

D1.1d - VISHNU Command-line interface specifications



COLLABORATORS

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| | TITLE : D1.1d - VISHNU Command-line interface specifications | | |
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| 0 | 05/01/2011 | Formatting example | SysFera |
| 1 | 13/01/2011 | First release | SysFera |
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| 3 | 18/02/2011 | Renamed all commands to follow C-style command names with vishnu prefix. Added the help option to all commands. Modified update_machine and export_commands. | SysFera |

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Chapter 1

Document presentation

1.1 Document objectives

This document presents the detailed specifications of the VISHNU command line user interface. These specifications include the definition of all commands including administration commands.

1.2 Document structure

The document is divided into 4 parts corresponding to the 4 modules that compose the Vishnu system:

- UMS: Users Management Service
- TMS: Tasks Management Service
- FMS: Files Management Service
- IMS: Information Management Service

Each module corresponds to a chapter in the document, and each chapter contains the following sections:

- A first section describing the definition of all commands provided by the package.
- A second section describing the definition of all enumerated values used as command parameters.

1.3 References

- D1.1a : VISHNU General specifications

1.4 Glossary

- VISHNU admin: any user having the administrator privilege
-

1.5 Generic command definition format

This section presents the generic format used in the following chapters to describe the commands. It also details the environment variables required and the user options.

A commands is defined as follows:

Access

Here is detailed the access level of the command line (i.e. the privilege required to use this command)

Description

Here is detailed the purpose of the command line.

Example of use

Here is detailed an example of the use of the command line which starts by optional arguments preceded by a short letter and the required arguments at the end.

myCommand -l acLogin -s sshKeyPath userId

Parameters

The following table contains all the input arguments of the command with their type and description, their short letter for options and a required flag.

| Parameter | Type | Option | Description | Required |
|------------|--------|--------|--|----------|
| userId | string | | This is an example of a required argument | YES |
| acLogin | string | l | This is an example of an optional argument | NO |
| sshKeyPath | string | s | This is an example of an optional argument | NO |

The following table contains the list of environment variables information, a required flag and a user option flag. When the user option flag is true, the environment variable can be defined as a user option stored in the database.

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | This is an example of an environment variable | YES | NO |

Note:

For each command line the -h option can be used for help.

1.6 Environment variables and options

Here is detailed the way to use the user options which are stored in the database and environment variables in VISHNU.

Example 1.1 Pseudo code

```
if (the option is provided in the command line) {
    optionValue = option
} else {
    if (an environment variable exists) {
        optionValue = EnVariable_Value

    } else {

        if (a value has been defined in the user configuration) {
            optionValue = user_Option
        }
        else {
            //The default value of the option defined by VISHNU admin is used
            optionValue = defaultValueOption
        }
    }
}
```

Chapter 2

Commands specification for User Management Service (UMS)

2.1 Command definitions

2.1.1 vishnu_connect

Access

This command line can be used by any VISHNU user

Description

The vishnu_connect command opens a session

Example of use

```
vishnu_connect [-h] [-p closePolicy] [-d sessionInactivityDelay] [-s substituteUserId] userId
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------------------|------------------|--------|--|----------|
| userId | string | | userId represents the VISHNU user identifier | YES |
| password | string | | password represents the password of the user, it is an interactive parameter | YES |
| closePolicy | SessionCloseType | p | is an option for closing session automatically | NO |
| sessionInactivityDelay | int | d | is the maximum delay in seconds between two user requests when the CLOSE_ON_TIMEOUT policy is set | NO |
| substituteUserId | string | s | is an admin option which allows an admin to open a session as if she was another user identified by her userId | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|---------------------|-------------|------------------|--|----------|-------------|
| VISHNU_CLOSE_POLICY | closePolicy | SessionCloseType | is an option for closing session automatically | NO | YES |

2.1.2 vishnu_reconnect

Access

This command line can be used by any VISHNU user

Description

The vishnu_reconnect command reconnects to a session that is still active

Example of use

```
vishnu_reconnect [-h] userId sessionId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| userId | string | | userId represents the VISHNU user identifier | YES |
| password | string | | password represents the password of the user, it is an interactive parameter | YES |
| sessionId | string | | sessionId is the identifier of the session defined in the database | YES |

Environment variables

This command defines no environment variables.

