



BEA AquaLogic Service Bus™

Upgrade Guide

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Contents

1. Upgrade Overview

Comparing In-Place and Migration Upgrade Methods	1-1
Which Upgrade Method Should I Use?	1-2
Improved Support for Validation in 2.5	1-2

2. In-Place Upgrade

Step 1: Backup the Existing 2.1 Domain	2-1
Step 2: Export the 2.1 Configuration	2-1
Step 3: Delete the Configuration from the 2.1 Domain	2-2
Step 4: Shut Down the 2.1 Domain	2-2
Step 5: Run the AquaLogic Service Bus Upgrade Wizard	2-2
Step 6: Start the 2.5 Domain	2-3
Step 7: Import the 2.1 Configuration and Activate the Session	2-4

3. Migration Upgrade

Step 1: Export the AquaLogic Service Bus 2.1 Configuration	3-1
Step 2: Export the Security Configurations	3-1
Step 3: Install AquaLogic Service Bus 2.5	3-3
Step 4: Create a New AquaLogic Service Bus 2.5 Domain	3-3
Step 5: Configure WebLogic Server Security	3-3
Step 6: Recreate Other WebLogic Server Objects	3-4
Step 7: Import Security Data	3-4
Step 8: Import the AquaLogic Service Bus Configuration Data	3-5
Step 9: Complete Any Manual Upgrade Procedures	3-6

4. Upgrade Considerations

Change in Representation of undo Records	4-2
Some Error Codes Are Not Generated in 2.5	4-2
New Error Codes Require Update	4-2

Users in the IntegrationOperator Role Do Not Have Export Privileges	4-3
Only One Credential Mapping Provider Allowed	4-3
2.1 SLA Alert Logs are Unavailable in 2.5	4-4
New Alert Summary Field in AquaLogic Service Bus 2.5	4-4
2.5 Alert Destination Resources are Created from 2.1 Alert Rules	4-5
Transport-Level Access Control Changes in 2.5	4-5

Upgrade Overview

This section provides an overview of the process for upgrading AquaLogic Service Bus 2.1 to 2.5. AquaLogic Service Bus 2.1 runs on WebLogic Server 9.1. AquaLogic Service Bus 2.5 runs on WebLogic Server 9.2.

Comparing In-Place and Migration Upgrade Methods

There are two types of upgrades that you can do from AquaLogic Service Bus 2.1 to 2.5: *In-place Upgrade* and *Migration Upgrade*.

- For In-place Upgrade from 2.1 to 2.5, the domain remains in the same location where it was created in 2.1. You simply upgrade it to AquaLogic Service Bus 2.5.
- For Migration Upgrade, you create a new AquaLogic Service Bus 2.5 domain, then update that domain with the configuration from the 2.1 domain. In effect, you move the configuration from the 2.1 domain to the new 2.5 domain.

For In-place Upgrade, a wizard is available to help you with the upgrade process. It does not do everything; there are still manual steps involved. However, security-related information is already in place in the new domain, along with JMS connection factories, so this method can be easier.

An advantage of doing an in-place upgrade is that fewer manual steps are required than when you do a migration upgrade. The additional effort and number of manual steps for a migration upgrade depend on how much security information must be exported from the old domain and imported into the new one, the number of proxy services, the number of JMS connection factories to be recreated, and so on.

Which Upgrade Method Should I Use?

The choice you make depends on your use case. If you have a 2.1 domain in a development environment, you have a large number of proxy services and connection factories, and you want to test the domain in a 2.5 environment, then select the in-place method of upgrading your domain.

If, on the other hand, you have a working 2.1 domain that needs to remain intact and running while you upgrade to 2.5, then BEA recommends that you use the migration upgrade method. You can leave the 2.1 environment up and running while you test a new 2.5 domain into which you import the 2.1 configuration, security data, and so on. When you are satisfied that the new domain is working properly, you then put it into production.

Improved Support for Validation in 2.5

When you import credential management into an AquaLogic Service Bus 2.5 domain, it becomes part of the session. Note that this behavior is different from that in a 2.1 domain; in 2.1, credential management was outside a session. This enables 2.5 to do more thorough validation than was possible in 2.1. Thus errors that were reported at run time in AquaLogic Service Bus 2.1 are caught at design time in AquaLogic Service Bus 2.5.

