

IBM Virtualization Engine for Tape TS7520



# Call Home Function Installation and Setup Guide



IBM Virtualization Engine for Tape TS7520



# Call Home Function Installation and Setup Guide

**Note**

Before using this information and the product it supports, be sure to read the general information in "Notices" on page 45.

**First Edition**

This edition applies to the TS7520 Virtualization Engine and to all subsequent releases and modifications until otherwise indicated in new editions.

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# Contents

**Figures . . . . . v**

**Tables . . . . . vii**

**Safety and environmental notices . . . . ix**

Safety notices and labels . . . . . ix  
    Danger notices . . . . . ix  
    Safety labels . . . . . xii  
    Caution notices . . . . . xiii  
    Attention notices . . . . . xv  
Laser safety . . . . . xv  
    Usage restrictions . . . . . xv  
Rack safety . . . . . xvi  
    Rack installation (3952 F05 Frame) . . . . . xvi  
    Frame relocation (3952 F05 Frame) . . . . . xvii  
Safety inspections . . . . . xvii  
    Removing ac power . . . . . xvii  
    External machine checks . . . . . xviii  
    Internal machine checks . . . . . xviii  
Environmental notices . . . . . xviii  
    European Directive About Product Recycling  
    and Disposal . . . . . xviii  
    Battery Return Program . . . . . xix  
    Fire suppression systems. . . . . xxi

**About this document . . . . . xxiii**

Who should read this document. . . . . xxiii  
How this document is organized . . . . . xxiii  
Getting information, help and service . . . . . xxiii  
    Getting help online . . . . . xxiv  
    Before you call for service . . . . . xxv  
    Getting help by telephone . . . . . xxv  
Web sites . . . . . xxvi  
Related publications . . . . . xxvi  
    IBM Virtualization Engine for Tape TS7520  
    publications . . . . . xxvi  
    Remote Supervisor Adapter publications . . . . . xxvi  
    Additional related publications . . . . . xxvii  
Taiwan contact information . . . . . xxvii  
How to send your comments . . . . . xxvii

**Chapter 1. Introduction . . . . . 1**

**Chapter 2. Call Home Requirements . . . 3**

**Chapter 3. Installing Electronic Service  
Agent Gateway. . . . . 5**

**Chapter 4. Configuring Electronic  
Service Agent Gateway . . . . . 9**

**Chapter 5. Installing Call Home on the  
3954 CV6 server. . . . . 13**

**Appendix A. Logging into the server . . . 17**

**Appendix B. Understanding Electronic  
Service Agent Manager. . . . . 19**

Electronic Service Agent Manager Interface. . . . . 19  
Navigating Electronic Service Agent Manager . . . . . 20  
The System Status Panel . . . . . 21  
The Company Panel . . . . . 23  
The Contact Panel . . . . . 25  
The Location Panel . . . . . 26  
The Communications Panel . . . . . 27  
The History Panel . . . . . 28  
Starting the Electronic Service Agent Gateway. . . . . 30  
Closing the Electronic Service Agent Gateway. . . . . 30

**Appendix C. Enabling Fibre Channel  
Switch Events . . . . . 33**

**Appendix D. Configuring the Network  
Environment for Call Home . . . . . 35**

**Appendix E. Checking the Virtualization  
Engine Software Level . . . . . 41**

**Appendix F. Error Events Reported by  
Call Home . . . . . 43**

**Notices . . . . . 45**

Trademarks . . . . . 46  
Electronic emission notices . . . . . 46  
    Federal Communications Commission (FCC)  
    Class A Statement . . . . . 46  
    Industry Canada Class A Emission Compliance  
    Statement . . . . . 47  
    Avis de conformité à la réglementation  
    d'Industrie Canada . . . . . 47  
    European Union (EU) Electromagnetic  
    Compatibility Directive . . . . . 47  
    Germany Electromagnetic Compatibility Directive 47  
    People's Republic of China Class A Electronic  
    Emission Statement. . . . . 48  
    Taiwan Class A warning statement . . . . . 48

**Index . . . . . 49**



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## Figures

1. Terms of agreement . . . . .	5	16. Service Agent is stopped until the next reboot	23
2. Electronic Service Agent directory . . . . .	6	17. Service Agent is running but NOT reporting data to IBM . . . . .	23
3. Confirmation screen . . . . .	6	18. Company Panel . . . . .	24
4. Start Configuration program . . . . .	7	19. Contact Panel . . . . .	25
5. Accessing the Electronic Service Agent Manager	9	20. Location Panel . . . . .	26
6. Company Panel . . . . .	10	21. Communications Panel. . . . .	27
7. Contact Panel . . . . .	11	22. Test Internet Connection . . . . .	28
8. Location Panel . . . . .	12	23. Cancel Connection Test . . . . .	28
9. eSA Test Event Types . . . . .	15	24. History Panel . . . . .	29
10. Layout of Electronic Service Agent Manager	19	25. Running and reporting. . . . .	30
11. Back/Next/Finish approach . . . . .	20	26. Running but not reporting data . . . . .	31
12. Operational Navigation buttons. . . . .	21	27. Running but not reporting data . . . . .	31
13. System Status Panel. . . . .	21	28. Stopped until manually started . . . . .	31
14. Service Agent is not configured . . . . .	22	29. Stopped until next reboot . . . . .	31
15. Service Agent is stopped until manually restarted . . . . .	22		





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## Tables

1. IBM Web sites for help, services, and information . . . . . xxiii
2. Windows configuration variables and values to enter . . . . . 33
3. Windows configuration variables and values to enter . . . . . 39



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## Safety and environmental notices

This section contains information about:

- “Safety notices and labels”
- “Laser safety” on page xv
- “Rack safety” on page xvi
- “Environmental notices” on page xviii

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### Safety notices and labels

When using this product, observe the danger, caution, and attention notices contained in this guide. The notices are accompanied by symbols that represent the severity of the safety condition. The danger and caution notices are listed in numerical order based on their IDs, which are displayed in parentheses, for example (D004), at the end of each notice. Use this ID to locate the translation of these danger and caution notices in the IBM® safety publication that accompanies this product. See the following examples of danger and caution notices for the location of the ID number.

The following sections define each type of safety notice and provide examples.

The following notices and statements are used in IBM documents. They are listed below in order of increasing severity of potential hazards. Follow the links for more detailed descriptions and examples of the danger, caution, and attention notices in the sections that follow.

- **Note:** These notices provide important tips, guidance, or advice.
- **“Attention notices” on page xv:** These notices indicate potential damage to programs, devices, or data.
- **“Caution notices” on page xiii:** These statements indicate situations that can be potentially hazardous to you.
- **“Danger notices”:** These statements indicate situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these situations.
- In addition to these notices, “Safety labels” on page xii may be attached to the product to warn of potential hazards.

### Danger notices

A danger notice calls attention to a situation that is potentially lethal or extremely hazardous to people. A lightning bolt symbol accompanies a danger notice to represent a dangerous electrical condition. Read and comply with the following danger notices before installing or servicing this device.



#### DANGER

To prevent a possible shock from touching two surfaces with different protective ground (earth), use one hand, when possible, to connect or disconnect signal cables. (D001)



**DANGER**

Overloading a branch circuit is potentially a fire hazard and a shock hazard under certain conditions. To avoid these hazards, ensure that your system electrical requirements do not exceed branch circuit protection requirements. Refer to the information that is provided with your device or the power rating label for electrical specifications. (D002)



**DANGER**

If the receptacle has a metal shell, do not touch the shell until you have completed the voltage and grounding checks. Improper wiring or grounding could place dangerous voltage on the metal shell. If any of the conditions are not as described, STOP. Ensure the improper voltage or impedance conditions are corrected before proceeding. (D003)



**DANGER**

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. (D004)

A comprehensive danger notice provides instructions on how to avoid shock hazards when servicing equipment. Unless instructed otherwise, follow the procedures in the following danger notice.



## DANGER

When working on or around the system, observe the following precautions:

Electrical voltage and current from power, telephone, and communication cables are hazardous.

To avoid a shock hazard:

- Connect power to this unit only with the IBM provided power cord. Do not use the IBM provided power cord for any other product.
- Do not open or service any power supply assembly.
- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords.
- Connect all power cords to a properly wired and grounded electrical outlet. Ensure outlet supplies proper voltage and phase rotation according to the system rating plate.
- Connect any equipment that will be attached to this product to properly wired outlets.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described below when installing, moving, or opening covers on this product or attached devices.

To Disconnect:

1. Turn everything OFF (unless instructed otherwise).
2. Remove power cords from the outlet.
3. Remove signal cables from connectors.
4. Remove all cables from devices.

To Connect:

1. Turn everything OFF (unless instructed otherwise).
2. Attach all cables to devices.
3. Attach signal cables to connectors.
4. Attach power cords to outlet.
5. Turn device ON.

(D005)

## Safety labels

As an added precaution, safety labels are often installed directly on products or product components to warn of potential hazards. These can be either danger or caution notices, depending upon the level of the hazard.

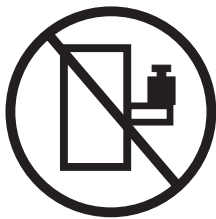
The actual product safety labels may differ from these sample safety labels:



### DANGER

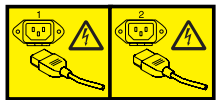
Hazardous voltage, current, or energy levels are present inside any component that has this label attached. (L001)

Do not service, there are no serviceable parts.



### DANGER

Rack-mounted devices are not to be used as a shelf or work space. (L002)



### DANGER

Multiple power cords (L003)

To remove all power to the device, disconnect all power cords.



### DANGER

High voltage present (L004)



### CAUTION:

High energy present (L005)



### CAUTION:

Hazardous moving parts nearby (L008)



**CAUTION:**  
Pinch point nearby

## Caution notices

A caution notice calls attention to a situation that is potentially hazardous to people because of some existing condition. A caution notice can be accompanied by different symbols, as in the examples below:

If the symbol is...	It means....
	A hazardous electrical condition with less severity than electrical danger.
	A generally hazardous condition not represented by other safety symbols.
 >55kg (121.2 lb)	A specification of product weight that requires safe lifting practices. The weight range of the product is listed below the graphic, and the wording of the caution varies, depending on the weight of the device.
	A potential hazard of pinching the hand or other body parts between parts.
	A hazardous condition due to moving parts nearby.
	A hazardous condition due to the use of a laser in the product. Laser symbols are always accompanied by the classification of the laser as defined by the U. S. Department of Health and Human Services (for example, Class I, Class II, and so forth).

Read and comply with the following caution notices before installing or servicing this device.



**CAUTION:**  
Energy hazard present. Shorting may result in system outage and possible physical injury. Remove all metallic jewelry before servicing. (C001)



**CAUTION:**

Only trained service personnel may replace this battery. The battery contains lithium. To avoid possible explosion, do not burn or charge the battery. *Do Not:*

- Throw or immerse into water
- Heat to more than 100° C (212° F)
- Repair or disassemble

Exchange only with the IBM-approved part. Recycle or discard the battery as instructed by local regulations. In the United States, IBM has a process for the collection of this battery. For information, call 1-800-426-4333. Have the IBM part number for the battery unit available when you call. (C002)



**CAUTION:**

Use safe practices when lifting. The weight of this part or unit is approximately 96 kg (216 lb). It takes specially-trained persons and/or a lifting device to safely lift this part or unit. (C011)

18-32 kg (39.7-70.5 lbs)	32-55 kg (70.5-121.2 lbs)	≥55 kg (≥121.2 lbs)

svc00146



**CAUTION:**

The system contains circuit cards and/or assemblies that contain lead solder. To avoid the release of lead (Pb) into the environment, do not burn. Discard the circuit card as instructed by local regulations. (C014)



**CAUTION:**

This product is equipped with a 3-wire (two conductors and ground) power cable and plug. Use this power cable with a properly grounded electrical outlet to avoid electrical shock. (C018)



**CAUTION:**

This assembly contains mechanical moving parts. Use care when servicing this assembly. (C025)



**CAUTION:**

This product contains a Class 1M laser. Do not view directly with optical instruments. (C028)



**CAUTION:**

Servicing of this product or unit is to be performed by trained service personnel only. (C032)



## Attention notices

An attention notice indicates the possibility of damage to a program, device, or system, or to data. An exclamation point symbol may accompany an attention notice, but is not required. A sample attention notice follows:

**Attention:** Do not bend a fibre cable to a radius less than 5 cm (2 in.); you can damage the cable. Tie wraps are not recommended for optical cables because they can be easily overtightened, causing damage to the cable.

**Attention:** Do not connect an IBM control unit directly to a public optical network. The customer must use an additional connectivity device between an IBM control unit optical adapter (that is, fibre, ESCON<sup>®</sup>, or FICON<sup>®</sup>) and an external public network. Use a device such as a patch panel, a router, or a switch. You do not need an additional connectivity device for optical fibre connectivity that does not pass through a public network.

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## Laser safety

When using an NVRAM5 or NVRAM6 cluster (active-active) copper-fiber converter, the storage system must be installed in a restricted access location.



**CAUTION:**

This product contains a Class 1M laser. Do not view directly with optical instruments. (C028)

This equipment contains Class 1 laser products, and complies with FDA radiation Performance Standards, 21 CFR Subchapter J and the international laser safety standard IEC 60825.



**CAUTION:**

Data processing environments can contain equipment transmitting on system links with laser modules that operate at greater than Class 1 power levels. For this reason, never look into the end of an optical fibre cable or open receptacle.

**Attention:** In the United States, use only SFP or GBIC optical transceivers that comply with the FDA radiation performance standards, 21 CFR Subchapter J. Internationally, use only SFP or GBIC optical transceivers that comply with IEC standard 60825. Optical products that do not comply with these standards may produce light that is hazardous to the eyes.

## Usage restrictions

The optical ports of the modules must be terminated with an optical connector or with a dust plug.

## Rack safety

### Rack installation (3952 F05 Frame)



#### DANGER

Observe the following precautions when working on or around your IT rack system:

- Heavy equipment - personal injury or equipment damage might result if mishandled.
- Always lower the leveling pads on the rack cabinet.
- Always install stabilizer brackets on the rack cabinet.
- To avoid hazardous conditions due to uneven mechanical loading, always install the heaviest devices in the bottom of the rack cabinet. Always install servers and optional devices starting from the bottom of the rack cabinet.
- Rack-mounted devices are not to be used as shelves or work spaces. Do not place objects on top of rack-mounted devices.
- Each rack cabinet might have more than one power cord. Be sure to disconnect all power cords in the rack cabinet when directed to disconnect power during servicing.
- Connect all devices installed in a rack cabinet to power devices installed in the same rack cabinet. Do not plug a power cord from a device installed in one rack cabinet into a power device installed in a different rack cabinet.
- An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

#### CAUTION:

- Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.
- Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, front, or back of a unit used for air flow through the unit.
- Consideration should be given to the connection of the equipment to the supply circuit so that overloading of the circuits does not compromise the supply wiring or overcurrent protection.
- To provide the correct power connection to a rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement of the supply circuit.
- *(For sliding drawers.)* Do not pull out or install any drawer or feature if the rack stabilizer brackets are not attached to the rack. Do not pull out more than one drawer at a time. The rack may become unstable if you pull out more than one drawer at a time.
- *(For fixed drawers.)* This drawer is a fixed drawer and should not be moved for servicing unless specified by manufacturer. Attempting to move the drawer partially or completely out of the rack may cause the rack to become unstable or cause the drawer to fall out of the rack.

