

IBM @server iSeries

# iSeries Operations Navigator: Wireless Access

Session #408218



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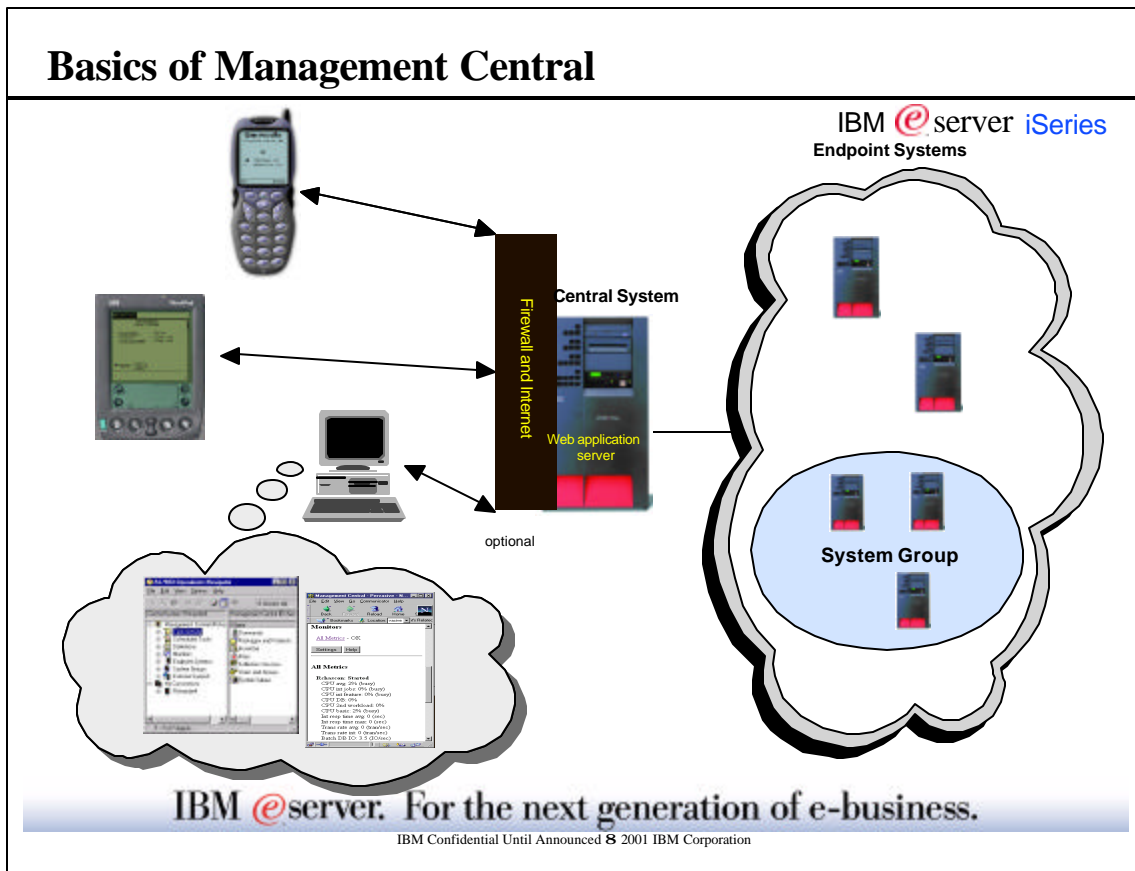
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## Notes: Basics of Management Central

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Management Central uses the basic system operations on each of the endpoints (e.g., APIs for performance monitoring, system commands, etc.). Management Central does not place any limitation on the number of endpoint systems used by its functions. There will be practical limits determined by your environment, networks, management policies, etc.. In addition, there is no limit to the number of endpoint systems that can be in a group

Endpoints do not need to be at the same level as the Central System, nor does the Central System need to be at the same level as the Client, HOWEVER, Management Central is only as good as the client and Central System combination

- PC provides the graphical interface (i.e., view) both input and output of management activities
  - General (directs activity)
  - See results
- PC (usually) only needs to connect to the central system
  - requires the user id on Central System and Endpoint systems to be the same
- Central System connects to other systems (called endpoints).
  - Takes orders and directs all systems (called endpoints) on what to do (e.g., coordinates all activity)
  - place where information on activities is stored
- Endpoints are just systems which your PC does not need to be in direct contact with in order to "manage"
  - If you are using LPAR (logical partitions), Management Central will identify and treat each partition as its own endpoint system.
  - Can be grouped together in System Groups in order to group operations

So how should I determine what my Central System should be? It's up to each administrator. Administrators may want to coordinate and decide if they will all use the same central system (depending on management policy, collaboration, and sharing). Typically they might choose one of the faster, larger systems in the network..

Starting in V4R5, administrators have even more flexibility in how they access and interact with their iSeries using Management Central - Pervasive. New capabilities have been added in VSRI so the suite of Pervasive functions now include System Availability, Monitors (system, job and message) and Commands using an Internet phone, a personal data assistant (PDA) with a wireless modem, or a traditional web browser on a workstation.

For our examples, the web application server (i.e. WebSphere) is being used as servlet engine.

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## Release to Release Capability

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## Release to Release Capability

V4R5 English Only

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- Required PTFs for OS/400
  - 5769-SS1 SF62901- Management Central C++ Extensions
  - 5769-SS1 SF64097 - Management Central Application Servlets
- Devices
  - PDA
  - Web Browsers
  - Internet Phones
- Functions
  - System availability
  - Monitors
    - System

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## Release to Release Capability

### V5R1 NLS Enabled

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- Required PTFs for OS/400
  - 5722-SS1 TBD - Management Central Application Servlets
- Devices
  - PDA
  - Web Browsers
  - Internet Phones
- Functions
  - System availability
  - Monitors
    - ▶ System
- Language support
  - Set the Language\_Country and characterset for a PC Browser
  - `http://sysname:port/servlet/McYpvPerv?LNG=lang`
    - ▶ where 'sysname' is your central system name
    - ▶ where 'port' is the port your servlet is configured
    - ▶ where 'lang' is the language (Lang\_Country)

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## Notes: V5R1 NLS Enabled

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In V5R1, the servlet McYpvPerv provides NLS enablement support for the Pervasive function delivered in V4R5.

The Supported Languages with their browser settings for Language\_Country and characterset are:

Language	Lang_Country	Characterset	Language	Lang_Country	Characterset
Chinese Simplified	zh	gb2312	Hungarian	hu	iso-8859-2
Chinese Traditional	zh_TW	big5	Italian	it	iso-8859-1
Croatian	hr	iso-8859-2	Italian Swiss	it_CH	iso-8859-1
Czech	cs	iso-8859-2	Japanese	ja	shift-jis
Dutch	nl	iso-8859-1	Korean	ko	euo-kr
Dutch Belgian	nl_BE	iso-8859-1	Polish	pl	iso-8859-2
English	en	iso-8859-1	Portuguese	pt	iso-8859-1
French	fr	iso-8859-1	Portuguese Brazilian	pt_BR	iso-8859-1
French Belgium	fr_BE	iso-8859-1	Romanian	ro	iso-8859-2
French Canadian	fr_CA	iso-8859-1	Russian	ru	windows-1251
French Swiss	fr_CH	iso-8859-1	Slovakian	sk	iso-8859-2
German	de	iso-8859-1	Slovenian	sl	iso-8859-2
German Swiss	de_CH	iso-8859-1	Spanish	es	iso-8859-1
Greek	el	iso-8859-7			

To set the Language\_Country and characterset for a PC Browser

Netscape:

To set Language from tool bar select Edit-> Preferences -> click on Languages (click on add button to see list of browser possibilities) First one in list will be the one used.

To set Characterset from tool bar select: View -> Characterset

Explorer:

To set Language from tool bar select Tools -> Internet Options -> click on Languages button (click on add button to see list of browser possibilities) First one in list will be the one used.

To set Characterset from tool bar select: View -> Encoding (may have to select more to see entire list)

To force language setting via URL

Add language parameter ?lng=after url (i.e. ?lng=zz ) where zz is Language\_Country to be used.

