



IBM eServer™ iSeries™

# The ABC's of Installing WebSphere Application Server - Express on iSeries

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## Agenda

- What is WebSphere Application Server (WAS) - Express
- What is Included with WAS - Express
- Examples of Applications that Use WAS - Express
- How to Get WAS - Express
- Implementing WAS - Express
  - Planning for it
  - Installing it
  - Configuring it
  - Starting it
- Using the IBM Telephone Directory with WAS - Express
- Questions and Answers

# What is WebSphere Application Server - Express

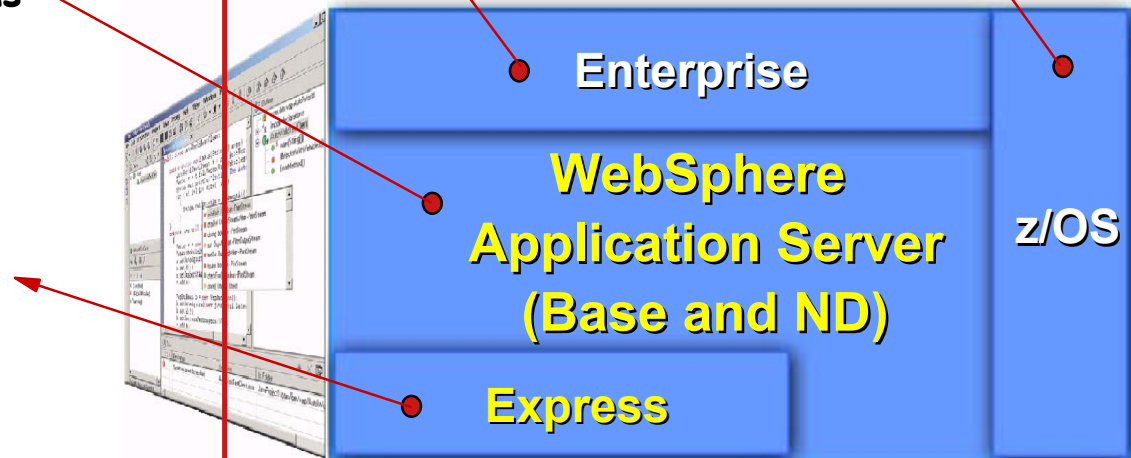
An extended J2EE & Web services  
'build-to-integrate' platform for creating,  
 composing & choreographing adaptable networked  
 application flows and behaviors

## iSeries Support

The mainstream Web services J2EE  
 1.3 application server enabling  
 industry leading QoS and flexible  
 deployment options

An easily approachable  
"on-ramp" to  
 e-business, providing  
 fast and productive  
 development, deployment  
 of dynamic web  
 applications

A J2EE web services application  
 server specifically optimized to  
 the unique QoS of z/OS



## What is Included in WAS - Express

### 1. *Web application server - WAS-Express V5*

### 2. *Application development tool*

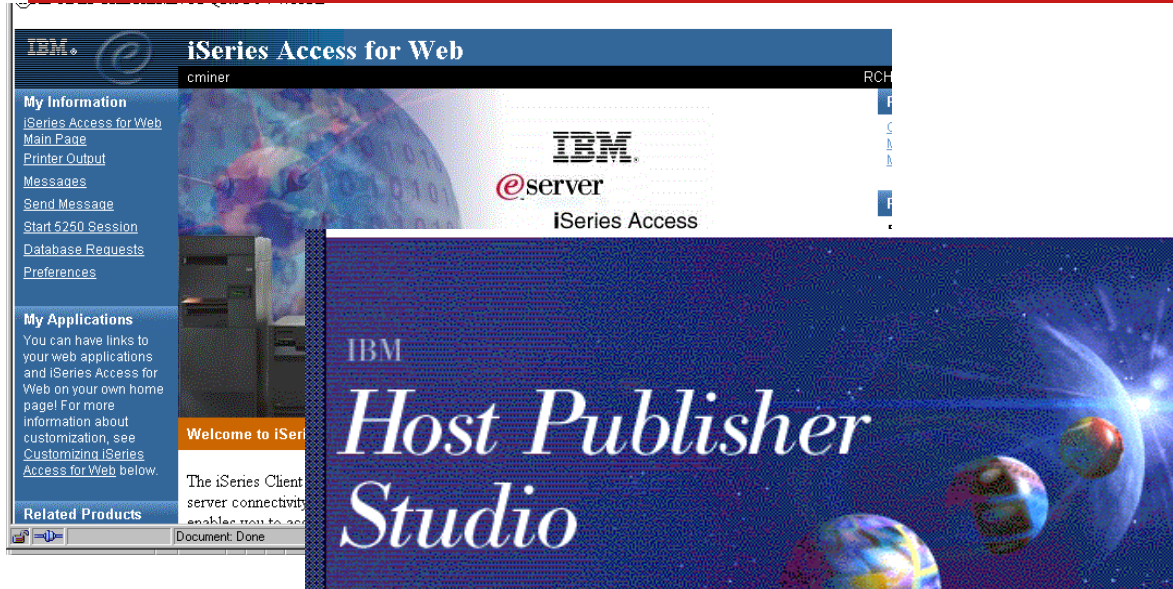
- WebSphere Development Studio Client (WDS-Sc) 1 copy

### 3. *Includes IBM Telephone Directory (ITD)*

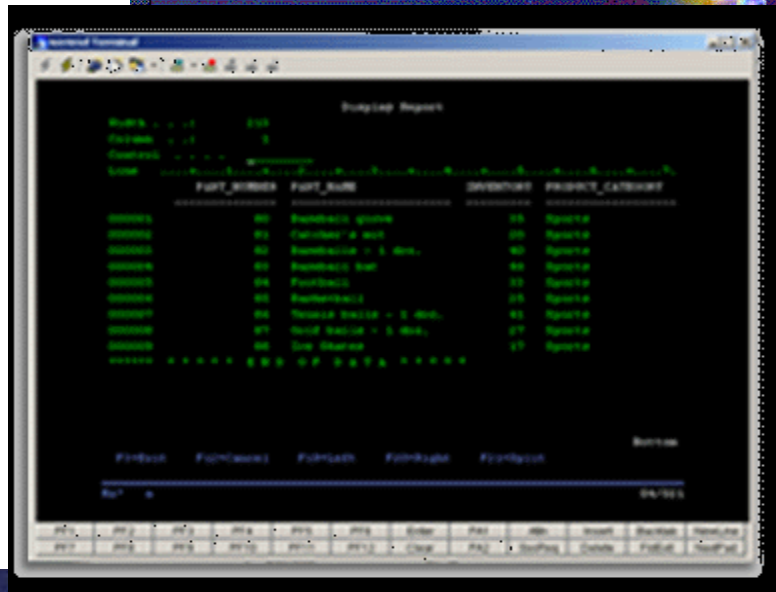
- WebSphere Application Server is web plumbing
- ITD provides "out-of-the-box" functionality
- iSeries-only offering for WAS V5 and WebSphere-Express V5 for iSeries
- "Started simple" with WebSphere
  - Provide a valuable application all customers can use
  - Powerful search capabilities
  - Name, photo, phone, role, division, dept, mgmt chain
  - ITD is no-cost for first 1,000 entries
    - ▶ Small media charge in PPA (approx \$25)
    - ▶ IGS special bid for 1,000+ entries



# WAS - Express is Perfect for Application Refacing



- iSeries Access for Web
- Host Publisher
- HATS
- IBM WebFacing Tool



## ■ WAS - Express References and Application Providers

- Able-One Systems Inc.
- ACG srl
- ACS Limited
- Aktion Associates, Inc.
- Andrews Consulting Group
- Appcon
- Aptis
- AS Computanse
- Associated Data Services
- Avnet Computer Marketing
- Barsa Consulting, LLC
- Binary Tree
- Boost Information Systems
- Brij Image & Information
- C.I.D.
- Cape Cod Bay Systems
- Clear Technologies
- CIM Strategies
- CMI
- Computech Resources, Inc.
- Contenlo Consulting Ltd
- Corning Data Services
- Counterpoint Systems
- Covenco
- DPS Inc.
- E.D. Smith & Sons Ltd.
- Engineered Business Systems, Inc.
- Eniac Essentials B.V.
- GEAC
- GEMKO Information Group, Inc.
- Genelco (Liberity)
- Gus Group AG + Co. KG
- Haverstick Consulting
- IBS
- Infocon Corporation
- Integrated Distribution Solutions
- Inter-American Data, Inc. (IAD)
- Island Pacific
- J.DREGER IT-Operations
- KDP Software Limited
- Keane Inc/First Coast
- Keller Schroeder & Associates
- Kube
- Lansa
- Lawson Software
- Mapics
- McKesson HBOC
- M.R.S. Company Limited
- MEA Computing
- Mid-Comp International PTY LTD
- Morpheus Limited
- Network Plus Consulting
- New Generation Software
- Oasis Computer Systems, Inc.
- Paragon Consulting Services Inc.
- PlanetJ Corporation
- Presence OnLine
- Primark Systems, Inc.
- Quantum Intelligence, Inc.
- Query Spa
- Republic Idemnity of America
- Rippe and Kingston
- RyTE Consulting, Inc.
- SclumbergerSema
- Serti Informatique Inc.
- SH S.r.l
- Siemens Health Services
- Soft Design A/S
- SoftLanding Systems
- Strategies and Solutions
- SystemObjects Europe
- TRAX sp. z o.o
- Tri-Bry IT Solutions
- UBL INFORMATIONSSYSTEME GmbH & Co. KGaA
- Virtual400
- Volubis
- Wright Professional Services, Inc.
- 3X Corporation

## How to Get WAS - Express: Method #1

### *Trade Up to WAS - Express from WAS Standard Edition 3.02 & 3.5*

- Customers who currently have WAS Standard Edition (V3.02 or V3.5) & OS/400 SW subscription (5733-AS3)
- Must have ordered WAS V3.X for OS/400 by 1/24/2003
- Entitled to 1 copy of WAS-Express for iSeries ("one processor worth")
  - If WAS SE V3.X runs on one cpu = one copy of WAS - Express
  - If WAS SE V3.X runs on multiple cpu's = one copy of WAS - Express
  - If WAS SE V3.X runs on 100 iSeries servers = 100 copies of WAS - Express
- Customers must order "maintenance renewal" for WAS - Express to receive subscription and support from Passport Advantage