After the credential management configuration is imported into 2.5, any changes must be made through the AquaLogic Service Bus 2.5 Console and not through the WebLogic Server Administration Console.

[Chapter 2, “In-Place Upgrade”](#) and [Chapter 3, “Migration Upgrade”](#) describe in-place and migration upgrade procedures. [Chapter 4, “Upgrade Considerations”](#) describes various differences between AquaLogic Service Bus 2.1 and 2.5 that you should consider when upgrading from 2.1 to 2.5.

In-Place Upgrade

This section provides a detailed description of how to do an in-place upgrade of an AquaLogic Service Bus 2.1 domain to 2.5. AquaLogic Service Bus 2.5 runs on WebLogic Server 9.2.

A wizard is available to help with the upgrade process. Be aware, however, that there are manual steps that also must be performed.

Step 1: Backup the Existing 2.1 Domain

Manually back up the existing 2.1 domain (make a copy of it), including any parts of the domain specific to individual servers within the domain.

Note: Most of the domain directory contains information pertinent to all servers in the domain. However, in a domain, under the `servers` subdirectory, there is a subdirectory for each server in the domain—typically `AdminServer` and the subdirectory names of any managed servers. In those subdirectories there is information pertinent only to those servers. For example, the log files for individual servers are stored in those subdirectories.

Step 2: Export the 2.1 Configuration

To export the 2.1 configuration:

1. Open the AquaLogic Service Bus 2.1 console, and from the navigation pane on the left select **System Administration**. Then select **Export Resources** under **System Administration**.

Note: You only need to export (select) those resources that you want to retain after the upgrade.

2. Click **Export** under Export Configuration Data, then save the configuration JAR file (default is `sbconfig.jar`) to a location of your choice.

For more information about exporting configurations, see “Exporting Configuration Data” in [System Administration](#) in *Using the AquaLogic Service Bus Console*.

Note: You can also use the deployment MBean (`DeploymentMBean`) to export configuration data. For information about using `DeploymentMBean`, see [Using the AquaLogic Service Bus Deployment API](#) in the *AquaLogic Service Bus Deployment Guide* and the [AquaLogic Service Bus Javadoc](#).

Step 3: Delete the Configuration from the 2.1 Domain

To delete the configuration from the AquaLogic Service Bus 2.1 domain:

1. Create an AquaLogic Service Bus session. For information about doing so, see [Using the Change Center](#) in *Using the AquaLogic Service Bus Console*.
2. Select all of the general and global resources for the session and delete them.

Note: The existence of dependencies may require you to delete resources in a particular order, or it may require you to delete projects rather than resources.

3. Activate the session.

Step 4: Shut Down the 2.1 Domain

To shut down the AquaLogic Service Bus 2.1 domain:

1. Exit the AquaLogic Service Bus Console (logout).
2. Shut down WebLogic Server.

Step 5: Run the AquaLogic Service Bus Upgrade Wizard

Run the AquaLogic Service Bus upgrade wizard to upgrade the AquaLogic Service Bus 2.1 domain.

1. Start the AquaLogic Service Bus Wizard in one of the following ways:
 - From the Windows Start menu, select **Start→All Programs→BEA Products→Tools→Service Bus Domain Upgrade**.

- From the command line on Windows, cd to `BEA_HOME\weblogic92\common\bin\`, type `upgrade-alsb.cmd`, and press Enter.
- From the command line on Unix/Linux, cd to `BEA_HOME/weblogic92/common/bin/`, type `upgrade-alsb.sh`, and press Enter.

`BEA_HOME` represents the directory in which you installed AquaLogic Service Bus.

2. The **Welcome** screen is displayed. It lists the prerequisites for upgrading your AquaLogic Service Bus 2.1 domain. Please read it and make sure you have met these prerequisites. Then click **Next**. The **Select a Domain to Upgrade** screen is displayed.
3. From the tree view, select the domain you want to upgrade and click **Next**.

