Electronic Service Agent™ for Netfinity® Version 1.0

User's Guide

Note
Before using this information and the product it supports, read the information in Appendix A, "Notices and trademarks" on page 31.

Contents

About this user's guide

Introduction

This guide provides the installation, startup and user instructions for the Electronic Service Agent™ for Netfinity® product. The additional functions available with Electronic Service Agent are also described.

Who should read this guide

This guide is intended for IT administrators responsible for Netfinity Director. Readers should have extensive knowledge of their LAN environment, a general knowledge of operating systems and database functions, and be familiar with or have a working knowledge of Netfinity Director version 2.12.

What this guide contains

This guide is organized into the following chapters:

1. Chapter 1, "Introducing Electronic Service Agent for Netfinity"
2. Chapter 2, "Preparing your network"
3. Chapter 3, "Installing Electronic Service Agent for Netfinity"
4. Chapter 4, "Configuring Electronic Service Agent for Netfinity"
5. Chapter 5, "Using the Electronic Service Agent for Netfinity interface"
6. Chapter 6, "Creating your own PMR events"
7. Chapter 7, "Receiving Electronic Service Agent updates"
8. Appendix A, "Notices and trademarks"

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`.

Terminology

In the chapters that follow you will see the following terms used:

Netfinity Director Management Console

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

Netfinity Director Central Management Server

The Netfinity Director Central Management Server is where the management data, the server engine and the management application logic reside.

Managed system (s)

Systems and devices on your network managed by your Netfinity Director Central Management Server.

Netfinity Director Agent

The Netfinity Director Central Management Server manages systems and devices in your network by communicating with the Netfinity Director Agent installed on each of these managed systems. The agent provides all of the code and interfaces necessary for the each system to be managed by Netfinity 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 identifies when a critical resource threshold such as virtual memory utilization is met.

Contacting customer support

Should you encounter problems or have technical questions regarding the Electronic Service Agent for Netfinity product, refer to the following World Wide Web site:

http://www.pc.ibm.com/support?page=helpwwhc

When calling IBM quote program number 5639-L09.

If you are resident in the United States, call **1-800-IBM-SERV**. You should have your machine type ready when calling. Your machine type is identified by a four digit number. You will be asked for this four digit number by IBM support staff.

Related information

Electronic Service Agent for Netfinity version 1.0 is designed to be installed as an extension to your Netfinity Director version 2.12 management application. Electronic Service Agent appears as a task in the Tasks pane of your Netfinity Director Management Console.

If you require further information about the techniques employed in using the Netfinity Director Management Console, refer to your Netfinity Director version 2.12 on-line help and User's Guide. A copy of the User's Guide is available in PDF format on your Netfinity Director program CD-ROM.

Chapter 1. Introducing Electronic Service Agent for Netfinity

What is Electronic Service Agent?

Electronic Service Agent for Netfinity version 1.0 is an IBM program designed to help you minimize the resources required to run and maintain your networked computers and allows IBM to provide you with enhanced problem prevention and resolution capabilities.

Electronic Service Agent is an extension to Netfinity Director version 2.12 management application. This agent monitors your Netfinity computers for hardware errors and also has an integrated performance monitor function that automatically collects system utilization information. The system utilization information can include CPU utilization and disk capacity, response time, throughput, application and user usage. Hardware errors that meet certain criteria for criticality and performance data are reported to IBM.

Electronic Service Agent also administers hardware and software inventory collections, and the reporting of inventory changes to IBM.

All information sent to IBM is stored in a secure IBM database and used for improved problem determination.

Electronic Service Agent should be installed on your Netfinity Director Central Management Server. You do not need to install Electronic Service Agent on each of your managed systems.

The key features of Electronic Service Agent for Netfinity include:

- Automatic problem reporting: service calls placed to IBM without operator intervention
- Automatic customer notification
- Automated and user-initiated system inventory reporting to an IBM database
- Automated and user-initiated system performance reporting to an IBM database
- Automatic update of Electronic Service Agent

How to obtain Electronic Service Agent for Netfinity

The Electronic Service Agent program is available by download from the World Wide Web. Follow the instructions below to access the downloadable program file.

1. Access website http://www.pc.ibm.com/support

2. Select **Servers**.
3. Select **Downloadable files** from the list of Technical Information options displayed in the left navigation panel.
4. Select the product type appropriate for your Netfinity Director Central Management Server from the pull-down list of the **Family** field. This is the server on which you will install Electronic Service Agent.
5. Select **Advanced Systems Management** from the pull down list of the **Downloadable Files by Category** field then click **Go**.
6. Select the Electronic Service Agent for Netfinity version 1.0 option listed under **Downloadable Files**.

What managed machines can use Electronic Service?

This release of Electronic Service Agent supports the Netfinity range of managed servers listed in Table 1 below.

Note: This list of servers is exhaustive for managed systems only. Electronic Service Agent should be installed on your Central Management Server. Electronic Service Agent can be installed on any Central Management Server supporting Netfinity Director version 2.12. Refer to your Netfinity Director version 2.12 documentation for a list of supported Central Management Servers.

Table 1: Electronic Service Supported Servers

| Product Reference	Machine Type
4500R	8656
5000	8659
5100	8658
5500	8660
5500 M10	8661
5500 M20	8662
5600	8664
6000R	8682
7000	8651
7000 M10	8680
7100	8666
7600	8665
8500R	8681

How Electronic Service Agent for Netfinity works

Once properly installed and configured, each of your managed systems must be enabled for Electronic Service. Thereafter, Electronic Service Agent runs in your systems' background performing information gathering, inventory and performance data updates and initiating requests to IBM for the creation of PMRs (Problem Management Records) when errors meeting certain criteria for criticality are detected.

Electronic Service data is stored in your Netfinity Director Central Management Server and transmitted at weekly intervals to IBM using a dial-out connection from your Netfinity Director Central Management Server to a data catcher inside IBM's firewall. IBM warehouses and collates this transmitted data.

