



Setting Up an Environment for Testing Applications in a Federated Portal Network

Applicable Releases:

SAP NetWeaver 7.0

IT Practice:

User Productivity Enablement

IT Scenario:

Running an Enterprise Portal

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Document History

Document Version	Description
1.00	First official release of this guide

Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
< Example text >	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Icons

Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

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1. About this Document

The purpose of this document is to provide you with guidelines for setting up a basic federated portal network (FPN) environment in which you can test your portal applications.

Important

This document does not provide guidelines for testing specific applications. Once your FPN environment is set up, we recommend that you test your applications on a *remote portal*, precisely as you tested them on a *standalone portal* (a single portal that is not part of an FPN).

This document describes two *content sharing* modes available in an FPN environment:

- **Remote role assignment (RRA):** This mode allows a user administrator on a consumer portal to assign users directly to remote roles that reside on the producer portal, using the standard UME role assignment tools.
- **Remote delta link (RDL):** This mode allows a content administrator on a consumer portal to browse content (such as iViews, pages, worksets, roles) residing on a remote producer portal and to create local copies of the content on the consumer portal.

The copied content on the consumer references the source content on the producer through *delta links*. Modifications made to source content on the producer are therefore automatically updated in the corresponding remote delta link content on the consumer. The content administrators can manage and manipulate the RDL content just as they would with local delta link content.

More information about FPN:

http://help.sap.com/saphelp_nw70ehp1/helpdata/en/5b/9f2d4293825333e10000000a155106/frameset.htm

2. Prerequisites

- Two SAP NetWeaver servers (running SAP NetWeaver 7.0 SP14 or higher)
- Portal administrator privileges
- The applications you want to test in the FPN environment have been tested successfully on a standalone (single) portal and preferably on the producer portal.

3. Test Case Workflow

1. Set up an FPN environment:
 - a. Configure the FPN proxy settings.
 - See: *Configuring the FPN Proxy* on page 4
 - b. Configure the OptimizerC service.
 - See: *Configuring the OptimizerC Service* on page 5
 - c. Create trust between the producer and consumer portals.
 - See: *Setting Up Trust* on page 6
 - d. Create a producer connection from the consumer portal.
 - See: *Creating a Producer Instance on the Consumer* on page 8
 - e. Perform the preliminary RRA setups on the producer portal.
 - See: *Configuring RRA Setup on the Producer* on page 10
 - f. Create business users and a user group on both the consumer and producer portal.
 - See: *Creating Users and a User Group* on page 11
2. Perform the content sharing configuration using RRA and RDL:

Important:

The content that you are sharing from the producer portal must contain the applications that you want to test.

- When using RRA:
 - i. On the consumer, assign a user group and a user directly to a remote role (that resides on the producer) and to on the consumer (see: *Assigning a Local User Group to a Remote Role* on page 12 and *Assigning a Local User to a Remote Role* on page 13).
 - ii. Test the remote role of the business user running on the consumer portal.
- When using RDL:
 - i. On the consumer, copy the remote roles that reside on the producer (see: *Creating a Remote Delta Link on the Consumer* on page 14).
 - ii. Assign the copied role to a local business user.
 - iii. Test the role you copied to the consumer portal using the local business user on the consumer portal.

Important:

Perform all the runtime tests done on the consumer portal.

3. Perform the application tests on the consumer portal using the RRA and RDL roles and local users. You should be repeating the same tests that you already used to test your applications on a standalone portal (non-FPN) where the source content resides locally.

Note:

This document does not provide guidelines for application-specific testing.

4. Test Procedures

4.1 Configuring the FPN Proxy

Description

In this test case, you configure the Proxy service.

Preparation

You have two machines that you want to configure FPN between them.

Entrance

Log on as an administrator to both machines.