Note: If the domain is not valid, the following message is displayed:

```
Unable to read domain configuration! This is not recognized as a
valid domain directory.
```

If you select a domain that has already been upgraded, the following message is displayed:

```
The selected domain directory is already an AquaLogic Service Bus
2.5 domain; no upgrade is needed.
```

4. Select from the following options:
 - `Back up the current domain (recommended)`
 - `Add log files to backup zip`
 - `Do not set backwards compatibility flags`
5. Click **Next** to proceed with the upgrade.

As the upgrade progresses, messages are displayed that provide information about the changes being made by the wizard. When the upgrade process is complete, a summary is displayed.

Step 6: Start the 2.5 Domain

Start the newly upgraded AquaLogic Service Bus 2.5 domain. On Windows, you can select **Start**→**All Programs**→**BEA Products**→**User Projects**→*domain_name*→**Start Server for AquaLogic Server Bus Domain**.

where, *domain_name* represents the name you gave the domain when you created it.

For more information, see [Starting and Stopping Servers: Quick Reference](#) in *BEA WebLogic Server 9.2 Documentation*.

Note: Because the AquaLogic Service Bus 2.1 configuration was deleted in Step 3, only the default AquaLogic Service Bus 2.5 configuration exists in the domain at this stage.

Step 7: Import the 2.1 Configuration and Activate the Session

1. Start the AquaLogic Service Bus Console if it is not already running.
2. Select **System Administration**→**Import Resources**.
Note: You must now be working in a session.
3. Browse to locate the configuration JAR that you exported in Step 2.
4. Select it and click **Next**, then **Import**.
5. If there are any validation errors, fix them now.
6. See [Upgrade Considerations](#).
7. In the Change Center, click **Activate**.

This completes the upgrade of your domain to AquaLogic Service Bus 2.5.

For a complete description on how to use the AquaLogic Service Bus Console, see [Using the AquaLogic Service Bus Console](#). For additional resources, see [BEA AquaLogic Service Bus 2.5 documentation](#).

Migration Upgrade

For migration of an AquaLogic Service Bus 2.1 domain to an AquaLogic Service Bus 2.5 domain, no wizard is provided. All steps are manual. To upgrade an AquaLogic Service Bus 2.1 domain to 2.5 using the migration upgrade method, complete the steps described in this section.

Step 1: Export the AquaLogic Service Bus 2.1 Configuration

Use the AquaLogic Service Bus Console to export the AquaLogic Service Bus 2.1 configuration that you want to upgrade. To do so, select **Export Resources** from the **System Administration** panel in the console. For information about exporting AquaLogic Service Bus configurations, see “Exporting Configuration Data” in [System Administration](#) in *Using the AquaLogic Service Bus Console*.

Note: In most cases, you cannot export WebLogic Server resources, such as JMS resources and Work Manager definitions. You must re-create these objects in the new AquaLogic Service Bus 2.5 domain, as described in [“Step 6: Recreate Other WebLogic Server Objects”](#) on page 3-4.

Step 2: Export the Security Configurations

Use the WebLogic Server Administration Console to export security data from the domain: In the WebLogic Server Administration Console, select **Domain Structure**→**Security Realms**, then choose the security realm. Select **Migration**→**Export** to export the data.

The following table summarizes the security data and the types of security providers in which it is stored.

Security Data	Security Provider Type
User accounts	Authentication Provider
Group definitions	Authentication Provider
Role definitions	Role Mapping Provider
User names and passwords in service accounts	Username/Password Credential Mapping Provider
PKI credential map entries	PKI Credential Mapping Provider
SAML Relying Parties	SAML Credential Mapping Provider V2
SAML Asserting Parties	SAML Identity Assertion Provider V2
Trusted Certificates (for SSL and WSS)	Certification Path Provider (Certificate Registry)

If you created service accounts and added user names and passwords to the service accounts, then your domain includes a username/password credential mapping provider. If your domain includes this provider or a PKI credential mapping provider, you must configure the export process to export credential mapping passwords in clear text (unencrypted). Your new domain will not be able to use passwords that were encrypted by a different domain.