(R001)

## Frame relocation (3952 F05 Frame)

### CAUTION:

Removing components from the upper positions in the rack cabinet improves rack stability during relocation. Follow these general guidelines whenever you relocate a populated rack cabinet within a room or building:

- Reduce the weight of the rack cabinet by removing equipment starting at the top of the rack cabinet. When possible, restore the rack cabinet to the configuration of the rack cabinet as you received it. If this configuration is not known, you must do the following:
  - Ensure that the heaviest devices are installed in the bottom of the rack cabinet.
  - If the rack cabinet you are relocating is part of a suite of rack cabinets, detach the rack cabinet from the suite.
  - Inspect the route that you plan to take when moving the rack to eliminate potential hazards.
  - Verify that the route that you choose can support the weight of the loaded rack cabinet. Refer to the documentation that came with your rack cabinet for the weight of a loaded rack cabinet.
  - Verify that all door openings are at least 760 x 2030 mm (30 x 80 in.).
  - Ensure that all devices, shelves, drawers, doors, and cables are secure.
  - Ensure that the four leveling pads are raised to their highest position.
  - Ensure that there is no stabilizer bracket installed on the rack cabinet during movement.
  - Do not use a ramp inclined at more than ten degrees.
  - Once the rack cabinet is in the new location, do the following:
    - Lower the four leveling pads.
    - Install stabilizer brackets on the rack cabinet.
    - If you removed any devices from the rack cabinet, repopulate the rack cabinet from the lowest position to the highest position.
  - If a long distance relocation is required, restore the rack cabinet to the configuration of the rack cabinet as you received it. Pack the rack cabinet in the original packaging material, or equivalent. Also, lower the leveling pads to raise the casters off of the pallet and bolt the rack cabinet to the pallet.

(R002)

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## Safety inspections

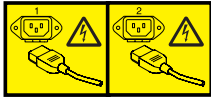
Perform the following safety checks to identify unsafe conditions. Be cautious of potential safety hazards that are not covered in the safety checks. If unsafe conditions are present, determine how serious the hazards are and whether you should continue before you correct the problem.

### Removing ac power

Perform the following steps to remove the alternating current (ac) power:

1. Perform a controlled system shutdown.
2. Set the power switch on the product to the off position.

3. Disconnect the power cables from the power source.



**DANGER**

**Multiple power cords. (L003)**

## External machine checks

Perform the following external machine checks:

1. Verify that all external covers are present and are not damaged.
2. Ensure that all latches and hinges are in correct operating condition.
3. Check the power cable for damage.
4. Check the external signal cable for damage.
5. Check the cover for sharp edges, damage, or alterations that expose the internal parts of the device.
6. Check that any unused serial ports are covered for dust and ESD protection. The cover should be kept on the serial port whenever it is not being used.
7. Correct any problems that you find.

## Internal machine checks

Perform the following internal machine checks:

1. Check for any non-IBM changes that might have been made to the machine. If any are present, obtain the “Non-IBM Alteration Attachment Survey” form, number R009, from the IBM branch office. Complete the form and return it to the branch office.
2. Check the condition of the inside of the machine for:
  - Metal or other contaminants
  - Indications of water or other fluid
  - Fire
  - Smoke damage
3. Check for any obvious mechanical problems, such as loose components.
4. Check any exposed cables and connectors for wear, cracks, or pinching.

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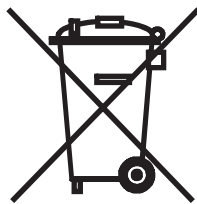
## Environmental notices

Use the environmental statements and warning in this section to guide you when using this product and in properly disposing of the product and its components.

### European Directive About Product Recycling and Disposal

This unit must be recycled or discarded according to applicable local and national regulations. IBM encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. IBM offers a variety of product return programs and services in several countries to assist equipment owners in recycling their IT products. Information on IBM product recycling offerings can be found on IBM’s Internet site at:

<http://www.ibm.com/ibm/environment/products/index.shtml>



**Notice:** This mark applies only to countries within the European Union (EU) and Norway.

Appliances are labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

In accordance with the European WEEE Directive, electrical and electronic equipment (EEE) is to be collected separately and to be reused, recycled, or recovered at end of life. Users of EEE with the WEEE marking per Annex IV of the WEEE Directive, as shown above, must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to customers for the return, recycling and recovery of WEEE. Customer participation is important to minimize any potential effects of EEE on the environment and human health due to the potential presence of hazardous substances in EEE. For proper collection and treatment, contact your local IBM representative.

**注意:** このマークは EU 諸国およびノルウェーにおいてのみ適用されます。

この機器には、EU 諸国に対する廃電気電子機器指令 2002/96/EC(WEEE) のラベルが貼られています。この指令は、EU 諸国に適用する使用済み機器の回収とリサイクルの骨子を定めています。このラベルは、使用済みになった時に指令に従って適正な処理をする必要があることを知らせるために種々の製品に貼られています。

**Remarque :** Cette marque s'applique uniquement aux pays de l'Union Européenne et à la Norvège.

L'étiquette du système respecte la Directive européenne 2002/96/EC en matière de Déchets des Equipements Electriques et Electroniques (DEEE), qui détermine les dispositions de retour et de recyclage applicables aux systèmes utilisés à travers l'Union européenne. Conformément à la directive, ladite étiquette précise que le produit sur lequel elle est apposée ne doit pas être jeté mais être récupéré en fin de vie.

## **Battery Return Program**

This product may contain sealed lead acid, nickel cadmium, nickel metal hydride, lithium, or lithium ion battery. Consult your user manual or service manual for specific battery information. The battery must be recycled or disposed of properly. Recycling facilities may not be available in your area. For information on disposal of batteries outside the United States, contact your local waste disposal facility or go to:

[www.ibm.com/ibm/environment/products/batteryrecycle.shtml](http://www.ibm.com/ibm/environment/products/batteryrecycle.shtml)

In the United States, IBM has established a return process for reuse, recycling, or proper disposal of used IBM sealed lead acid, nickel cadmium, nickel metal hydride, and other battery packs from IBM Equipment. For information on proper disposal of these batteries, contact IBM at 1-800-426-4333. Please have the IBM part number listed on the battery available prior to your call.

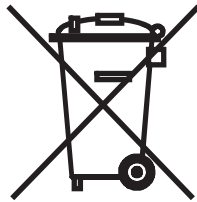
In Taiwan, the following applies:



Please recycle batteries.

廢電池請回收

For the European Union:



**Notice:** This mark applies only to countries within the European Union (EU) and Norway.

Batteries or packaging for batteries are labeled in accordance with European Directive 2006/66/EC concerning batteries and accumulators and waste batteries and accumulators. The Directive determines the framework for the return and recycling of used batteries and accumulators as applicable throughout the European Union. This label is applied to various batteries to indicate that the battery is not to be thrown away, but rather reclaimed upon end of life per this Directive.

In accordance with the European Directive 2006/66/EC, batteries and accumulators are labeled to indicate that they are to be collected separately and recycled at end of life. The label on the battery may also include a chemical symbol for the metal concerned in the battery (Pb for lead, Hg for mercury and Cd for cadmium). Users of batteries and accumulators must not dispose of batteries and accumulators as unsorted municipal waste, but use the collection framework available to customers for the return, recycling and treatment of batteries and accumulators. Customer participation is important to minimize any potential effects of batteries and accumulators on the environment and human health due to the potential presence of hazardous substances. For proper collection and treatment, contact your local IBM representative.

For California:

Perchlorate Material - special handling may apply. See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate>.

The foregoing notice is provided in accordance with California Code of Regulations Title 22, Division 4.5 Chapter 33. Best Management Practices for Perchlorate Materials. This product, part or both may include a lithium manganese dioxide battery which contains a perchlorate substance.

## **Fire suppression systems**

A fire suppression system is the responsibility of the customer. The customer's own insurance underwriter, local fire marshal, or a local building inspector, or both, should be consulted in selecting a fire suppression system that provides the correct level of coverage and protection. IBM designs and manufactures equipment to internal and external standards that require certain environments for reliable operation. Because IBM does not test any equipment for compatibility with fire suppression systems, IBM does not make compatibility claims of any kind nor does IBM provide recommendations on fire suppression systems.





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## About this document

This document provides you with introductory information about the IBM Call Home customer support utility including installation and configuration procedures.

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## Who should read this document

This publication is intended for IBM service personnel only. The installation procedures described in this document are to be performed by IBM service personnel.

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## How this document is organized

Chapter 1, "Introduction," on page 1 describes the Call Home function.

Chapter 5, "Installing Call Home on the 3954 CV6 server," on page 13 describes how to install Call Home on the TS7500 Virtualization Engine™.

Chapter 3, "Installing Electronic Service Agent Gateway," on page 5 describes how to install the Electronic Service Agent™ Gateway on the TS7500 Virtualization Engine.

Chapter 4, "Configuring Electronic Service Agent Gateway," on page 9 describes how to configure the Electronic Service Agent Gateway.

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## Getting information, help and service

If you need help, service, technical assistance, or just want more information about IBM products, you will find a wide variety of sources available from IBM to assist you.

When calling IBM for support for the TS7520 Virtualization Engine, follow these guidelines:

- If you are certain the problem involves the TS7520 software, or if you are uncertain whether the problem involves the TS7520 hardware or software, choose the Software option. Then identify the TS7520 as your product and supply your customer number as proof of purchase.
- Choose the Hardware option *only* if you are certain the problem involves solely the TS7520 hardware. After you select Hardware, choose TS7520 and identify the hardware component that displays a problem (3954 CV6, 3955 SV6, or 3955 SX6).

**Note:** For US Customers calling 1 (800) IBM SERV, you are asked to select a Hardware or Software option. Unless you are certain the problem involves the TS7520 hardware, choose the Software option.

IBM maintains pages on the World Wide Web where you can get information about IBM products and services and find the latest technical information.

*Table 1. IBM Web sites for help, services, and information*

<a href="http://www.ibm.com/">www.ibm.com/</a>	Main IBM home page
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Table 1. IBM Web sites for help, services, and information (continued)

<p><a href="http://www.ibm.com/storage/support/">www.ibm.com/storage/support/</a></p> <p>Select <b>Tape Systems</b> from the Product family menu and select <b>IBM Virtualization Engine TS7520</b> from the Product menu. Click the Plan or Upgrade tab, and under Product Considerations, click <b>IBM Virtualization Engine TS7520 product information</b>.</p>	<p>IBM Support home page</p>
<p><a href="http://www.ibm.com/planetwide/">www.ibm.com/planetwide/</a></p>	<p>IBM support page - points all countries to relevant contact information.</p>

Services available and telephone numbers listed are subject to change without notice.

All distributed software licenses include Software Maintenance (software subscription and technical support) for a period of 12 months from the date of acquisition providing a streamlined way to acquire IBM software and assure technical support coverage for all licenses. Extending coverage for a total of three years from date of acquisition may be elected. While your Software Maintenance is in effect, IBM provides assistance for your 1) routine, short duration installation and usage (how-to) questions; and 2) code-related questions. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your IBM support center. (This assistance is not available to your users.) IBM provides Severity 1 assistance 24 hours a day, every day of the year.

### Hardware Warranty

For a period of one year, if required, IBM provides repair or exchange service depending on the type of warranty service specified for your machine. An IBM technician will attempt to resolve your problem over the telephone; you must follow IBM's problem determination and resolution procedures. Scheduling of service depends upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations; additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country and location specific information.

IBM On-Site Repair (IOR) IOR, 24 hours a day, 7 days a week, same-day response.

IBM provides repair services for the failing machine at your location and verify its operation. You must provide suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

## Getting help online

Be sure to visit the support page for the TS7520, complete with FAQs, parts information, technical hints and tips, technical publications, and downloadable files, if applicable. This page is at:

[www.ibm.com/storage/support/](http://www.ibm.com/storage/support/)

Select **Tape Systems** from the Product family menu and select **IBM Virtualization Engine TS7520** from the Product menu. Click the Plan or Upgrade tab, and under Product Considerations, click **IBM Virtualization Engine TS7520 product information**.

For additional Web sites, see “Web sites” on page xxvi.

## Before you call for service

Some problems can be solved without outside assistance, by using the online help, by looking in the online or printed documentation that comes with the TS7520, or by consulting the support Web page. Also, be sure to read the information in any README files and release notes that come with the TS7520.

## Getting help by telephone

With the original purchase of the IBM Virtualization Engine TS7520, you have access to extensive support coverage. During the product warranty period, you may call the IBM Support Center (1 800 426-7378 in the U.S.) for product assistance covered under the terms of the hardware IBM warranty or the software maintenance contract that comes with product purchase.

Please have the following information ready when you call:

- IBM Virtualization Engine TS7520 software identifier, or the Machine Type and model. The software identifier can be either the product name or the Product Identification (PID) number.
- Serial numbers of the IBM Virtualization Engine TS7520 components, or your proof of purchase.
- Description of the problem.
- Exact wording of any error messages.
- Hardware and software configuration information

If possible, have access to your computer when you call.

In the U.S. and Canada, these services are available 24 hours a day, 7 days a week. In the U.K., these services are available Monday through Friday, from 9:00 a.m. to 6:00 p.m. In all other countries, contact your IBM reseller or IBM marketing representative.

When calling IBM for support for the TS7520 Virtualization Engine, follow these guidelines:

- If you are certain the problem involves the TS7520 software, or if you are uncertain whether the problem involves the TS7520 software or hardware, choose the software option. Then identify the TS7520 as your product and supply your customer number as proof of purchase
- Choose the Hardware option *only* if you are certain the problem involves solely the TS7520 hardware. After you select Hardware, enter the appropriate 4digit Machine Type for the hardware component that displays a problem (**3954** for the TS720 Server; **3955** for the TS7520 Cache Module or the TS7520 Cache Controller) and the S/N (serial number) for that component.

**Note:** For US Customers calling 1 (800) IBM SERV, you are asked to select a Hardware or Software option. Unless you are certain the problem involves the TS7520 Hardware, choose the Software option.

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## Web sites

The most up-to-date information about your product, including documentation and the most recent downloads, can be found at the following Web sites:

- The translated publications for this product are included with the product. These documents and product specification sheets are also available from the following Web site:  
[www.ibm.com/storage/support/](http://www.ibm.com/storage/support/)
- You can order publications through the IBM Publications Ordering System at the following web site:  
[www.elink.ibm.com/public/applications/publications/cgibin/pbi.cgi/](http://www.elink.ibm.com/public/applications/publications/cgibin/pbi.cgi/)
- Access installation and technical support information via the Web at:  
[www.ibm.com/support](http://www.ibm.com/support)
- The IBM HBA search Web site is:  
<http://www-01.ibm.com/systems/support/storage/config/hba/index.wss>
- The IBM Web site for Independent Software Vendor (ISV) support is:  
[www.ibm.com/servers/storage/tape/resource-library.html](http://www.ibm.com/servers/storage/tape/resource-library.html)
- To access the IBM TS7520 Interoperability Matrix Web site, go to:  
<http://www-03.ibm.com/servers/storage/tape/compatibility/index.html>
- For the latest information about SAN switches and directors, go to the following Web site:  
[www.ibm.com/servers/storage/san](http://www.ibm.com/servers/storage/san)
- For product firmware and software downloads, as well as associated driver code, go to the following Web site:  
[www.ibm.com/storage/support/](http://www.ibm.com/storage/support/)
- For accessibility information, go to the following Web site:  
[www.ibm.com/able/product\\_accessibility/index.html](http://www.ibm.com/able/product_accessibility/index.html)
- For the latest information about product recycling programs, go to the following Web site:  
[www.ibm.com/ibm/environment/products/prp.shtml](http://www.ibm.com/ibm/environment/products/prp.shtml)

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## Related publications

The following documents provide information about the IBM Virtualization Engine for Tape TS7520.

### IBM Virtualization Engine for Tape TS7520 publications

- *IBM Virtualization Engine for Tape TS7520 Introduction and Planning Guide*, GC27-2067-01
- *IBM Virtualization Engine for Tape TS7500 User Guide*, GC27-2068-01
- *IBM Virtualization Engine for Tape TS7500 Error Codes*, GC27-2074-00
- *Statement of Limited Warranty*, GC26-7770-00

### Remote Supervisor Adapter publications

- *Remote Supervisor Adapter II Slimline and Remote Supervisor Adapter II Installation Guide*, 25K8173
- *Remote Supervisor Adapter II Slimline and Remote Supervisor Adapter II User's Guide*, 25K8174

## Additional related publications

- *IBM TotalStorage® 3584 Tape Library Introduction and Planning Guide, GA32-0469*
- *IBM TotalStorage Enterprise Automated Tape Library (3494) Introduction and Planning Guide, GA32-0448*

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## Taiwan contact information

The following applies in Taiwan:

IBM Taiwan Corporation  
3F, No 7, Song Ren Rd.,  
Tel: 0800-016-888

台灣IBM 產品服務聯絡方式：  
台灣國際商業機器股份有限公司  
台北市松仁路7號3樓  
電話：0800-016-888

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- Mail

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Department GZW  
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Tucson Arizona 85744-0001  
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## Chapter 1. Introduction

Call Home is a unique customer support utility that proactively identifies potential system or component failures and automatically notifies IBM using the IBM Electronic Service Agent program.

