



IBM Software Group

IBM® WebSphere® Application Server V6

WebSphere Profiles



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This presentation will focus on WebSphere Profiles.

Goals

- Describe how profiles affect the z/OS® product.



The goal for this presentation is to describe how the distributed platform concept of 'Profiles' fits into the WebSphere Application Server for the z/OS platform.

Agenda

- WebSphere Profiles Overview
- Summary



The agenda for this presentation includes an overview of Profiles and what it means to the z/OS WebSphere Application Server.

Section

WebSphere Profiles



This section covers WebSphere Profiles.

WebSphere Profiles

- WebSphere V6 files are split into 2 categories
 - ▶ Product Files - shared application binaries for WebSphere
 - ▶ User data - set of user customizations for a specific runtime environment
 - Includes WebSphere configuration, installed applications, resource adapters, properties, log files, transaction log files, etc.
- Each Profile (specific user data along with the shared product binaries) define a WebSphere runtime environment
 - ▶ Stand-alone Application Server, Deployment Manager (DMgr) or Custom Profile
- Easier than multiple installations
 - ▶ Less disk space
 - ▶ Product update is simplified



The concepts here are not new to z/OS users. The 'product files', or product binaries, are the ones installed and maintained via SMP/E. There is normally only one set of product files per system. The 'user data' is what is created when running the jobs created by the ISPF Customization Dialogs. The 'user data' contains information used by the application server. For example, this is where variables are defined, resources are configured, and so on. A 'Profile' has become a term to formalize the collection of user data along with the shared product binaries that defines a WebSphere runtime environment. On z/OS, there is always one and only one 'profile' and that is named 'default' in each of the configurations.

WebSphere Profiles: Types

Profile types: Provides different WebSphere runtime environment

Profile Types	V6 packages	Functions
Stand-alone Application Server	All	Create a runtime environment of Stand-alone Single Application Server
DMgr	Network Deployment	Create a runtime environment of DMgr – each DMgr is its own cell
Custom Profile	Network Deployment	Provides an option to create a federated node containing no pre-defined application server definitions

```

----- WebSphere Application Server for z/OS Customization -----
Option ==> _
Use this dialog to create WebSphere Application
cells and nodes. Specify an option and press En

1 Configure a security domain.
2 Create stand-alone Application Server nodes.
Option 1 before starting this option.
3 Create Network Deployment cells and nodes. Y
Option 1 before starting this option.
4 Migrate V5.x Nodes to V6 Nodes.

----- WebSphere Application Server for z/OS Customization -----
Appnl: BB06
Option ==>
Use this dialog to create WebSphere for z/OS Network Deployment
cells and nodes. Specify an option and press Enter.

1 Create a Network Deployment cell. The cell will contain a
deployment manager; expand it by creating new managed nodes
and/or by federating existing stand-alone Application server nodes.
2 Create an empty managed node and add it to an existing Network
Deployment cell. The managed node will contain a node agent
but no application servers. Create and manage application servers
in the node using the administrative console or scripting.
3 Federate an existing stand-alone application server node into an
existing Network Deployment cell. The federation process will convert
the stand-alone server node into a managed node. The managed node
will contain a node agent and the application servers(s) that were
already defined to the node. Create and manage application servers
in the node using the administrative console or scripting.
  
```

This slide illustrates the idea behind profiles and how these different types of profiles relate to what you create on z/OS. With the exception of the Custom Profile, there is nothing new here from V5. An important point here is that on z/OS, you will be doing what you have always done. You will create a base application server node (now named 'stand-alone application server node) or you will create a deployment manager node (a Network Deployment cell). You will differentiate where the configuration is stored when you specify a mount point and home directory. For instance, you might use the same mount point for both the stand-alone application server node and the deployment manager node but you would have different home directories. The resulting HFS would then have the two directories:

```

/WebSphere/V6R0/AppServer
/WebSphere/V6R0/DeploymentManager
  
```

Each of those directories would also contain a /profiles directory but the profile in both cases would be /default:

```

/WebSphere/V6R0/AppServer/profiles/default
/WebSphere/V6R0/DeploymentManager/profiles/default
  
```

z/OS always has one and only one profile...and it is named 'default'!! You will see this on some later slides.

