



IBM Software Group

IBM WebSphere Application Server Feature Pack for Communications Enabled Applications V1.0.0.1

Cluster support



@business on demand.

© 2009 IBM Corporation
Updated November 30, 2009

This presentation covers the cluster support for IBM WebSphere® Application Server Feature Pack for Communications Enabled Applications V1.0.0.1.

Agenda

- CEA support in a clustered environment
- Summary



This presentation covers support for communications enabled applications, or CEAs, in a clustered WebSphere environment.

Clustering support overview

- CEA functionality can now be used in a clustered environment
- CEA features supported in a cluster
 - ▶ REST APIs
 - ▶ Web service support
 - ▶ Web widgets
- z/OS® is not supported in a cluster for CEA and JSR 289



Support for a clustered environment is one of the key new features in the IBM WebSphere Application Server Feature Pack for Communications Enabled Applications version 1.0.0.1. Clustering capability, such as providing communications enabled applications with high availability, is now supported. The communications enabled application components, such as the REST APIs, support for Web services, and the CEA Web widgets, can now be deployed in a cluster. Note that clustering support for applications using the communications enabled applications feature pack is not supported on z/OS at this time.

Enabling CEA in the cluster

- CEA services must be enabled similarly to working with the feature pack in a single server environment
- Services enabled in the administrative console
 - ▶ CEA configured in the Deployment Manager administrative console
 - ▶ **Servers > Clusters > WebSphere application server clusters > *server_cluster* > Communications Enabled Applications (CEA)**
 - ▶ Options for CEA configuration are similar to a single server deployment

When working with version 1.0 of the feature pack for CEA on a single server, you had to enable the CEA services in the administrative console before the services became active on the server. In a cluster you still have to perform this action to enable the CEA services, but you will enable the services in a different location of the Deployment Manager administrative console. To enable the CEA services in a cluster, you must access the server cluster settings in the administrative console for the Deployment Manager where there is a link to the Communications Enabled Application settings page. The page to enable the services is very similar to the configuration page on a single server instance of WebSphere Application Server.

Enabling CEA in a cluster

The screenshot shows the 'WebSphere application server clusters' administrative console. The breadcrumb trail is 'WebSphere application server clusters > DuckCluster'. Below the breadcrumb, there is a brief description: 'Use this page to change the configuration settings for a cluster. A server cluster consists of a group of application servers. If one of the application servers that is a member of the cluster fails, requests are routed to other members of the cluster.' There are three tabs: 'Runtime', 'Configuration', and 'Local Topology'. The 'Configuration' tab is active. The page is divided into two columns. The left column contains 'General Properties' with fields for 'Cluster name' (DuckCluster), 'Bounding node group name' (DefaultNodeGroup), and checkboxes for 'Prefer local' (checked) and 'Enable failover of transaction log recovery' (unchecked). The right column contains 'Cluster messaging' (with a link to 'Messaging engines'), 'Communications' (with a link to 'Communications Enabled Applications (CEA)' circled in red), and 'Additional Properties' (with links to 'Cluster members', 'Backup cluster', 'Endpoint listeners', and 'Security domain'). At the bottom left of the configuration area are buttons for 'Apply', 'OK', 'Reset', and 'Cancel'. The footer of the console shows 'Cluster support' and '© 2009 IBM Corporation'.

This is a screen capture from the administrative console of a Deployment Manager for a cluster that is configured with two cluster members. Accessing the administrative console for the Deployment Manager, and selecting WebSphere Application Server clusters, and the name of the cluster brings you to this page. On the right side of the configuration page for the cluster there is a link for the settings of the Communications Enabled Applications. Clicking on this link drills down into the settings page that you see on the next slide.

Enabling CEA in a cluster

[WebSphere application server clusters](#) > [DuckCluster](#) > [Communications Enabled Applications \(CEA\)](#)

The Communications Enabled Applications (CEA) feature enables organizations to quickly add real-time communications support to Web and business applications. Use this page to define the state of the communications service application, the REST interface to the communications service, and a telephony access method.

Configuration

General Properties

Communications Enabled Applications services

Enable communications service

Additional Properties

■ [Custom Properties](#)

REST interface

* Context root

/commsvc.rest

Cluster support © 2009 IBM Corporation 6

This screen capture elaborates on the administrative console screen for the Deployment Manager from the last slide. This is the settings page for the Communications Enabled Applications of the cluster. At the top left side of the configuration page is a check box that must be selected in order to enable the communications service. After enabling the communications service by selecting this box, the cluster must be restarted in order for the change to take effect.