Using pre-configured scripts (called triggers), Call Home monitors a set of pre-defined, critical system components (memory, disk, etc.). When an error is triggered, Call Home captures the appropriate information needed to diagnose the reported problem and this information is then sent to IBM.

With Call Home, IBM is able to contact the customer to take corrective measures within the shortest amount of time, ensuring optimum service uptime and IT efficiency for the TS7500 Virtualization Engine.

**Note:** The Call Home function is not supported on TS7510 hardware.





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## Chapter 2. Call Home Requirements

The Call Home installation has some network requirements in order to install easily and function properly. The TS7520 Virtualization Engine (VE) servers in the local network must meet the following requirements before installing Call Home:

- The IBM Virtualization Engine TS7520 3954 CV6 server (3954 CV6 server) and the VE console workstation being used as the Call Home Gateway server must be able to resolve each other using their fully qualified hostnames. This can be achieved in one of the following ways:
  - By setting up the 3954 CV6 server and the Call Home Gateway server on the same DNS.
  - By configuring hosts files on both servers.
- The Call Home Gateway server must be on the same subnet mask as the 3954 CV6 server even if a DNS network is not used
- The Call Home Gateway server must be able to reach the Internet in order to communicate with IBM Support.
- If you are using DNS names to access the 3954 CV6 server nodes for iSCSI or replication purposes, additional DNS names such as eth1 or bond0 are required to resolve the appropriate IP addresses.
- For fibre channel switch events, the fibre channel switch or switches in the 3954 CV6 server rack must also be configured on the same network as the server nodes. The 3954 CV6 server nodes should be able to successfully ping the IP address of any fibre channel switches.

Please refer to the information in Appendix D, “Configuring the Network Environment for Call Home,” on page 35 for help configuring these requirements.

Call Home can be installed from two CD-ROMS available for online download at the following website: <https://www-304.ibm.com/systems/support/>

1. Under **Product support**, click on **System Storage**.
2. From the **Product family** menu, select **Tape systems**.
3. From the **Product** menu, select **TS7520 Virtualization Engine**.
4. Select the **Download** tab and then click on the **Downloadable files** link.
5. The necessary CD-ROM that should be downloaded depends on the version of the 3954 CV6 server software level. To find out how to check the software level, refer to Appendix E, “Checking the Virtualization Engine Software Level,” on page 41.
  - For the software level indicated by CVT2.0 download the *TS7520 Software Upgrade Disk*. This disk will update the software level to CVT2.2 and install Call Home.
  - For the software level indicated by CVT2.2 download the *TS7520 Call Home Patch Disk*. This disk will update the CVT2.2 software level with the Call Home functionality.

**Note:** For all other software levels indicated, this document does not apply. This document only supports software levels indicated by CVT2.0 and CVT2.2.



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## Chapter 3. Installing Electronic Service Agent Gateway

Before beginning, ensure that all the prerequisite requirements from Chapter 2, "Call Home Requirements," on page 3 are met.

The Electronic Service Agent Gateway code should be installed on the VE Console workstation used for 3954 CV6 maintenance.

To install the Gateway code, complete the following steps:

1. Load the *TS7520 Call Home Patch Disk* or the *TS7520 Software Upgrade Disk* into the CD-ROM drive of the VE console workstation.
2. Navigate to the [x]:\Call\_Home\_Gateway directory, where [x] is the drive letter of the CD-ROM drive.
3. Double click on the installation file called 5639-n89-50\_CVT2\_noGBP.exe.
4. Run the file to invoke the install wizard and read the License Agreement.
5. Select the option to accept the terms of the agreement and click **Next**.



Figure 1. Terms of agreement

6. The next screen asks where (in which directory) Electronic Service Agent will be installed. Accept the default or select **Browse** for a new location. Click **Next**.

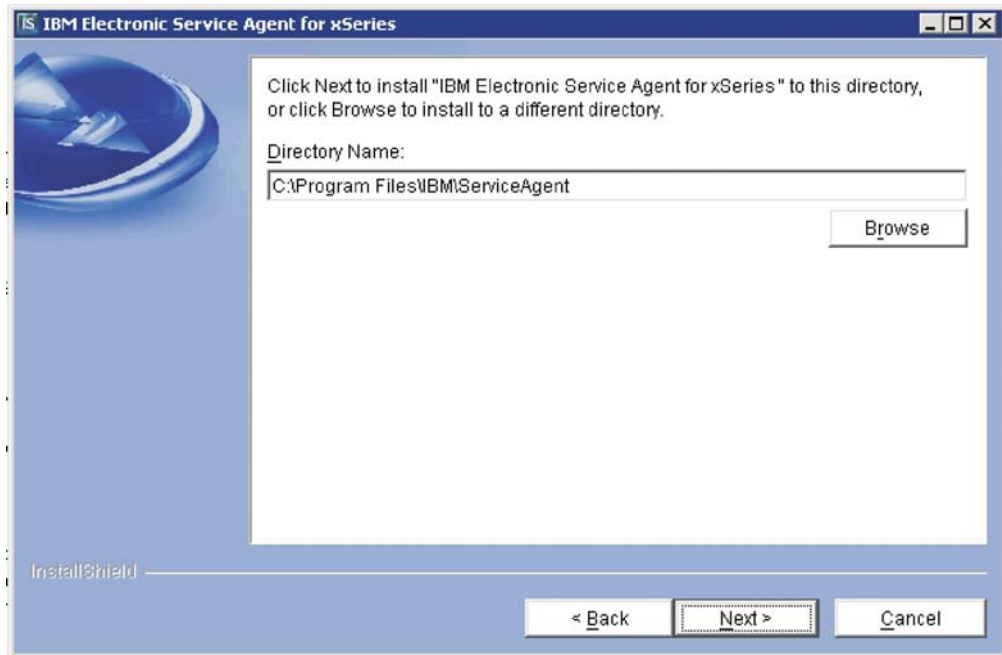


Figure 2. Electronic Service Agent directory

7. A confirmation screen appears next. Verify the selections and click **Next**.

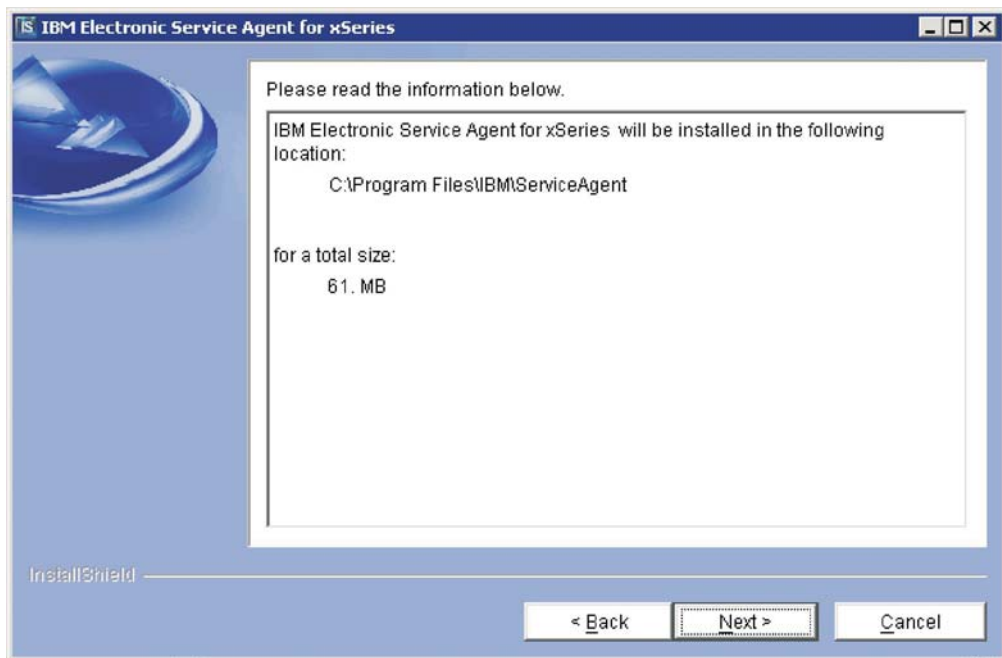


Figure 3. Confirmation screen

8. A progress indicator screen will show how long the install process is taking.
9. Select the check box **Start Configuration program** to display Electronic Service Agent configuration steps. The gateway can either be configured now, or configured later.

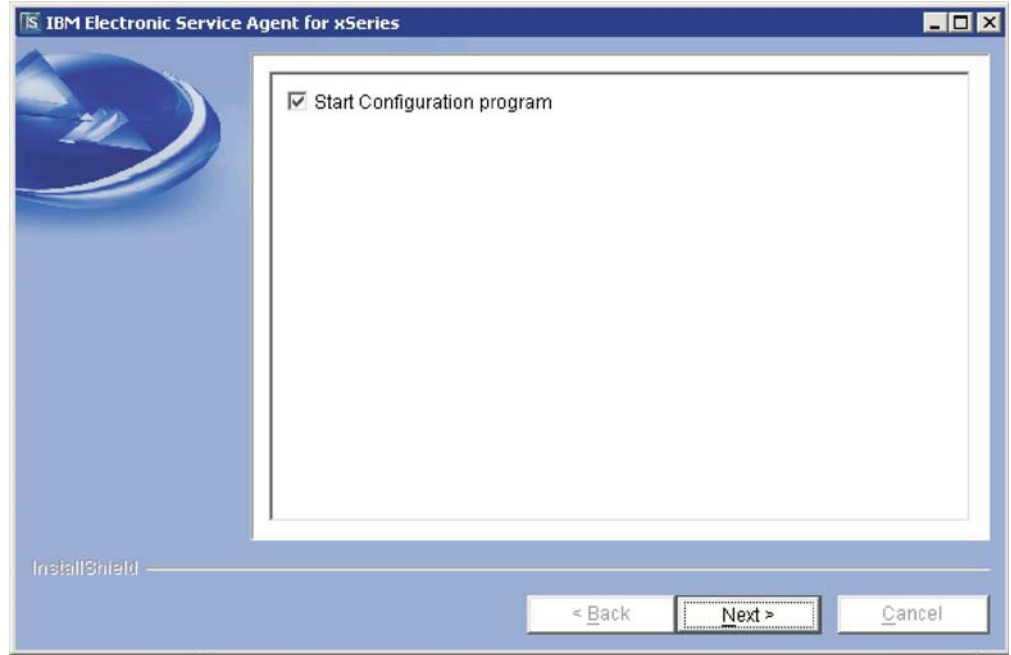


Figure 4. Start Configuration program



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## Chapter 4. Configuring Electronic Service Agent Gateway

After the installation of Electronic Service Agent Gateway on the VE console, it must be configured before it can monitor the managed systems. Electronic Service Agent is configured and administered through a graphical user interface application known as the Electronic Service Agent Manager. This section explains how to configure Electronic Service Agent using the Electronic Service Agent Gateway Manager.

1. Start the Electronic Service Agent Manager, by selecting **Start > Programs > Electronic Service Agent > esaManager..**

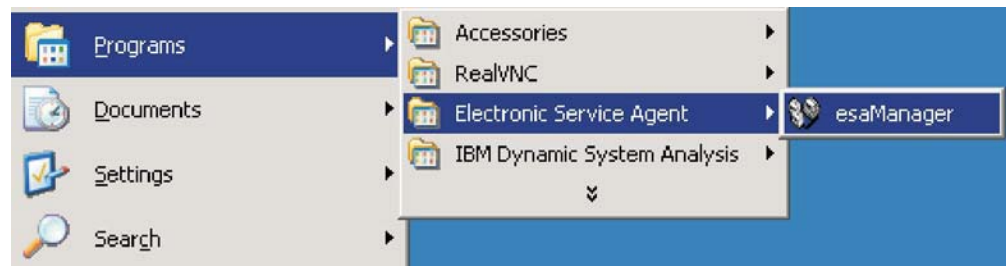


Figure 5. Accessing the Electronic Service Agent Manager

2. Click the **Company** tab in the tabbed panel section. See Appendix B, “Understanding Electronic Service Agent Manager,” on page 19 for more information.
3. Fill in all fields completely marked by \* with the company information

**Note:** See Appendix B, “Understanding Electronic Service Agent Manager,” on page 19 for more information.

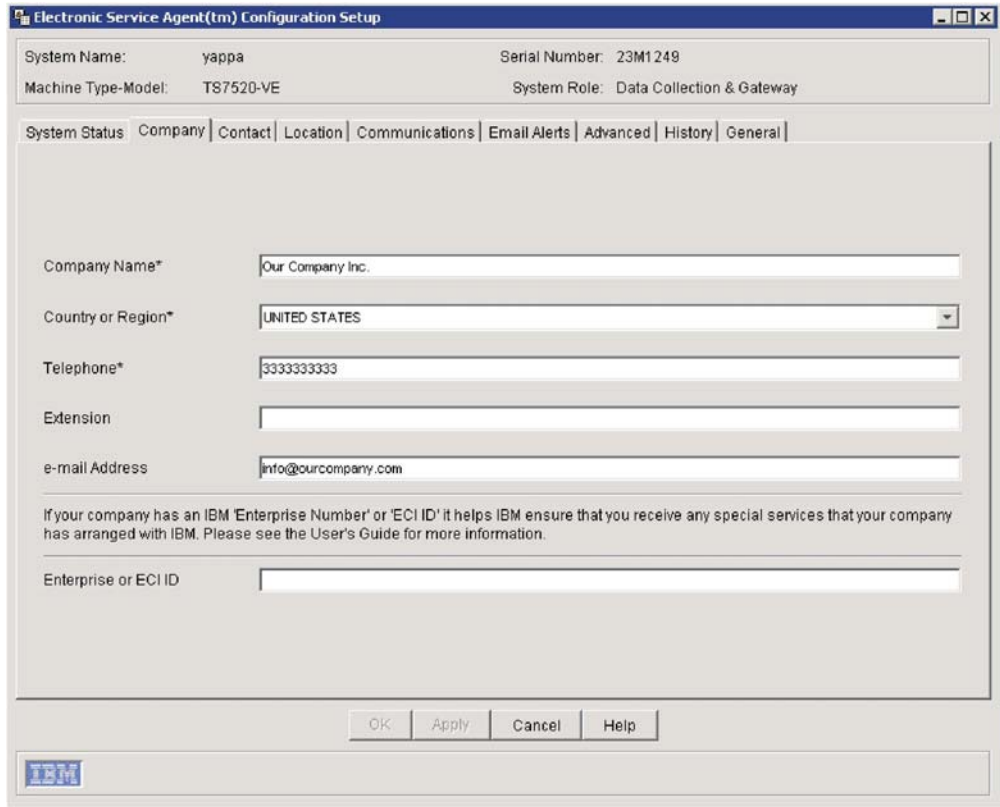


Figure 6. Company Panel

4. Click the **Contact** tab in the tabbed panel section. See Appendix B, “Understanding Electronic Service Agent Manager,” on page 19 for more information.

