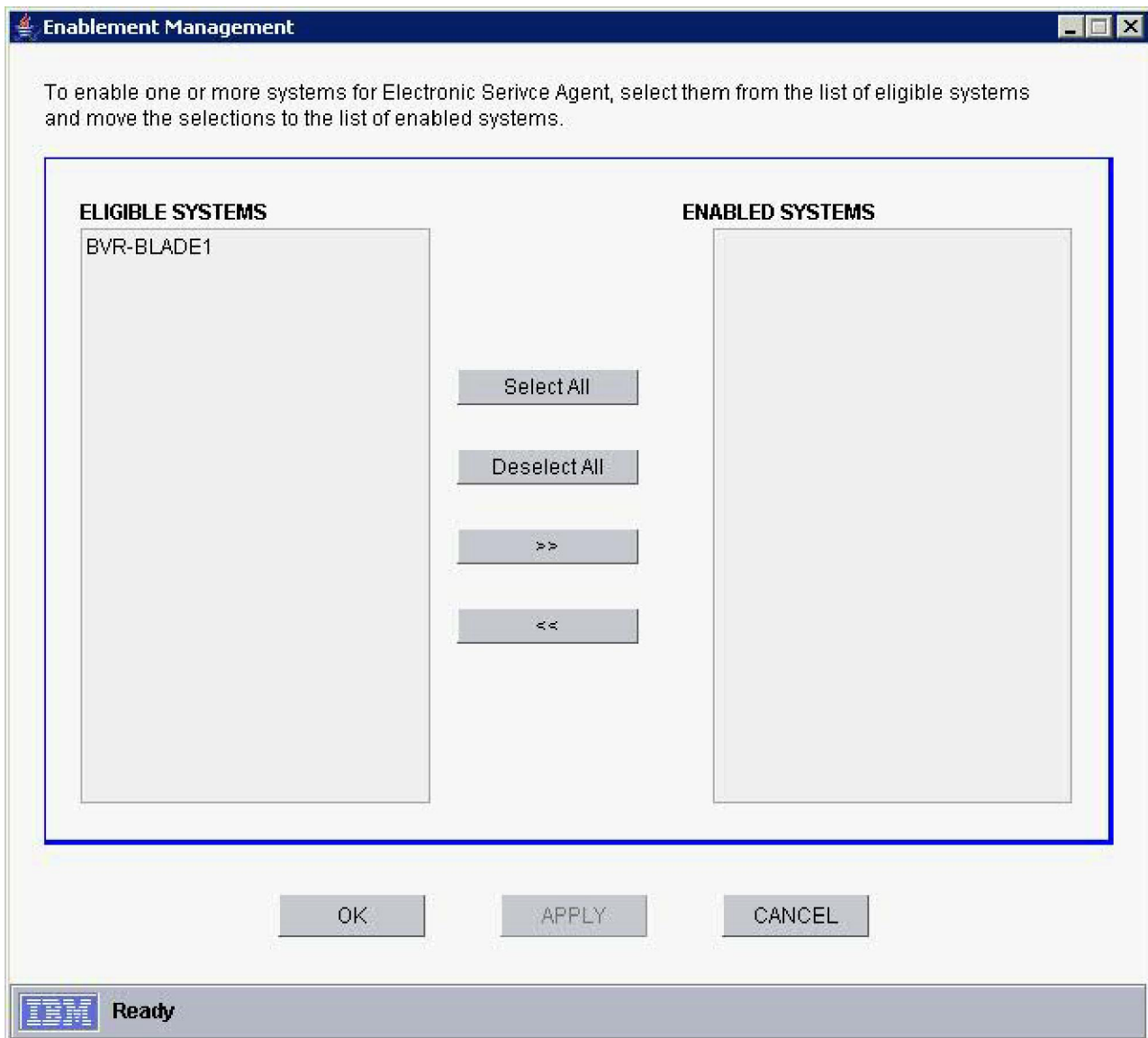
which systems to enable for Electronic Service by moving them to the Enabled Systems list.

Once you have finished of moving the systems to the correct list, you can click Ok or Apply button.
Ÿ   **Clicking Apply.** It will send an enablement request to the server and keeps the panel opened until the request is completed. Any change performed on the lists will be processed.
Ÿ   **Clicking OK.** It willl send an enablement request to the server and close the task's panel. In this case, any change performed on the lists will be processed and you don't need to wait for a response from the task. However, when the enablement request gets completed you willl be notified with the following message:
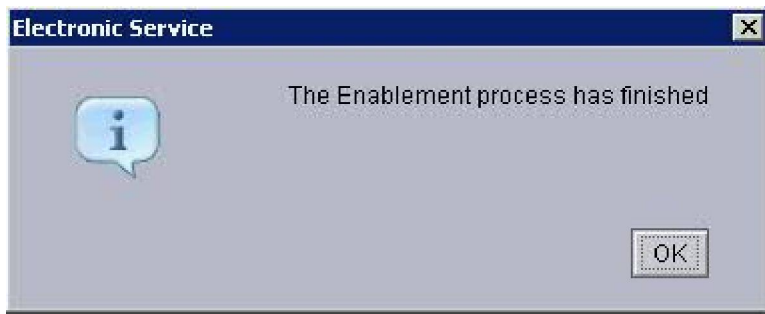
Enrolling a managed system for Electronic Service
When you enable a managed system for Electronic Service for the first time, Electronic Service Agent initiates an enrollment transaction. If this transaction is unsuccessful, you can manually initiate another enrollment transaction.

To manually enroll a managed system for Electronic Service:
1. Open the <u>single targeted</u> Electronic Service Agent Configuration Notebook by launching the Electronic Service Task targeted at a **single** managed system. See "Single targeted mode" on page 46.
2. Open the **Test** page.
3. Click **Enroll System**. Wait for the Enroll System Test window to confirm that the transaction has been successful or follow on-screen instructions.
4. Click **Apply** for changes to be applied, and then click **OK** to close the System page

Chapter 8. Using the Untargeted and Targeted Notebooks

The IBM Director Console

Electronic Service Agent is installed as an IBM Director Extension and is visible on the IBM Director Console as shown below. Refer to your IBM Director online help for more information about using the IBM Director Console.
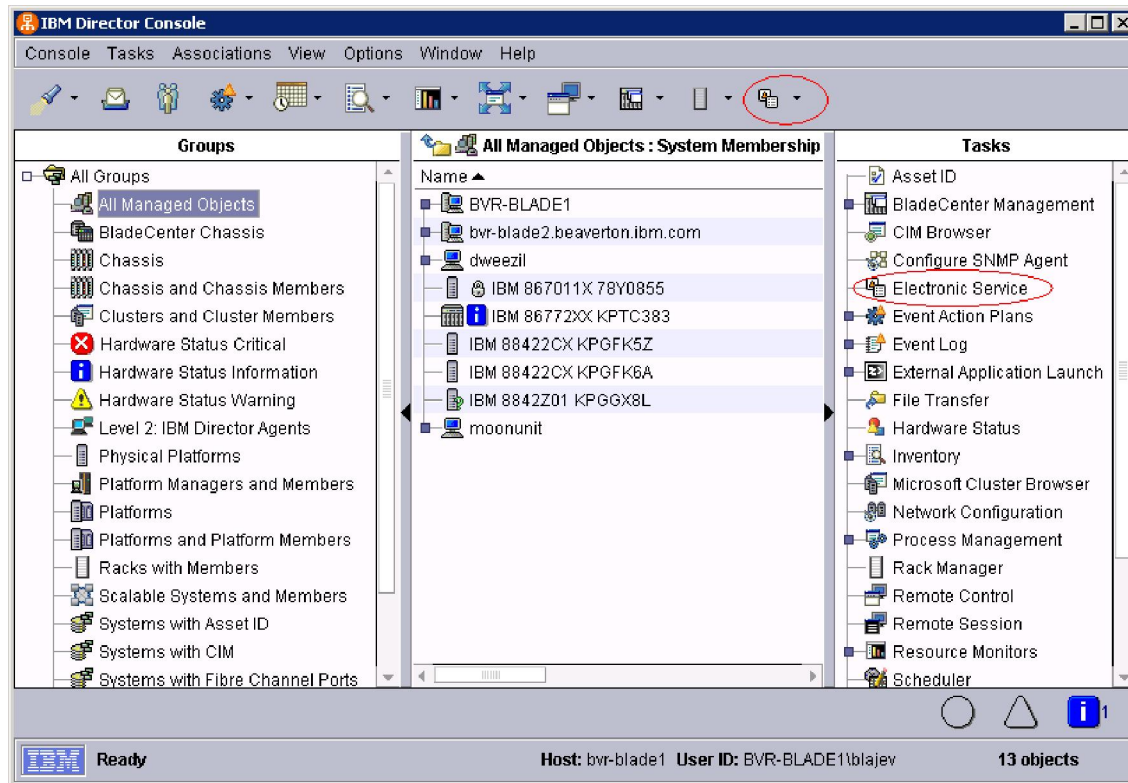
Features
Ÿ   A padlock icon beside a managed object indicates that the object is secured by a server and inventory information about the object cannot be collected. To request access to the object, right-click the managed object and click Request Access. By providing a valid user name that has local administrative rights to that managed object and password, you can access the system.