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## Release to Release Capability

V5R1 English Only

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- Required PTFs for OS/400
  - 5722-SS1 TBD - Management Central Application Servlets
- Devices
  - PDA
  - Web Browsers
  - Internet Phones
- Functions
  - System availability
  - Monitors
    - System
    - Job (new)
    - Message (new)
  - Commands (new)
  - Work with monitored jobs and messages (new)
  - Integrated xSeries/Netfinity Server Status (new)

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## Installation and Configuration

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## Installation and Configuration

### AS/400 Systems

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- Endpoint System
  - V4R3 or higher OS/400 release
- Central System
  - iSeries must be at one of the following:
    - ▶ V4R5 + PTFs
    - ▶ V5R1+ PTFs
  - Firewall
    - ▶ Protection plan implementation (security)
    - ▶ Update or create configuration based on software used
    - ▶ Redbook: SG24-5954-00 AS/400 Internet Security Scenarios: A Practical Approach
  - Web Application Server
    - ▶ Give proper authority to user
    - ▶ Update classpath information
  - HTTP Server
    - ▶ Protection plan implementation (security)
    - ▶ Add MIME Type (phone only)
    - ▶ Request Routing (phone only)

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## Notes: AS/400 Systems Installation and Configuration

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### Endpoint System Software Requirements

The endpoint systems when not playing the role of the central system are only required to have OS/400 V4R3 release or higher install with Management Central started. This assumes a TCP/IP network.

### Central System Software Requirements

To start you need to install either:

V5R1 OS/400 with Management Central - Pervasive add function PTFs (TBD - prior to GA) -or-  
V4R5 OS/400 with Management Central - Pervasive add function PTFs SF62901 and SF64097 for 5769-SS1. PTF SF62901 provides the code which enables the existing Management Central performance monitors to interact with other application servlets. PTF SF64097 is the application servlet which will feed the information back to the device of your choice (phone, PDA, or browser) Note: After installing the PTFs, you will need to move the MC - Pervasive Java programs to the appropriate location. Typically this would be done by using the command, RST DEV('/QSYS.LIB/QYPVPERVSF.FILE') OBJ('/QIBM/PRODDATA/OS400/\*'). However, the OBJ value shown can be changed depending on your web application server setup.

### Firewall

When you use Management Central - Pervasive, 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 MC - Pervasive. If you have never accessed your systems from the Internet and do not have a firewall setup, the following IBM Redbook provides strategies for doing so in Chapters 8 and 9. See AS/400 Internet Security Scenarios: A Practical Approach, SG24-5954-00. IBM Redbooks can be found online at [www.redbooks.ibm.com](http://www.redbooks.ibm.com).

### Central System Web Application Server

To access the new MC-Pervasive servlet, you must have installed and configured a web application server. Our team in Rochester has successfully utilized:

- WebSphere Application Server 3.02 Standard Edition
- WebSphere Application Server 3.5 Standard and Advanced Edition
- Domino Application Server

However, any web application server which has the capability to host servlets for serving Internet information should work. Remember: You

must have created at least one server instance to run the servlet.

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## Web Application Server (WebSphere Example)

Give proper authority to user

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```

mahlik - [24 x 80]
Edit Object Authority

Object . . . . . : QYPVJNI      Owner . . . . . : QSYS
Library . . . . . : QSYS       Primary group . . . . . : *NONE
Object type . . . . . : *SRVPGM

Type changes to current authorities, press Enter.

Object secured by authorization list . . . . . : *NONE

User      Group      Object
Authority
-----
QSYS      QSYS      *ALL
QEJBSVR   QEJBSVR   *USE
*PUBLIC   *PUBLIC   *EXCLUDE