To Export Credential Mapping Data With Unencrypted Passwords

1. Carefully restrict access to the directory and file into which you export credential maps so that unauthorized users cannot read the unencrypted passwords. When you import the credential maps into the new domain, the credential mapping provider encrypts the passwords. After the upgrade is complete, securely dispose of the file with unencrypted passwords.
2. Export data from each security provider individually.

WebLogic Server allows you to either export all of the security data in a single export operation or to export data from each security provider individually. Do **not** export all of the data in a single export operation. The single export operation does not allow you to export passwords in clear text.

3. While exporting data from the credential mapping providers, do the following to export the passwords for the credentials in clear text: When the WebLogic Server Administration Console displays a page with the **Export Constraints** text box, enter the following:


```
passwords=cleartext
```

For more information, see [Migrating Security Data](#) in *Securing WebLogic Server*.

Step 3: Install AquaLogic Service Bus 2.5

Install the AquaLogic Service Bus 2.5 software as described in the [AquaLogic Service Bus Installation Guide](#).

Step 4: Create a New AquaLogic Service Bus 2.5 Domain

Create a new AquaLogic Service Bus 2.5 domain using the Domain Configuration Wizard or using the offline configuration tools, as described in:

- [Creating a New AquaLogic Service Bus Domain](#) in [Creating WebLogic Domains Using the Configuration Wizard](#)
- or
- “Creating and Extending Domains” in [Using Offline Configuration Tools](#).

Step 5: Configure WebLogic Server Security

In the new domain, configure the WebLogic security framework with SSL and the security providers that you need to support your proxy and business services. See [Configuring the WebLogic Security Framework: Main Steps](#) in the *AquaLogic Service Bus Security Guide*.

Note the following:

- In AquaLogic Service Bus 2.5, the WebLogic Default Authorization provider and Default Role Mapping provider is deprecated. Instead of configuring these providers in your new domain, BEA recommends that you use the WebLogic XACML Authorization provider and XACML Role Mapping provider. Later in the upgrade process you can import 2.1 policies and role maps into the XACML providers. See [Deprecated Security Features](#) in *BEA AquaLogic Service Bus Release Notes*.

- If your new domain uses a PKI credential mapping provider, copy the keystores to the new domain and configure the PKI credential mapping provider to use the keystore.
- If your 2.1 domain modified the Web Service security configurations named `__SERVICE_BUS_INBOUND_WEB_SERVICE_SECURITY_MBEAN__` or `__SERVICE_BUS_OUTBOUND_WEB_SERVICE_SECURITY_MBEAN__`, make the same modifications in the 2.5 domain.
- For example, if in your 2.1 domain you added the `UseX509ForIdentity` property to the `__SERVICE_BUS_INBOUND_WEB_SERVICE_SECURITY_MBEAN__` configuration (which is required to support inbound authentication with an X.509 token), add the property in the 2.5 domain. See [Use X.509 certificates to establish identity](#) in *The WebLogic Server Administration Console Online Help*.

Step 6: Recreate Other WebLogic Server Objects

In the new AquaLogic Service Bus 2.5 domain, recreate WebLogic Server objects that could not be exported in Step 1 (“[Step 1: Export the AquaLogic Service Bus 2.1 Configuration](#)” on [page 3-1](#)), including:

- JMS resources, such as connection factories, queues, topics, and so on.
- Work Manager definitions

For more information about configuring WebLogic Server domain resources, see [Overview of WebLogic Server System Administration](#) in *Introduction to BEA WebLogic Server and BEA WebLogic Express*.

Step 7: Import Security Data

Use the WebLogic Server Administration Console to import the 2.1 security data that you exported in “[Step 2: Export the Security Configurations](#)” on [page 3-1](#) into the new AquaLogic Service Bus 2.5 domain. See [Import data into a security provider](#) in *The WebLogic Server Administration Console*.

Note the following:

- Import the security information for each security provider separately.
- See “[Only One Credential Mapping Provider Allowed](#)” on [page 4-3](#).
- BEA recommends that you import access control policies into the WebLogic XACML Authorization Provider. If you exported data from the WebLogic Default Authorization

Provider in your 2.1 domain, when you import into the XACML Authorization Provider make sure that you select `DefaultAtz` from the **Import Format** list.

