

# Distributed Agent Bakery

It is now possible to deploy baked agents via remote sites within a distributed monitoring configuration.

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## Prerequisites

Prerequisites for this feature are a monitoring setup using distributed WATO and the possibility to establish a connection from remote sites to the central site via HTTP/HTTPS.

Also you need to configure the distributed agent bakery.

With Checkmk 2.0, there is a new option for the Agent Updater:

Usage: In case of "Registration and fallback", the agent updater will use this information only on registration and rely on the update URL provided by the agent bakery afterwards. If the connection fails, the agent updater will additionally use this information as a fallback. In case of "Use for all connections", the agent updater will ignore the update URL provided by the agent bakery.

If you want to register und update all remote hosts from a remote site, now you can add the slave site here:

**Agent updater (Linux, Windows)**

- Activation
  - Deploy plugin that updates agent automatically
- Update server information
  - Usage
    - Registration and fallback
  - DNS name or IP address of update server (required)
    - 172.31.40.133
  - Name of Checkmk site of update server (required)
    - slave01
  - Protocol to use for fetching updates
    - HTTP
- Certificates for HTTPS verification
- Interval for update check
  - 1 days 0 hours 0 mins
- Proxy settings
- Executable format (Linux)
- Signature keys the agent will accept
  - cmk1234567

Now you can bake, sign and register the agent:

```
root@ip-172-31-40-133:~# cmk-update-agent register -v
```

```
+-----+
|
| Check_MK Agent Updater v2.0.0b5 - Registration
|
| Activation of automatic agent updates. Your first step is to
| register this host at your deployment server for agent updates.
| For this step you need an administration account on WATO for
| that server.
|
+-----+
```

Our host name in the monitoring:  
slavel

WATO user with admin permissions:  
cmkadmin

Password:

Going to register agent at deployment server  
Applying new update URL http://172.31.40.133/slavel/check\_mk/ from deployment server  
Successfully registered agent of host "slavel" for deployment.  
You can now update your agent by running 'cmk-update-agent -v'  
Saved your registration settings to /etc/cmk-update-agent.state.

If you want to run the agent updater this will not work.

```
root@ip-172-31-40-133:/home/ubuntu# cmk-update-agent -v
```

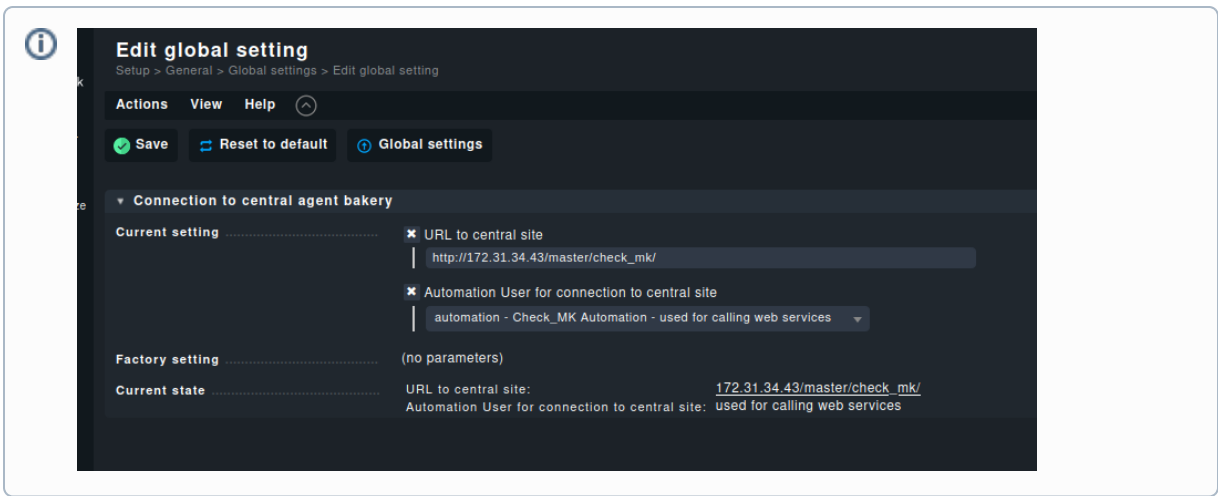
```
+-----+
|
| Check_MK Agent Updater v2.0.0b5 - Update
|
+-----+
```

Getting target agent configuration for host 'slavel' from deployment server  
Agent Bakery: Registering/updating at remote site but found no URL to central site. Please provide it in  
"automatic agent updates" section at global settings.  
See syslog or Logfile at /var/lib/check\_mk\_agent/cmk-update-agent.log for details.

