



IBM Systems - iSeries
Service and support
Customer service and support

Version 5 Release 4





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Note

Before using this information and the product it supports, read the information in "Notices," on page 23.

Seventh Edition (February 2006)

This edition applies to version 5, release 4, modification 0 of IBM i5/OS (product number 5722-SS1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CISC models.

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Customer service and support

The purpose of this topic is to help you understand the service options that are available on your iSeries™ server, and to help you set up a server with the options you want to use.

If you are using a Hardware Management Console for , there are steps you need to do on your Hardware Management Console (HMC) to set up a connection to IBM®. See Setting up your service environment in the IBM Systems Hardware Information Center for more information.

Note: By using the code examples, you agree to the terms of the “Code license and disclaimer information” on page 22.

What’s new for V5R4

This topic highlights changes to the Customer service and support topic for IBM i5/OS™ V5R4.



- | The following functions were added to the Electronic Service Agent in IBM i5/OS V5R4:
 - | • Problem reporting retry
 - | • Display problem reporting information and status
 - | • Software problem reporting

To find other information about what’s new or changed this release, see the Memo to users.

Printable PDFs

Use this to view and print a PDF of this information.

To view or download the PDF version of these topics, select the following topics:


- Customer service and support PDF (about 350 KB) 
- Universal Connection PDF (about 900 KB) 

Saving PDF files

To save a PDF on your workstation for viewing or printing:

1. Right-click the PDF in your browser (right-click the link above).
- | 2. Click the option that saves the PDF locally.
3. Navigate to the directory in which you want to save the PDF.
4. Click **Save**.

Downloading Adobe Reader

- | You need Adobe Reader installed on your system to view or print these PDFs. You can download a free copy from the Adobe Web site (www.adobe.com/products/acrobat/readstep.html) .

Service and support overview

The purpose of this topic is to describe the different aspects of service and support that you can use to ensure that your server and applications are ready when you need them.

There are several different pieces of service and support, as depicted in the following diagram.



Figure 1. Service and support overview

Connectivity

The fundamental element of your service environment is your connection to IBM.

What connection method you choose depends on several factors:

- Your hardware, software, and network configuration. This includes things like whether you have a direct connection to the Internet, whether you use a modem, and if you connect through a console (such as a Hardware Management Console for eServer™).
- The level of security your company want to maintain

You can use the Universal Connection Wizard to set up a connection to IBM. You also can configure a connection to IBM using Systems Network Architecture (SNA) or by using the Create Service Configuration (CRTSRVCFG) command.

Related concepts

“Set up a connection to IBM” on page 16

If you are using a Hardware Management Console for eServer, there are steps you need to do on your Hardware Management Console (HMC) to set up a connection to IBM.

Inventory

You can use iSeries Navigator on your server to collect and manage various inventories on a regular basis, and store the data on a designated central system.

- | You can collect the inventory for users and groups, fixes, system values, hardware resources, software resources, service attributes, contact information, or network attributes. You may have other applications installed that allow you to collect lists of other types of resources.

You can share this information with IBM through Electronic Service Agent™. This enables IBM to help you identify problems and troubleshoot them more quickly. In some cases, sharing your inventory can help you avoid a problem altogether. For example, you share your software inventory with IBM and a fix becomes available for a software product that you have installed. Depending on the connectivity options you've selected, you can receive the fix automatically, which can help you to avoid a problem before you even experience it.

For more information about sharing inventory with IBM, see Electronic Service Agent. For more information about using the GO SERVICE menu, see Use the CL commands.

Related concepts

“Electronic Service Agent” on page 6

Electronic Service Agent provides an automatic hardware problem-reporting function that helps predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.

“Use the CL commands” on page 18

Learn about how you can use the CL commands to create your connection to IBM.

Related information

Working with inventory

Problem reporting

Your server can help you isolate the cause of system-detected hardware problems and some software problems.

In these cases, your server communicates with the IBM support database to help narrow down the cause of your problem based on the symptoms you are experiencing. Depending on the problem, any one of the following actions can result:

- A fix can be sent to you, if one has already been identified
- A hardware part can be sent to you for you to install, if appropriate
- IBM support can call you to gather more information and help you perform further problem analysis
- IBM can send a service professional

Fixes

Your fixes can help you to correct the problem and maintain the system.

Periodically, problems are discovered in your software or firmware. IBM issues a fix (also known as a PTF, or program temporary fix) to correct the problem. Fixes play an important part in your system's maintenance strategy. They give you a chance to reduce system downtime, add functionality, or provide optimal availability. It is important that you develop a fix management strategy to help you keep track of fixes that are available for the software you have, and to ensure that you can keep these programs running smoothly.

For detailed information about fixes and how to develop a fix management strategy, see Maintain and manage i5/OS and related software.

Remote support

In some cases, IBM support personnel can connect directly to your server to try to determine the sources of a problem.

IBM can use any of the following methods to connect to your server if you have enabled the connection:

Virtual private networking

Virtual private networking (VPN) uses several important TCP/IP protocols to protect data traffic. If electronic customer support has been configured to use one of the Universal Connection VPN connectivity options, you can use the Start Remote Support (STRRMTSPT) command with the *VPN option.

Point-to-Point Protocol

Point-to-Point Protocol (PPP) is an Internet standard for transmitting data over serial lines. It is the most widely used connection protocol among Internet service providers (ISPs). PPP allows individual computers to access networks, which in turn provide access to the Internet. The iSeries server includes TCP/IP PPP support as part of its wide-area network (WAN) connectivity. The *PPP option of the Start Remote Support (STRRMTSPT) command has additional details.