## How to Get WAS - Express - Method #2

### *Get WAS - Express with your New/Upgraded iSeries Server*

WebSphere Application Server - Express comes packaged with the following software packaging combinations:

Hardware Model	Software Package Edition
800	Advanced Edition
810	Enterprise Edition
i825, i870, i890	Enterprise Edition

- Includes Software Maintenance via Passport
  - For 1 year from date of hardware installation
  - Maintenance = Software Subscription + Support
- Entitled to run WAS-Express for iSeries on all processors on that server



## How to Get WAS - Express - Method #3

### *Buy it via Passport*

- WebSphere Application Server - Express is included in the following software packaging combination
- Includes Software Maintenance via Passport
  - For 1 year from date of hardware installation
  - Maintenance = Software Subscription + Support

WebSphere Express Part Number Description	1 Year Lic & Maint	2 Year Lic & Maint	Renewal Before	After License
WAS Express for iSeries (Charge is per Processor)	\$1,913.00 D524PLL	\$2,296.00 D524QLL	\$425.00 E00NDLL	\$1,275.00 D524RLL
WAS Express for iSeries 20 users (Charge is per User - min.bundle of 20)	\$458.00 D5255LL	\$550.00 D5256LL	\$102.00 E00NILL	\$305.00 D5257LL
WAS Express for iSeries Developer (Charge is per Developer)	\$361.00 D524WLL	\$433.00 D524XLL	\$80.25 E00NFLL	\$241.00 D524YLL
Upgrade from 20 User Bundle to Per Processor Charge	\$1,435 D524SLL			
Upgrade from Competitive Product to WAS Express Per Processor Charge	\$1,435 D525CLL			

Prices reflect Passport "A" Pricing Levels and are subject to change

# *Implementing WebSphere Express*

# Start Here!

The screenshot shows the IBM iSeries Information Center interface. The left navigation pane is expanded to show 'WebSphere Application Server - Express 5.0' with sub-links for 'Print this topic', 'Overview', and 'Installation'. The main content area displays the 'Installation' page, which includes a description of the installation process and a list of steps: 1. PLANNING, 2. INSTALLING, and 3. CONFIGURING. The '1. PLANNING' section is highlighted with a red box.

**Installation**

This topic describes the tasks and requirements for installing WebSphere Application Server - Express for iSeries Version 5.0. It provides step-by-step instructions to take you through the installation of WebSphere Application Server - Express.

You can print the information in this topic by using the [Installation PDF](#).

The overview of WebSphere Application Server - Express for iSeries provides a brief description of WebSphere Application Server - Express. For more information, see [Overview of WebSphere Application Server - Express for iSeries](#).

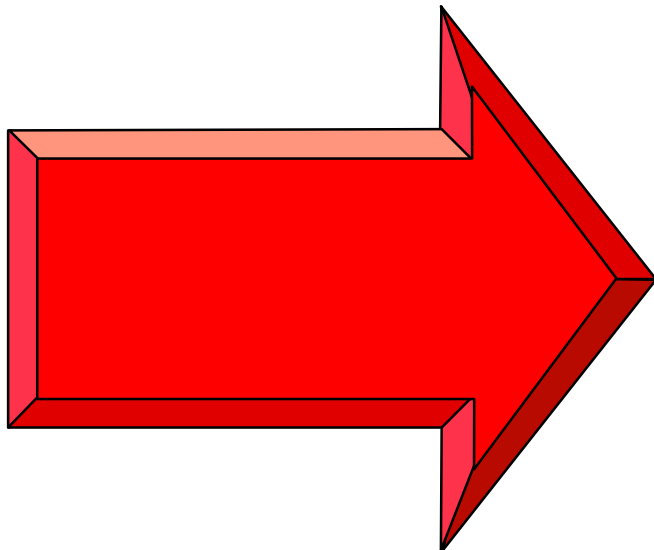
Follow these steps to install WebSphere Application Server - Express:

- 1. PLANNING**  
This step describes a series of tasks that you should complete before you install WebSphere Application Server - Express for iSeries to ensure that all the prerequisites are met.
- 2. INSTALLING**  
This step describes how to install the WebSphere Application Server - Express product on your iSeries server.
- 3. CONFIGURING**  
This step describes how to configure your iSeries server, the WebSphere Application Server - Express environment, and your HTTP Server so that WebSphere Application Server - Express runs correctly.

[Step 4: Verify the installation](#)

- ✓ All IBM WebSphere Application Server - Express for iSeries documentation is available in the iSeries Information Center!
- ✓ Step-by-step installation instructions included.
- ✓ Navigate to:  
<http://publib.boulder.ibm.com/html/as400/infocenter.html>

## What are the steps?



- ✓ Plan for it!
- ✓ Install it!
- ✓ Configure it!
- ✓ Use it!

# Plan for it!

## Minimum Configuration



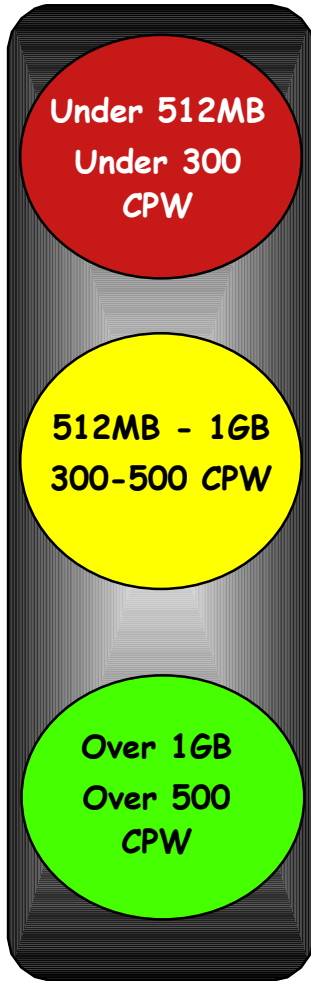
*Express requires less system resources!*

OS/400	Processor CPW*	Memory* (Per Instance)
V5R2M0 or V5R1M0	300	512 MB

\*For running the application server only. Values define available resources and existing system workloads should be understood. Smaller configurations may be used, but performance degradation should be expected.

Applications may add additional configuration requirements. Use the [IBM Workload Estimator Tool](http://www-912.ibm.com/servlet/EstimatorServlet) to develop a custom configuration estimate based on application design aspects. (<http://www-912.ibm.com/servlet/EstimatorServlet>)

# Is your AS/400 or iSeries ready?



**Bxx, Cxx, Dxx, Exx, Fxx** 170 / # 2407, # 2408, # 2409    **530** / # 2150, # 2151  
**S10, S01, Pxx** 200, 20S, 250    **600**  
**S20** / # 2161, # 2163    **620** / # 2175, # 2179, # 2180, # 2181  
**100, 150** 270 / # 2422, # 2423, # 2424    **720** / # 2061  
170 / # 2159, # 2160, # 2164    **820** / # 2425, # 2426, # 2457, # 2456  
170 / # 2289, # 2290, # 2291    **3xx, 4xx**  
170 / # 2292    **500, 510, 50S**  
**53S** / # 2154

**Need HW Upgrade  
for any WAS**

**S30** / # 2257    **620**<sup>(1)</sup>  
**S20** / # 2170, # 2165    **640** / # 2185, # 2186, # 2187  
**170** / # 2176, # 2183, # 2383    **640** / # 2237  
**170** / # 2384, # 2385, # 2386    **720** / # 2062  
**270** / # 2250, # 2431    **820** / # 2395, # 2427, # 2458  
**53S** / # 2155    **800**  
**530** / # 2152    **810**

**WAS-Express, WebFacing & IBM  
Telephone Directory**

**SB1, SB2, SB3**    **640** / #2238, #2239  
**S20**<sup>(1)</sup>, **S30**<sup>(1)</sup>, **S40**    **650**  
**170** / # 2388    **720**<sup>(1)</sup>, **730, 740**  
**270** / # 2252, # 2253    **820**<sup>(1)</sup>, **830, 840**  
**270** / # 2432, # 2434    **825**  
**53S** / # 2156, # 2157    **870**  
**530** / # 2153, # 2162    **890**

**WAS-Express, V5, ND, WebFacing,  
IBM Telephone Directory  
(1000+ cpw = Portal & Commerce)**

(1) = Except as listed above

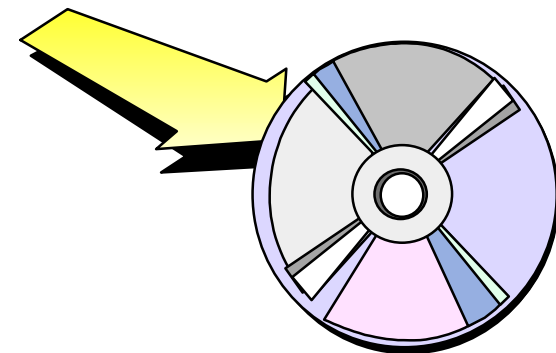
## Plan for it!

### Order the following software:

- ✓ Prerequisite Products: IBM HTTP Server (powered by Apache), IBM Developer Kit for Java, QShell Interpreter, iSeries Access for Windows, TCP/IP Connectivity Utilities
- ✓ 5722-IWE: IBM WebSphere Application Server - Express for iSeries (includes IBM Telephone Directory)
- ✓ Latest OS/400 V5R2M0 CUM Package
- ✓ Latest IBM WebSphere Application Server - Express for iSeries V5R2M0 Group PTF (SF99271)



You will need to IPL your system after you install PTFs, so be sure to plan an appropriate time for that!