Error reporting and Problem Management Record (PMR) creation

**Electronic Service Agent for Netfinity
(PMR Creation)**
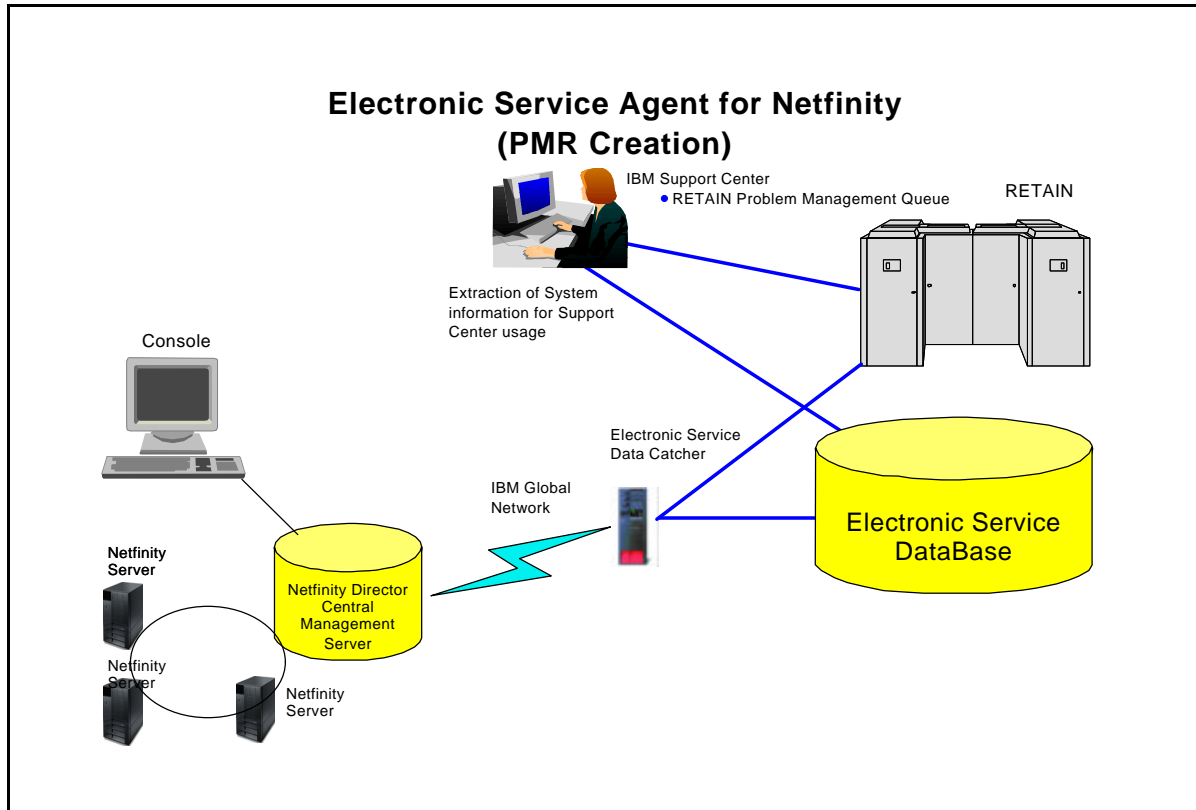
An event is generated when a hardware error exceeds a preset threshold. When Electronic Service Agent detects an event, it sends electronic notification for service to IBM.

Electronic Service Agent captures events and then reports problems to the Remote Technical Assistance Information Network (RETAIN). Requests for the creation of PMRs (Problem Management Records) are also made. RETAIN is the IBM problem management system for remote analysis and action. Details, including country of origin, system machine type and serial number, machine name (as displayed in Netfinity Director), system contact person and telephone number, description and other useful diagnostic information are also sent to RETAIN with each PMR creation request. The types of problems that Electronic Service Agent will typically report to RETAIN include: power failures and system overheating as detected by the Advanced Systems Management Adapter, and RAID drive failures.

If all communications have been successful IBM returns a Problem Management Record (PMR) number and Netfinity Director's Event Log records the PMR with an open status. If it is the last sent PMR, this PMR number, together with its associated branch number, and country code is detailed in the **PMR** page of the Electronic Service Agent Configuration notebook. Previously sent PMRs can be viewed in Netfinity Director's Event Log. The PMR number, branch number and country code should be used as a referral when calling IBM.
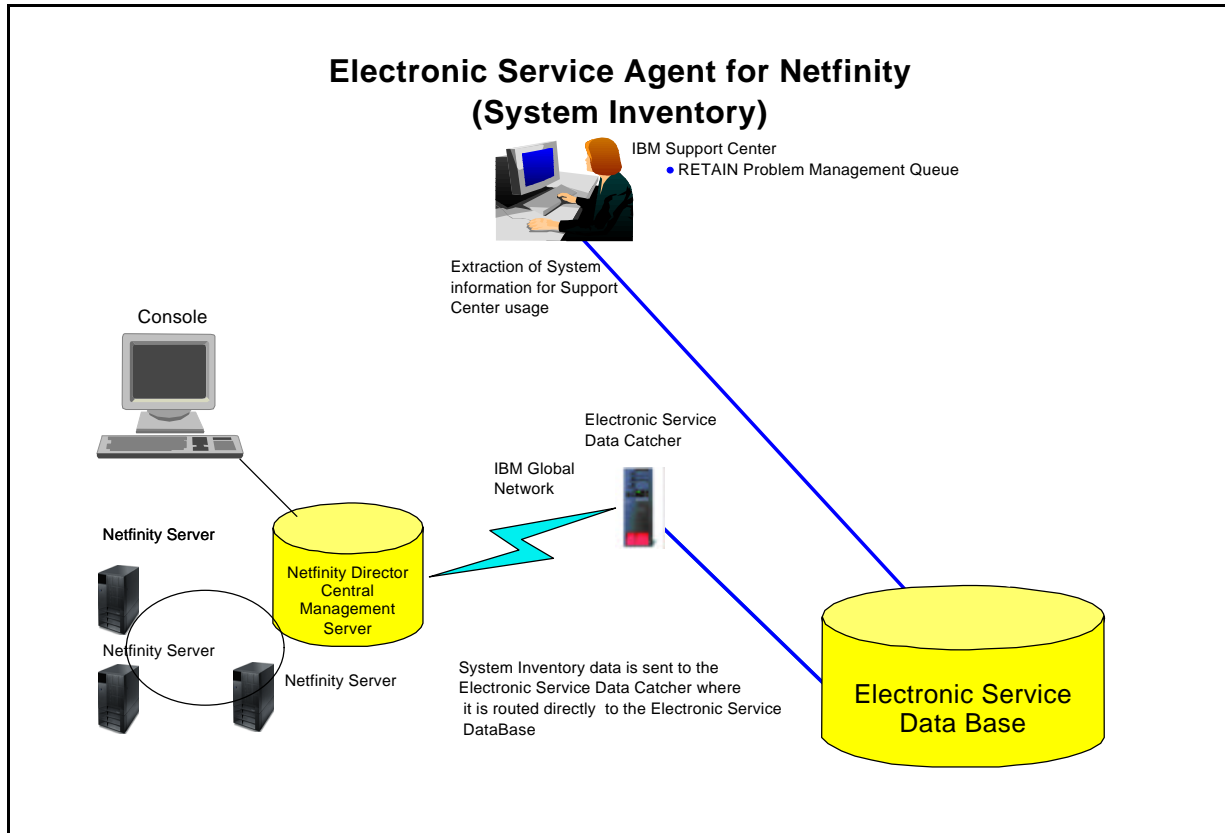
The event filtration process is optimized so that the connection time between your Netfinity Director Central Management Server and IBM is kept to a minimum. For example, when Electronic Service Agent calls IBM with a hardware error, and if all communications are successful, the modem connection will remain open for a short period of time. This short time interval is configurable by IBM.

After a PMR is raised, and if the system is under standard warranty, calls are accepted and logged at any time, but are dealt with during the normal service hours of 9am to 5pm.

IBM's standard warranty response time is the next business day. If an upgrade has been purchased, service level response times may vary from 2 to 4 hours. However, it should be noted that service levels are response time objectives and are not guarantees. If the system is not under warranty or there is no maintenance agreement with IBM, the designated customer contact person will be contacted and offered a billable service. Thereafter an IBM service representative will be dispatched to the customer site with the hardware components required to correct the problem reported.

In addition to Electronic Service Agent opening a PMR, you can use Netfinity Director's Event Action Plan feature to log a PMR creation event and send an e-mail, pager, or other means of notifying a contact person of a PMR creation event. For further details, refer to Chapter 5, "Using the Electronic Service Agent for Netfinity interface" and your Netfinity Director on-line help.