Button
F3=Exit  F5=Refresh  F6=Add new users  F10=Grant with reference object
F11=Display detail object authorities  F12=Cancel  F17=Top  F18=Bottom
(C) COPYRIGHT IBM CORP. 1980, 2000.
  
```

When using Domino the id will be QNOTES

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## Notes: AS/400 Systems Installation and Configuration

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### Give Proper Authority to Users

User profile that will run the McYpvPervasive servlet:

\*USE authority to QSYS/QYPVJNI \*SRVPGM. (i.e. QEJBSVR)

Read authority to the directory

- V4R5: /QIBM/ProdData/OS400
- V5R1: /QIBM/ProdData/OS400/MGTC/Pervasive

Read/write authority to the directory

- V4R5: /QIBM/UserData/OS400
- V5R1: /QIBM/UserData/OS400/MGTC/Pervasive

Any users of MC-Pervasive will also require:

Read/write authority to the directory

- V5R1 only; /QIBM/UserData/OS400/MGTC/Pervasive

The servlet will create and update text files in the UserData directory with the name QYPVxxxxxx.txt where xxxxx is the AS/400 user id. Each text file has the list of endpoint systems separated by commas that a user is interested in monitoring. A default list can be created with the name 'qypv\_systems.txt'.

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## Web Application Server

Update classpath information IBM @server iSeries

The screenshot shows the WebSphere Standard Administrative Console. The left pane displays a tree view of the administrative domain, with the 'Default Server' selected. The right pane shows the configuration for the 'Default Server' in the 'General' tab. The 'Command line arguments' field contains the following text: `-rms32m -classpath /QIBM/ProdData/OS400/QIBM/ProdData/OS4`. The 'Environment' dropdown is set to 'Environment...'. The 'Apply' button is highlighted with a red arrow.

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## Notes: Update classpath Information

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You must add the two jar files used by the MC - Pervasive servlet to the web application server. For example, when using WebSphere,

1. Open the WebSphere Administrative Console
2. Select the Topology tab
3. Select the application server that will be running the MC - Pervasive servlet
4. Add the following classpath information to the command line arguments parameter:
  - (V4R5) -classpath
    - /QIBM/ProdData/OS400:
    - /QIBM/ProdData/OS400/mcypvperv.jar:
    - /QIBM/ProdData/Http/Public/jt400/lib/jt400.jar
  - (V5R1) -classpath
    - /QIBM/ProdData/OS400/MGTC/Pervasive:
    - /QIBM/ProdData/OS400/MGTC/Pervasive/mcypvperv.jar:
    - /QIBM/ProdData/OS400/MGTC/McClient.jar:
    - /QIBM/ProdData/OS400/MGTC/McOSClient.jar:
    - /QIBM/ProdData/OS400/MGTC/McPrivServer.jar:
    - /QIBM/ProdData/OS400/MGTC/mcyrncom.jar:
    - /QIBM/ProdData/OS400/jt400/lib/jt400Native.jar:
5. Then press apply

**Note:** After to change the classpath, you must stop and start the server instance for the change to take effect.

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# HTTP Server

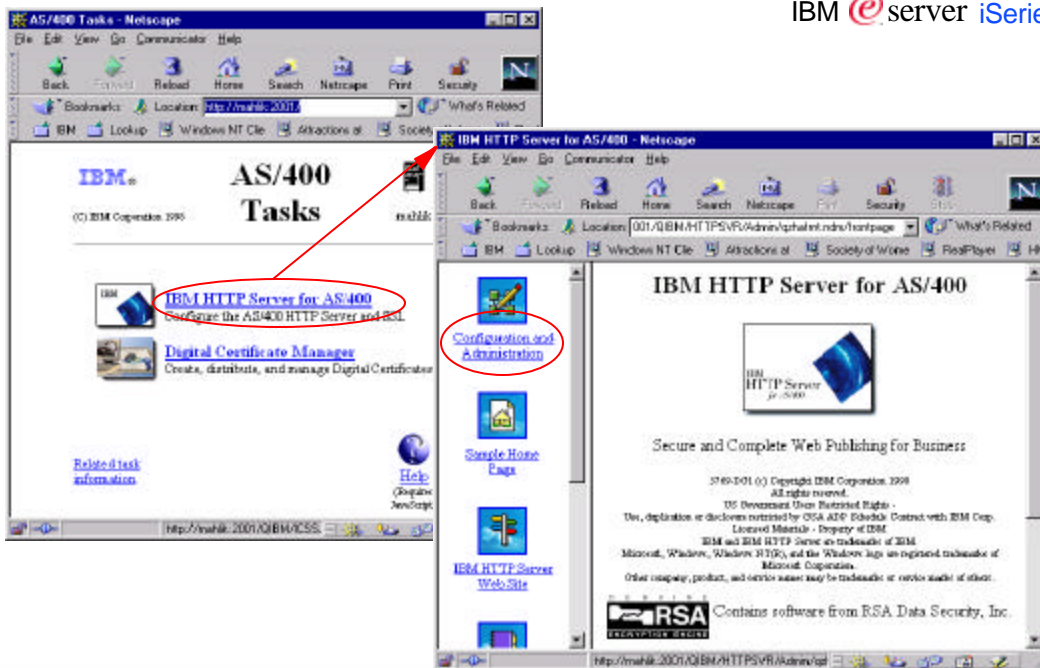
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# HTTP Server

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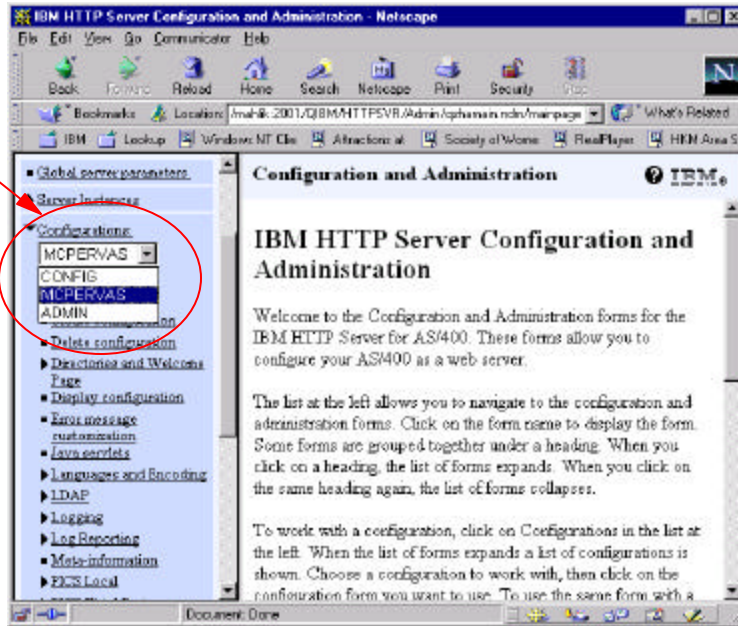


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# HTTP Server

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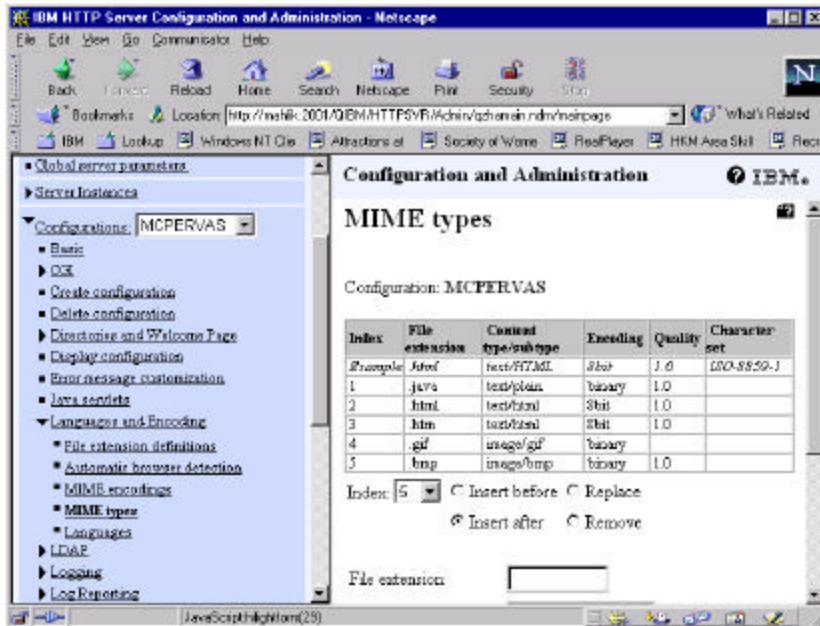
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# HTTP Server

Add MIME Type (phone only)

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# HTTP Server

Request Routing (phone only)

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Index	Action	URL template	Replacement file path
Example 0	Map	/cgi-bin/*	/cgi-bin/*.*.pgm
Example 1	Exec	/cgi-bin/*.*.pgm	/QSYS.LIB/CGIBIN.LIB/*
Example 2	Read	/custcenter.B/*	
Example 3	Pass	/root/*	/WEBSEAM/*.*.html
Example 4	Redirect	/mainpage/*	http://www.other.org/team/*
Example 5	Service	/cgi-bin/bsccalc.*	/QSYS.LIB/MTOWAF.LIB/MTOWAF.LIB/PCOM.mvs/calc.pgm
Example 6	Name Trans	/index.html	/QSYS.LIB/MTOWAF.LIB/MTOWAF.LIB/PCOM.mvs/index.pgm
1	Name Trans	/*	/QSYS.LIB/WEB.LIB/CSVT0006.P1.SRV/PCOM.mvs/trans_ext
2	Service	IBMWebSphere	/QSYS.LIB/WEB.LIB/CSVT0006.P1.SRV/PCOM.mvs/service_sant
3	Pass	/WebSphereSamples/*	/QIBM/ProdData/WebASA.du/WebSphereSamples/*
4	Pass	/Images/*	/QIBM/ProdData/WebASA.du/Images/*
5	Pass	/	/QIBM/ProdData/HTTP/Public/HTTP/SVR/HTML/01/welcome.html
6	Pass	/sample/*	/QIBM/ProdData/HTTP/Public/HTTP/SVR/HTML/*
7	Pass	/servlet/*	/QIBM/ProdData/OS400/*
8	Pass	/McYpvPervasive/*	/QIBM/ProdData/OS400/*
9	Service	domain-template	domain-path

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## Notes: AS/400 Systems Installation and Configuration

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The web application server will have to be configured or setup to provide the necessary level of security. Set up the web application server to implement the protection plan developed to provide proper authentication security based upon your client devices, browsers and network. IBM recommends implementing HTTP with SSL (HTTPS) whenever possible.

In order for the servlet to be able to send back the bitmap, the HTTP server must know where it is located, and it must know how to handle bitmap files. In order to access the HTTP configuration, go to the 2001 port on the system running HTTP. Under the HTTP configuration you will need:

Request processing -> Request routing

Action: Pass

V4R5

URL Template: /McYpvPervasive/\*

Replacement file path: /QIBM/ProdData/OS400/\*

