VISHNU - UMS - Tests report

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Chapter 1

Introduction

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The tests which follows have been done in the following environment:

- Database used : PostgreSQL 8.4

- OS used for the test : Ubuntu 11.04

- Cmake version : V2.8

- gcc version : V4.4.5

- DIET version : V2.8

- RAM memory : 4Gb

Chapter 2

Functional tests

2.1   U1.1 - Connexion

API command: connect

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.1-B	Normal connexion login/password	A session is opened	A session is opened	0
U1.1-B2	Normal connexion using a netrc file	A session is opened	A session is opened	0
U1.1-E1	Bad user id	VishnuException	VishnuException	0
U1.1-E2	Bad password	VishnuException	VishnuException	0
U1.1-E3	No netrc file defined	VishnuException	VishnuException	0
U1.1-E4	Bad permission on the netrc file	VishnuException	VishnuException	0
U1.1-E5	No vishnu machine in the netrc file	VishnuException	VishnuException	0
U1.1-E6	No login in the netrc file	VishnuException	VishnuException	0
U1.1-E7	No password in the netrc file	VishnuException	VishnuException	0
U1.1-E8	Invalid account in the netrc file	VishnuException	VishnuException	0

2.2   U1 - Close a session

API command: close

ID test	Description of the test cases	Output expected	Output gotten	Error
U1-B1	Close a session on disconnexion	The session is closed	The session is closed	0
U1-B2	Close a session on timeout	The session is closed	The session is closed	0
U1-E1	Invalid closure mode	VishnuException	VishnuException	0
U1-E2	There is no open session	VishnuException	VishnuException	0

2.3   U1.5 - Reconnexion

API command: reconnect

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.1-B	Normal reconnexion login/password	A session is opened	A session is opened	0
U1.1-B2	Normal reconnexion using a netrc file	A session is opened	A session is opened	0
U1.1-E1	Bad user id	VishnuException	VishnuException	0
U1.1-E2	Bad password	VishnuException	VishnuException	0
U1.1-E3	No netrc file defined	VishnuException	VishnuException	0

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.1-E4	Bad permission on the netrc file	VishnuException	VishnuException	0
U1.1-E5	No vishnu machine in the netrc file	VishnuException	VishnuException	0
U1.1-E6	No login in the netrc file	VishnuException	VishnuException	0
U1.1-E7	No password in the netrc file	VishnuException	VishnuException	0
U1.1-E8	Invalid account in the netrc file	VishnuException	VishnuException	0

2.4   U1.3.5 - List the sessions

API command: listSession

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.3.5-B	list the sessions	The sessions are listed	The sessions are listed	0
UA5.1-B	list the sessions as an admin	The sessions are listed	The sessions are listed	0
U1.3.5-E1	Bad session key	VishnuException	VishnuException	0
UA5.1-E1	Bad session identifier	VishnuException	VishnuException	0
UA5.1-E2	Bad user identifier	VishnuException	VishnuException	0

2.5   U1.3.4 - List history command

API command: listHistoryCommand

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.3.4-B	Normal execution of listHistoryCommand	The list of commands is returned	The list of commands is returned	0
U1.3.4-E1	Bad session key	VishnuException	VishnuException	0
U1.3.4-E2	Bad session Identifier	VishnuException	VishnuException	0

2.6   UA1 - Add a user command

API command: addUser

ID test	Description of the test cases	Output expected	Output gotten	Error
UA1-B	Normal execution of addUser	The user is added	The user is added	0
UA1-E1	Bad session key	VishnuException	VishnuException	0
UA1-E2	Not an administrator	VishnuException	VishnuException	0

2.7   UA4.1 - Update a user command

API command: updateUser

ID test	Description of the test cases	Output expected	Output gotten	Error
UA4.1-B	Normal execution of updateUser	The user is updated	The user is updated	0
UA4.1-E1	Bad user identifier	VishnuException	VishnuException	0
UA4.1-E2	Bad session key	VishnuException	VishnuException	0
UA4.1-E3	Not an administrator	VishnuException	VishnuException	0

2.8   UA4.2 - Delete a user

API command: deleteUser

ID test	Description of the test cases	Output expected	Output gotten	Error
UA4.2-B	Normal execution of deleteUser	The user is deleted	The user is deleted	0
UA4.2-E1	Bad user identifier	VishnuException	VishnuException	0
UA4.2-E2	Not an administrator	VishnuException	VishnuException	0

2.9   UA5.2 - list the users

API command: listUser

ID test	Description of the test cases	Output expected	Output gotten	Error
UA5.2-B	Normal execution of listUser	The list of users	The list of users	0
UA5.2-E1	No open session	VishnuException	VishnuException	0
UA4.2-E2	Not an administrator	VishnuException	VishnuException	0