Systems Network Architecture

In IBM networks, SNA is the layered logical structure, formats, protocols, and operational sequences that are used for transmitting information units through networks. SNA also controls the configuration and operation of networks. Advanced Program-to-Program Communication (APPC), Advanced Peer-to-Peer Networking (APPN), and High-Performance Routing (HPR) are some examples of the protocols included within SNA. They can be used to connect the iSeries server with other IBM Systems, or non-IBM systems, to connect remote controllers, and to maintain a high level of security on your system. The *VRT option of the Start Remote Support (STRRMTSPT) command has more details.

Remote Service Support Facility

Allows IBM support diagnostic access to the Licensed Internal Code of the server.

If a support person determines that this method is the best way to diagnose and fix your problem, you will be given detailed information about how to enable the connection.

Related information

Virtual private networking

Start remote support (STRRMTSPT) command

Universal connection

Remote access services: PPP connections

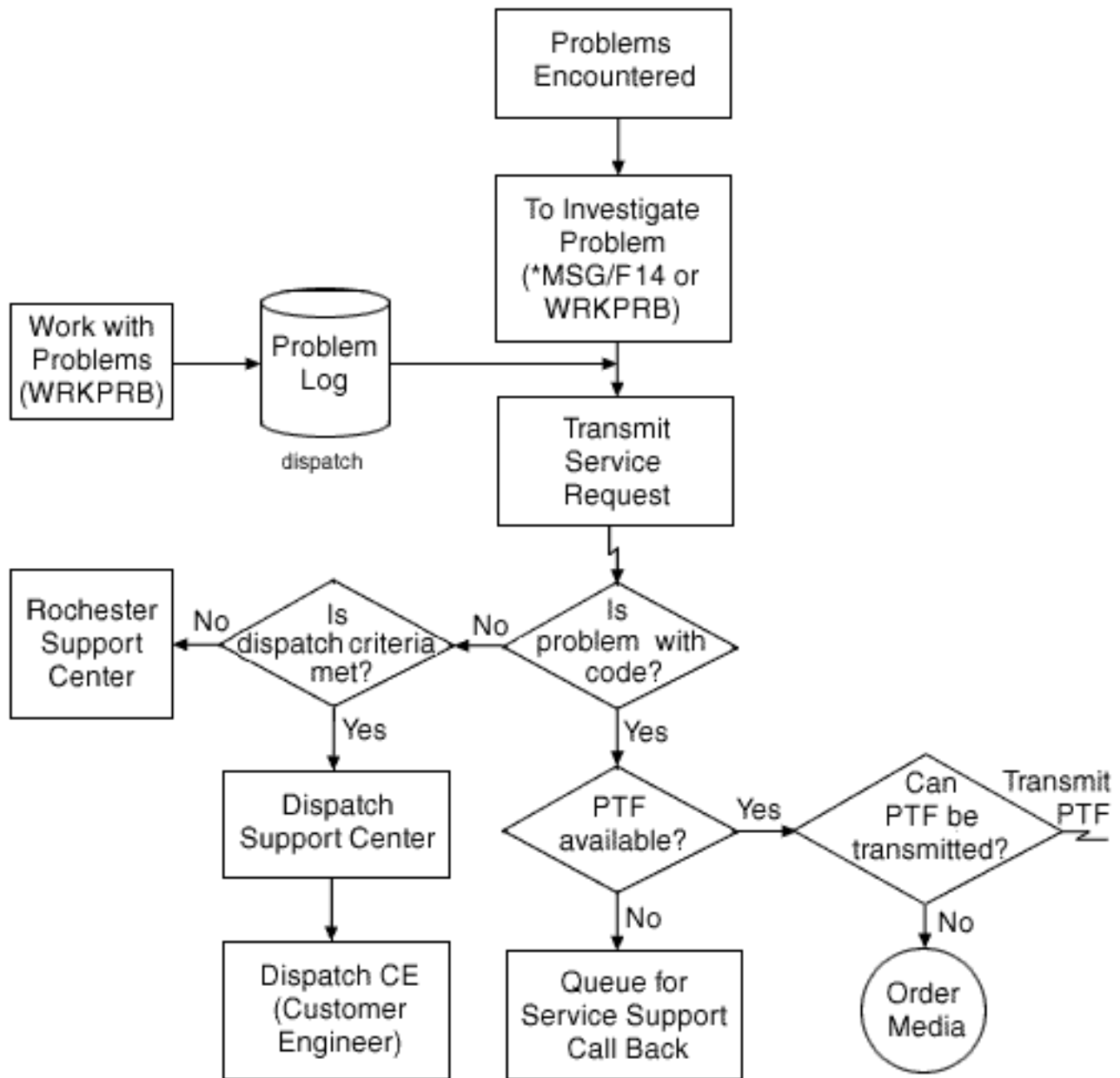
APPC, APPN, and HPR

Electronic customer support

Your server can help you isolate the cause of system-detected hardware problems and some software problems. Your server also has an integrated set of functions that are designed to help service and support your system. These are the functions of electronic customer support.

- | The operating system includes electronic customer support, which provides a connection to the IBM
- | service system after you have done problem analysis and have run isolation procedures. The
- | communications hardware and software that are needed to access remote IBM service and support
- | functions are part of the operating system.

The following figure shows how electronic customer support is organized to report problems and to receive responses.



RV3P051-1

Figure 2. Reporting problems and receiving responses

Electronic customer support: Command authority

Use this information to find out what authorities are required to use electronic customer support.

To use electronic customer support, your security officer must give you authority to the following commands:

- Send Program Temporary Fix (PTF) Order (SNDPTFORD)
- Send Service Request (SNDSRVRQS)
- Work with Contact Information (WRKCNTINF)
- Work with Order Requests (WRKORDRQS)

- Request Order Assistance (RQSORDAST)

Note: Refer to the Control language (CL) topic for details on these CL commands.