**Note:** Having accurate contact information is fundamental for IBM’s service delivery.

5. Fill in all fields completely marked by \* with the contact information



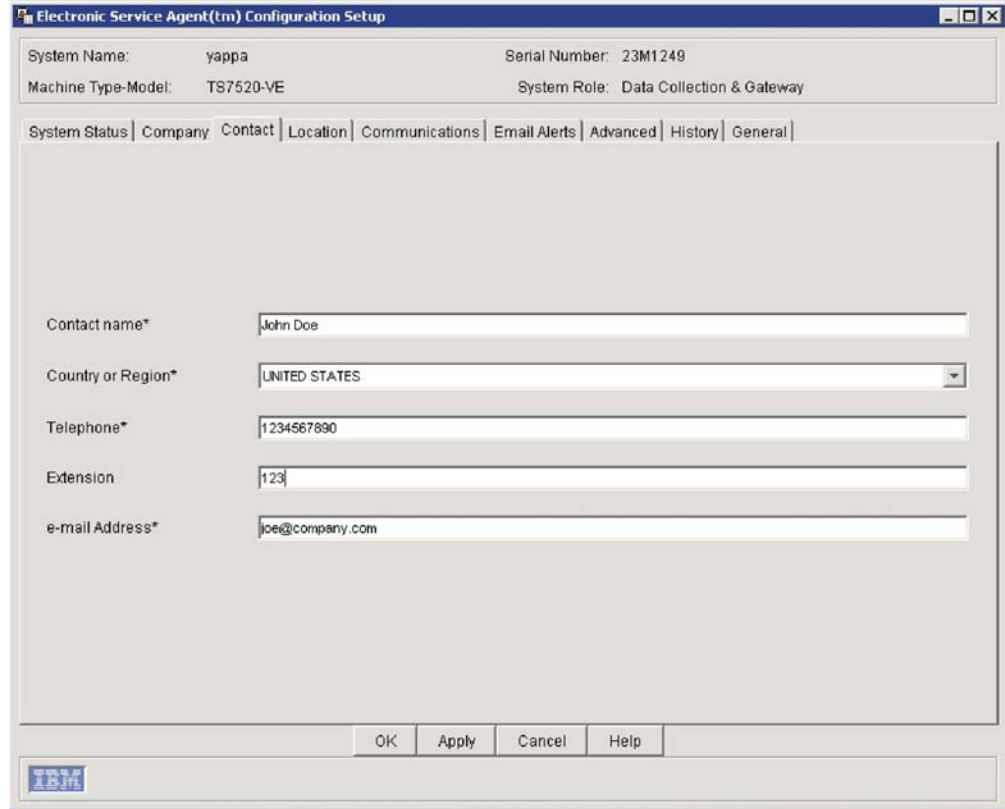


Figure 7. Contact Panel

6. Click the **Location** tab in the tabbed panel section. See Appendix B, “Understanding Electronic Service Agent Manager,” on page 19 for more information.

**Note:** This is not the mailing address. It is the physical location of the machine used by IBM to dispatch a field service representative to the appropriate site.

7. Fill in all fields completely marked by \* with the location information.

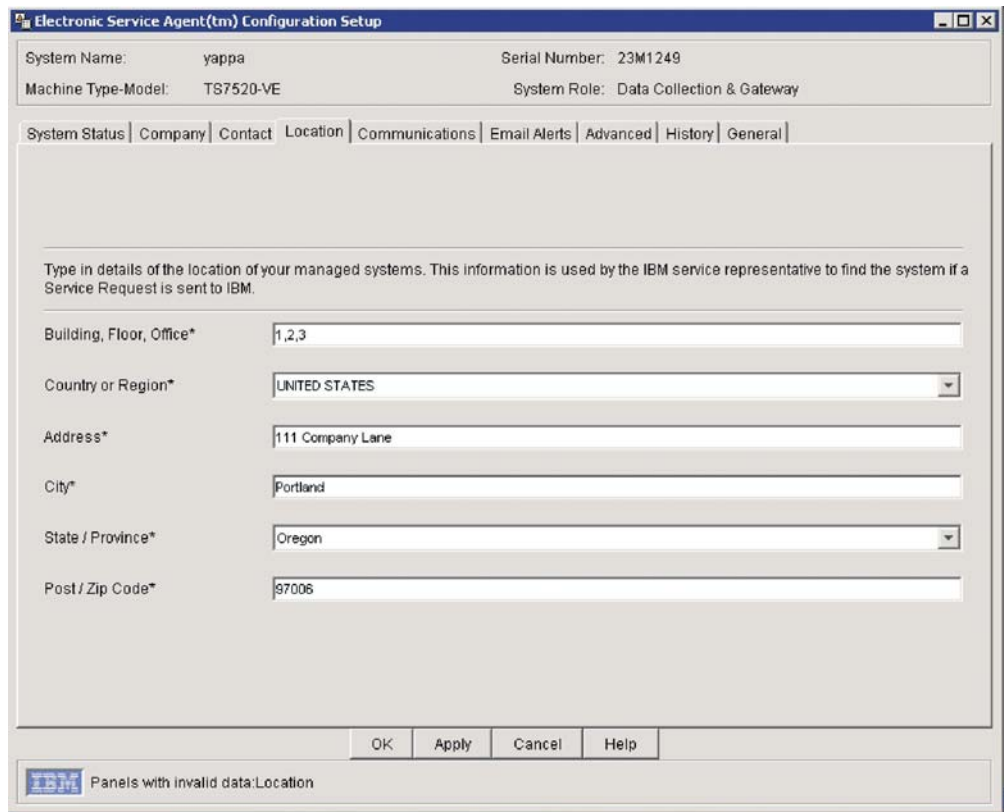


Figure 8. Location Panel

8. Click the **Communications** tab in the tabbed panel section.

**Note:** See Appendix B, “Understanding Electronic Service Agent Manager,” on page 19 for more information.

9. Click the **Test Connection** button on the **Communications** tab to ensure the system can communicate over the Internet to IBM. If the connection is not successful, the Internet connection must be properly configured for Call Home to report to IBM Support. Contact the Network Administrator to verify that the Call Home Gateway server has a valid connection to the Internet.
10. Click **Apply**.
11. Click **Finish** or **OK** to save.

**Note:** The remaining tabs are not supported by this implementation of Call Home. Do not fill out the remaining tabs.

12. Go to the **System Status** tab. Click the **Start eSA** button to start the Electronic Service Agent server.

---

## Chapter 5. Installing Call Home on the 3954 CV6 server

Before beginning, ensure that all the prerequisite requirements from Chapter 2, “Call Home Requirements,” on page 3 are met.

This chapter describes how to install Call Home on the 3954 CV6 server. Start with Step 1 below if the software level is CVT2.2. Skip Step 1 and start with Step 2 if the software level is CVT2.0. To check the version of the 3954 CV6 server software, refer to Appendix E, “Checking the Virtualization Engine Software Level,” on page 41.

1. Install Call Home on each 3954 CV6 server using the *TS7520 Call Home Patch Disk* CD-ROM by completing the following steps:
  - a. Insert the *TS7520 Call Home Patch Disk* into the CD-ROM drive on the 3954 CV6 server.
  - b. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions about how to install PuTTY on the VE Console, see Appendix A, “Logging into the server,” on page 17.
  - c. On the command line, enter the command `mount /dev/hda /media/cdrom` to mount the CD-ROM.
  - d. Enter the command `cd /media/cdrom/CVT2.2` to go to the **CVT2.2** directory.
  - e. Enter the command `./update_call_home` to update Call Home.
  - f. When the Call Home update is finished, enter the command `umount /dev/hda` to unmount the CD-ROM.
  - g. Remove the *TS7520 Call Home Patch Disk* from the CD-ROM drive on the 3954 CV6 server and repeat the steps above for each 3954 CV6 server.
2. Install Call Home on each 3954 CV6 server and update the 3954 CV6 server software to CVT2.2 using the *TS7520 Software Upgrade Disk* CD-ROM by completing the following steps:
  - a. Insert the *TS7520 Software Upgrade Disk* into the CD-ROM drive on the TS7520 Virtualization Engine server.
  - b. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, “Logging into the server,” on page 17.
  - c. On the command line, enter the command `mount /dev/hda /media/cdrom` to mount the CD-ROM.
  - d. Enter the command `cd /media/cdrom/Software_upgCVT2.2` to go to the **Software\_upgCVT2.2** directory.
  - e. Enter the command `./upgCVT2.2` to install Call Home and update the 3954 CV6 server software. The system might be restarted during the update.
  - f. When the 3954 CV6 server software update is finished, enter the command `umount /dev/hda` to unmount the CD-ROM.
  - g. Remove the *TS7520 Software Upgrade Disk* from the CD-ROM drive on the 3954 CV6 server and repeat the steps above for each 3954 CV6 server.
3. Once Call Home is installed on each 3954 CV6 server, update each 3954 CV6 server with the latest Call Home patch by performing the following steps:

- a. Insert the *TS7520 Call Home Patch Disk* or the *TS7520 Software Upgrade Disk* into the CD-ROM drive on the VE Console workstation.
- b. Start the TS7500 Virtualization Engine management console (VE console) by performing one of the following:
  - If there is a desktop shortcut for the VE for Tape Console application, double-click it.
  - If there is not a desktop shortcut for the VE for Tape Console application, click **Start > Programs > IBM > VE for Tape > VE for Tape Console**.

**Note:** This is the default installation location for the VE for Tape Console application. The location of the application might differ on your system.

- c. Double click on the preferred VE for Tape Server. The user is **vetapeservice** and the password is **service4u**.
  - d. Apply the patch by completing the following steps.
    - 1) In the VE console main menu bar, select **Tools > Add Patch**.
    - 2) In the **Add Patch to VE for Tape Server** window, click **OK**.
    - 3) In the **Select Patch File** window, navigate to the CD-ROM drive, double click the **Retain\_Patch** directory and select the patch file **update-ve138208**.
    - 4) Click **Open**.
    - 5) In the confirmation window, type **yes** in the **Type YES to confirm** field and click **OK**.
    - 6) Repeat these steps on each TS7520 Virtualization Engine server with Call Home.
4. Verify Electronic Service Agent Enrollment with the Call Home Gateway server by completing the following steps: The average enrollment time is less than 5 minutes, but can take up to 30 minutes.
    - a. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, "Logging into the server," on page 17.
    - b. On the command line, go to the **Properties** directory by entering the command `cd /home/esadmin/ServiceAgent/esa/data/properties`.
    - c. View the document **MpsaSystemInfo.properties** by entering the command `cat MpsaSystemInfo.properties`.  
The `drSystemId` and `mpsaBuild` properties should have values other than `UninitializedAndRequired` next to them.
  5. Verify that Electronic Service Agent is working after enrollment by performing the following steps:
    - a. On the command line, go to the Call Home directory by entering the command `cd /home/esadmin/ServiceAgent/esa/bin`.
    - b. Enter the command `./testEsaEvent` on the command line.
    - c. Enter a number from 1–25 for the event type.

eSA TEST EVENT GENERATOR

```
1)  IBMPSG_FanEvent                2)  IBMPSG_TemperatureEvent
3)  IBMPSG_VoltageEvent           4)  IBMPSG_PowerSupplyEvent
5)  IBMPSG_SP_PowerSupplyEvent    6)  IBMPSG_ProcessorPFEvent
7)  IBMPSG_MemoryPFEvent         8)  IBMPSG_DASDBackPlaneEvent
9)  IBMPSG_GenericFanEvent       10) IBMPSG_GenericVoltageEvent
11) IBMPSG_PFAEvent              12) IBMPSG_StorageEvent
13) IBMPSG_SMARTEvent           14) IBMPSG_ServeRAIDControllerFail
15) IBMPSG_ServeRAIDLogicalDriveCritical
16) IBMPSG_ServeRAIDDefunctDriveFRU
17) IBMPSG_ServeRAIDRebuildFail   18) IBMPSG_ServeRAIDSyncFail
19) IBMPSG_ServeRAIDDefunctDrive  20) IBMPSG_ServeRAIDPFADrive
21) IBMPSG_ServeRAIDEnclosureFail 22) IBMPSG_ServeRAIDEnclosureFanFail
23) IBMPSG_ServeRAIDEnclosureTempFail
24) IBMPSG_ServeRAIDEnclosurePowerSupplyFail
25) EsaTestEvent
```

Select an event (1-25) or type CTRL+C to exit : █

Figure 9. eSA Test Event Types

- d. The expected results should be as follows:  
Sending IBMPSG\_FanEvent test event ...  
Testing ESA CIMOM components ...  
ESA CIMOM TEST SUCCESSFUL  
SUCCESS  
Press Enter to continue, CTRL+C to exit
- e. If there is a failure, Electronic Service Agent may not be enrolled or requires restarting. Restart the Electronic Service Agent by completing the following steps:
  - 1) Enter the command `./esa_stop.sh` and wait for one minute.
  - 2) Enter the command `./esa_start.sh` to start the Electronic Service Agent again.
- f. To verify the event was reported, start the Call Home Gateway management program from the VE Console workstation by selecting **Start > Programs > Electronic Service Agent > esaManager**.
- g. Select the **History** tab, then select the **Event Log** tab.
- h. Verify that the test event sent appears in the Event Log and the PMR list.
6. If the VE server node does not enroll after a long period of time, complete the following steps to point the TS7520 VE server to the Gateway system:
  - a. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, "Logging into the server," on page 17.
  - b. Go to the Electronic Service Agent **Properties** directory by entering the command `cd /home/esadmin/ServiceAgent/esa/data/properties` on the command line.
  - c. Edit the Electronic Service Agent properties file by entering the command `vi SaComm.sections` on the command line.
  - d. Change the line `"dfSystem = discover"` to `"dfSystem = gateway_ip:19955"` where **gateway\_ip** is the IP address of the Call Home Gateway server.
    - 1) To enter a command in **vi**, press the `":"` key.

- 2) Type the following command at the ":" command line:  
s/dfSystem = discover/dfSystem = **gateway\_ip**:19955/  
where **gateway\_ip** is the IP address of the Call Home Gateway server.
  - 3) Press the ":" key again.
  - 4) Enter the following command at the ":" command line:  
wq
  - 5) The document is saved and **vi** is exited.
- e. On the command line, go to the Electronic Service Agent **etc** directory by entering the command `cd /home/esadmin/ServiceAgent/etc`.
  - f. Enter the command `./esa_stop.sh` and wait for one minute.
  - g. Enter the command `./esa_start.sh`.
  - h. Follow the steps above in 5 on page 14 to check enrollment.
7. If further errors are encountered, verify that all the requirements and configurations listed in Chapter 2, "Call Home Requirements," on page 3 are met. If all the requirements are met, contact the IBM Support Center for further assistance.

---

## Appendix A. Logging into the server

Install PuTTY on the VE Console by performing the following steps:

1. Locate and insert the *Virtualization Engine TS7520 Base Firmware Disk* into the CD-ROM drive of the VE Console workstation.

**Note:** Start Windows Explorer if it does not automatically start and navigate to **x: Tools**, where x is the letter of the CD-ROM drive.

2. Click the **TOOLS** folder.
3. Click the **PuTTY** folder.
4. Click the **INSTALLER** folder.
5. Click the **PuTTY – 0.58-Installer** file.
6. At the PuTTY Wizard, click **Next**.
7. Click **Next**.
8. Click **Next**.
9. Click **Install**.
10. Click **Finish**.
11. Close the Read Me Window.
12. Remove the *TS7520 Virtualization Engine Base Firmware Disk* from the CD-ROM drive of the workstation and close the drive.

Log into the 3954 CV6 server using PuTTY by performing the following steps:

1. Log in to PuTTY by selecting **Start > Programs > PuTTY -> PuTTY**.
2. Type the IP address of the TS7520 Virtualization Engine server in the **Host Name** (or **IP address**) text box in the right pane and select **OK**.
3. Log in with the user name **vetapeservice** and the password **veservice4u**.





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## Appendix B. Understanding Electronic Service Agent Manager

This section is intended to provide the user knowledge of the Electronic Service Agent Manager windows.

**Note:** Some tabs and functions are pre-configured and cannot be changed. These fields have been disabled.

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### Electronic Service Agent Manager Interface

Before beginning to use the Electronic Service Agent Manager, review the layout of its interface.