2.1.3 vishnu_add_user

Access

This command line can be used by ADMIN users only

Description

The vishnu_add_user command adds a new VISHNU user

Example of use

```
vishnu_add_user [-h] firstname lastname privilege email
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|---------------|--------|---|----------|
| firstname | string | | is the firstname of the user | YES |
| lastname | string | | is the lastname of the user | YES |
| privilege | PrivilegeType | | is the privilege of the user (admin or simple user) | YES |
| email | string | | is the email of the user | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.4 vishnu_update_user

Access

This command line can be used by ADMIN users only

Description

The vishnu_update_user command updates the user information except the userId and the password

Example of use

```
vishnu_update_user [-h] [-f firstname] [-l lastname] [-p privilege] [-m email] [-s status] userId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|---------------|--------|--|----------|
| userId | string | | represents the VISHNU user identifier | YES |
| firstname | string | f | represents the updated firstname of the user | NO |
| lastname | string | l | represents the updated lastname of the user | NO |
| privilege | PrivilegeType | p | represents the updated privilege of the user | NO |
| email | string | m | represents the updated email adress of the user | NO |
| status | StatusType | s | represents the status of the user (LOCKED or ACTIVE) | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.5 vishnu_delete_user

Access

This command line can be used by ADMIN users only

Description

The vishnu_delete_user command removes a user from VISHNU

Example of use

```
vishnu_delete_user [-h] userId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| userId | string | | userId represents the VISHNU user identifier of the user who will be deleted from VISHNU | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.6 vishnu_close

Access

This command line can be used by any VISHNU user

Description

The vishnu_close command closes the session

Example of use

```
vishnu_close [-h]
```

Parameters

This command defines no arguments.

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.7 vishnu_change_password

Access

This command line can be used by any VISHNU user

Description

The vishnu_change_password command changes the password

Example of use

```
vishnu_change_password [-h] userId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-------------|--------|--------|---|----------|
| userId | string | | userId represents the VISHNU user identifier | YES |
| password | string | | password represents the password of the user, it is an interactive parameter | YES |
| passwordNew | string | | passwordNew represents the new password of the user, it is an interactive parameter | YES |

Environment variables

This command defines no environment variables.

2.1.8 vishnu_reset_password

Access

This command line can be used by ADMIN users only

Description

The vishnu_reset_password command resets the password of a user

Example of use

```
vishnu_reset_password [-h] userId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| userId | string | | userId represents the VISHNU user identifier of the user whose password will be reset | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.9 vishnu_add_local_account

Access

This command line can be used by any VISHNU user

Description

The vishnu_add_local_account command adds a new local user configuration

Example of use

```
vishnu_add_local_account [-h] userId machineId acLogin sshKeyPath homeDirectory
```

Parameters

| Parameter | Type | Option | Description | Required |
|---------------|--------|--------|---|----------|
| userId | string | | The userId represents the VISHNU user identifier of the user of the local user configuration | YES |
| machineId | string | | The MachineId represents the identifier of the machine associated to the local user configuration | YES |
| acLogin | string | | accLogin represents the login of the user on the associated machine | YES |
| sshKeyPath | string | | sshKeyPath is the path of the ssh key of the user on the associated machine | YES |
| homeDirectory | string | | HomeDirectory is the path of the home directory of the user on the associated machine | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.10 vishnu_update_local_account

Access

This command line can be used by any VISHNU user

Description

The vishnu_update_local_account command updates a local user configuration

Example of use

```
vishnu_update_local_account [-h] [-l acLogin] [-s sshKeyPath] [-d homeDirectory] userId machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|---------------|--------|--------|---|----------|
| userId | string | | The userId represents the VISHNU user identifier of the user of the local user configuration | YES |
| machineId | string | | The MachineId represents the identifier of the machine associated to the local user configuration | YES |
| acLogin | string | l | acLogin represents the login of the user on the associated machine | NO |
| sshKeyPath | string | s | sshKeyPath is the path of the ssh key of the user on the associated machine | NO |
| homeDirectory | string | d | HomeDirectory is the path of the home directory of the user on the associated machine | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.11 vishnu_delete_local_account

Access

This command line can be used by any VISHNU user

Description

The vishnu_delete_local_account command removes a local user configuration (for a given user on a given machine) from VISHNU

Example of use

```
vishnu_delete_local_account [-h] userId machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| userId | string | | userId represents the VISHNU user identifier of the user whose local configuration will be deleted for the given machine | YES |
| machineId | string | | machineId represents the identifier of the machine whose local configuration will be deleted for the given user | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.12 vishnu_save_configuration**Access**

This command line can be used by ADMIN users only

Description

The vishnu_save_configuration command saves the configuration of VISHNU

Example of use

```
vishnu_save_configuration [-h]
```

Parameters

This command defines no arguments.

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.13 vishnu_restore_configuration**Access**

This command line can be used by ADMIN users only

Description

The vishnu_restore_configuration command restores the configuration of VISHNU

Example of use

```
vishnu_restore_configuration [-h] filePath
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| filePath | string | | The filePath is the path of the file used to restore VISHNU configuration | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.14 vishnu_add_machine

Access

This command line can be used by ADMIN users only

Description

The vishnu_add_machine command adds a new machine in VISHNU

Example of use

```
vishnu_add_machine [-h] name site language sshPublicKeyFile
```

