
SaltStack extension for the SAP Host Agent

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COMPLETE LIST OF SAP_HOSTCTRL

1.1 Execution Modules

<code>saltext.sap_hostctrl._modules.sap_hostctrl</code>	SaltStack extension for SAP Host Agent Copyright (C) 2022 SAP UCC Magdeburg
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1.1.1 `saltext.sap_hostctrl._modules.sap_hostctrl`

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SAP Host Agent execution module

SaltStack execution module that wraps SAP Host Agent functions.

codeauthor
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maturity
new

depends
zeep, requests

platform
Linux

This module wraps different functions of the SAP Host Agent by calling the corresponding SOAP services. For controlling the state of the SAP Host Agent itself, use the service module.

By default, the functions will try to connect to the SAP Host Agent over HTTPS on port 1129 and can optionally fall back to HTTP communication on port 1128.

Note: Because functions are called over SOAP, only authenticated requests are accepted.

Currently, only basic authentication (username/password) is implemented.

Note: This module was only tested on linux platforms.

`saltext.sap_hostctrl._modules.sap_hostctrl.__virtual__()`

Only load this module if all libraries are available.

`saltext.sap_hostctrl._modules.sap_hostctrl.list_systems(username, password, fallback=True, fqdn=None, **kwargs)`

Lists all SAP systems on the host. Should only be used for SAP System detection.

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.list_systems username="sapadm" password="Abcd1234"
```

`saltext.sap_hostctrl._modules.sap_hostctrl.list_instances(sid, username, password, fallback=True, fqdn=None, **kwargs)`

Retrieves all instances for a given SID.

sid

SAP System ID for which all instances should be retrieved.

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.list_instances sid="S4H" username="sapadm" password="Abcd1234"
```

`saltext.sap_hostctrl._modules.sap_hostctrl.list_database_systems(username, password, fallback=True, fqdn=None, **kwargs)`

Lists all database systems on the host. The returned information will include all database instances and connection information for each database.

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.list_database_systems username="sapadm" password="Abcd1234"
```

```
saltext.sap_hostctrl._modules.sap_hostctrl.get_database_status(dbname, dbtype, username,
                                                                password, fallback=True,
                                                                fqdn=None, **kwargs)
```

Retrieve the status of a database.

dbname

Name of the database, usually the identifier, e.g. HAN

dbtype

Type of the database, can be but is not limited to: ada, db6, hdb

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.get_database_status dbname="S4H" dbtype="hdb" username="sapadm
↪" password="Abcd1234"
```

```
saltext.sap_hostctrl._modules.sap_hostctrl.start_database(dbname, dbtype, username, password,
                                                            fallback=True, fqdn=None, **kwargs)
```

Starts a database.

dbname

Name of the database, usually the identifier, e.g. HAN

dbtype

Type of the database, can be but is not limited to: ada, db6, hdb

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.start_database dbname="S4H" dbtype="hdb" username="sapadm" ↵
↪password="Abcd1234"
```

```
saltext.sap_hostctrl._modules.sap_hostctrl.stop_database(dbname, dbtype, username, password,
                                                         fallback=True, fqdn=None, **kwargs)
```

Stops a database

dbname

Name of the database, usually the identifier, e.g. HAN

dbtype

Type of the database, can be but is not limited to: ada, db6, hdb

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.stop_database dbname="S4H" dbtype="hdb" username="sapadm" ↵
↪password="Abcd1234"
```

```
saltext.sap_hostctrl._modules.sap_hostctrl.configure_outside_discovery(sld_host, sld_port,
                                                                           sld_username,
                                                                           sld_password,
                                                                           username, password,
                                                                           fqdn=None,
                                                                           fallback=True,
                                                                           **kwargs)
```

pylint: disable=line-too-long Configure the outside discovery for the SAP Host Agent, i.e. write the SLD configuration.

sld_host

SLD / LMDB fully qualified domain name.

sld_port

Port of the SLD / LMDB.

sld_username

Username used for authentication against the SLD / LMDB.

sld_password

Password used for authentication against the SLD / LMDB.

