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Rev. 1

SAPconnect

This technical notes describes how to configure the Dazel SAPconnect server in HP Output Manager for SAP, Version 6.1 to function with SAP R/3 Enterprise (SAP R/3 4.7) and HP Output Server, versions 3.3 and 3.4.1. The Dazel SAPconnect server integrates with the SAP BC-CON interface to deliver SAPoffice messages through HP Output Server. The Dazel SAPconnect server supports fax and e-mail messages.

The information in this technical note applies to installations of HP Output Manager for SAP 6.1 at service pack level 03.5 or greater with either HP Output Server 3.3 at service pack level 03.5 or greater or HP Output Server 3.4.1. This technical note consolidates all revisions to the SAPconnect chapter that are published as documentation defects in service pack release notes for HP Output Manager for SAP 6.1 through Service Pack 05.2.

NOTE: Elements in the SAP R/3 Enterprise graphical user interface (GUI) referred to in the following subsections are from SAP R/3 GUI version 6.40.

Before you begin

Before configuring the Dazel SAPconnect server, ensure that the following software is installed in your environment:

- HP Output Server, Version 3.3 with Service Pack 03.5 or greater

or

HP Output Server, Version 3.4.1

For information about installing HP Output Server 3.3, see *Installing and Configuring* for HP Output Server 3.3. For information about installing Service Pack 03.5 or greater for HP Output Server 3.3, see the release notes that accompany the service pack archive file. For information about installing HP Output Server 3.4.1, see the *Installation and Configuration Guide* for HP Output Server 3.4.1.

- HP Output Manager for SAP 6.1 with Service Pack 03.5 or greater. For information about installing HP Output Manager for SAP 6.1, see *Using Dazel for R/3* for HP Output Manager for SAP 6.1. For information about installing Service Pack 03.5 or greater for HP Output Manager for SAP 6.1, see the release notes that accompany the service pack archive file.

Configuring the Dazel SAPconnect server

Configuring a Dazel SAPconnect server is a two-part process that involves the following:

1. configuring SAP R/3 Enterprise to work with the Dazel SAPconnect server

The following section describes the tasks that you must perform to configure SAP R/3 Enterprise to work with the Dazel SAPconnect server.

2. configuring SAPoffice

You configure SAPoffice by testing the SAPconnect node connection to ensure that all steps were successfully executed and the connection is operable. For more information about configuring SAPoffice to work with the Dazel SAPconnect server, see “Configuring SAPoffice to work with Dazel SAPconnect server” on page 14.

Configuring SAP R/3 Enterprise

The first part of the configuration process—configuring SAP R/3 Enterprise to work with the Dazel SAPconnect server—involves the following tasks:

1. creating the `saprfc.ini` file

The `saprfc.ini` file specifies the connection type and all RFC-specific parameters required to connect to R/3.

2. creating the Dazel SAPconnect server

The Dazel SAPconnect server integrates the SAP BC-CON interface with HP Output Server. You use the `config_server` command to create the Dazel SAPconnect server.

3. creating an RFC destination
The RFC destination enables the R/3 interface to communicate with the HP Output Management RFC interface.
4. modifying the communication method for faxing and e-mail
The communication method enables the fax and e-mail destinations to communicate through the Dazel SAPconnect server.
5. creating a SAPconnect node
The SAPconnect node is the means by which R/3 and the Dazel SAPconnect server communicate.

Task 1: Creating the `saprfc.ini` file

To assist you in creating the `saprfc.ini` file, HP Output Manager for SAP provides a template `saprfc.ini` file in the `dazelInstall/lib` directory. You can copy the file and modify it to correspond to the configuration of your SAP R/3 Enterprise installation. The template file includes a protected R/3 user name and password. HP recommends setting the file mode to read-only for the server's process owner.

Before you modify the `saprfc.ini` file, do one of the following:

- Create an HP Output Manager for SAP working directory with the following path name and place the `saprfc.ini` template file in it:

installDir/`var/sap/serverName`

where *installDir* refers to the pathname of the location where HP Output Server is installed and *serverName* is the name you choose for the Dazel SAPconnect server.