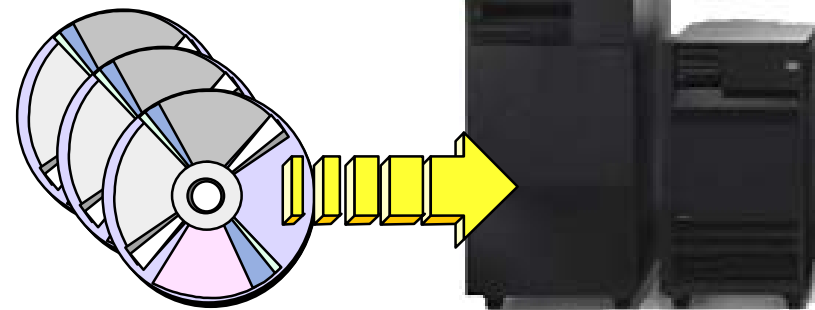
## Install it!

- ✓ Install all prerequisite products
- ✓ Install the Cumulative PTF package (don't IPL though!)
- ✓ Using the IBM WebSphere Application Server - Express for iSeries (5722-IWE) CD-ROM:

**RSTLICPGM LICPGM(5722IWE) DEV(OPT01)**

- ✓ Install option 2 from the same CD-ROM:

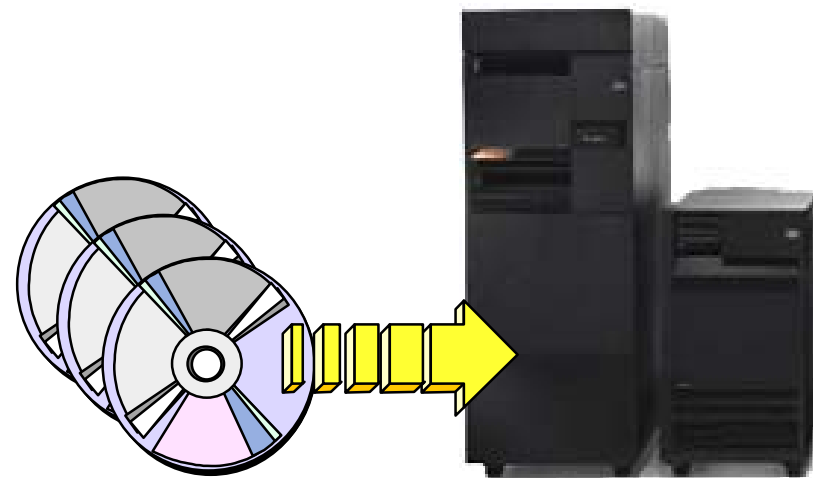
**RSTLICPGM LICPGM(5722IWE) DEV(OPT01) OPTION(2)**





## Install it!

- ✓ Using the IBM Telephone Directory CD-ROM:  
**RSTLICPGM LICPGM(5722IWE) DEV(OPT01) OPTION(3)**
- ✓ Install the IBM WebSphere Application Server - Express for iSeries V5R2M0 Group PTF SF99271
- ✓ Ok to IPL now!



## Configure it!

### After your IPL, do the following:

- ✓ Configure license information\*
  - Usage limit from your invoice or POE
- ✓ Ensure TCP/IP Configuration\*
  - Ensure parameter settings and determine port availability
- ✓ Start the IWE Subsystem & HTTP Admin Server
  - QSYS/STRSBS SBSD(QASE5/QASE5)
  - QSYS/STRTCPSVR SERVER(\*HTTP) HTTPSVR(\*ADMIN)

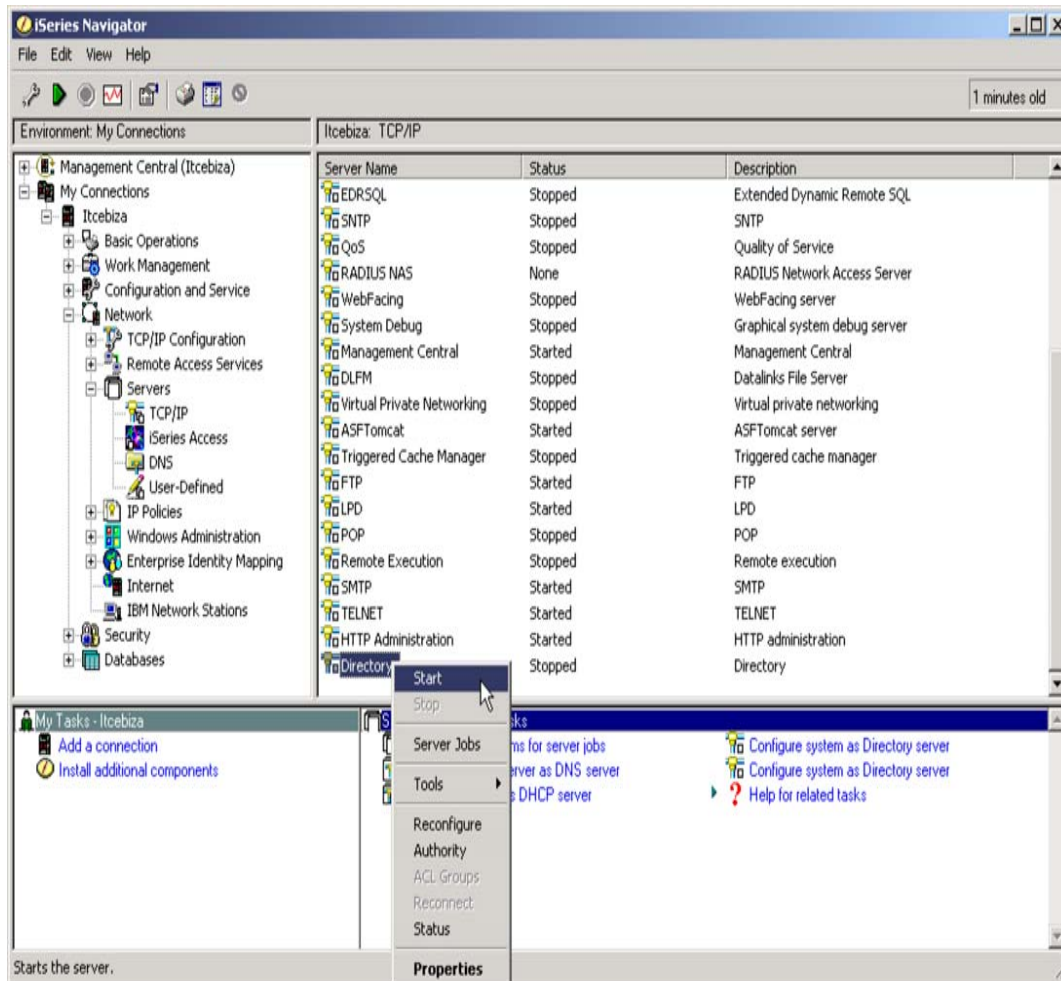
 \* Details provided in the [IBM WebSphere Application Server - Express for iSeries installation documentation!](#)

## Configure it!

**IBM Telephone Directory V 5.1 for iSeries is a business application that can be used for a company's IBM Telephone Directory V 5.1 for iSeries is a business application that can be used for a company's directory of white pages. Exclusively included on a CD with IBM WebSphere Application Server - Express for iSeries, IBM Telephone Directory for iSeries is an application that provides a company with a directory for managing information about people. It manages names, telephone numbers, departments, and e-mail addresses for company personnel.**

**This telephone directory application is integrated into the IBM WebSphere Application Server - Express for iSeries GUI for easy deployment and administration. Personnel information is managed securely by the OS/400's Lightweight Directory Access Protocol (LDAP) server which is built in to OS/400.**

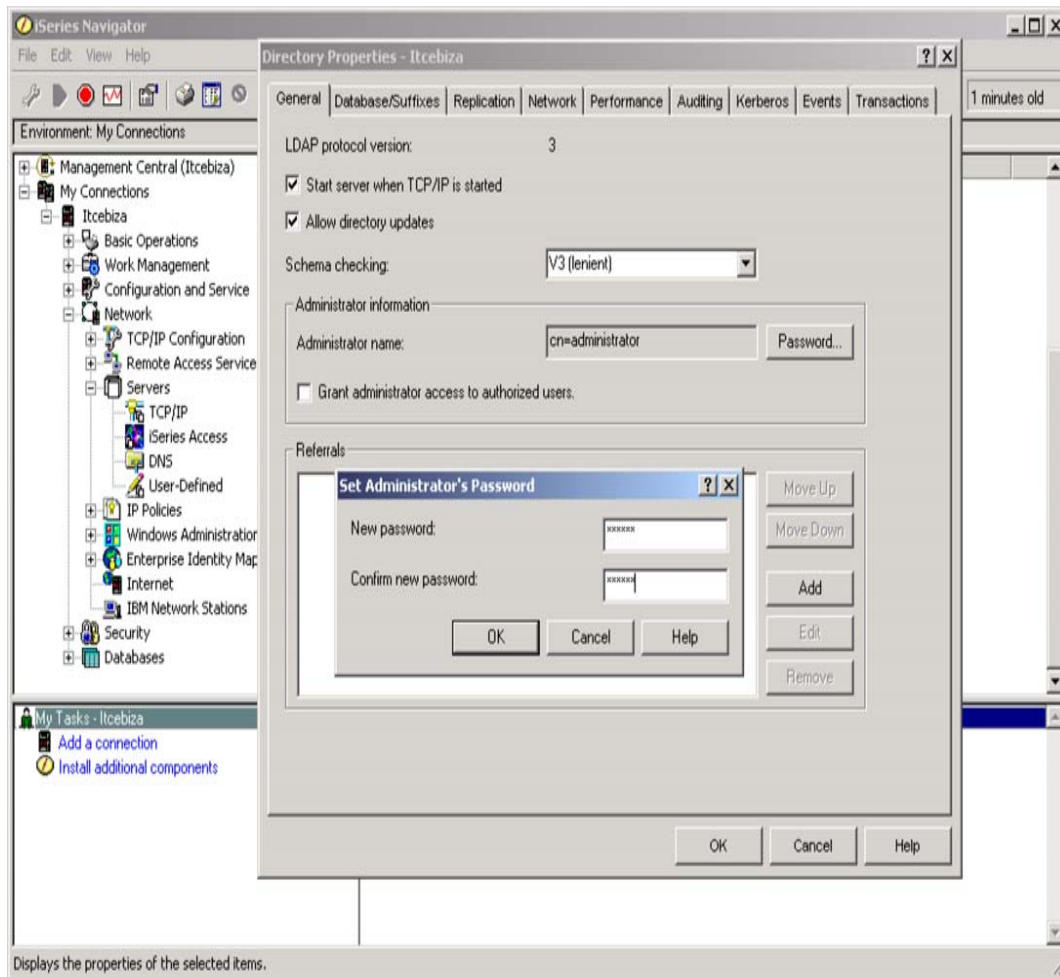
# Configure it!



