IBM

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iSeries

iSeries Navigator for Wireless

Version 5 Release 3

IBM

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> **Note**
>
> Before using this information and the product it supports, be sure to read the information in "Notices," on page 29.

Contents

iSeries™ Navigator for Wireless

Managing multiple systems is one of the more challenging aspects of running a growing business. IBM[R] introduced Management Central to help administrators manage their systems. Users have enjoyed the ease, flexibility, and power of Management Central. From managing fixes and running commands across multiple systems to viewing real-time graphs of their systems performance, administrators have used Management Central to do their jobs much more efficiently.

With iSeries Navigator for Wireless, administrators have even more flexibility in how they access and interact with Management Central. iSeries Navigator for Wireless allows administrators to remotely monitor and manage system performance, status, jobs, and messages using an Internet-ready telephone, a personal data assistant (PDA) with a wireless modem, or a traditional Web browser on a workstation.

After you have configured iSeries Navigator for Wireless to run on a Web server on your central system, you can simply enter the URL into your Internet-ready telephone, PDA, or browser to perform the following:

- Watch system status.
- View properties of the system.
- View detailed summaries of the following Tasks:
  - Commands
  - Packages and Products
  - Inventory
  - Fixes
  - Collection Services
  - Users and Groups
  - System Values
- Manage Integrated xSeries[TM] Servers for iSeries. Run commands on all Integrated xSeries Servers at the same time or on just a single Integrated xSeries Server, start the Integrated xSeries Servers, or shut them down.
- Run OS/400[R] commands across multiple systems.
- View and interact with monitors
  - **System monitors**: View the metrics and current values being monitored, as well as the top 20 items (jobs, disk units, and so forth) that make up the metric value. Work with jobs listed in the monitor (display details, hold, release, end).
  - **Job and message monitors**: View all jobs and messages across systems matching monitor criteria. See metrics and current values being monitored. Work with the jobs and messages listed in the monitor (display details, hold, release, end, delete, reply).
  - **File monitors**: View detailed status of files, including system path, size, date modified, and the text that triggered the file.
  - **B2B activity monitors**: View business-to-business transaction details, and see metrics and current values being monitored.

- Limit what users can do by enabling read-only support, or by setting user-access levels with Application Administration. Allow users to view status information without the ability to take action.

This information is intended to help you start using iSeries Navigator for Wireless by providing tips on which devices to use, how to install and configure the required elements, and by giving you an overview of the functions.

What's new for V5R3

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Easily configure iSeries Navigator for Wireless to run using Apache Tomcat, WAS 5.0 Base, or Was 5.0 Express

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Print this topic
Download and print a PDF of this topic.

Set up iSeries Navigator for Wireless
This covers the software and hardware that is required to use iSeries Navigator for Wireless. This also helps you decide which kind of wireless device to use and what kind of applications you may need to install and configure.

Manage iSeries Navigator for Wireless
Find out how to manage iSeries systems from a wireless device. Use iSeries Navigator for Wireless to interact with monitors in both Management Central and Integrated xSeries Servers. Run commands, work with tasks and systems, and control user access.

Related information
IBM[(R)] related information contains links to related technical information.

What's new for V5R3

New in V5R3, you can now quickly and easily configure iSeries[(TM)] Navigator for Wireless to work with Apache Tomcat, WebSphere[(R)] 5.0 Base, and WebSphere 5.0 Express Application servers. For more on these new easy setup instructions, choose a Web application server.

How to see what's new or changed

To help you see where technical changes have been made, this information uses:
- The

  ≫

  image to mark where new or changed information begins.
- The

  ≪

  image to mark where new or changed information ends.

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

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Print this topic

To view or download the PDF version

»

of this document, select

«

iSeries^(TM) Navigator for Wireless (about 637 KB).

Other information

»

You can view or print PDFs of related manuals and Redbooks^(TM) from the Related information page.

«

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 **Save Target As...** if you are using Internet Explorer. Click **Save Link As...** if you are using Netscape Communicator.

   «

3. Navigate to the directory in which you would like to save the PDF.
4. Click **Save**.

Downloading Adobe Acrobat Reader

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You need Adobe Acrobat Reader to view or print these PDFs. You can download a copy from the Adobe Web site (www.adobe.com/products/acrobat/readstep.html)

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Set up iSeries Navigator for Wireless

There are many choices to make when entering the wireless world. This section describes what is required to use iSeries^(TM) Navigator for Wireless, as well as helps you decide which kind of device to use with iSeries Navigator for Wireless. The following pages also help you to determine what kind of applications you may need to install and configure.

Hardware and software requirements
Determine if you have all the necessary software and hardware to run iSeries Navigator for Wireless.

Select a device
Choose devices that are compatible with iSeries Navigator for Wireless.

Develop an Internet protection program
Develop an internet protection program that works for you.

Choose a Web application server
Determine which web application server works for you.

Configure your wireless environment
Modify your web application server and firewall configuration so that iSeries Navigator for Wireless will run properly.

Connect to your central system
Connect to the central system using your wireless device.

Customize your connection
You may choose not to give users the ability to run commands from a wireless device but still provide users with the ability to view monitors and system status. You may also want to change your task details expiration. This page shows you how to limit user access to iSeries Navigator for Wireless functions using Application Administration, as well as customize your task details retrieval length.

Hardware and software requirements

The following elements are required to run the latest enhancements of iSeries[TM] Navigator for Wireless:

- Licensed Product 5722-XP1:
  The iSeries Access for Wireless product that includes iSeries Navigator for Wireless.
- A device to run the function
  - An Internet-enabled telephone with a wireless internet service
  - A PDA with a web browser, a wireless modem, and a wireless internet service
  - A traditional web browser on a workstation
- A server running OS/400[R] V5R2 or later in a TCP/IP network.
  This will be your central system used by Management Central.
- A web application server running on your central system, such as any of the following:
  - ASF Jakarta Tomcat Application server
  - WebSphere[R] Application Server
  - Any other application server that runs on the central system, having the capability to host servlets

*
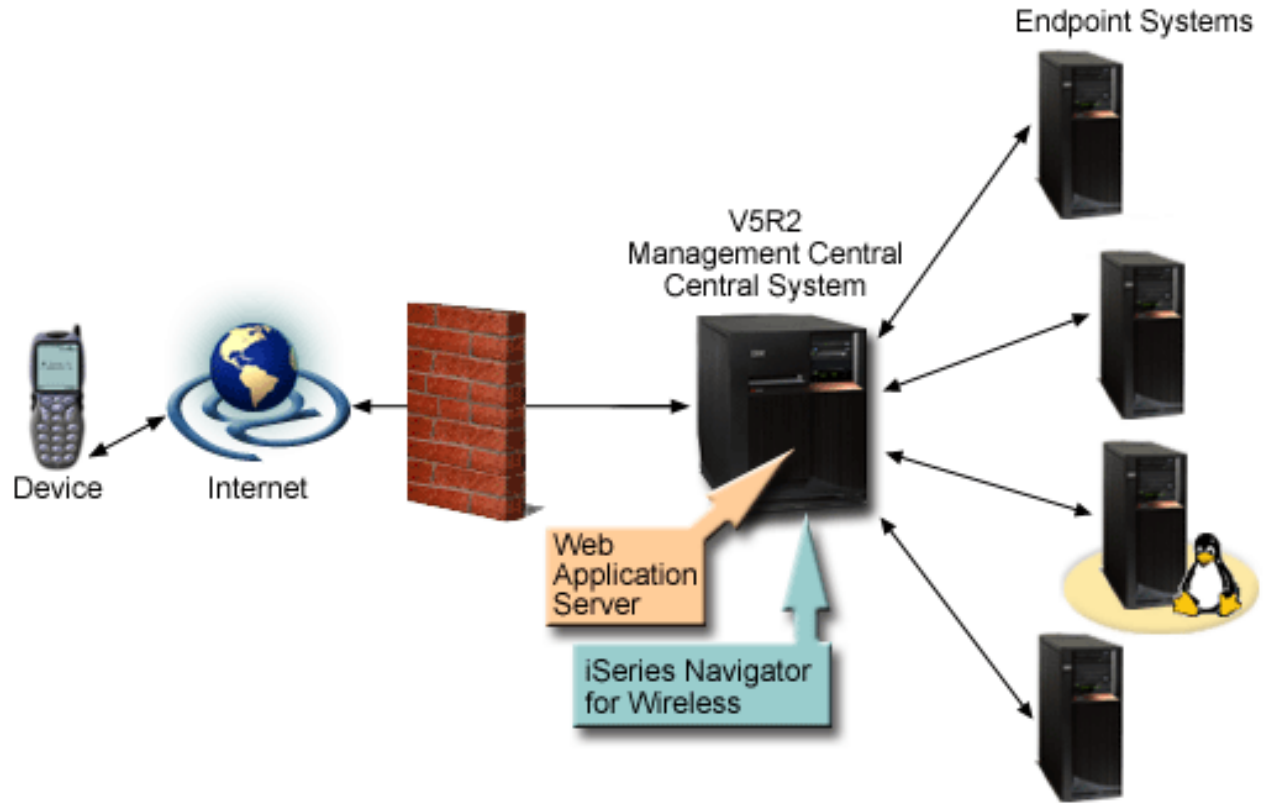
Figure 1: Wireless device connecting to Management Central