-or-

- Set the `RFC_INI` environment variable to point to the location of the `saprfc.ini` file, as shown in the following examples:

On UNIX (Korn shell):

```
export RFC_INI=/home/myhome/secret/saprfc.ini
```

Configuring the Dazel SAPconnect server

On Windows from the command prompt:

```
set RFC_INI=c:\home\myhome\secret\saprfc.ini
```

NOTE: If you plan to configure multiple Dazel SAPconnect servers, you must create a working directory for each server and place a separate `saprfc.ini` file in each working directory. For more information about creating multiple Dazel SAPconnect servers, see “Creating multiple Dazel SAPconnect servers” on page 9.

The following is a sample `saprfc.ini` file.

```
DEST=SM 59 RFC destination
TYPE=R
PROGID=Dazel sapconnect-server.dzl_sapcond
GWHOST=SAPhost
GWSERV=sapgwSYSNR
RFC_TRACE=0
```

```
DEST=SAP system ID
TYPE=A
ASHOST=SAPhost
SYSNR=SYSNR
RFC_TRACE=0
ABAP_DEBUG=0
USE_SAPGUI=0
```

```
DZL_DEST=SAP system ID
DZL_CLIENT=SAP client of CPIC user
DZL_USERNAME=CPIC user name
DZL_PASSWORD=CPIC password
DZL_LANGUAGE=E
DZL_RFC_TRACE=0
```

The first section of the sample file, beginning with `DEST=SM 59 RFC destination` and ending with `RFC_TRACE=0`, specifies the RFC destination and SAP gateway host. Following is additional information about selected fields in this section of the sample file:

Option	Description
DEST	In the first section of the sample file, this option is the name of the RFC destination within the SAP R/3 server.
TYPE	This option specifies the connection type. The value <code>R</code> for the <code>TYPE</code> option is for RFC server programs or for a client program working with another external program as an RFC server program that is registered at an SAP gateway. For more information about values for this option, see your SAP documentation.
PROGID	This option specifies <i>Dazel sapconnect-server.dz1_sapcond</i> , where <i>Dazel sapconnect-server</i> is the name of the Dazel SAPconnect server that runs on the HP Output Server domain. This must match the Program ID field in the RFC Destination. Note that if you are creating multiple Dazel SAPconnect servers to work with more than one SAP system, you must specify a unique PROGID for each server.
PROGID GWHOST	This option specifies the gateway host and is the same as the SAP host if the SAP gateway is not used.
GWSERV	This option specifies the gateway service, for example <code>sapgw01</code> . Note that in most instances, the numeric values for the SAP gateway (<code>GWSERV</code>) and the <code>SYSNR</code> are the same.

The second section of the sample file, beginning with `DEST=SAP system ID` and ending with `USE_SAPGUI=0` specifies options for the SAP application server. Following is additional information about selected fields in this section of the sample file:

Option	Description
DEST	In the second section of the sample file, this option is the SAP system ID. The value of <code>DEST</code> in this second section of the file and <code>DZL_DEST</code> in the last section of the file must match. This is the R/3 system ID that the Dazel SAPconnect server uses.
TYPE	This option specifies the connection type. The value <code>A</code> for the <code>TYPE</code> option in this section of the file is only to be used to connect to an application server. For more information about values for this option, see your SAP documentation.
ABAP_DEBUG	This option is set automatically when you activate the ABAP debugger by entering <code>d</code> in the trace field or by setting <code>RFC_DEBUG</code> in the system environment.
USE_SAPGUI	This option displays SAP dynpros and graphics. The value <code>0</code> for this option deactivates this functionality.

In the last section of the file beginning with `DZL_DEST`, the Dazel SAPconnect server defines the options that begin with the prefix `DZL_`, in addition to the original definition SAP R/3 Enterprise provides for these options in the `saprfc.ini` file. `DZL_CLIENT` represents the client on which the CPI-C user exists and `DZL_USERNAME` identifies the CPI-C user.

NOTE: Ensure the CPI-C user has the following profile set so it will function properly with SAPconnect: `S_A.SCON`.

Task 2: Creating the Dazel SAPconnect server

After you create the `saprfc.ini` file, create the Dazel SAPconnect server using the HP Output Server `config_server` command. You can configure the Dazel SAPconnect server to submit documents to a fax logical destination or to an e-mail logical destination.

NOTE: Transformations performed by HP Output Server may affect the format and extension of an attachment to an e-mail message.