✓ From iSeries Navigator, start the **Directory TCP/IP** service.

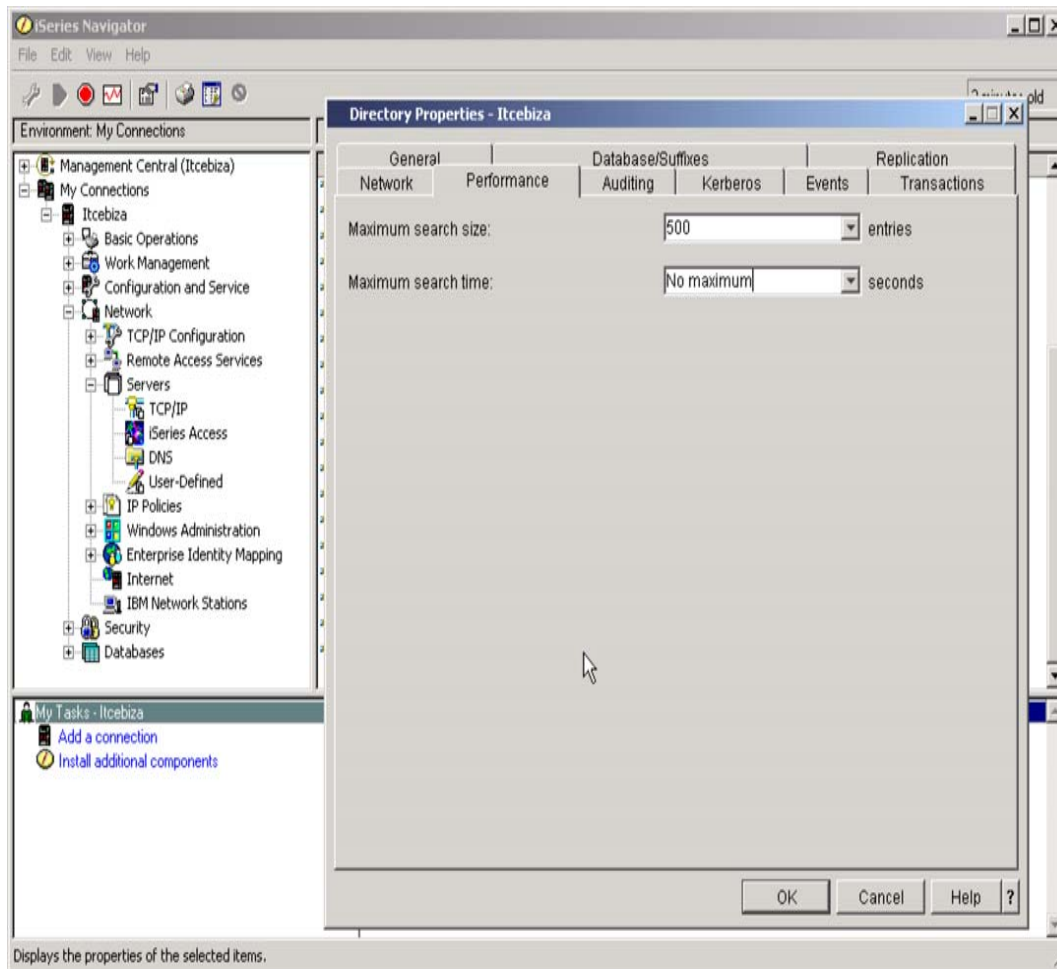
**!** Note: If you don't see the option to start Directory services, you must configure it first. See the installation documentation.

# Configure it!



- ✓ From the **Directory properties** menu, select the **General** tab and specify an administration password (if you haven't specified one already).

# Configure it!



- ✓ Click the **Performance** tab and verify that the **Maximum search size** field is set to the value **No maximum** or a value greater than **1000**.
- ✓ Click **OK** and specify to restart the server now when prompted.

## Configure it!

QSH Command Entry

⌘

```
====> itdsetup -w myldappwd -a myitdpwd -u
```

```
F3=Exit   F6=Print  F9=Retrieve F12=Disconnect  
F13=Clear F17=Top   F18=Bottom F21=CL command entry
```

- ✓ Directory Services must be configured to support IBM Telephone Directory using a supplied configuration script\*. From the QShell command prompt (STRQSH) enter command:

**itdsetup -w myldappwd -a myitdpwd -u**

where **myldappwd** is your Directory Services Administration password, and **myitdpwd** password is the IBM Telephone Directory administrators password you specify now for use later. Note that both of these are passwords are case sensitive!!

**!** \*The configuration script can be customized with optional parameters For details on all parameters, see the Express documentation

## Configure it!

**Unique to iSeries** is an integrated wizard style interface that allows you to quickly create an Express instance and a supporting HTTP server (powered by Apache) instance. This allows you to begin your e-business application deployment right away!

Here's how it works...



# Configure it!

IBM®  
(C) IBM Corporation 2000

## iSeries Tasks ITC

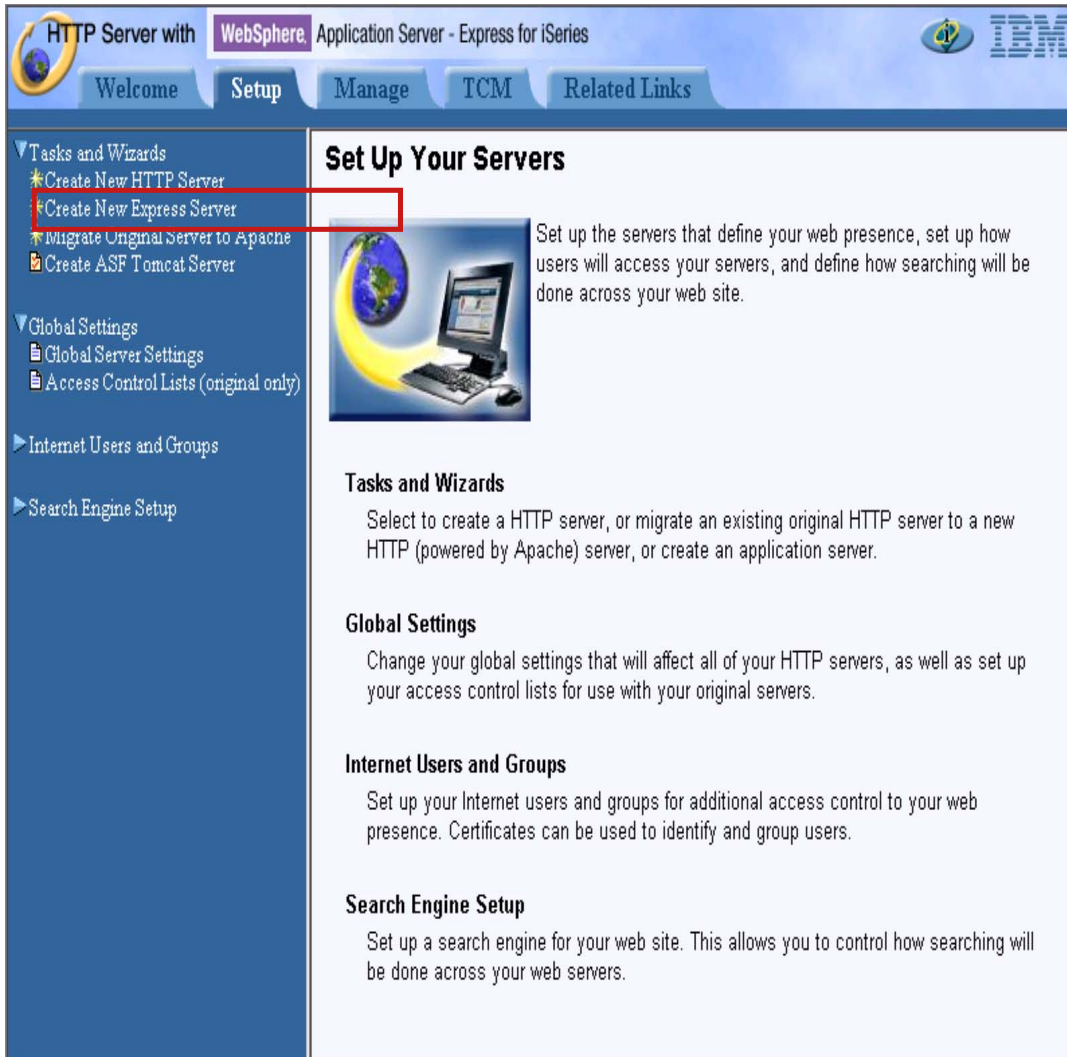
-  [IBM HTTP Server for iSeries](#)  
Configure the iSeries HTTP Server and SSL
-  [IBM WebSphere Application Server - Express for iSeries](#)  
Configure application servers and deploy applications
-  [Digital Certificate Manager](#)  
Create, distribute, and manage Digital Certificates
-  [IBM IPP Server for iSeries](#)  
Configure the IBM IPP Server
-  [4758 Cryptographic Coprocessor](#)  
Configure the 4758 coprocessor

[Related task information](#)

 [Help](#)  
(Requires JavaScript)

- ✓ Navigate to `http://your-iSeries:2001/`
- ✓ Click **IBM WebSphere Application Server - Express for iSeries**

# Configure it!



HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

Tasks and Wizards

- Create New HTTP Server
- Create New Express Server**
- Migrate Original Server to Apache
- Create ASF Tomcat Server

Global Settings


- Global Server Settings
- Access Control Lists (original only)

Internet Users and Groups

Search Engine Setup

## Set Up Your Servers

Set up the servers that define your web presence, set up how users will access your servers, and define how searching will be done across your web site.