V5R1-NLS

URL Template: /McYpvPerv/\*

Replacement file path: /QIBM/ProdData/OS400/MGTC/Pervasive/\*

V5R1

URL Template: /McYpvPervasive/\*

Replacement file path: /QIBM/ProdData/OS400/MGTC/Pervasive/\*

Languages and Encoding -> MIME Types

File extension: .bmp

Content type: image/bmp

Encoding: binary

Quality: 1.0

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## Installation and Configuration

### PC Workstation

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- Requires
  - V4R4 or V4R5 or V5R1 Client Access Express for Windows (57xx-XE1)
  - Microsoft Windows - 95, 98, NT 4.0 or 2000 Professional
  - TCP/IP Network
- Install
  - Setup TCP/IP on both the PC and AS/400
  - Setup Client for Microsoft Networks
  - Find CA/400 folder on AS/400 using AS/400 NetServer
  - **Install CA/400** (see following pages)

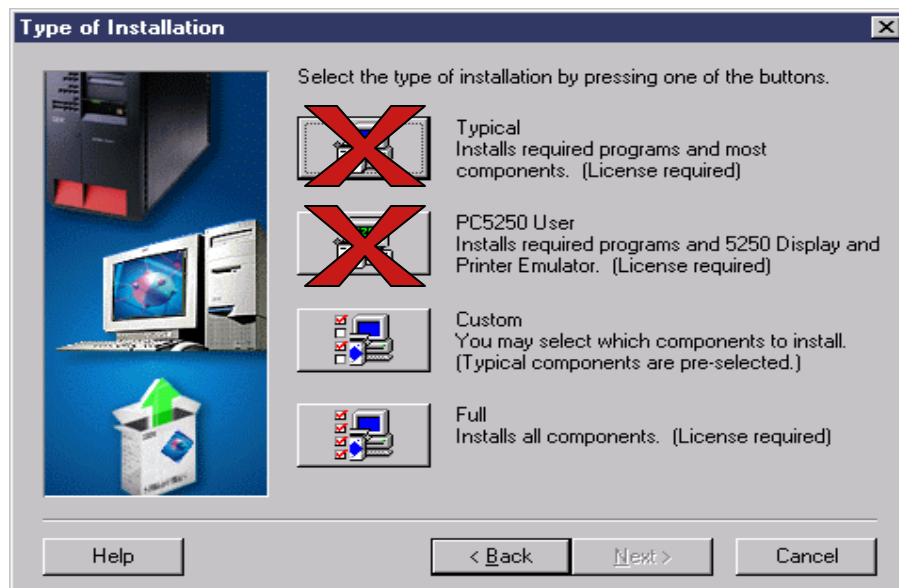
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## Installation and Configuration

### Install CA/400

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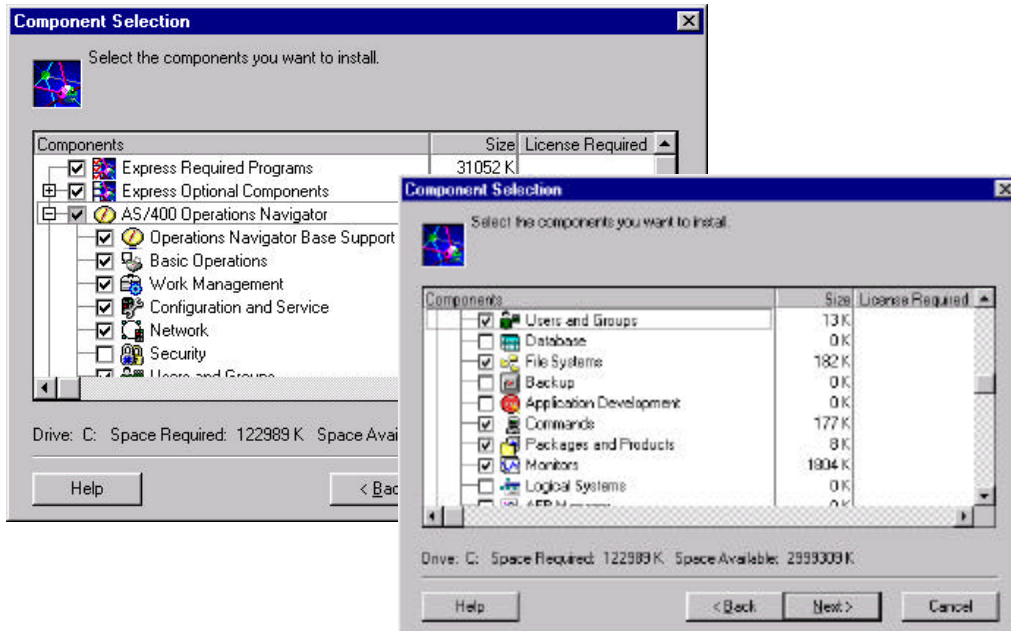
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## Installation and Configuration

Install CA/400 cont...

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## Notes: PC WS Installation and Configuration

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Operations Navigator components used by MC-Pervasive are NOT installed with a typical installation of Client Access Express (V4R4 or later). When installing (Client Access or Client Access Express), choose 'Custom Install'. Expand the Operations Navigator tree then select the appropriate components:

V4R5 - Select Management Central

V5R1 - Select Monitors and Commands (you may select more but you will need at least these 2 components)

Deselecting Operations Navigator and reselecting will result in all components to be selected so you get ALL the functions..

From this workstation, the user is able to set up the monitors, which will be viewed using the new devices.

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## Pervasive Devices

### Phone

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- Primary Elements
  - Physical Characteristics
  - Web Browser
  - Wireless Internet Services
- Compatibility Considerations
  - Mitsubishi T250
    - ▶ Tested through device
    - ▶ AT&T PocketNet wireless service
    - ▶ Recommended the small font preference
  - Ericsson R280 LX
    - ▶ Tested using simulator
  - Other UP.Browser® enabled devices



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## Notes: Phone Pervasive Devices

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### Primary elements

#### Physical Characteristics

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

Note: When setting up the endpoint systems, they will be truncated in the phone display to 10 characters.

#### Web Browser

An Internet phone is typically already loaded with a microbrowser. Once you select a particular phone, you are also making your browser choice. MC - Pervasive currently supports the UP.Browser® microbrowser. For best results, choose a phone that supports this microbrowser.

#### Wireless Internet Services

The wireless Internet service is what transports the data to and from your phone. It is not the same as the voice service for your phone; although the two may be packaged together by a particular provider. Make sure the phone you select is supported by a wireless Internet service available in the geographical areas where you want to use it. During our testing, we used AT&T Wireless Services.

Note: The amount of data in which the phone is limited to 1460 unlike the PDA. This will be noticed by the phone user by the extensive accesses to the network.

#### Compatibility considerations

The Mitsubishi T250 and Ericsson R280 LX were tested and are known to be compatible with Management Central - Pervasive. As stated earlier, MC - Pervasive supports the UP.Browser® microbrowser. The UP.Browser® is licensed by over 20 phone manufacturers around the world. In addition, many of the manufacturers offer the UP.Browser® on more than one model of phone. The list of phones supported by the UP.Browser® can be found at the Phone.com website ([www.phone.com](http://www.phone.com)).

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## Pervasive Devices

### PDA

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- Primary Elements
  - Web Browser
  - Wireless Internet Services
- Compatibility Considerations
  - Palm OS Version 3.3
  - AT&T Wireless
  - Browsers
    - ▶ AvantGo Version 3
    - ▶ EudoraWeb Version 1.1
  - Hardware devices
    - ▶ PalmIII with Minstrel III modem
    - ▶ PalmIIIx with Minstrel III modem
    - ▶ PalmV with Minstrel V modem
    - ▶ PalmVx with Minstrel V modem



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## Notes: PDA Pervasive Devices

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### Primary elements

#### Browser

Management Central-Pervasive leverages a web browser running on your PDA which are typically free for download. There are many different web browsers that exist for PDA devices. Often, the browsers differ in what HTML elements they support. Some browsers handle text differently. Some display images and tables, while others do not. Some browsers offer higher levels of protection or security. The following browsers support the necessary elements to run MC - Pervasive from a PDA:

- |  |                      |
|--|----------------------|
| ✓ AvantGo Version 3 ( <a href="http://www.avantgo.com">www.avantgo.com</a> )   | Supports SSL         |
