

# Installation and update guide

## Context

This guide will guide you through the installation and update process of Shinken Enterprise on Linux servers.

Once the steps described in this guide are completed, you will have quick access to the Configuration and Visualization interfaces with the default architecture (single server) with all daemons enabled.

If you are setting up a distributed architecture, after completing the Shinken installation on your servers, you will have to configure each daemon (names and IP address, realm, spare, Poller tags, retentions...).

Concerning the update process, the script in the package will update all daemons of your Shinken server, even if only a few daemons are enabled. The configuration of your Shinken server will not be changed.



### Important

During installation of Shinken Enterprise, the document-oriented database management system **MongoDB** version **v3.0.15** is installed. This database management system is necessary for the Configuration and Visualization interfaces. Used with MongoDB, **Graphite** is a tool designed to store metrics retrieved by your probes.

To avoid incompatibilities and ensure proper execution of Shinken, it is strongly discouraged to not update **MongoDB/Graphite**. Please keep the bundled versions of dependencies delivered with the Shinken package.

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## Shinken Enterprise installation

### Prerequisites

- **Required environment:** [RHEL/Centos 6.6, 7.2, 7.3, 7.4, 7.5, 7.6 and 7.7 \[ 64bits \]](#)

Shinken Enterprise chose Linux distributions produced by RedHat: **Red Hat Enterprise Linux (RHEL)** and **CentOS (Community enterprise Operating System)**. These linux distributions, mainly designed for servers are stable, performant and compatible with a vast majority of professional environments. The CentOS is also very performant (based on the commercially distributed RHEL).



### Warning- Redhat registration

When installation a RedHat Enterprise Linux (commercial distribution, you must attach your RedHat subscription to your system.

Here are the commands to use on your server:

Voici les commandes à utiliser depuis le serveur:

```
1/ subscription-manager register  
(-> username / password)
```

You also need to attach your subscription to the current OS:

```
2/ subscription-manager attach
```

Yum can now be used because the subscription is valid (and Shinken will be able to be installed).

## Package extraction and installation

- **Automatic installation:**

- Extract the delivery package :
  - `tar zxvf shinken-enterprise_V02.05.XXX-LANGUAGE.tar.gz`
  - This will create a new directory containing the installation script and dependencies required for the installation.
- Move to the **shinken-entreprise** directory (`cd shinken-enterprise_V02.05.XXX-LANGUAGE`) and execute the script :

```
./install.sh
```

- This will automatically install Shinken Enterprise and its components
  - However, the VMWare SDK will require a manual install.
  - The commands to type to launch the VMWare DSK installation are displayed at the end of the installation process:

```
Please launch:  
/tmp/shinken-enterprise_V02.05.XXX-LANGUAGE/tools/install-vmware-sdk.sh  
And follow the instructions in order to install it and allow VMWare communication
```

We advise to execute these commands directly, but they can also be performed later if needed.

## Checking your Shinken Enterprise installation

- **Check the installation:**
  - To check if Shinken Enterprise has been installed correctly, launch the following command :

```
shinken-healthcheck
```

A warning is issued as expected to say the Shinken Enterprise license key is not installed. Head over to the License key section further down on this page to install your license key.



The installation process will perform on the server:

- The installation of the Shinken Enterprise engine, modules and dependencies
- The activation of all daemons (Synchronizer, Arbitrator, Scheduler, Poller, Reactionner, Broker, Receiver).

For a distributed installation, see the [Distributed architecture](#) page.

## Web interfaces access

### Configuration UI

Once Shinken Enterprise installed, the Configuration UI can be accessed via a web browser at the address displayed during the installation:

- By default, the Configuration UI is available via the 7766 port (HTTP protocol). For instance: <http://192.168.0.1:7766>



The IP address (or FQDN if your name resolution is configured) corresponds to the server hosting the **Synchronizer** daemon.

See the [Configuration UI](#) page for more information.

## Visualization UI

Once Shinken Enterprise installed, the Configuration UI can be accessed via a web browser at the address displayed during the installation:

- By default, the Configuration UI is available via the 7767 port (HTTP protocol). For instance: <http://192.168.0.1:7767>



The IP address (or FQDN if your name resolution is configured) corresponds to the server hosting the **Broker** daemon.

See the Visualization UI page for more information.

## User guide available in the installation package

The user guide (in French) is now included in the installation package.

You can find it in: `shinken-enterprise_V02.05.XXX-LANGUAGE.tar.gz/tools/documentation/ui-visualization/`

All you need is for a user, via his or her web browser, to open the "index.html" file in order to be able to browse the user guide, which contains the documentation related to the visualization IU.