Add electronic customer support to your server

Find out how to access electronic customer support. Details are provided on configuring the Universal Connection support or the traditional connection with SNA.

From time to time, your server might experience problems that need attention from IBM support services. Electronic customer support is available to help you keep your server operating efficiently. If there is a server hardware or software problem, IBM Customer Engineers can access your server directly to rapidly diagnose and solve the problem. Electronic customer support lets you:

- Order and install fixes
- Access the question-and-answer (Q & A) database
- Access local service and IBM product information
- Access technology forums
- Access problem analysis reporting and management

You can access electronic customer support using:

- **Universal Connection.** A TCP/IP-based program that is configured using a graphical interface that allows you to choose how you connect to IBM.
- **Traditional connection.** A connection that is available if you use SNA and have a modem capable of Synchronous Data Link Control (SDLC).

Related information

Use software fixes
Online Publications


Electronic Service Agent

Electronic Service Agent provides an automatic hardware problem-reporting function that helps predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.


- | Electronic Service Agent also provides an automatic software problem-reporting function. Supplemental system service information is sent to IBM and made available to IBM support centers to aid in problem resolution. The same service information is available to be viewed with prior registration of an IBM ID.

Electronic Service Agent is integrated into the operating system.

For more information about creating an IBM ID, registering your system, and viewing the service information you share with IBM, follow these steps:

1. Go to the IBM Electronic Services news  Web site.
2. Choose from the following options:
 - a. To request an IBM ID, select **Register**.
 - b. To register your system, or to view the service information you share with IBM, select **My Systems**.

- | Electronic Service Agent must be activated on each system and logical partition (LPAR).

| If you have other iSeries systems and i5/OS LPARs in your network running other releases of the operating system, Electronic Service Agent is available for installation on all releases of the operating system. For information about Electronic Service Agent for prior releases of the operating system, see the Online Publications  Web site.

| Electronic Service Agent has the following newly-added functions in IBM i5/OS V5R4:

Problem reporting retry:

| Retry capability for problem reporting is now controlled using the Electronic Service Agent attributes.

| The retry attributes are used for service requests that are placed automatically by Service Agent.

| The retry attributes are:

| **Retry** This attribute determines whether and how service requests that are placed automatically by Service Agent are to be retried if an attempt fails.

| **Frequency**
| The frequency at which service requests are retried.

| **Number of times to retry**
| The number of times to try the service requests again.

| **Notify users**
| Determines whether Service Agent users are to receive a message when a retry occurs.

| You can set the retry attributes using **GO SERVICE, Option 1, Change Service Agent attributes**.

Display problem reporting information and status

| To view the status of Service Agent's problem-reporting activity, use **GO SERVICE, Option 4, Display problem reporting information**.

Software problem reporting

| The Service Agent reports software problems detected by the i5/OS Service Monitor, which is a service function that is used to monitor the system for specific conditions. In addition to reporting the problems, the Service Agent automatically sends the primary problem documentation to IBM. Secondary documentation can be manually sent to IBM using the SERVICE menu command.

Related concepts

"Inventory" on page 2

You can use iSeries Navigator on your server to collect and manage various inventories on a regular basis, and store the data on a designated central system.

"Use the CL commands" on page 18

Learn about how you can use the CL commands to create your connection to IBM.

Related tasks

"Configure Extreme Support" on page 16

Learn about how you can configure Extreme Support to use the Electronic Service Agent for iSeries function in iSeries Navigator.

Related reference

"Extreme Support" on page 15

iSeries Extreme Support is part of the IBM eServer Technical Support Advantage, which is IBM's comprehensive technical service and support for IBM Systems.

“Send service requests” on page 19

For hardware failures that do not disable system operation, electronic customer support provides a fast, electronic method for requesting the service of a hardware service provider with replacement parts. Using this method, you might report failures that occur on your iSeries server and selected input or output devices.

“Configure Electronic Service Agent” on page 16

Electronic Service Agent is integrated into the operating system.


Related information

Working with inventory

Pre-activation checklist


Use this checklist to help plan for Electronic Service Agent activation and to verify that you have completed all the preparation tasks.

Activation will be easier knowing the following information before starting activation:

1. Ensure you have the following required products installed (confirm by using the Display Software Resources (DSPSFWRSC) command):
 - 5722-SS1 - Option 34 (i5/OS - Digital Certificate Manager)
 - 5722-JC1 (IBM Toolbox Kit for Java™)
2. Ensure the latest recommended PTFs for Electronic Service Agent are installed on i5/OS.
 - a. Go to the Recommended fixes  Web site.
 - b. Under Recommended for specific products or functions, select **V5R4, Electronic Service Agent** as the topic, and click **Go**.
3. Decide on the best method of connectivity. Service and support recommends the following methods for your systems or logical partitions (listed in order).
 - a. **Direct Internet from each logical partition or server:** This method allows larger fix files to pass through the connection to the server. Each logical partition can receive the fixes it needs. It is also faster than modem dial-up.
 - b. **Shared direct Internet:** This method allows larger fix files to pass through the connection to the server. It allows connectivity to be concentrated through one server or logical partition simplifying firewall rules. It is also faster than modem dial-up connection.
 - c. **Dial-up from the server, or shared dial-up (if you have logical partitions):** If you do not have direct or shared direct Internet, you might choose to use shared dial-up connection. It is slower and restricts the file size that can pass through the connection.
4. Ensure you have the required setup for the type of connection you are using:
 - **If you are using a VPN connection:**
 - VPN capability
 - The prerequisites for enabling service configurations over a direct Internet connection include:
 - The iSeries server must have a globally routable IP address, or the server must be behind a network address translation (NAT) firewall with a globally routable address.
 - Ensure that TCP/IP is active. You can start TCP/IP through the Start TCP/IP (STRTCP) command.
 - Ensure your default TCP/IP route, or a host route, directs traffic out the appropriate TCP/IP interface to the Internet to allow the VPN to be established to IBM.