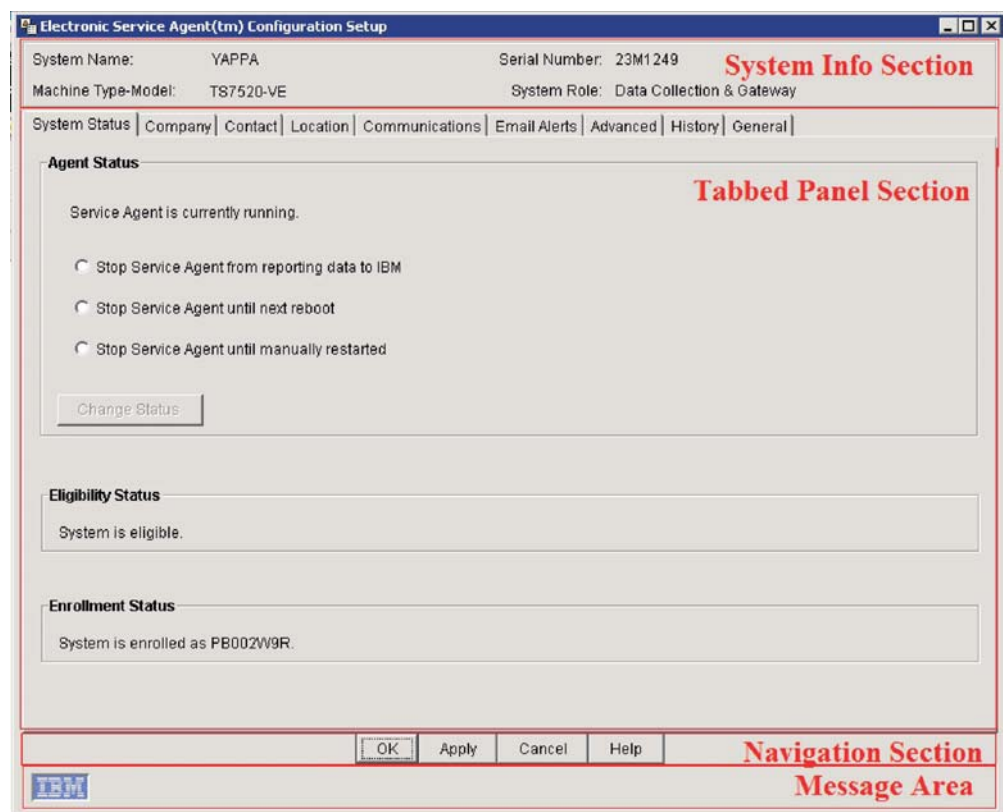


Figure 10. Layout of Electronic Service Agent Manager

The interface has four sections:

- The **System Info Section**, at the top of the window, displays the following information about the managed system:
  - *System name* is the name sent to IBM as the "Customer name" for the system
  - *Machine Type-Model* is the machine type and model number as transmitted by Service Agent.
  - *Serial Number* is the machine serial number as transmitted by Service Agent.
  - *Role* indicates the role of Electronic Service Agent for the managed system either Data Collection or Gateway.

**Note:** The **Machine Type-Model** and **Serial Number** reflected in this section apply only to the Call Home Gateway server. They do not accurately reflect the information sent to IBM Support for each managed node. The accurate Machine Type-Model is 3954; this should be used when calling the IBM Support Center for help with the Call Home Gateway server system.

- The **Tabbed Panel Section** contains *tabs* that represent the various configuration panels available through the application.
- The **Navigation Section** contains buttons that correspond to a given configuration panel. Two different sets of navigation buttons are presented depending on whether Electronic Service Agent is being configured for the first time (setup) or has previously been configured. (See “Navigating Electronic Service Agent Manager”)
- The **Message Area** is used for displaying messages generated by the application.

---

## Navigating Electronic Service Agent Manager

There are nine main configuration tabs presented by the Electronic Service Agent Manager:

- **System Status** reports the current status of Service Agent and lets you start and stop it.
- **Company** contains information about your company.
- **Contact** contains contact detail about the person who is responsible for this system.
- **Location** describes where the managed system is located.
- **Communications** contains information about the network setup.
- **Email Alerts** allows you to configure e-mail notifications for hardware failures.
- **Advanced** lets you define who is authorized to view the data sent to IBM.
- **History** provides historical details of significant system events.
- **General** shows system details, “about” information, and legal notices.

When a tab is clicked, the corresponding configuration information is displayed along with the appropriate set of navigation buttons. There are two different sets of navigation buttons possible depending on whether Electronic Service Agent is being configured for the first time (setup buttons) or as already been configured for your managed system (operational buttons).

- *Setup Navigation buttons* are presented when Electronic Service Agent is being configured for the first time, when the status of Electronic Service Agent is “not configured” (See System Status Tab).

The Setup Navigation buttons use the *Back/Next/Finish* approach found on many installation wizards. They are intended to guide you through initial setup and provide immediate feedback when configuration is complete.

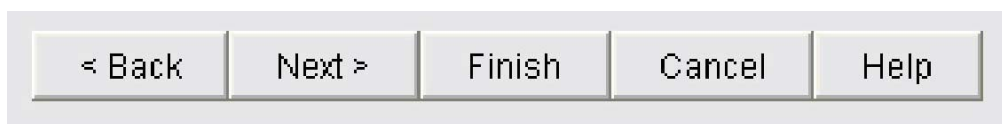


Figure 11. *Back/Next/Finish* approach

Click:

- **Back** to return to the previous configuration panel.
- **Next** to proceed to the next configuration panel.

- **Finish** to save all changes and remain on the current panel. The Finish button will only be enabled when all required setup information has been provided.
- **Cancel** to cancel all changes and exit the application.
- *Operational Navigation buttons* are presented once the Electronic Service Agent has been set up.



Figure 12. Operational Navigation buttons

Click:

- **OK** to save changes and exit the application. (You don't have to click Apply before clicking OK.)
- **Apply** to save your changes and remain on the current panel.
- **Cancel** to cancel changes and exit the application.

## The System Status Panel

The *System Status* tab displays the current status of Electronic Service Agent and provides a method to start or stop Electronic Service Agent.

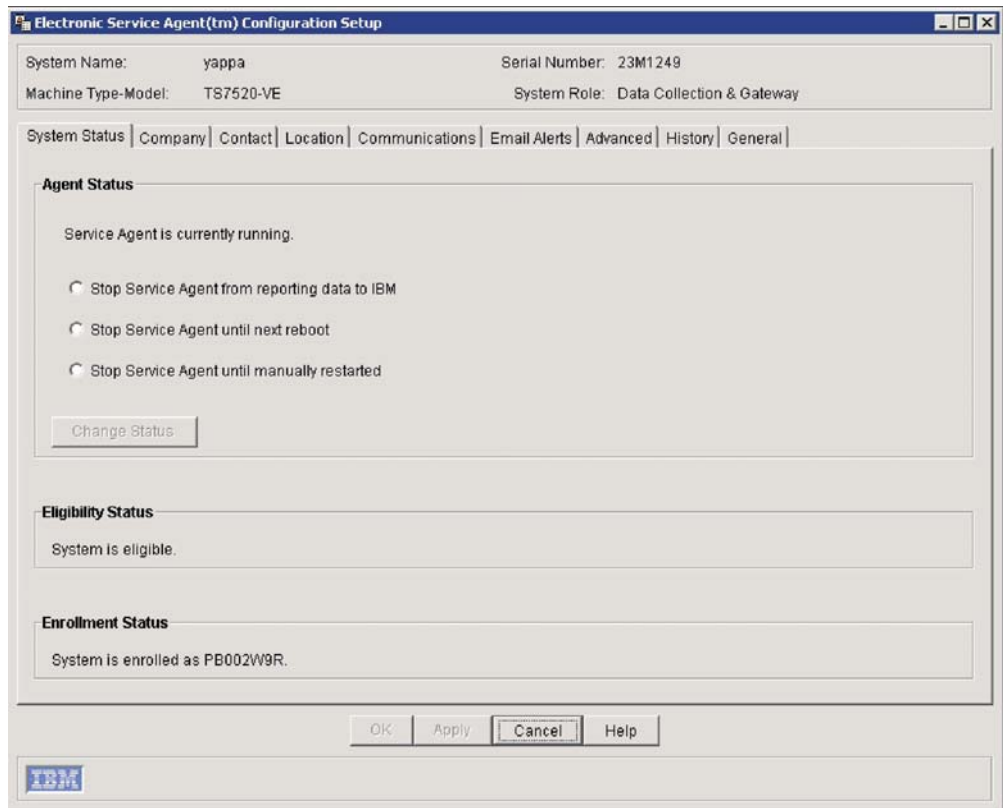


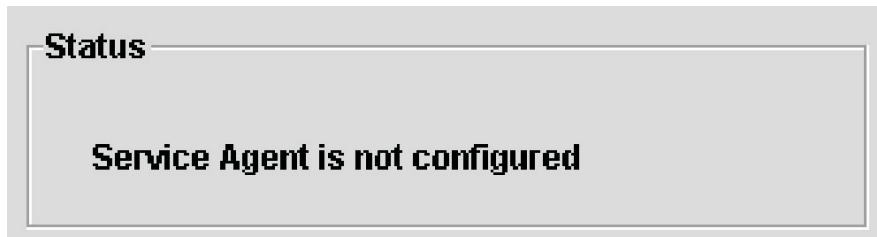
Figure 13. System Status Panel

The following information is displayed:

- **Agent Status** displays the current operational status of the Electronic Service Agent (see “Agent Status Messages” below for details.)
- **Eligibility Status** displays system eligibility status. If system is not eligible you cannot use Service Agent
- **Enrollment Status** displays the current enrollment status of the Electronic Service Agent with the external Service Data Receiver (SDR). Statuses are either “System is enrolled as xxxxxx” or “System has not yet been enrolled.”

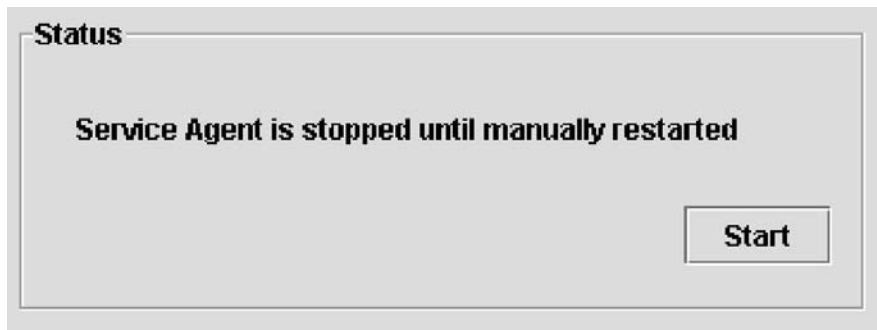
**Agent Status Messages** - The Agent Status field displays one of the following messages:

- **Service Agent is not configured:** This is the initial status before you have completed configuration.



*Figure 14. Service Agent is not configured*

- **Service Agent is stopped until manually restarted:** You can elect to start Electronic Service Agent by clicking the Start button, or you can wait until the next reboot.



*Figure 15. Service Agent is stopped until manually restarted*

- **Service Agent is stopped until the next reboot:** You can click Start or wait until the next reboot.

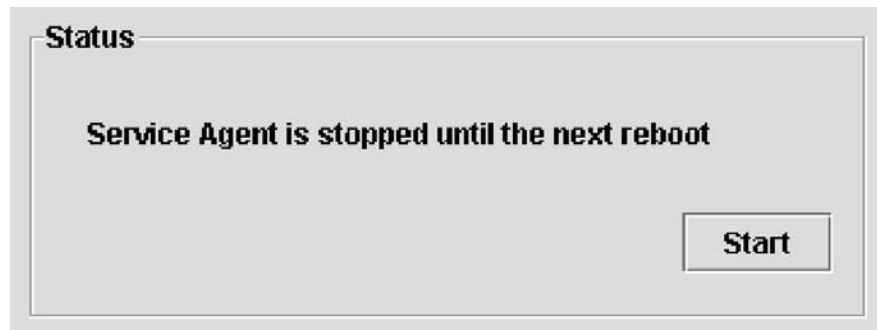


Figure 16. Service Agent is stopped until the next reboot

- Service Agent is running but NOT reporting data to IBM.

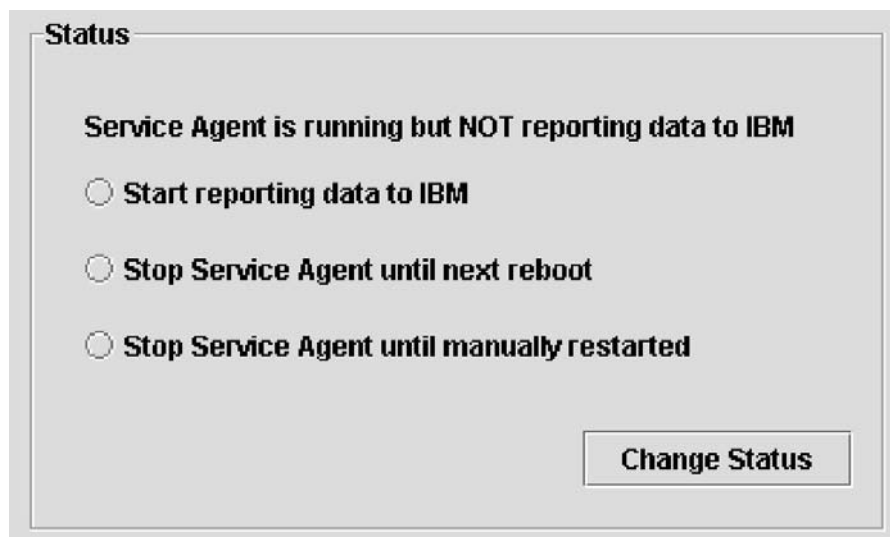


Figure 17. Service Agent is running but NOT reporting data to IBM

Select one of the options below and then click **Change Status**:

- Start reporting data to IBM.
- Stop Electronic Service Agent until next reboot.
- Stop Electronic Service Agent until manually restarted.

Click **Stop** to change the Service Agent status to Stopped. You can select one of the following options:

- Stop reporting data to IBM.
- Stop Electronic Service Agent until next reboot.
- Stop Electronic Service Agent until manually restarted.

If you make changes, click **Apply** or **Finish** to save them and remain on the panel. Or click **OK** to save changes and exit.

---

## The Company Panel

The Company panel gives text fields to enter company information.