Select a device

Internet-ready telephones and wireless PDAs are a rapidly changing technology. They differ in screen size, in look-and-feel, and in many other significant characteristics. The following sections help you choose devices that are compatible with iSeries(TM) Navigator for Wireless. Other wireless devices may also be compatible if they support wireless internet browsing, but the interaction may be different.

Internet-ready telephones
Select an Internet-ready telephone to use with iSeries Navigator for Wireless.

PDAs
Select a PDA to use with iSeries Navigator for Wireless.

PCs
You can also use a traditional web browser with iSeries Navigator for Wireless.

Select a Device: Internet-ready telephones

Consider the following elements when you select an Internet-ready telephone to use with iSeries(TM) Navigator for Wireless:

- The physical characteristics of the telephone itself (display size, button location, and so forth)
- The web browser (often called a microbrowser or a minibrowser) supported on the telephone
- The wireless internet services available with the Internet-ready telephone in the geographical areas where you want to use it

The display size of the Internet-ready telephone often affects how easy it is to use. In general, the more horizontal lines the telephone displays, the easier it is to view data. Regardless of the display size, you will often need to scroll down in the telephone display using buttons or other scrolling mechanism. The width of the displayed lines should also be a consideration.

An Internet-ready telephone is typically already loaded with a microbrowser. Once you select a particular telephone, you are also making your browser choice. iSeries Navigator for Wireless currently supports the Openwave Mobile Browser version 3.1 and above (formerly called UP.browser). For best results, choose a telephone that supports this microbrowser.

The wireless internet service is what transports the data to and from your Internet-ready telephone. It is not the same as the voice service for your telephone, although the two may be packaged together by a particular provider. Make sure that the telephone you select is supported by a wireless internet service available in the geographical areas where you want to use it.

Compatibility with iSeries Navigator for Wireless

The following Internet-ready telephones are compatible with iSeries Navigator for Wireless.

Telephone	Type of testing	Wireless service	Comments
Mitsubishi T250	Device	AT&T[R] PocketNet	Small font preference is recommended.
Table Note: Other phones have been tested with a simulator, including the Ericsson R280 LX.			

Other Internet-ready telephones may also be compatible. As stated earlier, iSeries Navigator for Wireless supports the Openwave Mobile Browser 3.1 or greater from Openwave. The Openwave Mobile Browser is licensed by a number of telephone manufacturers around the world. In addition, many of the manufacturers offer support on more than one model of telephone. The list of telephones supported by the OpenWave Mobile Browser can be found at the Openwave Web site http://upmkt.openwave.com/dev_phones/phones.cfm

. Other information on this browser can be found at the Openwave Web site: http://www.openwave.com

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Select a Device: PDAs

iSeries[TM] Navigator for Wireless makes use of a web browser running on your PDA. Unlike Internet-ready telephones, the selection of a browser is not tied to your choice of PDA device. If a web browser was packaged with your PDA when you bought it, you can install additional web browsers. You can download many web browsers for PDA devices over the Internet.

PDA browser compatibility with iSeries Navigator for Wireless

Many different web browsers exist for PDA devices. Often, the browsers differ in the HTML elements they support. Some browsers handle text differently than others. Some display images and tables, while others do not. Some browsers offer higher levels of protection or security than others. The following browsers support the necessary elements to run iSeries Navigator for Wireless from a PDA:

• AvantGo

Version 3 or later

- EudoraWeb

  Version 1.1 or later
- Go.Web

  Version 6.0 - for RIM Blackberry

Other web browsers that run on PDAs may also be compatible. Be aware that the differences in how another browser displays HTML can cause iSeries Navigator for Wireless to appear and behave differently than one of the browsers listed previously.

Also, if you need extra security look for browsers that support SSL .

PDA compatibility with iSeries Navigator for Wireless

The following PDAs are compatible with iSeries Navigator for Wireless:

PDA	Operating system	Wireless modem	Wireless service
Palm V or Vx	Palm OS Version 3.3	Minstrel V	AT&T[R]
Palm III or IIIx	Palm OS Version 3.3	Minstrel III	AT&T
RIM Blackberry	RIM	Built in	GoAmerica
Kyocera QCP 6035	Palm OS	Built in	Sprint

Many other PDAs are most likely compatible. Since iSeries Navigator for Wireless runs in a browser, the choice of PDA should not make a difference, but only the PDAs listed above were tested. Also, any device that allows you to perform web browsing and supports HTML may be compatible with iSeries Navigator for Wireless.

Modem and wireless Internet service for the PDA

You need to choose a modem that is compatible with your PDA selection. In addition, you need to find a wireless Internet Service Provider (ISP). The wireless Internet service transports the data to and from your PDA using the modem. When choosing a modem and service, make sure that you select a combination that is supported in the geographical areas where you want to use your PDA.

Select a Device: PCs

iSeries[TM] Navigator for Wireless is designed to run on an Internet-ready telephone or PDA. However, because it runs on a browser in a PDA, iSeries Navigator for Wireless will also run on a traditional web browser. Any current workstation web browser should work because PDA browsers have more limitations.

Because iSeries Navigator for Wireless only needs a small display, one suggestion is for you to put a small window of your browser in the corner of your workstation. Then you can keep current on your systems and monitors without having to clutter your desktop.

If you are using a traditional Internet browser on your PC, you can select **Get Report** from the main menu to display all information on a full browser screen.

Develop an Internet protection program

Because the iSeries[(TM)] Navigator for Wireless servlet needs to obtain the user ID of the remote user, the web application server will need to be configured or set up to authenticate the user. The servlet uses this user ID to communicate with Management Central. Because this authentication can take place over the internet, the user needs to develop a protection plan to protect this authentication information (user ID and password).

Also, the data that is transferred between the client and the server contains systems management information. An analysis should be done to determine the level of protection you require for this data. The following questions need to be considered in developing this plan.

- What services will be used to access the servlet (use the Internet, use browsers on clients attached to the central system, or both)?
- What client devices will be used and what are the security capabilities of the browsers used on the devices?
- How will the desired protection be configured or be set up on a Web application server such as IBM[(R)] WebSphere[(R)] or ASF Tomcat servlet engine, and IBM HTTP Server for iSeries?
- What is the sensitivity of the data transferred between the client and server?

In developing this protection plan, refer to AS/400[(R)] Internet Security Scenarios: A Practical Approach[(R)]

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The following IBM WebSphere Application Server

web page and ASF Jakarta Tomcat

home page may also be helpful in developing a protection plan. These pages also provide documentation on the security protection capabilities of the client devices and browsers to be used.

Configure your wireless environment

Before you begin using iSeries[(TM)] Navigator for Wireless, make sure that you have properly configured or set up the following items:

Configure your Web application server
Set up iSeries Navigator for Wireless to run using an ASF Jakarta Tomcat servlet engine,

or a WebSphere[(R)] Application Server (WAS). You can find set up instructions here for WAS 5.0 Base Edition and WAS 5.0 Express Edition

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Configure your firewall
Determine if you need to modify your firewall to gain access to systems from a wireless device.