Large topology support

- CEA feature pack now supports large topologies
- Basic IBM WebSphere Application Server V7 guidelines for large topologies applies
 - ▶ There is no definitive answer to the question “How large can you make a WebSphere Application Server cell?”
- Best practices for large WebSphere topologies should be followed:

http://www.ibm.com/developerworks/websphere/library/techarticles/0710_large_topologies/0710_large_topologies.html



The Feature Pack for Communications Enabled Applications version 1.0.0.1 supports large topologies in a cluster. The basic guidelines for working with WebSphere Application Server in large topologies still apply when configuring a cluster to support communications enabled applications. A question commonly asked when considering using IBM WebSphere Application Server with a large topology is “how large can you make a WebSphere Application Server cell?”. There is no definitive answer to this question as many factors must be taken into consideration when designing a clustered solution for enterprise applications, or for enterprise applications that take advantage of the feature pack for CEA. Best practices for large WebSphere topologies should be followed. There are some useful articles available on IBM developerWorks® to help answer questions related to large WebSphere Application Server topologies.

CEA failover support

- Failover support for CEA components
 - ▶ REST APIs
 - ▶ Web service calls
 - ▶ JSR 289
- REST API failover support
 - ▶ Seamless failover of REST based telephony actions
 - ▶ Seamless failover of REST based Web collaboration implementations



Failover support for CEA components is now available in the IBM WebSphere Feature Pack for Communications Enabled Applications version 1.0.0.1. Failover is supported for enterprise applications using the CEA REST APIs, applications using the CEA Web services, and applications that take advantage of the JSR 289 implementation provided by the feature pack. Applications that use the REST APIs for Communications Enabled Applications can have seamless failover support. REST based telephony and Web collaboration implementations will have seamless failover of telephony actions in progress. Also, failover for applications using the Web collaboration features will not have their application use interrupted during a failover while two parties are in the middle of a cobrowsing session.

CEA failover support

- Web service failover support
 - ▶ Applications using Web service **telephony** actions will failover seamlessly in a clustered environment
- JSR 289 failover support
 - ▶ Applications taking advantage of JSR 289 SIP implementations are supported in a clustered environment



Along with failover support for REST API, telephony, and Web collaboration actions, the feature pack provides failover support for communications enabled applications using Web services and JSR 289 features. Web services failover support is available for communications enabled applications that use Web services for telephony enablement in a cluster. Web service telephony activities that are in progress when an application server fails over to another server in the cluster will continue to work. Applications that implement the IBM Asynchronous Invocation API will also failover seamlessly if a clustered server fails during asynchronous activities.

Section

Summary



This section summarizes the clustering support of the IBM WebSphere Application Server Feature Pack for Communications Enabled Applications version 1.0.0.1.

Summary

- Enabling CEA in the cluster
- Large topology support
- Web services support
- CEA failover support



The IBM WebSphere Application Server Feature Pack for Communications Enabled Applications can be used to host applications in a clustered environment. REST APIs for telephony and Web collaboration are supported in the cluster with failover support. Failover support is also provided for telephony actions when they are implemented as Web services. Applications that implement JSR 289 functionality also are supported for failover in a cluster on distributed operating systems. Note that clustering and failover are not supported on z/OS with this release.

Feedback

Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send e-mail feedback:

mailto:iea@us.ibm.com?subject=Feedback_about_CEAFP_1.0.0.1_Refresh_ClusterSupport_v1.0.ppt

This module is also available in PDF format at: [./CEAFP_1.0.0.1_Refresh_ClusterSupport_v1.0.pdf](._/CEAFP_1.0.0.1_Refresh_ClusterSupport_v1.0.pdf)



You can help improve the quality of IBM Education Assistant content by providing feedback.

Trademarks, copyrights, and disclaimers

IBM, the IBM logo, ibm.com, and the following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

developerWorks WebSphere z/OS

If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of other IBM trademarks is available on the Web at "Copyright and trademark information" at <http://www.ibm.com/legal/copytrade.shtml>

Other company, product, or service names may be trademarks or service marks of others.

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements or changes in the products or programs described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (for example, IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products.

IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2009. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.

