

Configuration of IBM HTTP Server using CGI

These configuration instructions are specific to LANSAs for the Web. These instructions do not include the general configuration of the IBM HTTP Server.

In the following section, the term AS/400 will be used instead of iSeries.

The IBM HTTP Server configuration requires the definition of a new configuration file and an instance within the configuration. (It is recommended that the configuration and instance use the exact same name.) The values specified for the Web Server configuration must match the values specified when you configured LANSAs for the Web.

The IBM HTTP Server for AS/400 Configuration task includes the following steps:

Before You Begin Checklist

Step 1. Sign On and Start ADMIN Instance

Step 2. Access the Instance Using a Browser

Step 3. Create Web Server Configuration

Step 4. Create Web Server Instance

Step 5. Edit Your Configuration

Step 6. Stop the ADMIN Instance

Example IBM HTTP Server Configuration

The sample screens used in this section were taken using the IBM HTTP Server shipped with V4R4. If you are using an earlier version (or a later version) of the IBM HTTP Server, the screens may not match exactly.

Before You Begin Checklist

Before you begin the IBM HTTP Server for AS/400 Configuration task, check the following:

- Do you have the LANSAs for the Web configuration information used in Task 3? In particular, you will need to know the following:
- CGI-BIN Library
- IFS images directory
- port number
- Use DSPUSRPRF command to check that the user profile QTMHHTTP and QTMHHTTP1 are enabled.
- Use the WRKOBJ or DSPOBJAUT command to check the authority on the LANSAWEB program stored in the CGI library. The program should have *USE for *PUBLIC users.
- Use the WRKOBJ or DSPOBJAUT command to check the authority on the LANSAs CGI library. The library should have *USE for *PUBLIC users.
- Check to make sure that the correct CGI program is stored in the library. Use the WRKOBJ command to display the program description on the CGI program to check if it is the I/NET or the ICS CGI program. (ICS is used with IBM HTTP Server.)
- Use the WRKOBJ or DSPOBJAUT command to check the authority on the QTMHHTTP message queue. The message queue should have *USE for *PUBLIC users.

Step 1. Sign On and Start ADMIN Instance

Sign on to the AS/400 Web Server using the QSECOFR profile (recommended) or using a profile with authority to the IBM HTTP Web Server.