Configure Management Central
Take full advantage of the capability that iSeries Navigator for Wireless provides when you interact with Management Central. This page helps you to fully use the functions available in Management Central.

Select a language
The default language is set to English, but you can configure your device to display your language of choice.

After you have completed these steps, you are ready to connect to your central system and begin using iSeries Navigator for Wireless.

Choose a Web application server

You can use several Web application servers to run the iSeries(TM) Navigator for Wireless servlet. The following Web application servers are recommended:

- Apache Software Foundation Jakarta Tomcat (ASF Tomcat) servlet engine for HTTP Server (powered by Apache)
- IBM(R) WebSphere(R) Application Server, Base Edition, Version 5.0
- IBM WebSphere Application Server, Express Edition, Version 5.0

Configure your ASF Jakarta Tomcat servlet engine for HTTP Server (powered by Apache):   The following tasks will help you set up an ASF Tomcat servlet engine for HTTP Server (powered by Apache) to run iSeries(TM) Navigator for Wireless

Requirements: Before you begin, you must have QSECOFR authority and the following installed:

- IBM(R) HTTP Server (5722-DG1)

Note: The following instructions will create a new instance of an HTTP Server; you cannot use the following instructions to set up iSeries Navigator for Wireless on an existing HTTP Server.

Create your Web application server: Running the following command will add the iSeries Navigator for Wireless servlet to the Apache Software Foundation Jakarta Tomcat servlet engine. It will also set up an IBM HTTP Server (powered by Apache) named *<HTTPInstanceName>* that listens for requests on port *<port number>*. Items in [brackets] are optional, and if you do not specify a value, a default value will be used. Replace items in *<italics>* with your own information:

> CALL QSYSDIR/QYPVSETUP '-tomcat [-httpinstance *<HTTPInstanceName>*] [-port *<port number>*][-javaversion *<java version>*]'

The parameters in the command above are defined as follows:

-tomcat
Specifies that ASF Tomcat is the servlet engine used to run iSeries Navigator for Wireless

-httpinstance *<HTTPInstanceName>*
Specifies the name of the HTTP instance used to run the ASF Tomcat servlet engine. If you do not specify an instance name, the default is MCP. When specifying an instance name, the name cannot include spaces and must be less than 10 characters long.

-port *<port number>*
Specifies the port for the HTTP Server to listen for requests. If the port is not specified, the default is 8110.

-javaversion *<java version>*
Specifies the version of Java(TM) Developer's Kit to use. Valid values for this parameter are 1.3 and 1.2. If you do not specify a java version, the default is 1.3 if it is installed, otherwise 1.2 will be used.

Start your Web application server: ASF Tomcat runs 'in process'; this means that it starts and ends when the HTTP server starts and ends. After you run the above command and setup is complete, you need to start the HTTP Server by running the following command:

> STRTCPSVR SERVER(*HTTP) HTTPSVR(<*HTTPInstanceName*>)

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Now that you have finished setting up your web application server, you can continue to configure your wireless environment

For more information about ASF Jakarta Tomcat, go to http://jakarta.apache.org/tomcat/index.html

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Configure your WebSphere(R) Application Server, Base Edition, Version 5.0: The following tasks will help you set up iSeries(TM) Navigator for Wireless to run using WebSphere Application Server (WAS) 5.0 Base Edition

Requirements: Before you begin, you must have QSECOFR authority and the following installed:
- IBM(R) HTTP Server (5722-DG1)
- WebSphere 5.0.1 and above

Note: The following instructions will create a new instance of an HTTP Server; you cannot use the following instructions to set up iSeries Navigator for Wireless on an existing HTTP Server.

The following instructions assume you have configured and are running WebSphere already. If you have not yet set up WebSphere, go to WebSphere at
http://www.ibm.com/eserver/iseries/products/websphere

for complete prerequisite details (including Java(TM)). The WebSphere Administrative Console program installed on a PC (that is, Windows NT(R) on the TCP/IP network) should be used in the setup and configuration.

If you are a new WebSphere user, make the **Hello World** servlet application functional by following the configuration steps on the WebSphere homepage. This setup process helps you to become familiar with WebSphere, and it verifies that the installation and configuration are successful.

Start the WebSphere subsystem: Make sure the QEJBAS5 subsystem is running. If it is not running, run the following command:

> STRSBS QEJBAS5/QEJBAS5

Create your Web application server: Running the following command will set up iSeries Navigator for Wireless to run using WebSphere 5.0 Base Edition as the servlet engine. It will create an instance of WebSphere named <*WASInstanceName*> and an IBM HTTP Server (powered by Apache) named <*HTTPInstanceName*> that listens for requests on port <*port number*>. Make sure that subsystem QEJBAS5 is running before trying this command. Items in [brackets] are optional, and if you do not specify a value, a default value will be used. Replace items in <*italics*> with your own information:

> CALL QSYSDIR/QYPVSETUP '-wasversion 5733WS5 [-nodename <*node name*>] [-wasinstance <*WASInstanceName*>] [-httpinstance <*HTTPInstanceName*>] [-port <*port number*>]'

The parameters in the command above are defined as follows:

-wasversion 5733WS5
Specifies that Websphere 5.0 Base Edition will be used to run iSeries Navigator for Wireless

-nodename *<system name>*
Specifies the short name of the system that iSeries Navigator for Wireless is being set up for. For example, if the system name is yoursystem.yourcompany.com, the *<system name>* would be yoursystem.

-wasinstance *<WASInstanceName>*
Specifies the name of the WebSphere instance that will be created to run iSeries Navigator for Wireless. The instance that is specifed cannot exist yet, otherwise there will be an error when the command is run. If you do not specify an instance name, the name of the instance will be MCP.

-httpinstance *<HTTPInstanceName>*
Specifies the name of the HTTP instance used to run the WebSphere servlet engine. If you do not specify an instance name, the default is MCP. When specifying an instance name, the name cannot include spaces and must be less than 10 characters long.

-port *<port number>*
Specifies the first number of a block of 6 ports. The HTTP Server will listen for requests on *<port number>*, and the application server listens on *<port number>* + 1 through *<port number>* + 5. If you do not specify a port number, the default is 8110 for the HTTP Server and 8111 - 8115 for the application server.

Start the WebSphere application server: To start your application server, you need to run this command from the QSHELL command line:

> /QIBM/ProdData/WebAS5/Base/bin/startServer iSeriesNavigatorForWireless -instance *<WASInstanceName>*

The port number for the admin console of this instance of the WebSphere application server will be displayed once the application server has started.

Start your HTTP Server: After you start your application server, you need to start your HTTP Server by running the following command:

> STRTCPSVR SERVER(*HTTP) HTTPSVR(*<HTTPInstanceName>*)

Now that you have finished setting up your web application server, you can continue to configure your wireless environment

Configure your WebSphere(R) Application Server, Express Edition, Version 5.0: The following tasks will help you set up iSeries(TM) Navigator for Wireless to run using WebSphere Application Server (WAS) 5.0 Express Edition

Requirements: Before you begin, you must have QSECOFR authority and the following installed:
- IBM(R) HTTP Server (5722-DG1)
- WebSphere 5.0.1 and above

Note: The following instructions will create a new instance of an HTTP Server; you cannot use the following instructions to set up iSeries Navigator for Wireless on an existing HTTP Server.

The following instructions assume you have configured and are running WebSphere already. If you have not yet set up WebSphere, go to WebSphere at http://www.ibm.com/eserver/iseries/products/websphere

for complete prerequisite details (including Java$^{(TM)}$). The WebSphere Administrative Console program installed on a PC (that is, Windows NT$^{(R)}$ on the TCP/IP network) should be used in the setup and configuration.

If you are a new WebSphere user, make the **Hello World** servlet application functional by following the configuration steps on the WebSphere homepage. This setup process helps you to become familiar with WebSphere, and it verifies that the installation and configuration are successful.

