


Configuring the RESTifier for SAP

To configure the RESTifier for SAP, click the configuration icon  in the top-right corner and select one of the menu entries. You can configure

- [the SAP connection](#)
- [connection pooling](#)
- [performance options](#)
- [logging options](#)
- [a BAPI white list](#)
- [users and permissions](#)

If you can't find the appropriate menu items or if you're missing the configuration icon at all, refer to section [Configuring Users and Permissions](#).

Permissions

To use the RESTifier for SAP, the SAP user the RESTifier uses to access your SAP system must be allowed to execute the following RFCs (also see [Configuring the SAP Connection](#) below):

- BDL_FUNCTION_INTERFACE_GET
- DDIF_FIELDINFO_GET
- RFC_FUNCTION_SEARCH
- RFC_GET_FUNCTION_INTERFACE
- RFCPING
- SDXML_FIELDINFO_GET

Configuring the SAP Connection

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SAP Configuration

Ashost

Sysid

Sysnr

Client

☒Authenticate with system user

☐Authenticate through basic auth

User

Passwd

Lang

Trace

Off

Close

Save configuration

Configure the standard SAP connection parameters here. In case of connection problems, double-check if the given values are correct. Fields marked red are obligatory. You cannot save the configuration without having set these values. This dialog will also pop-up on every page load if the configuration is incomplete.

By selecting **A**uthenticate through basic auth, you can enable a mode that allows to pass SAP credentials with each request. This mode enabled, authentication is required for RFC execution and metadata. Pass these credentials via standard BasicAuth headers.

Trace Settings

You can set the following **Trace** values:

Name	SAP Value
Off	0
Brief	1
Verbose	2
Full	3

Please keep in mind, that high trace levels may produce very big log files. It's recommended to keep tracing off unless you're investigating problems. When trace is enabled, SAP libraries will generate a bunch of *.trc files in the working directory. The content varies depending on the trace level from overview of the API calls to hexadecimal dumps of the actual data being processed.

After changing the **Ashost** parameter, it's highly recommended to rebuild the search cache.

Configuring Connection Pooling

Connection pool configuration

Pool size

10

Max idle time [s]

300

Close

Save configuration

The RESTifier uses connection pooling for better performance.

Pool Size	The maximum number of parallel connections the pool will hold. The actual connection count may be less but wi
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Max idle time [s]	The longest time the con- nec- ti- on can re- m- ain in the pool un- used. If the con- nec- ti- on re- m- ains un- used long- er , it'll be closed.
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Configuring Performance Options

<div><div>Performance configuration</div><div>Truncate arrays to <input type="text" value="15"/></div><div><div>Close</div><div>Save configuration</div></div></div>	<p>Some BAPIs may return really large arrays. At some point, browser may hang or even crash trying to process such data.</p> <p>This option reduces the size of the array to about the given size. If there are any elements removed, they will be replaced by a string describing how many elements were omitted. After this string, there will be the last element of the array.</p>
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Rebuilding the Cache

As interaction with SAP system is generally slow, the RESTifier uses caching to provide a real-time instant search. The drawback is that whenever you add or remove a BAPI from SAP system, you have to rebuild the RESTifier's cache. The procedure boils down to clicking **Rebuild cache** in the configuration menu of the RESTifier and can take up to several minutes depending on the speed of SAP system and the connection. It doesn't require restarting the service.

There's also a secondary cache managed by the SAP library which cannot be simply rebuild. That means a restart of the RESTifier may be required after altering BAPI's parameter list in order to pick the new metadata.

Configuring the Logging

Logging configuration

Note that this adheres only to log file and does not affect standard out / error

Log level Debug

Close

Save configuration

The **Log level** sets the verbosity of internal logging. The default value **Info** should be appropriate for a production system. Everything more verbose (**Verbose, Debug, Full**) may cause a significant grow of the logs. The setting is only applied to the log files.

Summary of applied log levels:

Destination	Log Level
standard output	Info
standard error	Error
logfile	User-specified

Configuring a BAPI White List

White list

RFC_SYSTEM_INFO

BAPI_CUSTOMER_GETDETAIL2

+

Close

Save configuration

Defining a white list allows you to configure the BAPIs each user will be able to call.

Click the + sign to add another entry and type BAPI's name exactly. Use the × button next to a list entry to remove it from the list.

Refer to section [White List](#) for more information.

Configuring Users and Permissions

The RESTifier can be used with the **E2E Auth Server** to provide application-level permission control. The user management is being done using E2E Auth Server's administration panel. The RESTifier then refers to the role a user has been assigned to.

Roles

There are two roles the RESTifier is aware of:

SapRestifier-Api	user having this role is allowed to search, get metadata for and execute all BAPIs
SapRestifier-Admin	user having this role can additionally modify RESTifier's configuration (has access to the /config API)

A user that has none of the above roles and an anonymous user can search and get metadata for all BAPIs, but can only execute the white listed ones.

White List




The set of BAPIs that can be executed by any (including anonymous) user is called the white list. To configure it, you have to have user support already turned on. As a user with **SapRestifier-Admin** role use the menu entry **White list** to compose a list of BAPIs you want to allow for anyone to call. Trying to call a BAPI from outside the list will result in a 401 HTTP response.

Enabling User Support

By default user support is turned off, meaning that everyone can do anything. To have better control you may want to enable it. To avoid a chicken-egg problem, the settings are not exposed in the UI. We strongly recommend using the BRIDGE to change those settings, although they can be edited with any text editor (please refer to config/default/config.json and copy and edit the "e2eAuth" section of configuration).

Menu

The menu differs depending on the logged-in user and user control configuration. Except for **Documentation** and **Rebuild cache**, all menu entries open a corresponding setting dialog (see top of the page for more information).

User Control Enabled	User Control Disabled
<ul style="list-style-type: none">• If user is not logged in, the menu icon  is not displayed.• If user is logged in with role SapRestifier-API, the menu contains only a link to the documentation.• If user is logged in with role SapRestifier-Admin, the menu looks like this: <div><div>Logout admin </div><div><div>SAP configuration</div><div>Connection pooling</div><div>Performance</div><div>Logging</div><div>Rebuild cache</div><div>White list</div><div>Documentation</div></div></div>	<p>If user control is disabled, the menu looks like this:</p> <div><div></div><div><div>SAP configuration</div><div>Connection pooling</div><div>Performance</div><div>Logging</div><div>Rebuild cache</div><div>Documentation</div></div></div> <p>The only difference is the lack of the menu item White list.</p>