For BladeCenter chassis and physical platforms, the padlock icon is displayed if a valid login profile does not exist for the service processor. You can request access using the same method.

Ÿ   The Electronic Service Manually Subscribed Events filter appears as a sub-category of the Event Log task in the Tasks pane. This is not intended for use; it appears automatically when Electronic Service Agent is installed.

Use
Ÿ   <u>To launch Electronic Service Agent</u>:
The Electronic Service Agent can be launched in untargeted or targeted mode:

ú   **Untargeted mode**:
  Ÿ   An untargeted action is one that applies to the Electronic Service Agent installation as a whole.
  Ÿ   To launch Electronic Service Agent in untargeted mode, do one of these:
    ú   Double-click on the circled icon on the Toolbar.
    ú   Double-click on the circled "Electronic Service" in the Tasks pane.
    ú   Right-click on the circled "Electronic Service" in the Tasks pane. You see a Context menu.
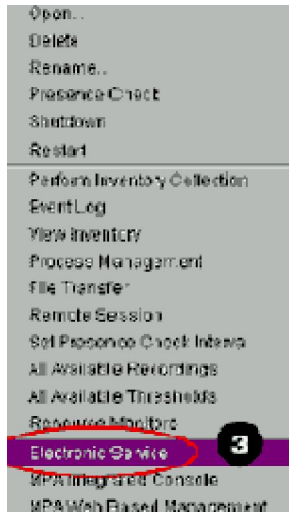
        ú   Select **Open,** the top item on the menu.
  Ÿ   You see the Untargeted Electronic Service Agent Configuration Notebook.   .
ú   **Targeted mode**:
  Ÿ   A targeted action is one that applies to one or more managed systems.
  Ÿ   To launch Electronic Service Agent in targeted mode, do one of these:
    ú   Drag and drop a system listed in the Groups pane onto the circled "Electronic Service" in the Tasks pane.
    ú   Drag and drop the circled "Electronic Service" task onto a system listed in the Groups pane.
    ú   Right-click on a system listed in the Groups pane. You see a Context menu (shown above). Select the circled **Electronic Service**.
  Ÿ   You see the Targeted Electronic Service Agent Configuration Notebook. The Targeted Notebook is discussed on page 45.

Important: Do not open more than one instance of the Electronic Service Agent Configuration Notebook at a time. If you open and use multiple Electronic Service Agent Configuration Notebooks, some of your data may not be saved when you close any of the Notebooks.

The Untargeted Electronic Service Agent Configuration Notebook

To use the Untargeted Notebook to change global settings:

1. Use one of the methods above. You see the Untargeted Notebook, with tabs for Company, Contacts, Locations, Communication, Scheduler, Inventory, Updates, and Advanced.

2. At the bottom of the notebook, and available to each page, are four buttons:

   | OK | Apply | Cancel | Help |

   ú   When you have made changes to a page that you want to have applied to the system, click **Apply**.
   You will remain on the notebook page.

   ú   When you have made all changes to the notebook, click **OK** to save and exit.

   ú   Click **Cancel** to discard changes and exit.

   ú   Click **Help** to see online help for the page.

3. Select the tabs for the pages you need to change. You may select these in any order.

Untargeted Company Page

1. Click the **Company** tab. You see the Untargeted Company page.

2. Make necessary changes and click **Apply**. Field entry requirements are the same as those for the
   Company Configuration panel described on page 30. **Do not click OK** until you are ready to exit the
   notebook.

Untargeted Contacts Page
1. Click the **Contacts** tab. You see the Untargeted Contacts page.

2. Make necessary changes and click **Apply**. Field entry requirements are the same as those for the Contacts Configuration panel described on page 31. Note that you cannot delete default contact settings.

Untargeted Locations Page
1. Click the **Locations** tab. You see the Untargeted Locations page.

2. Make necessary changes and click **Apply**. Field entry requirements are the same as those for the Contacts Configuration panel described on page 32. Note that you cannot delete default location settings.

Untargeted Communication Page
1. Click the **Communication** tab. You see the Untargeted Communication page.

2. Make changes and click **Apply**. Field entry requirements are the same as those for the Internet Connection Configuration panel described on page 29.

   Note: The Dial-up/Internet radio box is only available on Windows. On Linux, dial-up is not supported and all communications go through your existing Internet connection.

Untargeted Scheduler Page
1. Click the **Scheduler** tab. You see the Untargeted Scheduler page.
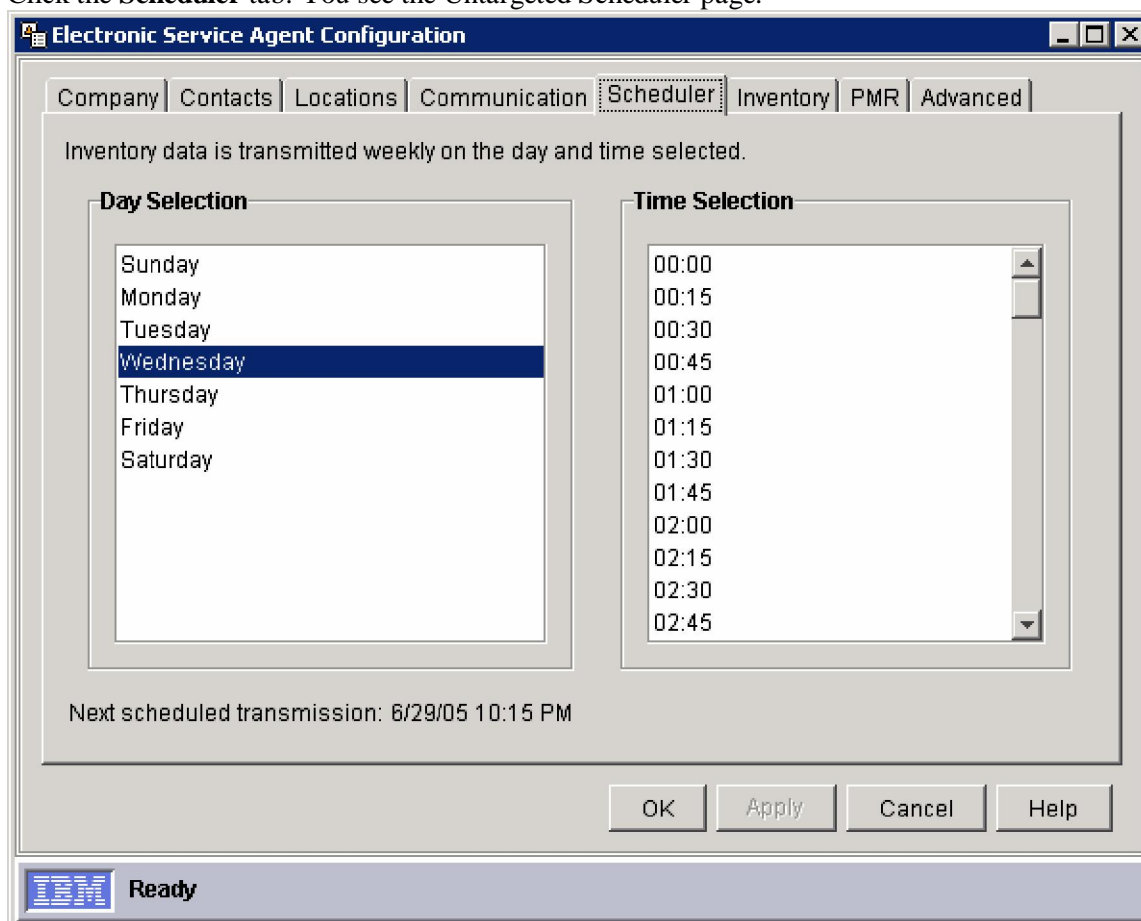
2. Use this page to configure your weekly repeat schedule for inventory collection and transmission to IBM. Select days and times, and then click **Apply**.

Note: All changes made to the Scheduler are applied universally to all managed systems. Different weekly schedules cannot be set for individual managed systems or groups of managed systems.