HP Output Manager for SAP provides the following attributes that enable you to configure, start, stop, and retrieve the status of the Dazel SAPconnect server from the HP Output Server command line interface:

Attributes	Description
<code>-sapcon-server-sid</code>	Required: This attribute specifies the SAPCON RFC destination.
<code>-sapcon-logical-fax-dest</code>	Required: This attribute names the HP Output Server logical fax destination.
<code>-sapcon-client-logon-retry-factor</code>	Optional: This attribute sets the SAPCON RFC client logon retry factor (in seconds).
<code>-sapcon-client-logon-retry-max</code>	Optional: This attribute sets the SAPCON RFC client maximum logon retry interval (in seconds).
<code>-sapcon-logical-email-dest</code>	Optional, unless configuring the Dazel SAPconnect server to submit e-mail messages to an e-mail logical destination. This attribute names the HP Output Server logical e-mail destination.

Use these attributes with the HP Output Server `config_server` command and the syntax in the following examples to create a Dazel SAPconnect server:

NOTE: On a UNIX installation of HP Output Manager for SAP, you can also specify a value for the `-server-login-name` attribute when you configure the Dazel SAPconnect server. If you do not specify a value for this attribute, the default value is `root`. This prevents non-root users from starting and stopping the Dazel SAPconnect server and from patching an HP Output Manager for SAP installation. To avoid this restriction, specify the name of the owner of the installed files that you specified when you installed HP Output Server as the value of the `-server-login-name` attribute.

Example 1: Creating a Dazel SAPconnect server to submit faxes

To create a Dazel SAPconnect server that can submit faxes to a fax logical destination, use the following syntax:

```
config_server -t sapcon -x "--sapcon-server-sid RFC  
  Destination -sapcon-logical-fax-dest logicalfaxName"  
  serverName
```

where *RFC Destination* is the SAPCON RFC destination, *logicalfaxName* is the name of the logical fax destination in HP Output Server, and *serverName* is the name you choose for the Dazel SAPconnect server.

Example 2: Creating a Dazel SAPconnect server to submit e-mail messages

To create a Dazel SAPconnect server that can submit e-mail messages to an e-mail logical destination, use the following syntax:

```
config_server -t sapcon -x "--sapcon-server-sid RFC  
  Destination -sapcon-logical-email-dest logicalemailName  
  -sapcon-logical-fax-dest logicalfaxName" serverName
```

where *logicalemailName* is the name of the logical e-mail destination in HP Output Server and *serverName* is the name you choose for the Dazel SAPconnect server.

NOTE: The `-sapcon-logical-fax-dest` attribute is required in this command, even though you are configuring the Dazel SAPconnect server to submit e-mail messages to an e-mail logical destination. Without the `-sapcon-logical-fax-dest` attribute, the Dazel SAPconnect server cannot start.

Configuring an existing Dazel SAPconnect server for e-mail

To modify the configuration of a Dazel SAPconnect server that was created after the installation of Service Pack 03.5 on HP Output Server 3.3, HP Output Manager for SAP, and HP Output Server 3.4.1 so that the server can submit documents to an e-mail logical destination, use the following syntax with the `config_server` command:

```
config_server -u -t sapcon -x"-sapcon-server-sid RFC  
  Destination -sapcon-logical-email-dest logicalemailName"  
  serverName
```

where *RFC Destination* is the SAPCON RFC destination and *logicalemailName* is the name of the e-mail logical destination in HP Output Server and *serverName* is the name of the Dazel SAPconnect server.

NOTE: In HP Output Manager for SAP with HP Output Server 3.3, you can update an existing Dazel SAPconnect server with this command only if the server was created after installing Service Pack 03.5 on both products.

For information about the `config_server` command and a complete listing of HP Output Server attributes, refer to the *System Administrator's Reference* for HP Output Server 3.3 or the *System Administrator's Attribute Reference* and the *System Administrator's Command Reference* for HP Output Server 3.4.1.

Creating multiple Dazel SAPconnect servers

You can create multiple Dazel SAPconnect servers to work with more than one SAP system.