Start the WebSphere subsystem: Make sure the QASE5 subsystem is running. If it is not running, run the following command:

> STRSBS QASE5/QASE5

Create your Web application server: Running the following command will set up iSeries Navigator for Wireless to run using WebSphere 5.0 Express Edition as the servlet engine. It will create an instance of WebSphere named *<WASInstanceName>* and an IBM HTTP Server (powered by Apache) named *<HTTPInstanceName>* that listens for requests on port *<port number>*. Make sure that subsystem QEJBAS5 is running before trying this command. Items in [brackets] are optional, and if you do not specify a value, a default value will be used. Replace items in *<italics>* with your own information:

> CALL QSYSDIR/QYPVSETUP '-wasversion 5722IWE [-wasinstance *<WASInstanceName>*] [-httpinstance *<HTTPInstanceName>*] [-port *<port number>*]'

The parameters in the command above are defined as follows:

-wasversion 5722IWE
Specifies that Websphere 5.0 Express Edition will be used to run iSeries Navigator for Wireless

-wasinstance *<WASInstanceName>*
Specifies the name of the WebSphere instance that will be created to run iSeries Navigator for Wireless. The instance that is specifed cannot exist yet, otherwise there will be an error when the command is run. If you do not specify an instance name, the name of the instance will be MCP.

-httpinstance *<HTTPInstanceName>*
Specifies the name of the HTTP instance used to run the WebSphere servlet engine. If you do not specify an instance name, the default is MCP. When specifying an instance name, the name cannot include spaces and must be less than 10 characters long.

-port *<port number>*
Specifies the first number of a block of 6 ports. The HTTP Server will listen for requests on *<port number>*, and the application server listens on *<port number>* + 1 through *<port number>* + 5. If you do not specify a port number, the default is 8110 for the HTTP Server and 8111 - 8115 for the application server.

Start the WebSphere application server: To start your application server, you need to run this command from the QSHELL command line:

> /QIBM/ProdData/WebASE/ASE5/bin/startServer *<WASInstanceName>* -instance *<WASInstanceName>*

The port number for the admin console of this instance of the WebSphere application server will be displayed once the application server has started.

Start your HTTP Server: After you start your application server, you need to start your HTTP Server by running the following command:

> STRTCPSVR SERVER(*HTTP) HTTPSVR(<*HTTPInstanceName*>)

Now that you have finished setting up your web application server, you can continue to configure your wireless environment

Configure your firewall

When you use iSeries(TM) Navigator for Wireless, you will be accessing at least one of your systems from the Internet. If you access any of your systems from the Internet today, you probably have a firewall set up to prevent unauthorized access. Depending on your firewall configuration, you may have to modify your firewall setup to run iSeries Navigator for Wireless.

If you have never accessed your systems from the Internet and do not have a firewall set up, the following IBM(R) Redbook provides strategies for doing so in the chapters about screened host architecture and screened subnet architecture. See AS/400(R) Internet Security Scenarios: A Practical Approach(R)

Configure Management Central

iSeries(TM) Navigator for Wireless does not need a PC to run, but a PC is needed to set up Management Central. Management Central is an integral part of iSeries Navigator, the graphical interface for iSeries servers. You install iSeries Navigator on the PC as a component of iSeries Access for Windows(R). No additional installation is needed. When installing iSeries Access for Windows, select iSeries Navigator from the list of available components, and then select the components you want (Monitors, Commands). Next, you can set up Management Central (central system, endpoint systems, monitors, commands). To connect to Management Central from a wireless device, your Web application server must be set up on the endpoint server you have configured as your Management Central central system.

Because iSeries Navigator for Wireless is a companion to Management Central, iSeries Navigator for Wireless uses endpoint systems and monitors defined in Management Central to report status and to monitor metric information.

Do the following tasks in Management Central before you begin using your wireless device:

1. **Add endpoint systems**

    Add systems to your network so that you can monitor status. Only systems defined as endpoint systems in Management Central will show up in iSeries Navigator for Wireless. This includes systems with integrated xSeries(TM) servers. If you want to manage your integrated servers on a particular system, be sure it has been added as an endpoint system.

    When all of your endpoint systems have been added, collect inventory so information about each endpoint system is available for you to view from iSeries Navigator.

2. **Create monitors**

    Monitors in Management Central can be powerful. You have the flexibility to have simple or complex monitors, to set up thresholds, and to perform automation if those thresholds occur. The goal of iSeries Navigator for Wireless is to keep you informed of the status of these monitors wherever you are. Create monitors with meaningful names (but try to keep them short or they will scroll on the wireless devices). When you give a monitor a meaningful name, you can easily recognize it on a wireless device, and you will know what it is monitoring for, if it has triggered, and the severity of a problem you are looking at. With iSeries Navigator for Wireless, you can also view metrics and values on a specific system.

3. **Start and stop monitors**

You have the ability to start and stop monitors from iSeries Navigator for Wireless, but if you start them in Management Central, your monitors will be active and on the lookout for problems, and data will have already been collected when you access your monitors from a wireless device. Many times a problem will occur and you will need to monitor something in more detail. If you predefine these "troubleshooting" monitors in Management Central, you can then start them later using iSeries Navigator for Wireless.

4. **Create command definitions**

You can run commands from iSeries Navigator for Wireless. However, entering a long command into a Internet-ready telephone can be quite cumbersome. That is why your command definitions are also displayed so you can run the commands in the definitions directly from iSeries Navigator for Wireless. Create as many command definitions as you would like, but keep the names short so you can see them on a small display.

Select a language

The iSeries$^{(TM)}$ Navigator for Wireless default language is English, but you have the ability to select different languages. Once you install the optional language support fix (PTF), the language can be set on the device being used, the browser used on your PC, or specified on the URL. Use the following URL and language choice:

> *host*.*domain*:*port*/servlet/McYpvPervasive?lng=*lang*

host: The host name of the central system
domain: The domain the central system is located
port: The port that the instance of the Web server is listening to
lang: The language to be viewed

Available languages:

Language	Language identifier	Character set
Belgium Dutch	nl_BE	utf-8
Chinese Simplified	zh	gb2312
Chinese Traditional	zh_TW	big5
Croatian	hr	iso-8859-2
Czech	cs	iso-8859-2
Dutch	nl	utf-8
English	en	utf-8
French	fr	utf-8
French Belgium	fr_BE	utf-8
French Canadian	fr_CA	utf-8
French Swiss	fr_CH	utf-8
German	de	utf-8
German Swiss	de_CH	utf-8
Greek	el	iso-8859-7
Hungarian	hu	iso-8859-2
Italian	it	utf-8
Italian Swiss	it_CH	utf-8
Japanese	ja	shift-jis
Korean	ko	euc-kr
Polish	pl	iso-8859-2

Portuguese	pt	utf-8
Portuguese Brazilian	pt_BR	utf-8
Romanian	ro	iso-8859-2
Russian	ru	windows-1251
Slovakian	sk	iso-8859-2
Slovenian	sl	iso-8859-2
Spanish	es	utf-8

To Set the Default Language and Character Set for Netscape:

To set the language, select **Edit —> Preferences**, and then click **Languages** (click **Add** to see a list of language possibilities). Only the first one in the list is used.

To set the character set, select **View —> Character Set**.

To Set the Default Language and Character Set for Internet Explorer:

To set the language, select **Tools —> Internet Options**, and then click **Languages** button (click **Add** to see a list of language possibilities). Only the first one in the list is used.

To set the character set, select **View —> Encoding**. (You may have to select **More** to see the entire list.)

