

Connection and login options

In order to develop the demo and be able to work with the materials and sales orders, we previously implemented a direct connection type with SAP ERP, setting the connection values in a specific way. However, there are other possible ways to connect.

Connection option: Direct

The screenshot shows a dialog box titled "SAPConnection Data" with "Confirm" and "Cancel" buttons in the top right corner. The dialog is divided into a "General Information" section. Inside this section, there are several input fields:

- Connection Type:** A dropdown menu currently showing "Direct".
- SAP Server description:** A text input field.
- App Server:** A text input field.
- Router String:** A text input field.
- Client Number:** A text input field.
- System ID:** A text input field.

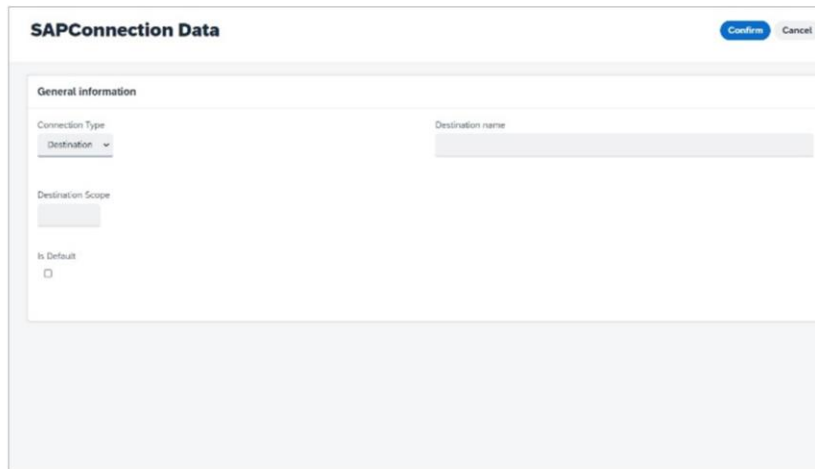
When defining a connection with the ERP, we can do it through a connection that is:

- Direct
- Or a Destination connection

As an example, we could implement a module that allows registering connections with an SAP ERP. This allows, when the time comes, to pass the data of a certain direct connection by parameter with no need to indicate it explicitly in the connection properties of the variable based on the `GXEnterpriseSessionManager` data type. Remember that this is one of the external objects of the Enterprise module, automatically created in the BAPI import process.

If we choose the Direct connection, then we must indicate the necessary data (username, password, Appserver, ClientNumber, etc.) and save the record.

Login option: Destination



The screenshot shows a dialog box titled "SAPConnection Data" with "Confirm" and "Cancel" buttons in the top right corner. The dialog is divided into a "General information" section. Under "General information", there are three fields: "Connection Type" with a dropdown menu showing "Destination", "Destination name" with a text input field, and "Destination Scope" with a text input field. Below these fields is a checkbox labeled "Is Default" which is currently unchecked.

Now let's see how to use a Destination connection.

In SAP BTP, the Destination connection options are used to define connections for outbound communication from an application to remote systems that may be on-premises or in the cloud.

This type of connection requires a name, a URL, and authentication and configuration details. At the time of connection, it is not necessary to indicate all the connection data but only the name of the Destination connection.

```
&GXEnterpriseSessionManager.ConnectSession("<DestinationName>", "")
```

The Destination must be defined in the SAP BTP Cockpit; for more information, see ["Create a Destination in the SAP BTP Cockpit"](#), although this should be provided to the GeneXus developer by the project's SAP infrastructure counterpart team.

Login options: SAML 2.0

<https://wiki.genexus.com/commwiki/servlet/wiki?41235,HowTo%3A+Configuring+SAML+2.0+GAM+Authentication+type+using+SAP>

Now let's talk about login options.

Most modern applications require some authentication/authorization scheme. To address these aspects, GeneXus provides the GeneXus Access Manager mechanism that offers a single, centralized scheme for everything related to the authentication and authorization of applications.

There are different types of authentication to choose from for applications using the GeneXus Access Manager (GAM). They include any SAML 2.0 provider. SAP is one of these possible providers.

SAML (Security Assertion Markup Language) is a secure XML-based communication mechanism for sharing identities between organizations. The main use case of SAML is SSO (Single sign-on), which eliminates the need to maintain multiple credentials in multiple locations, and increases security while reducing time-consuming administrative tasks.

To learn more about how to configure GAM's SAML 2.0 authentication type using SAP, follow the link on screen:

Finally, from this range of options, the GeneXus developer can choose the most appropriate way to connect the GeneXus solution with SAP ERP according to the reality of the project and the Customer for whom it is being developed.

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