2.10   U1.3.3 - Change the password

API command: changePassword

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.3.3-B	Change the password of the user	The password is changed	The password is changed	0
U1.3.3-E1	Invalid user	VishnuException	VishnuException	0

2.11   UA2 - Reset the password

API command: resetPassword

ID test	Description of the test cases	Output expected	Output gotten	Error
UA2-B	Reset the password of the user	The password is changed	The password is changed	0
UA2-E1	Invalid user	VishnuException	VishnuException	0
UA2-E2	Not an administrator	VishnuException	VishnuException	0

2.12   U4 - Add a local account

API command: addLocalAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U4-B	Add a local account	A loccal account is added	A loccal account is added	0
U4-E1	Invalid user	VishnuException	VishnuException	0
U4-E2	Invalid machine	VishnuException	VishnuException	0

2.13   U4.1 - Update a local account

API command: updateLocalAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U4.1-B	Update a local account	A loccal account is updated	A loccal account is updated	0
U4.2-E1	Invalid machine	VishnuException	VishnuException	0
U4.1-E2	Invalid user	VishnuException	VishnuException	0

2.14   U4.2 - Delete a local account

API command: deleteLocalAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U4.2-B	Delete a local account	A loccal account is deleted	A loccal account is deleted	0
U4.2-E1	Invalid machine	VishnuException	VishnuException	0
U4.2-E2	Invalid user	VishnuException	VishnuException	0

2.15   UA3 - Save a configuration

API command: saveConfiguration

ID test	Description of the test cases	Output expected	Output gotten	Error
UA3-B	Save a configuration	The current configuration is saved in a file	The current configuration is saved in a file	0
UA3-E1	Invalid file	VishnuException	VishnuException	0

2.16   UA4 - Restore a configuration

API command: restoreConfiguration

ID test	Description of the test cases	Output expected	Output gotten	Error
UA4-B	Restore a configuration	The configuration is restored	The configuration is restored	0
UA4-E1	Invalid file	VishnuException	VishnuException	0

2.17   U4.3 - List the local account

API command: listLocalAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U4.3-B	List the local account	The local account are returned	The local account are returned	0
U4.3-E1	Invalid machine	VishnuException	VishnuException	0
U4.3-E1	Invalid user	VishnuException	VishnuException	0

2.18   UA7 - Configure default option

API command: configureDefaultOpt

ID test	Description of the test cases	Output expected	Output gotten	Error
UA7-B	Configure a default option	The option is set	The option is set	0
UA7-E1	Invalid option name	VishnuException	VishnuException	0
UA7-E2	Invalid option value	VishnuException	VishnuException	0

2.19   U1.3.2 - List options

API command: listOptions

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.3.2-B	List the options	The options are returned	The options are returned	0
U1.3.2-E1	Invalid option name	VishnuException	VishnuException	0

2.20   U1.3.1 - Configure option

API command: configureOption

ID test	Description of the test cases	Output expected	Output gotten	Error
U1.3.1-B	Configure an option	The option is set	The option is set	0
U1.3.1-E1	Invalid option name	VishnuException	VishnuException	0
U1.3.1-E2	Invalid option value	VishnuException	VishnuException	0

2.21   UA6.1 - Add a machine

API command: addMachine

ID test	Description of the test cases	Output expected	Output gotten	Error
UA6.1-B	Add a machine	A machine is added	A machine is added	0
UA6.1-E1	Invalid session	VishnuException	VishnuException	0

2.22   UA6.1 - Update a machine

API command: updateMachine

ID test	Description of the test cases	Output expected	Output gotten	Error
UA6.4-B	Update a machine	A machine is updated	A machine is updated	0
UA6.4-E1	Invalid session	VishnuException	VishnuException	0

2.23   UA6.2 - Delete a machine

API command: deleteMachine

ID test	Description of the test cases	Output expected	Output gotten	Error
UA6.2-B	Delete a machine	A machine is deleted	A machine is deleted	0
UA6.4-E1	Invalid machine identifier	VishnuException	VishnuException	0

2.24   UA6.3 - List a machine

API command: listMachine

ID test	Description of the test cases	Output expected	Output gotten	Error
UA6.3-B	List the machines	The machines are returned	The machines are returned	0
UA6.3-E1	Invalid session	VishnuException	VishnuException	0

2.25   UA8 - Add an authentication system

API command: addAuthSystem

ID test	Description of the test cases	Output expected	Output gotten	Error
UA8-B	Add an authentication system	An authentication system is added	An authentication system is added	0
UA8-E1	Invalid session	VishnuException	VishnuException	0
UA8-E2	Not an admin	VishnuException	VishnuException	0
UA8-E3	Already existing system	VishnuException	VishnuException	0
UA8-E4	Unknown encryption method	VishnuException	VishnuException	0
UA8-E5	Missing ldapbase for ldap system	VishnuException	VishnuException	0