Inventory Management

Electronic Service Agent for Netfinity
(System Inventory)

IBM Support Center
● RETAIN Problem Management Queue

Extraction of System information for Support Center usage

Console

Electronic Service Data Catcher

IBM Global Network

Netfinity Server

Netfinity Director Central Management Server

Netfinity Server

Netfinity Server

System Inventory data is sent to the Electronic Service Data Catcher where it is routed directly to the Electronic Service DataBase
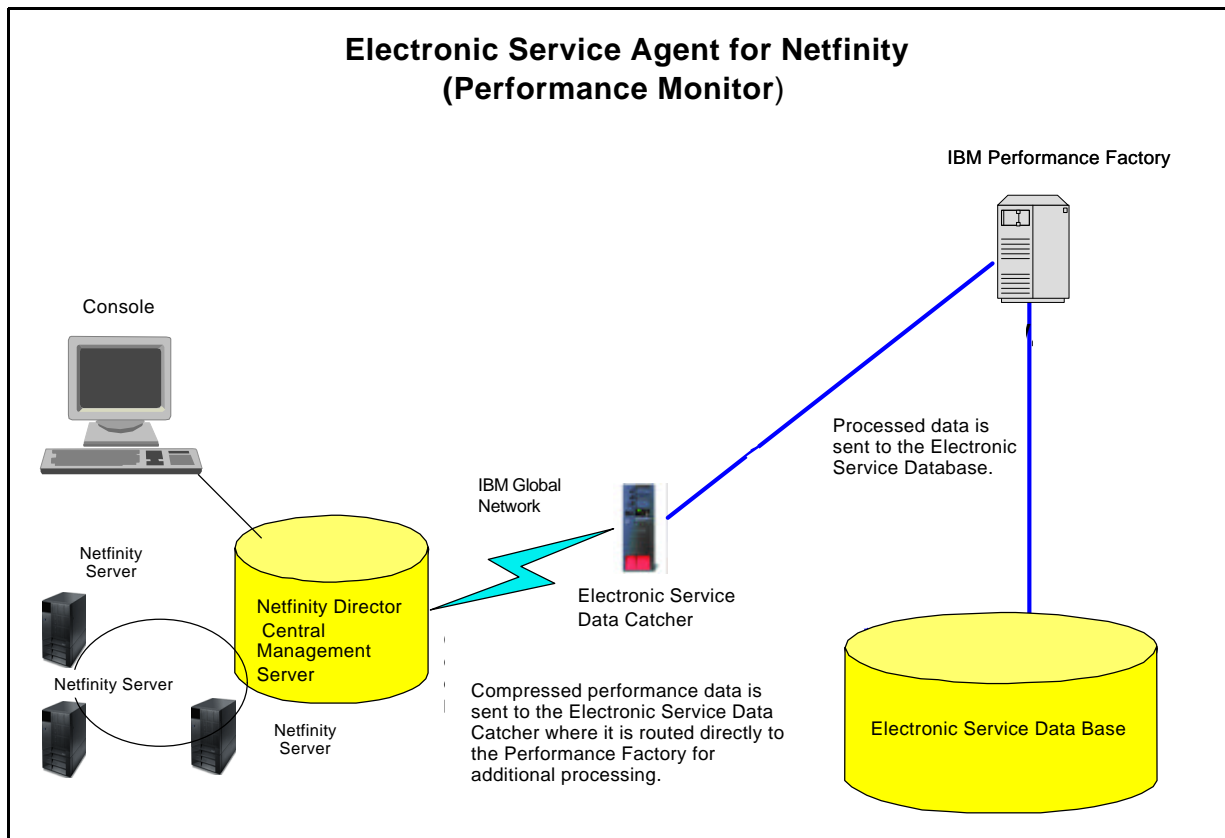
Electronic Service Data Base

Using Electronic Service Agent's Inventory Management feature, your systems' inventory can now be remotely monitored and stored in a secure IBM database.

Prior to running Electronic Service Agent, a complete hardware and software inventory collection must be taken. Thereafter, Electronic Service Agent checks for a recent inventory update for each system which has been enabled for Electronic Service. This check is carried out at weekly intervals on a selected day and time configured in Electronic Service Agent's Scheduler. For further details, refer to Chapter 5, "Using the Electronic Service Agent for Netfinity interface" and your Netfinity Director on-line help.

An inventory refresh is initiated for any system which does not have a recent successful update.

Electronic Service Agent dials into the IBM data catcher regardless of whether or not there are any inventory changes to report.

Performance Management

Electronic Service Agent for Netfinity
(Performance Monitor)

IBM Performance Factory

Console

IBM Global Network

Processed data is sent to the Electronic Service Database.

Netfinity Server

Electronic Service Data Catcher

Netfinity Director Central Management Server

Netfinity Server

Netfinity Server

Compressed performance data is sent to the Electronic Service Data Catcher where it is routed directly to the Performance Factory for additional processing.

Electronic Service Data Base

Using Electronic Service Agent's Performance Management feature, your systems performance information can now be remotely monitored and stored in a secure IBM database. Performance information can include CPU, disk and memory utilization.

Note: The Capacity Manager Extension must be installed and running on each of your managed systems before performance and capacity data can be collected. Capacity Manager constitutes part of your UM (Universal Manageability) Server Extensions.

Performance data is collected from all systems that have been enabled for Electronic Service for the first time. Thereafter, Electronic Service Agent checks for a recent performance data update for each system that has been enabled for Electronic Service. This check is performed at weekly intervals on a selected day and time using Electronic Service Agent's Scheduler function. For further details, refer to Chapter 5 "Using the Electronic Service Agent for Netfinity interface" and your Netfinity Director on-line help.

A performance data refresh is initiated for any system that does not have a recent successful update.

Electronic Service Agent will dial into the IBM data catcher regardless of whether or not there are any performance data changes to report.

Administering Electronic Service Agent

To run Electronic Service Agent successfully a series of configuration, administrative and diagnostic actions must be carried out.

After initial configuration, Electronic Service Agent runs primarily unattended. The majority of actions that must be performed thereafter result from the need to alter settings when Electronic Service Agent is running.

Typical actions may include:

1. Configuring settings for single or multiple managed systems
2. Configuring Event Action Plans (optional)
3. Creating test PMRs

Items 1 and 2 above are discussed further in Chapter 5, "Using the Electronic Service Agent for Netfinity interface". Test PMRs can be created from the operating system command line of a target system. For further details, refer to Chapter 6, "Creating your own PMR events".

Chapter 2. Preparing your network

Prerequisites

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

1. Ensure that your Netfinity Director Central Management Server has access to a modem capable of dialing the IBM Electronic Service site and making a connection at 56Kbps.

2. Ensure that you have selected the Remote Access Service (RAS) option when installing your Windows NT ® operating system. You can add the Remote Access Service from the **Network Properties** resource on your server console. For further information refer to your Windows NT Administrator's Guide.

3. Electronic Service Agent is an extension to your Netfinity Director version 2.12 systems management application.

   You should therefore ensure that your network's Central Management Server, Management Console and managed systems are configured with the correct processor speed and adequate amounts of free disk space, virtual memory and RAM before installing Netfinity Director version 2.12 and UM Server Extensions.

   Refer to your Netfinity Director version 2.12 user documentation and UM Server Extensions user documentation for detailed system requirements.