Parameters

| Parameter | Type | Option | Description | Required |
|--------------------|--------|--------|--|----------|
| name | string | | represents the name of the machine | YES |
| site | string | | represents the location of the machine | YES |
| machineDescription | string | | represents the description of the machine, it is an interactive parameter | YES |
| language | string | | represents the language used for the description of the machine | YES |
| sshPublicKeyFile | string | | contains the path to the SSH public key used by VISHNU to access local user accounts | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.15 vishnu_update_machine

Access

This command line can be used by ADMIN users only

Description

The vishnu_update_machine command updates machine description

Example of use


```
vishnu_update_machine [-h] [-n name] [-s site] [-d] [-l language] [-t status] [-k sshPublicKeyFile]  
machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|--------------------|------------|--------|--|----------|
| machineId | string | | represents the identifier of the machine | YES |
| name | string | n | represents the name of the machine | NO |
| site | string | s | represents the location of the machine | NO |
| machineDescription | string | d | represents the description of the machine, it is an interactive parameter | NO |
| language | string | l | represents the language used for the description of the machine | NO |
| status | StatusType | t | represents the status of the machine | NO |
| sshPublicKeyFile | string | k | contains the path to the SSH public key used by VISHNU to access local user accounts | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.16 vishnu_delete_machine**Access**

This command line can be used by ADMIN users only

Description

The vishnu_delete_machine command removes a machine from VISHNU

Example of use

```
vishnu_delete_machine [-h] machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| machineId | string | | machineId represents the identifier of the machine | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.17 vishnu_list_local_account

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_local_account command lists the local user configurations

Example of use

```
vishnu_list_local_account [-h] [-a] [-u userId] [-i machineId]
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------------|---------|--------|--|----------|
| adminListOption | boolean | a | is an admin option for listing all local configurations of all users | NO |
| userId | string | u | is an admin option for listing the local configurations of a specific user | NO |
| machineId | string | i | is an option for listing local user configurations on a specific machine | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.18 vishnu_list_machine

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_machine command lists the machines in which the local user configurations are defined for the given user

Example of use

```
vishnu_list_machine [-h] [-u userId] [-a] [-m machineId]
```

Parameters

| Parameter | Type | Option | Description | Required |
|----------------|---------|--------|--|----------|
| userId | string | u | is an admin option for listing machines in which a specific user has a local configuration | NO |
| listAllmachine | boolean | a | is an option for listing all VISHNU machines | NO |
| machineId | string | m | is an option for listing information about a specific machine | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.19 vishnu_list_history_cmd

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_history_cmd command lists the commands

Example of use

```
vishnu_list_history_cmd [-h] [-a] [-u userId] [-i sessionId] [-s startDateOption] [-e endDateOption]
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------------|---------|--------|--|----------|
| adminListOption | boolean | a | is an admin option for listing all commands of all users | NO |
| userId | string | u | is an admin option for listing commands launched by a specific user identified by his/her userId | NO |
| sessionId | string | i | lists all commands launched within a specific session | NO |
| startDateOption | long | s | allows the user to organize the commands listed by providing the start date (the UNIX timestamp of the start date is used) | NO |
| endDateOption | long | e | allows the user to organize the commands listed by providing the end date (the timestamp of the end date is used). By default, the end date is the current day | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.20 vishnu_list_options

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_options command lists the options of the user

Example of use

```
vishnu_list_options [-h] [-a] [-u userId] [-n optionName]
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------------|---------|--------|--|----------|
| listAllDeftValue | boolean | a | is an option for listing all default option values defined by VISHNU administrator | NO |
| userId | string | u | is an admin option for listing the options of a specific user | NO |
| optionName | string | n | allows the user to get the value of a specific option identified by its name | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

2.1.21 vishnu_list_users

Access

This command line can be used by ADMIN users only

Description

The vishnu_list_users command lists VISHNU users

Example of use

```
vishnu_list_users [-h] [-i userIdOption]
```

Parameters

| Parameter | Type | Option | Description | Required |
|--------------|--------|--------|---|----------|
| userIdOption | string | i | allows an admin to get information about a specific user identified by his/her userId | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

2.1.22 vishnu_list_sessions

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_sessions command lists all sessions of the user

Example of use

```
vishnu_list_sessions [-h] [-t status] [-p sessionClosePolicy] [-d sessionInactivityDelay] [-m machineId] [-a] [-u userId] [-i sessionId] [-s startDateOption] [-e endDateOption]
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------------------|------------------|--------|--|----------|
| status | StatusType | t | specifies the status of the sessions which will be listed | NO |
| sessionClosePolicy | SessionCloseType | p | specifies the closure mode of the sessions which will be listed (CLOSE_ON_TIMEOUT or CLOSE_ON_DISCONNECT) | NO |
| sessionInactivityDelay | int | d | specifies the inactivity delay in seconds of the sessions which will be listed | NO |
| machineId | string | m | allows the user to list sessions opened on a specific machine | NO |
| adminListOption | boolean | a | is an admin option for listing all sessions of all users | NO |
| userId | string | u | is an admin option for listing sessions opened by a specific user | NO |
| sessionId | string | i | allows the user to list all commands launched within a specific session | NO |
| startDateOption | long | s | allows the user to organize the commands listed by providing the start date (the UNIX timestamp of the start date is used) | NO |
| endDateOption | long | e | allows the user to organize the commands listed by providing the end date (the timestamp of the end date is used). By default, the end date is the current day | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.23 vishnu_configure_default_option**Access**