Note: For more information about different types of VPN connections, see Scenarios: Universal Connection.

- **If you are using a dial-up connection:**

- Refer to “Modem and resource requirements” on page 11 to find out the requirements for Electronic Service Agent connections to IBM.
- Verify that the connection number for AT&T Global Network Services (AGNS) is current. For the most up-to-date connection numbers, see the AT&T business  Web site, and select **Help Center > Access Numbers**.
- Select modem resource for dial-up connections
- Select dialing prefix for dial-up connections.

Activate Electronic Service Agent

Learn how to activate Electronic Service Agent.

- | Electronic Service Agent must be activated on each system and logical partition. Activation should be performed by a system administrator.
- | If you are upgrading from prior releases of the operating system, the Electronic Service Agent for migrates Electronic Service Agent settings from the previous release.
- | As part of Electronic Service Agent activation, if needed, a service configuration for electronic customer support, Electronic Service Agent, and Information Center Update is created by the system automatically.

Activation can be accomplished by using either the character-based interface, or by using iSeries Navigator.


- The character-based interface activation is designed for:
 - A single system or logical partition
 - Customers who do not have an attached PC running iSeries Navigator
- iSeries Navigator activation is designed for:
 - Customers who want to collect and transmit service information for groups of systems and or logical partitions
 - Clients who want to use Management Central through iSeries Navigator.

Note: Activation in a batch environment is also available using CL commands.

To activate Electronic Service Agent using the CL commands, follow these steps:

Prerequisite: Ensure that you have met all the requirements in the “Pre-activation checklist” on page 8.

1. Using a 5250 emulator, sign on to the system or logical partition with a user profile (other than QSECOFR) that has a *SECOFR user class and its system-defined special authorities.
2. Enter the DSPSYSVAL QRETSVRSEC command.
 - a. Confirm that this system value is set to 1.
 - b. Change the system value to 1, if needed, using the CHGSYSVAL QRETSVRSEC command.
3. Confirm that the following products are installed on the system by using the DSPSFWRSC command:
 - 5722-SS1 Option 34 (i5/OS - Digital Certificate Manager)
 - 5722-JC1 (IBM Toolbox Kit for Java)
4. Ensure that the latest recommended PTFs are installed to i5/OS.

The latest PTFs for Electronic Service Agent can be found on the Recommended fixes  Web site. Select **V5R4** for the release of the operating system, click **Electronic Service Agent**, and click **Go**.

5. From a command line, enter GO SERVICE.
6. If the Change Contact Information (CHGCNTINF) command is prompted, add or update the contact information for this system. Press Enter.

7. If the Create Service Configuration (CRTSRVCFG) command is prompted, notice that *SELECT is the value for several parameters. Press Enter. An additional panel is displayed for each parameter for which *SELECT was specified. On each of these additional panels, make a selection and press Enter. For details on the CL commands, see the Control language (CL) topic.

The Service Agent Main Menu is displayed. Activation is complete.

To verify activation, perform these steps:

1. Enter GO SERVICE.
2. Choose Work with jobs to show the active status of the Service Agent jobs.
3. Type WRKJOBSCDE QS9SAC0L to show the job schedule entry that initiates the collection and transmission of Electronic Service Agent service information.

To manage the connection profiles created during activation, perform these steps:

1. Enter GO SERVICE.
2. Select the **Service Configuration** menu.

Use Electronic Service Agent


Learn about Electronic Service Agent operations and expected Electronic Service Agent activity on your system.

To change Electronic Service Agent settings

To change the service configurations, and to access Electronic Service Agent functions, on a command line, enter GO SERVICE. This will display the Electronic Service Agent main menu.

```
QS9MAIN          Electronic Service Agent          System: S10XXXXX
Select one of the following:
    1. Change Service Agent attributes
    2. Run service information collection
    3. Authorize users to access service information
Information
    4. Display problem reporting information
    5. Display service information collection
    6. Display service registration information
    7. Reports
Jobs
    8. End jobs
    9. Start jobs
    10. Work with jobs
Problem determination
    11. Change Service Agent job logging
    12. Change product activity log analysis
    13. Work with Service Agent spooled files
    14. Display audit log
    15. Send test problem
    16. Work with threshold table
    17. Verify Service Agent connection
    18. Service Configuration menu
    19. Change send option
Related
    70. Related Service Agent commands
```


Electronic Service Agent attributes control many aspects of how Electronic Service Agent operates, including the list of users to receive Electronic Service Agent messages, and the time of day that Electronic Service Agent collects and transmits information to IBM.

- To change attributes, select 1. Change Service Agent attributes.
- To manage the connection profiles created during activation, select 18. Service Configuration menu. For example, changes might be needed for the connection number.
- For more information about Electronic Service Agent and IBM System Manager for i5/OS, refer to the Online Publications  Web site.

Troubleshoot Electronic Service Agent

Learn about general problem determination information for Electronic Service Agent including how to generate the documentation or traces.

If an error occurs when the system attempts to electronically report a problem or to send service information to IBM, there are many possible problem sources. Electronic Service Agent is dependent on many functions of i5/OS to be working properly, including Management Central, Connection Manager, which manages the TCP/IP connection profiles, Electronic Customer Support, and the problem log. Normal system problem determination is recommended for any error received.

| To verify that service information was sent to IBM, use the Electronic Service Agent menu option to
| display service information collection. If service information is currently (at this moment) being collected
| or transmitted, the Last Run and Last Send information might not show this activity. These activities are
| shown when the tasks have been completed.

| The task of collecting service information uses Management Central, and the task of sending service
| information uses Universal Connection. These tasks take time to run. A summary of the collection and
| transmission steps is outlined here.