4. Electronic Service Agent supports the following operating systems:

   a. **Netfinity Director Central Management Server**
      - Windows NT 4.0 Server with Service Pack 4 or higher
      - Windows NT 4.0 Enterprise with Service Pack 4 or higher
      - Windows 2000 Server, Windows 2000 Advanced Server

   b. **Managed systems**
      - OS/2 3.00, OS/2 3.00 Connect, OS/2 Warp Server, OS/2 Warp Server SMP, OS/2 Warp Merlin 4.0, OS/2 Aurora 4.5

      - Windows NT 4.0 Server with Service Pack 4 or higher
      - Windows NT 4.0 Workstation with Service Pack 4 or higher
      - Windows NT 4.0 Enterprise with Service Pack 4 or higher

      - Novell Netware 4.10 Server, 4.11 Server, 4.2 Server, 5.0 Server, 5.1 Server

- Windows 2000 Professional
- Windows 2000 Server
- Windows 2000 Advanced Server

c. **Netfinity Director Management Console**
- Windows NT 4.0 Server with Service Pack 4 or higher
- Windows NT 4.0 Workstation with Service Pack 4 or higher
- Windows NT 4.0 Enterprise with Service Pack 4 or higher
- Windows 95 Release 2
- Windows 98, Windows 98 Second Edition
- Windows 2000 Professional
- Windows 2000 Server
- Windows 2000 Advanced Server

5. Record information for the following bulleted list in the table below. This information is used during configuration of the Electronic Service Agent for Netfinity program (Chapter 4 "Configuring Electronic Service Agent for Netfinity").

- A local telephone number for your dial-out connection to IBM. You can find the appropriate telephone number at the following World Wide Web site:

  http://www.attbusiness.net/regctr/accessnum.html

- A country appropriate to your Netfinity Director Central Management Server location
- Details of the person who will be contacted by IBM in the event of a hardware failure
- Location details of a managed system(s). The location details allow IBM's service representatives to locate your managed system(s) if they are dispatched to the customer site with replacement parts used to rectify a hardware failure
- A day and time for your weekly repeat inventory and performance data collections and transmissions

| Setting	Your details
Local telephone number	
Server location (**country**)	
Contact details (**name** and **telephone number**)	
Managed system location details	
Managed system location (**country**)	
Day and time for weekly inventories	

6. Before installing and running the Electronic Service Agent for Netfinity program, read the README document which is accessible from World Wide Web site:

    http://www.pc.ibm.com/support

    Note: for detailed instructions on how to access the README file refer to the section titled "How to obtain Electronic Service Agent for Netfinity" of Chapter 1.

7. Run the install program from your Netfinity Director CD-ROM and use the Select Components screen (shown below) to install the appropriate Netfinity Director components as detailed in steps 7 and 8 below.

    Note: Steps 6-8 are provided for guidance only. For detailed instructions on installing Netfinity Director version 2.12, refer to Chapter 3, "Installing and Configuring Director" of your Netfinity Director User's Guide.
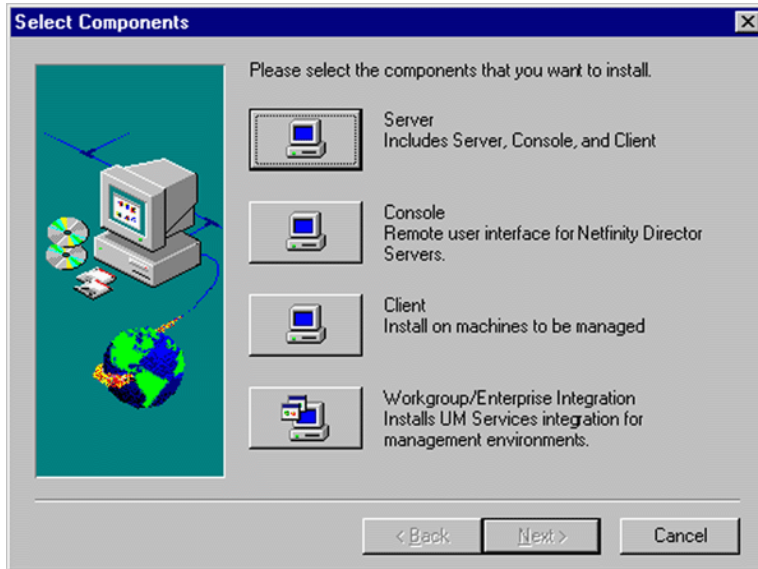
8. Insert your Netfinity Director CD-ROM into your Central Management Server. Install the Netfinity Director Management Server component on your Central Management Server by selecting **Server** on the Select Components screen. When you install the Netfinity Director Management Server, the Netfinity Director Management Console and Netfinity Director Agent is also installed.

9. Insert your Netfinity Director CD-ROM into each system you want to manage using Netfinity Director. Install the Netfinity Director Agent on each system by selecting **Client** on the Select Components screen.

10. Install UM (Universal Manageability) Server Extensions on your Central Management Server and on each system you want to manage using Netfinity Director.

    The UM Server Extensions provide support for performance and capacity data collection, RAID, cluster and service processor.

    You can download UM Server Extensions by selecting the **UM Server Extensions** option from the following World Wide Web site:

    http://www.pc.ibm.com/ww/solutions/enterprise/sysmgmt/products.html

11. If you have not already done so, download the Electronic Service Agent for Netfinity program from the following World Wide Web site:

    http://www.pc.ibm.com/support

    Note: for detailed instructions on how to access the Electronic Service Agent program code refer to the section titled "How to obtain Electronic Service Agent for Netfinity" of Chapter 1.

12. You have now completed all of the prerequisites for installing Electronic Service Agent for Netfinity. Continue to Chapter 3, "Installing Electronic Service Agent for Netfinity".

Chapter 3. Installing Electronic Service Agent for Netfinity

To install Electronic Service Agent on your Netfinity Director Central Management Server:

1. Double-click on your **setup.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, then click **OK**.
3. At the Welcome 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. Clicking **No** displays the Exit Set-up screen. Click **Yes** to cancel the installation process.
5. If you accept the terms and conditions of the Data Agreement click **Yes** to continue with the setup program. Clicking **No** displays the Exit Set-up screen. Click **Yes** to cancel the installation process.
6. If you accept the terms and conditions of the Communications Charges Agreement click **Yes** to continue with the setup program. Clicking **No** displays the Exit Set-up screen. Click **Yes** to cancel the installation process.
7. At the Information screen, view the README file then click **Next**.
8. At the Set-up Complete screen, click **Yes** to restart your system now or **No** to restart your system later. Click **Finish** to complete the installation.

Uninstalling Electronic Service Agent for Netfinity

To permanently remove Electronic Service Agent from your server use your administrator console to do the following:

1. From the Windows NT desktop, click **Start**
2. Select **Settings**
3. Select **Control Panel**
4. Select **Add/Remove Programs**
5. Select **Electronic Service Agent for Netfinity**
6. Click **Add/Remove**
7. At the Language Selection screen select the language of your choice from the pull-down list
8. Click **OK**
9. At the **Question** dialog box select **Yes** to restart your computer now or **No** to restart your computer later, then click **OK**
10. At the Set-up screen click **Finish**

Chapter 4. Configuring Electronic Service Agent for Netfinity

From your Netfinity Director Console:

1. Double-click on the Electronic Service task in the **Tasks** pane. The Electronic Service Agent Configuration notebook appears.