This command line can be used by ADMIN users only

Description

The vishnu_configure_default_option command configures a default option value

Example of use

```
vishnu_configure_default_option [-h] optionName value
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------|--------|--------|-----------------------------------|----------|
| optionName | string | | represents the name of an option | YES |
| value | string | | represents the value of an option | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.1.24 vishnu_configure_option

Access

This command line can be used by any VISHNU user

Description

The vishnu_configure_option command configures an option of the user

Example of use

```
vishnu_configure_option [-h] optionName value
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------|--------|--------|-----------------------------------|----------|
| optionName | string | | represents the name of an option | YES |
| value | string | | represents the value of an option | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the encrypted identifier of the session generated by VISHNU | YES | NO |

2.2 Parameters definitions

Enumeration UMS::PrivilegeType Type

| Name | Value |
|-------|-------|
| USER | 0 |
| ADMIN | 1 |

Enumeration UMS::SessionCloseType Type

| Name | Value |
|---------------------|-------|
| UNDEFINED | 0 |
| CLOSE_ON_TIMEOUT | 1 |
| CLOSE_ON_DISCONNECT | 2 |

Enumeration UMS::StatusType Type

| Name | Value |
|----------|-------|
| INACTIVE | 0 |
| ACTIVE | 1 |

Chapter 3

Commands specification for Tasks Management Service (TMS)

3.1 Command definitions

3.1.1 vishnu_submit_job

Access

This command line can be used by any VISHNU user

Description

The `vishnu_submit_job` command submits job on a machine through the use of a script (`scriptFilePath`). The script is a shell script which will be executed by a command shell such as `sh` or `csh`

Example of use

```
vishnu_submit_job [-h] [-n name] [-p priority] [-q queue] [-t wallTime] [-m memory] [-P nbCpu] [-N nbNodesAndCpuPerNode] [-o outPutPath] [-e errorPath] machineId scriptFilePath
```

Parameters

| Parameter | Type | Option | Description | Required |
|----------------------|-------------|--------|---|----------|
| machineId | string | | Is the id of the machine where the job must be submitted | YES |
| scriptFilePath | string | | The path to the file containing the characteristics (job command, and batch scheduler directive required or optional) of the job to submit. | YES |
| name | string | n | Assigns a job name. The default is the path of job. | NO |
| priority | JobPriority | p | Assigns priority of the job. | NO |
| queue | string | q | Assigns the queue or class of the job. | NO |
| wallTime | int | t | The maximum wall-clock time during which the job can run. | NO |
| memory | int | m | Is the memory size that the job requires. | NO |
| nbCpu | int | P | The number of cpu that the job requires. | NO |
| nbNodesAndCpuPerNode | string | N | The number of nodes and processors per node. | NO |
| outPutPath | string | o | Assigns the path and file for job output. | NO |
| errorPath | string | e | Assigns the path and file for job error. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.2 vishnu_get_job_info

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_job_info command gets information on a job from its id

Example of use

```
vishnu_get_job_info [-h] machineId jobId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-------------------|----------|
| machineId | string | | Machine hash key | YES |
| jobId | string | | The id of the job | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.3 vishnu_get_job_progress

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_job_progress command gets the progression status of jobs

Example of use

```
vishnu_get_job_progress [-h] [-i jobId] [-u jobOwner] machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| machineId | string | | Is the id of the machine to get the jobs progression. | YES |
| jobId | string | i | Represents the id of the job that the user wants to see the progression of. | NO |
| jobOwner | string | u | Represents the owner of the job. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.4 vishnu_list_queues

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_queues command gets queues information

Example of use

```
vishnu_list_queues [-h] machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|------------------|----------|
| machineId | string | | Machine hash key | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.5 vishnu_list_jobs

Access

This command line can be used by any VISHNU user

Description

The vishnu_list_jobs command gets a list of all submitted jobs

Example of use