- A collection task in Management Central determines if service information needs to be collected and collects new service information as needed.
- After the collection is complete, a job is submitted to use Universal Connection to do the following steps:
 - Start the connection profile
 - Vary on its associated line, controller, and device descriptions, if applicable
 - Connect to IBM
 - Send the service information
- Factors that affect the length of the time needed to collect and send information are the size of the system, processing load, and the speed of the connection.

Related information

Setting up i5/OS to connect to service and support without an HMC

Modem and resource requirements

Learn about the modem and resource requirements needed for Point-to-Point TCP/IP Universal Connections.

The Electronic Service Agent and ECS service configurations created during activation are *PTP (Point-to-Point) TCP/IP Universal Connection based. If you do not have the modem or the resources to support these types of connections, the service configurations will not be usable or activation will fail due to lack of internal resources.

Modem requirements

- | Use Table 1 to determine the point-to-point functions that can be set up depending on your modem and resource. If you want to use this modem for problem-reporting and service-information transmission functions, ECS must also be configured to use TCP/IP, not SDLC or SNA communications.

Modem in asynchronous mode

- | If the modem is configured to operate in asynchronous mode, both problem-reporting and service-information collection and transmission can be configured (Example modems are 2771 and 9771 internal modems, IBM 7855, IBM 7857, or IBM 7858 and dual model IBM 7852-400).

- | **Note:** If you use a non-IBM modem, any asynchronous modem that supports the RS-232 (EIA 232) serial interface and the V.34/V.42 protocol (V.90 is optional) can be used for this function.

Typically, the default modem setting DSR (Data Set Ready) must be overridden. For an iSeries server to detect a hang-up, DSR must be set to follow CD (Carrier Detect). Refer to the modem manual for more information.

Communications I/O adapter requirements

AT&T dial-up and VPN connections are supported.

Determine if you have one of the following compatible I/O adapters:

Table 1. Adapters and descriptions

Adapter	Description
2699	Two-line WAN IOA. This IOA requires either a 2629 LAN/WAN/Workstation IOP or MFIOA.
2720	PCI WAN/Twinaxial IOA
2721	PCI Two-line WAN IOA
2742	Two-line communications IOA
2745	PCI Two-line WAN IOA (replaces IOA 2721)
2771	Two-port WAN IOA, with a V.90 integrated modem on port 1 and a standard communications interface on port 2. To use port 2 of the 2771 adapter, an external modem with the appropriate cable is required.
2772	Two port V.90 integrated modem WAN IOA
2793	Two-port WAN IOA, with a V.90 integrated modem on port 1 and a standard communications interface on port 2. To use port 2 of the 2771 adapter, an external modem with the appropriate cable is required.
2805	Four port V.92 integrated modem WAN IOA

Batch activation

Electronic Service Agent can be activated in a batch environment. This approach is helpful for customers with many remote systems who would like to send programs from a central site for remote activation.

To use the batch environment method, the Electronic Service Agent product must be installed and the Electronic Service Agent Simplified Activation PTFs need to be available on each system and be installed or be available for installation.

For releases before V5R4:

- | • Before using a program, the International License Agreement for Services Programs must be accepted.
- | To accept the license agreement, perform one of the following steps:

- | – On a command line, enter GO SERVICE. Select **Display Service Agent license agreement**. Read the agreement and press F6 (Accept the terms of this agreement) to accept.
- | – On a command line, enter QSVCDRCR/ACPTSALIC. Read the agreement and press F6 to accept.
- Electronic Service Agent commands are not the same as those for V5R4. See the Electronic Service Agent User Guide for V5R3 Web site for information about batch activation.

Table 2. Commands and descriptions

Command	Command description
CHGCNTINF	Changes the service contact information. This information is used by the WRKCNTINF command as the local service information.
CRTSRVCFG	Creates the service configurations used to electronically report problems and service information to IBM.
CHGSRVCFG	Changes the service configurations used to electronically report problems and service information to IBM.
DLTSRVCFG	Deletes the service configurations used to electronically report problems and service information to IBM.
VFYSRVCFG	Verifies the service configurations used to electronically report problems and service information to IBM.
CHGSRVAGT	Changes the operation of Electronic Service Agent.
CHGSRVAGTA	Changes the settings for Electronic Service Agent.
DSPSRVAGT	Displays several aspects of Electronic Service Agent.
ENDSRVAGT	Ends the Electronic Service Agent subsystem jobs.
RTVSRVAGT	Retrieves the valid days of the week used by the CHGSRVATGTA command, the AUTOPTF and AUTOTEST parameters.
STRSRVAGT	Starts Electronic Service Agent. If the CHGSRVAGTA command is used before this command is used, Electronic Service Agent is activated using those settings. If the command was not used, Electronic Service Agent is activated using the defaults.

A sample CL program is provided.

Sample CL Program for batch activation

This sample program refers to the fictitious ABC Company. Any associated references to this fictitious company are for illustration purposes only.