**Tasks and Wizards**

Select to create a HTTP server, or migrate an existing original HTTP server to a new HTTP (powered by Apache) server, or create an application server.

**Global Settings**

Change your global settings that will affect all of your HTTP servers, as well as set up your access control lists for use with your original servers.

**Internet Users and Groups**

Set up your Internet users and groups for additional access control to your web presence. Certificates can be used to identify and group users.

**Search Engine Setup**

Set up a search engine for your web site. This allows you to control how searching will be done across your web servers.

- ✓ Click the **Setup** tab.
- ✓ Click **Create an Express Server**.

# Configure it!

The screenshot shows the 'Create New Express Server' wizard in the IBM WebSphere Administration Console. The browser title is 'HTTP Server with WebSphere Application Server - Express for iSeries'. The navigation tabs are 'Welcome', 'Setup', 'Manage', 'TCM', and 'Related Links'. The left sidebar contains a tree view with 'Tasks and Wizards' expanded, showing options like 'Create New HTTP Server', 'Create New Express Server', 'Migrate Original Server to Apache', and 'Create ASF Tomcat Server'. The main content area has the title 'Create New Express Server' and a welcome message: 'Welcome to the Create New Express Server wizard. This wizard creates a new WebSphere Application Server - Express to run web applications with dynamic content. An application server consists of several pieces that you will need to consider and configure before your server will function.' Below this are two sections: 'Virtual Hosts' and 'Install Application'. The 'Next' button at the bottom is highlighted with a red box.

HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

## Create New Express Server

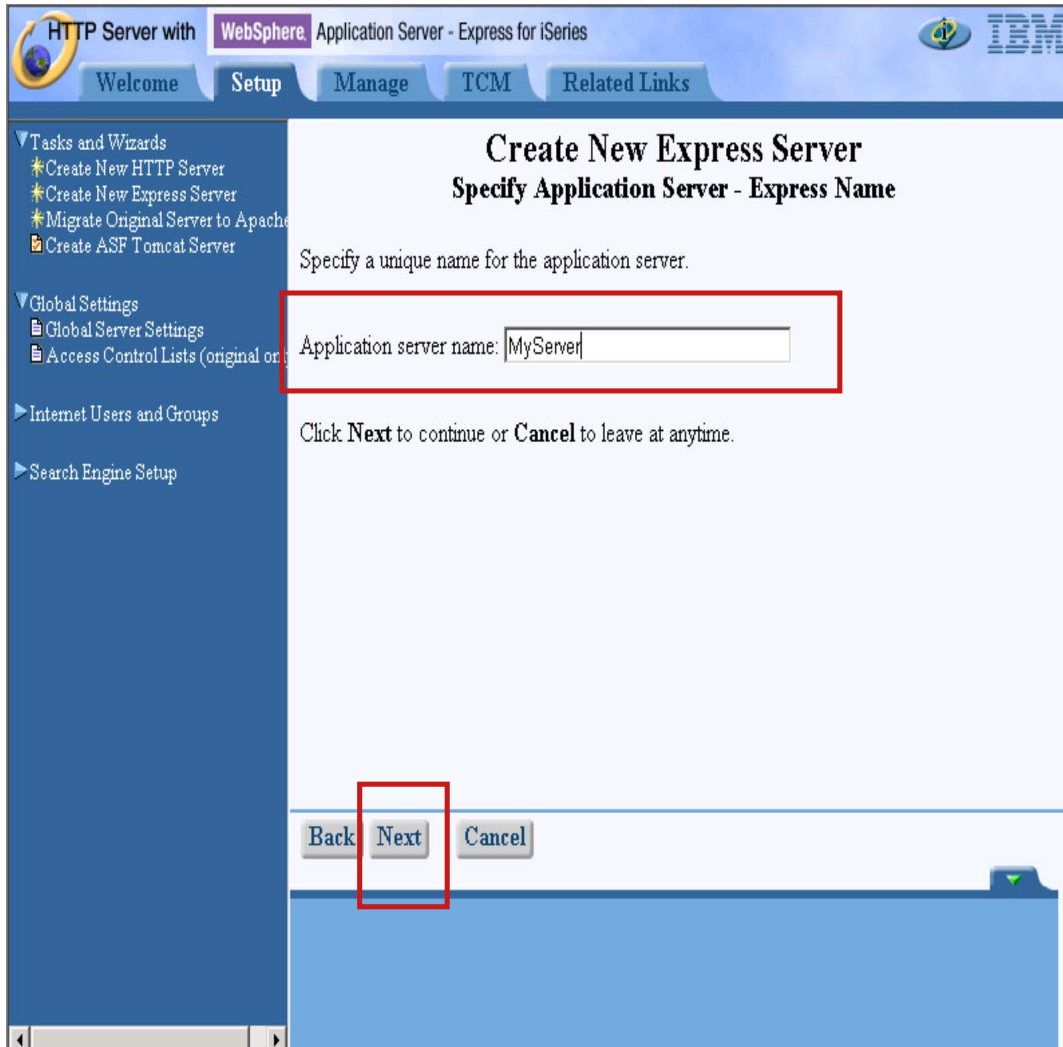
Welcome to the Create New Express Server wizard. This wizard creates a new WebSphere Application Server - Express to run web applications with dynamic content. An application server consists of several pieces that you will need to consider and configure before your server will function.

- **Virtual Hosts**  
Virtual hosts are the mechanism that route the URL request from the browser to the applications. Many application servers use one virtual host to control the routing of requests. If you wish for more granular control, you can create more virtual hosts to route a particular URL to a specific application. A single virtual host can receive requests from one or more HTTP servers.
- **Install Application**  
Applications must be installed onto the application server to be accessed by your customers. The Install Application wizard will take your Enterprise Archive (EAR) or Web Archive (WAR) file that contains the application and deploy the application on the server.

Back Next Cancel

- ✓ Read the introductory page.
- ✓ Click the **Next** button.

# Configure it!



HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

Tasks and Wizards

- Create New HTTP Server
- Create New Express Server
- Migrate Original Server to Apache
- Create ASF Tomcat Server

Global Settings

- Global Server Settings
- Access Control Lists (original or...

Internet Users and Groups

Search Engine Setup

## Create New Express Server

### Specify Application Server - Express Name

Specify a unique name for the application server.

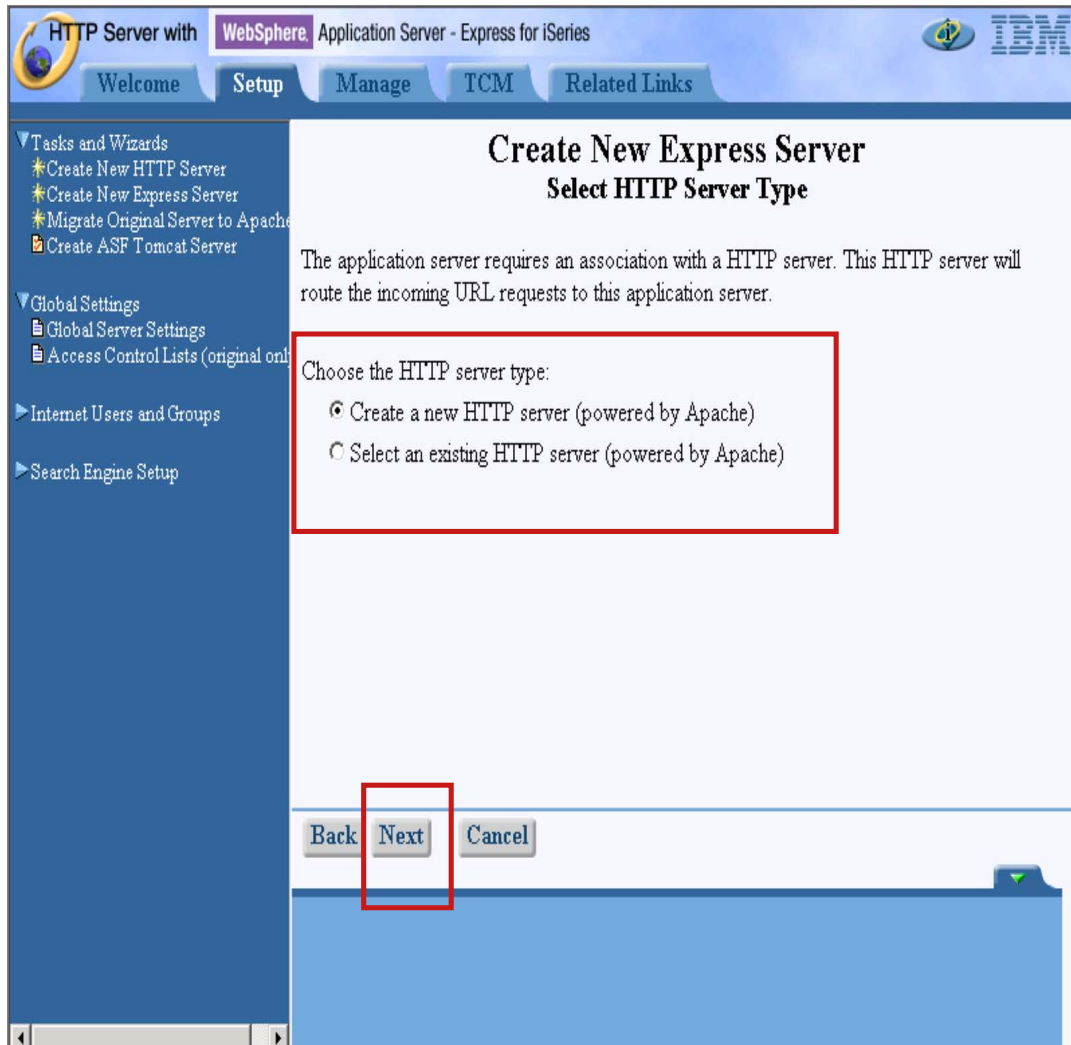
Application server name:

Click **Next** to continue or **Cancel** to leave at anytime.