## Installation (advanced mode)

- Automatic partial installation (only enables selected daemons):
  - Extract the package archive
    - `tar zxvf shinken-enterprise_V02.05.XXX-LANGUAGE.tar.gz`
    - This will create a new directory containing the installation script and dependencies required for the installation.
  - Move to the **shinken-entreprise** directory (`cd shinken-entreprise_V02.05.XXX-LANGUAGE`) and execute the **install.sh** script, passing the following options based on the daemons you want to enable:
    - **--pollernode**: Enables the Poller daemon (responsible for check execution)
    - **--reactionnernote**: Enables the Reactionner daemon (responsible for notifications and event handlers)
    - **--schedulernote**: Enables the Scheduler daemon (responsible for the planification of the checks execution)
    - **--arbiternote**: Enables the Arbiter daemon (responsible for the central distribution of configuration and informations)
    - **--receivernote**: Enables the Receiver daemon (responsible for receiving results for passive checks)
    - **--synchronizernote**: Enables the Synchronizer daemon (responsible for configuration management)
    - **--brokernote**: Enables the Broker daemon (responsible for presenting the checks results and data the the world: Visualization UI, SLA)



### Exemple

You can for example install Shinken Enterprise and enable only the Scheduler and Pollers daemons by launching the command:

```
./install.sh --schemulernote --pollernote
```

- To check that the selected daemons are up to date, correctly configured and running, launch the following command:

```
shinken-healthcheck
```

The `shinken-healthcheck` checks that Shinken Enterprise configuration is correct and coherent, and is running (only for enabled daemons)

- **After the initial installation, if you want to enable/disable daemons**, use the activation commands detailed in the Daemons [Installation and update guide](#).
- **When updating, the `update.sh` scripts updates all daemons, even if they are disabled**. Their enabled/disabled state will be kept intact.

The different addons are automatically enabled during the installation:

- **nagvis-shinken-architecture**: Enabled on installations with an Arbiter enabled (more details in the dedicated documentation page: [Activation et configuration de la fonctionnalité](#))
- **nagvis**: Enabled on installations with an Broker enabled (more details in the dedicated documentation page: [NagVis \( Addon \)](#))

## Enabling data encryption

You can enable [Chiffrement des données sensibles](#) automatically when launching the installation.



If you never enabled the automatic encryption of sensible data, we advise to proceed to the normal installation and enabled data encryption manually after having read the [Chiffrement des données sensibles](#) documentation page.

An encryption key is generated during the installation and the Synchronizer database will be encrypted.

To enable this feature, launch the following command:

```
./install.sh --activate-encryption <nom de clé> --disable-important-notice-user-input
```

- The **--activate-encryption** parameter enables the encryption: the key name is optional; it will be asked during the installation process if not specified in the parameter.
- The **--disable-important-notice-user-input** parameter disables interactive prompts during the installation process.



Enabling the automatic encryption of sensitive data requires to export and save the encryption key generated during the process. Please consult [shinken-protected-fields-keyfile-export](#) for more informations.

The shinken-healthcheck can be used to check the daemons configuration and encryption status.

## Updating Shinken Enterprise

### Prerequisites

- **Environment** : [RHEL/Centos 6.6, 7.2, 7.3, 7.4, 7.5, 7.6 and 7.7](#) [64bits] with a previous Shinken Enterprise version installed.

### Package extraction and updates

- **Updating:**
  - Extract the package archive
    - `tar zxvf shinken-enterprise_V02.05.XXX-LANGUAGE.tar.gz`
    - This will create a new directory containing the installation script and dependencies required for the installation.
  - Move into the **shinken-enterprise** folder (`cd shinken-enterprise_V02.05.XXX-LANGUAGE`) and execute the script :

```
./update.sh
```

- This script **updates Shinken Enterprise but does not overwrite files in /etc/shinken**, avoiding overwriting configuration defined by the Shinken administrator. Instead of overwriting your configuration files, "\*.rpmnew" files are added, that may contain new configuration properties. It is advised to check these files after updating to report possible new features in your existing configuration files.
- Before updating, a backup of configuration and user data is done and placed into **/tmp**. These backup follow the following naming convention: "**backup-preupdate-version-NUMERO\_VERSION**"



In case of an error during the update, the update.sh script may stop so that you can fix the problem. The most common errors are as follows:

	Problème	Solution
1	The update.sh script fails to connect to the Mongo database	<p>Check that it is started:</p> <ul style="list-style-type: none"> <li>• Under CentOS or RHEL 6           <pre>service mongod status</pre> </li> <li>• Under CentOS or RHEL 7           <pre>systemctl status mongod</pre> </li> </ul> <p>Restart mongod if the daemon is stopped</p> <ul style="list-style-type: none"> <li>• Under CentOS or RHEL 6           <pre>service mongod start</pre> </li> <li>• Under CentOS or RHEL 7           <pre>systemctl start mongod</pre> </li> </ul>
2	The update.sh script indicates that two elements with the same name exist in the database. The error message lists the elements with the same name.	Delete or rename one of the two elements whose name is indicated

En cas de doute, n'hésitez pas à contacter votre support.