2. Open the **Dialer** page.

   a. Type a local telephone number for your dial-out connection to IBM in the **Connection Number** field. This is the number you recorded in step 5 of Chapter 2.
   b. Select the country appropriate for your Netfinity Director Central Management Server location from the pull-down list of the **Country** field.
   c. Click **Test Modem Connection** to confirm that your Netfinity Director Central Management Server modem is connecting properly with IBM.

3. Open the **Contact/Location** page and associated Contact Details and Location Details editor panels to configure contact and location details for specific servers. This is the information you recorded in step 5 of Chapter 2.

   a. Configure your contact details:

      1) Click **New** (Contact Details) to display the Contact Details editor panel.
      2) Type the appropriate details in the **Name**, **e-mail Address**, **Address**, **Page**r, **Fax** and **Telephone** fields and select the appropriate Country from the pull-down list of the **Country** field.

         Note: When typing a telephone number in the **Telephone** field of the Contact Details panel, you should restrict the number of characters used to a maximum of 19. Telephone numbers in excess of 19 characters are rejected by IBM's Remote Technical Assistance Information Network (RETAIN) interface.

      3) Select **Set as default** to designate the current details as your default settings.
      4) Click **OK** to close the Contact Details editor panel.

   b. Configure your location details:

      1) Click **New** (Location Details) to display the Location Details editor panel.
      2) Type the appropriate details in the **Location**, **Address** and **Post/Zip code** fields and select the appropriate country from the pull-down list of the **Country** field.
      3) Select **Set as default**, to designate the current details as your default settings.
      4) Click **OK** to close the Location Details editor panel.

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4. Open the **Scheduler** page and accept the default settings by clicking **Apply.** Alternatively, if you do not want to accept the default settings, select a day of the week and time of day that you want to perform weekly repeat inventory and performance data collections and transmissions.

5. Close the Electronic Service Agent Configuration notebook.

6. Before running Electronic Service Agent for Netfinity, use your Netfinity Director Management Console to perform an initial systems inventory. For details of performing system inventories refer to the "Inventory Collection Operation" entry of your Netfinity Director on-line help.

Chapter 5. Using the Electronic Service Agent for Netfinity interface

Electronic Service Agent appears as a task in the **Tasks** pane of the Netfinity Director Management Console, which may be invoked untargeted by mouse button one double-click, or launched targeted at a managed system or group of systems by means of drag-and-drop. The untargeted option is also available from an icon on the main task bar and from an item in the **Tasks** pull down menu.

When activated in targeted mode, the Electronic Service task is applied to a specific system or group of systems.

When activated in untargeted mode Electronic Service Agent functionality is limited. In untargeted mode you are only permitted to change scheduler settings and add, edit and delete contact and location details for managed systems.

Refer to your Netfinity Director on-line help for further details on using the Netfinity Director Console.
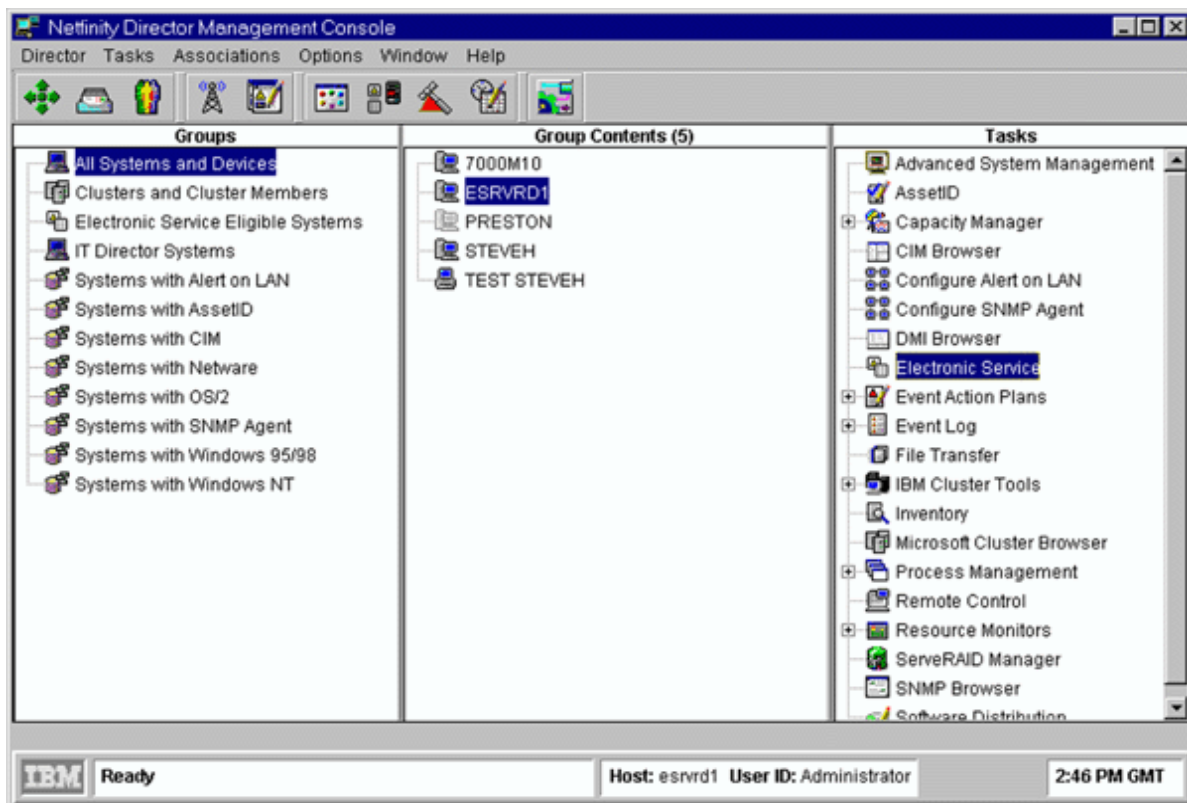
Enabling and disabling one or more systems for Electronic Service

When you have properly installed and configured Electronic Service Agent, you must enable each of your managed systems for Electronic Service before the agent can perform information gathering operations and generate requests to IBM for the creation of PMRs. To properly enable one or more systems for Electronic Service you must:

- Enable one or more systems for PMR Tracking
- Enable one or more systems for Performance Management

To enable one or more systems for PMR Tracking:

1. Open the Electronic Service Agent Configuration notebook.
2. Open the **PMR** page.
3. Select the **Enable** checkbox.
4. Click **Apply**.
5. Click **OK**.

To enable one or more systems for Performance Management:

1. Open the Electronic Service Agent Configuration notebook.
2. Open the **Performance Manager** page.
3. Select the **Enable** checkbox.
4. Click **Apply**.
5. Click **OK**.

About the Electronic Service Agent interface

Electronic Service settings are configured using the Electronic Service Agent Configuration notebook. This screen provides access to six main configuration pages and their associated Details panels.

The six main configuration pages are:

- Inventory
- PMR
- Performance Manager
- Scheduler
- Dialer
- Contact/Location

Inventory page

You can use the **Inventory** page to initiate an **immediate hardware and software system inventory update or collection** in addition to your weekly scheduled inventory update. This functionality is useful if it is suspected that the Electronic Service database has been corrupted or is out of date. The data retrieved from the inventory update or collection is transmitted to IBM.