Note: By using the code examples, you agree to the terms of the “Code license and disclaimer information” on page 22.

```
| /*****/
| /* ELECTRONIC SERVICE AGENT SAMPLE BATCH ACTIVATION PROGRAM */
| /*****/
| /* */
| /* THIS CODE IS PROVIDED AS A SAMPLE AND IS NOT INTENDED */
| /* TO BE SUPPORTED BY IBM. THIS IS SUPPLIED ON AN AS-IS */
| /* BASIS AND IT IS THE RESPONSIBILITY OF THE END USER TO ENSURE */
| /* THE ACCURACY OF THE PROGRAM IN THEIR ENVIRONMENT. */
| /* */
| /*****/
| /* */
| /* See the Electronic Service Agent Information Center articles */
| /* for additional requirements, such as authorities and system */
| /* values. */
| /* */
| /*****/
```

```

| PGM
| /*****
| /*
| /* The following variables are used to retrieve the possible
| /* days to be used as input to the CHGSRVAGTA AUTOPTF and AUTOTEST
| /* parameters.
| /*
| /*****
| DCL VAR(&DAY1) TYPE(*CHAR) LEN(4)
| DCL VAR(&DAY2) TYPE(*CHAR) LEN(4)
| DCL VAR(&DAY3) TYPE(*CHAR) LEN(4)
| DCL VAR(&DAY) TYPE(*CHAR) LEN(4)
| DCL VAR(&DAYS) TYPE(*CHAR) LEN(28) +
| VALUE('*WED*THU*FRI*SAT*SUN*MON*TUE')
| DCL VAR(&DAYPTR) TYPE(*DEC) LEN(1 0) VALUE(1)
| /*****
| /*
| /* Change the contact information.
| /*
| /*****
| QSYS/CHGCNTINF CMPNY('ABC Company') CONTACT('System +
| Administrator') TELNBR('123-456-7890') +
| MAILADDR('123 ABC Street' *SAME *SAME +
| ANYTOWN MN US 12345) LNGVER(2924) +
| EMAILADDR(SYSADMIN@ABCCOMPANY.COM) +
| MEDPTF(*AUTOMATIC)
| /*****
| /*
| /* Configure the ECS and Service Agent connections.
| /* NOTE: THIS SAMPLE ASSUMES A DIRECT CONNECTION FOR THE PRIMARY
| /* AND A MULTIHOP CONNECTION FOR THE BACKUP.
| /*
| /*****
| QSYS/CRTSRVCFG ROLE(*PRIMARY) CNNTYPE(*DIRECT) +
| CNTRYID(US) STATE(MN)
| /*
| QSYS/CRTSRVCFG ROLE(*BACKUP) CNNTYPE(*MULTIHOP) +
| RMTSYS('10.11.12.13')
| /*****
| /*
| /* Retrieve the days of the week that can be used for CHGSRVAGTA.
| /*
| /* Choose the day that best fits the activity for this system.
| /* Use the &DAYS variable. The first one is the first choice,
| /* second one is the second choice, and so on.
| /*****
| QSYS/RTVSRVAGT DAY1(&DAY1) DAY2(&DAY2) DAY3(&DAY3)
|
| DAYLOOP:
| IF (&DAY1 *EQ (%SUBSTRING(&DAYS &DAYPTR 4))) THEN(DO)
|   CHGVAR VAR(&DAY) VALUE(&DAY1)
| GOTO DAYLOOP
| ENDDO
|
| IF (&DAY2 *EQ (%SUBSTRING(&DAYS &DAYPTR 4))) THEN(DO)
|   CHGVAR VAR(&DAY) VALUE(&DAY2)
| GOTO DAYLOOP
| ENDDO
|
| IF (&DAY3 *EQ (%SUBSTRING(&DAYS &DAYPTR 4))) THEN(DO)
|   CHGVAR VAR(&DAY) VALUE(&DAY)
| GOTO DAYLOOP
| ENDDO
|
| CHGVAR VAR(&DAYPTR) VALUE(&DAYPTR +4)
| GOTO DAYLOOP
|

```

```

| ENDDAYLOOP:
| /*****
| /*
| /* Configure Service Agent hardware problem reporting using the
| /* day of the week that was determined above and the desired time.
| /*
| /* -- NOTE: Use this command only if you want to override the
| /* CHGSRVAGTA defaults.
| /*
| /*****
| QSYS/CHGSRVAGTA ENABLE(*YES) AUTORPT(*YES) AUTOPTF(*YES +
|           &DAY *YES) AUTOTEST(&DAY) SRVINP((*ALL))
|
| /*****
| /*
| /* Activate Service Agent. If commands CHGSRVAGTA was used ahead of
| /* this, Service Agent will activate using those settings.
| /* If the command was not used, Service Agent will be activated
| /* using the defaults.
| /*
| /*****
| SKIPIT: QSYS/STRSRVAGT TYPE(*ACTIVATE)
|
| ENDPGM


```

Extreme Support

iSeries Extreme Support is part of the IBM eServer Technical Support Advantage, which is IBM's comprehensive technical service and support for IBM Systems.

iSeries Extreme Support includes support built right into the product and iSeries Navigator as well as support tools available over the Web. Some Extreme Support tools are PM iSeries over TCP/IP, Electronic Service Agent, and inventory consolidation with Management Central.

Note: Electronic Service Agent can only report problems to IBM successfully if your system is under warranty, or if you have purchased an IBM Maintenance Services Agreement.

For links to the User Guides for specific releases of Electronic Service Agent, go to the Online Publications Web site  .

Related concepts

“Electronic Service Agent” on page 6

Electronic Service Agent provides an automatic hardware problem-reporting function that helps predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.

Related tasks

“Configure Extreme Support” on page 16

Learn about how you can configure Extreme Support to use the Electronic Service Agent for iSeries function in iSeries Navigator.

Related reference

“Send service requests” on page 19

For hardware failures that do not disable system operation, electronic customer support provides a fast, electronic method for requesting the service of a hardware service provider with replacement parts. Using this method, you might report failures that occur on your iSeries server and selected input or output devices.

Set up a connection to IBM

If you are using a Hardware Management Console for eServer, there are steps you need to do on your Hardware Management Console (HMC) to set up a connection to IBM.

See the Setting up your service environment topic in the IBM Systems Hardware Information Center for more information.

There are several choices that you can use to set up a connection to IBM.