| ✓ EudoraWeb version 1.1 ( <a href="http://www.eudora.com">www.eudora.com</a> ) | Does not support SSL |

#### Modem and Wireless Internet Service

You need to choose a modem which is compatible with your PDA selection. In addition, you need to find a wireless Internet service provider. 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. During our testing, we used AT&T Wireless Services.

#### Compatibility considerations

Many PDAs are likely to be compatible. Since MC - Pervasive runs in a browser, the choice of PDA shouldn't make a difference, but only the PDAs listed were tested. Also, any device that allows you to perform live web browsing and supports HTML may be compatible with MC - Pervasive. The following PDAs were tested and are compatible

<u>PDA</u>	<u>Operating System</u>	<u>Wireless Modem</u>	<u>Wireless Service</u>
Palm V or Vx	Palm OS Version 3.3	Minstrel V	AT&T
Palm III or IIIx	Palm OS Version 3.3	Minstrel III	AT&T

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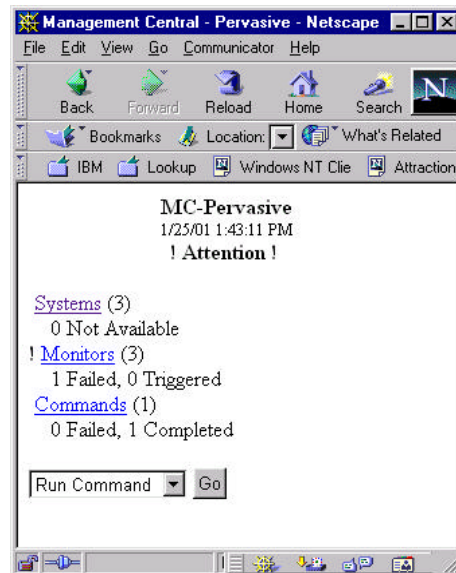
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## Pervasive Devices

### Web Browser

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- Primary Elements
  - Web Browser
  - Easiest option for intranets!
- Compatibility Considerations
  - Any web browser should work!



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## Notes: Web Browser Pervasive Devices

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Management Central - Pervasive is designed to run on an Internet phone or PDA. However, because it runs on a browser in a PDA, MC - Pervasive will also run on a traditional web browser. Any current workstation web browser should work because PDA browsers have more limitations.

You might consider placing your browser in the corner of your workstation to keep current on your systems and monitors without having to clutter up your whole desktop.

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## How It Works!

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### Setting up a monitor

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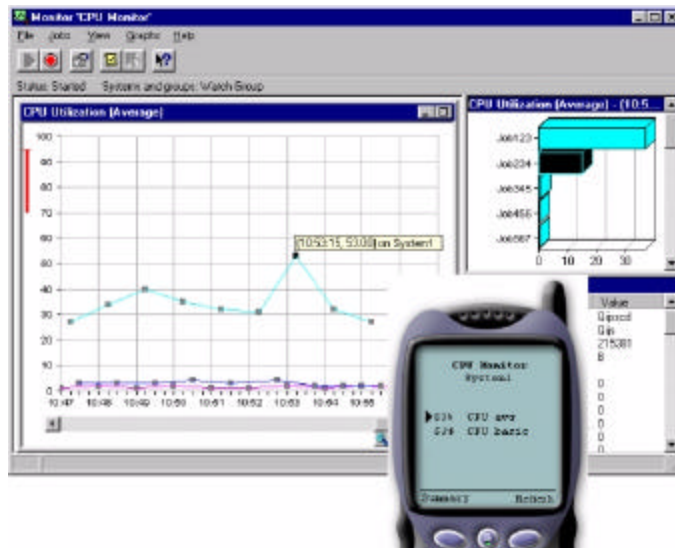
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## How It Works!

### Setting up a monitor

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1. Connect the PC workstation to V5R1 Central System
2. Add endpoint systems
3. Create your monitor
4. Start your monitor

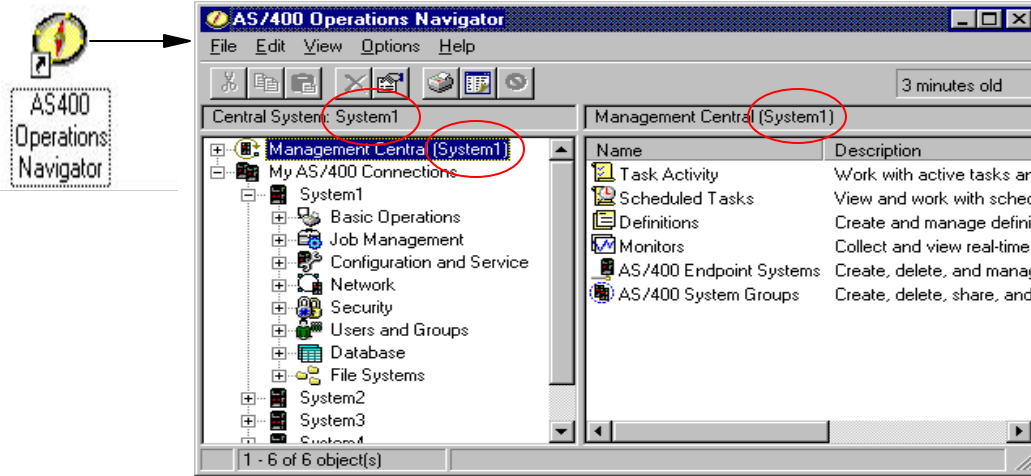


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## Setting up a monitor

Step 1: Connect the PC workstation to V5R1 Central System IBM @server iSeries



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## Notes: Connect the PC workstation Central System

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To get to Management Central functions, you will need to locate and open the AS/400 Operations Navigator icon. It could be on your desktop or in the start menu->Programs->IBM AS400 Client Access Express folder. If you have installed the components correctly, you will see it shown at the top of the left pane. You will see a default central system when you first open the window. If this is not the system in which the web application server and HTTP are installed and configured, you will need to change the Central System. To change the central system, select then right click on the Management Central item. Click on the Properties menu item to change any of the Management Central configuration including the central system.

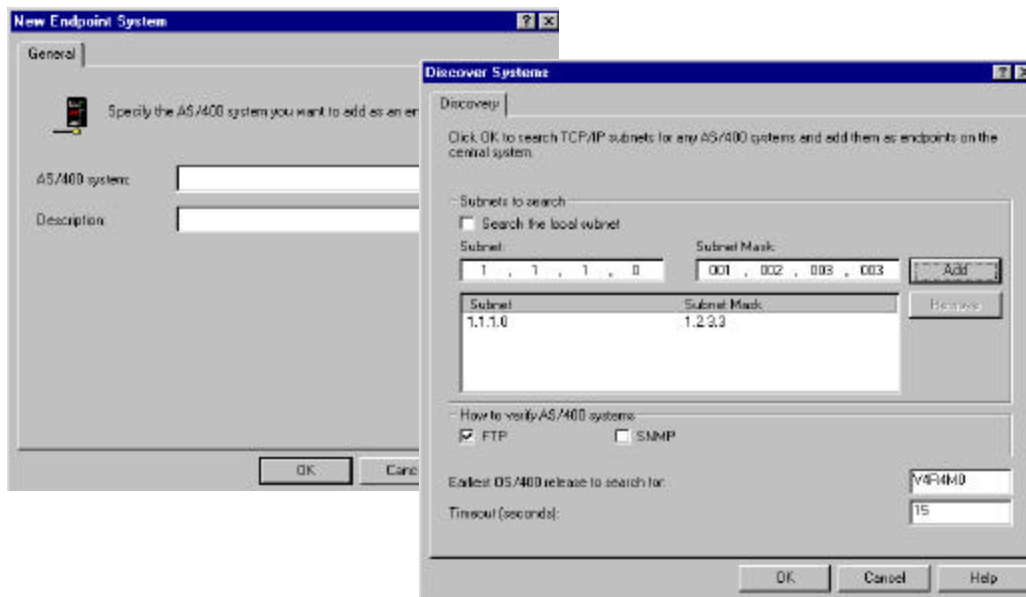
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## Setting up a monitor

### Step 2: Add endpoint systems

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## Notes: Add Endpoint Systems

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Only systems defined as endpoint systems in Management Central will show up in MC - Pervasive, therefore you'll want to define (add) the systems in your network to the list in Management Central so that you can monitor status. In Operations Navigator, explore Management Central, right-click on AS/400 Endpoint Systems, and select New Endpoint System.

The New Endpoint System - General page allows you to define a new endpoint system by specifying the name and description of the system. An endpoint system is defined by any user on the central system for the purpose of performing distributed functions. An endpoint system must be connected to the Central System and must be running OS/400. The level of OS/400 that is running on the endpoint system determines which functions are available on that system (see below). The endpoint system cannot be running a release of OS/400 earlier than V3R1. The only time AS/400 connections are added automatically is when you connect to the central system for the very first time (after install). Otherwise, you will need to create each endpoint system entry individually or perform a discovery.

When creating endpoint systems individually, the name you specify for the new endpoint system, must be known to TCP/IP, either as an entry in your AS/400 local host table or on your domain name server (DNS).

When using the Discover Systems dialog to search the selected TCP/IP subnets for AS/400 systems, the AS/400 systems found are added as endpoint systems on the Central System. If the AS/400 system is already defined as an endpoint system, the IP address is verified and updated if it has changed. This search can be done every time the Management Central server starts or as needed by user requests.