```
vishnu_list_jobs [-h] [-i jobId] [-P nbCpu] [-d fromSubmitDate] [-D toSubmitDate] [-u owner] [-s status] [-p priority] [-o outPutPath] [-e errorPath] [-q queue] machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|----------------|-----------|--------|---|----------|
| machineId | string | | Machine hash key | YES |
| jobId | string | i | To list job which has this id. | NO |
| nbCpu | int | P | To list jobs which have this number of cpu. | NO |
| fromSubmitDate | long | d | List jobs submitted after this date (unix timestamp). | NO |
| toSubmitDate | long | D | List jobs submitted before this date (unix timestamp) | NO |
| owner | string | u | To list all jobs submitted by this owner. | NO |
| status | JobStatus | s | To list jobs which have this status. | NO |

| Parameter | Type | Option | Description | Required |
|------------|-------------|--------|---|----------|
| priority | JobPriority | p | To list jobs which have this priority | NO |
| outPutPath | string | o | Gets the path and file for each job output. | NO |
| errorPath | string | e | Gets the path and file for each job error. | NO |
| queue | string | q | To list jobs which have this queue name. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.6 vishnu_get_job_out_put

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_job_out_put command gets outputPath and errorPath of a job from its id

Example of use

```
vishnu_get_job_out_put [-h] machineId jobId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-------------------|----------|
| machineId | string | | Machine hash key | YES |
| jobId | string | | The Id of the job | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.7 vishnu_get_all_jobs_out_put

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_all_jobs_out_put command dynamically gets outputPath and errorPath of completed jobs

Example of use

```
vishnu_get_all_jobs_out_put [-h] machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|------------------|----------|
| machineId | string | | Machine hash key | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.8 vishnu_cancel_job

Access

This command line can be used by any VISHNU user

Description

The vishnu_cancel_job command cancels a job from its id

Example of use

```
vishnu_cancel_job [-h] machineId jobId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-------------------|----------|
| machineId | string | | Machine hash key | YES |
| jobId | string | | The Id of the job | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.9 vishnu_set_machine_env

Access

This command line can be used by ADMIN users only

Description

The vishnu_set_machine_env command sets environment variables on a remote machine

Example of use

```
vishnu_set_machine_env [-h] machineId listEnv
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| machineId | string | | Represents the machine id | YES |
| listEnv | string | | Represents the list environnement variables | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.1.10 vishnu_set_machine_refresh_period

Access

This command line can be used by ADMIN users only

Description

The vishnu_set_machine_refresh_period command sets the refresh period of output and error files contents

Example of use

```
vishnu_set_machine_refresh_period [-h] machineId value
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| machineId | string | | The id of the machine | YES |
| value | int | | Is the refresh interval value (in seconds) | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The sessionKey is the identifier of the session generated by VISHNU | YES | NO |

3.2 Parameters definitions

Enumeration TMS::JobPriority Type

| Name | Value |
|-----------|-------|
| VERY_LOW | 100 |
| LOW | 200 |
| NORMAL | 300 |
| HIGH | 400 |
| VERY_HIGH | 500 |

Enumeration TMS::JobStatus Type

| Name | Value |
|---------------|-------|
| RUNNING | 0 |
| WAITING | 1 |
| COMPLETED | 2 |
| CANCELED | 3 |
| HELD | 4 |
| QUEUED | 5 |
| FAILED | 6 |
| NOT_SUBMITTED | 7 |

Enumeration TMS::QueuePriority Type

| Name | Value |
|-----------|-------|
| VERY_LOW | 0 |
| LOW | 1 |
| NORMAL | 2 |
| HIGH | 3 |
| VERY_HIGH | 4 |

Enumeration TMS::QueueStatus Type

| Name | Value |
|---------------|-------|
| STARTED | 0 |
| RUNNING | 1 |
| NOT_STARTED | 2 |
| NOT_AVAILABLE | 3 |

Chapter 4

Commands specification for Information Management Service (IMS)

4.1 Command definitions

4.1.1 vishnu_export_commands

Access

This command line can be used by any VISHNU user

Description

The vishnu_export_commands command exports all the commands made by a user during a session

Example of use

```
vishnu_export_commands [-h] oldSessionId
```

Parameters

| Parameter | Type | Option | Description | Required |
|--------------|--------|--------|---|----------|
| oldSessionId | string | | The id of the session to export (session has ended) | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command (current session key) | YES | NO |

4.1.2 vishnu_get_metric_current_value

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_metric_current_value command retrieve the current value of a metric on a machine

Example of use

```
vishnu_get_metric_current_value [-h] machineId metricType
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------|------------|--------|-----------------------|----------|
| machineId | string | | The id of the machine | YES |
| metricType | MetricType | | Type of metric | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.3 vishnu_get_metric_history

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_metric_history command retrieve the history of values of a metric on a machine

Example of use

```
vishnu_get_metric_history [-h] machineId startTime endTime metricType
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------|------------|--------|------------------------------|----------|
| machineId | string | | The id of the machine | YES |
| startTime | long | | Start time of metric history | YES |
| endTime | long | | End time of metric history | YES |
| metricType | MetricType | | Type of metric | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.4 vishnu_get_processes

Access

This command line can be used by ADMIN users only

Description

The vishnu_get_processes command gets the list of the processes running over a front machine

Example of use