Execution

1. Navigate to *System Administration* -> *System Configuration* -> *Service Configuration*.
2. Browse to *Application* -> *com.sap.portal.ivs.httpservice* -> *Services* -> *Proxy*.
3. For both http and https protocols, enter these values in the corresponding field:
 - *Bypass Proxy Servers*: Enter your configuration (e.g. `*.goofy.corp|*.goofy.il.sap.corp|*.de.goofy.corp|*.goofy.corp`)
 - *enable proxy settings*: `true`
 - *proxy host*: Enter your configuration (e.g. `proxy`)
 - *port*: Enter your configuration (e.g. `8080`)
 - *Set proxy settings to JVM system properties*: `true`
4. Save your settings.
5. Right click on parent folder, and choose *Administrate* -> *Restart the service*.
6. Repeat all the above steps on the remote portal.

Check

The service restarts successfully without an error.

4.2 Configuring the OptimizerC Service

Description

In this test case, you configure the OptimizerC service.

Preparation

You have two machines that you want to configure FPN between them.

Entrance

Log on to the consumer portal as an administrator.

Execution

1. Navigate to *System Administration* -> *System Configuration* -> *Service Configuration*.
2. Browse to *Application* -> *com.sap.portal.ivs.global.jndibridge* -> *Services* -> *OptimizerC*.
3. In the *My Portal Address* field, enter the full portal address including the domain (e.g., `https://goofy.sap.com:50000`).
4. Save your settings.
5. Right click on the parent folder, and choose *Administrate* -> *Restart the service*.

Check

The service restarts successfully with no error.

4.3 Setting Up Trust

Description

In this test case, you set up trust between the producer and consumer portal.

Preparation

You have two machines that you want to configure FPN between them.

Entrance

Log on to the consumer portal as an administrator.

Execution

1. Navigate to *System Administration -> System Configuration -> Keystore Administration*.
2. Export the *verify.der* file:
 - a. Select the *Content* tab.
 - b. Select *SAPLogonTicketKeypair-cert*.
 - c. Select *Download verify.der file*. Save the file locally to your system.
3. Log in as administrator to the SSO2 tool on the producer portal (e.g., `http://goofy.corp:50000/sso2`).
4. Select *Add trusted system -> By upload certificate manually*.
5. Enter the SID login of the portal in the *system_id* field
To find the SID login of the portal, remove `irj/portal` from the portal URL and open a new browser instance (e.g., `http://goofy.corp:50000`), and then select *System Information*.
6. Fill in the *client* field (e.g., 000).
7. Upload the consumer's certificate (from step 3), and then confirm your setting by clicking on *Next* and *Finish*.
8. To complete two-way trust, repeat the above steps by switching the two portals (i.e., download certificate from the producer and upload to the consumer).

Check

The trust configuration completed successfully.

To check the trust, log on to one of the portals. After you have logged on to the portal, enter the URL of the other portal and browse. If you can log into the other portal without entering user name and password, then the trust was configured successfully.

For example:

1. Log on to one portal with its own URL (e.g., `http://goofy.corp:50000/irj/portal?j_username=joseph&j_password=12345678`)
2. In the URL field of the browser, remove the user and password parameters (e.g., `http://goofy.corp:50000/irj/portal`), and then press `Enter`.

3. In the same browser session, enter the URL of the other portal in the URL field of the browser (e.g., `http://donald.corp:50000/irj/portal`), and then press `Enter`.

You should be able to log on without entering new logon credentials.

4.4 Creating a Producer Instance on the Consumer

Description

In this test case, you create a producer connection on the consumer portal.

Preparation

You have successfully executed the following test cases:

- *Configuring the FPN Proxy* on page 4
- *Configuring the OptimizerC Service* on page 5
- *Setting Up Trust* on page 6

Entrance

Log on to the consumer portal as an administrator.