Related concepts

“Connectivity” on page 2

The fundamental element of your service environment is your connection to IBM.

Configure Electronic Service Agent

Electronic Service Agent is integrated into the operating system.

- | Electronic Service Agent provides automatic hardware and software problem-reporting functions that help predict and prevent errors.
- | During automatic problem reporting, supplemental system service information is sent and made available to IBM support centers to aid in problem resolution.

Related concepts

“Electronic Service Agent” on page 6

Electronic Service Agent provides an automatic hardware problem-reporting function that helps predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.

Configure Extreme Support

Learn about how you can configure Extreme Support to use the Electronic Service Agent for iSeries function in iSeries Navigator.

To use the Electronic Service Agent for iSeries function in iSeries Navigator, you must configure Extreme Support by doing the following steps:

1. Verify that you have security officer (*SECOFR) authority with *ALLOBJ, *IOSYSCFG, and *SECADM special authorities in your user profile.
2. In iSeries Navigator, expand **Management Central**.
3. Right-click **Extreme Support** and select **Configuration**. You are shown the Extreme Support wizard.
4. Follow the wizard instructions to set up and configure Extreme Support functions.

Notes:

- a. It is recommended that you manage your scheduled inventory tasks to avoid duplication.
- b. If you did not previously configure Universal Connection, you are given the opportunity to configure that connection now with the Extreme Support wizard. See Configure Universal Connection for more information.

Related concepts

“Electronic Service Agent” on page 6

Electronic Service Agent provides an automatic hardware problem-reporting function that helps predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.

Related reference

“Extreme Support” on page 15

iSeries Extreme Support is part of the IBM eServer Technical Support Advantage, which is IBM’s comprehensive technical service and support for IBM Systems.

“Send service requests” on page 19

For hardware failures that do not disable system operation, electronic customer support provides a fast, electronic method for requesting the service of a hardware service provider with replacement parts. Using this method, you might report failures that occur on your iSeries server and selected input or output devices.


Configure an SNA connection

If you intend to access electronic customer support using SNA and a synchronous (SDLC) capable modem, then complete these tasks to establish your connection to IBM’s support services.

Notes:

1. This type of configuration does not work with Electronic Service Agent.
2. You can configure this type of access as a backup in case the Universal Connection is unable to be established. The Universal Connection will automatically fall back to this configuration if it exists. However, this connection type only works for PPP and VPN connection types.

Gather configuration information

1. Obtain primary and alternative numbers and connection information. If you do not know your service numbers and are not in the United States, refer to the IBM eServer iSeries Support Web site  for more information.
2. Turn on the modem that is connected to the electronic customer support cable.
3. You might choose to configure your service provider information now. See Configure service provider information in the Universal Connection topic.

Get ready to begin configuration

1. On your PC desktop, open **Client Access**.
2. Expand **Operations Console**.

Note: If you have not worked with Operations Console, you need to configure a new connection to your server. A wizard takes you through the configuration process. If no wizard appears, select **Connection** on the toolbar and select **New Connection**. If you do not have Client Access Express installed, you can use Telnet or a 5250 emulation session.

3. In the Operations Console window, select your server.
4. From the File menu, select **Connection**.
5. If prompted for the device tools user ID and password, enter QSECOFR for both values.
6. Select **Console**. The Server signon window appears.
7. Enter your QSECOFR user ID and password.
8. Continue with “Configure telephone information.”

Configure telephone information

If you are installing this server in the United States, the Change Data Area (CHGDTAARA) display may have one of these IBM service support numbers in the **New Value** field.

- East of the Mississippi River: **SST:18002378804**
- West of the Mississippi River: **SST:18005252834**

The SST value is a modem command. If you receive an error after entering these values, delete SST, or add the required prefix (for example, SST9), and try again.

If you are not in the United States, call your IBM service support telephone number.

To configure the primary and alternative telephone information, follow these steps:

1. On the command line of the main menu, enter `Call QTIINSTL` and press Enter.
2. Press F9 to recall `Call QTIINSTL` and press Enter.
3. Enter `Call QESPHONE` and press Enter.
4. Enter the **primary** telephone number in the **New Value** field.
5. Fill in the telephone and connection information and press Enter.
 - Ensure that the telephone number you enter follows this format: '1234567890 '
 - Do not add or delete any spaces after the last digit of the telephone number. Adding or deleting characters or spaces causes an error.

The Change Data Area display appears again to enter the alternative support number (if it is available in your area). To determine whether you are on the display for the primary support number or the alternative support number (if it is available in your area), check the value of the substring starting position. For the primary support number, the value is 001. For the alternative support number, the value is 051.

6. Type the alternative support telephone number (the support number you did not use as primary) in the **New Value** field and press Enter.
7. Press F3 (Exit) to return to the main menu.

Configure contact information

1. On the command line of the main menu, type `WRKCNTINF` and press Enter.
2. Type 2 (Work with local service information) and press Enter. The Work with Local Service Information window appears.
3. Type 2 (Change service contact information), and press Enter. The Change Service Contact Information window appears.
4. Perform the following steps:
 - a. Type the customer information and page down to the next dialog box.
 - b. Enter the correct information in the National language version field. Press F4 for a list of national language versions.
 - c. Enter the correct information in the Media for mailing fixes fields. Press the Help key for more information about the Media for mailing fixes field.
 - d. Press Enter. The Work with Local Service Information display appears with the following message: Data area QSSF created in library QUSRSYS. If the contact information has been created and you change it, the following message appears: Support contact information updated.
5. To test your connection, see Test your connection to electronic customer support in the Universal Connection topic.

Use the CL commands

Learn about how you can use the CL commands to create your connection to IBM.

You also can establish your connection to IBM's support services using CL Commands, including the `GO SERVICE` and `CRTSRVCFG` commands. See Control language (CL) topic for details.

