IBM Software Group

IBM WebSphere Application Server Feature Pack for Communications Enabled Applications

Configuring a CEA environment

business on demand.

This presentation describes how to configure a CEA environment so that you can get started working with your communications enabled applications.

Agenda

- Profile management
- CEA environment configuration

The first section of this presentation describes how to manage your CEA server profiles, and the second section explains the additional configuration steps for setting up a CEA testing environment.
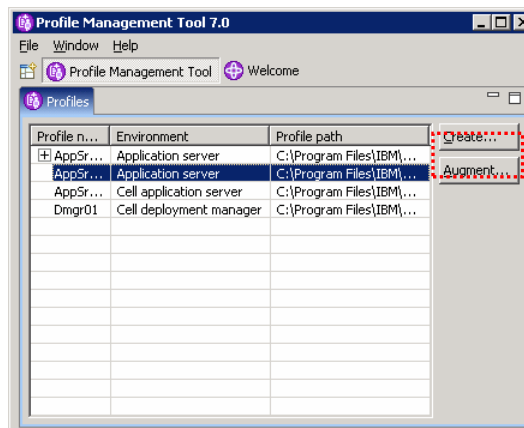
Section

Profile management

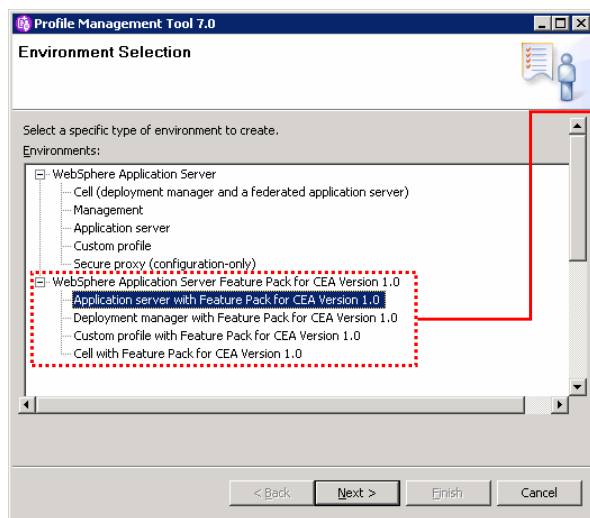This section shows how to configure CEA server profiles.

CEA profiles

- A CEA profile is required to use the new function in the feature pack

- Configure a CEA profile by either:
  - Creating a new profile based on a CEA template, or
  - Augmenting an existing profile with a CEA template

- Profile creation and augmentation are supported in the Profile Management Tool (PMT) and using the manageprofiles command

Profile Management Tool 7.0

File Window Help

Profile Management Tool   Welcome

Profiles

Profile n...	Environment	Profile path	
AppSr...	Application server	C:\Program Files\IBM\...	Create...
AppSr...	Application server	C:\Program Files\IBM\...	Augment...
AppSr...	Cell application server	C:\Program Files\IBM\...	
Dmgr01	Cell deployment manager	C:\Program Files\IBM\...	

Configuring a CEA environment   4   © 2009 IBM Corporation

In order to use the CEA capability in the IBM WebSphere® Application Server Feature Pack for CEA, you need to have a WebSphere Application Server profile that has been enhanced to support CEA. You can configure a CEA profile by either creating a new profile based on a CEA template, or by augmenting an existing profile with a CEA template. Both profile creation and augmentation are supported in the Profile Management Tool (PMT) and using the manageprofiles command.

Creating a CEA profile

Profile Management Tool 7.0

Environment Selection

Select a specific type of environment to create.

Environments:

- WebSphere Application Server
  - Cell (deployment manager and a federated application server)
  - Management
  - Application server
  - Custom profile
  - Secure proxy (configuration-only)
- WebSphere Application Server Feature Pack for CEA Version 1.0
  - Application server with Feature Pack for CEA Version 1.0
  - Deployment manager with Feature Pack for CEA Version 1.0
  - Custom profile with Feature Pack for CEA Version 1.0
  - Cell with Feature Pack for CEA Version 1.0