Management Central Functions - The level of OS/400 that is running on the endpoint system determines which Management Central functions are available on that system. The endpoint system cannot be running a release of OS/400 earlier than V3R1. The following shows which Management Central functions are available at each release.

- V5R1: Historical Graphs, Product/PTF Packaging, Job Monitors, Message Monitors, System Value Management and User Administration, Addition Inventories
- V4R4: Monitors, Event Log, Fixes (PTF) Management, Collection Services, Remote Commands, Package Distribution, Inventory
- V4R3: Monitors, Event Log
- V3R1 -- V4R2: Monitors (must be running the IBM Performance Investigator for OS/400 PRPQ)

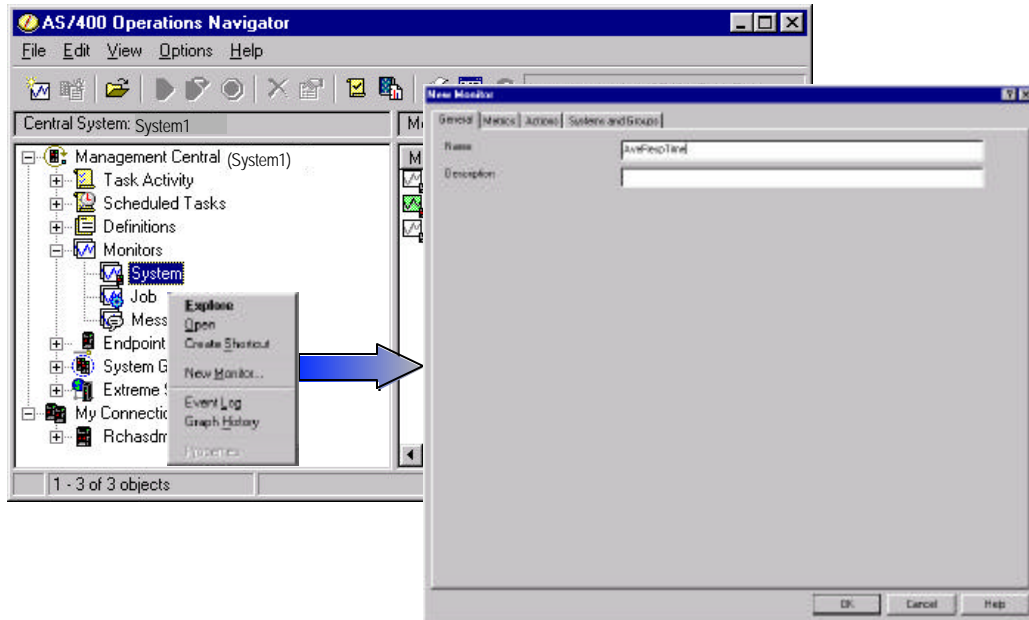
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## Setting up a monitor

### Step 3: Create Your Monitor

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## Notes: Create Your Monitor

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Monitors in Management Central can be very powerful. You have the flexibility to have simple or complex monitors, set up thresholds, and perform automation if those thresholds occur. The goal of MC - Pervasive is to keep you informed of the status of these monitors wherever you are. Create monitors with meaningful names so you will know what it is monitoring just by looking at the monitor name. Of course, if you need detailed information, you can drill down to view the metrics and the values on a specific system.

**Note:** Try to keep the monitor names short or they may be truncated or require you to scroll.

This example shows the creation of a single system monitor. However, MC-Pervasive can display all types of monitors in V5R1 including System, Job and Message monitors.

This example also shows starting the monitor using the Operations Navigator interface. In V5R1, you can now start your monitors using MC-Pervasive.

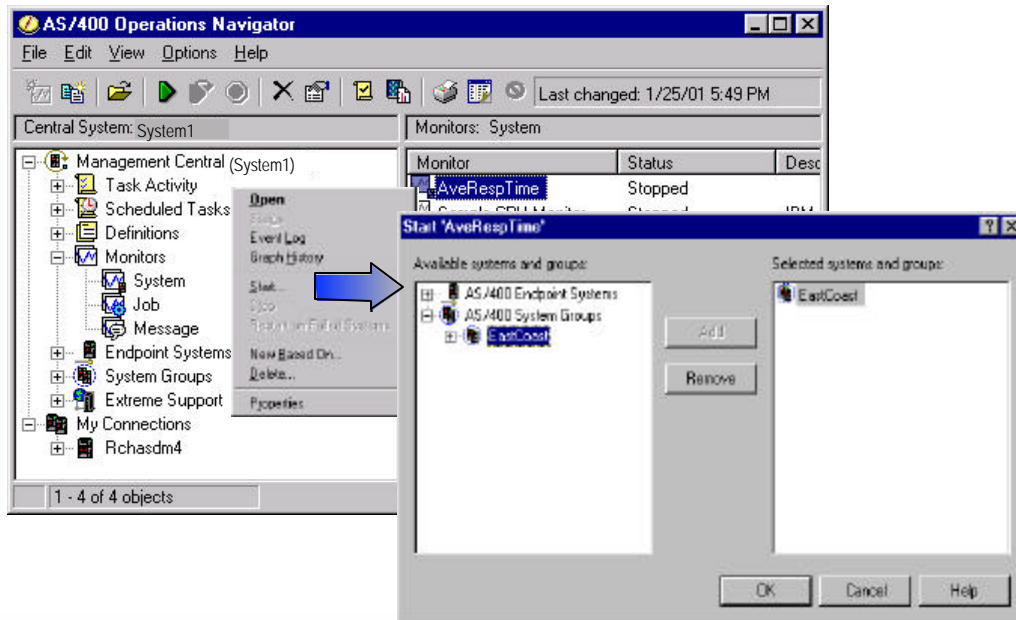
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## Setting up a monitor

### Step 4: Start Your Monitor

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## Notes: Start Your Monitor

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The Start Monitor dialog allows you to select the endpoint systems and system groups on which you want to start the monitor.

To add a system or group to the Selected systems and groups list, select it in the Available systems and groups list, and then click Add.

To remove a system or group from the Selected systems and groups list, select it in the list, and then click Remove.

Available systems and groups - A list of endpoint systems and system groups from which you can select a system or group. Click the plus sign (+) next to any group to see the systems that are included in the group.

PC is not required to be connected once monitor is started.

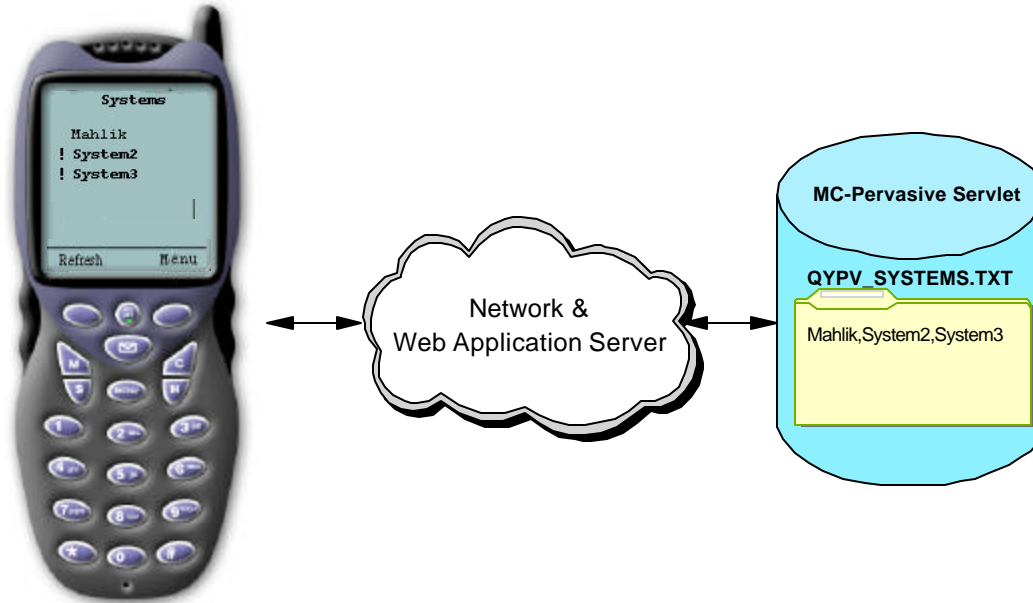
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## How It Works!

### Setting up the user's system list

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## Notes: Setting up the user's system list

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### Central System URL

Enter the URL of your central system to your wireless device. Use the following format, and make sure 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 the central system is located

port: The port that the MC - Pervasive servlet is listening to

### User's System List

When the user connects to the central system via the web applications server, the MC - Pervasive servlet will attempt to locate a user specific or custom list of endpoint systems. If the file does not exist, it will look for the default system list. At the point which neither is found, a custom system list will be created for the user to update using phone, PDA or browser.

The users system list files are put in the path /QIBM/UserData/OS400. The default file will be named 'QYPV\_SYSTEMS.txt'. The user specific or custom files will be named QYPVxxxx.txt where xxxx is the user profile.

Note: The default name was selected to contain an underscore to ensure it would not conflict with a user id.

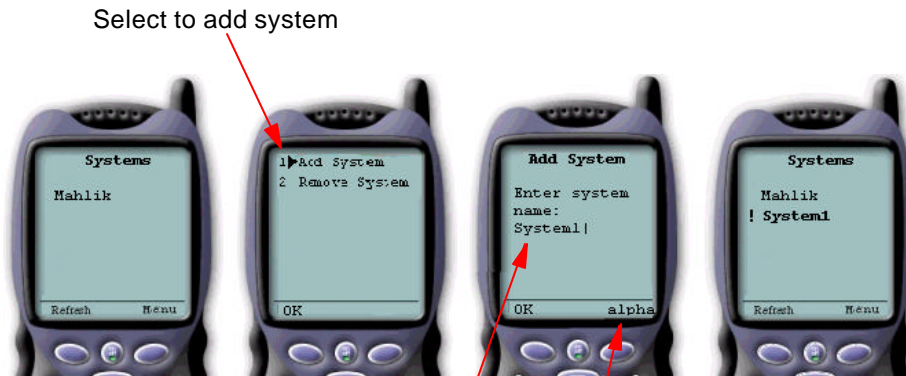
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## Setting up the user's System List

### Adding endpoint system

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Field for system name  
(keep it short)

Use button to change from alpha/SYM/NUM

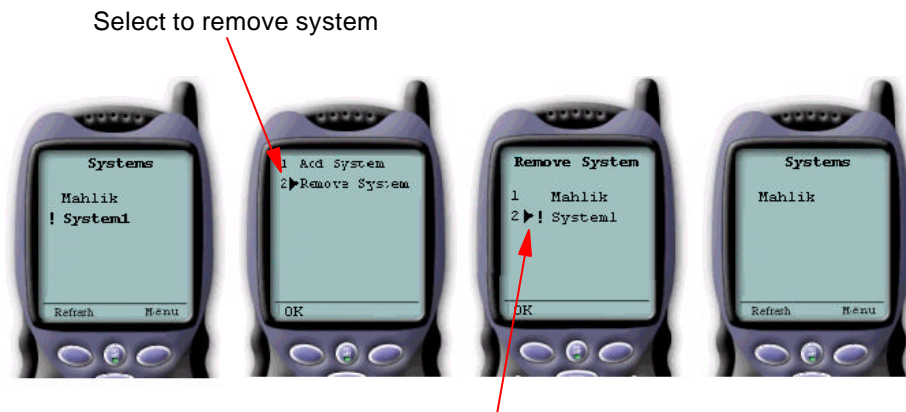
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## Setting up the user's System List

### Removing endpoint system

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Select system to remove

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## How It Works

### Device layouts

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- Phone
  - Interface: Card Layout
  - First view: Summary of systems, monitors and commands
  - Status indicators: OK, Attention, ! and bell
- PDA Browser
  - Interface: Card Layout (NEW for V5R1!)
  - First view: Summary of systems, monitors and commands
    - ▶ number of systems that are unavailable
    - ▶ number of monitors which are triggered or failed
    - ▶ number of command tasks which occurred in last 24 hours
  - Status indicators: OK, Attention, ! and \*
- Traditional Browser
  - Same as PDA Browser with larger viewing capacity

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## Notes: Device layouts

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### Phone Layout