Note: You will not be able to configure the Information Center Update application connectivity using these commands.

Related concepts

"Inventory" on page 2

You can use iSeries Navigator on your server to collect and manage various inventories on a regular basis, and store the data on a designated central system.

"Electronic Service Agent" on page 6

Electronic Service Agent provides an automatic hardware problem-reporting function that helps

predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.

Related information

Working with inventory

Send service requests

For hardware failures that do not disable system operation, electronic customer support provides a fast, electronic method for requesting the service of a hardware service provider with replacement parts. Using this method, you might report failures that occur on your iSeries server and selected input or output devices.

The Send Service Request (SNDSRVRQS) command establishes a communications session and sends problem information to your service support system or tests the communications link to your service provider.

Related concepts

“Electronic Service Agent” on page 6

Electronic Service Agent provides an automatic hardware problem-reporting function that helps predict and prevent hardware errors by early detection of potential problems, downloads fixes, and automatically submits problems to IBM when appropriate.

Related tasks

“Configure Extreme Support” on page 16

Learn about how you can configure Extreme Support to use the Electronic Service Agent for iSeries function in iSeries Navigator.

Related reference

“Extreme Support” on page 15

iSeries Extreme Support is part of the IBM eServer Technical Support Advantage, which is IBM’s comprehensive technical service and support for IBM Systems.

Send a service request immediately

If you decide to send a service request now, select **option 1** (Send service request now) on the Select Reporting Option display. The system packages the problem log entry as a service request. Then your server automatically dials the IBM service provider system, and the system transmits the problem to the service provider.

Note: Service requests can also be sent to other servers that have the System Manager for iSeries licensed program installed.

- | The service provider determines whether the request is for hardware or software service, and takes the
- | following appropriate action.

Hardware service:

- | If the service provider is IBM, and if no PTFs are found that match your problem’s symptoms, one of the
- | following activities happens:
 - Your request is sent to an IBM service representative.
 - An IBM Customer Assistance Group representative calls you to assist in further problem definition. The connection to the service provider system ends, and the status of the problem in the problem log is changed to SENT.

Software service:

- A search is performed against the database of program temporary fixes (PTFs) by using the symptom string you created during problem analysis.

- If the service provider is IBM, a match is found, and a PTF is available, then IBM will either transmit the PTF to you electronically, or send a PTF CD to you through normal mail channels. The size of the PTF and its requisites determine whether IBM sends the PTF electronically or through the mail. The PTFs that you receive electronically are placed in the QGPL library with a file name of the PTF number that is preceded by a Q and a file type of SAVE.
- If a match is not found or the PTF is not available, you will see the Save APAR Data display. This display saves the following information about your problem:
 - History log
 - Job information
 - Hardware and software resources
 - Error log entries
 - Vertical Licensed Internal Code log entries
 - Problem log entries
 - Pictures of displays

You can then forward this information to the IBM Software Support Center to help you solve your problem.

The connection to the service provider ends when you receive a PTF or when your problem is opened for further investigation. The system changes the status of the problem to SENT or to ANSWERED in the problem log.

Note: Whenever you use electronic customer support, your server needs to dial out to the IBM system. Remember to have the electronic customer support modem available and powered on.

Send a service request later

If you decide to send a service request later, select **option 2** (Do not send service request) on the Select Reporting Option display. The status of the problem in the problem log changes to PREPARED.

To submit a problem with PREPARED status, follow the directions in Report problems detected by the system. When the system reports the problem, the problem log entry is packaged as a service request. Then your server automatically dials the service provider system, and the system transmits the problem to the service provider.

To report all problems in the problem log that have a status of PREPARED, perform one of the following actions:

1. On the Work with Problems display, press F16 (Report prepared problems).
2. On any command line, type SNDSRVRQS *PREPARED and press the Enter key.

The connection to the service provider system ends when you receive a program temporary fix (PTF) or when your problem is opened for further investigation. The system changes the status of the problem to SENT or to ANSWERED in the problem log.


Note: Whenever you use electronic customer support, your server needs to dial out to the IBM system. Remember to have the electronic customer support modem available and powered on.

Related information for service and support

Listed here are the Web sites and information center topics that relate to service and support and Universal Connection. You can view or print any of the PDFs.

Related information for service and support

- **Web sites:**



- AS/400e Diagnostic Tools for System Administrators
(<http://www.redbooks.ibm.com/abstracts/sg248253.html>)  of IBM Redbooks™.
- IBM Electronic Service Agent for iSeries (<http://publib.boulder.ibm.com/isrvagt/sdsadoc.html>)

-  **iSeries Information Center:**

- APPC, APPN, and HPR are some examples of the protocols included within SNA.
- IBM Performance Management for eServer iSeries
- Maintain and manage i5/OS and related software
- Remote Access Services: PPP connections
- Troubleshooting
- Use software fixes
- Virtual private networking
- Working with inventory

Related information for Universal Connection

- **Web sites:**

- AT&T business (www.attbusiness.net)  Web site
- iSeries Access for Windows (<http://www-1.ibm.com/servers/eserver/series/access/>)  Web site

- **iSeries Information Center:**

- Client SOCKS support
- Configure your modem for PPP
- Implicit IKE
- IP Security (IPSec) protocols
- iSeries Access for Windows Installation and setup
- Layer 2 Tunnel Protocol (L2TP)
- NAT compatible IPSec
- Packet rules concepts
- Troubleshoot PPP
- Troubleshoot VPN
- Virtual private networking


- **IBM Systems Hardware Information Center:** Setting up your service environment topic.

Saving PDF files

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2. Click the option that saves the PDF locally.
3. Navigate to the directory in where you want to save the PDF.
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