< Back | Next > | Finish | Cancel

Four types of CEA profiles are available:
- Application server
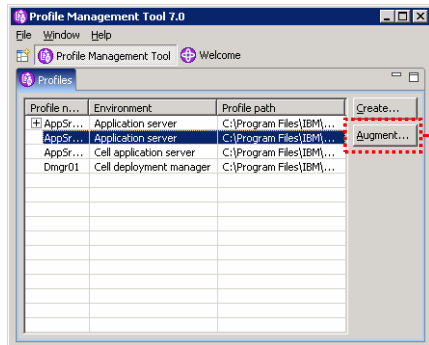- Deployment manager
- Custom profile
- Cell

To create a CEA profile in the PMT, select the profile type and continue through the tool, as normal

To create a CEA profile from the command line, use one of the CEA templates in <WAS_HOME>/profileTemplates/CEA
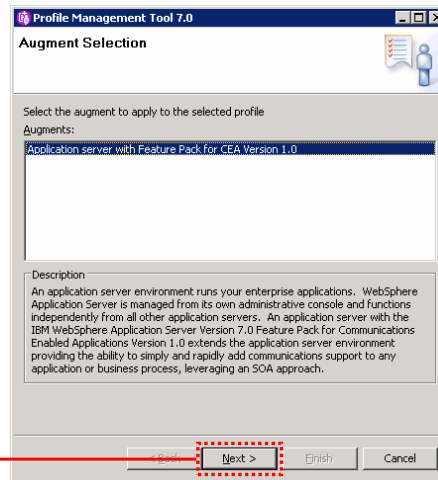
There are four types of CEA profile templates included with the feature pack – application server, deployment manager, custom profile, and cell profile. To create a new CEA profile, you can use either the PMT or the command line. To create a profile in the PMT, choose which profile type you want to create and continue through the tool, as normal. If you do not see the full list of CEA profiles, expand the section titled WebSphere Application Server Feature Pack for CEA Version 1.0 on the Environment Selection panel.

To create a CEA profile from the command line, use the manageprofiles command as you normally do and supply one of the CEA profile templates on the command. The CEA templates are in the directory <WAS_HOME>/profileTemplates/CEA.

Augmenting a profile from the PMT

You can avoid creating new CEA profiles by augmenting an existing profile in your WebSphere Application Server environment to use the CEA function. Profile augmentation, like profile creation, is supported using both the PMT and the manageprofiles command. This page shows how to run profile augmentation using the PMT interface.

Start the Profile Management Tool, and highlight the profile you want to augment in the profile list. When you choose a profile that is available to be augmented, the Augment button on the right will activate. Click the Augment button. The next panel shows a list of the profile augmentations available – in this case, because you are augmenting a base application server profile, only the Application server with Feature Pack for CEA Version 1.0 template is available. Highlight the profile augmentation that you want to apply, then click the Next button. The final panel (not shown) gives a summary of the profile augmentation that is getting applied – just click Augment to run the augmentation process.

Augmenting a profile from the command line

- The manageprofiles command can be used to augment profiles for use with the Feature Pack for CEA

- **Sample command:** Augmenting an application server profile using the CEA template
  - ▸ ./manageprofiles.sh -augment
     -profileName AppSrv01
     –templatePath
     ../profileTemplates/CEA/default.ceafep

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The manageprofiles command can also be used to augment profiles for use with the CEA feature pack. The sample command on this slide shows syntax for augmenting an existing application server profile, AppSrv01, with the CEA application server profile template. This syntax assumes that you are running the command out of the <WAS_HOME>/bin directory.

Section

CEA environment configuration

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This section describes additional configuration steps that will help you get started running communications enabled applications.

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Configuring the CEA environment

- Enable communications service

- Configure a PBX

- Configure other CEA settings

- Register telephones for application testing

Before utilizing any CEA-related function in the feature pack, you need to enable the communications service in your server. A PBX is also required as a part of your infrastructure to be able to route calls; a sample IP-PBX application is included with the feature pack for you to use with your testing. Other CEA settings, related to the function of PBX and other communication services, can be configured in the administrative console. To drive application testing, you also need some sort of SIP client – a SIP softphone is often used for this purpose.