Execution

1. Navigate to *System Administration -> Federated Portal -> Myself as Content Consumer -> Manage My producers*.
2. In the Portal Catalog, right-click on *NetWeaver Content Producers*, and choose *New -> NetWeaver Content Producer*.
3. In the wizard, enter a producer name and ID, and then choose *Next*.
4. In the protocol option, select *HTTP*.
5. Enter the host name (e.g., **goofy.corp**)
6. Enter the port (e.g., **50000**).
7. In the P4 connection option, select *Connection String or Single Server*.
8. In the P4 security option, select *None*.
9. Enter the host name (e.g., **goofy.corp**).
10. Enter the P4 port (add 4 units to the current HTTP port value; e.g., **50004**).
11. Choose *Next -> Finish*.
12. In the Portal Catalog, open the producer object you just created.
13. In the display drop-down list, select *Producer Registration*.
14. Enter a name for your consumer.
15. Enter a host name and port of the consumer.
16. Enter P4 host name and port of the consumer (e.g., **50004**).
17. Save your settings.
18. Click on *Register*.

Check

The registration completed successfully.

To check if the producer object was create successfully, you need to check if RRA and RDL is working:

- [Assigning a Local User to a Remote Role on page 13](#)
- [Creating a Remote Delta Link on the Consumer on page 14](#)

4.5 Configuring RRA Setup on the Producer

Description

In this test case, you configure the PCD Service User on the producer to support RRA functionality.

Preparation

You have successfully executed the following test cases:

- Configuring the FPN Proxy on page 4
- Configuring the OptimizerC Service on page 5
- Setting Up Trust on page 6

Entrance

Log on to the producer portal as an administrator.

Execution

1. Navigate to *User Administration -> Identity Management*.
2. In the *Search Criteria* option, select *Role*, and then click *Create Role*.
3. Create a new role (e.g., `remote_access_role`) and then save your settings.
4. Select the *Assigned Actions* tab and then search for the following two actions:
 - *Remote_producer_Read_Access*
 - *Remote_producer_Write_Access*
5. Assign the two UME actions to your role and save.
6. Select the *Assigned Users* tab and then search for the *pcd_service* user.
7. Assign your role to the *pcd_service* user.
8. Save your settings.

Check

The RRA configuration completed successfully.

4.6 Creating Users and a User Group

Description

In this test case, you create two business users and a group needed later for runtime testing. You must create the same users and group on both the producer and the consumer.

Entrance

Log on to both the consumer portal and the producer portal as a user administrator.

Execution

Important

Repeat the following steps on both the consumer and the producer.

1. Navigate to *User Administration* -> *Identity Management*.
2. Create two different users:
 - a. In the *Search Criteria* option, select *User*, and then choose *Create User*.
 - b. Define settings for each user and then save.
3. Create a single user group:
 - a. In the *Search Criteria* option, select *Group*, and then choose *Create Group*.
 - b. Define settings for the group and then save.
4. Add one of the users you created to the user group. We will refer to this user as *user A* in this document. The other user, referred to as *user B* in this document, must remain unassigned to the user group.
 - a. Select user A.
 - b. Select the *Assigned Groups* role, and then click on *Modify*.
 - c. On the left-hand side, search for the group that you created, and select the group you created.
 - d. Save your settings.

Check

1. Verify that users were created successfully.
2. Verify that the group was created successfully.
3. Verify that user A was added successfully to the group.

4.7 Assigning a Local User Group to a Remote Role

Description

In this test case, you perform remote role assignment by assigning a user group from the consumer portal directly to a remote role that resides on the producer portal.

Preparation

- Execute all FPN environment setup test cases.
- A test role, containing the applications you want to test, exists on the producer portal.
- The same user (user A) and user group from the Creating Users and a User Group test case (on page 11) exist on both the consumer and the producer.

Entrance

Log on to the consumer portal as a user administrator.

Execution

1. Navigate to *User Administration -> Identity Management*.
2. In the *Search Criteria* option, select *Group*, and then search for the group that you created earlier.
3. Select the group you have created.
4. From the details window, select the *Assigned Roles* tab and choose *Modify*.
5. From the search criteria, select the producer object you created.
6. Search for remote roles defined on the producer, and then add the appropriate role to your group.
7. Save your settings.
8. Open user A that you have created previously, and ensure that the remote role is now assigned to the user. (Search for the user, select the *Search Recursively* checkbox in the lower table, and then click *Go*).
9. Log on to both the consumer portal and producer portal using the credentials of user A.