The first thing you see when using an Internet phone is the summary. It will show you how current the information is, how many systems, monitors and commands are in your list, and if any need attention or not. It does this clearly by showing an overall status of OK or Attention at the top. If OK is shown, that means all systems, monitors and commands in your list are running smoothly. If Attention is shown, then it means a system, monitor or commands needs more attention. If a system is unavailable, a monitor has failed or a command has failed, an exclamation point will be shown next to the link with the item that needs attention. If a monitor has triggered, a bell will be shown next to the Monitors link.

### PDA Browser Layout

The PDA browser layout is very similar to the Internet phone. The new design has moved it to operate more like the card layout of phone to handle the additional monitors and command functions. However, since the interface has more viewing area addition information such as failed, triggered and completed is shown. Some of the compatible browsers do not support images so an asterisk (\*) is used instead of the bell to show the triggered status.

### Traditional Browser Layout

The traditional browser on a workstation layout is exactly the same as the PDA browser layout. However, because of the increased display size, you have the option of seeing all information at once by making the browser window large, or you can choose to put a small browser window in the corner of your PC to take advantage of the function while working on other applications.

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### Device layouts (V4R5 example)

Immediate indicator of a problem using the bell

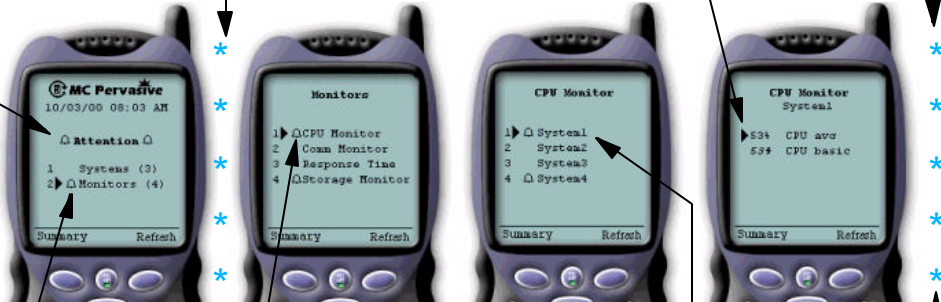
V5R1 - Type of monitor selection

Arrow indicates the item selected for drill down

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V5R1 - Top 20 jobs list

V5R1 - Job Properties



CPU Monitor appears to need attention. Select 'CPU Monitor' to drill down and see the system list

System1 is where the threshold occurred. Select 'System1' to see the specific metric information such as CPU avg

Monitors appear to need attention. Select 'Monitors' to drill down and see the monitor list

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### Device layouts (V5R1 example)

Showing Command task status for all my tasks completed within 24 hours

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Showing systems and status of tasks on system The "+" sign shows that the task completed. (smiley face on phones)

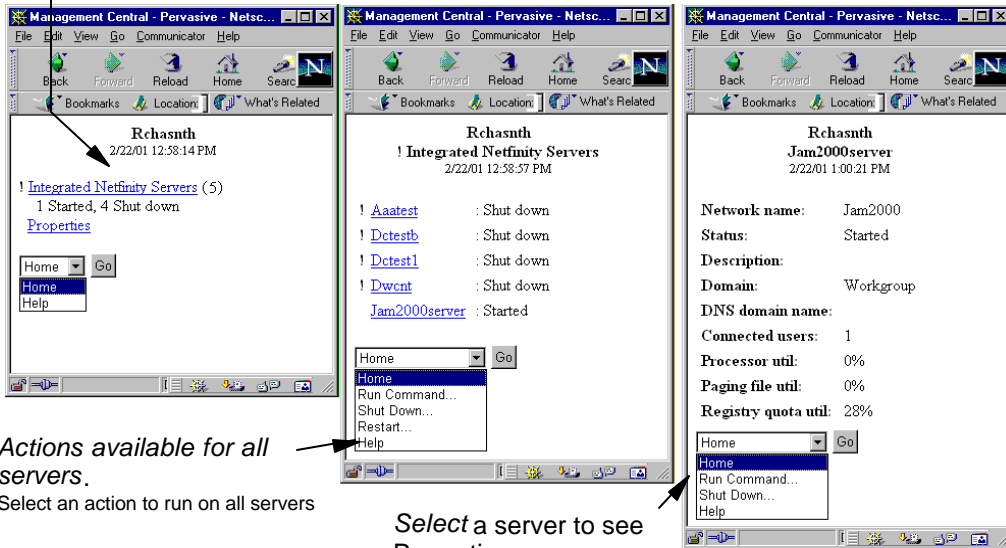
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## Device layouts (V5R1 example)

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Showing Integrated Netfinity/xSeries Server Status (5 servers, 1 started, 4 shut down)



Actions available for all servers.  
Select an action to run on all servers

Select a server to see Properties.  
Select an action to run on this server

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## FAQ

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### Frequently Asked Questions

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## FAQ

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**Q: Why don't I see any of my monitors in MC - Pervasive?**

**A:** You will only see the monitors which are running or have failed. Therefore, if you create a monitor without starting it, it will not be in your list.

**A:** Are you using the same user profile from MC-Pervasive as you did when you created and started the monitor.

**A:** (V4R5) If your HTTP server was configured to be case sensitive, try entering your user profile as all CAPS.

**Q: Can I add monitors to my list using MC - Pervasive?**

**A:** (V4R5) Only active monitors are displayed. Make sure you start any monitor you want displayed on your wireless device. Currently, the only way to start monitors is from the Management Central GUI in Operations Navigator.

**A:** (V5R1) You can use the new menu option to started a monitor which is currently stopped. This will add the monitor to your list.

**Q: Can I add systems to my list using MC - Pervasive?**

**A:** Yes. Each user has a customized list of systems that MC - Pervasive will monitor.

**A:** (V4R5) On the phone, go to the system list, select Menu, then Add system. On a PDA or web browser, select the Settings button, then add systems as needed.

**A:** (V5R1) Go to the system list. and choose the add system menu item.

**Q: What releases does MC - Pervasive support?**

**A:** Your central system must be at V4R5 or later. Your endpoints can be running any release where Management Central runs.

**Q: Is it really true that I only need to install MC - Pervasive on one of my systems?**

**A:** Yes, MC - Pervasive only needs to be installed on systems that will be used as the central system for Management Central. Endpoint systems will be monitored through that central system, so they do not require any additional installation. Minimally, this means that you may only need to install on one system.

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## FAQ (continued)

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**Q: I have recently used MC - Pervasive successfully, but now it is not responding. What is the problem?**