```
vishnu_get_processes [-h] machineId
```


Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| machineId | string | | The id of the machine the user wants the running processes | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.5 vishnu_set_system_info

Access

This command line can be used by ADMIN users only

Description

The vishnu_set_system_info command updates the system information of a machine

Example of use

```
vishnu_set_system_info [-h] [-m memory] [-d diskSpace] machineId
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|--|----------|
| machineId | string | | The id of the machine | YES |
| memory | long | m | Amount of RAM memory available on the machine (in Bytes) | NO |
| diskSpace | long | d | Amount of disk space available on the machine (in Bytes) | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.6 vishnu_set_system_threshold

Access

This command line can be used by ADMIN users only

Description

The vishnu_set_system_threshold command sets a threshold on a machine of a system

Example of use

```
vishnu_set_system_threshold [-h] machineId thresholdType value
```

Parameters

| Parameter | Type | Option | Description | Required |
|---------------|------------|--------|-------------------------------|----------|
| machineId | string | | The id of the machine | YES |
| thresholdType | MetricType | | The type of the metric to set | YES |
| value | double | | The threshold value | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.7 vishnu_get_system_threshold

Access

This command line can be used by ADMIN users only

Description

The vishnu_get_system_threshold command gets a System threshold on a machine

Example of use

```
vishnu_get_system_threshold [-h] machineId type
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|------------|--------|----------------------------|----------|
| machineId | string | | The id of the machine | YES |
| type | MetricType | | The threshold type desired | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.8 vishnu_define_user_identifier

Access

This command line can be used by ADMIN users only

Description

The vishnu_define_user_identifier command defines the shape of the identifiers automatically generated for the users

Example of use

```
vishnu_define_user_identifier [-h] format
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-----------------------|----------|
| format | string | | The new format to use | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.9 vishnu_define_machine_identifier

Access

This command line can be used by ADMIN users only

Description

The vishnu_define_machine_identifier command defines the shape of the identifiers automatically generated for the machines

Example of use

```
vishnu_define_machine_identifier [-h] format
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-----------------------|----------|
| format | string | | The new format to use | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.10 vishnu_define_job_identifier

Access

This command line can be used by ADMIN users only

Description

The vishnu_define_job_identifier command defines the shape of the identifiers automatically generated for the jobs

Example of use

```
vishnu_define_job_identifier [-h] format
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-----------------------|----------|
| format | string | | The new format to use | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.11 vishnu_define_transfer_identifier

Access

This command line can be used by ADMIN users only

Description

The vishnu_define_transfer_identifier command defines the shape of the identifiers automatically generated for the file transfers

Example of use

```
vishnu_define_transfer_identifier [-h] format
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|-----------------------|----------|
| format | string | | The new format to use | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.12 vishnu_load_shed

Access

This command line can be used by ADMIN users only

Description

The vishnu_load_shed command load sheds a machine

Example of use

```
vishnu_load_shed [-h] machineId loadShedType
```

Parameters

| Parameter | Type | Option | Description | Required |
|--------------|--------------|--------|---|----------|
| machineId | string | | The id of the machine to stop | YES |
| loadShedType | LoadShedType | | Selects a load shedding mode (SOFT: stops all services and they can be restarted, HARD: stops all services, they cannot be restarted) | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.13 vishnu_set_update_frequency

Access

This command line can be used by ADMIN users only

Description

The vishnu_set_update_frequency command sets the update frequency of the IMS tables

Example of use

```
vishnu_set_update_frequency [-h] freq
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|------|--------|---|----------|
| freq | int | | Frequency the data are updated, in second | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.14 vishnu_get_update_frequency

Access

This command line can be used by any VISHNU user

Description

The vishnu_get_update_frequency command gets the update frequency of the IMS database

Example of use

```
vishnu_get_update_frequency [-h]
```

Parameters

This command defines no arguments.

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.1.15 vishnu_restart

Access

This command line can be used by ADMIN users only

Description

The vishnu_restart command restarts the whole VISHNU infrastructure. Actions are saved and restarted from the beginning once the infrastructure has been restarted

Example of use

```
vishnu_restart [-h] [-n componentName] [-m machineId] [-f file] type
```

Parameters

| Parameter | Type | Option | Description | Required |
|---------------|-------------|--------|---|----------|
| type | RestartType | | The type of restart | YES |
| componentName | string | n | If not restarting all, the name of the component to restart | NO |
| machineId | string | m | The id of the machine where the component is to be relaunched | NO |
| file | string | f | The config file to use to restart | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|---|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The key of the session of the user that submits the command | YES | NO |

4.2 Parameters definitions

Enumeration IMS::LoadShedType Type

| Name | Value |
|------|-------|
| SOFT | 0 |
| HARD | 1 |

Enumeration IMS::MetricType Type

| Name | Value |
|---------------|-------|
| CPUNBR | 0 |
| CPUUSE | 1 |
| DISKSPACE | 2 |
| FREEDISKSPACE | 3 |
| MEMORY | 4 |
| FREEMEMORY | 5 |

Enumeration IMS::RestartType Type

| Name | Value |
|------|-------|
| ALL | 0 |
| SED | 1 |

| Name | Value |
|--------|-------|
| AGENT | 2 |
| DAEMON | 3 |

Chapter 5

Commands specification for File Management Service (FMS)

5.1 Command definitions

5.1.1 vishnu_create_file

Access

This command line can be used by any VISHNU user

Description

The vishnu_create_file command creates files on remote machines.

