

VISHNU Quick Start Guide



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Chapter 1

Document presentation

1.1 Document objectives

This document is a quick start guide of VISHNU software for users. The main objective of this document is to describe the user account configuration procedure.

1.2 Document structure

- Chapter 1 presents the document structure.
 - Chapter 2 describes the user account configuration in VISHNU.
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Chapter 2

User account configuration

The VISHNU software is based on SysFera-DS which is an open-source middleware developed by SysFera. VISHNU is primarily designed to facilitate the access to high-performance computing resources by providing the following services:

- User management services (UMS): authentication and session management.
- Information management services (IMS): monitoring and control services.
- Tasks management services (TMS): submission of tasks (jobs) on computing resources.
- File management services (FMS): display and transfer of files between storage resources.

The user account configuration is provided by the User Management Services.

2.1 User account creation

The first step to access VISHNU is to request a new account to a VISHNU administrator. The only information required to create a new account is your full name and email address. You will automatically receive an email containing your `userId` and password. When a new user account is added on VISHNU, it is possible for the user to define the mapping of her/his UNIX account by using the VISHNU local user configuration notion.

2.2 Local user configuration

To access a UNIX account on a specific machine defined on VISHNU, the user must create a local user configuration by using the **`vishnu_add_local_account`** command. The **`vishnu_list_machines`** command gives information about the machines in which a local user configuration can be created or where a local user configuration has already been created. The information required to create a new local user configuration are: the `userId`, the `machineId`, the login of the UNIX account on the specified machine, the absolute path to the user's private SSH key (used for file transfers) and the home directory path.

The ssh public key of the machine named "*userId-machineId*" is returned and stored in the `$HOME/.vishnu/localAccountPublicKey/` directory and must be added by the user in the ssh authorized key directory of the UNIX account. Doing this allows VISHNU to be directly connected on this UNIX account, running tasks as if it was the owner of the UNIX account. With the command **`vishnu_setting_ssh_key`**, the user can automatically configure the `authorized_keys` file of a remote account by using the ssh public key previously returned. This command uses the real hostname of the remote machine and not the VISHNU machine identifier. It also allows to remove a given public key from a remote `authorized_keys` file and it is possible to enable rollback in case of an inappropriate removal. Indeed, the command makes a backup of the `authorized_keys` file in a file named "*authorized_keys.bak*" before update it.

To add the public key located at `$HOME/.vishnu/localAccountPublicKey/userId-machineId` to the `authorized_keys` of the user `tartampion` on the machine named `test.intranet.lan` :

vishnu_setting_ssh_key -a \$HOME/.vishnu/localAccountPublicKey/userId-machineId tartampion@test.intranet.lan

To remove the public key located at \$HOME/.vishnu/localAccountPublicKey/userId-machineId to the authorized_keys of the user tartampion on the machine named test.intranet.lan :

vishnu_setting_ssh_key -r \$HOME/.vishnu/localAccountPublicKey/userId-machineId tartampion@test.intranet.lan

Warning: A unix login can be used for only one local account on a specific machine