**Note:** All fields marked by \* must be filled out completely.

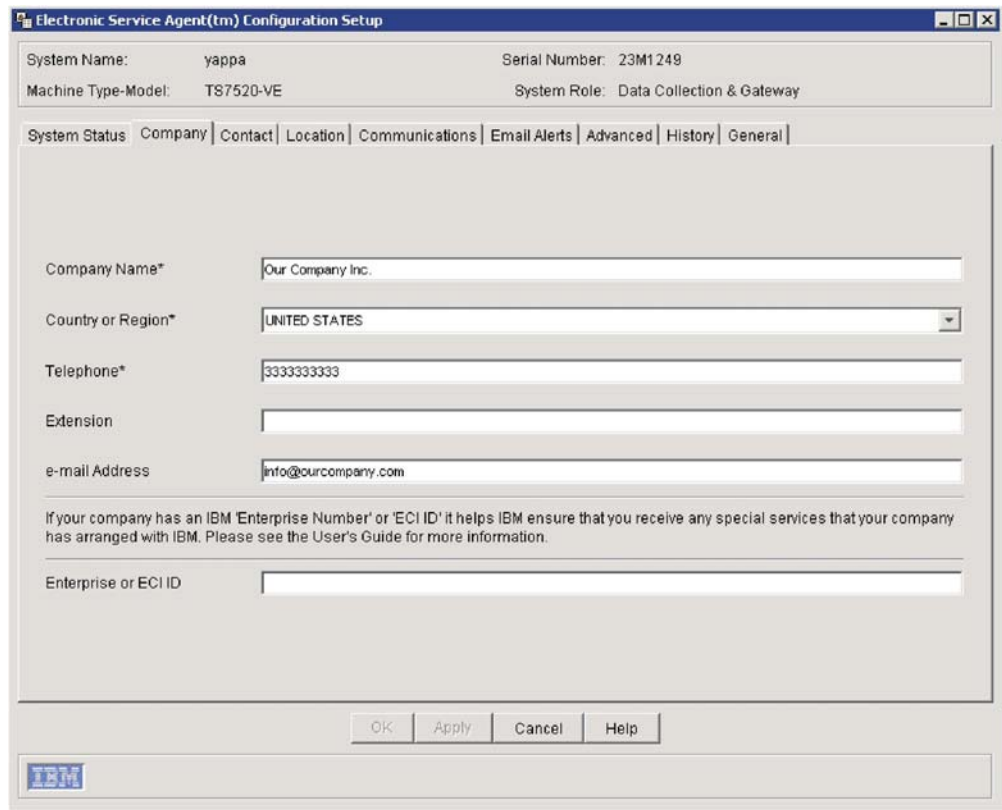


Figure 18. Company Panel

Fill in the fields and click **Apply**, **Finish** or **Next** to remain in the application or **OK** to save and exit:

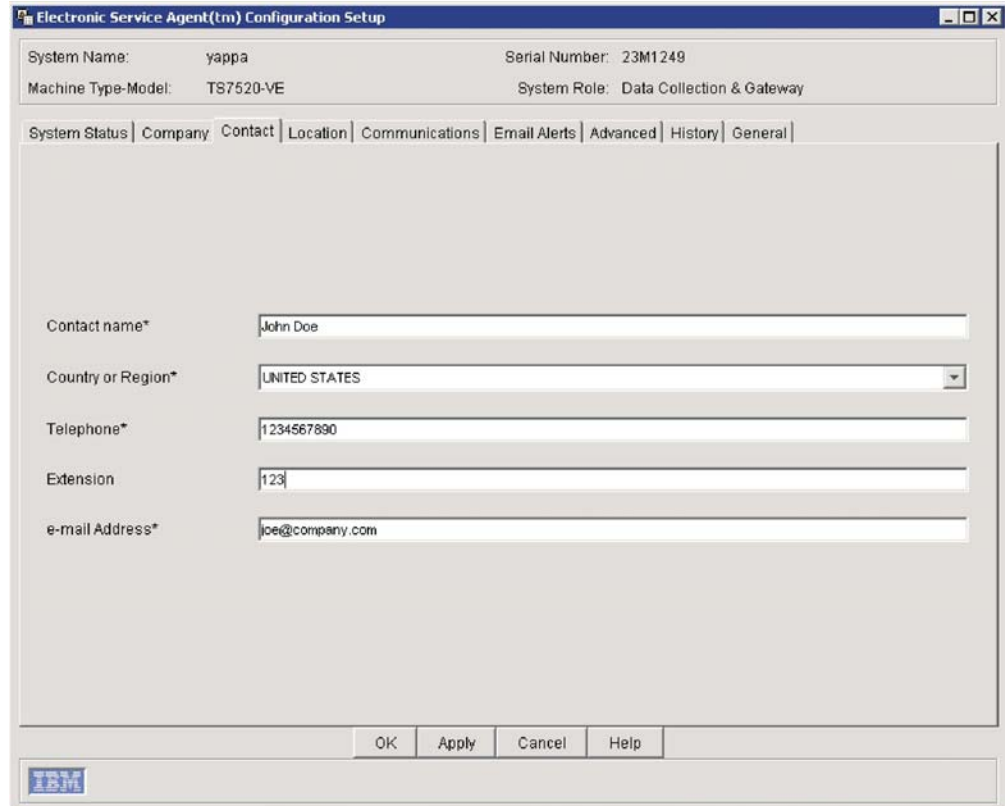
- **Company:** free-form text field, restricted to 30 characters
- **Country or Region:** select from pull-down menu
- **Telephone:** telephone number (restricted to 10 digits in the US or Canada, beginning with area code; 30 characters in other countries), no parentheses, hyphens, or spaces
- **Extension:** displayed only in the US and Canada; restricted to 4 digits
- **e-mail:** your company's Internet address, such as abc@abc.com.
- **Enterprise or ECI ID:** enter one of these:
  - Your IBM-assigned Enterprise number. An Enterprise is a grouping of customer numbers.
  - Your Electronic Customer Interface (ECI) ID. These numbers are used to identify customers and their associated service agreement terms, so entering this will help IBM ensure that you receive any special services that your company has arranged with IBM. Your purchasing team may be able to provide an ECI ID.

**Note:** An ECI ID is also known as ESC+ ID or ECCOID.

## The Contact Panel

Having accurate contact information is fundamental for IBM's service delivery. The Contact panel allows you to change the contact details of the person within your company who will act as a point of contact. IBM will contact this person during the process of resolving your managed systems' hardware problems.

**Note:** All fields marked by \* must be filled out completely.



The screenshot shows the 'Electronic Service Agent(tm) Configuration Setup' dialog box with the 'Contact' tab selected. The dialog box has a title bar with standard window controls. Below the title bar, there are two rows of system information: 'System Name: yappa' and 'Serial Number: 23M1249' in the first row; 'Machine Type-Model: T87520-VE' and 'System Role: Data Collection & Gateway' in the second row. Below this is a tabbed interface with tabs for 'System Status', 'Company', 'Contact', 'Location', 'Communications', 'Email Alerts', 'Advanced', 'History', and 'General'. The 'Contact' tab is active, showing five input fields: 'Contact name\*' with the value 'John Doe', 'Country or Region\*' with a dropdown menu showing 'UNITED STATES', 'Telephone\*' with the value '1234567890', 'Extension' with the value '123', and 'e-mail Address\*' with the value 'joe@company.com'. At the bottom of the dialog box are four buttons: 'OK', 'Apply', 'Cancel', and 'Help'. A small IBM logo is visible in the bottom-left corner of the dialog box.

Figure 19. Contact Panel

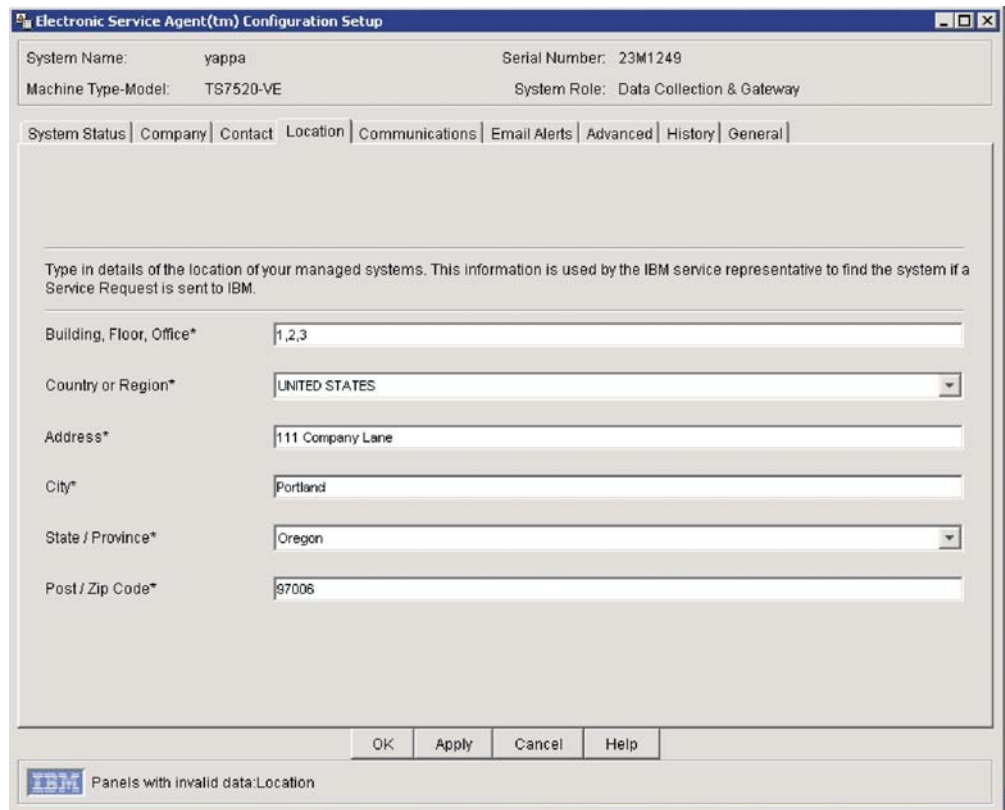
Fill in the fields and click **Apply**, **Finish** or **Next** to remain in the application or **OK** to save and exit:

- **Contact name** is the name or job title of the contact person. This field accepts English or Latin characters only and is restricted to 22 characters.
- **Country or Region** in which the contact person resides. Select from pull-down menu.
- **Telephone number** (restricted to 10 digits in the US or Canada, beginning with area code; 30 characters in other countries), no parentheses, hyphens, or spaces
- **Telephone number Extension** of the contact person. This field is displayed only for contacts residing in the US and Canada and is restricted to 4 decimal digits.
- **E-mail Address** of the contact person, such as janedoe@abc.com

## The Location Panel

The Location panel allows you to change information about the location of the managed system. **This is not the mailing address.** It is the physical location of the machine used by IBM to dispatch a field service representative to the appropriate site.

**Note:** All fields marked by \* must be filled out completely.



The screenshot shows the 'Electronic Service Agent(tm) Configuration Setup' dialog box with the 'Location' tab selected. The dialog box has a title bar with standard window controls. Below the title bar, there are two rows of information: 'System Name: yappa' and 'Serial Number: 23M1249' in the first row; 'Machine Type-Model: TS7520-VE' and 'System Role: Data Collection & Gateway' in the second row. Below this is a tabbed interface with tabs for 'System Status', 'Company', 'Contact', 'Location', 'Communications', 'Email Alerts', 'Advanced', 'History', and 'General'. The 'Location' tab is active. Below the tabs is a text area with the instruction: 'Type in details of the location of your managed systems. This information is used by the IBM service representative to find the system if a Service Request is sent to IBM.' Below this are six input fields, each with an asterisk indicating it is required: 'Building, Floor, Office\*' with the value '1,2,3'; 'Country or Region\*' with a pull-down menu showing 'UNITED STATES'; 'Address\*' with the value '111 Company Lane'; 'City\*' with the value 'Portland'; 'State / Province\*' with a pull-down menu showing 'Oregon'; and 'Post / Zip Code\*' with the value '97006'. At the bottom of the dialog box are four buttons: 'OK', 'Apply', 'Cancel', and 'Help'. Below the dialog box is a status bar with the IBM logo and the text 'Panels with invalid data:Location'.

Figure 20. Location Panel

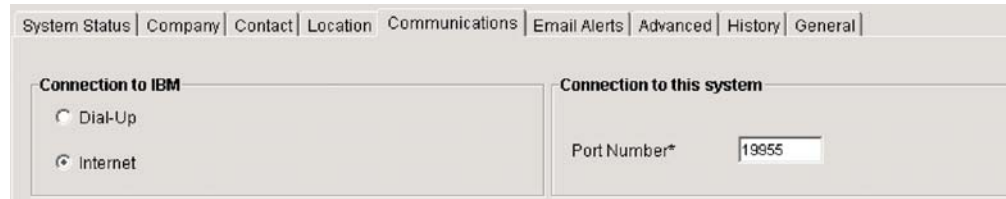
Fill in the fields and click **Apply**, **Finish** or **Next** to remain in the application or **OK** to save and exit:

- **Building, Floor, Office** is the location (within your company premises) of your managed system. This field accepts free-form text and is restricted to 22 characters.
- **Country or Region** in which your managed system resides. Select from pull-down menu.
- **Street Address** details of your managed system. This field accepts free-form text and is restricted to 30 characters.
- **City** in which your managed system resides. This field accepts free-form text and is restricted to 30 characters.
- **State/Province** in which your managed system resides. Select from pull-down menu if one exists for the country or region selected above.
- **Post/Zip Code** appropriate for you managed system. This field accepts free-form text and is restricted to 10 characters.



## The Communications Panel

The Communications panel configures the channel through which the Gateway should communicate with IBM. The Gateway can communicate with IBM either via dial-up modem or the Internet.



The screenshot shows a web interface with a navigation bar at the top containing tabs: System Status, Company, Contact, Location, Communications (selected), Email Alerts, Advanced, History, and General. Below the navigation bar, there are two main sections. The left section is titled "Connection to IBM" and contains two radio button options: "Dial-Up" (unselected) and "Internet" (selected). The right section is titled "Connection to this system" and contains a label "Port Number\*" followed by a text input field containing the value "19955".

Figure 21. Communications Panel

- **Connection to IBM** allows you to select the means by which this Gateway will communication with IBM. For this release, Internet is the only option.
- **Connection to this system** specifies how Data Collectors can communicate with this Gateway.
  - **Port Number** identifies which port this Gateway will use to receive messages. If you have software using port 19955, you will want to change this to an unused port. All port numbers are a decimal number up to 65535.

Before you start, you must determine whether your system can directly connect to the Internet or whether it needs to connect via a proxy server. If a proxy server is required, you will need its *dotted decimal address or fully qualified domain name*. Also, if the proxy server requires authentication, you will need a Gateway user ID and password to connect to the Internet. Your network administrator should be able to supply this information for you.

To configure Electronic Service Agent for Internet connection to IBM, complete the following:

1. Select Internet as your connection to IBM. You see a panel asking for Internet connection details.
2. Select one of these options:
  - If your system can directly connect to the Internet, leave Use HTTP proxy unchecked. All other fields will be disabled.
  - If your system connects to the Internet via a proxy server, check Use HTTP proxy. Then fill in the fields:
    - **Proxy Address** is either the dotted decimal or fully qualified domain name of the proxy server. This field accepts free-form text and is restricted to 256 characters. No validation is performed.
    - **Port Number** identifies which port the proxy server uses to accepts messages. All port numbers are a decimal number up to 65535.
    - If the proxy server is password protected, check Authentication. Then fill in the fields:
      - **User Name** is the authorized user ID for the server. This field accepts free-form text and is restricted to 20 characters.
      - **Password** is the password for the user ID. This field accepts free-form text and is restricted to 20 characters.
      - **Confirm Password** is the password repeated.

3. Click **Test Internet Connection** to test your changes. This will resolve the proxy address, contact the proxy server, resolve the IBM address, and establish a secure connection to IBM. You see a progress box that gives you the option to Cancel.

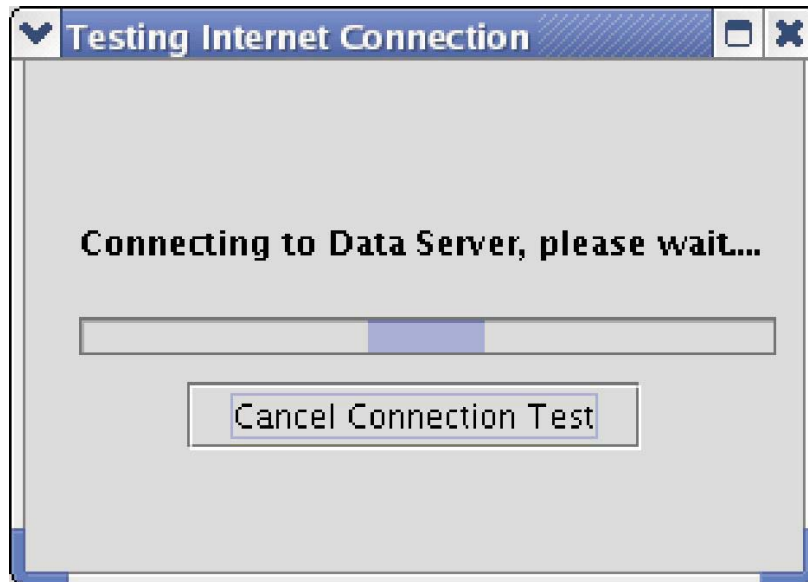


Figure 22. Test Internet Connection

4. If you are changing settings that are working and the test fails, click **Cancel Connection Test**. This confirmation is displayed:



Figure 23. Cancel Connection Test

The existing setting remain unchanged. (Be sure that you have clicked **Apply** or **Finish** to save changes to other panels. If you haven't, your changes will be lost.)