Untargeted Inventory Page

1. Click the **Inventory** tab. You see the Untargeted Inventory page.

Use this page to specify the inventory information you want sent to IBM. Electronic Service Agent collects diagnostic inventory information from your managed systems, remove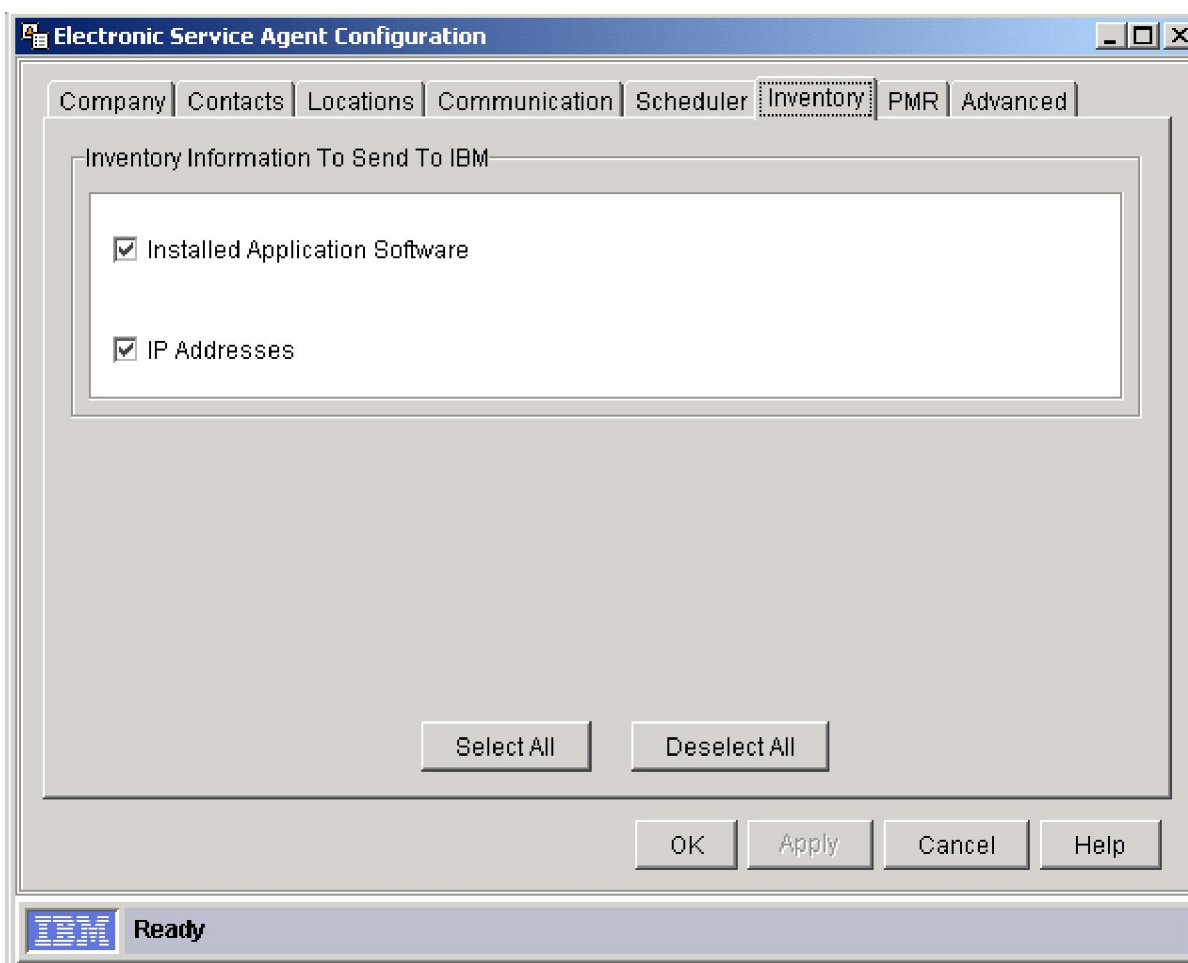s the inventory information in the deselected sensitive inventory categories, and transmits the rest to IBM ONLY at the time of sending a Service Request. Updates are sent to IBM on a scheduled weekly basis for any hardware and software standard inventory items that are selected. Diagnostic inventory information is sent to IBM ONLY at the time of sending a Service Request.

Inventory Information To Send To IBM: Contains a list of sensitive inventory information categories that you can choose to send or not send to IBM. All check boxes are checked by default. Uncheck the categories you do not want sent to IBM.
**Select All**: Checks all the items in the list.
Deselect All: Unchecks all the items in the list.

Electronic Service Agent collects and transmits both standard inventory and diagnostic inventory to IBM.

ú   Standard inventory**:**
Electronic Service Agent collects standard inventory information from your managed systems in accordance with the inventory information you have selected and transmits it to IBM on either on a scheduled weekly basis or at the time of sending a Service Request.

ú   Diagnostic Inventory**:**
Electronic Service Agent collects diagnostic inventory information from your managed systems and transmits it to IBM ONLY at the time of sending a Service Request.

ú   **Note**: If you want Electronic Service Agent to send a managed system's diagnostic inventory information to IBM, you must specifically enable the diagnostic inventory service using the **Services** page of the targeted Electronic Service Agent Configuration Notebook.


Untargeted PMR Page
1. Click the PMR tab. You see the Untargeted PMR History Page.
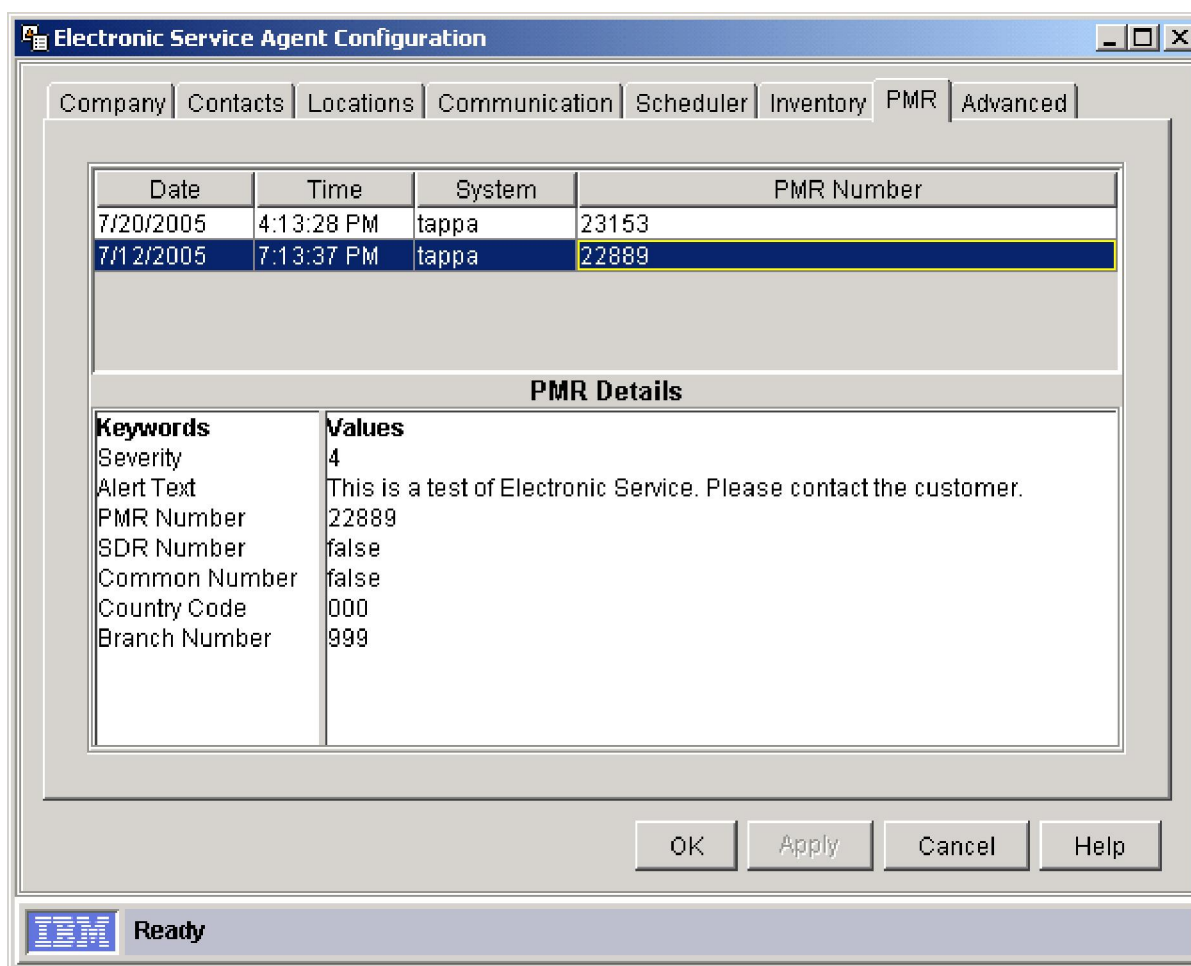
2. Notice the information presented about PMRs in the PMR table: date, time, system, and PMR number.

3. Notice the information presented in the PMR Details section: Severity, Alert Text, PMR Number, SDR number. Common number, Country Code, and Branch number.