Connect to your central system

To begin using iSeries^(TM) Navigator for Wireless, enter the URL of your central system into your wireless device. When pointing your device to the URL on your central system, use the following format. Carefully specify that the end of the URL (/servlet/McYpvPervasive) is entered exactly as shown:
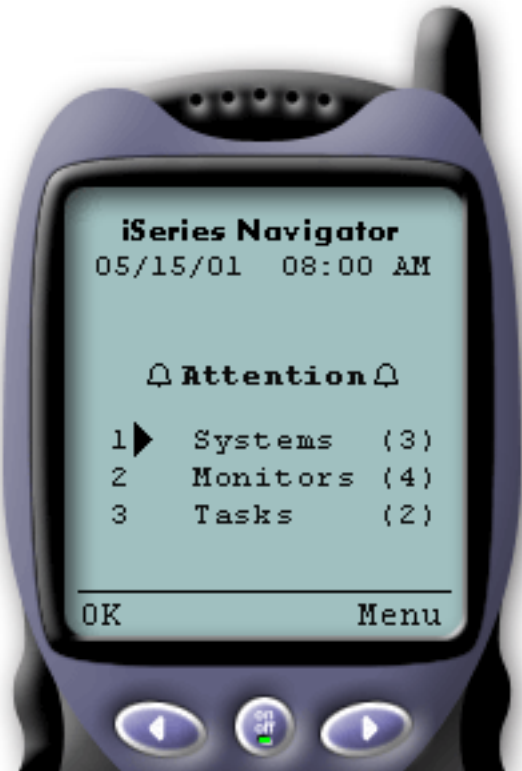
> *host*.*domain*:*port*/servlet/McYpvPervasive

> *host:* The host name of the central system.
> *domain:* The domain where the central system is located.
> *port:* The port that the instance of the Web server is listening to.

Internet-ready telephone layout

If you have successfully connected to your central system, the first thing you see when using iSeries Navigator for Wireless on an Internet-ready telephone is the summary. It shows you how current the information is, how many systems are in your list, how many monitors you have running, and how many tasks you have run in the last 24 hours. It will also tell you if any item needs attention by showing an overall status of **OK** or **Attention** at the top of your display.

If **OK** is shown, all of your systems, monitors, and tasks are running smoothly.

If **Attention** is shown, a system, monitor, or task needs more attention. If a system is unavailable or if a monitor or task has failed, an exclamation point is shown next to the link with the item that needs attention. If a monitor has triggered, a bell is shown next to the Monitors link.

Note: For telephones that do not support graphics, an asterisk will be shown instead of a bell.

PDA browser layout

The PDA browser layout is similar to the Internet-ready telephone. You will see a summary when first using iSeries Navigator for Wireless, but because there is more room, the PDA browser also displays the number of systems that are unavailable, the number of monitors that have triggered or failed, and the number of tasks that have failed. Because some compatible browsers do not support graphics, an asterisk (*) is used instead of a bell when displaying a triggered status.

Traditional browser layout

The traditional browser layout is exactly the same as the PDA browser layout. However, because of the increased display size, it looks more basic. To make better use of desktop space, you can put a small browser window in the corner of your PC to take advantage of Management Central functions while working with other applications. If you are using a traditional Internet browser on your PC, you can select **Show all** from the main menu to display all information on a full browser window.

After you have successfully connected to your system, you may want to customize your connection and begin managing iSeries Navigator for Wireless.

Customize your connection

Limit user access to Management Central by manually removing functions from iSeries$^{(TM)}$ Navigator for Wireless and by configuring Application Administration, and customize how long summary information stays on your display before it is cleared.

Limit user access

Because you may want to limit a user's capability to work with Management Central from a wireless device, the following steps provide a way to let users view monitors and system status but not take any action from iSeries Navigator for Wireless.

The following functions can be removed:

- Running commands on iSeries and integrated xSeries^(TM) servers
- Starting or shutting down integrated xSeries servers
- Performing any action on a job (Hold, Release, End)
- Performing any action on a message (Reply, Delete)
- Starting, stopping, or restarting any monitor

To limit access, you must create the following options file:

1. In the integrated file system, create a file in the following directory:

    Directory: QIBM/UserData/OS400/MGTC/Pervasive/
    File: QYPV_OPTIONS.OPT

2. Enter one of the following text strings into your file:

    - readonly=yes
    - readonly=no

A specific user can also have an options file named QYPV*xxxxxx*.OPT, where *xxxxxx* is the user ID. This specific user file will override the QYPV_OPTIONS.OPT file allowing you to grant all users readonly=yes authority, while granting specific users all access.

Set task details retrieval length

Detailed information about tasks are available on the summary screen. These details are set to expire in 24 hours (tasks will still run, but no new data about a task will be retrieved from the central system and displayed on your wireless device after 24 hours). You can change the expiration time by editing the following option file:

    Directory: QIBM/UserData/OS400/MGTC/Pervasive/
    File: QYPV_OPTIONS.OPT

Add the following new entry to the option file (where *XXXX*, any number between 1-9999, is the number of hours):

    HOURS_OLD=*XXXX*

This is not case sensitive and can be either on a separate line or separated by a space from the READONLY entry.

For example, your newly edited file might read:

    READONLY=no
    HOURS_OLD=48

This will give you full access and show tasks that have run in the last 48 hours.

Configure Application Administration

You can use Application Administration to control user access to the following functions in Management Central: limit or grant access to monitors and commands. You should check to make sure the functions selected in Application Administration are configured to match your desired preferences for connecting to Management Central with a wireless device.

Examples:

- If a user is not authorized to Management Central but has a valid user ID on the iSeries, when they try to connect to Management Central with a wireless device an authorization error message is displayed.
- If a user is authorized to Management Central but does not have Application Administration authority to access monitors, no monitor information is displayed on the wireless device.
- If a user is not authorized to commands in Management Central, they will not be able to run a command definition or run a command on an Integrated xSeries Server.

For more information on configuring and using Application Administration, see: Application Administration

Manage iSeries Navigator for Wireless

Using iSeries(TM) Navigator for Wireless is quite simple. Once your central system is set up properly, you can connect to your central system by pointing your internet-ready telephone, PDA, or traditional web browser to the URL on your central system. It connects to your central system, asks you to log on, and shows you a summary of the status of all your systems, monitors, and tasks. iSeries Navigator for Wireless is designed with the assumption that as long as you can find out that your systems, monitors, and tasks are running smoothly, no other information is required. You always have the option to view more information, and you can even check the detailed monitor metrics on systems that are running smoothly. But generally, if everything is OK, it is assumed that the summary is all you need to look at.

When you manage your systems with iSeries Navigator for Wireless, you can feel confident when your wireless device tells you that everything in your network of iSeries servers is OK because you define what OK means in your environment. If you set up the systems and monitors you are interested in, and you tell the monitor to trigger at a certain threshold, then all you have to do is view the iSeries Navigator for Wireless summary page and you can easily determine if everything is running smoothly or if something needs attention.

The following pages help you use iSeries Navigator for Wireless to interact with monitors in both Management Central, iSeries, and Integrated xSeries Servers, run commands, to work with tasks and systems, and to control user access.

Work with iSeries systems
iSeries Navigator for Wireless allows you to view the properties of systems, add or remove a system, and customize the system list.

Work with Integrated xSeries(TM) Servers
iSeries Navigator for Wireless provides you with the ability to manage your Integrated xSeries Servers from your wireless device.

Work with tasks
You can view summary details for all your Management Central tasks.

Run commands across multiple systems
iSeries Navigator for Wireless makes it easy to run commands on iSeries systems from your wireless device.

View and interact with monitors
If you have preconfigured monitors to run in Management Central, you can view and interact with system monitors, message monitors, job monitors, file monitors, and B2B activity monitors using iSeries Navigator for Wireless.

Work with iSeries systems

You can interact with your iSeries(TM) systems from a wireless device by using iSeries Navigator for Wireless. When the **Systems** link is selected, the list of all systems in your list is shown. You can customize your system list, and add only the systems you want to see, but the system must first be predefined as an endpoint system in Management Central. If any systems in your list are not available, an exclamation point is shown next to the system, and it is in bold. You can add and remove systems from your system list, and you can also create a default system list, or create system lists for specific users.

Add and remove systems from your list:

1. Go to the menu, and select **Add System** or **Remove System**.
2. Select the system to add or remove.

Each system is also a link. Select a system to view properties on that system, as well as all the Integrated xSeries(TM) Servers on that system.

