

VISHNU - UMS - Tests report



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NUMBER	DATE	DESCRIPTION	NAME
1	14/03/2012	First version	SYSFERA SA
2	05/09/2012	Added tests of versions compatibility between client and server	SYSFERA SA

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Chapter 1

Introduction

Author of the test code : Eugène PAMBA CAPO-CHICHI and Kevin COULOMB

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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 local account is added	A local 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 local account is updated	A local 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 local account is deleted	A local 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

2.33 Tests for version management

API commands: *connect, reconnect, changePassword*

Compatible versions : means couple of versions in which the major of the client and the server are the same or couple of versions in which the minor of the client's version is lower than server's version.

ID test	Description of the test cases	Output expected	Output gotten	Error
Connect with compatible versions between client and server	Normal connection with compatible versions	A session is opened	A session is opened	0
Reconnect with compatible versions between client and server	Normal reconnection with compatible versions	A session is opened	A session is opened	0
Change password of the user with compatible versions between client and server	Normal change of the user password with compatible versions	The password is changed	The password is changed	0
Connect with no compatible version between client and server	Normal connection with no compatible versions	VishnuException	VishnuException	0
Reconnect with compatible version between client and server	Normal reconnection with compatible no version	VishnuException	VishnuException	0

ID test	Description of the test cases	Output expected	Output gotten	Error
Change password of the user with no compatible version between client and server	Normal change of the user password with no compatible version	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 consumption	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