Back Next Cancel

- ✓ Specify a name for your new application server instance - remember this name for later use.
- ✓ Click the **Next** button.

# Configure it!



- ✓ Elect to create a new HTTP server (powered by Apache) instance to support your new application server instance.
- ✓ Click the **Next** button.

# Configure it!

HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

Tasks and Wizards

- Create New HTTP Server
- Create New Express Server
- Migrate Original Server to Apache
- Create ASF Tomcat Server

Global Settings

- Global Server Settings
- Access Control Lists (original onl)

Internet Users and Groups

Search Engine Setup

## Create New Express Server

### Create a new HTTP server (powered by Apache)

A new HTTP server (powered by Apache) will be created and configured to be used by this application server.

HTTP server name:

Your HTTP server may listen for requests on a specific IP address or on all IP addresses of the system.

On which IP address and TCP port would you like your HTTP server to listen?

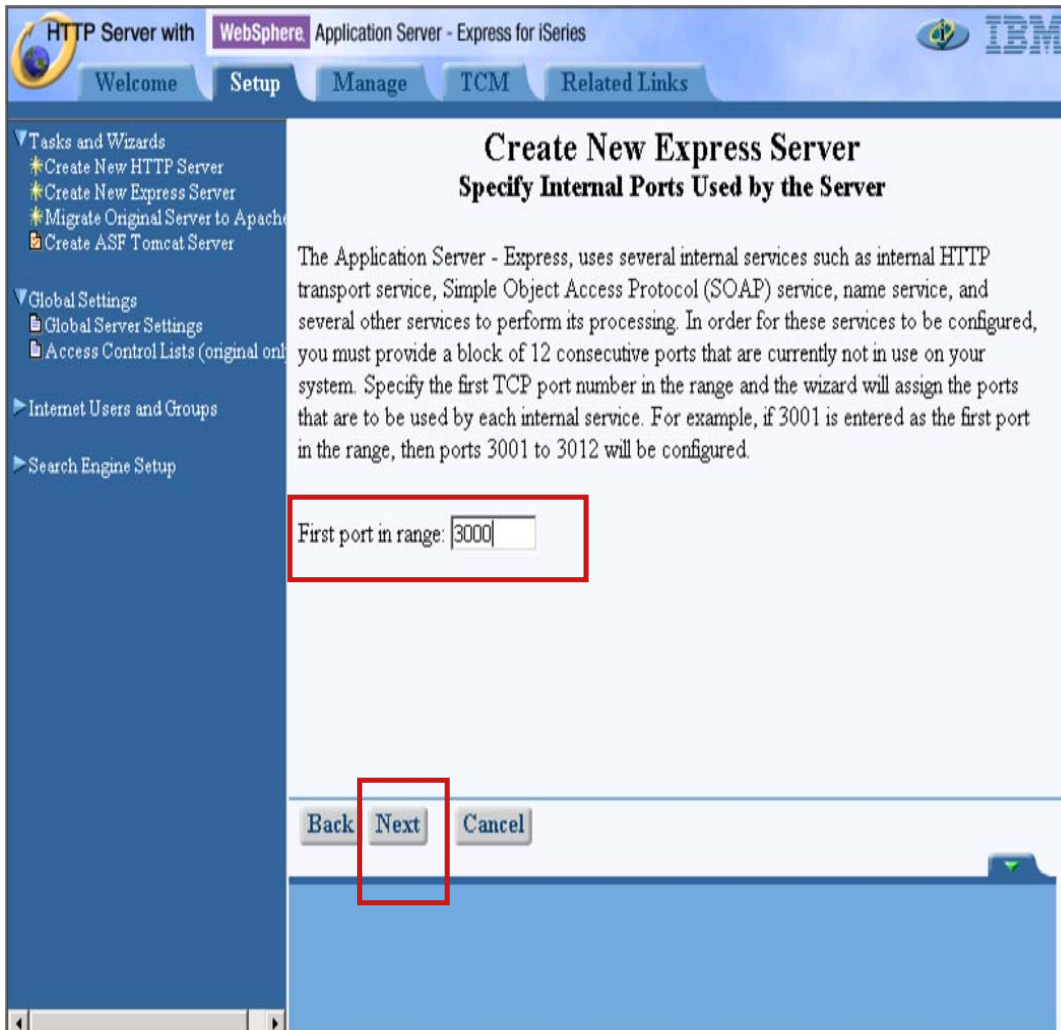
IP address:

Port:

Back **Next** Cancel

- ✓ Specify a name for your HTTP server (powered by Apache) instance - remember this name for later use.
- ✓ Specify a port number (if not 80) for the HTTP server instance to use - remember this value for later use.
- ✓ Click the **Next** button.

# Configure it!



HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

Tasks and Wizards

- Create New HTTP Server
- Create New Express Server
- Migrate Original Server to Apache
- Create ASF Tomcat Server

Global Settings

- Global Server Settings
- Access Control Lists (original only)

Internet Users and Groups

Search Engine Setup

## Create New Express Server

### Specify Internal Ports Used by the Server

The Application Server - Express, uses several internal services such as internal HTTP transport service, Simple Object Access Protocol (SOAP) service, name service, and several other services to perform its processing. In order for these services to be configured, you must provide a block of 12 consecutive ports that are currently not in use on your system. Specify the first TCP port number in the range and the wizard will assign the ports that are to be used by each internal service. For example, if 3001 is entered as the first port in the range, then ports 3001 to 3012 will be configured.

First port in range:

Back Next Cancel

- ✓ Select the first in a range of 12 consecutive available ports for the Express instance to use.
- ✓ Click the **Next** button.

# Configure it!

The screenshot shows the IBM WebSphere Administration Console interface. The main heading is "Create New Express Server" with the sub-heading "Select Business and Sample Applications". The page contains several sections:

- Tasks and Wizards:** A list of tasks including "Create New HTTP Server", "Create New Express Server", "Migrate Original Server to Apache", and "Create ASF Tomcat Server".
- Global Settings:** A list of settings including "Global Server Settings" and "Access Control Lists (original on)".
- Internet Users and Groups:** A link to "Internet Users and Groups".
- Search Engine Setup:** A link to "Search Engine Setup".

The main content area contains the following text and options:

The Application Server - Express has business and sample applications that you can optionally choose to install in this application server. Choose the applications that you would like installed and the wizard will deploy them for you.

Select which business applications to install:

- IBM Telephone Directory - An online phone book, providing powerful search capabilities with an easy to use

Select which sample applications to install:

- ExpressSamples - A set of samples, including SnoopServlet, that can be used to verify that your application ser
- DB2 Web Services - A set of samples that demonstrate using the Web Services Object Runtime Framework t

At the bottom of the page, there are three buttons: "Back", "Next", and "Cancel". The "Next" button is highlighted with a red box.

- ✓ Specify to install the **IBM Telephone Directory** and **ExpressSamples** applications.
- ✓ Click the **Next** button.



# Configure it!

HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

Tasks and Wizards

- Create New HTTP Server
- Create New Express Server
- Migrate Original Server to Apache
- Create ASF Tomcat Server

Global Settings

- Global Server Settings
- Access Control Lists (original only)

Internet Users and Groups

Search Engine Setup

## Create New Express Server Summary

When you click **Finish** this Application Server - Express will be created.

Application server name: MyServer  
Associated HTTP server: MYWEBSVR  
HTTP server addresses: \*80  
Internal port range: 3000 - 3011  
Virtual host: default\_host

Business applications:

Application name	URL to access application
IBM Telephone Directory	ITCEBIZA/bizApps

Sample applications:

Application name	URL to access application
ExpressSamples	ITCEBIZA/Snoop

Note: To access the installed application(s), start the application server and HTTP server, then enter a URL from

Back Finish Cancel

- ✓ Review the configuration parameters.
- ✓ Click the **Finish** button.

# Configure it!

HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup **Manage** TCM Related Links

Server: MyServer - WAS - Express V5

**Creating** [Refresh] [Stop] [Start]

All servers -> MyServer

### Manage Application Server - Express "MyServer"

**Create Additional Virtual Host**

The default virtual host "default\_host" was created for this application server. However, you can specify additional virtual hosts for more control over what URI's can run which applications.

Virtual hosts can communicate with one or more HTTP servers. When creating a virtual host you must also define which HTTP server(s) the application will use to serve its contents. This wizard will create an additional virtual host and update the corresponding HTTP server to send requests to the application server.

**Install New Application**

After creating the server and virtual host you can install your applications.

Applications must be installed on an application server to be accessed by your users. Use this wizard to install your applications. Make sure your applications are located in an IFS directory on this iSeries server.

**Create Data Source**

Then, define the resources the application server will use to access data for your applications.

Applications typically use information contained within databases. In order for the application server to communicate with those databases you will need to create links called Java Database Connector (JDBC) Providers and data sources for each application. Use these wizards to create those resources.

▼ Details

- ✓ You iSeries is now creating your new Express and HTTP server (powered by Apache) instances!
- ✓ This screen shows the status of your Express instance.
- ✓ Periodically click the Refresh button until the Express instance status changes from **Creating** to **Stopped**.

# Configure it!

HTTP Server with WebSphere Application Server - Express for iSeries

Welcome Setup Manage TCM Related Links

Server: MyServer - WAS - Express V5

Stopped

All servers -> MyServer

### Manage Application Server - Express "MyServer"

**Create Additional Virtual Host**  
The default virtual host "default\_host" was created for this application server. However, you can specify additional virtual hosts for more control over what URI's can run which applications.

**Install New Application**  
After creating the server and virtual host you can install your applications.

**Create Data Source**  
Then, define the resources the application server will use to access data for your applications.

**Current Configuration for Server - MyServer**

Manage Virtual Hosts	Manage Installed Applications	Manage Data Sources
default_host	IBM Telephone Directory	Default Datasource

✓ Click the **Start** button to start your Express instance.