Note: You should only perform manual refreshes and updates in response to a request from an IBM service representative.

This page can be launched targeted at a managed system or group of managed systems, however the date and time for the last inventory collection and transmission displays only if the **Electronic Service** task is targeted at a single system. The date and time for the next scheduled transmission displays if the Electronic Service task is launched untargeted or targeted at a managed system or group of systems.

Inventory collection is enabled by default when a system is enabled for Performance Management or PMR Tracking. Therefore, when inventory collection is enabled for one or more managed systems it cannot be disabled while these systems are enabled for PMR Tracking and Performance Management.
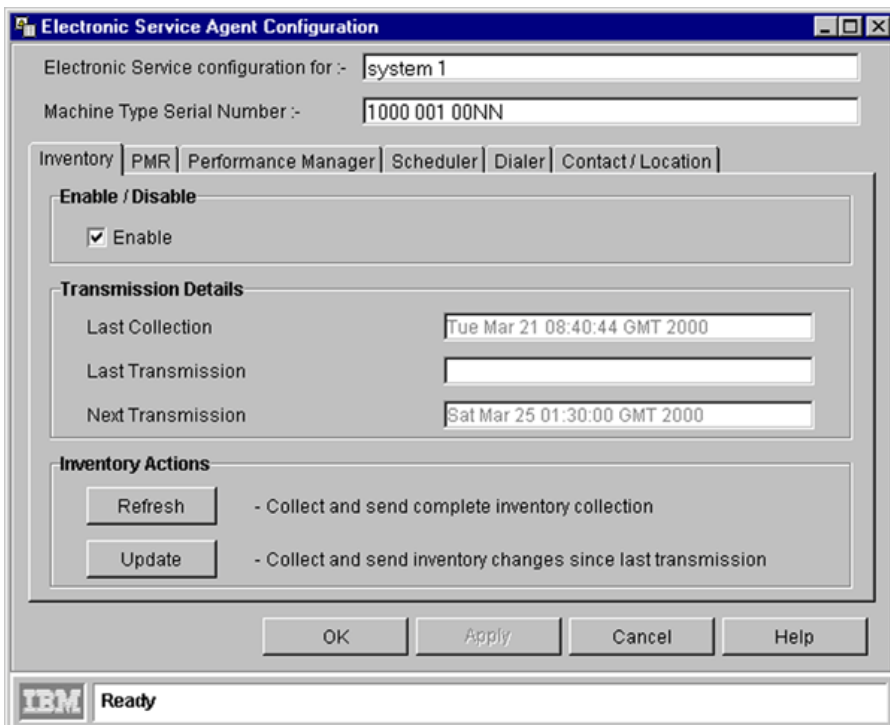
PMR page

You can use the **PMR** page to:

- **view the date, time and details of the last sent PMR** for a single system
- **enable or disable PMR Tracking**

This page can be launched targeted at a managed system or group of managed systems.

If a group of systems is selected in targeted mode, and that group consists of a number of systems that have been enabled for PMR Tracking and a number of systems that have not been enabled for PMR Tracking, the **Enable** checkbox remains clear. In this case selecting the **Enable** checkbox enables all of the individual systems in the targeted group for PMR Tracking.

A system is automatically enabled for inventory collection when enabled for PMR Tracking.
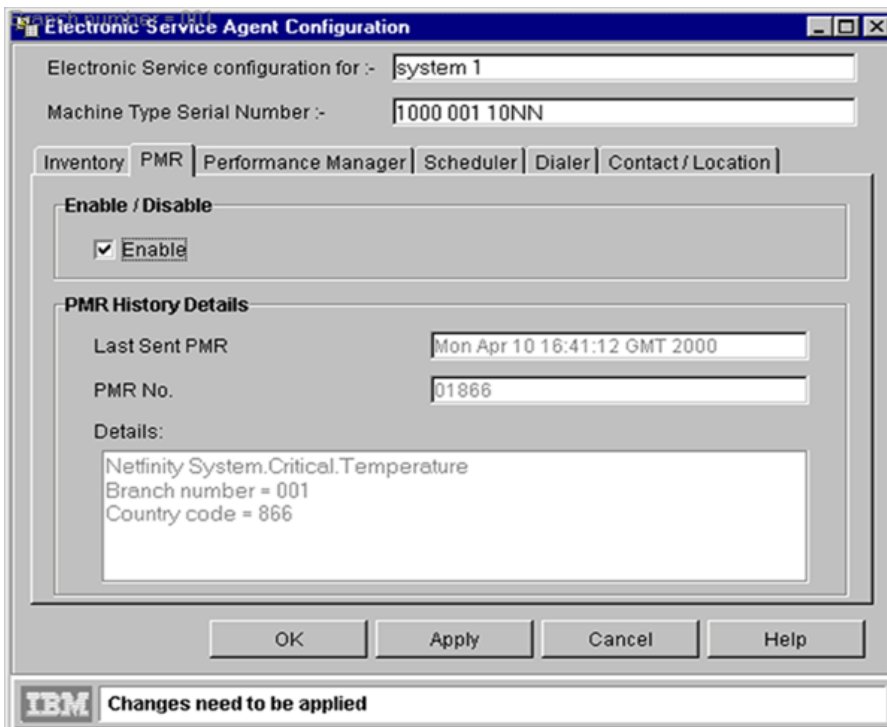
Note: For the purpose of testing, you can create manual PMRs from the operating system command line of a target system using the Netfinity Director **Genevent** command. Refer to Chapter 6, "Creating your own PMR events".

Performance Manager page

You can use the **Performance Manager** page to **enable and disable a system for Performance Management** and **initiate an immediate performance data collection** in addition to your weekly scheduled performance data update. This functionality is useful if it is suspected that the Electronic Service database has been corrupted or is out of date. The data retrieved from the performance data collection is transmitted to IBM.

Note: You should only perform manual refreshes in response to a request from an IBM service representative.

This page can be launched targeted at a managed system or group of managed systems, however the date and time for the last performance data collection and transmission displays only if the **Electronic Service** task is targeted at a single system. The date and time for the next scheduled transmission displays if the **Electronic Service** task is launched untargeted or targeted at a managed system or group of systems.

When a system is enabled for Performance Management, it is enabled for inventory collection by default.