## Checking your Shinken Enterprise installation

- The shinken-healthcheck tool can be used to check daemons configuration and running state:

```
shinken-healthcheck
```

## Updating configuration objects via the cfg-file-shinken source

During Shinken Enterprise installation, lots of checks (via [Pack Shinken](#), [Linux](#), [Windows](#),.. templates) are imported in the Configuration UI. These elements, grouped into packs, are available and imported using the "cfg-file-shinken" source.

Ordre	Nom	Activé	État	Prochain import	Forcer l'import	Nettoyer l'import	Éléments	Résultat	Le dernier import
1	cfg-file-shinken	<input checked="" type="checkbox"/> Activé	Ok	Dans 51 sec	▶	↶	486	OK: Le fichier de configuration /etc/shinken/local-import.cfg a été correctement chargé.	Il y a 4 mi

When updating, these elements may be updated, but these changes are not automatically integrated into your monitoring configuration to avoid unintentional behaviour or breaking changes. To see the changes, make sure the "cfg-file-shinken" source is enabled and import the source. The changed elements will appear with the "New" or "Difference" status.



If you made changes on elements of these pacjs, be careful before applying differences because your changes could be overwritten or lost.

However, it is strongly advised to systematically update at least the elements of the **Shinken pack** (new and differences).

## Shinken Enterprise license key

Once Shinken Enterprise is installed, the **shinken-healthcheck** command launched from the server hosting the Arbiter daemon displays an error message concerning your license. The default license is a trial license, limited to 20 hosts.

```
License key
ERROR: The license key is inva
ERROR: No license key. Trial
```

The Shinken Enterprise commercial service should have sent a nominative license allowing you to use the product to its full potential.

The license is a file name **user.key**, nominative and limite in time.

To install it:

- Copy this file on the Arbiter server to **/etc/shinken/user.key**
- Restart Shinken Enterprise: **/etc/init.d/shinken restart**

Relaunch the shinken-healthcheck command. The error message concerning the license should have disappeared to be replaced with an informative text about your license;

```
License key
OK: The license key is valid
OK: The license key (Customer:dev-d.labardin Node limit:2000) is valid (start:2017-11-13 end:2018-11-13 => 257 days remainin
OK: Nodes Used: 4 / Limits: 2000
```

If you don't have a license key or if your license key has expired, contact us: [contact@shinken-solutions.com](mailto:contact@shinken-solutions.com)

## Troubleshooting installation/update issues

When installing dependencies, if a machine is not connected to the Internet or connected to a repository access, installation or update scripts may fail.

In this case, files are created in the user's home with whom the installation/update is performed. These files contain more details about the errors encountered and can be sent to your Shinken Enterprise support contact for correction:

- ~/shinken.enterprise.enterprise.install.log
- ~/shinken.enterprise.enterprise.install.detail.log
- ~/sanatize.update.log
- ~/shinken.enterprise.update.log

```
Installing NagVis (cartography)
NagVis installed: OK

Launching data and configuration checks and fixes
fix_double_link : executed [Failure]
fix_double_sync_keys : executed [OK]
fix_default_item_se_uid : skip (unecessary)
fix_remove_shinken_core : skip (unecessary)
fix_remove_deprecated_check : skip (unecessary)
fix_remove_undefined_fix_templates : skip (unecessary)
fix_custom_data_uppercase : skip (unecessary)
fix_host_name_inheritance : skip (unecessary)
fix_flapping_thresholds : skip (unecessary)
fix_no_sudo_args : skip (unecessary)
fix_build_in_sla_info : skip (unecessary)
fix_business_impact : skip (unecessary)
fix_empty_value_from_synchronizer_data : executed [OK]
fix_update_protected_fields_parameters : skip (unecessary)
migrate_links_name_into_id : skip (unecessary)
fix_service_overrides_encryption : skip (unecessary)
make_index_for_sla_module : skip (unecessary)

Some errors occurred while running the fixes.
Please check the log file for more information (~/sanatize.update.log).
Send this file to your Shinken support if needed.
```