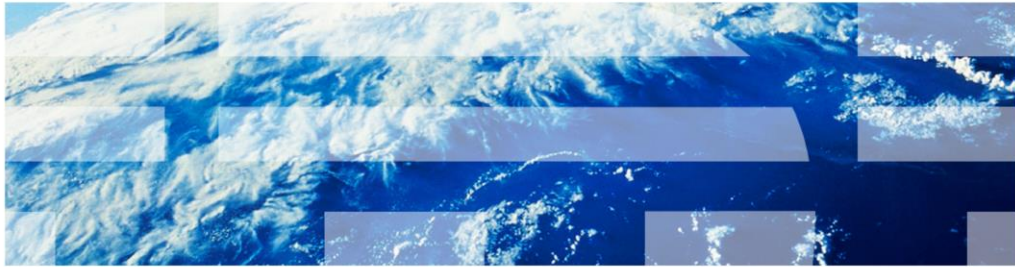


# WebSphere Business Process Management WebSphere Business Services Fabric V7

## Overview



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This presentation provides an overview of the new features in WebSphere® Business Services Fabric version 7.0.

## Agenda

- New features overview
- New features details
  - Installation
  - Usability features
  - Error messages
  - Dynamic assembler events
  - Context extractor mediation primitive
  - Improved dynamic assembler execution trace capability
- Summary

This presentation will provide a high level overview of the new features. It will then cover details around installation updates, usability features, error messages, dynamic assembler events, context extractor mediation primitive and enhanced trace capabilities. It is recommend to gain prior knowledge of version 6.2 in order to better understand these features. This presentation is available at the IBM Education Assistant site. The next slide covers the high level overview of the new features of WebSphere Business Services Fabric version 7.0 release.

## New Feature in version 7.0

- Rebased product on WebSphere Process Server /WebSphere Integration Developer V7
- Installation Manager will now install both Tool Pack and Foundation Pack
- Branding of WebSphere Business Service Fabric in WebSphere Process Server Integrated Console
- Ability to launch Fabric console from WebSphere test environment
- Added new error codes and messages for efficient problem determination
- New Context Extraction mediation primitive
- New Dynamic Assembler SCA component events
- Improved Dynamic Assembler execution trace capability
- Improved performance of REST API for Business Space widgets

In version 7.0 WebSphere Business Services Fabric focused on improving the user experience with the product and better integrating with the remaining BPM products. WebSphere Business Services Fabric in this release has been rebased on WebSphere Process Server and WebSphere Integration Developer version 7.0. This includes installation. Both WebSphere Business Services Fabric tool pack and WebSphere business services fabric foundation pack are installable through the launch-pad and Installation Manager. Other new features in version 7.0 include branding of WebSphere business service fabric in WebSphere Process Server integrated console, ability to launch fabric console from WebSphere test environment, new error codes and messages for efficient problem determination, new context extraction mediation primitive, new dynamic assembler SCA component events, improved dynamic assembler execution trace capability and improved performance of REST API for business space widgets. The next set of slides will provide an overview about each of these features starting with the improved installation experience with Installation Manager.

## Installation overview

- Installation for both Tool Pack and Foundation Pack are done through Installation Manager
- Installation Manager provides option to create a stand-alone or custom profile.
- Foundation pack default stand-alone profile is fully compatible with version 6.2 features
- Added support of DB2® 9.7



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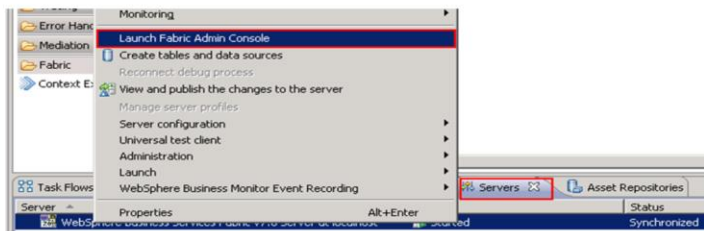
In the version 7.0 release of WebSphere Business Services Fabric installation for both tool pack and foundation pack are done through Installation Manager. This is a big improvement from version 6.2 where foundation pack did not have the Installation Manager install capability. The Installation Manager gives the option of creating a stand-alone profile which is fully compatible with version 6.2. The WebSphere Business Services Fabric tool pack has also been updated to the new version of Installation Manager to make it consistent with the other BPM products installation methodology. The next slide takes a closer look at the usability features.