Enable communications service

- The communications service is disabled by default
  - You need to enable it to use CEA function

- In the administrative console:
  - Go to **Servers > Server Types > WebSphere application servers**
  - In the server list, click the name of your server (for example, server1)
  - Under the **Communications** heading on the right of the server page, select **Communications Enabled Applications (CEA)**
  - Select the check box next to **Enable communications service**

Communications Enabled Applications services

☑ Enable communications service

The communications service in your server is disabled by default. You need to turn it on to be able to use the CEA function in your server. The communications service can be enabled in the administrative console. Start by going to the main configuration page for your server. Expand Servers, then Server Types, and select WebSphere Application Servers. The main panel of the console shows a list of the servers in your configuration. Click the name of the server you want to configure (for example, server1), to open the main server configuration page. On the right side of the page, under the heading Communications, click Communications Enabled Applications (CEA) to open the CEA settings panel for the server. Select the check box next to Enable communications service to turn on the CEA capability for your server.

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Install the sample IP-PBX

- The CEA capability requires an IP private branch exchange (PBX) as part of your infrastructure
  - ▸ An IP-PBX is a business telephone system designed to deliver voice over a data network and interoperate with the Public Switched Telephone Network (PSTN)

- A sample PBX application is included with the feature pack
  - ▸ Packaged here: <WAS_HOME>/feature_packs/cea/samples/commsvc.pbx.ear
  - ▸ Deploy the EAR to your application server, using the administrative console or other administrative tools

The CEA capability requires an IP private branch exchange (PBX) as part of your infrastructure. An IP-PBX is a business telephone system designed to deliver voice over a data network and interoperate with the Public Switched Telephone Network (PSTN). A sample PBX application is included with the feature pack. The sample is packaged in <WAS_HOME>/feature_packs/cea/samples/commsvc.pbx.ear. Deploy the EAR to your application server, using the administrative console or other administrative tools, then start the application to activate the PBX.

Configure other CEA settings – CTI gateway

- Use the Communications Enabled Applications (CEA) settings page in the administrative console to configure other settings for your environment

- Under telephony access method, provide:
  - ▶ Host name or IP address of the system running the PBX
    - Default is localhost
  - ▶ Port number – if using TCP, use the SIP port (SIP_DEFAULTHOST) for the server running the PBX
    - Default is 5060
  - ▶ Protocol
    - Default TCP
  - ▶ Superuser name
    - Default ceauser

Telephony access method

⦿ Use SIP CTI (ECMA TR/87) gateway for telephony access
* Host name or IP address
`localhost`
* Port
`5060`
* Protocol
`TCP ▾`
☐ Extract user name from request
Superuser name
`ceauser`
○ Use a third-party Web services provider for telephony access
Third-party Web services provider's WSDL

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You might also need to adjust some of the CEA settings for the CTI gateway, depending on your server's configuration. Use the Communications Enabled Applications (CEA) settings page in the administrative console to work with these configuration options. In the telephony access section, provide the host name, port, protocol, and user name for the system running your PBX. If you are using a default testing configuration – with the PBX deployed on the local server and the default SIP port using TCP – you do not need to adjust any of these settings. If, for example, this server is communicating with a remote IP-PBX or is using a non-default SIP port, you need to provide those configuration parameters here.

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Configure softphones

- A SIP softphone is an application that allows you to make telephone calls from your computer, using the session initiation protocol

- SIP softphones are useful for testing some of the function in the feature pack, but they are not included with the product
  - ▸ You can download telephone software online to use when evaluating the feature pack
  - ▸ You typically need to provide the host and SIP port (for example, 5060) information for the server running the PBX

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In order to test your applications, you need some type of SIP client to drive the communication – in many cases, you use a SIP softphone for this purpose. A SIP softphone is an application that allows you to make telephone calls from your computer, using the session initiation protocol. SIP softphones are useful for testing some of the function in the feature pack, but they are not included with the product. You can download telephone software online to use when evaluating the feature pack. In the softphone configuration, you typically need to provide the host and SIP port (for example, 5060) information for the server running the PBX.

Section

Summary

This section provides a summary of this presentation.

Summary

- To start working with CEA applications, you need:
  - ▸ A server profile based on a CEA template
  - ▸ Communications services enabled on that server
  - ▸ A PBX configured in your environment
  - ▸ SIP softphones or some other SIP client to drive testing

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To get started using the WebSphere Application Server Feature Pack for CEA, you need to configure a CEA environment. First, you need a server profile based on a CEA template. You can either create a new server or augment an existing profile with one of the CEA templates provided with the product. Communication services are disabled by default in your server, so you need to enable those services before you try to test out any communications enabled applications. You also need a PBX configured in your environment and some sort of SIP client to drive the communication, like a SIP softphone.

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