'Custom Profile'

- z/OS does not use the 'custom profile' terminology but does have the concept:




Create an empty managed node and add it to an existing Network Deployment cell. The managed node will contain a node agent but no application servers. Create and manage application servers in the node using the administrative console or scripting.

- This option is useful when creating clusters and you don't need the 'stand-alone server' on that second LPAR...you were just creating one to have a node to federate.



The idea of an empty managed node is new for V6. WebSphere now allows you to create an empty managed node so that you can create the structure of a node but are not forced to create a server in it. You can add application servers to the node with the Administrative Console since it will be federated into an existing Network Deployment cell. This is useful for server clustering where a node is being federated to run a clustered instance of a server (and the server has already been added to the cluster from another node). Often, the 'base application server' wasn't needed on the second node.

z/OS Installation options

V6 Package	'Profile' Types	Demo Links
WebSphere Application Server V6.0.1 for z/OS	Stand-alone Application Server	 Show Me
	Deployment Manager	 Show Me
	Empty Managed Node	 Show Me

From this slide, you can click on the Show Me icons for animated demonstrations of various installation exercises.

Profiles: Impact on other commands

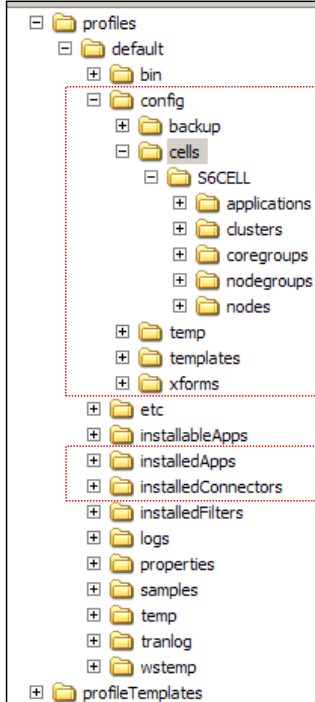
- WebSphere commands (like startServer, stopServer) will now be “profile” aware
 - ▶ There will be a “-profile” option on many WebSphere V6 commands -
- If no profile is specified, the default profile is assumed
 - ▶ There can be only 1 default profile (on z/OS, remember there is only one profile, 'default')
- Example:
 - ▶ startServer server1 -profile Node1
 - ▶ startManager -profile DMgr
 - ▶ stopServer server1 → assumes default profile



While there is a new keyword on some WebSphere commands, it should never be necessary to use it on the z/OS platform. Again, z/OS has only one profile and it is named 'default'. WebSphere commands assume the default profile unless you specify a profile, as shown here. These examples would be valid on a distributed platform.

Profile directory/files - Example

- Profile Name: default (ALWAYS!)
- Main directories:
 - ▶ **bin**: contains setupCmdLine.sh script to set the environment for commands
 - ▶ **config**: WebSphere configuration files (DMgr or Stand-alone Node)
 - ▶ **installedApps** and **installedConnectors**
 - ▶ **logs**: utility log files
 - ▶ **properties**: client, sas, soap client, etc. property files
 - ▶ **Tranlog**: transaction log files
 - ▶ **wstemp**: temporary workspace



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WebSphere Profiles

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This slide illustrates the configuration structure within each profile. Directories such as the 'config' directory are familiar from Version 5, but instead of being directly off the <home directory> (i.e., <mount point>/AppServer), there is a new profiles/default directory first. This mimics the distributed platform where there can be many profiles. On z/OS, there is one and only one profile, and that is named 'default'. This looks the same whether you are looking at a Deployment Manager configuration or an Application Server configuration.

Summary

- WebSphere Profiles provides a separation between product binaries and user data
- While there is the 'concept' on z/OS, the only effect is some additional directories in the HFS.
- z/OS has one 'profile' only and it is named 'default' in each of the configurations possible (i.e., stand-alone application server node, deployment manager node, empty-managed node)



In summary, this presentation has illustrated how the new concept of 'profiles' fits into the z/OS environment. While it doesn't change much that you do from V5, it does affect how the HFS is structured. The important point to remember is that on z/OS, the one 'profile' you will ever see is named 'default'.

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