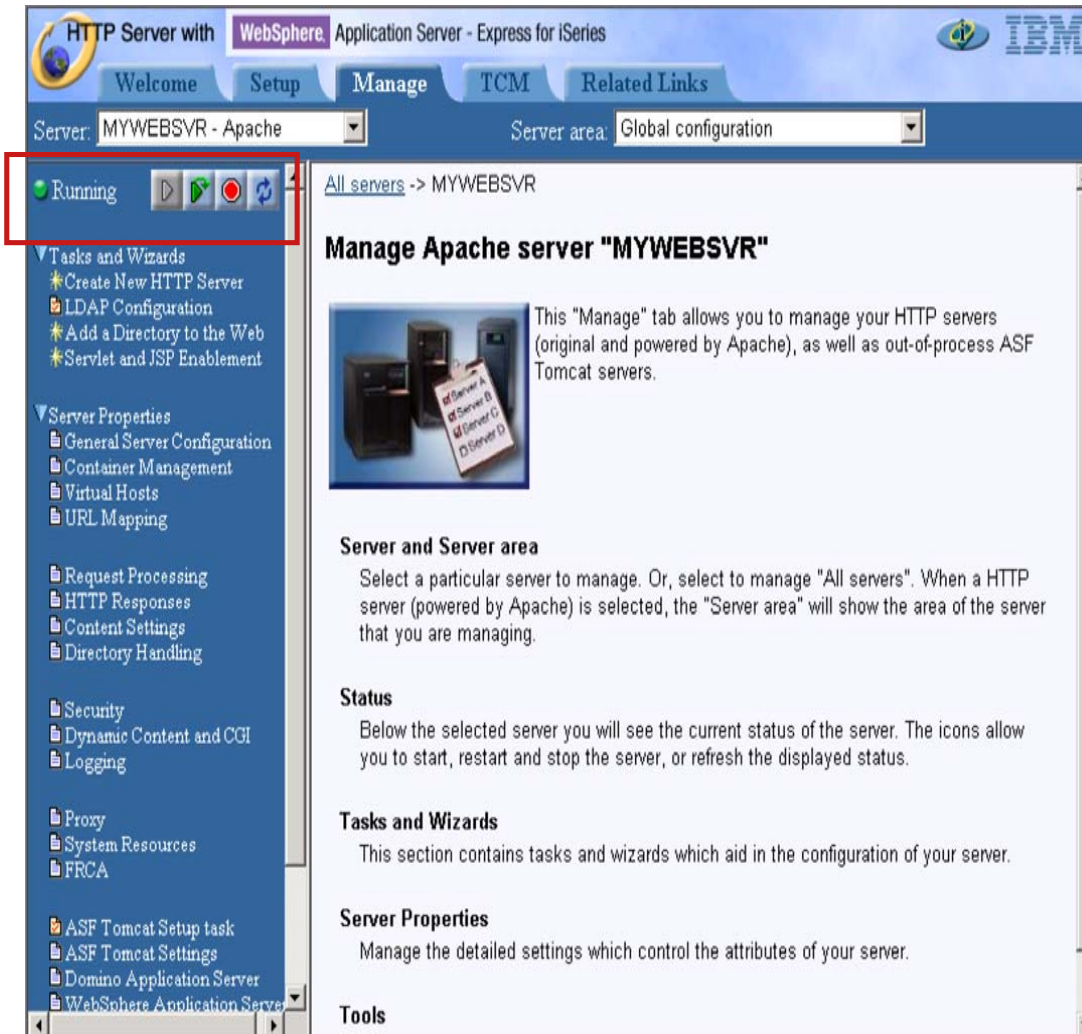
# Configure it!

The screenshot shows the IBM WebSphere Administration Console interface. At the top, it displays 'HTTP Server with WebSphere Application Server - Express for iSeries'. The navigation tabs include 'Welcome', 'Setup', 'Manage', 'TCM', and 'Related Links'. The server selected is 'MyServer - WAS - Express V5'. A red box highlights the 'Running' status indicator and the 'Refresh' button. The main content area is titled 'Manage Application Server - Express "MyServer"'. It features three wizard sections: 'Create Additional Virtual Host', 'Install New Application', and 'Create Data Source'. Below these are 'Details' sections for each. At the bottom, there is a 'Current Configuration for Server - MyServer' table.

Manage Virtual Hosts	Manage Installed Applications	Manage Data Sources
<input checked="" type="checkbox"/> default host	<input checked="" type="checkbox"/> IBM Telephone Directory	<input checked="" type="checkbox"/> Default Datasource

- ✓ Periodically click the Refresh button until the Express instance status changes from **Starting** to **Running**.

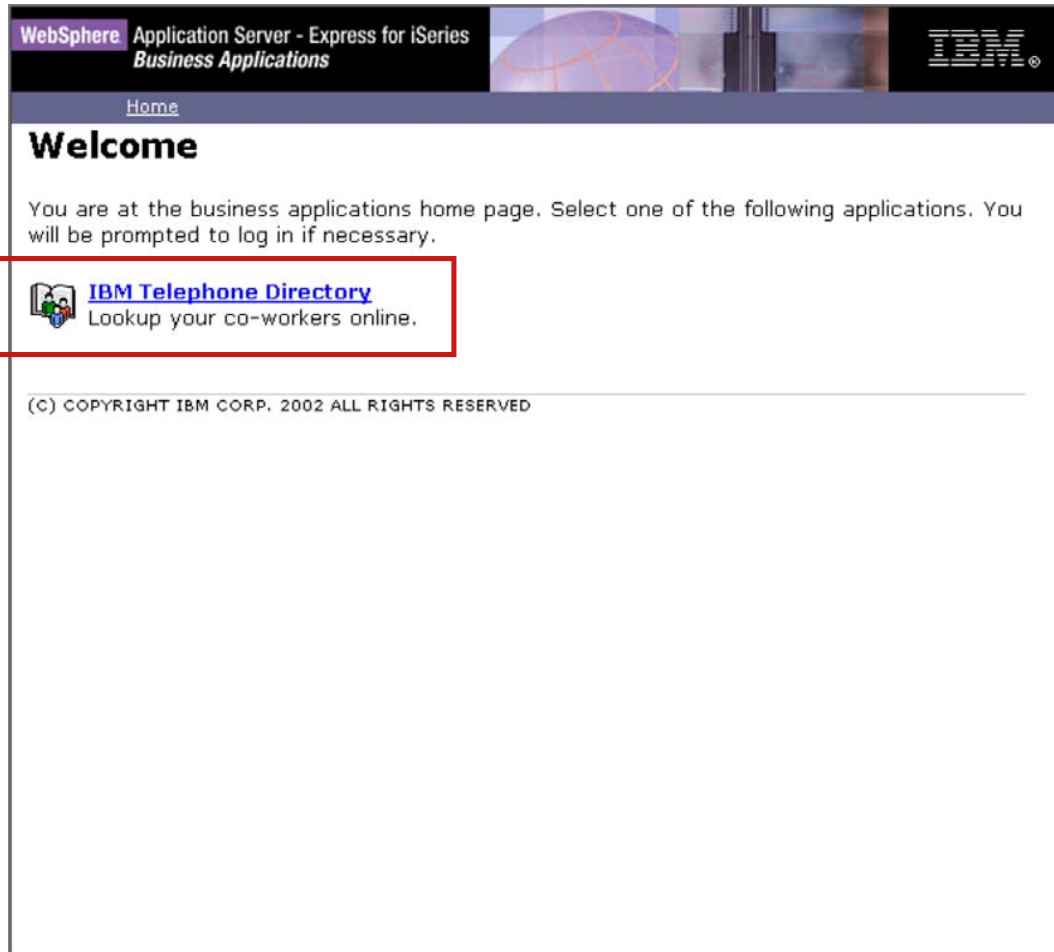
# Configure it!



The screenshot shows the IBM WebSphere Administration Console interface. At the top, there are tabs for 'Welcome', 'Setup', 'Manage', 'TCM', and 'Related Links'. Below the tabs, there are dropdown menus for 'Server: MYWEBSVR - Apache' and 'Server area: Global configuration'. A red box highlights the 'Running' status indicator and the 'Start' button (a green play icon). The main content area is titled 'Manage Apache server "MYWEBSVR"' and contains several sections: 'Server and Server area', 'Status', 'Tasks and Wizards', 'Server Properties', and 'Tools'. The 'Status' section includes a small image of server hardware and text explaining the 'Manage' tab's functionality. The 'Status' section also contains text about the current status of the server and the function of the control icons.

- ✓ Using the **Server** field pulldown, select your HTTP Server (powered by Apache) instance you created with the wizard.
- ✓ Click the **Start** button.
- ✓ The status will change from **Stopped** to **Running**.

## Use it!




WebSphere Application Server - Express for iSeries  
Business Applications

Home

### Welcome

You are at the business applications home page. Select one of the following applications. You will be prompted to log in if necessary.

 [IBM Telephone Directory](#)  
Lookup your co-workers online.

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- ✓ Try **IBM Telephone Directory** right away! Navigate to `http://your-iserries/bizApps` (specify the specific HTTP server port if you didn't select the default of 80 when using the configuration wizard)
- ✓ Click the **IBM Telephone Directory** link.

# Use it!

WebSphere Application Server - Express for iSeries  
Business Applications

Home

[Search](#)  
[Advanced Search](#)  
[Help](#)  
[Register](#)

## Search

Search for an employee using the fields below.

Search On:  [Advanced Search](#)

Search For:

---

### Search Tips

When searching by name, enter the last name first. To search for matches that begin or end with the same characters, use an asterisk as a wildcard.

Examples of searches by name: Smith, John  
smi\*,j  
\*ith

- ✓ Add information for an employee! Click the **Register** link.
- ✓ You will be asked to authenticate. Use the password you specified when you ran the ITD configuration script (Note that the password is case sensitive!)

# Use it!

WebSphere Application Server - Express for iSeries  
Business Applications

Home

[Search](#)  
[Advanced Search](#)  
[Help](#)  
[Register](#)

## Register

[Exit Register](#)

Fill out the fields below and click 'Submit' to register and create your profile for listing within the IBM Telephone Directory. A suggested User ID will be prefilled below based on the name you enter. However, you may change the User ID to a different value if you prefer to do so.  
Fields marked with an asterisk (\*) are required.