Because adding systems to your list can be cumbersome, administrators can create a default system list that becomes the default list for any user. The user can then customize that list to their own liking. This feature can be useful if a group of users is interested in data stored on the same five to ten systems.

Create a default system list:

In the following directory, create the following file:

> **Directory:** QIBM/UserData/OS400/MGTC/Pervasive/
> **File:** QYPV_SYSTEMS.txt

After you have created this file, add all the systems that you want to include in your default list on one line, separated by a comma. You can also create a system list for a specific user by creating the file QYPV*xxxxx*.txt, where *xxxxx* is the user profile name.

Work with Integrated xSeries Servers

If you have iSeries systems that have Integrated xSeries(TM) Servers (IXS), simply add the IXS systems to your system list, and you have the ability to manage your Integrated xSeries Servers.

When you select an iSeries system, you can either link to the system properties, or you can view the IXS. You will notice right away that the link to the IXS uses the same status as other iSeries Navigator for Wireless functions. It tells you if any IXS needs attention, or if all of them are OK.

You can run NT commands on a single or all Integrated xSeries Servers, and see the properties of each one. The NT commands are started as Management Central tasks, so you can keep track of the commands you run. The image below shows IXS support in iSeries Navigator for wireless running in a traditional browser format.
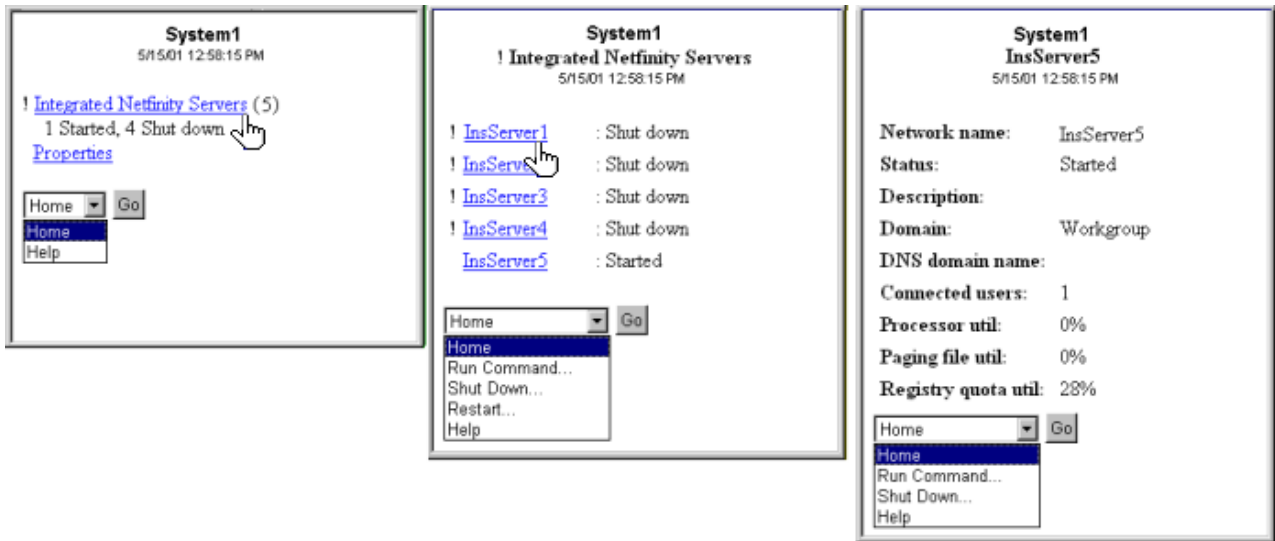

Figure 1: Clicking on your Integrated xSeries Servers expands and displays the details of each system.

Note: To manage integrated xSeries servers from the iSeries, the user ID and password must be the same on both the xSeries and iSeries.

For more information see: Windows environment on iSeries

Work with tasks

Click **Tasks** from the main summary window to view summary details for the following Management Central tasks:

- Commands
- Packages and Products
- Inventory
- Fixes
- Collection Services
- Users and Groups
- System Values

For each type of task, the task summary displays the total number of tasks, the number of tasks that have failed, and the number of tasks that have completed. Only the tasks run in the last 24 hours will display in your list; if you have not run a Command in the last 24 hours, no information on Commands will display on the task summary screen. Task information is set to expire in 24 hours, but you can change this expiration by customizing your connection.

Click a specific task such as **Commands** to view the name or names of command tasks that are starting, or that have completed or failed. Click the name of a specific task to view the endpoint system that the task was or is running on.

Run commands across multiple systems

Use iSeries(TM) Navigator for Wireless to run any OS/400(R) command across multiple iSeries systems. You can select **Run Command** from the summary page, which then asks you to select the system or system group to run the command on. Or you can select a system from your system list and run a command on it.

When you select **Run Command**, you have the option of selecting an existing command definition (defined by you in Management Central), or you can enter any command. Because entering text on a telephone is cumbersome, using command definitions is extremely useful.

When commands are started, they are started as Management Central tasks. That way you can keep a record of them, view the status across all systems, and view the overall status by looking at the summary page. The summary page displays all the tasks you have run with Management Central (including iSeries Navigator for Wireless) over the last 24 hours on your wireless device. After 24 hours, you need to use iSeries Navigator on your PC to view a Command task. If you want to display task details on your wireless device for longer than 24 hours, you can customize your connection.

The graphic below shows a sample of iSeries Navigator for Wireless command support in a PDA format. Notice that if the command works, a plus sign (+) is displayed. On an internet telephone that supports graphics, a successful command is represented by a smiley face icon.
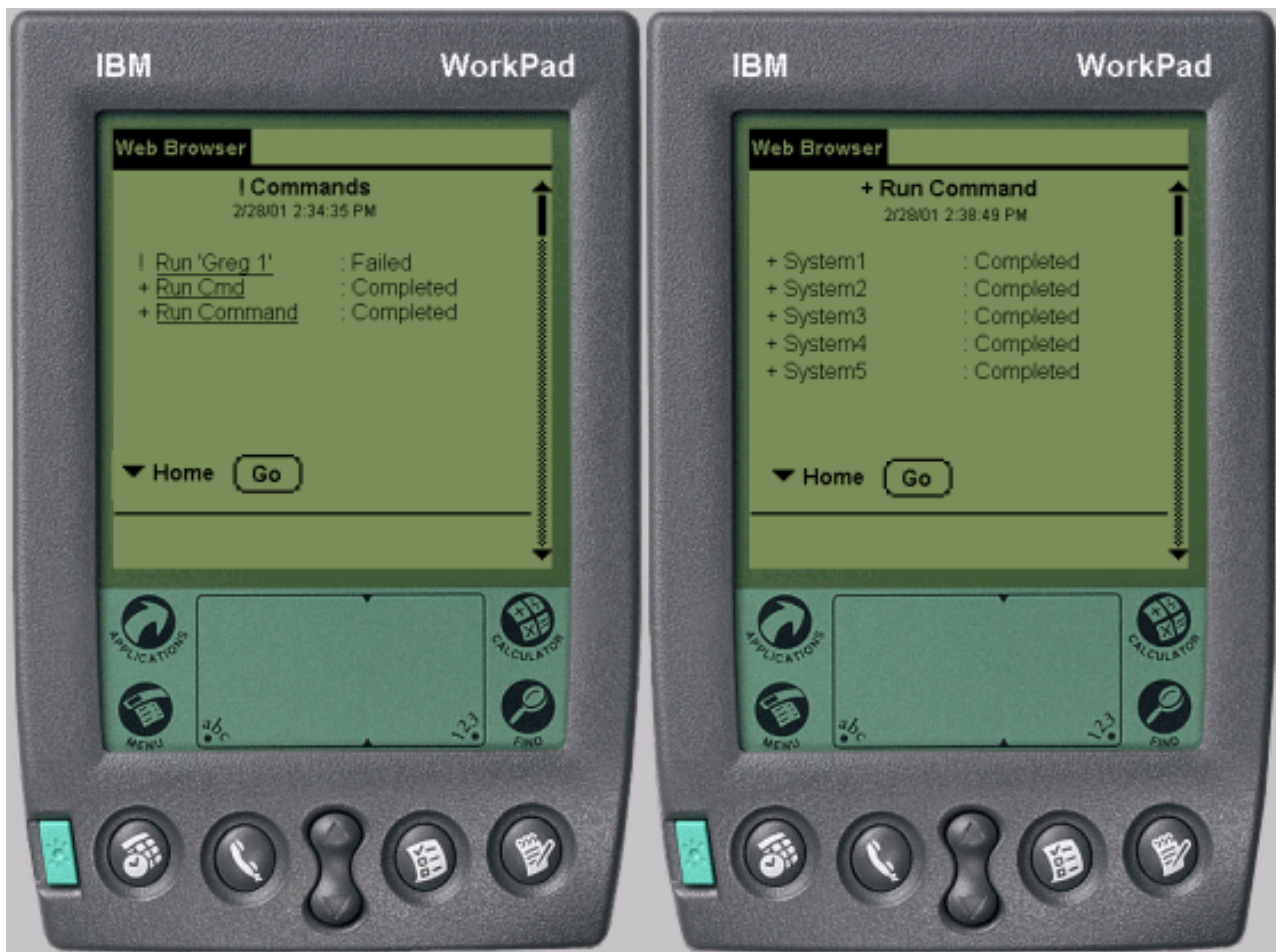