5. Click **OK**.

---

## The History Panel

The History panel provides the historical details of significant system events. These include enrollment history, inventory history, and Problem Management Report (PMR) and hardware alert history. The date/time shows inventory not sent when enrolled.

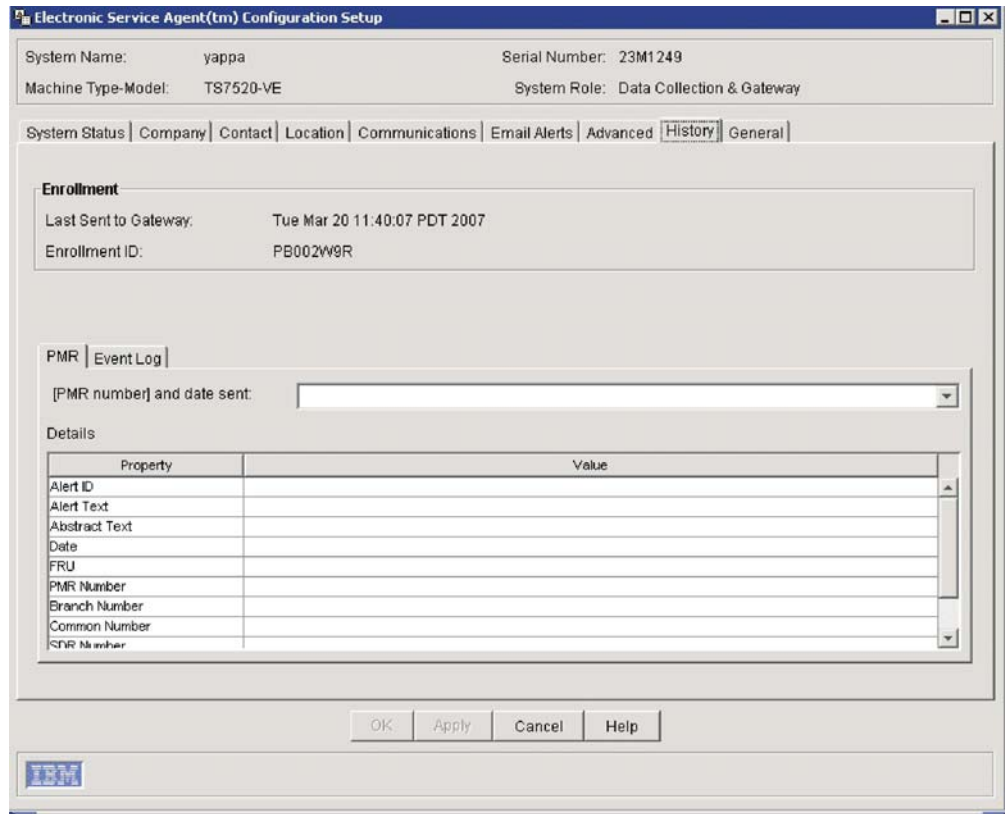


Figure 24. History Panel

Fill in the fields and click **Apply**, **Finish** or **Next** to remain in the application or **OK** to save and exit:

- **Enrollment** displays historical information concerning enrollment of the managed system.
  - Last Sent to Gateway is the locale-sensitive timestamp of when the enrollment status was sent to the Service Data Receiver (SDR), the facility on the IBM server that receives messages from Electronic Service Agent.
  - **Enrollment ID** is the ID with which the Service Agent has been enrolled with IBM.
- **PMR** displays historical information associated with Problem Management Records
  - **PMR Number and date created** shows the identifying number returned from the SDR for the currently selected PMR and the date when the PMR was created. Give this number to the IBM Support Representative when calling IBM about the problem.
 

If the transaction times out, you will see this message:PMR Number not available because transaction has timed out. Use SDR number nnnnnnnn. Give this number to the Support Representative instead of the PMR number.
  - **Details** of the currently selected PMR.
- **Event Log** displays hardware alerts that have been detected.
  - **Event type and date generated** shows the identifying alert type string and the date when an alert was detected by Service Agent.
  - **Details** of the currently selected Alert.

---

## Starting the Electronic Service Agent Gateway

After configuration is complete, you must start the Gateway.

The following describes the steps for starting the Gateway:

1. When configuration is complete, click **Apply** or **Finish**. In the Message area, you see the message that Service Agent is configured but not running.
2. Click the **System Status** tab. You see the System Status of “Configured but NOT Running.”
3. Click the **Start** button. Notice the Enrollment Status of “System has not yet been enrolled.”
4. Click **OK** to exit the electronic service agent manager.
5. Wait 10 to 15 minutes. Then access the Electronic Service Agent Manager again to verify the enrollment status has changed. If status has not changed, call IBM for help.

---

## Closing the Electronic Service Agent Gateway

To close the Electronic Service Agent Manager from any panel:

- Click **OK** to save all changes and exit the application.
- Click **Cancel** to cancel all changes and exit the application.

**Note:** Closing the Electronic Service Agent Manager has no effect on the Service Agent. These are two independently executing processes, so closing one does not affect the other.

When you close the Electronic Service Agent Manager, you’ll be presented with one of five pop-up dialogs, shown below, that tell you the status of the Service Agent. For each dialog, click **OK** to close the application, or click **Cancel** to keep the application open.

- **Running and reporting**

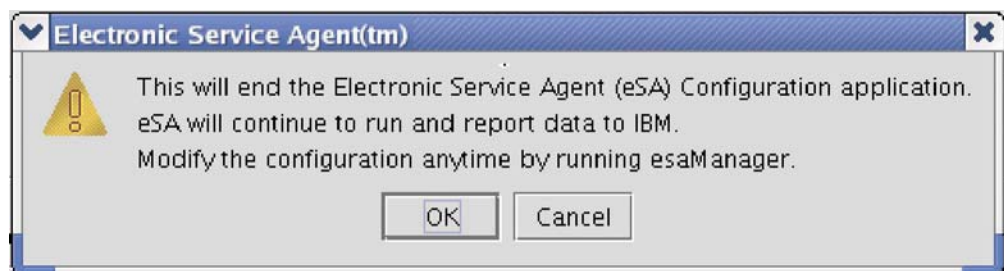


Figure 25. Running and reporting

- **Running but not reporting data**

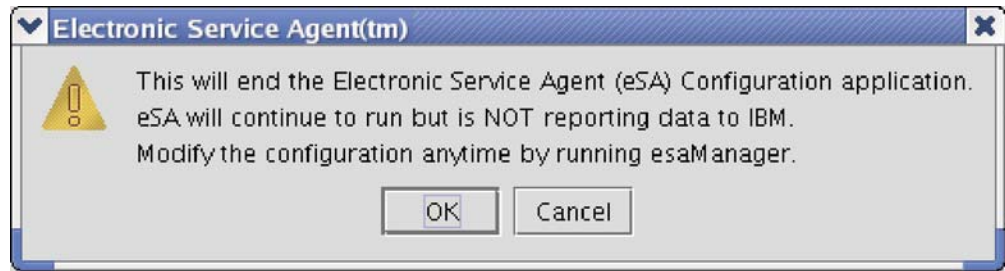


Figure 26. Running but not reporting data

- **Running but not configured**

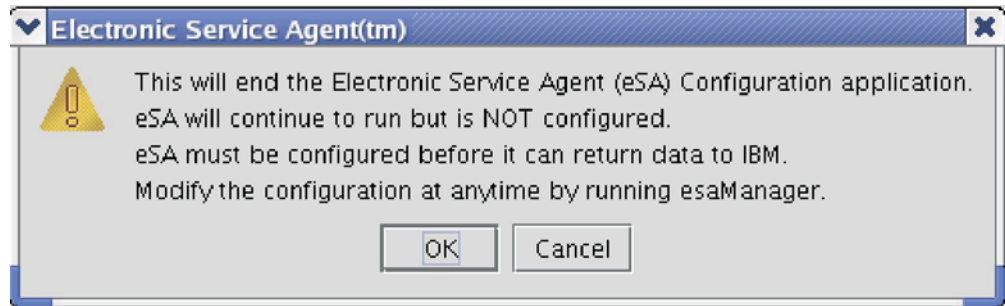


Figure 27. Running but not reporting data

- **Stopped until manually started**

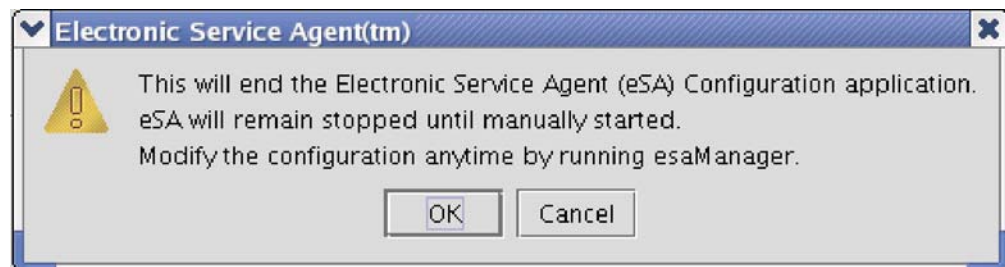


Figure 28. Stopped until manually started

- **Stopped until next reboot**

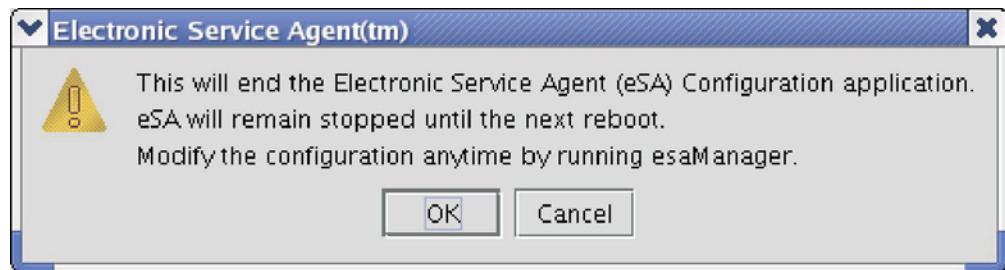


Figure 29. Stopped until next reboot



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## Appendix C. Enabling Fibre Channel Switch Events

### Setting up fibre channel switch events for the SAN32M-2 (2026-432) Fibre Channel Switch

To set up the fibre channel switch events for the SAN32M-2 (2026-432) Fibre Channel Switch, perform the following steps:

1. Log in to the switch configuration program by entering the IP address into the Internet Explorer browser window.
2. Enter the user name **vetapeservice** and the password **service4u**.
3. Select the **Switch Details** button.
4. Go to the SNMP configuration menu by selecting **Configure > SNMP**.
5. Enter the IP address of one VE server node into the **Trap Recipient** text field.
6. Save the configuration and exit Internet Explorer.

### Setting up fibre channel switch events for the SAN32B-3 (2005-B5K) Fibre Channel Switch

To set up the fibre channel switch events for the SAN32B-3 (2005-B5K) Fibre Channel Switch, you need to configure the fibre channel switch on the network and then set up Simple Network Management Protocol (SNMP).

To configure the SAN fibre channel switch on the 3954 CV6 server's network complete the following steps:

1. Using the provided serial cable, connect the VE console workstation or service laptop to the serial port on the switch.
2. Disable any serial communication programs running on the workstation or laptop.
3. Open a terminal emulator application (such as **HyperTerminal** on a PC or **TERM** in a UNIX environment) and configure the application as follows:
  - In a Windows environment, enter the following information:

*Table 2. Windows configuration variables and values to enter*

Variable	Value to enter
Bits per second	9600
Databits	8
Parity	None
Stop bits	1
Flow control	None

- In a Unix environment, type the following command at the prompt:  
`tip /dev/ttyb -9600`
4. Using a serial connection, when the terminal emulator application stops reporting information, press **Enter** to display the login prompt.
  5. Log in using the userid **admin** and the password **service4u**.

To set up SNMP on the switch, complete the following steps:

1. Type the command `snmpconfig --set snmpv1` at the command line.

2. A series of questions will be asked. Answer them as follows:
  - a. For the question **Community (rw): [Secret C0de]** enter the response: **admin**.
  - b. For the question **Trap Recipient's IP address in dot notation: [0.0.0.0]** enter the IP address of a 3954 CV6 server connected to the switch and on the same network.
  - c. For the question **Trap recipient Severity level : (0..5) [0]** enter **2**.
  - d. Press the **Enter** key at all remaining questions to return to the command line.
3. Type the command `snmpconfig --set snmpv3` at the command line.
4. A series of questions will be asked. Answer them as follows:
  - a. For the question **User (rw): [snmpadmin1]** enter the response: **adminuser**.
  - b. For the question **Auth Protocol [MD5(1)/SHA(2)/noAuth(3)]: (1..3) [3]** enter the response: **3**.
  - c. For the question **Priv Protocol [DES(1)/noPriv(2)]: (2..2) [2]** enter the response: **2**.
  - d. For the question **User (rw): [root]** enter the response: **root**.
  - e. For the question **Auth Protocol [MD5(1)/SHA(2)/noAuth(3)]: (1..3) [3]** enter the response: **3**.
  - f. For the question **Priv Protocol [DES(1)/noPriv(2)]: (2..2) [2]** enter the response: **2**.
  - g. Press the **Enter** key for the remaining questions until the question **Trap Recipient's IP address in dot notation: [9.11.218.83]** appears.
  - h. For the question **Trap Recipient's IP address in dot notation: [9.11.218.83]** enter the IP address entered in step 2b above.
  - i. For the question **UserIndex: (1..6) [1]** enter the response: **1**.
  - j. For the question **Trap recipient Severity level : (0..5) [2]** enter the response: **2**.
  - k. Press the **Enter** key at all remaining questions to return to the command line.
5. Type the command `snmpconfig --set accessControl` at the command line.
6. A series of questions will be asked. Answer them as follows:
  - a. For the question **Access host subnet area in dot notation: [0.0.0.0]** enter the IP address of the network subnet. This is the IP address entered in step 2b above with a zero at the end. For example, the IP address **192.168.11.3** would have a network subnet IP address of **192.168.11.0**.
  - b. For the question **Read/Write? (true, t, false, f): [true]** enter the response: **t**.
  - c. Press the **Enter** key at all remaining questions to return to the command line.
7. Log out of the serial console, remove the serial cable, and replace the plug in the serial port.

**Note:** Any time the serial port is not in use, install the protective plug to keep foreign material out of the port.



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## Appendix D. Configuring the Network Environment for Call Home

### Configuring the 3954 CV6 server nodes on a local DNS server

To configure the 3954 CV6 server nodes on a local DNS server, complete the following steps:

1. Ensure the 3954 CV6 server nodes have network access to the DNS service by completing the following steps:
  - a. Log in to each server in the VE Console.
  - b. Right-click on the server name and select **System Maintenance > Network Configuration**.
  - c. Select the network card from the **NIC** menu list. The network card is indicated by **eth#**, where **#** is the Ethernet card that is cabled to the DNS.
  - d. Select the **Config NIC** button. A new window will open.
  - e. Select the **Edit** button in the new window.
  - f. Enter the IP address for the server and the NS subnet mask.
  - g. Select **OK** when complete and **OK** on any other panels.
2. Ensure that the network's DNS is configured on each 3954 CV6 server by completing the following steps:
  - a. Log in to each server in the VE Console.
  - b. Right-click on the server name and select **System Maintenance > Network Configuration**.
  - c. Enter the Domain Name in the text box labelled **Domain Name**.
  - d. Select the check box labeled **Append suffix to DNS lookup**.
  - e. Select the **Add** button to add the DNS IP addresses to the list.
  - f. Enter the Default Gateway address in the text box labelled **Default Gateway**.
  - g. Select **OK** when complete and select **OK** on any prompts.
3. Ensure that each 3954 CV6 server hostname is properly configured by completing the following steps:
  - a. Log in to each server in the VE Console.
  - b. Right-click on the server name and select **System Maintenance > Set Hostname**.
  - c. Delete any underscore characters from the hostname.
  - d. Select **OK** when complete.
4. Add the IP address and hostname of the server to the **/etc/hosts** file by completing the following steps:
  - a. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, "Logging into the server," on page 17.
  - b. Enter the command **vi /etc/hosts** on the PuTTY command line.