Untargeted Advanced Page

1. Click the **Advanced** tab. You see the Untargeted Advanced page.
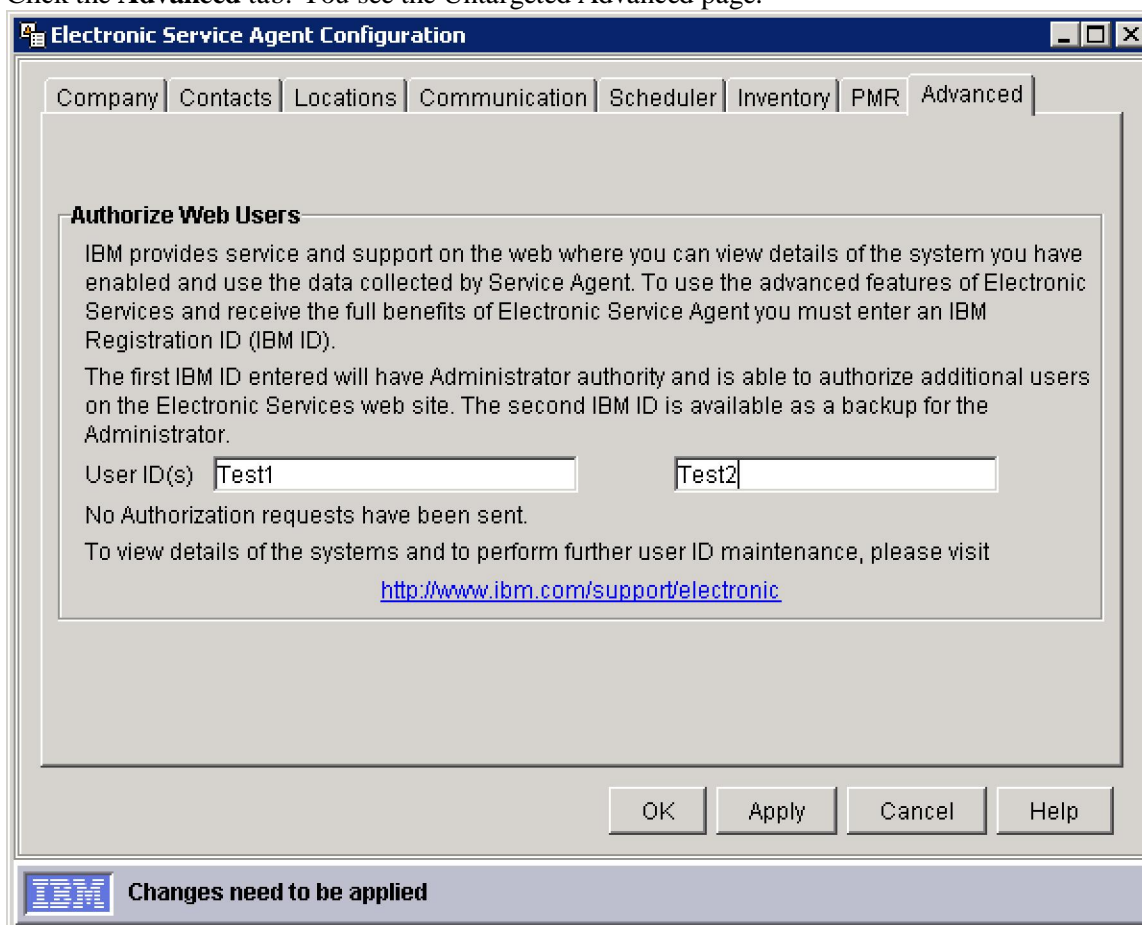
2. IBM provides a web site that allows you to view the system details and inventory information that Electronic Service Agent collects from each of your company-owned managed systems that are enabled and enrolled for Electronic Service. To become authorized to view this information:

Ÿ Obtain an IBM Registration user ID. To do this, access this URL:
   http://www.ibm.com/registration/selfreg
Ÿ Register for authorization to view this information using this page.
Ÿ View each of your managed systems with IBM by accessing this URL:
   http://www.ibm.com/support/electronic

The Targeted Electronic Service Agent Configuration Notebook

You can display the Electronic Service Agent Configuration Notebook in the following three targeted modes:

Ÿ Single targeted: select a single managed system
Ÿ Multi-targeted: select two or more managed systems
Ÿ Group targeted: select a group of managed systems.

Single-targeted mode
As discussed earlier, you can display the Targeted Notebook in single-targeted mode by performing any one of the following actions:

Ÿ   Drag and drop a system listed in the Groups pane of the IBM Director Console onto the Electronic Service task in the Tasks pane.
Ÿ   Drag and drop the Electronic Service task in the Tasks pane of the IBM Director Console onto a system listed in the Groups pane.
Ÿ   Right-click on a system in the Groups pane and select **Electronic Service** from the context menu.
Ÿ   Launch Electronic Service Agent in multi-targeted or group targeted mode (see below) and then select a single system from the list of systems displayed in the System tree of the Electronic Service Agent Configuration Notebook. The System tree is visible in the figures in the System and History pages of the targeted Electronic Service Agent Configuration Notebook that are illustrated later in this chapter.

Multi-targeted mode
You can display the Targeted Notebook in multi-targeted mode by performing any one of the following actions:
Ÿ   Select two or more systems listed in the Groups pane of the IBM Director Console, then drag and drop any of the selected systems onto the Electronic Service task in the Tasks pane.
Ÿ   Select two or more systems listed in the Groups pane of the IBM Director Console, then drag and drop the Electronic Service task in the Tasks pane on to any of the selected systems.
Ÿ   Select two or more systems listed in the Groups pane of the IBM Director Console, and then right-click on any of the selected systems and select **Electronic Service** from the context menu.

Group targeted mode
You can display the Targeted Notebook in group targeted mode by performing any one of the following actions:
Ÿ   Drag and drop a group, listed in the Groups pane of the IBM Director Console onto the Electronic Service task in the Tasks pane.
Ÿ   Drag and drop the Electronic Service task from the Tasks pane onto a group listed in the Groups pane.
Ÿ   Right-click on a group listed in the Groups pane, and then select **Electronic Service** from the context menu.

Note: Multi-targeted and group targeted launches of Electronic Service Agent display the same targeted Notebook and therefore provide the same functionality.

When the Electronic Service task is launched in group or multi-targeted mode, a Systems tree is displayed on the left side of the Targeted Notebook (refer to the System and History pages sections below). This System tree is visible for all pages except the Test page which can only be used in single targeted mode. The root of the tree is denoted as "All Selected Systems." If you select a system from the System tree, the targeted Electronic Service Agent Configuration Notebook switches to single targeted mode for that selected system.

To use the Targeted Notebook to change system-specific settings:
1.   Select one of the target modes described above. You see the Targeted Notebook, with tabs for System, Services, Contact/Location, History, and Test (for use in single-targeted mode only).
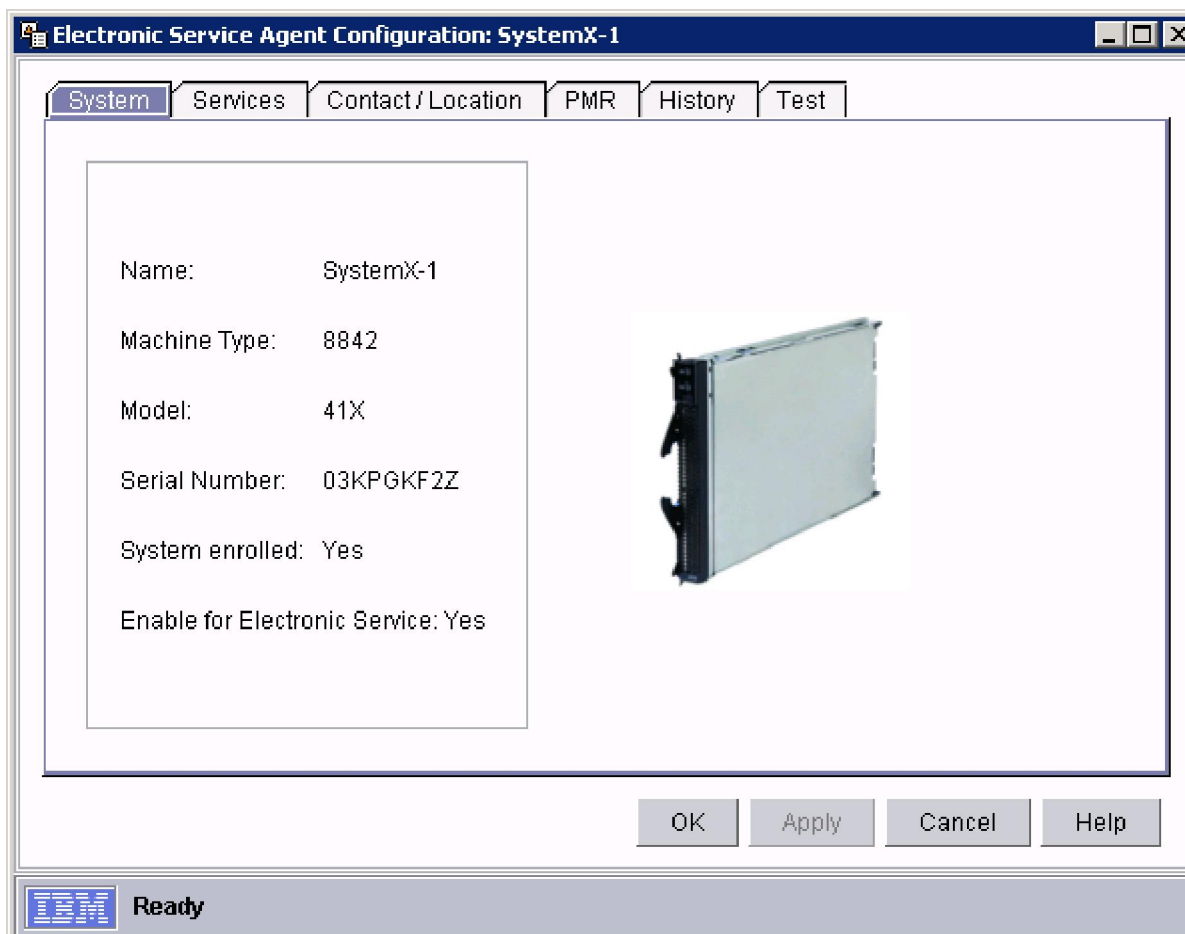
---