Figure 1: Viewing the status of your commands

View and interact with monitors

iSeries(TM) Navigator for Wireless allows you to view and interact with system monitors, job monitors, message monitors, file monitors, and B2B activity monitors from a wireless device.
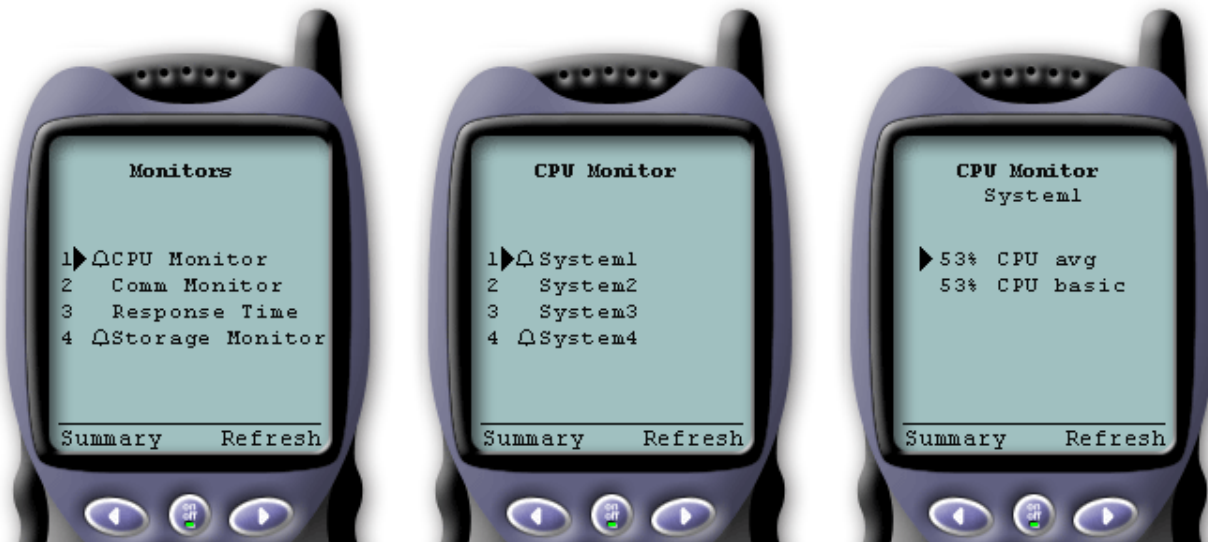

Figure 1: Viewing monitor metrics on a wireless device

System monitors
You can work with system monitors to view the metrics and current values being monitored, as well as the top 20 items (jobs, disk units, and so forth) that make up the metric value. You can also work with jobs listed in the monitor (display details, hold, release, and end).

Job monitors
You can work with job monitors to view all jobs across systems that match monitor criteria. You can see metrics and current values being monitored, and you can work with the jobs listed in the monitor (display details, hold, release, and end).

Message monitors
You can work with message monitors to view all messages across systems that match monitor criteria. And you can work with the messages listed in the monitor (display details, reply, and delete).

File monitors
You can use a file monitor to notify you whenever a selected file has changed. Or, you can monitor for a specified size or for specified text strings.

B2B activity monitors
If you have an application like **Connect for iSeries** configured, you can use a B2B activity monitor to monitor your B2B transactions. From a wireless device, you can view metrics and current B2B transaction values being monitored.

System monitors

Select the System monitors link to display a list of all your active system monitors (any monitors that are stopped are not shown). If any monitors failed or are triggered, an exclamation point or bell appears next to the monitor.

When you select a monitor, it shows all systems where that monitor is running, and if you select a system, it shows you all metrics in that monitor and the values for the selected system.

Once you see the metric you are interested in, you can select the metric and it shows you the top 20 items that caused that metric value. For example, if you select **CPU average**, it shows you the top 20 jobs. Or, if you select **Disk utilization**, it shows you the top 20 disk units.

*
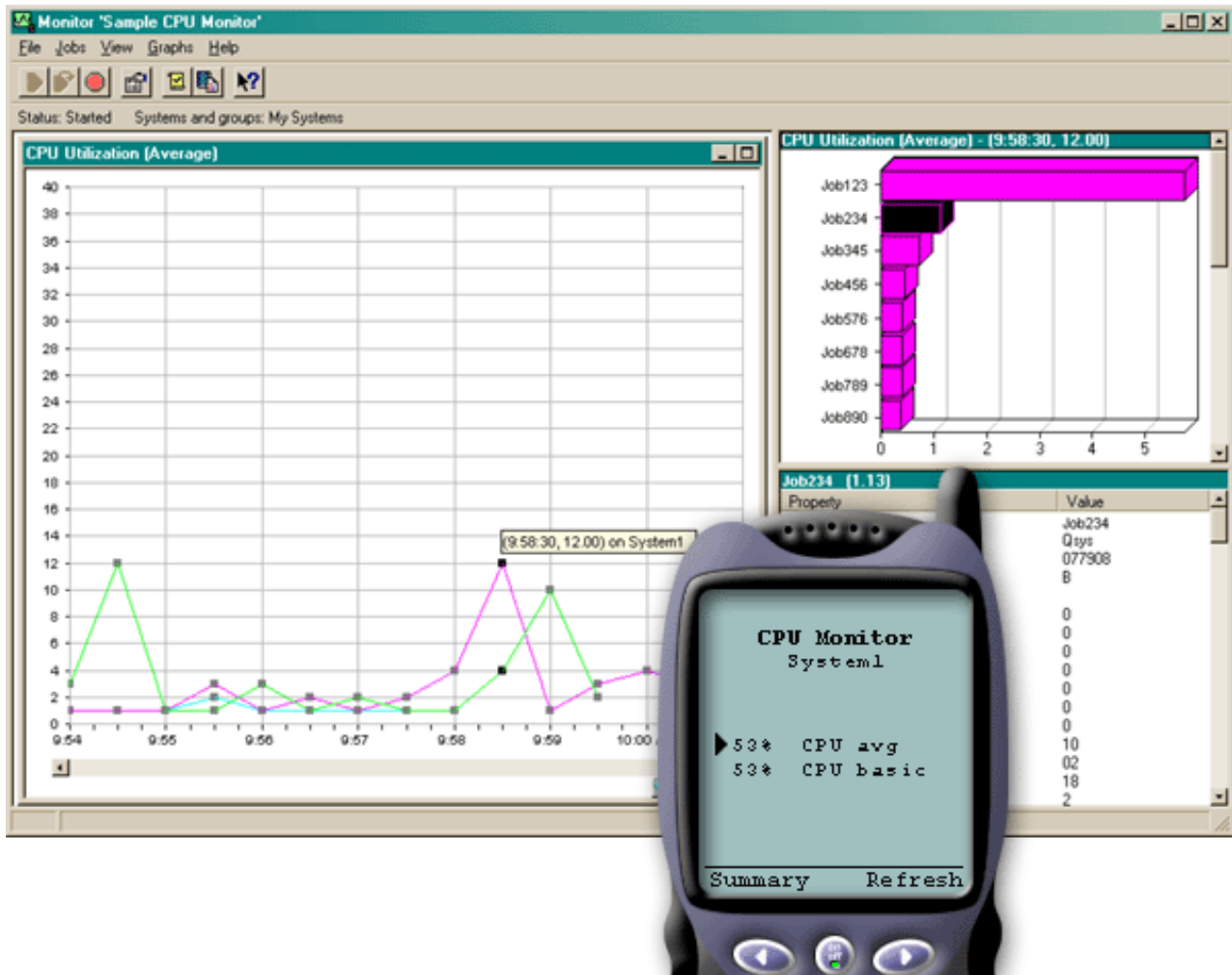
Figure 1: Viewing system monitor metrics on a wireless device

From the list of jobs, you can also select a job to see details, and you can work with that job by selecting **Hold**, **Release**, or **End**.