- Note:** It may be necessary to put the word **sudo** in front of the `vi /etc/host` command when logged in as **vetapeservice**. It may be necessary to add `sudo` for all subsequent PuTTY command line commands.
- c. The `/etc/hosts` file should open for editing.
  - d. Add the following line to the bottom of the `/etc/hosts` file:  
**server\_ip server\_fqhostname**  
 where **server\_ip** is the IP address of the 3954 CV6 server on the same network as the Call Home Gateway and **server\_fqhostname** is the fully qualified hostname of the 3954 CV6 server.
    - 1) To add a line in `vi`, press the **a** key to enter edit mode.
    - 2) Scroll to the end of the file, go to the end of the last line and press **Enter** to add a new line.
    - 3) Type the new text.
    - 4) Press the **Esc** key to exit the edit mode.
    - 5) Enter the **:** character and type **wq**, then press the **Enter** key. The file will save and exit.
5. Verify that the DNS and hostname are properly configured by completing the following steps:
    - a. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, "Logging into the server," on page 17.
    - b. On the PuTTY command line, enter the command `nslookup`.
    - c. The DNS address entered in step 2c on page 35 above should be displayed.
    - d. If the `nslookup` command returns an error, ensure the hostname is properly configured with the IP address in the local DNS by completing the following steps:
      - 1) In a Windows command line, enter the command `ping fq_hostname`, where `fq_hostname` is the fully qualified hostname (`hostname.DNS`) of the TS7520 VE server.
      - 2) A successful ping request should occur with the correct 3954 CV6 server IP address. If this does not occur, the Network Administrator needs to resolve any IP address and hostname conflicts on the local DNS before continuing.

## Configuring the Call Home Gateway server on the local DNS server

To ensure the Call Home Gateway server has network access to the DNS service, complete the following steps:

1. On the Call Home Gateway server, select **Start > Settings > Control Panel > Network Connections**.
2. Double click on the network card attached to the DNS.
3. From the list labelled **This connection uses the following items**, select **Internet Protocol (TCP/IP)**.
4. Select the **Use the following IP address** button.
5. Enter the IP address of the server, the Subnet mask of the DNS (same as that of the 3954 CV6 server), and the Default Gateway of the DNS.
6. At the bottom of the window, enter the Preferred DNS server IP and the Alternate DNS server IP (if one exists).
7. Select **OK**.

8. Select **OK** again.
9. Close the Network Connections window.

To ensure the network's DNS is configured on the Call Home Gateway server, complete the following steps:

1. On the Call Home Gateway server, select **Start**.
2. Right click on **My Computer** (might be located on the desktop).
3. Select **Properties**.
4. Select the **Computer Name** tab. The computer name is given next to **Full computer name**.
5. If Computer Name window does not include the DNS name next to the Domain field or if the field says **Workgroup**, select the **Change** button.
6. Select the **Domain** button and enter the domain name in the Domain text box.
7. Select the **More...** button.
8. Enter the DNS name in the **Primary DNS suffix of this computer** text box.
9. Select **OK**.
10. Select **OK** on all other windows.
11. The system will restart. After the restart, the DNS configuration will be complete.

To verify that the IP and hostname of the Call Home Gateway server are properly configured on the DNS network, complete the following steps:

1. In a Windows command line, enter the command `ping fq_hostname`, where `fq_hostname` is the fully qualified hostname (`hostname.DNS`) of the Call Home Gateway server.
2. A successful ping request should occur with the correct Gateway server IP address. If a successful ping request does not occur, the Network Administrator should resolve any IP address and hostname conflicts on the local DNS before continuing.

### **Configuring the 3954 CV6 server and Call Home Gateway server with host files (if not setting up DNS)**

To ensure that the Call Home Gateway server and the 3954 CV6 server nodes can communicate with each other, complete the following steps:

1. Both servers should be cabled to the same IP network. In this configuration, the Call Home Gateway Server can be configured on a public DNS and the private IP network with the 3954 CV6 server nodes.
2. Log in to each 3954 CV6 server using PuTTY. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, "Logging into the server," on page 17.
3. On the command line, edit the `/etc/hosts` file on the 3954 CV6 server by entering the command `vi /etc/hosts`.
4. Add the following line to the bottom of the `/etc/hosts` file:

```
gateway_ip gateway_fqhostname
```

where **gateway\_ip** is the IP address of the Call Home Gateway server on the same network as the 3954 CV6 server and **gateway\_fqhostname** is the fully qualified hostname of the Call Home Gateway server.

5. Save and close the file.
6. Perform a network restart by entering the command `/etc/init.d/network restart` on the command line.
7. On the Call Home Gateway server, open the file `C:\%WindowsRoot%\System32\drivers\etc\hosts`.
8. Add the following line to the bottom of the file for each VE server node:

```
ve_ip ve_hostname
```

where **ve\_ip** is the IP address of the 3954 CV6 server on the same network as the Call Home Gateway server and **ve\_hostname** is the hostname of the 3954 CV6 server.

9. Save and close the file. No network restart is necessary.

### **Verifying that the 3954 CV6 server nodes can resolve the IP address of the Call Home Gateway server**

To verify that the 3954 CV6 server nodes can resolve the IP address of the Call Home Gateway server by using its hostname, complete the following steps:

1. On a Windows command line, enter the command `ping ve_hostname`, where `ve_hostname` is the hostname (or fully qualified hostname for DNS) of the 3954 CV6 server.
2. A successful ping request should occur. If a successful ping request does not occur, verify the requirements setup given above.
3. Repeat the ping for each 3954 CV6 server node.
4. Log in to each 3954 CV6 server node using PuTTY. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, "Logging into the server," on page 17.
5. Enter the command `ping fq_hostname`, where `fq_hostname` is the hostname (or fully qualified hostname for DNS) of the Call Home Gateway server.
6. A successful ping request should occur. If a successful ping request does not occur, verify the requirements setup given above.

### **Configuring the SAN32M-2 (2026-432) Fibre Channel Switch on the 3954 CV6 server's network**

To configure the SAN32M-2 (2026-432) Fibre Channel Switch on the 3954 CV6 server's network complete the following steps:

1. Log in to the SAN fibre channel switch with an Ethernet cable through the default factory IP address of **192.168.0.51** for the lower fibre channel switch or **192.168.0.52** for the upper fibre channel switch.
2. Enter the IP address in an Internet Explorer browser window.
3. Enter the username **vetapeservice** and the password **service4u**.
4. Select the **Switch Details** button.
5. From the top menu, select **Configure > Switch > Network**.
6. Enter a valid IP Address and Subnet Mask for connecting to the same network as the 3954 CV6 server node(s).
7. Enter a valid Gateway Address, if applicable.
8. Select **OK**.

## Configuring the SAN32B-3 (2005-B5K) Fibre Channel Switch on the 3954 CV6 server's network

To configure the SAN32B-3 (2005-B5K) Fibre Channel Switch on the 3954 CV6 server's network complete the following steps:

1. Using the provided serial cable, connect the VE console workstation or service laptop to the serial port on the switch.
2. Disable any serial communication programs running on the workstation or laptop.
3. Open a terminal emulator application (such as **HyperTerminal** on a PC or **TERM** in a UNIX environment) and configure the application as follows:
  - In a Windows environment, enter the following information:

*Table 3. Windows configuration variables and values to enter*

Variable	Value to enter
Bits per second	9600
Databits	8
Parity	None
Stop bits	1
Flow control	None

- In a Unix environment, type the following command at the prompt:  
`tip /dev/ttyb -9600`
4. Using a serial connection, when the terminal emulator application stops reporting information, press **Enter** to display the login prompt.
  5. Log in using the userid **admin** and the password **service4u**.
  6. Replace the default IP address and related information by performing the following steps:

**Note:** By default, the IP address is set to **192.168.0.51** or **192.168.0.52**.

- a. Type the command `ipAddrSet` at the terminal emulator application prompt.
- b. Change the default IP address and Subnet Mask to valid addresses for connecting to the same network as the 3954 CV6 server node(s).
- c. Verify that the address was correctly set by typing the command `ipAddrShow` at the prompt.
- d. Record the IP address on the pull-out tab below the fibre channel ports on the port side of the chassis.
- e. Log out of the serial console, remove the serial cable, and replace the plug in the serial port.

**Note:** Any time the serial port is not in use, install the protective plug to keep foreign material out of the port.



---

## Appendix E. Checking the Virtualization Engine Software Level

To check the software level of the VE server, complete the following steps:

1. Log in to PuTTY by selecting **Start > Programs > PuTTY > PuTTY**. The user id is **vetapeservice** and the password is **service4u**. For instructions for how to install PuTTY on the VE Console, see Appendix A, “Logging into the server,” on page 17.
2. Type the command `cat /var/log/IBMApplianceType` at the command line.
3. Log in by entering the username **vetapeservice** and the password **service4u**.
4. The output will look like the following:  
CVT2 HA Lower Server (CVT2.2 HA Lower Server)  
x346  
The first line gives the software version within the parentheses. In this example the software level is indicated by **CVT2.2**, which gives software level **TS7500 V2 R2**.





---

## Appendix F. Error Events Reported by Call Home

### Error events detected and reported by Call Home for the CV6

The error events detected and reported by Call Home for the CV6 include the following:

- Fan failure
- Temperature critical
- Voltage abnormal
- Power supply failure
- Processor predictive failure
- Memory predictive failure
- Back plane failure
- Generic fan failure
- Generic voltage failure
- PFA failure
- Storage failure
- SMART failure
- Controller failure (ServeRAID)
- Logical drive critical (ServeRAID)
- Defunct FRU (ServeRAID)
- Rebuild failed (ServeRAID)
- Sync failed (ServeRAID)
- ServeRAID defunct drive
- ServeRAID PFA drive
- ServeRAID enclosure failed
- ServeRAID enclosure fan failed
- ServeRAID enclosure temperature critical
- ServeRAID enclosure power supply failed

### Error events detected and reported by Call Home for the SV6 and SX6

The error events detected and reported by Call Home for the SV6/SX6 include the following:

- System storage RAID event
- IBM FAStT events
  - Not on preferred path
  - Drive failure
  - Power supply failure
  - Fan failure

## **Error events detected and reported by Call Home for the SAN fibre channel switch**

The error events detected and reported by Call Home for the SAN fibre channel switch include the following:

- backplane failure
- control processor card failure
- serial crossbar failure
- center fan module failure
- fan module failure
- power supply module failure

---

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---

# Index

## Numerics

3954 CV6 server, Installing Call Home on the 13

## A

ac power  
  removing xvii  
address  
  for reader comment form xxvii  
  of IBM xxvii  
  of the IBM director of licensing 45  
Agent Gateway, closing the Service 30  
Agent Gateway, Installing Electronic Service 5  
Agent Gateway, Starting the Service 30  
Agent Manager Interface, Electronic Service 19  
Agent Manager, Navigating Electronic Service 20  
Agent Manager, Understanding Electronic Service 19  
Agent, Configuring Electronic Service 9  
attention notice  
  definition xv  
  example xv  
attention notices xv  
audience xxiii

## C

Call Home on the 3954 CV6 server,  
  Installing 13  
caution notices xiii  
  definition xiii  
  examples xiii  
Class A electronic emission notice 46  
closing the Service Agent Gateway 30  
comments about this document, how to  
  send xxvii  
communications panel 27  
communications statements  
  Chinese 48  
Company Panel 23  
config 35, 43  
configuration 35, 43  
Configuring Electronic Service Agent 9  
contact panel 25

## D

danger notices ix  
  definitions ix  
  examples ix  
documentation  
  Web sites xxvi

## E

Electronic emission notices  
  European Union EMC Directive  
    conformance statement 47  
  Federal Communications Commission  
    (FCC) statement 46  
  Industry Canada Class A emission  
    compliance statement 47  
  Taiwanese Class A warning  
    statement 48  
Electronic Service Agent Gateway,  
  Installing 5  
Electronic Service Agent Manager  
  Interface 19  
Electronic Service Agent Manager,  
  Navigating 20  
Electronic Service Agent Manager,  
  Understanding 19  
Electronic Service Agent, Configuring 9  
Enabling Fiber Channel Switch  
  Events 33  
Enabling Fibre Channel Switch  
  Events 33  
environmental  
  notices ix  
  notices and statements xviii  
environmental notices xviii  
external machine checks xviii

## F

FCC Class A notice 46  
frame relocation  
  safety xvii

## G

Gateway, closing the Service Agent 30  
Gateway, Installing Electronic Service  
  Agent 5  
Gateway, Starting the Service Agent 30

## H

help  
  online support xxiv  
  telephone support xxv  
  Web sites xxiii  
history panel 28  
how to send your comments xxvii

## I

IBM  
  address xxvii  
  director of licensing address 45  
inspections, safety xvii  
installation  
  rack xvi

Installing Call Home on the 3954 CV6  
  server 13  
Installing Electronic Service Agent  
  Gateway 5  
Interface, Electronic Service Agent  
  Manager 19  
internal machine checks xviii  
introduction 1

## L

labels, safety xii  
laser safety xv  
location panel 26  
location, communications 27  
location, contact 26  
location, history 28  
Logging into the server 17

## M

machine checks  
  external xviii  
  internal xviii  
Manager Interface, Electronic Service  
  Agent 19  
Manager, Navigating Electronic Service  
  Agent 20  
Manager, Understanding Electronic  
  Service Agent 19

## N

Navigating Electronic Service Agent  
  Manager 20  
network 35, 43  
networking 35, 43  
notices  
  attention xv  
  caution xiii  
  danger ix  
  electronic emission 46  
  environmental xviii  
  FCC, Class A 46  
  general 45  
  safety and environmental ix  
notices , danger ix  
notices, attention xv  
notices, caution xiii  
notices, environmental xviii

## O

on the 3954 CV6 server, Installing Call  
  Home 13  
optical port terminators xv

## P

- Panel, Company 23
- panel, contact 25
- Panel, System Status 21
- products, developed 45
- publications xxvi

## R

- rack installation xvi
  - safety xvi
- rack safety xvi
- reader comment form xxvii
- Remote Supervisor Adapter
  - publications xxvi
- removing
  - ac power xvii
- requirement 3
- resources
  - Web sites xxvi
- restrictions, usage xv

## S

- safety
  - environmental notices ix
  - frame installation xvi
  - frame relocation xvii
  - inspections xvii
  - labels ix, xii
    - examples xii
  - laser xv
  - notices ix
  - rack xvi
- safety inspection
  - external machine checks xviii
  - internal machine checks xviii
- safety inspections xvii
- safety labels xii
- sending your comments to IBM xxvii
- Service Agent Gateway, closing the 30
- Service Agent Gateway, Installing Electronic 5
- Service Agent Gateway, Starting the 30
- Service Agent Manager Interface, Electronic 19
- Service Agent Manager, Navigating Electronic 20
- Service Agent Manager, Understanding Electronic 19
- Service Agent, Configuring Electronic 9
- services offered in the U.S.A. 45
- set up 35, 43
- set-up 35, 43
- setup 35, 43
- Starting the Service Agent Gateway 30
- Status Panel, System 21
- System Status Panel 21

## T

- telephone support xxiii, xxv
- terminators
  - optical ports xv

- the 3954 CV6, Installing Call Home on 13
- the Service Agent Gateway, closing 30
- the Service Agent Gateway, Starting 30
- trademarks 46
- TS7520 Virtualization Engine
  - publications xxvi

## U

- Understanding Electronic Service Agent Manager 19
- United States electronic emission Class A notice 46
- United States FCC Class A notice 46
- usage restrictions xv

## W

- Web sites xxiii
  - list xxvi



---

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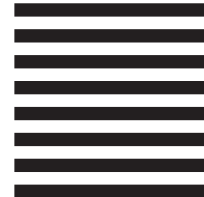
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