- BEA recommends that you import security role maps into the WebLogic XACML Role Mapping Provider. If you exported data from the WebLogic Default Role Mapper Provider in your 2.1 domain, when you import into the XACML provider make sure you select `DefaultRoles` in the **Import Format** list.

Step 8: Import the AquaLogic Service Bus Configuration Data

Import into the new 2.5 domain the 2.1 configuration data that you exported in “[Step 1: Export the AquaLogic Service Bus 2.1 Configuration](#)” on page 3-1. For information about how to import the configuration data, see [System Administration](#) in *Using the AquaLogic Service Bus Console*.

For each 2.1 service account, the import process attempts to re-bind service accounts to the user names and passwords that are in the username/password credential mapping provider. For example, if your 2.1 domain included a service account with the user name of “pat” and password of “patspassword”, the import process looks in the username/password credential mapping provider in the 2.5 domain for “pat” and “patspassword.” If the import process does not find the credentials for a service account in the username/password credential mapping provider, you must add credentials to the service account before you can activate the session. You cannot import empty service accounts into AquaLogic Service Bus 2.5.

For each 2.1 proxy service provider, the import process does the following:

- Searches the PKI credential mapping provider for alias-to-key-pair bindings that match those in the imported proxy service provider. If it finds a match, it enables the proxy service provider to use those key-pair bindings. If it does not find a match, the import process imports the proxy service provider without any key-pair bindings. While it is valid to create a proxy service provider that contains no key-pair bindings, if you want to use the provider to provide credentials, you must use the AquaLogic Service Bus Console to add key-pair bindings to the proxy service provider.
- Prompts you to remove X.509 certificates that were used only for Web Service Security (WSS) authentication.

In AquaLogic Service Bus 2.5 you cannot create a proxy service provider that supplies an X.509 credential only for WSS authentication. You can create a proxy service provider that supplies X.509 credentials for digital signatures, digital encryption, or SSL client authentication. The proxy service provider uses the X.509 digital-signature credential for

those web services that require the certificate for both WSS authentication and digital signature.

If a 2.1 proxy service provider contained a digital-signature credential and an X.509 authentication credential, and if both credentials refer to the same key-pair, the import process does not import the X.509 token authentication credential. You do not need to remove the credential. To confirm that the X.509 token authentication credential will not be imported into the 2.5 domain, the import process outputs the following message:

```
Service Provider has been upgraded. The Web Service Security X.509
Token key has been removed. This credential has been deprecated in
AquaLogic Service Bus 2.5. The Digital Signature key will be used
instead.
```

See [Security Updates Expand Configuration Options](#) in “What’s New in AquaLogic Service Bus” in *BEA AquaLogic Service Bus Release Notes*.

Step 9: Complete Any Manual Upgrade Procedures

Some AquaLogic Service Bus domain configuration changes are not automated and must be implemented manually. See [Chapter 4, “Upgrade Considerations.”](#)

This completes the upgrade of your domain to AquaLogic Service Bus 2.5.

For additional resources, see the [BEA AquaLogic Service Bus 2.5](#) documentation.

Upgrade Considerations

This section describes considerations for upgrading various AquaLogic Service Bus configuration artifacts. It describes how AquaLogic Service Bus 2.1 and AquaLogic Service Bus 2.5 differ in behavior in specific areas that may impact the configurations you are upgrading. It includes the following topics:

- [“Change in Representation of undo Records” on page 4-2](#)
- [“Some Error Codes Are Not Generated in 2.5” on page 4-2](#)
- [“New Error Codes Require Update” on page 4-2](#)
- [“Users in the IntegrationOperator Role Do Not Have Export Privileges” on page 4-3](#)
- [“Only One Credential Mapping Provider Allowed” on page 4-3](#)
- [“2.1 SLA Alert Logs are Unavailable in 2.5” on page 4-4](#)
- [“New Alert Summary Field in AquaLogic Service Bus 2.5” on page 4-4](#)
- [“2.5 Alert Destination Resources are Created from 2.1 Alert Rules” on page 4-5](#)
- [“Transport-Level Access Control Changes in 2.5” on page 4-5](#)