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.configure_outside_discovery sld_host="sol.my.domain" sld_port=
↳ "50000" sld_username="SLD_DS_USER" sld_password="Abcd1234" username="sapadm"
↳ password="Abcd1234"
```

```
saltext.sap_hostctrl._modules.sap_hostctrl.execute_outside_discovery(username, password,
                                                                    fqdn=None,
                                                                    fallback=True, **kwargs)
```

Execute the outside discovery, i.e. send the data. This requires the outside discovery to be properly configured.

username

The username to use for authentication against the SOAP service.

password

The password to use for authentication against the SOAP service.

fallback

Switch to allow falling back to HTTP communication if no valid HTTPS connection can be created (e.g. due to invalid certificates). Default is True.

fqdn

FQDN of the SAP Host Agent to connect to. Default is the current FQDN.

CLI Example:

```
salt "*" sap_hostctrl.configure_outside_discovery username="sapadm" password=
↳ "Abcd1234"
```

1.2 State Modules

`saltext.sap_hostctrl._states.sap_hostctrl`

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1.2.1 saltext.sap_hostctrl._states.sap_hostctrl

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SAP Host Agent state module

SaltStack module that implements states based on SAP Host Agent functionality.

codeauthor
Benjamin Wegener, Alexander Wilke

maturity
new

depends
requests

platform
Linux

This module implements states that utilize SAP Host Agent functionality.

Note: Because functions are called over SOAP, only authenticated requests are accepted.

Currently, only basic authentication (username/password) is implemented.

Note: This module can only run on linux platforms.

`saltext.sap_hostctrl._states.sap_hostctrl.system_installed(name, password, username='sapadm',
**kwargs)`

Checks if an SAP system is installed over the SAP Host Agent function ListSystems.

name
SID of the SAP system.

password
Password for the user that executes SAP Host Agent commands (see username).

username
User that executes SAP Host Agent commands, default is sapadm.

This state can be used to initially check if an SAP system is installed before running many other states against it.

Example:

```
SAP System S4H is installed:
sap_hostctrl.system_installed:
- name: S4H
- username: sapadm
- password: __slot__:salt:vault.read_secret(path="os", key="sapadm")
```

`saltext.sap_hostctrl._states.sap_hostctrl.outside_discovery_executed(name, sld_port, sld_user,
sld_password, password,
username='sapadm',
overwrite=False,
keep_other_config=False,
**kwargs)`

Ensure that SAP Host Agent is configured to use outside discovery and is executed. This state can manage multiple SLD / LMDB configurations, see parameter `keep_other_config` for more information.

name

SLD / LMDB fully qualified domain name.

sld_port

Port of the SLD / LMDB.

sld_username

Username used for authentication against the SLD / LMDB.

sld_password

Password used for authentication against the SLD / LMDB.

password

Password for the user that executes SAP Host Agent commands (see `username`).

username

User that executes SAP Host Agent commands, default is `sapadm`.

overwrite

Overwrite the SLD configuration even if the correct configuration is already set, default is `False`.

keep_other_config

If set to `True`, other SLD configurations are not removed. Default is `False`.

Example:

```
Outside Discovery is executed:
sap_hostctrl.outside_discovery_executed:
- name: sol.my.domain
- sld_port: 50000
- sld_username: SLD_DS_USER
- sld_password: __slot__:salt:vault.read_secret(path="SAP", key="SLD_DS_USER")
- username: sapadm
- password: __slot__:salt:vault.read_secret(path="os", key="sapadm")
```

```
saltext.sap_hostctrl._states.sap_hostctrl.sda_installed(name, jvm_arch, password,
                                                         username='sapadm', verify=True,
                                                         overwrite=False, **kwargs)
```

Ensures that a Simple Diagnostics Agent is installed on the SAP Host Agent.

name

Path to the SDA SAR archive.

jvm_arch

Path to the SAPJVM SAR archive.

password

Password for the user that executes SAP Host Agent commands (see “`username`”).

username

User that executes SAP Host Agent commands, default is “`sapadm`”.

verify

If set to `False`, HTTPS connections will not be verified.

overwrite

If set to `True`, SDA will be installed, even if it was already installed.

Note: This state will use the CA bundle of the OS to determine the validity of the HTTPS connection.

Example:

Simple Diagnostics Agent is installed:

sap_hostctrl.sda_installed:

- name: /mnt/nfs/SIMDIAGAGNT1SP60P_3-70002252.SAR
- jvm_arch: /mnt/nfs/SAPJVM8_90-80000202.SAR
- username: sapadm
- password: __slot__:salt:vault.read_secret(path="os", key="sapadm")

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