Example of use

```
vishnu_create_file [-h] [-m mode] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file to create following the pattern [host:]file path | YES |
| mode | int | m | The file access permissions in octal numeral system | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.2 vishnu_create_dir

Access

This command line can be used by any VISHNU user

Description

The vishnu_create_dir command creates directories on remote machines.

Example of use

```
vishnu_create_dir [-h] [-m mode] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The directory to create following the pattern [host:]directory path | YES |
| mode | int | m | the new directories permission access in octal numeral system | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.3 vishnu_remove_file

Access

This command line can be used by any VISHNU user

Description

The vishnu_remove_file command removes files from remote hosts.

Example of use

```
vishnu_remove_file [-h] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file to remove following the pattern [host:]file path | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.4 vishnu_remove_dir

Access

This command line can be used by any VISHNU user

Description

The vishnu_remove_dir command removes directories (and subdirectories) from remote machines.

Example of use

```
vishnu_remove_dir [-h] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The directory to remove following the pattern [host:]directory path | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.5 vishnu_ch_grp

Access

This command line can be used by any VISHNU user

Description

The vishnu_ch_grp command changes group owner of remote files/directories.

Example of use

```
vishnu_ch_grp [-h] path group
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file/directory following the pattern [host:]file path | YES |
| group | string | | the new group owner of file/directory | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.6 vishnu_ch_mod

Access

This command line can be used by any VISHNU user

Description

The vishnu_ch_mod command changes access rights of remote files/directories.

Example of use

```
vishnu_ch_mod [-h] path mode
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file/directory following the pattern [host:]file path | YES |
| mode | int | | the access rights of file/directory in octal system. | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.7 vishnu_head_of_file

Access

This command line can be used by any VISHNU user

Description

The vishnu_head_of_file command displays a few first lines of files located on remote machines.

Example of use

```
vishnu_head_of_file [-h] [-n nLine] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file following the pattern [host:]file path | YES |
| nLine | int | n | Number of lines to display | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.8 vishnu_tail_of_file

Access

This command line can be used by any VISHNU user

Description

The vishnu_tail_of_file command displays a few last lines of files located on remote machines

Example of use

```
vishnu_tail_of_file [-h] [-n nLine] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file following the pattern [host:]file path | YES |
| nLine | int | n | number of lines to display | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.9 vishnu_content_of_file

Access

This command line can be used by any VISHNU user

Description

The `vishnu_content_of_file` command displays content of files located on remote machines

Example of use

```
vishnu_content_of_file [-h] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|--------|--------|---|----------|
| path | string | | The file to display following the pattern [host:]file path | YES |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.10 vishnu_list_dir

Access

This command line can be used by any VISHNU user

Description

The `vishnu_list_dir` command displays the content of a remote directory.

Example of use

```
vishnu_list_dir [-h] [-l] [-a] path
```

Parameters

| Parameter | Type | Option | Description | Required |
|------------|---------|--------|---|----------|
| path | string | | The directory to list following the pattern [host:]directory path | YES |
| longFormat | boolean | l | It specifies the long display format (all available file informations) | NO |
| allFiles | boolean | a | Allows to display all files including hidden files | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.1.11 vishnu_copy_file

Access

This command line can be used by any VISHNU user

Description

The `vishnu_copy_file` command executes a synchronous copy of file.

Example of use

```
vishnu_copy_file [-h] [-r] [-c trCommand] src dest
```

Parameters

| Parameter | Type | Option | Description | Required |
|-------------|-----------------|--------|---|----------|
| src | string | | The source file to copy following the pattern [host:]file path | YES |
| dest | string | | The path of the destination file | YES |
| isRecursive | boolean | r | It specifies when the copy is recursive (case of directory) or not. | NO |
| trCommand | TransferCommand | c | the command to use to perform file transfer. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|---------------------|------------|-----------------|--|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |
| VISHNU_TRANSFER_CMD | trCommand | TransferCommand | the command to use to perform file transfer. | NO | YES |

5.1.12 vishnu_copy_async_file**Access**

This command line can be used by any VISHNU user

Description

The vishnu_copy_async_file command executes an asynchronous copy of file.

Example of use