### Registration Information

First Name: \*

Middle Initial:

Last Name: \*

Suffix:  e.g., Jr.

User ID: \*

Password: \*  Max. 16 characters

Confirm Password: \*

### Profile Information

Preferred First Name:  e.g., Bob

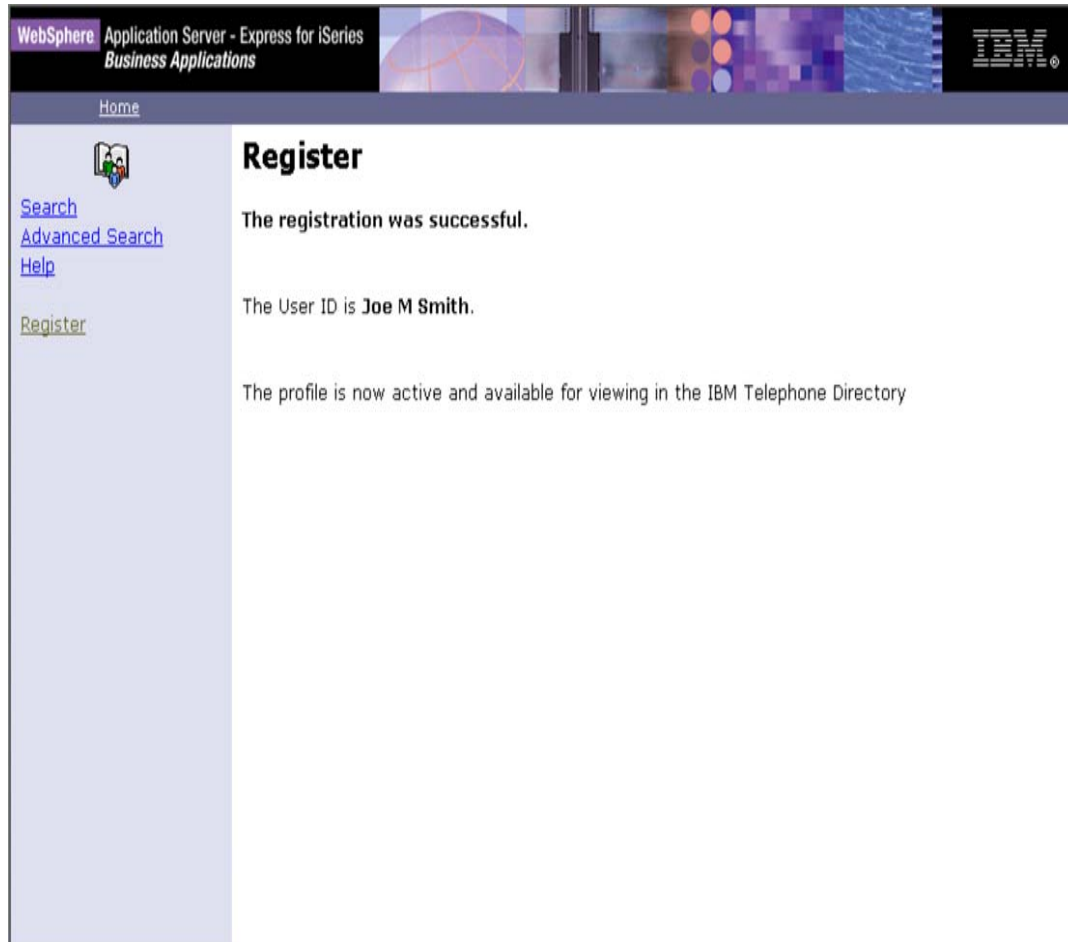
Title:

Alternate Last Name:

- ✓ Populate the registration page with data for a specific employee. When finished, click the **Submit** button at the bottom of the page.



# Use it!



- ✓ That's it! You've registered an employee within IBM Telephone Directory. Now try searching for that employee by clicking the **Search** link.

# Use it!

WebSphere Application Server - Express for iSeries  
Business Applications

Home

[Search](#)  
[Advanced Search](#)  
[Help](#)  
[Register](#)

## Search

Search for an employee using the fields below.

Search On:  [Advanced Search](#)

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---

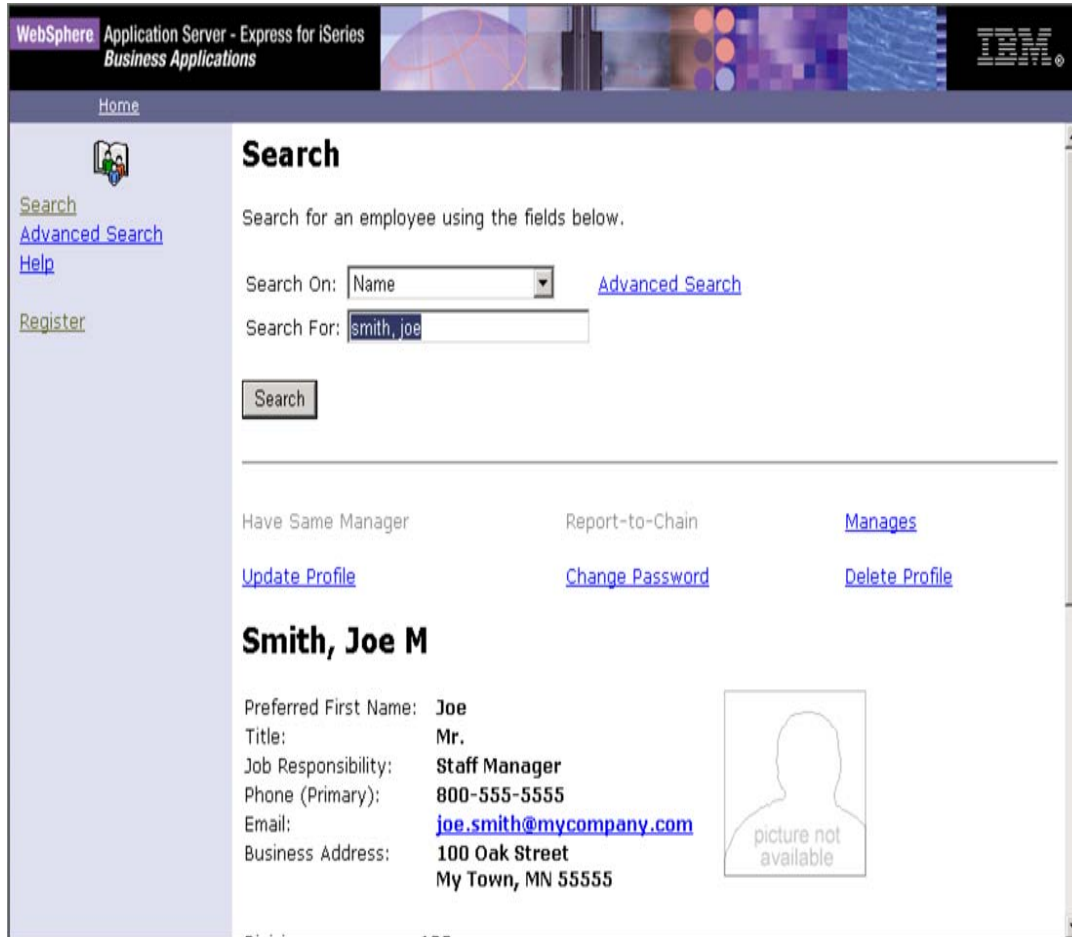
### Search Tips

When searching by name, enter the last name first. To search for matches that begin or end with the same characters, use an asterisk as a wildcard.

Examples of searches by name: Smith, John  
smi\*,j  
\*ith

- ✓ On the **Search** page, specify to search on a **Name**, then specify to search for the name you just entered, with the last name followed by the first name. Click the **Search** button.

# Use it!



The screenshot displays the WebSphere Application Server interface for iSeries Business Applications. The page title is "WebSphere Application Server - Express for iSeries Business Applications". The main content area is titled "Search" and contains a search form with the following fields and options:

- Search On: Name (dropdown menu)
- Search For: smith, joe (text input)
- Advanced Search (link)
- Search (button)

Below the search form, there are several links: "Have Same Manager", "Report-to-Chain", "Manages", "Update Profile", "Change Password", and "Delete Profile".

The search results show the profile for **Smith, Joe M**. The profile information includes:

- Preferred First Name: Joe
- Title: Mr.
- Job Responsibility: Staff Manager
- Phone (Primary): 800-555-5555
- Email: [joe.smith@mycompany.com](mailto:joe.smith@mycompany.com)
- Business Address: 100 Oak Street, My Town, MN 55555

A placeholder for a profile picture is shown with the text "picture not available".

✓ You should see the information for the employee you just entered!



Congratulations. You are ready to deploy your own applications!!

## More Information!

To learn all there is about WebSphere on iSeries, including products, education, and services available, check out the first edition of the **IBM WebSphere for iSeries Buying and Selling Guide** Redpaper. <http://www.redbooks.ibm.com/redpapers/pdfs/redp3646.pdf>

Join the **iSeries Nation**, the essential destination for the iSeries community. Become a citizen today! Registration is quick and easy, and gives you access to valuable offers and a wealth of information to help you improve your IT department and your business.

<http://www-1.ibm.com/servers/eserver/audience/Homepage.wss?view=ination>

Take advantage of **IBM Redbooks** that provide positioning and value guidance, installation and implementation experiences, typical solution scenarios, and step-by-step "how-to" guidelines.

<http://www.redbooks.ibm.com>

REDP3624	WebSphere Application Server - Express V5.0 for iSeries
SG24-6801	The IBM WebFacing Tool: Converting 5250 Applications to Browser-based GUIs
SG24-6804	iSeries Access for Web V5R2 and WebSphere Host Publisher V4.0

IS-3710R01 Hot V5R2 iSeries Access Topics: Administering its Software, Functions, and Users; using HATS (Residency)

**WebSphere Developer Domain (WSDD)** is IBM's developer community Web site, offering technical articles, tutorials, downloads, monthly Technical Journals, etc.. for the WebSphere brand. <http://www.ibm.com/websphere/developer>