2.26   UA8.1 - Update an authentication system

API command: updateAuthSystem

ID test	Description of the test cases	Output expected	Output gotten	Error
UA8.1-B	Update an authentication system	An authentication system is updated	An authentication system is updated	0
UA8.1-E1	Invalid session	VishnuException	VishnuException	0
UA8.1-E2	Invalid authentication system	VishnuException	VishnuException	0
UA8.1-E3	Unknown encryption method	VishnuException	VishnuException	0
UA8.1-E4	The system is already locked when trying to lock it	VishnuException	VishnuException	0
UA8.1-E5	Missing username variable in ldapbase field	VishnuException	VishnuException	0

2.27   UA8.2 - Delete an authentication system

API command: deleteAuthSystem

ID test	Description of the test cases	Output expected	Output gotten	Error
UA8.2-B	Delete an authentication system	An authentication system is deleted	An authentication system is deleted	0
UA8.2-E1	Invalid authentication system	VishnuException	VishnuException	0

2.28   U5 - List the authentication system

API command: listAuthSystem

ID test	Description of the test cases	Output expected	Output gotten	Error
U5-B	List the authentication system	The authentication system are returned	The authentication system are returned	0
U5-E1	Invalid session	VishnuException	VishnuException	0

2.29   U6 - Add an authentication account

API command: addAuthAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U6-B	Add an authentication account	The authentication account is added	The authentication account is added	0
U6-E1	Invalid authentication system	VishnuException	VishnuException	0
U6-E2	Invalid user identifier	VishnuException	VishnuException	0
U6-E3	Cannot add as someone else if not an admin	VishnuException	VishnuException	0

2.30   U6.1 - Update an authentication account

API command: updateAuthAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U6.1-B	Update an authentication account	The authentication account is updated	The authentication account is updated	0
U6.1-E1	Invalid authentication system	VishnuException	VishnuException	0
U6.1-E2	Invalid user identifier	VishnuException	VishnuException	0
U6.1-E3	Cannot add as someone else if not an admin	VishnuException	VishnuException	0
U6.1-E4	Unknown authentication account	VishnuException	VishnuException	0

2.31   U6.2 - Delete an authentication account

API command: deleteAuthAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U6.2-B	Delete an authentication account	The authentication account is deleted	The authentication account is deleted	0
U6.2-E1	Invalid authentication system	VishnuException	VishnuException	0
U6.2-E2	Invalid user identifier	VishnuException	VishnuException	0
U6.2-E3	Cannot add as someone else if not an admin	VishnuException	VishnuException	0
U6.2-E4	Unknown authentication account	VishnuException	VishnuException	0

2.32 U6.3 - List the authentication accounts

API command: deleteAuthAccount

ID test	Description of the test cases	Output expected	Output gotten	Error
U6.3-B	List the authentication accounts	The authentication account are returned	The authentication account are returned	0
U6.3-E	Invalid authentication system	VishnuException	VishnuException	0
U6.2-E1	Invalid user identifier	VishnuException	VishnuException	0
U6.2-E3	Cannot add as someone else if not an admin	VishnuException	VishnuException	0

Chapter 3

Stress tests

ID test	Date	Test description	Command(s) tested	Results
STR-SERV-DOWN	14/03/12	The ums sed is stopped and restarted	connect	Success - normal connexion
STR-AGENT-DOWN	14/03/12	The SysFera-DS Agent is stopped and restarted		failure

Chapter 4

Load tests

ID test	Date	Test description	Command(s) tested	Results
LOAD-connect	14/03/12	Simultaneous launch of 100 commands	connect	Success - normal execution of all commands launched

Chapter 5

Performance tests

ID test	Test description	Command(s) tested	VISHNU execution time	SSH execution time	Results
CDP-3.1-connect	Cannot guarantee the performance if ldap or multiple authentication system are used	connect	-	-	-
CDP-3.1-close	comparison with " ssh localhost uname "	close	0,1s	0,4s	Success
CDP-3.1-listSession	comparison with " ssh localhost uname "	listJobs	0,04s	0,4s	Success
CDP-3.2.1-listUsers	execution time less than "ssh localhost uname"	listUsers	0,04s	0,4s	Success

ID test	Test description	Command(s) tested	Memory comsumption	Results
CDP-3.2.1-connect	memory consumption	connect	0,5% of the RAM memory	Success
CDP-Memserver	Memory consumption of tms server running during 24 hours	ums server	0,9% of the RAM memory	Success