2. At the bottom of the notebook, and available to each page, are four buttons:

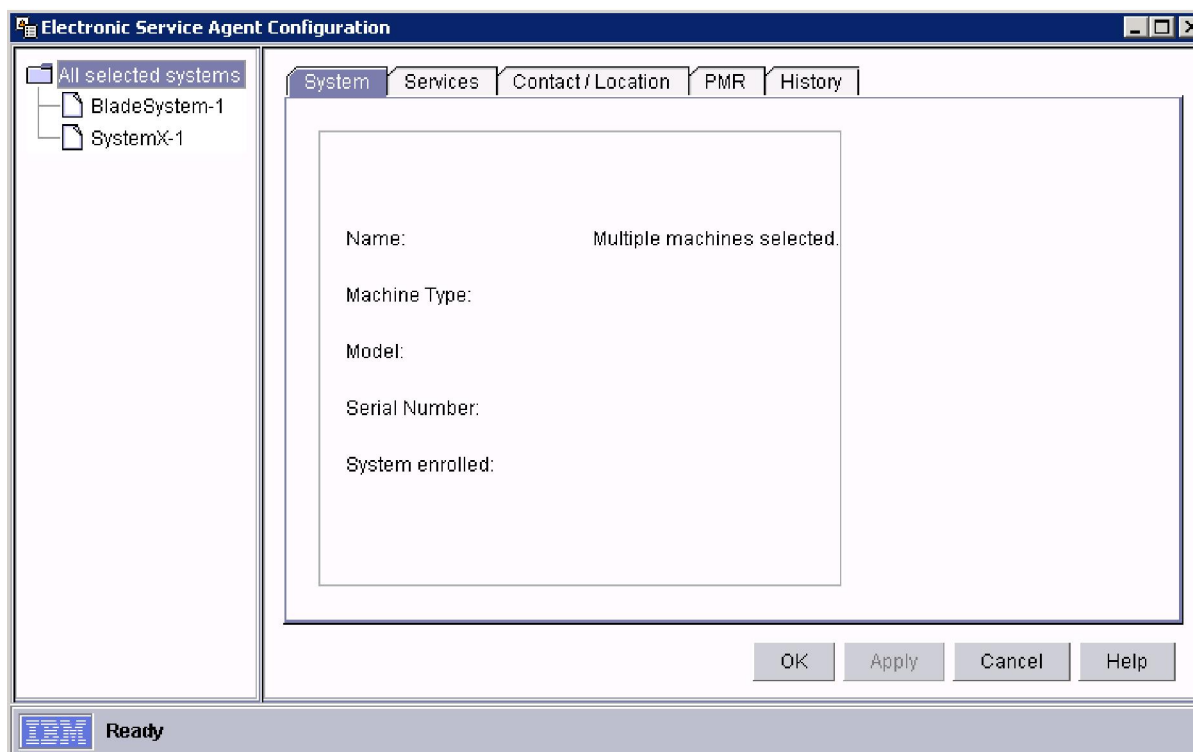| OK | Apply | Cancel | Help |

- ý When you have made changes to a page that you want to have applied to the system, click **Apply**. You will remain on the notebook page.
- ý When you have made all changes to the notebook, click **OK** to save and exit.
- ý Click **Cancel** to discard any changes you have made and exit the notebook.
- ý Click **Help** to see online help for the page you are viewing.

3. Select the tabs for the pages you need to change. You may select these in any order.

Targeted System Page

1. Select the **System** tab.
   - ý If you selected single-targeted mode, you see the single-targeted view of the System Page.

Electronic Service Agent Configuration: SystemX-1

System | Services | Contact/Location | PMR | History | Test

Name: SystemX-1

Machine Type: 8842

Model: 41X

Serial Number: 03KPGKF2Z

System enrolled: Yes

Enable for Electronic Service: Yes

| OK | Apply | Cancel | Help |

IBM Ready

 ú If you select multi-targeted, you see the multi-targeted view of the System Page.

Use the Targeted System page to:
  ú View a target managed system's details including: Name, Machine Type, Model and Serial Number
  ú Verify a target system's enrollment status for Electronic Service
  ú Verify a target system's enablement status for Electronic Service
1. Fill in the fields and click **Apply**:
  ú **Name**:
    Ÿ Single managed systems: Denotes the name of a managed system as displayed in the Group Contents pane of your IBM Director Console. This is the name that Electronic Service Agent sends to IBM as the name you have designated for the system.
    Ÿ Group of managed systems: Denotes the name of a group of managed systems as displayed in the Groups pane of your IBM Director Console.
    Ÿ Multiple Systems: Denoted as "All selected systems."
  ú **Machine type:** The machine type that is transmitted to IBM by Electronic Service Agent. In multi-targeted mode, the machine type is shown if all selected systems have the machine type. Otherwise the multi-targeted machine type is indicated as "various."
  ú **Model**: The machine model that is transmitted to IBM by Electronic Service Agent. In multi-targeted mode, the model is shown if all selected systems have the same machine type. Otherwise the multi-targeted model is indicated as **"**various."
  ú **Serial Number**: The machine serial number that is transmitted to IBM by Electronic Service Agent. The machine serial number is displayed for single targeted systems only.

ú **System enrolled**: Displays "Yes" if a system is enrolled for Electronic Service.
Note: Electronic Service Agent automatically initiates an enrollment transaction when a managed system is enabled for Electronic Service for the first time. If this transaction fails, you can manually initiate another enrollment transaction using the Test page of this notebook. For multi-targeted systems, this field displays "Yes," "No," or "Some." This field entry is updated if a system is successfully enrolled using the Test page.

ú **Enable for Electronic Service**: Displays "Yes" if a system is enabled for Electronic Service.

Targeted Services Page

1. Click the **Services** tab. You see the Targeted Services page. This and subsequent panels show the single-targeted view of these pages. The multi-targeted view has the same fields, and it also has a navigation area on the left of the page to let you choose a single system.
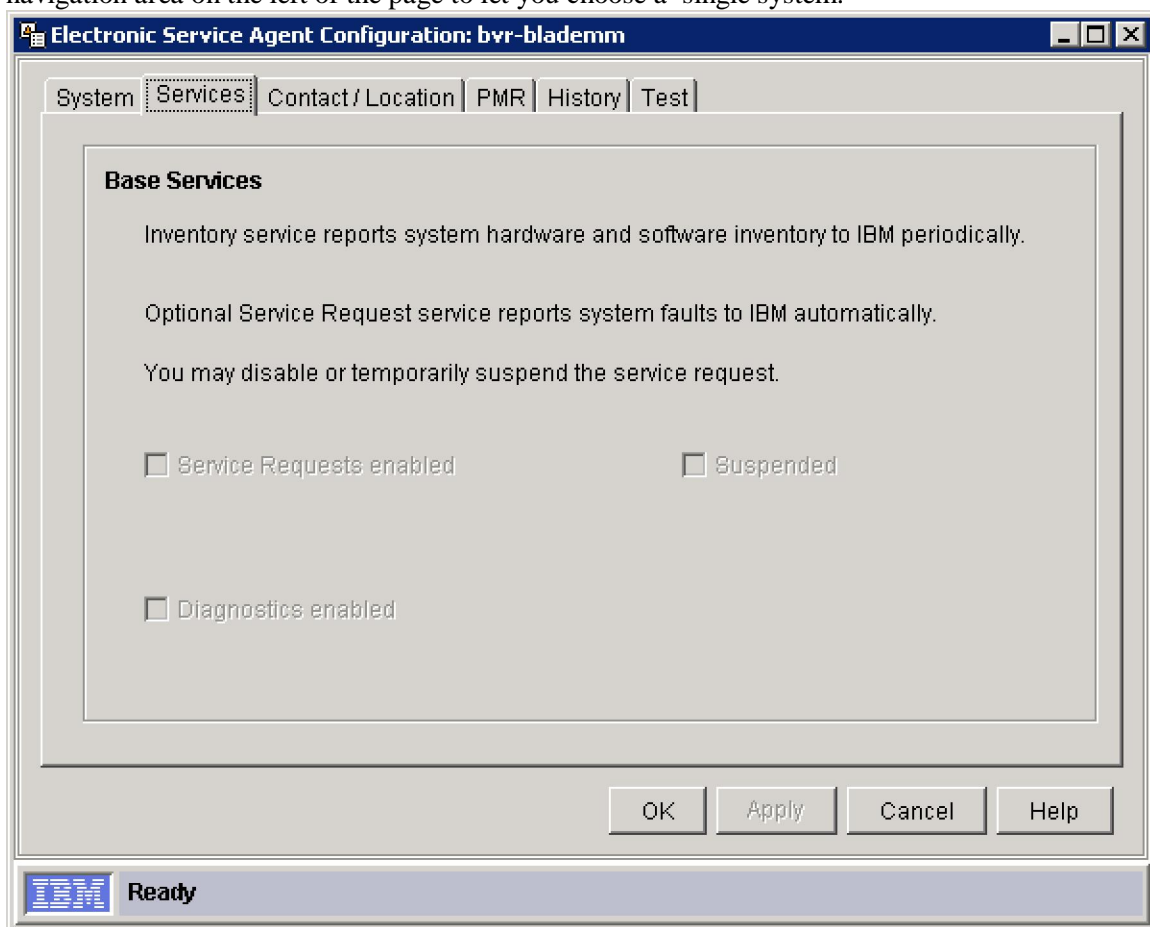
2. Use this page to:
   ú Enable a managed system for IBM's Service Request service or disable a managed system's enablement for IBM's Service Request service.
   ú Temporarily suspend or resume one or more managed systems' enablement for IBM's Service Request service.
3. Fill in the fields and click **Apply**:
   ú **Service Requests enabled**:

Ÿ Clear the checkbox to disable one or more managed systems' enablement for IBM's Service Request service. In multi-targeted mode this checkbox may have a gray background, indicating that your current selection of managed systems consists of some managed systems that are enabled for IBM's Service Request service and some that are not.

ú **Diagnostics enabled:**
Ÿ Select the checkbox to enable one or more managed systems for Electronic Service Agent's diagnostic inventory service. Clear the checkbox to disable one or more managed systems' enablement for Electronic Service Agent's diagnostic inventory service. In multi-targeted mode this checkbox may have a gray background indicating that your current selection of managed systems consists of some managed systems that are enabled for the diagnostic inventory service and some that are not.

Ÿ **Note**: Your selected items of diagnostic inventory information are collected from your managed systems and sent to IBM ONLY at the time of sending a Service Request.

Targeted Contact/Location Page

1. Click the **Contact/Location** tab. You see the Targeted Contact/Location page.

2. Use the **Contact/Location** page and associated Electronic Service New Contact and Electronic Service New Location editor panels to:
ú Assign new contact or location details to a managed system or group of managed systems without changing Electronic Service Agent's global settings

 ú   Assign Electronic Service Agent's global default contact or location settings or both to one or more
      managed systems
3. Define these settings:
 ú   **Contact**: details of the person you have nominated within your company who will act as a point of
      contact. When Electronic Service Agent sends a Service Request to IBM, IBM will contact this
      person during the process of resolving your company's managed systems' hardware problems.
      Ÿ   **Use default contact:** Assigns the global default contact details to one or more managed
           systems. The global default contact details are those that you configured in the Contact panel
           of the Configuration Wizard or the Contacts page of the untargeted Notebook.
      Ÿ   **Select contact**: Enables the pull-down list of contact settings and the **New** button.
      Ÿ   **New** :Displays the Electronic Service New Contact panel.

           Use this panel to add new contacts for one or more managed systems.
 ú   **Location**: The location details will enable IBM's service representatives to locate within your
      company premises the defective managed systems.
      Ÿ   **Use default location**: Assigns the global default location details to one or more managed
           systems. The global default location details are those that you configured in the Location panel
           of the Configuration Wizard or the Locations page of the untargeted Notebook.
      Ÿ   **Select location**: Enables the pull-down list of location settings and the **New** button.

Ÿ **New:** Displays the Electronic Service New Location panel.

Use this panel to add new locations for one or more managed systems.

Targeted PMR Page
1. Click the PMR tab. You see the Targeted PMR History Page.
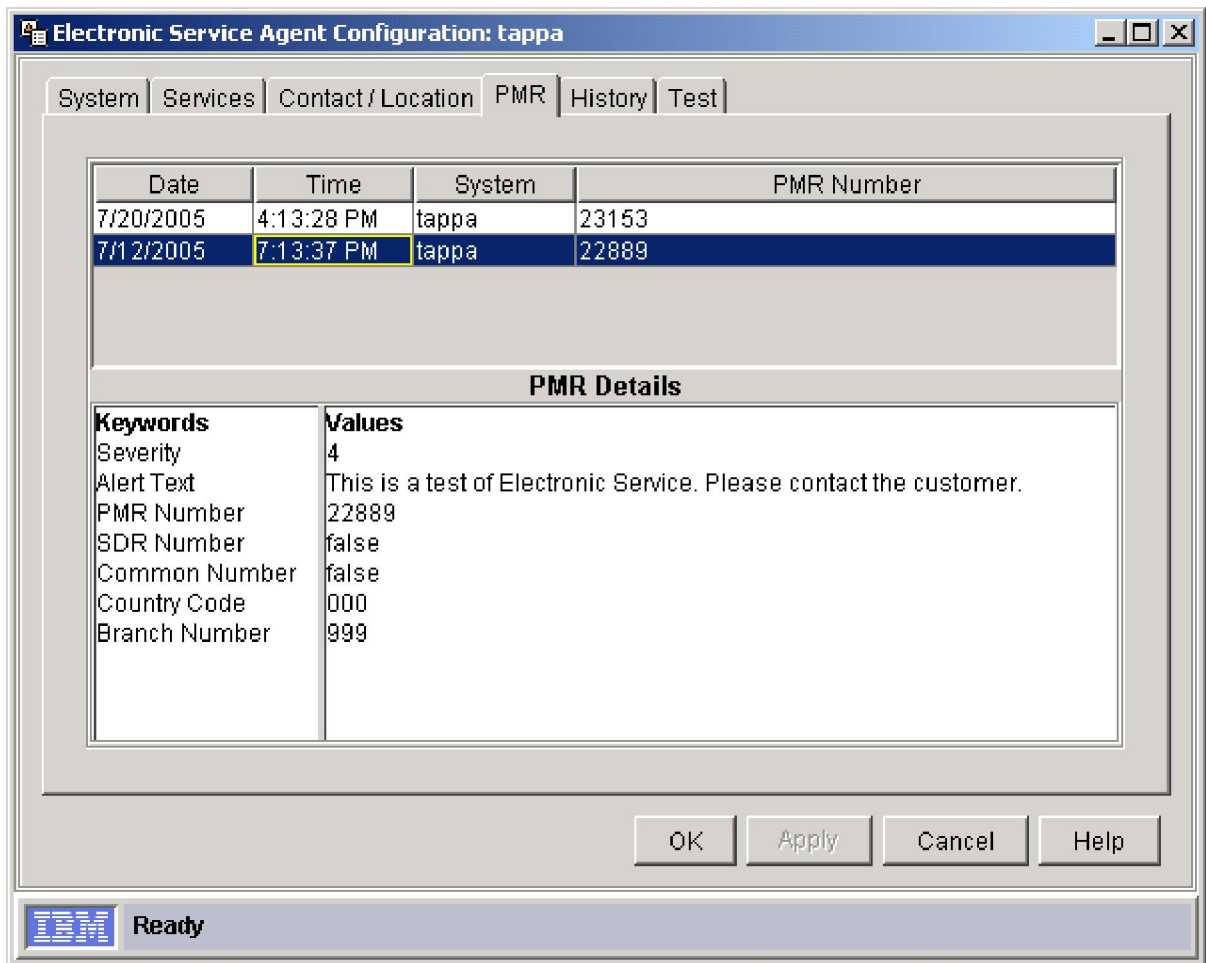
2. Notice the information displayed in the PMR table: date, time, system, and PMR number
3. Notice the details displayed in the Details section: Severity, Alert Text, PMR number, SDR number, Common number, Country Code, and Branch number.