Change in Representation of `undo` Records

The serialized representation of `undo` records has changed in 2.5 so that `undo` records can be upgraded in 2.5 and beyond. However, as a result of this enhancement, the `undo` feature is unavailable if an upgrade occurs from 2.1 to 2.5. In other words, if you make changes in the 2.1 configuration and then upgrade to 2.5, you cannot (in the 2.5 domain) `undo` the changes you made in the 2.1 domain. However, you can still see the execution and the activation history in the AquaLogic Service Bus Console.

Some Error Codes Are Not Generated in 2.5

In AquaLogic Service Bus 2.5, error codes BEA-382101, BEA-382102, and BEA-382151 are not generated while preparing an inbound response or outbound request.

In AquaLogic Service Bus 2.1, these errors were generated for the conditions as described in the following listing:

- BEA-382101—invalid content assigned to `$inbound/transport/response`
- BEA-382102—invalid content assigned to `$outbound/transport/request`
- BEA-382151—invalid service name assigned to `$outbound@name`

In AquaLogic Service Bus 2.1, these errors were caught in the binding layer at run time.

In AquaLogic Service Bus 2.5, these errors are caught at design time in the Replace action and result in an error code of BEA-382040, indicating that an Assign action failed.

New Error Codes Require Update

If you use WSS or relied on specific AquaLogic Service Bus 2.1 error codes, either on proxy service error-handlers or client-side code, note the following change in AquaLogic Service Bus 2.5.

Whenever WebLogic Server WSS returns a SOAP fault to AquaLogic Service Bus, the AquaLogic Service Bus message-context has a fault with:

- error code: BEA-386201
- description: A web service security fault occurred
[<root-wss-error>][<root-wss-fault-string>] where:
 - `root-wss-error` is the error-code from the WebLogic Server WSS SOAP fault,

- `root-wss-fault-string` is the fault-string from the WebLogic Server WSS SOAP fault.
- details: an instance of XML element `{http://www.bea.com/wli/sb/errors}WebServiceSecurityFault`. This XML element also contains the `root-fault error-code`, `fault-string`, and `fault-details`.

The AquaLogic Service Bus default error handler returns the root SOAP fault to the client.

Workaround:

- BEA recommends that you update your error-handlers and/or client-side code to deal with the new error codes.
- You can also write an error-handler that maps the new error-codes back to the AquaLogic Service Bus 2.1 error code. However, this is not a BEA-recommended approach.

(Reference CR280071 in the [AquaLogic Service Bus Release Notes](#) for 2.5)

Users in the IntegrationOperator Role Do Not Have Export Privileges

In AquaLogic Service Bus 2.1, users in the IntegrationOperator role were allowed to export AquaLogic Service Bus configurations; in 2.5 they are not. The workaround is to reassign such users to a different role.

Only One Credential Mapping Provider Allowed

Only one PKI and one username/password credential mapping provider is allowed in AquaLogic Service Bus 2.5.

In AquaLogic Service 2.5, you can configure at most one PKI credential mapping provider and at most one username/password credential mapping provider. In AquaLogic 2.1, you can have multiple PKI credential mapping providers and multiple username/password credential mapping providers. Consequently, if you are upgrading from AquaLogic 2.1 to 2.5 and you created multiple PKI or username/password credential mapping providers in 2.1, you must import all PKI mapping data into a single PKI credential mapping provider and import all username/password mapping data into a single username/password credential mapping provider.

2.1 SLA Alert Logs are Unavailable in 2.5

In 2.1, SLA alerts were captured in the WebLogic Diagnostics Framework (WLDF) log. Migration to a 2.5 domain removes the contents of the 2.1 log. Consequently, the alerts and their details are not displayed in the 2.5 AquaLogic Service Bus Console.

Alerts in the reporting log are also removed if you perform a migration upgrade; logs are retained if you perform an in-place upgrade.