Check

1. Verify that the user group assignment to the remote role completed successfully.
2. Verify that user A is assigned to the role on both the producer and the consumer.
3. Verify that the remote role is displayed properly, with all its content, at runtime on both the producer and the consumer when user A is logged on to each portal separately.

4.8 Assigning a Local User to a Remote Role

Description

In this test case, you perform remote role assignment by assigning a user from the consumer portal directly to a remote role that resides on the producer portal.

Preparation

- Execute all FPN environment setup test cases.
- A test role, containing the applications you want to test, exists on the producer portal.
- The same user (user B) from the Creating Users and a User Group test case (on page 11) exists on both the consumer and the producer.

Entrance

Log on to the consumer portal as a user administrator.

Execution

1. Navigate to *User Administration -> Identity Management*.
2. In the *Search Criteria* option, select *User*, and then search for user B that you created earlier.
3. Click *Modify*.
4. From the search criteria, select the producer object you created.
5. Search for remote roles defined on the producer, and then add the appropriate role to user B.
6. Save your settings.
7. Log on to both the consumer portal and producer portal using the credentials of user B.

Check

1. Verify that remote role is assigned to user B.
2. Verify that the remote role is displayed properly, with all its content, at runtime on both the producer and the consumer when user B is logged on to each portal separately.

4.9 Creating a Remote Delta Link on the Consumer

Description

In this test case, you copy remote content as delta links to your consumer portal and assign it to local users.

Preparation

- Execute all FPN environment setup test cases.
- A test role, containing the applications you want to test, exists on the producer portal.
- The same user (user B) from the Creating Users and a User Group test case (on page 11) exists on both the consumer and the producer.

Entrance

Log on to the consumer portal as a content administrator and a user administrator.

Execution

1. Navigate to *Content Administration -> Portal Content*.
2. In the Portal Catalog, navigate to *NetWeaver Content Producers* and then expand your producer object.
3. In the Portal Catalog, use the context menu on the relevant remote role to copy it to the Clipboard and then paste it into a local folder.

Note

To further your testing, you can also copy other content objects (iView, pages, worksets) that contain your test applications.

4. Navigate to *User Administration -> Identity Management*.
5. Search for user B that you created in the Assigning a Local User Group to a Remote Role test case, click *Modify*, and then search for the role you copied locally as a remote delta link.
6. Assign the role to user B and save your settings.
7. Log on to the consumer portal using the credentials of user B.

Check

1. Verify that the remote role was copied over to the consumer without any errors.
2. Verify that the RDL role was assigned to user B.
3. Verify that the content of the RDL role displays properly at runtime on the consumer portal.

5. Troubleshooting

If you encounter any problem, including runtime issue, you should first determine whether or not the issue is FPN-related:

1. Reproduce as standalone content on the producer portal (log in to the producer and run the content) → if this issue can be reproduced on the producer then it is most likely not FPN-related.
2. First checkups:
 - a. Verify that the settings of your producer object on the consumer are correct (P4 port, portal addresses, etc.).
 - b. Check if your producer object on the consumer is registered.
 - c. Check that you can log on to the producer portal.
 - d. Check that you have established trust between the consumer and producer.
 - e. Check that the same user exists on both the consumer and the producer.
 - f. Check that you can ping the producer server IP from the consumer server, and vice versa.
 - g. Check that you can access the producer server P4 port using telnet from the consumer server, and vice versa.
 - h. If you cannot find roles using RRA, check that you have done all the steps described in *Configuring RRA Setup on the Producer* on page 10.
 - i. If your FPN environment is in a cluster environment, try to use a different node and check if your error is reproducible. If so, revise the steps above.
4. Check the logs (of both consumer and producer) to locate the error. Consult an administrator or developer for assistance.
5. Check the trace files (of both consumer and producer). Consult an administrator or developer for assistance.

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