To get the updater working, please follow the Step-by-step guide!

## Step-by-step guide

1. Configure the connection to the central agent bakery
  - a. Setup General Global settings AUTOMATIC AGENT UPDATES Connection to the central agent bakery



b. Now you can update the host

```

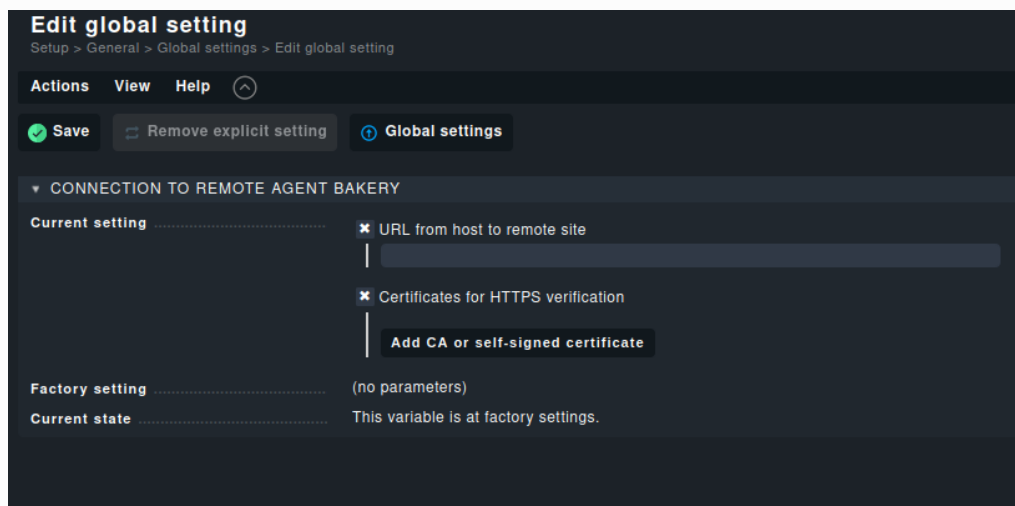
root@ip-172-31-40-133:~# cmk-update-agent -v

+-----+
| Check_MK Agent Updater v2.0.0b5 - Update |
+-----+

Getting target agent configuration for host 'slave1' from deployment server
Target state (from deployment server):
Agent Available:      True
Signatures:          1
Target Hash:          1ef2302ca00a9b89
Agent 1ef2302ca00a9b89 already installed.

```

**i** In 'Setup General Global settings AUTOMATIC AGENT UPDATES' there is a second new option for the distributed agent bakery:



Configure an alternative URL for the connection from host to remote agent bakery. If not configured here, the URL from distributed monitoring configuration is used instead. In many cases, you might want to make this a site specific global setting at the distributed monitoring configuration, because this URL is likely different for every remote site.

## Functionality

This feature is realized as follows: Update requests to the remote sites get forwarded to the central site – **The entire configuration and the agent baking process is done on the central site.** Agent packages that got requested once at a remote site will get cached (as long as they are valid) there to save unnecessary traffic. Additionally, the requested data will be checked for consistency on the remote site, again to save unnecessary traffic to the central site.

## Registration

```
Going to register agent at deployment server
2021-02-04 16:18:08,715 DEBUG: Authenticating at Check_MK Server (using requests): http://172.31.40.133/slave1
/check_mk/login.py
2021-02-04 16:18:09,034 DEBUG: Fetching content (using requests): http://172.31.40.133/slave1/check_mk
/register_agent.py
2021-02-04 16:18:09,070 DEBUG: Response from agent bakery:
{"result_code": 0, "result": {"host_secret":
"rlkaihuoazcdcncseimvfpzaocsjitoabpieyzubuietnlnlfdtgciztydmkmfrfj", "update_url": "http://172.31.40.133\
/slave1/check_mk/", "monitored": true}}
2021-02-04 16:18:09,070 INFO: Applying new update URL http://172.31.40.133/slave1/check_mk/ from deployment
server
2021-02-04 16:18:09,071 DEBUG: No state file found yet. New state data will be saved to /etc/cmkn-update-agent.
state
2021-02-04 16:18:09,073 DEBUG: Saved deployment status to /etc/cmkn-update-agent.state.
2021-02-04 16:18:09,073 INFO: Successfully registered agent of host "slave1" for deployment.
2021-02-04 16:18:09,073 DEBUG: Secret is rlkaihuoazcdcncseimvfpzaocsjitoabpieyzubuietnlnlfdtgciztydmkmfrfj.
2021-02-04 16:18:09,073 DEBUG: Successfully read /etc/cmkn-update-agent.state.
2021-02-04 16:18:09,075 DEBUG: Saved deployment status to /etc/cmkn-update-agent.state.
2021-02-04 16:18:09,076 INFO: Saved your registration settings to /etc/cmkn-update-agent.state.
2021-02-04 16:18:09,076 DEBUG: Successfully scheduled an automatic update with next Check_MK Agent execution.
2021-02-04 16:18:09,076 DEBUG: Done.
```

The host is using the master for registration!