To create multiple Dazel SAPconnect servers, do the following:

Configuring the Dazel SAPconnect server

1. Create a separate `saprfc.ini` file for each Dazel SAPconnect server. For more information about creating an `saprfc.ini` file, see “Task 1: Creating the `saprfc.ini` file” on page 3.
2. For each Dazel SAPconnect server, create a separate working directory with the following path name and place the appropriate `saprfc.ini` file in it:

installDir/var/sap/serverName

where *installDir* refers to the path name of the location where HP Output Server is installed and *serverName* is the name you choose for the Dazel SAPconnect server. Each server must have a unique name.

3. Create and configure the Dazel SAPconnect servers using the Dazel Output server `config_server` command with the following syntax:

```
config_server -t sapcon -x "-sapcon-server-sid RFC
Destination -sapcon-logical-fax-dest fax1" serverName1
serverName2 serverName3...
```

NOTE: Include the `-sapcon-logical-email-dest` attribute in this command if you are creating multiple Dazel SAPconnect servers that can submit e-mail messages to a logical e-mail destination.

For more information about creating a Dazel SAPconnect server using the `config_server` command, see “Task 2: Creating the Dazel SAPconnect server” on page 7.

Dazel SAPconnect and SAP in multi-instance mode

If you have configured and deployed your SAP system to run in multi-instance mode with a database layer, a central layer, and an application server layer, note that support for this configuration with the Dazel SAPconnect server is not available at this time.

Task 3: Creating an RFC destination

This section identifies the steps that are necessary to create an RFC destination. To create an RFC destination, perform the following steps:

1. Start the SAP GUI and log in to your system.
2. In the R/3 command field, enter `/nsm59`.
3. On the menu under **RFC destinations**, select and expand **TCP/IP connections**.
4. On the **Edit** menu, click **Create**.

The **RFC Destination** screen appears.

5. Enter a name in the **RFC destination** field (for example, DZL_RFC_DESTINATION).
6. Enter T in the **Connection type** field.
7. Enter a text description of your RFC destination in the **Description** field.
8. Click **Save** (CTRL+S).

Additional options appear.

9. In **Activation Type**, select **Registered Server Program**.
10. Enter the **Program ID**. For example, *DAZELsapconnect-server.dzl_sapcond*, where *DAZELsapconnect-server* is the name of the Dazel SAPconnect server that runs on the HP Output Server domain. The value appears in the PROGID field of the *saprfc.ini* file.
11. If the SAP R/3 system uses a gateway server that runs on another host, type the name of the host in the Gateway host field.
12. Click **Save**.

Task 4: Modifying the communication method

You must modify the communication method in order for a fax or e-mail destination to communicate through the Dazel SAPconnect server. To modify the communication method, perform the following steps:

1. In the R/3 command field, enter `/nscon`.

The **SAPconnect: Administration (system status)** screen appears.

2. From the **Settings** menu, click **Communication Methods**.

The **Change View “SAPconnect: Maintenance view - communication methods”** screen appears. This screen contains a table with two columns **Typ** and **Method**.

3. For type **FAX**, select method **SAPCONNECT**. If you are using a Dazel SAPconnect server to send e-mail messages to HP Output Server, select **SAPCONNECT** for type **INT**.
4. Click **Save**.

Task 5: Creating a SAPconnect node

Once you have defined the communication method and format groups, you then create a SAPconnect node. The SAPconnect node is the means by which R/3 and the Dazel SAPconnect server communicate.

NOTE: If you intend to use Dazel SAPconnect servers for faxing and e-mail, you have to create a separate SAPconnect node for each: a node for faxing and a node for e-mail messages.

To create a SAPconnect node, perform the following steps:

1. In the R/3 command field, enter /nscon.
The **SAPconnect: Administration (system status)** screen appears.
2. Click **Create**.
The **Create nodes** screen appears.
3. Enter a name in the **Node** field and a short description of the node in the **Description** field.
4. Click **Continue**.
The **Create nodes** screen prompts you to supply the node type that you want to create.
5. Select **RFC Node**.
6. Click **Continue**.
The **Create nodes** screen prompts you to assign an RFC destination to the node.
7. In the RFC destination field, enter the RFC destination created in “Task 3: Creating an RFC destination” on page 10 (for example, DZL_RFC_DESTINATION).
8. Click **Continue**.
The **Node** field appears in the **Create nodes** screen.
9. Do one of the following:
 - If you are configuring the node for faxing, select **Fax**.
 - If you are configuring the node for e-mail, select **Internet**.
10. Click **Continue**.
The **Address area** field appears within the **Create nodes** screen.