If the 2.1 alerts are issued in E-mail, they continue to be available in the user E-mail accounts after the upgrade. However, if any of those alerts were configured with a JMS action only (that is, with either a JMS queue or JMS topic defined as the JMS destination), the expected behavior is dependent on the method of upgrade you use:

- If you perform an in-place upgrade, and if the JMS queues or topics resided in the local 2.1 domain, then the alerts are still available in the AquaLogic Service Bus Console after the upgrade.
- If you perform a migration upgrade, you must set up new queues and topics in the 2.5 domain. Consequently, the old JMS actions are lost.

New Alert Summary Field in AquaLogic Service Bus 2.5

In AquaLogic Service Bus 2.1 you could not customize the content of the alert summary field when you defined an E-mail action for an SLA alert. All alert summaries (the contents of which populated the E-mail's `subject` line) contained the text: AquaLogic Service Bus `Alert`. In AquaLogic Service Bus 2.5 a new alert-summary field that you can customize is provided when you configure SLA alerts and pipeline alert actions.

For those SLA alerts that are migrated from 2.1 to 2.5, AquaLogic Service Bus populates the alert summary field with the 2.1 text: AquaLogic Service Bus `Alert`.

After you complete the upgrade, you can change the message in the alert summary field to something more descriptive. For more information about configuring alert actions, see “Alert” under [Proxy Service: Actions](#) in *Using the AquaLogic Service Bus Console*.

2.5 Alert Destination Resources are Created from 2.1 Alert Rules

A new resource called an [Alert Destination](#) is introduced in AquaLogic Service Bus 2.5. It is used to capture a list of recipients that can receive alert notifications from AquaLogic Service Bus. When an SLA alert rule is upgraded from 2.1 to 2.5, the alert actions configured in the 2.1 SLA Alert Rule are extracted and used to create an Alert Destination resource. The SLA Alert Rule is then updated to reference this resource.

The Alert Destination created resides in the same project and folder as the service with which the alert rule is associated. The name of the Alert Destination is specified as `Upgraded Alert Destination - xxxxxx`, where `xxxxxx` is a unique number.

The upgrade process creates an Alert Destination for each unique combination of recipients. In other words, if ten SLA Alert Rules with the same set of recipients were upgraded from 2.1, only one Alert Destination resource is created in the same project and folder as the service that is associated with the first SLA Alert Rule.

For information about Alert Destinations, see [Alert Destinations](#) in *Using the AquaLogic Service Bus Console*.

Transport-Level Access Control Changes in 2.5

In AquaLogic Service Bus 2.1, transport-level access control was limited to HTTP and HTTPS proxy services. Access control was enforced by the web-container. The authorization check was done against a `weblogic.security.service.URLResource`. See

<http://e-docs.bea.com/wls/docs91/javadocs/weblogic/security/service/URLResource.html>

In 2.5, AquaLogic Service Bus has a transport-level access control check on entry to all proxy services, regardless of transport. The call to the authorization service is now done in AquaLogic Service Bus code, the web-container does not do an authorization check anymore. As a side-effect, the check is now done against a

`com.bea.wli.sb.security.ALSBProxyServiceResource`. The default policy on `ALSBProxyServiceResource` grants access to all requests. You can configure a transport-level access control policy on a proxy service in the AquaLogic Service Bus console, as described in <http://e-docs.bea.com/alsb/docs25/consolehelp/securityconfiguration.html>

This change has the following implications:

- A policy is composed of one or more policy conditions, grouped together by boolean operators. Most policy conditions can be used to secure any resources (for example is-user-in-role). However, some policy conditions can only be used to secure resources of a specific type. The policy conditions, which can be applied only to URLResource are:
 - `weblogic.entitlement.rules.HttpRequestAttrIsSet`
 - `weblogic.entitlement.rules.HttpRequestAttrNumberPredicate`
 - `weblogic.entitlement.rules.HttpRequestAttrNumberPredicate`
 - `weblogic.entitlement.rules.HttpRequestAttrNumberPredicate`
 - `weblogic.entitlement.rules.HttpRequestAttrNumberEquals`
 - `weblogic.entitlement.rules.HttpRequestAttrNumberGreater`
 - `weblogic.entitlement.rules.HttpRequestAttrNumberLess`
 - `weblogic.entitlement.rules.HttpRequestAttrStringEquals`
- In AquaLogic Service Bus 2.1 you could use these policy conditions to secure HTTP/S proxy services, but these policy conditions are not allowed in AquaLogic Service Bus 2.5.