Note: The Capacity Manager Extension must be installed and running on each of your managed systems before performance and capacity data can be collected. Capacity Manager constitutes part of UM (Universal Manageability) Server Extensions.
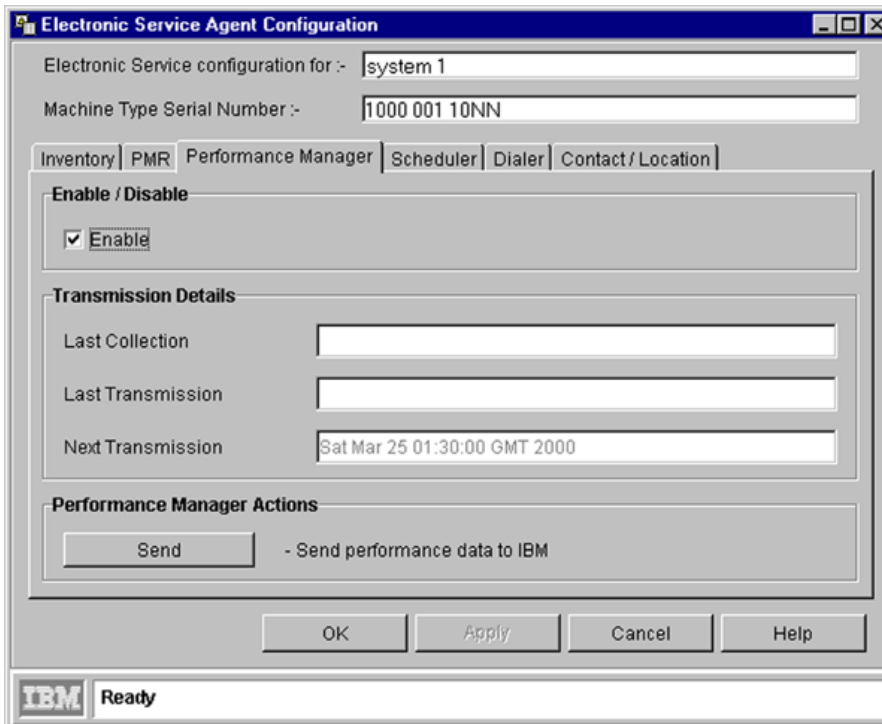
Scheduler page

Use the **Scheduler** page to **configure your weekly repeat schedule for inventory and performance data collection and transmission**. This page can be launched untargeted or targeted at a managed system or group of managed systems.

Note: All changes made to the Scheduler are applied universally to all managed systems. Different weekly schedules cannot be set for individual systems or groups of systems. The **Scheduler** page does not utilize the Netfinity Director schedule settings.
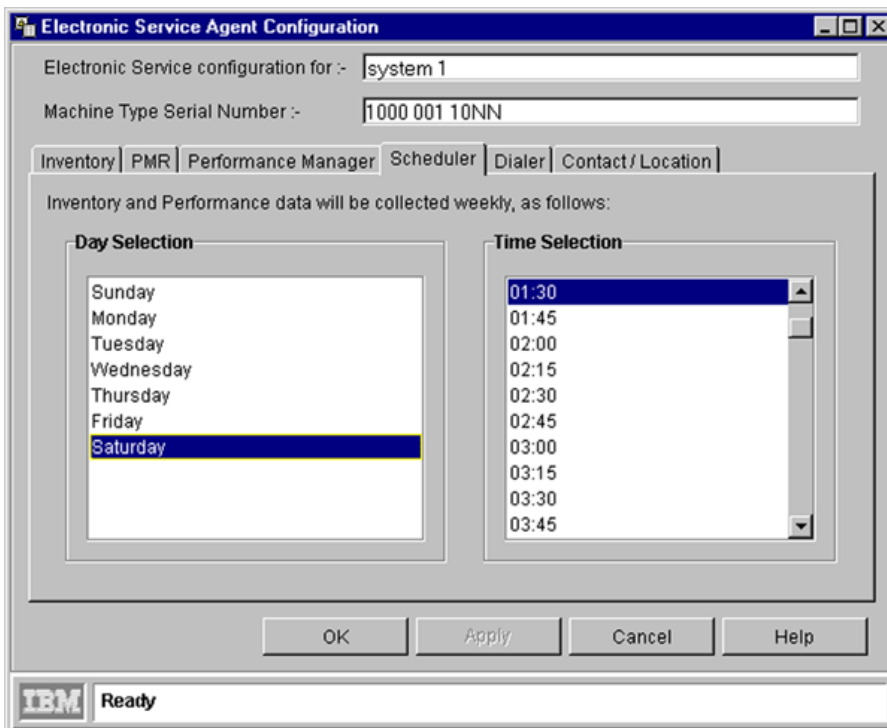
Dialer page

You can use the **Dialer** page to **verify and end your currently idle modem connection** to IBM. Verifying your connection allows you to confirm that you have successfully exchanged test data with IBM, in the event that you have changed some of your modem settings. You may want to end your current connection to IBM if, for example, you suspect that there is a fault with your system or you want to utilize your modem connection for another purpose.

This page can be launched untargeted or targeted at a managed system or group of managed systems.
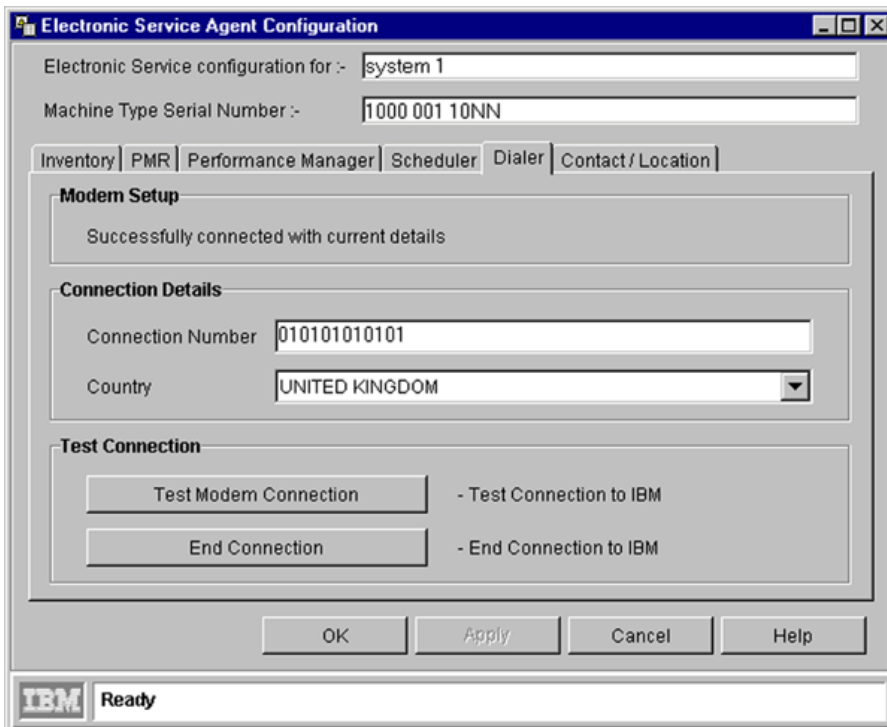
Contact/Location page