## Usability features

- WebSphere Business Services Fabric is now listed on the WebSphere Process Server integrated solutions console welcome page if it has been installed



- Added ability to launch Fabric administrative console from **Servers** tab in WebSphere Integration Developer



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In this release WebSphere Business Services Fabric has closed some of the usability gaps to enhance the user experience. WebSphere Business Services Fabric is now listed on the WebSphere Process Server welcome page of the integrated solutions console if it has been installed. This gives a clear indication to administrators of the installation of the WebSphere Business Services Fabric foundation pack. Next from the technical end WebSphere Business Services Fabric administrative console can be launched directly from the WebSphere Integration Developer server view as in the image here. The menu is enabled by right clicking on the server listed in the WebSphere test environment. The next slide provides details around new error messages included in this release to help both developers and administrators diagnose run time issues with WebSphere Business Services Fabric.

## Error messages

- Prefix: CWNFR– Used for Fabric runtime issues
- [CWNFR1401 - CWNFR1599 System Messages](#)  
You might see these type error messages when implementing the WebSphere Business Services Fabric dynamic assembler.
- [CWNFR1601 - CWNFR1799 System Messages](#)  
You might see these type error messages when using WebSphere Business Services Fabric with SCA.
- More information on the WebSphere Business Services Fabric Information center

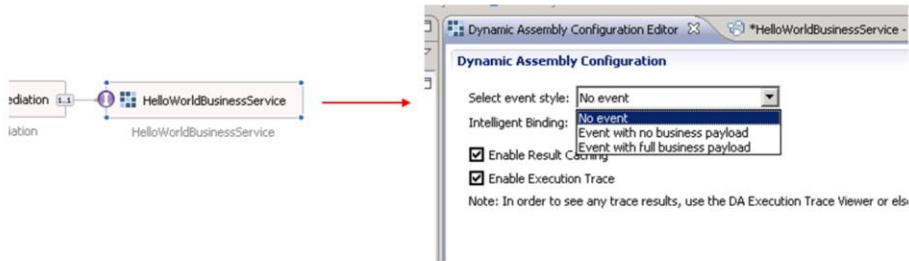
In the past releases diagnosing issues with WebSphere Business Services Fabric run time have not been as simple due to lack of informational error messages. You will see new error messages with the prefix CWNFR that provide details specific to WebSphere Business Services Fabric runtime. Error message code CWNFR1401 to CWNFR1599 indicate system messages related to the dynamic assembler. Error message codes CWNFR1601 through CWNFR1799 indicate error messages when using WebSphere Business Services Fabric with SCA. More detailed information and possible resolution steps can be found on the WebSphere Business Services Fabric information center. The next feature covered is the new dynamic assembler monitor events.

## Dynamic assembler events

- Known issues with Fabric Monitor events
  - Business Payload is missing
  - Not easily viewable in the common event browser
  - Not easy to correlate fabric events
- New events:
  - End point found
    - Whenever endpoint selection is recorded. This will include the endpoint name and the process variation name that is selected
  - No end point found
    - When no endpoint is found or available

The WebSphere Business Services Fabric has generated several common base events in previous releases that can be monitored by the WebSphere Business Monitor. However there have been some limitations with these events like correlating events to fabric transaction, viewing these events in the common event browser and the events missing the business payload that generated them. In version 7.0 new dynamic assembler events have been added to align fabric better with common base events; specifically you will see two new events. The first event is called Service Variation Selected. This event is fired when an endpoint has been selected for the request. The second event is called No Endpoint Found. This event is fired when no endpoint has been found to satisfy the request with all its conditions

## Dynamic assembler events



- Setup is done on the dynamic assembler SCA component
- Fire invocation events removed from dynamic assembler configuration editor
- Three options available :
  - No event ( default )
  - Event with no business payload
  - Event with business payload - Message payload received by the dynamic assembler component
- Version 6.2 events are still available


The setup for the new events have been simplified. Events are setup in the dynamic assembler SCA component configuration editor in the business integration perspective of the WebSphere Integration Developer. In the editor use the select events style dropdown box to enable or disable the events. You are given these options: no events, events with no business payload and events with full business payload. The last option will provide the business payload details embedded in the generated common base event. The next slide looks into context extractor mediation primitive.