The context properties passed to the security framework are also different.

Note: Context properties are passed in a `weblogic.security.service.ContextHandler` instance. For more information, see

<http://e-docs.bea.com/wls/docs91/javadocs/weblogic/security/service/ContextHandler.html>

Prior to AquaLogic Service Bus 2.5, the web-container passed some URLResource-specific context properties to the security providers. AquaLogic Service Bus 2.5 passes a different set of context properties. Some of these are described in "Adding Policy Conditions" in Security Configuration at:

<http://edocs.bea.com/alsb/docs25/consolehelp/securityconfiguration.html>

- As mentioned above, for AquaLogic Service Bus versions after 2.5, all proxy service invocations go through an access control check, including colocated optimized calls, calls to local-transport proxies and calls from the AquaLogic Service Bus test console.
- Because URLResource is not used in 2.5, a proxy service's transport-level access control policy is no longer tied to the endpoint's URI. You can change the proxy service URI and the existing policy will still take effect. However, the policy is now dependent on the proxy

service location (project and/or folders) and name. Operations such as rename, move, delete and undo for resources, projects, or folders do not effect an authorization provider's policy database. Be careful when performing these operations to avoid losing an access control policy or leaving orphan access control policies in the system. See Known Issue CR222177 in the *AquaLogic Service Bus Release Notes* at:

<http://e-docs.bea.com/alsb/docs25/relnotes/>

- The default policy on ALSBProxyServiceResource is automatically created in new AquaLogic Service Bus domains.

About Access Control Policies during Upgrade

During upgrade of AquaLogic Service Bus 2.1 to 2.5, AquaLogic Service Bus checks to see if the default policy on ALSBProxyServiceResource exists in at least one authorization provider. If this policy does not exist, then it is created. Read access to the policy database is optional--if an authorization provider does not support reads, AquaLogic Service Bus displays an alert message:

“AquaLogic Service Bus could not determine if the default ALSBProxyServiceResource policy is present or not because some authorization providers do not implement PolicyReaderMBean. ALSB could not deploy the policy because neither EntitleNet provider nor XACML provider is present. If the policy is indeed missing, the administrator must create it.”

Similarly, write access to the policy database is optional. If an authorization provider does not provide write access, AquaLogic Service Bus displays the following alert message:

“AquaLogic Service Bus has determined the default ALSBProxyServiceResource policy is missing. ALSB could not deploy the policy because neither EntitleNet provider nor XACML provider is present. Access to all ALSB proxy services will be denied. The administrator must create the policy using the provider tools.”

Note: The EntitleNet provider was deprecated in AquaLogic Service Bus 2.5. If you are using the EntitleNet provider, you should upgrade to the XACML authorization provider.

During a 2.1 to 2.5 upgrade, access control policies on HTTP or HTTPS proxy services are also automatically migrated. If there is a policy on the URLResource matching the service URI, the policy is copied over to the corresponding ALSBProxyServiceResource. The original policy (the one on URLResource) is deleted. There is one exception to this: if the original policy used one of the URLResource-specific conditions, the policy cannot be upgraded. In this case AquaLogic Service Bus creates a policy for this service, which denies all access to the service and writes the following alert to the log file:

“[POLICY MIGRATION] [proxy service: <service>] [authorization provider: <provider>] The 2.1 policy cannot be migrated because it makes use of policy predicates which are specific to

Upgrade Considerations

URLResource. A deny-all policy will be bound to the proxy. You must re-configure this policy in the console.”

WARNING: These automatic changes to the policy database occur while staging an AquaLogic Service Bus configuration JAR during import. These changes are not atomic. Consider this scenario: a user creates an AquaLogic Service Bus session and imports a 2.1 configuration JAR, which causes some automatic policy updates. If the user now decides to abandon the AquaLogic Service Bus session (by undoing the changes without activating) the policy changes are not rolled back.