You can use the **Contact/Location** page and associated Location Details and Contact Details panels to **add**, **edit** or **delete** the relevant details of the person who will be contacted by IBM if a system hardware failure occurs, and the location details of the defective managed system. The location details will allow IBM's service representatives to locate your managed system(s) if they are dispatched to your site with the replacement parts needed to rectify the hardware failure.
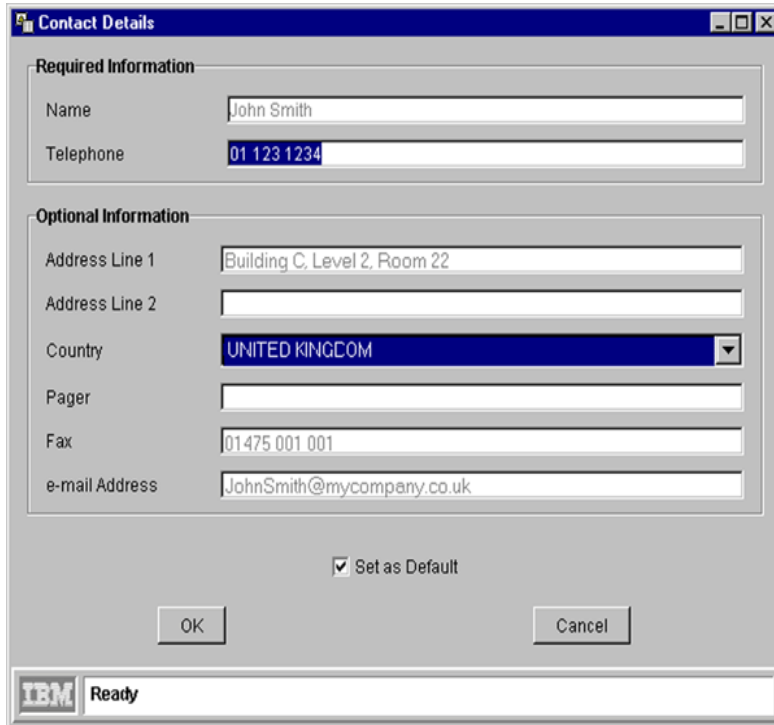
The **Contact/Location** page can be launched untargeted or targeted at a managed system or group of managed systems, however, you cannot assign new contact or location details to a managed system or group of managed systems when the **Contact/Location** page is launched in untargeted mode. To assign new contact and location details to a managed system, you must launch the **Contact/Location** page in targeted mode. You can do this by targeting the **Electronic Service** task at a managed system or group of managed systems.
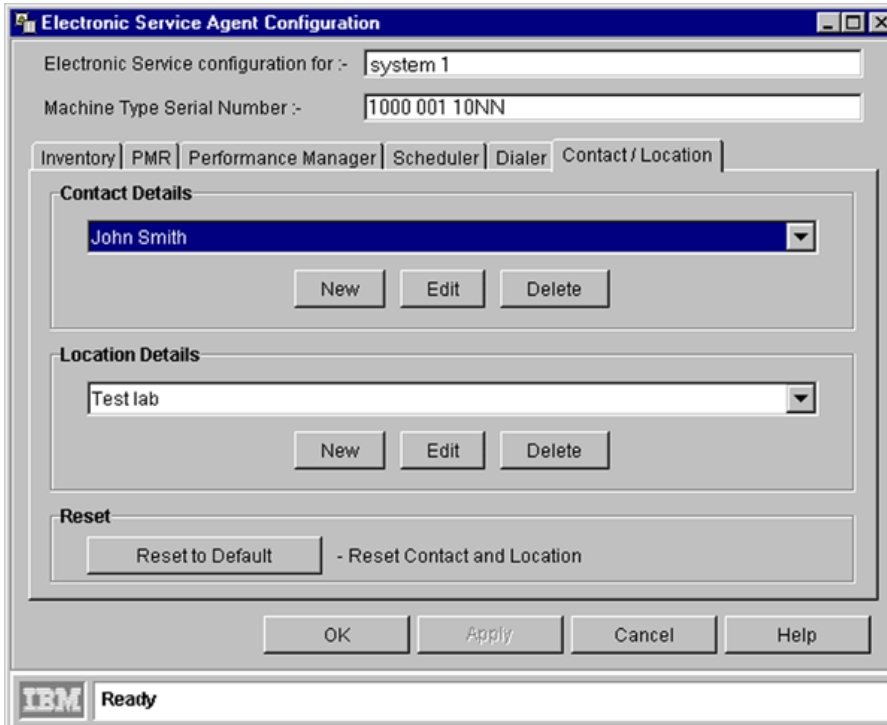
If you delete a contact or location that is currently assigned to a managed system or group of systems, Electronic Service Agent assigns the default contact and location settings to these systems. If you delete a contact or location that is currently assigned as the default for a managed system or group of managed systems, Electronic Service Agent arbitrarily assigns another contact or location to these systems. You cannot delete the last remaining contact or location setting.

Contact Details panel

Use the Contact Details panel to **add** and **edit** contact details.

Note: When typing a telephone number in the **Telephone** field of the Contact Details panel, you should restrict the number of characters used to a maximum of 19. Telephone numbers in excess of 19 characters are rejected by IBM's Remote Technical Assistance Information Network (RETAIN) interface.

Location Details panel

Use the Location Details panel to **add** and **edit** location details.

Event Action Plan configuration

Electronic Service Agent primarily runs unattended. Therefore, user feedback on actions and problems is reported through Netfinity Director events. The Event Management feature of Netfinity Director enables you to identify, categorize, and automatically initiate actions in response to network events. For further details on setting Event Filters and Event Action Plans refer to your Netfinity Director on-line help.

Electronic Service adds new event types to the **event type** tree in Netfinity Director's **Event Filter Builder** interface. You can use these Electronic Service events to build Event Action Plans and thus generate emails, pagers or other forms of notification to chosen contacts.

The types of Electronic Service events available are detailed in Table 2 below:

Table 2: Electronic Service Events

Event type	Severity	Description
Connection failed	Warning	Your Central Management Server has not successfully transmitted data through your modem connection to IBM.
Connection abandoned	Warning	Event generated if a connection has been abandoned by, for example, you, the telephone network, receiver or IBM.
New Electronic Service eligible system discovered	Harmless	Electronic Service Agent has detected the addition of an eligible system to your network.
PMR created	Harmless	Electronic Service Agent has generated a PMR.
PMR creation failed	Warning	Electronic Service Agent has failed to generate a PMR.
Inventory collection failed	Warning	Electronic Service Agent has failed to complete a system inventory.
Inventory data transfer failed	Warning	Electronic Service Agent has failed to transmit inventory data to IBM.
Inventory transfer succeeded	Harmless	Electronic Service Agent has succeeded in transmitting inventory data to IBM.
Duplicate system serial number	Warning	Electronic Service Agent has performed an inventory scan and detected two systems that are eligible for Electronic Service, have the same machine type and serial number.
System serial number changed	Warning	Electronic Service Agent has performed an inventory scan that has detected an Electronic Service enabled system with a changed serial number.
Electronic Service update available	Harmless	A new code release of Electronic Service Agent is now available.

Table 2 (cont'd): Electronic Service Events

Performance monitor failed	Warning	Performance monitors have failed to be set for a system. Ensure that you have installed the Capacity Manager Extension on your managed system subsequent to installing your Netfinity Director Agent.
Performance data transfer failed	Warning	Electronic Service Agent has failed to transmit performance data by modem to IBM. Data will be sent again with the next scheduled transmission.
Performance data transfer succeeded	Harmless	Electronic Service Agent has succeeded in transmitting performance data to IBM.

Chapter 6. Creating your own PMR events

For the purpose of testing, you can manually create PMRs from the operating system command line of a target system using the Netfinity Director **Genevent** command.

To manually create a PMR from the command line of a target system, type the following:

```
Genevent /TYPE: "Electronic Service.Manual PMR" /TEXT: "pmr details"
```

Refer to your Netfinity Director on-line help for further details on using the **Genevent** command.

Chapter 7. Receiving Electronic Service Agent updates

You can download updated versions of Electronic Service Agent when they are available from the following World Wide Web site:

   http://www.pc.ibm.com/support

Note: for detailed instructions on how to access the Electronic service Agent program code, refer to the section titled "How to obtain Electronic Service Agent for Netfinity" of Chapter 1.

Appendix A. Notices and trademarks

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