## Context extractor mediation primitive

- What is it ?
  - Context extractor mediation primitive is called early in dynamic assembler processing, to provide initial context details to the dynamic assembler component
  - Uses business vocabulary to establish context
- What is new ?
  - In version 6.2 this was done using through a dynamic assembler extension plug-in called context injector
  - Ease to use graphical interface as compared to a Java™ component

Version - 6.2



```


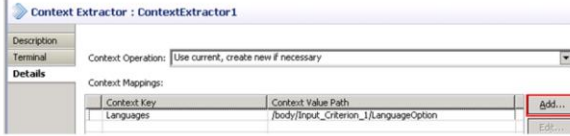
import com.ibm.websphere.sca.Service;

public class ContextInjectorImpl {
    /**
     * Default constructor.
     */
    public ContextInjectorImpl() {
        super();
    }

    public boolean eligibilityCheck(DataObject memberInfo) {
        // To get or set attributes for DataObject memberInfo
        // To set a string attribute in memberInfo, use membe
        // To get a string attribute in memberInfo, use membe
        // To set a dataObject attribute in memberInfo, use a
        // To get a dataObject attribute in memberInfo, use a
        return null;
    }
}

```

Version - 7.0

Context Key	Context Value Path	Add...
Languages	/body/Input_Criterion_1/LanguageOption	Edit...

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Overview
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A mediation primitive in WebSphere Integration Developer is a basic interface or programming element that can be used to build mediation flow components. Mediation primitives accept messages and process them before sending them to the designated recipient. This ability of mediation primitives have been used in version 7.0 to provide an improved easy to use graphical interface for the context injector plug-in for the dynamic assembler SCA component that requires no coding. The context extraction mediation primitive is called early in dynamic assembler processing, to provide initial context details to the Dynamic Assembler component. Further the business vocabulary can be used to establish this context. In order to take advantage of the business vocabulary the rest connection needs to be established to business vocabulary catalog in Window under Preferences window. The image in this chart gives a view of the version 6.2 context injector and the version 7.0 context extractor meditation primitive. The next slide talks about the improved execution trace capabilities.

## Improved execution trace

- Enable execution trace on the dynamic assembler SCA component
- URL is listed in SystemOut.log

### Dynamic Assembly Configuration

Select event style:

Intelligent Binding:

Enable Result Caching

Enable Execution Trace

Note: In order to see any trace results, use the DA Execution Trace Vie

```
[10/28/09 9:58:20:549 CDT] 00000151 MostRecentArc I com.ibm.ws.fabric.da.report.MostRecentArchiverWPS CWNFR1406I Execution trace report available at
http://9.3.75.211:9080/fabric-trace/app/?wicket:bookmarkablePage=com.ibm.ws.fabric.engine.report.DAReportDetailsPage;contextId=d31ca10e-526a-4ee1-8312-2973049ed389
```

- Execution trace shows
  - End point selected
  - Extracted context
  - Initial context
  - Updates to context
  - Details about policy
  - Reject reason

## WebSphere Business Services Fabric

### DA Execution Trace Viewer

[Back To](#)

```
<executionTrace>
<startTime>2009-10-28 12:22:59.814</startTime>
<selectionSummary>
<description>Summary of endpoint selection</description>
<selectionSuccessful>true</selectionSuccessful>
<selectedEndpoint>
<endpoint>
<sourceInformation>
<uri>fc://fabric/service/endpoint-inst#ub2e0642d-71a3-4806-962e-dc40f96193ca</uri>
</sourceInformation>
<address>sca://EnglishSelect/EnglishExport</address>
</endpoint>
</selectedEndpoint>
</selectionSummary>
</executionTrace>
```

In version 7.0 the diagnostic capabilities for Fabric runtime have been improved to help developers resolve issues more efficiently. This feature is enabled through the dynamic assembler SCA component configuration editor in the business integration perspective of WebSphere Integration Developer. An image is provided in the chart of the this configuration. Once the enable execution trace is checked you will have a link to the systemout.log file that will list the url for the execution trace. Copy this link into a browser to see the trace. In this trace you are given information about end point selected, context, details about policies processed and the reject reasons for the endpoints under consideration. Further this portal also archives the traces for later use.

## Summary

- Walked through new features of WebSphere Business Services Fabric version 7.0 release
- Provided details about installation of foundation pack and tool pack with configurations
- Talked about the new usability enhancements and error messages
- Provide details about the new dynamic assembler monitor events
- Walked through a demonstration about context extractor mediation primitive
- Provided details about the improved execution trace capabilities

This presentation walked through new features of WebSphere business service fabric version 7.0 release. It provided details about updates in the installation of foundation pack and tool pack. It then talked about the new usability enhancements and error messages, the new dynamic assembler monitor events, the context extractor mediation primitive and the improved execution trace capabilities.

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