Targeted History Page
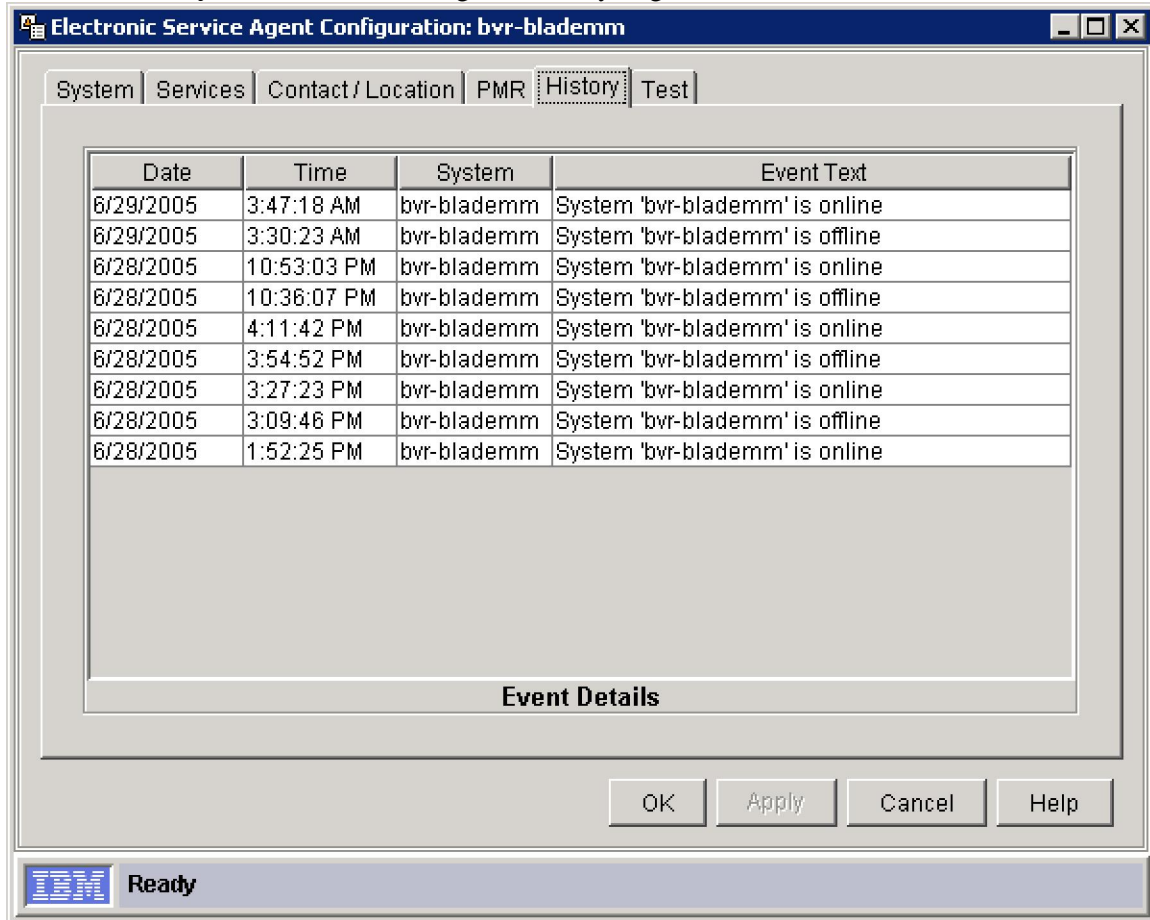1. Click the **History** tab. You see the Targeted History Page.

2. Use this page to view Electronic Service events. These events can be generic or system-specific.
   - ú The details that are displayed for each event include:
     - Ÿ Date the event was detected by Electronic Service Agent
     - Ÿ Time the event was detected by Electronic Service Agent
     - Ÿ The system for which the event recorded is applicable
     - Ÿ The event type and associated event text
   - ú When an event is selected from the event table, its associated details are displayed in the Event Details field.
   - ú Refer to Chapter 9, "About Electronic Service Agent Events," for more information about Electronic Service Agent's event handling capabilities.

Targeted Test Page
1. If you are in single-targeted mode, and you have been requested to perform a test, click the **Test** tab.
    You see the Targeted Test Page.
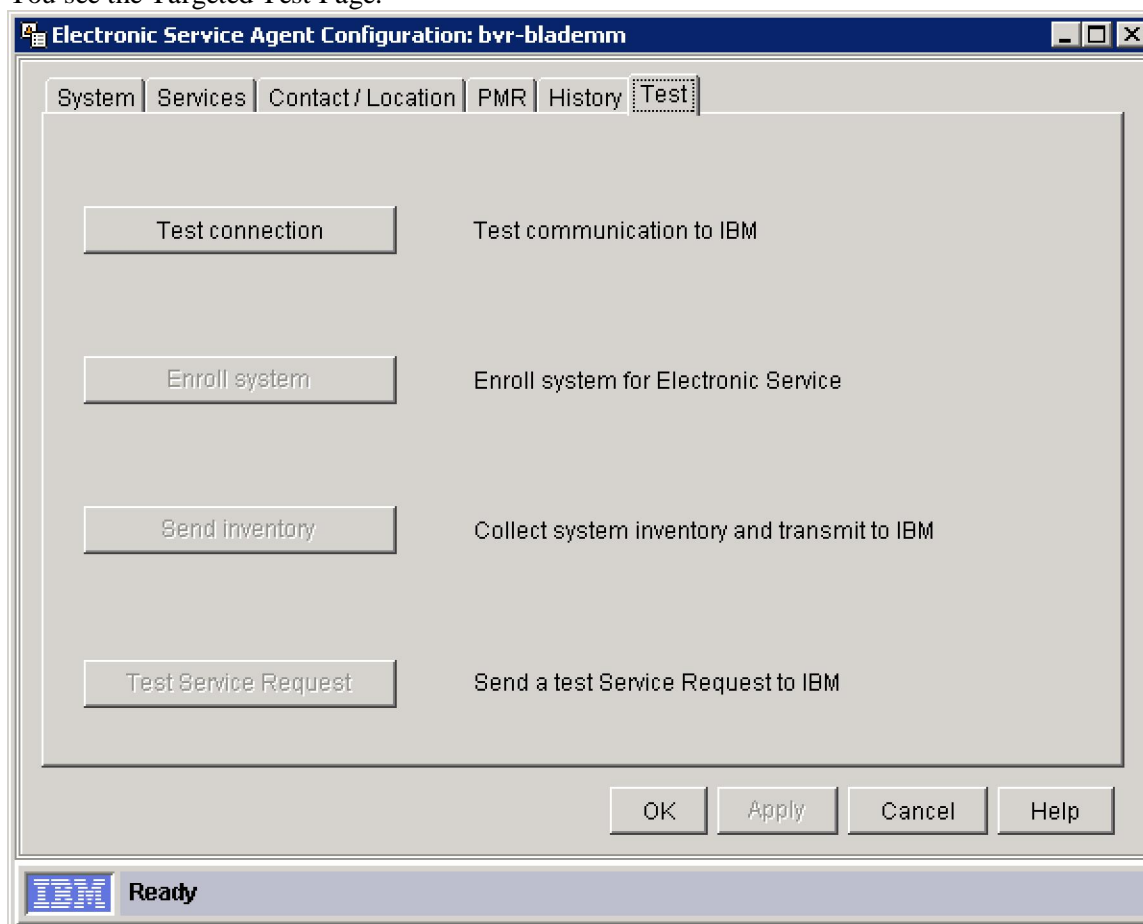
2. Use the Test page to:
    ú   Initiate a test of your connection to IBM
    ú   Enroll a system for Electronic Service
    ú   Send an immediate test Service Request to IBM and confirm that Electronic Service Agent is
         successfully exchanging data
    ú   Initiate an immediate inventory collection and transmission to IBM.
         You should perform these test actions only at the request of an IBM service engineer or
         representative.
3. Use the options as follows:
    ú   **Test connection**: Displays the Connection Test window and initiates a test of your connection to
         IBM.
    ú   **Enroll System**: Displays the Enroll System Test window and initiates an enrollment transaction.
         This button is disabled if your system is already enrolled for Electronic Service. Your managed
         system may have been automatically enrolled when it was enabled for Electronic Service for the
         first time.
    ú   **Test Service Request**:
         Ÿ   This button is disabled if your system has not been enrolled for Electronic Service.

Ÿ   Button-click displays the Service Request Test window and initiates an immediate test Service Request to IBM. If all communications are successful, IBM returns a Service Request Number, Branch Number, and Country Code. These are displayed in the History page of the Targeted Notebook.

ú   **Send Inventory**: Displays the Send Inventory Test window and initiates an immediate inventory collection and transmission to IBM. This button is disabled if your targeted managed system is not enrolled for Electronic Service.

Chapter 9. Electronic Service Agent Events

Electronic Service Agent both detects and generates events. The events that Electronic Service Agent detects are known as base events.

Electronic Service Agent is pre-configured to detect specific hardware failure base events that are generated by managed systems that are enabled and enrolled for Electronic Service. The events detected by Electronic Service Agent come from the system, ServeRAID and Service Processors. The base events that Electronic Service Agent processes may change in the future.

Important note on ServeRAID events

ServeRAID Manager is now a separate installation from Director 5.20. To ensure Electronic Service Agent detects ServeRAID events, ensure ServeRAID Manager is installed and enabled for events. To learn more:

User Guide:
 http://www-307.ibm.com/pc/support/site.wss/document.do?lndocid=MIGR-61777

Installation Software:
http://www-307.ibm.com/pc/support/site.wss/document.do?lndocid=MIGR-61788

These rules apply:
Ÿ   On detection of the base events, Electronic Service Agent assigns a level of severity to them and then sends a Service Request to IBM.