From an OS/400 command entry (CALL QCMD), start the ADMIN Instance of the IBM HTTP Server using the command:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
```

Use the WRKACTJOB command to ensure that the IBM HTTP Web Server instance has started correctly.

By default, the ADMIN Web Server instance uses port 2001. Make sure that port 2001 is not restricted or disabled on your Firewall.

Step 2. Access the Instance Using a Browser

Start a Web browser on a PC which has a connection to the Web Server.

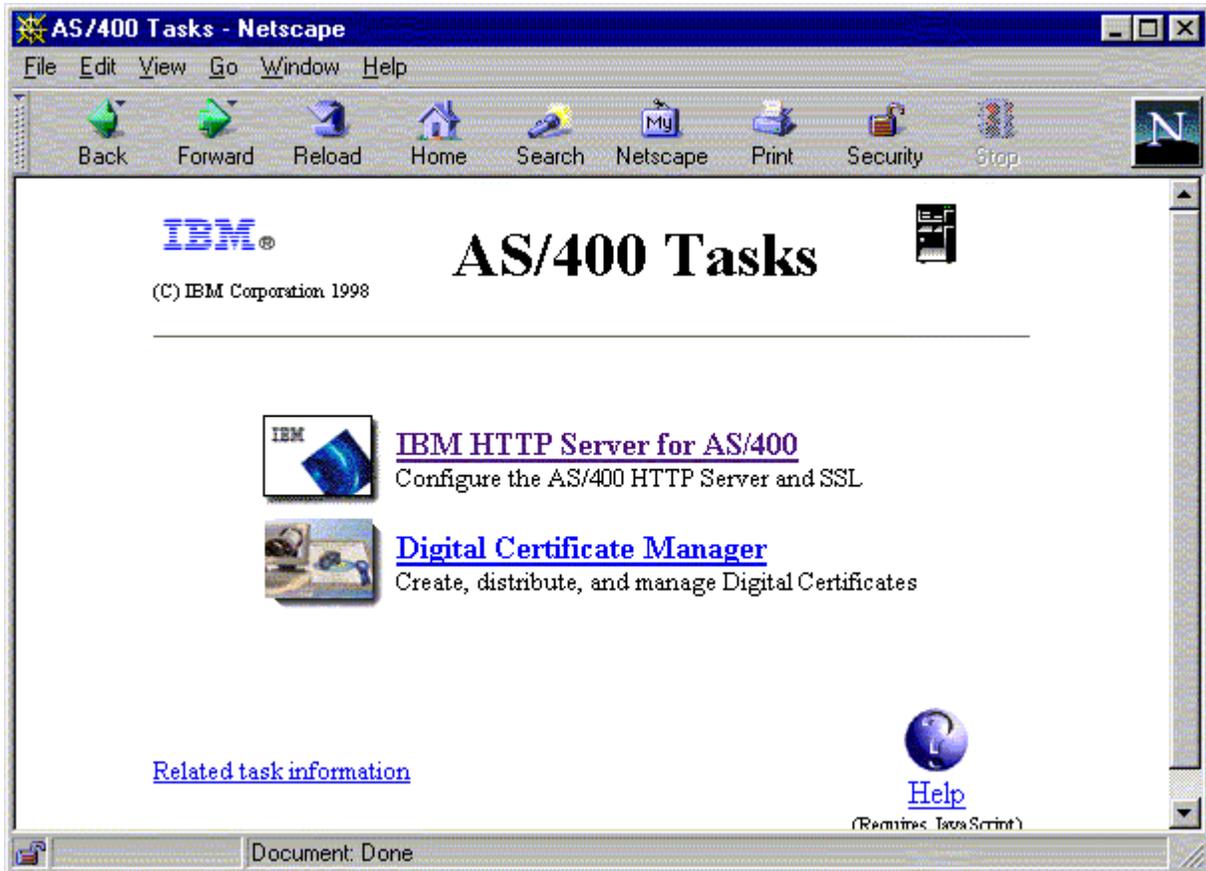
Access the administration instance from your Web browser using the following URL:

`http://<ip address>:2001/`

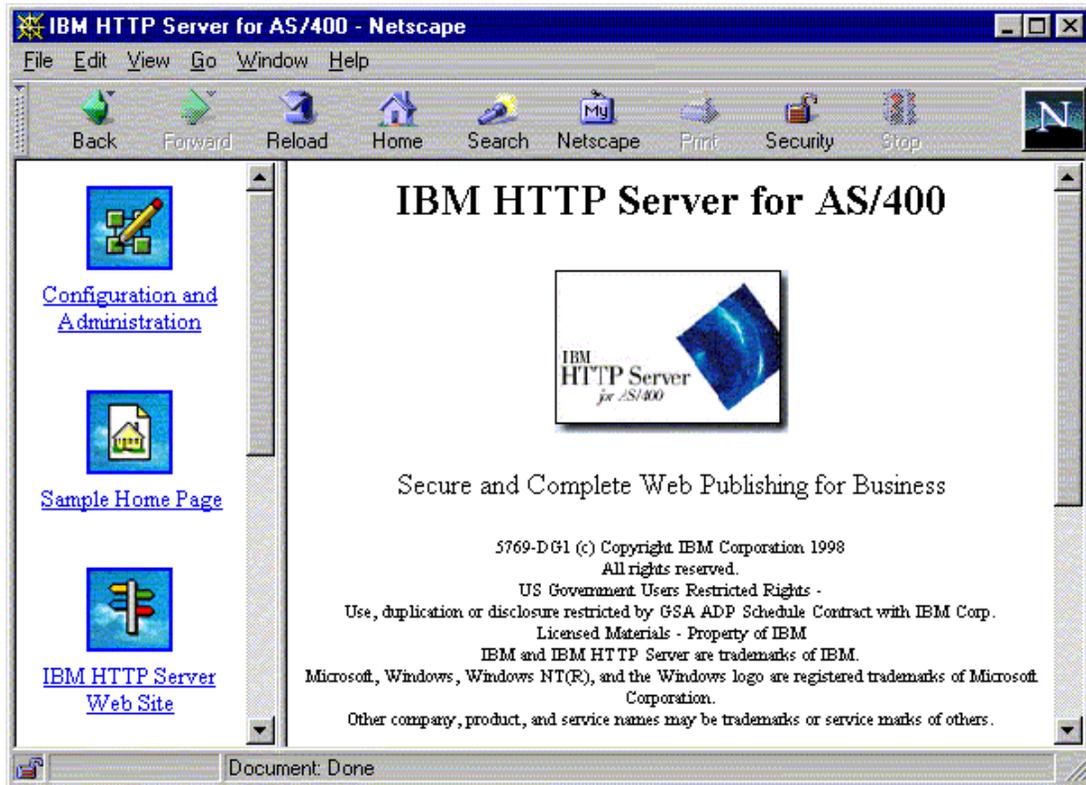
where <ipaddress> is the IP address of your AS/400

You will be prompted for a profile and password.

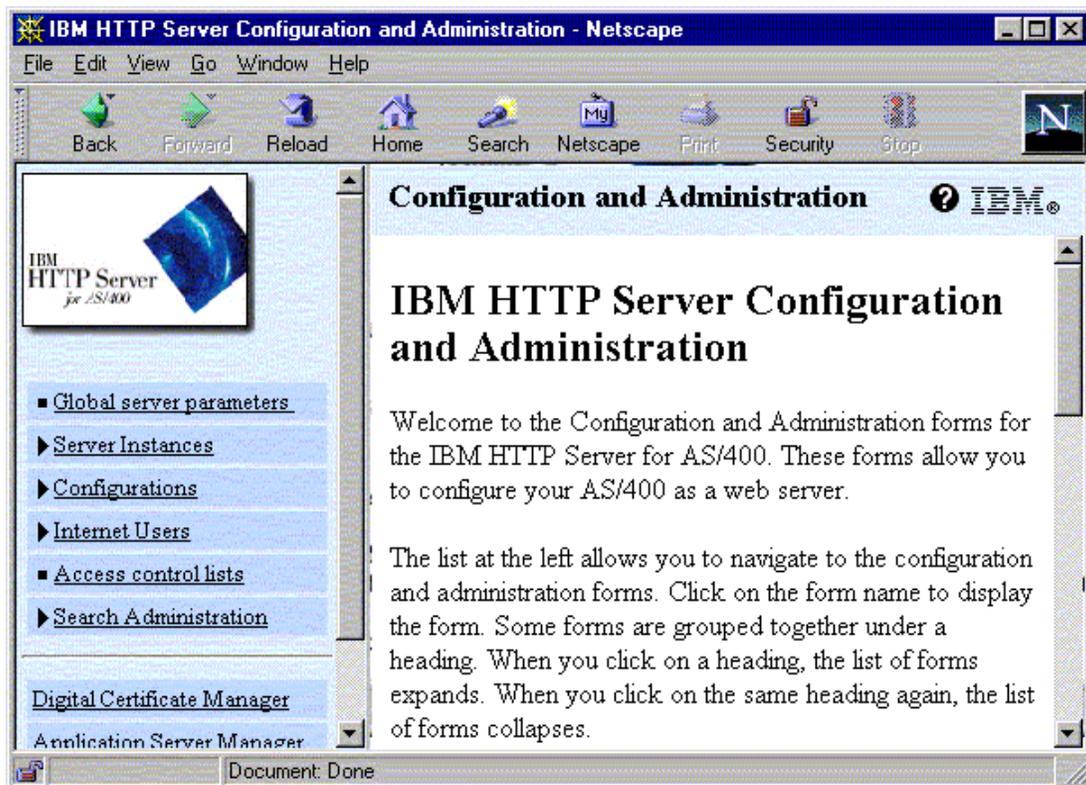
The main Web page will appear.



Select the IBM HTTP Server for AS/400 menu option.



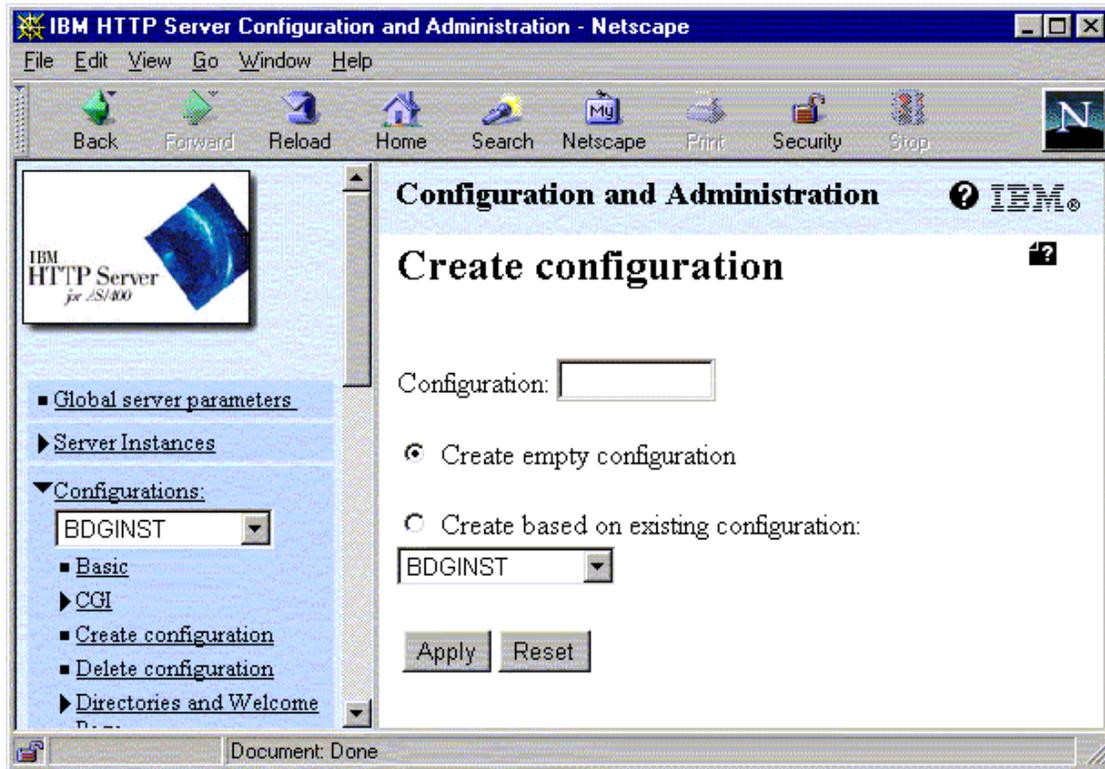
Select the Configuring and Administration icon in the left hand frame.



You will need to create a configuration file first and then assign it to a Server Instance.

Step 3. Create Web Server Configuration