You can refresh each page to refresh the list at any time. You can also select **Home** to display an updated summary page.

Because display size is minimal, the system monitor metric names are shortened. Here is a table that describes what iSeries(TM) Navigator for Wireless displays:

Monitor metric names in iSeries Navigator for Wireless:

System monitor metric names	iSeries Navigator for Wireless name	Unit of measure
CPU Utilization (Average)	CPU avg	% busy

System monitor metric names	iSeries Navigator for Wireless name	Unit of measure
CPU Utilization (Interactive Jobs)	CPU int jobs	% busy
CPU Utilization (Interactive Feature)	CPU int feature	%
CPU Utilization Basic (Average)	CPU basic	% busy
CPU Utilization (Secondary Workloads)	CPU 2nd workload	%
CPU Utilization (Database Capability)	CPU DB	%
Interactive Response Time (Average)	Int resp avg	Seconds
Interactive Response Time (Maximum)	Int resp max	Seconds
Transaction Rate (Average)	Trans rate avg	Transactions per second
Transaction Rate (Interactive)	Trans rate int	Transactions per second
Batch Logical Database I/O	Batch DB IO	IO/second
Disk Arm Utilization (Average)	Disk util avg	% busy
Disk Arm Utilization (Maximum)	Disk util max	% busy
Disk Storage (Average)	Disk stg avg	% full
Disk Storage (Maximum)	Disk stg max	% full
Disk IOP Utilization (Average)	Disk IOP avg	% busy
Disk IOP Utilization (Maximum)	Disk IOP max	% busy
Communications IOP Utilization (Average)	Comm IOP avg	% busy
Communications IOP Utilization (Maximum)	Comm IOP max	% busy
Communications Line Utilization (Average)	Comm line avg	% busy
Communications Line Utilization (Maximum	Comm line max	% busy
LAN Utilization (Average)	LAN avg	% busy
LAN Utilization (Maximum)	LAN max	% busy
Machine Pool Faults	Mch pool fault	Faults per second
User Pool Faults (Average)	Usr pool fault avg	Faults per second
User Pool Faults (Maximum)	Usr pool fault max	Faults per second

Job monitors

Job monitors work the same way as the system monitors do in iSeries^(TM) Navigator for Wireless. After you create a job monitor in Management Central, you can start, stop, and view it in iSeries Navigator for Wireless. You can also view the overall status of the job monitor, view the list of systems it is running on, view the jobs that match the monitor criteria for each system, and work with a job using **Hold**, **Release**, or **End**.

Note: In Management Central, you can share job monitors across multiple users. However, when using iSeries Navigator for Wireless, only the job monitors that you have created are shown.

Message monitors

Message monitors work the same way as system monitors do in iSeries^(TM) Navigator for Wireless. After you create a message monitor in Management Central, it shows up in iSeries Navigator for Wireless, and you can view the overall status of the message monitor, view the list of systems it is running on, view the messages that match the monitor criteria for each system, and work with a message using **Details**, **Reply**, or **Delete**.

Note: In Management Central, you can share message monitors across multiple users. However, when using iSeries Navigator for Wireless, only the message monitors that you have created are shown.

File monitors

After you have created a file monitor in Management Central, you can start, stop, and display details about the file monitor in iSeries^(TM) Navigator for Wireless. The file monitor summary window displays the iSeries system the monitor is running on, the path to the current file you are viewing, the size of the file, the last date and time the file was modified, and the changed text that triggered the file.

Note: In Management Central, you can share file monitors across multiple users. However, when using iSeries Navigator for Wireless, only the file monitors that you have created are shown.

B2B activity monitors

To use a business-to-business activity monitor, you must configure a consolidated system to log B2B transactions collected from an application like Connect for iSeries^(TM)

.

After you set up a B2B activity monitor in Management Central, you can start, stop, and view details about the activity monitor in iSeries Navigator for Wireless. View summary status on active transaction duration and active transaction count triggers collected from the B2B activity monitor.

Note: The B2B activity monitor data you want to view with iSeries Navigator for Wireless must be on a V5R2 system. Any B2B activity monitor data stored on a V5R1 system will not work with iSeries Navigator for Wireless.

Related information for iSeries Navigator for Wireless

Listed below are the iSeries^(TM) manuals and IBM^(R) Redbooks^(TM) (in PDF format), Web sites, and

Information Center topics

that relate to the iSeries Navigator for Wireless topic. You can view or print any of the PDFs.

- AS/400^(R) Internet Security Scenarios: A Practical Approach^(R)

Learn how to exploit your AS/400 integrated network security functions. Today, network administrators face the challenge of implementing layered security architectures to protect their networks from the increasing sophistication of "hackers". To provide all of the security needed within a manageable budget is a complex task. This redbook explores all the native network security features available on the AS/400 system such as IP filters, NAT, VPN, HTTP proxy server, SSL, DNS, mail relay, auditing, and logging. It describes their use through practical examples.

Although OS/400^(R) is not intended to be a firewall, the correct implementation of its rich set of network security services, combined with routers or other Internet security appliances, may eliminate

the need for a separate firewall product. In some cases, it can provide an affordable solution for smaller sites. The AS/400 network security functions can be used to enhance the security of environments where routers with firewall security features are also used. This redbook is designed to meet the needs of network administrators, consultants, and AS/400 specialists who plan to design, implement, and configure AS/400 networks connected to the Internet and are evaluating alternatives to traditional firewall products.

Websites

For V4R5 and V5R1 information about iSeries Navigator for Wireless (previously known as Management Central Pervasive), see:
- iSeries Navigator for Wireless

Access Management Central functions on the go! The iSeries Navigator for Wireless homepage gives you more information about this exciting solution for pervasive computing. This homepage covers V4R5 and V5R1 release information.

For more information about iSeries Navigator, see:
- iSeries Navigator

In addition to Management Central function, iSeries Navigator provides a wide variety of tools to simplify iSeries management. Go to the iSeries Navigator homepage to find information about iSeries Navigator, including functional release overviews, news about technical conferences, and other hot topics. Click the link to Management Central for a variety of information including release updates, functional overviews, FAQs, and more. For information about installing and getting started with iSeries Navigator, be sure to see the iSeries Navigator topic in the Information Center.

For more information about Web application servers, see:
- ASF Jakarta Tomcat

The Apache Software Foundation Jakarta project homepage provides detailed information covering the Tomcat servlet engine.
- WebSphere[R] Application server

The latest information about the WebSphere Application Server for iSeries is located in the WebSphere Application Server for iSeries product Web site.

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1. Right-click the PDF in your browser (right-click the link above).
2. Click **Save Target As...** if you are using Internet Explorer. Click **Save Link As...** if you are using Netscape Communicator.

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3. Navigate to the directory in which you would like to save the PDF.

4. Click **Save**.

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Downloading Adobe Acrobat Reader

You need Adobe Acrobat Reader to view or print these PDFs. You can download a copy from the Adobe Web site (www.adobe.com/products/acrobat/readstep.html)

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