  ú   The defined levels of severity that Electronic Service Agent can assign to an event (in ascending order of severity) are: Unknown, harmless, warning, minor, critical and fatal. The majority of the base events that Electronic Service Agent is configured to detect and for which it subsequently sends a Service Request to IBM are assigned with severities in the minor and critical levels.

  ú   The levels of severity that Electronic Service Agent assigns to events assists in the event filtration process. Electronic Service Agent has a number of integrated filters. These filters ensure that:
    Ÿ   Rogue Service Requests are not sent to IBM because of isolated events
    Ÿ   Repeated Service Requests are not sent to IBM for the same fault occurring on a particular managed system
    Ÿ   The overall rate of Service Requests sent to IBM is controlled. Electronic Service Agent ensures that if a Service Request is sent to IBM for a particular event type, then no other event of equal or lower severity will cause Electronic Service Agent to send a Service Request to IBM for a specified period of time, usually 30 minutes.

Ÿ   All network events (including the base events that Electronic Service Agent is configured to detect) are listed in IBM Director's Event Log.
Ÿ   Events generated by Electronic Service Agent alone are displayed in the History page of the Targeted Electronic Service Agent Configuration Notebook.

Event Action Plan configuration

The Event Management feature of IBM Director enables you to identify, categorize, and automatically initiate actions in response to network events. For more information about setting Event Filters and Event Action Plans, refer to your IBM Director online help.

Electronic Service Agent adds new event types to the event type tree in IBM Director's Event Filter Builder interface. You can use these Electronic Service events to build Event Action Plans so that someone within your company is contacted by pager, email or telephone when Electronic Service Agent is unable to complete its information gathering operations and is unable to communicate with IBM.

Chapter 10. Getting Help and Technical Assistance

Entitlement to Automatic Problem Submission

You are entitled to automatic problem submission from IBM only if your systems are under warranty and/or your organization has a maintenance agreement with IBM Service. This service program is not intended for customers who have a third party maintaining the xSeries servers. IBM's standard warranty response time is the next business day unless you have purchased an upgrade to the service level agreement.

Contacting Support

If you encounter problems or have technical questions regarding Electronic Service Agent, you should call your nearest IBM support center. You can obtain support center contact details that are appropriate for your country/region from the following web site:

www.ibm.com/planetwide/

If you are a resident in the United States, contact support at 1-800-IBM-SERV (1-800-426-7378) and select hardware support. You should have your machine type and serial number ready to give to the IBM support staff. Your machine type is identified by a four-digit number.

Web Sites

IBM xSeries Support and Information
http://www-1.ibm.com/servers/eserver/support/xseries/index.html

IBM Support Center contact information
http://www.ibm.com/planetwide/

Electronic Service Agent installation package
http://www.ibm.com/support/electronic

Director 4 Web Site
IBM Director Web Site
http://www-1.ibm.com/servers/eserver/xseries/systems_management/director_4.html

Chapter 11. Troubleshooting

The table below contains problems that have been reported and solutions to these problems.

Problem	Solution
When trying to configure a system I receive an error message "System not eligible for Electronic Service." According to the Readme file, this hardware must be supported.	1. Make sure system has correctly configured machine type, model, and serial number. 2. Ensure inventory for this system has been collected by IBM Director. To collect inventory for a machine, right-click on the system's icon and select **Perform Inventory Collection.** 3. Check whether system's model and type has been identified by IBM Director. Select the machine, right-click and select **View Inventory.** From Available Queries in the left navigation pane, select **Component ID.** The Product Component ID column on the right must have your system's model and type. If the message says "There is no inventory data available for this query at this time," IBM Director cannot detect your hardware model and type. Consult IBM Director User's Guide or contact IBM Help for assistance. If you see a padlock icon beside a managed object this indicates that the object is secured by a server and inventory information about the object cannot be collected. To request access to the object, right-click the managed object and click Request Access. By providing a valid user name that has local administrative rights to that managed object and password, you can access the system.
I can send a Test Service Request from the Test page of the targeted notebook. However, when we try to pull out a hard disk or a power supply to simulate hardware failure, no PMR request is sent out, although the history page shows such an event actually did take place.	Removing a component from a redundant system is not always considered critical. The event that is generated by IBM Director when you remove a component from the system (for example, pulling out a RAID hard disk) may have severity 'Warning' or 'Minor'. With a few exceptions, all Electronic Service Agent events that trigger PMRs have a 'Critical' severity. Check the system's event log from IBM Director console as well as IBM Director documentation for the type of events that are generated and their severity.
Linux: During installation of Electronic Service Agent, the install program will hang on a panel after the files have been copied to your system.	As part of the installation process, an uninstall program is created, and this step takes longer than the steps that download files to your system. Give the installer an adequate amount of time to complete its actions. If you are sure the installation program is in a 'hang' state, you can go to the window that you launched the product in, and type Ctlr+C. Or close the terminal window. The installation is complete.

Linux: I am unable to start the Installer and get the following error: "Can't connect to X11 window server using ':0.0' as the value of the DISPLAY variable." OR "Xlib: connection to :0.0 refused by server Xlib: No protocol specified."	The application is unable to run in graphical mode. You need to allow connections to your X server from your local machine. The X11 security mechanism does not allow users other than root to connect to your desktop. To give permission to any user on your local machine, execute the following command as root: # xhost + If you prefer to restrict the access only to specific users on the local machine or a given host, please refer to the "xhost" command manual.
I launched Electronic Service Agent notebook and wanted to test connection or send Test Service Request but the Test page is not available.	The Test page is only displayed when the electronic service task is launched in single targeted mode.

Appendix A. Notices and Trademarks

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Appendix B. Glossary

IBM Director Console
The IBM Director Console is the graphical user interface from which administrative tasks are performed. It is your primary interface to the various IBM Director tasks. The console can be run from a desktop environment that is connected to the IBM Director Server.

IBM Director Server
The IBM Director Server is where the management data, the server engine, and the management application logic reside. Throughout this guide the IBM Director Server may also be referred to as the Director Server.

Managed systems
This term refers to Systems and devices on your network managed by your IBM Director Server. A managed system may also be referred to as a managed server in this User's Guide.

IBM Director Agent
The IBM Director Server manages systems and devices in your network by communicating with the IBM Director Agent installed on each of these managed systems. The agent provides all of the code and interfaces necessary for each system to be managed by IBM Director.

Event
An event is a means of identifying a change of state of a process or device on the network. For example, an event is generated when a critical resource threshold such as virtual memory utilization is met.

Threshold Monitor
If you assign a threshold for a given attribute, an event is generated when the threshold is met for the system to which the attribute applies.

For example, you can set a threshold on a file server to generate an event if there is less than 100 Mb of free space on the disk drive. When the threshold is set, the free space on the server is monitored. When the free disk space is less than 100 Mb, the event is generated.

Thresholds can be numeric or set as strings.

AGN
AT&T Global Network.

Configuration
Adaptation of files to a specific customer site for execution.

Configuration file
A file that contains information supplied by the customer, for example, customer contact information. It is created or changed during the install and configuration process; may also be changed during an Electronic Service Agent upgrade or via commands from other subsystems or from the SDR.

Configurator
The program that performs the process of configuring to the requirements of the customer site.

Data Collector
The subsystem responsible for collecting system and information and sending it to the appropriate destination as messages.

ECI
Electronic Customer Interface.

Encryption
A method of encoding messages to provide message security. Local encryption encodes messages moving among distributed subsystems in a networked environment. External encryption encodes messages before transfer between the Electronic Service Agent and IBM.

Entitlement
Relates to the level of support provided to a customer. The level of support is determined by the contractual arrangement between IBM Global Services and the customer.

Error information
Information describing the conditions on the managed system that are beyond the specified tolerances of normal system behavior.

Event
An event is a means of identifying a change of state of a process or device on the network. For example, an event identifies when a critical resource threshold such as virtual memory utilization is met.

FRU
Field Replaceable Unit.

IBM Director
A systems management product providing support for IBM xSeries servers.

ICR
IBM Common Registration.

Installation
The placement of binary, non-customized control files, and support files in a directory hierarchy on the customer system. Establishment of specific user accounts, groups, etc., and of default permissions and authentication requirements.

Inventory information
Information describing the basic configuration of a managed system. Included are a list of the physical characteristics of the managed system (number of processors, amount of memory and disk, etc.), and a list of installed software.

LAN
Local Area Network.

Log File
Files that record information about normal and abnormal operation. A file that contains entries delimited by a time stamp.

Managed systems
An operating system instance or hardware platform monitored by Electronic Service Agent.

Problem report
A technology-neutral term describing a problem that requires the attention of IBM service personnel. This term can be used in place of the RETAIN-specific term, *problem management report* (PMR).

Registration
Registration associates authorized local users with a managed system, allowing them access to data about that system on the Electronic Service Agent web site. Registration is initiated by Electronic Service Agent .

Schedule driven
Collectors and detectors that gather information about managed systems at specified times.

Service Data Receiver (SDR)
The facility on the IBM server that receives messages from Electronic Service Agent

SSL
Secure Socket Layer.

WAN
Wide Area Network.

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