**A:** More than likely the problem is either caused by a weak signal or a low battery. A weak signal can be caused by the location you are using your device. There are parts of some buildings where signals do not reach very well. There are geographic locations where wireless service is not available. Low battery conditions seem to occur most often in the wireless modems for PDAs. A low battery in the PDA itself or in your Internet phone may also be causing this problem.

**Q: Things aren't working and I'm not sure if its related to my wireless device or to my web server setup. What can I do to determine where the problem actually is?**

**A:** Try accessing MC - Pervasive through a web browser running on a PC or other workstation. Use the exact same URL that you are using from your device. If MC - Pervasive does not work from the workstation web browser, then your problem has nothing to do with your wireless device. Make sure that your web application server is up and running. Also, check that you've performed all of the configuration steps detailed in the MC - Pervasive Users Guide and make sure that the URL you are using is correct. If MC - Pervasive works from your workstation web browser, then the problem is related to your wireless device. Check if you can access any other Internet sites. If you cannot, there is problem with your wireless device or service. If you have never successfully accessed an Internet site from your wireless device, contact your wireless service provider. If you have connected to the Internet before, the problem could be related to a low battery, a weak signal or a temporary wireless service outage.

**Q: Why do I get an Error 500 when I try and run the servlet under WebSphere?**

**A:** This results from WebSphere not being able to find the McYpvPervasive.class servlet. Remember when you enter the URL, it is case sensitive. If the servlet name was specified correctly, then the WebSphere web application server classpath does not have the correct path specified where this servlet is located.

**Q: My brand of phone is not listed in your Users Guide. Will it work?**

**A:** If you already have an Internet phone, just give it a try and see if it works with MC - Pervasive. If it works, let us know and we will add it to the users guide. If it doesn't work or doesn't work perfectly, also let us know. Compatibility on a wide range of devices is our goal.

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## FAQ (continued)

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**Q: I don't have a wireless modem, but my PDA says it has wireless connectivity built-in. Do I need a separate modem?**

**A: Some PDAs have built-in modems instead of a separate device that snaps on the back. The term "modem" might not be used when they describe their product, but that's effectively what is built-in. A built-in modem meets the need for a wireless modem.**

**Q: Can I use a wired modem with my PDA instead of a wireless modem?**

**A: Yes, a wired modem can be used. You need to use the modem to dial an Internet service provider or dial into your corporate intranet. The ability to dial into an intranet is an advantage that a wired modem has over a wireless one.**

**Q: Do the systems in the list of connections and systems used by monitors have to be the same?**

**A: No.**

**Q: I keep getting the error that MC is not available. What could the problem be?**

**A: This typically occurs when the Management Central Server is not running on the AS/400. Use the command STRTCPSVR SERVER(\*MGTC) on your Central System to ensure it is started. Remember, you must also start your monitors to see them in your list of monitors.**

**Q: I keep getting an error about a class not found but the classpath in WebSphere is set. Why does it still indicate a problem?**

**A: Most likely, you did not restart the server after changing the configuration.**

**Q: Why do I get "Authentication error: no user or password specified"?**

**A: MC-Pervasive requires at least basic authentication to retrieve the user id and password for retrieving monitoring lists, etc.**

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## Reference, Documentation and Trademarks

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## Where to go now

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- Management Central
  - [www.ibm.com/eserver/series/sftsol/mgmtcentral.htm](http://www.ibm.com/eserver/series/sftsol/mgmtcentral.htm)
- Management Central - Pervasive: Users Guide & FAQ
  - [www.ibm.com/eserver/series/sftsol/pervasive.htm](http://www.ibm.com/eserver/series/sftsol/pervasive.htm)
- AS/400 WebSphere
  - [www.ibm.com/eserver/series/websphere](http://www.ibm.com/eserver/series/websphere)
- AS/400 HTTP
  - [www.ibm.com/eserver/series/http](http://www.ibm.com/eserver/series/http)
- Redbook:
  - AS/400 Internet Security Scenarios: A Practical Approach SG24-5954

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## Web Pages

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- AS/400 Systems Management
  - [www.ibm.com/eserver/series/sftsol](http://www.ibm.com/eserver/series/sftsol)
- Systems Management Partner Group
  - [www.ibm.com/eserver/series/smpg](http://www.ibm.com/eserver/series/smpg)
- Management Central
  - [www.ibm.com/eserver/series/sftsol/mgmtcentral.htm](http://www.ibm.com/eserver/series/sftsol/mgmtcentral.htm)
- Operations Navigator
  - [www.ibm.com/eserver/series/oper\\_nav](http://www.ibm.com/eserver/series/oper_nav)
- Advanced Job Scheduler
  - [www.ibm.com/eserver/series/jscheduler](http://www.ibm.com/eserver/series/jscheduler)
- Tivoli
  - [www.tivoli.com](http://www.tivoli.com)

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## Appendix

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