Select the *Configurations* option in the left hand frame and click on the *Create configuration* menu option.



Enter a name for your configuration file. For example: LWEB1.

(Do not use @ sign in the name of the configuration file if you are planning to configure SSL for this instance.)

Press the *Apply* button.

A message will be displayed after the instance is created.

Step 4. Create Web Server Instance

Select the *Server Instances* option in the left hand frame and click on *Create server instance* menu option.



Enter the name of the Server Instance. This name should be the same name as the configuration file. For example: LWEB1.

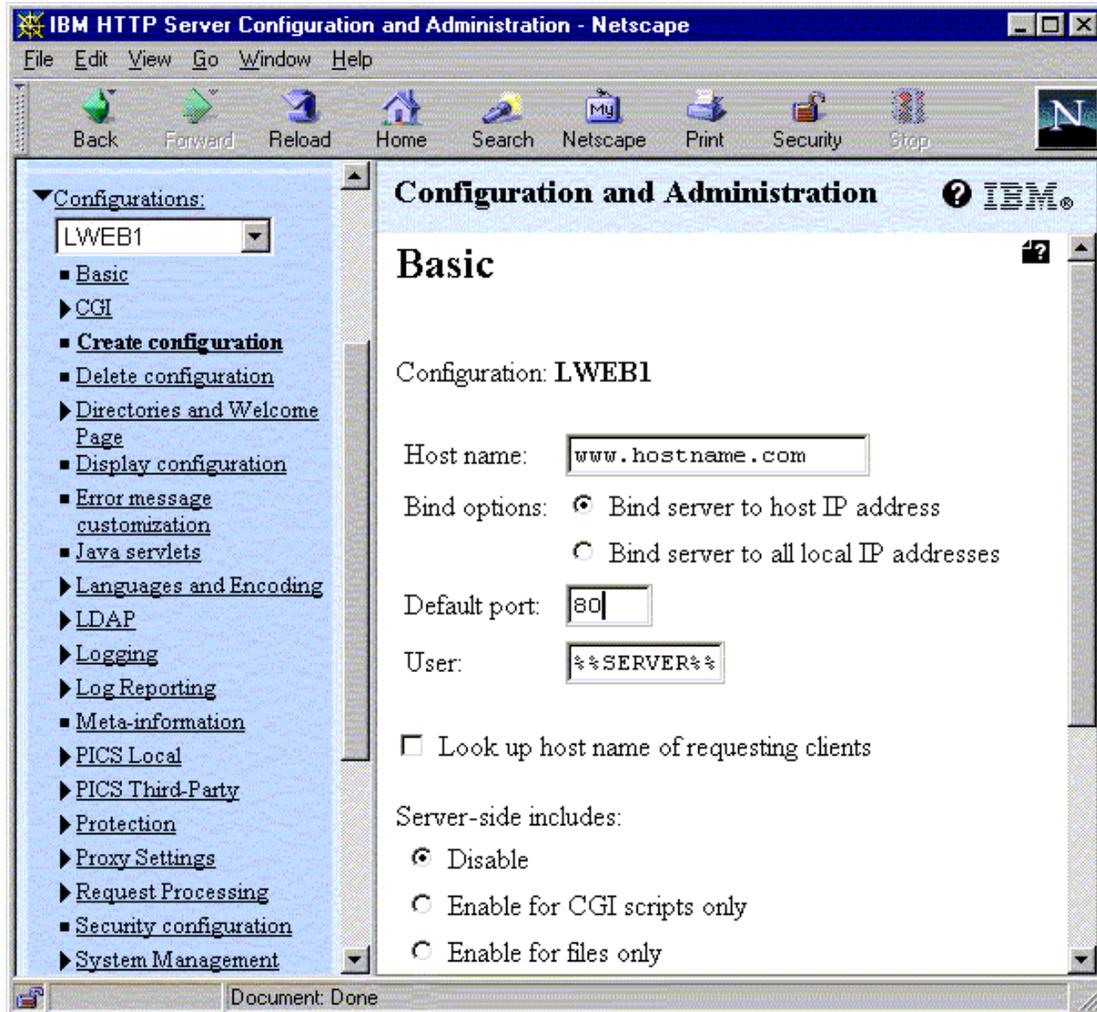
Choose the Configuration name (based on the configuration created in the previous step) from the drop down.

Press the Create button.

A message will be displayed after the instance is created.

Step 5. Edit Your Configuration

You may edit the Web Server Configuration using your browser by selecting the appropriate configuration options or you can configure using an OS/400 command entry. Refer to the Example IBM HTTP Server Configuration for details of the file.



To use an OS/400 command entry to edit your Web Server configuration file on the AS/400, execute the following command:

```
WRKHTTPCFG CFG(<configuration name>)
```

where <configuration name> is the name of the configuration you have just created.

Refer to the Example IBM HTTP Server Configuration for details of the file.

If you wish to view or create additional configurations using an OS/400 command entry, you may use the following command to work with the configuration files:

```
WRKMBRPDM FILE(QUSRSYS/QATMHTTFC) MBR(<configuration name>)
```

If you wish to view or create additional instances using an OS/400 command entry, you may use the following command to work with the instance files:

```
WRKMBRPDM FILE(QUSRSYS/QATMHINSTC)
```

TIP: If you edit the HTTP configuration after you have started the related instance(s), you should stop and restart the instance(s) in order for the changes to take effect.

Step 6. Stop the ADMIN Instance

From an OS/400 command entry, stop the ADMIN Instance of the IBM HTTP Server using the command:

```
ENDTCPSVR *HTTP HTTPSVR (ADMIN)
```

Step 7. Start your Configuration

From an OS/400 command entry, start your new instance using the command:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(<instance name>)
```

where <instance name> is the name of the instance you have just created.

Use the WRKACTJOB command to ensure that the Web Server instance has started correctly.

The Web Server configuration is now complete.

Example IBM HTTP Server Configuration

This is a sample configuration for IBM's HTTP Server. This is to be used as a guide only and is not a definitive example.

```

00010    Welcome    index.htm
00020    AlwaysWelcome On
00030    DirAccess  On
00040    Port        80
00050    UserID      %%SERVER%%
00060    BindSpecific Off
00070    Enable       GET
00080    Enable       POST
00090    Disable     HEAD
00100    RuleCaseSense Off
00110    Map /CGI-BIN/LANSAWEB* /QSYS.LIB/ICSCGI.LIB/LANSAWEB.PGM*
00120    Map /CGI-BIN/LANSAXML* /QSYS.LIB/ICSCGI.LIB/LANSAXML.PGM*
00130    Exec /QSYS.LIB/ICSCGI.LIB/*
00140    Pass /IMAGES/* /lansaimg/*
00150    Map /* /HOME/*
00160    Pass /HOME/*

```

To enable XML transformations for Wireless Markup Language (WML), add the following lines:

```

00121    Map /CGI-BIN/WML/LANSAXML* /QSYS.LIB/ICSCGI.LIB/LANSAXML.PGM*
00170    Addtype .wml text/vnd.wap.wml 8bit 1.0
00180    Addtype .wmlc application/vnd.wap.wmlc
00190    Addtype .wmls text/vnd.wap.wmlscript 8bit 1.0
00200    Addtype .wmlsc application/vnd.wap.wmlscriptc
00210    Addtype .wbmp image/vnd.wap.wbmp

```

For multi-homing, add/modify the following lines:

```

00060    BindSpecific On
00061    Hostname www.lansa.com

```

If your server is case sensitive or if you set RuleCaseSense On, you will need to add:

```

00111    Map /cgi-bin/lansaweb* /QSYS.LIB/ICSCGI.LIB/LANSAWEB.PGM*
00112    Map /CGI-BIN/lansaweb* /QSYS.LIB/ICSCGI.LIB/LANSAWEB.PGM*
00113    Map /cgi-bin/LANSAWEB* /QSYS.LIB/ICSCGI.LIB/LANSAWEB.PGM*
00121    Map /cgi-bin/lansaxml* /QSYS.LIB/ICSCGI.LIB/LANSAXML.PGM*
00122    Map /CGI-BIN/lansaxml* /QSYS.LIB/ICSCGI.LIB/LANSAXML.PGM*
00123    Map /cgi-bin/LANSAXML* /QSYS.LIB/ICSCGI.LIB/LANSAXML.PGM*

```

Important Notes for IBM HTTP Server Configuration.

- IBM HTTP Server Configuration files can be CASE-SENSITIVE. Some older versions of IBM HTTP Server are case sensitive. In V4R3 and V4R4, you must specify `RuleCaseSense Off`. In V4R5 and greater, the default is `RuleCaseSense Off`. In this example, case sensitivity has been turned off.
- The order of the statements in the configuration is important. The file is read from top to bottom.
- Change the port number to your port number for this instance. If you do not use the default port 80, you must be sure that the port has been properly specified in the previous steps (i.e. you did not use the 9999 default port).
- Change ICSCGI.LIB to the library used to store the LANSAWEB and LANSAXML CGI programs. By default, the programs are installed in the LANSA Administration library if you are using a Multi-Tier installation, or in the LANSA program library if you are using a Single Tier installation.
- Change /lansaimg/* to your IFS images directory.
- If you wish to change the /IMAGES/ alias, refer to the *Installing LANSA on iSeries* guide.
- Change the Welcome page to point to your home page.
- Change the `DirAccess Off` after initially testing your configuration so that your directory structure is not accessible.