11. Enter an asterisk (*) in the **Address area** field to trap all generic addresses.

NOTE: Contact SAP for information on specific address configurations.

12. Click **Continue**.

The **Create nodes** screen prompts you to specify the output formats into which SAP-internal formats are to be converted.

13. A list of default output format options for fax and email is displayed.

14. Click **Continue**.

The **Create nodes** screen prompts you about restricting send times.

15. If you want to restrict send times, select the **Restrict send time** check box.

NOTE: For information about restricting send time, contact your SAP BASIS administrator.

16. Click **Continue**.

If you are configuring the node for faxing, the **Create nodes** screen prompts you for the country code for the node location. If you are configuring the node for e-mail, skip to step 19.

17. Enter the appropriate country in the **Country** field.

18. Click **Continue**.

This sets the address type for your SAPconnect node.

The **Create node** screen displays information about setting another address type for the node.

19. Select **N (No)** under **Set further address types**.

20. Click **Continue**.

The **Failed send attempt** screen appears.

21. Enter values for **Hours** and **Minutes** in their corresponding fields.

22. Click **Continue**.

The **Create nodes** screen prompts you for more information about the node.

23. Do not configure anything on this screen. Click **Continue**.

The **Create nodes** screen prompts you for information about node readiness for use and whether the node supports expanded functions.

24. Select the **Node is ready for use** check box.
25. Click **Continue**.

The **SAPconnect: Administration (nodes)** screen appears. The node is saved and if configured for faxing, is located under **FAX Telefax** and if configured for e-mail, is located under **INT**.

Configuring SAPoffice to work with Dazel SAPconnect server

You configure SAPoffice to work with the Dazel SAPconnect server by testing the SAPconnect node connection to ensure that previous tasks were successfully executed. To test the SAPconnect node connection to ensure that all steps were successfully executed and the connection is operable, perform the steps in the following sections.

Task 1: Testing the connection

1. In the command field, enter `/nsm59`.
2. Select **TCP/IP connections** on the menu under **RFC destinations**.
3. Double-click your RFC destination (DZL_RFC_DESTINATION).
4. Click **Test connection**.

This prompts the **RFC - Connection Test** screen, which indicates if the SAP node connection has been configured properly.

5. Close the **RFC - Connection Test** screen.

Task 2: Configuring personal address settings

1. In the command field, enter `/nso12`. The **Private office setting** screen appears.
2. Press **F9**. The **Address maintenance** screen appears. Configure your personal address settings in this screen.
3. Save your settings and exit both screens.

Task 3: Starting the routing test

1. In the command field, enter `/nscon`.
2. On the **Utilities** menu, click **Routing test** (CTRL+F10). The **SAPconnect: Test routes** screen appears.
3. Type the sender's name in the **Sender** field.
4. Type FAX in the **Recipient Addr. type** field and enter a fax number in **Recipient addr.** field.

For e-mail, type **INT** in **Recipient Addr. type** field and the e-mail address in **Recipient addr.** field.

5. Press **F2**.

This prompts the **SAPconnect: Explanation of Routing and Address Conversion** screen, which provides a full description of each component of the SAPconnect node connection.

NOTE: After you run the routing test, return to the previous screen and press **Enter**. This should retrieve the **Node** and **Recipient addr.** values in the **Outbound node and modified recipient address** window.

Task 4: Creating a test fax or e-mail request

Fax documents and e-mail messages can be created and delivered through SAPconnect. To deliver a fax document or e-mail message, perform the following steps:

1. In the command field, enter `/nsbwp`. The **Business Workplace** screen appears:
2. Click the **New message** button:

The **Create Document and Send** screen appears.

3. Enter a document title and a description of the document contents.
4. Enter the country and fax number of your choice in the **Recipient** column and choose **Fax number** in the **Recip. type** column.

For e-mail, enter the e-mail address in the **Recipient** column and select **Internet address** in the **Recip. type** column.

5. Click the send button (**Shift+F8**):

You can observe the status of your fax request in the **Business Workplace** screen or in Job Tracker.