## Update




```

root@ip-172-31-40-131:/home/ubuntu# cat /etc/cmkn-update-agent.state
{'update_url': 'http://172.31.40.131/slave2/check_mk/', 'host_secret':
'zewqptluwgrjzamdvwjplosjhrwqpbboxqjtxogreibeqkadhshwhotzifjqqramw', 'server': '172.31.46.5', 'site': 'master',
'host_name': 'slave2', 'protocol': 'http', 'user': 'cmkadmin', 'last_check': 1611063314.5359132,
'installed_ghash': '67f84ee7e41b73aa', 'last_update': 1611063316.2098463}

root@ip-172-31-40-131:/home/ubuntu# cat /etc/check_mk/cmkn-update-agent.cfg
# Created by Check_MK Agent Bakery.
# This file is managed via WATO, do not edit manually or you
# lose your changes next time when you update the agent.

{'activated': True,
'certificates': [],
'ignore_update_url': False,
'interval': 3600,
'protocol': 'http',
'server': '172.31.46.5',
'signature_keys': ['-----BEGIN CERTIFICATE-----\n'
'MIIC2jCCAcICAQEwDQYJKoZIhvcNAQEFBQAwwMjEdMBSGAlUECgwUQ2hlY2tftUsg\n'
'U2l0ZSBtYXN0ZXIxETAPBgNVBAMCGNta2FkbWluCAXDITixMDExOTExNTMxMVoY\n'
'DzIwNTEwMTEyMTElMzExWjAyMR0wGwYDVQQKDBRDaGVja19NSyBTeXRlIG1hc3Rl\n'
'c2JERMA8GAlUEAwIY21rYWRTaW4wgGgEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEK\n'
'AoIBAQDWh45st1xnzhsVzMjBBXzO7+5qz3/HpezvaOeUpSSiYHns2DnuDlwpLCO\n'
'XTdyfRUamgrtiOrzbUsSsARmMF9AqExaol+yMlrbEfcXP6mtBqMkqShlDw3n0L7F\n'
'HGGYG2CNqcRSmgxFe2Eck0ydv/p4cJONHIw4UfwqDnHfIC1L3tCnTQJagCig/Jvk\n'
'kZSZZggkrj14TuwRkFxdnrwURjm2hQGg+TkJcxpPHqSutbdnQrXnuuAEdx/ZIpFL\n'
'ivmjLDATjGzCy0LPZsvtjHZu5Lz4WwOZsAlBCZLect81PI5edWs0RZ9mRH7QC+E8\n'
'CkIdlLgMUbfb093SGx3YEP8u+RtRAGMBAAEwDQYJKoZIhvcNAQEFBQAwwMjEdMBSGAlUECgwUQ2hlY2tftUsg\n'
'DtXHbs3cUPBGDs/Go0PgfqhwiZjn1aprCSh80/RBLWA/jep65eU2pzsuoiKWT5CE\n'
'P/xc7pKXWmxQpyA4KA1Fz9BS80QHq5heXkG2FSLMFundLxzDcbQI7QXH4oskIDkV\n'
'zzYio3VDXXDyhMBHg25XKCCQT3L9ou3bD7Esh/Cf/8Y2GQHkRvIWOpwLEknq0ovy\n'
'jkJ0o7Gx8GrqJYG5gUW44TJU/IhYFCxfhTS09RW842Zl0iDSYiBPkoZLonM6F3SY\n'
'SLVRDn3vhnCpbki00Dclop+0d9b5Wc+UCVW02G+1+G+aRw89L7v2xERXNPczCZgV\n'
'g+9DtI15culf14qVqmc=\n'
'-----END CERTIFICATE-----\n'],
'site': 'master'}

```


[https://docs.checkmk.com/2.0.0/de/distributed\\_monitoring.html](https://docs.checkmk.com/2.0.0/de/distributed_monitoring.html)  
[https://docs.checkmk.com/2.0.0/de/agent\\_deployment.html#distr\\_wato](https://docs.checkmk.com/2.0.0/de/agent_deployment.html#distr_wato)

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