```
vishnu_copy_async_file [-h] [-r] [-c trCommand] src dest
```

Parameters

| Parameter | Type | Option | Description | Required |
|-------------|-----------------|--------|---|----------|
| src | string | | The source file to copy following the pattern [host:]file path | YES |
| dest | string | | The path of the destination file | YES |
| isRecursive | boolean | r | It specifies when the copy is recursive (case of directory) or not. | NO |
| trCommand | TransferCommand | c | the command to use to perform file transfer. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|---------------------|------------|-----------------|--|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |
| VISHNU_TRANSFER_CMD | trCommand | TransferCommand | the command to use to perform file transfer. | NO | YES |

5.1.13 vishnu_move_file**Access**

This command line can be used by any VISHNU user

Description

The `vishnu_move_file` command executes a synchronous move of file.

Example of use

```
vishnu_move_file [-h] [-c trCommand] src dest
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|-----------------|--------|--|----------|
| src | string | | The source file to move following the pattern [host:]file path | YES |
| dest | string | | The path of the destination file | YES |
| trCommand | TransferCommand | c | the command to use to perform file transfer. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|---------------------|------------|-----------------|--|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |
| VISHNU_TRANSFER_CMD | trCommand | TransferCommand | the command to use to perform file transfer. | NO | YES |

5.1.14 vishnu_move_async_file

Access

This command line can be used by any VISHNU user

Description

The `vishnu_move_async_file` command executes an asynchronous move of file.

Example of use

```
vishnu_move_async_file [-h] [-c trCommand] src dest
```

Parameters

| Parameter | Type | Option | Description | Required |
|-----------|-----------------|--------|--|----------|
| src | string | | The source file to move following the pattern [host:]file path | YES |
| dest | string | | The path of the destination file | YES |
| trCommand | TransferCommand | c | the command to use to perform file transfer. | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|---------------------|------------|-----------------|--|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |
| VISHNU_TRANSFER_CMD | trCommand | TransferCommand | the command to use to perform file transfer. | NO | YES |

5.1.15 vishnu_stop_file_transfer

Access

This command line can be used by any VISHNU user

Description

The `vishnu_stop_file_transfer` command stops an execution of a set of file transfers.

Example of use

```
vishnu_stop_file_transfer [-h] [-i transferId] [-m fromMachineId] [-u userId]
```

Parameters

| Parameter | Type | Option | Description | Required |
|----------------------------|--------|----------------|---|----------|
| <code>transferId</code> | string | <code>i</code> | a given transfer id | NO |
| <code>fromMachineId</code> | string | <code>m</code> | the machine that is the source of the file transfer | NO |
| <code>userId</code> | string | <code>u</code> | allows an admin to stop file transfers of a specific user | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|-------------------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | <code>sessionKey</code> | string | The session key | YES | NO |

5.1.16 vishnu_list_file_transfer_status**Access**

This command line can be used by any VISHNU user

Description

The `vishnu_list_file_transfer_status` command displays the status of all file transfers submitted by User.

Example of use

```
vishnu_list_file_transfer_status [-h] [-i transferId] [-m fromMachineId] [-u userId]
```

Parameters

| Parameter | Type | Option | Description | Required |
|----------------------------|--------|----------------|--|----------|
| <code>transferId</code> | string | <code>i</code> | a given transfer id | NO |
| <code>fromMachineId</code> | string | <code>m</code> | the machine that is the source of the file transfer | NO |
| <code>userId</code> | string | <code>u</code> | allows the admin to list file transfers initiated by a specific user | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|-------------------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | <code>sessionKey</code> | string | The session key | YES | NO |

5.1.17 vishnu_list_file_transfers**Access**

This command line can be used by any VISHNU user

Description

The `vishnu_list_file_transfers` command displays the history of all file transfers submitted by User.

Example of use

```
vishnu_list_file_transfers [-h] [-m fromMachineId] [-u userId] [-s status]
```

Parameters

| Parameter | Type | Option | Description | Required |
|---------------|--------|--------|--|----------|
| fromMachineId | string | m | the machine that is the source of the file transfer | NO |
| userId | string | u | allows the admin to list file transfers initiated by a specific user | NO |
| status | Status | s | the file transfer status | NO |

Environment variables

| Name | Parameter | Type | Description | Required | User option |
|--------------------|------------|--------|-----------------|----------|-------------|
| VISHNU_SESSION_KEY | sessionKey | string | The session key | YES | NO |

5.2 Parameters definitions

Enumeration FMS::FileType Type

| Name | Value |
|--------------|-------|
| BLOCK | 0 |
| CHARACTER | 1 |
| DIRECTORY | 2 |
| SYMBOLICLINK | 3 |
| SCKT | 4 |
| FIFO | 5 |
| REGULAR | 6 |

Enumeration FMS::Status Type

| Name | Value |
|------------|-------|
| INPROGRESS | 0 |
| COMPLETED | 1 |
| CANCELLED | 2 |
| FAILED | 3 |

Enumeration FMS::TransferCommand Type

| Name | Value |
|-------|-------|
| SCP | 0 |
| RSYNC | 1 |