

VISHNU - FMS - Tests report



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WRITTEN BY	Benjamin Isnard, Daouda Traoré, Eugène Pamba Capo-Chichi, Kevin Coulomb, and Ibrahima Cissé	December 2012	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME
1	06/06/2011	Deliverable version	SYSFERA SA
2	11/01/2012	Added test case F1.CR2-E4 corresponding to recursive directories creation	SYSFERA SA
3	04/02/2012	Rename of FMS API functions according to POSIX names	SYSFERA SA

Contents

1	Introduction	1
2	Functional tests	2
2.1	F1.CR1-B: Create New files	2
2.2	F1.DE1-B: Delete files	2
2.3	F1.CR2-B: Create New directories	2
2.4	F1.DE2-B: Delete directories	3
2.5	F1.DI1-B: Display head of files	3
2.6	F1.DI2-B: Display tail of files	3
2.7	F1.DI3-B: Display content of files	3
2.8	F1.DI4-B: Display content of directories	3
2.9	F1.DI5-B: Get information about remote files	4
2.10	F1.CH1-B: Change access rights of files	4
2.11	F1.CH2-B: Change group owner of files	4
2.12	F2.CP1-B: Execute a synchronous copy of files	4
2.13	F2.CP2-B: Execute an asynchronous copy of files	5
2.14	F2.MV1-B: Execute a synchronous move of files	5
2.15	F2.MV2-B: Execute an asynchronous move of files	5
2.16	F2.CA1-B: Cancel file transfer	5
2.17	F2.CA2-B: Cancel all users file transfers	6
2.18	F2.LT1-B: List all file transfers	6
2.19	F2.LT2-B: List all users file transfers	6
3	Stress tests	7
4	Load tests	8
5	Performance tests	9

Chapter 1

Introduction

Author of the test code : Benjamin Isnard

Author of the test report : Eugène Capo-chichi and Ibrahima Cisse

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

- Database used : PostgreSQL 8.4
 - OS used for the test : Ubuntu 10.10
 - Cmake version : V2.6
 - gcc version : V4.3.3
 - DIET version : V2.6.1
 - ssh : OpenSSH_5.5p1 Debian-4ubuntu5, OpenSSL 0.9.8o 01 Jun 2010
 - RAM memory : 1Gb
-

Chapter 2

Functional tests

2.1 F1.CR1-B:Create New files

API command: touch

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.CR1-B	Normal execution of touch	A file is created	A file is created	0
F1.CR1-E1	The file path is invalid	VishnuException	VishnuException	0
F1.CR1-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.CR1-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.2 F1.DE1-B: Delete files

API command: rm

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DE1-B	Normal execution of rm	A file is removed	A file is removed	0
F1.DE1-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DE1-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DE1-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.3 F1.CR2-B:Create New directories

API command: mkdir

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.CR2-B	Normal execution of mkdir	A directory is created	A directory is created	0
F1.CR2-E1	The file path is invalid	VishnuException	VishnuException	0
F1.CR2-E2	Not access rights to the directory	VishnuException	VishnuException	0
F1.CR2-E3	Bad machine Identifier	VishnuException	VishnuException	0
F1.CR2-E4	The new directory path contains parent directories which don't exist	VishnuException	VishnuException	0

2.4 F1.DE2-B: Delete directories

API command: *rmdir*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DE2-B	Normal execution of rmdir	A file is removed	A file is removed	0
F1.DE2-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DE2-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DE2-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.5 F1.DI1-B: Display head of files

API command: *head*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI1-B	Normal execution of head	The head of file is returned	The head of file is returned	0
F1.DI1-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DI1-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DI1-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.6 F1.DI2-B: Display tail of files

API command: *tail*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI2-B	Normal execution of tail	The tail of file is returned	The tail of file is returned	0
F1.DI2-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DI2-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DI2-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.7 F1.DI3-B: Display content of files

API command: *more*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI3-B	Normal execution of more	The tail of file is returned removed	The tail of file is returned removed	0
F1.DI3-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DI3-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DI3-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.8 F1.DI4-B: Display content of directories

API command: *ls*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI4-B	Normal execution of ls	The directory content is returned	The directory content is returned	0

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI4-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DI4-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DI4-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.9 F1.DI5-B: Get information about remote files

API command: stat

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI5-B	Normal execution of stat	Information about a remote file is returned	Information about a remote file is returned	0
F1.DI5-E1	The file path is invalid	VishnuException	VishnuException	0
F1.DI5-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.DI5-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.10 F1.CH1-B: Change access rights of files

API command: chmod

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.CH1-B	Normal execution of chmod	The access rights of files is changed	The access rights of files is changed	0
F1.CH1-E1	The file path is invalid	VishnuException	VishnuException	0
F1.CH1-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.CH1-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.11 F1.CH2-B: Change group owner of files

API command: chgrp

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.CH2-B	Normal execution of chmod	The group owner of file is changed	The group owner of file is changed	0
F1.CH2-E1	The file path is invalid	VishnuException	VishnuException	0
F1.CH2-E2	Not access rights to the file	VishnuException	VishnuException	0
F1.CH2-E3	Bad machine Identifier	VishnuException	VishnuException	0

2.12 F2.CP1-B: Execute a synchronous copy of files

API command: cp

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.CP1-B	Normal execution of cp	The copy of source file is on the destination path.	The copy of the source file is on the destination path.	0
F2.CP1-E1	The source file path is invalid	VishnuException	VishnuException	0
F2.CP1-E2	The destination file path is invalid	VishnuException	VishnuException	0
F2.CP1-E3	Not access rights to the file	VishnuException	VishnuException	0
F2.CP1-E4	Bad machine Identifier	VishnuException	VishnuException	0

2.13 F2.CP2-B: Execute an asynchronous copy of files

API command: *acp*

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.CP2-B	Normal execution of acp	The copy of source file is on the destination path.	The copy of the source file is on the destination path.	0
F2.CP2-E1	The source file path is invalid	VishnuException	VishnuException	0
F2.CP2-E2	The destination file path is invalid	VishnuException	VishnuException	0
F2.CP2-E3	Not access rights to the file	VishnuException	VishnuException	0
F2.CP2-E4	Bad machine Identifier	VishnuException	VishnuException	0

2.14 F2.MV1-B: Execute a synchronous move of files

API command: *mv*

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.MV1-B	Normal execution of mv	The copy of source file is on the destination path and the source file is deleted.	The copy of the source file is on the destination path and the source file is deleted.	0
F2.MV1-E1	The source file path is invalid	VishnuException	VishnuException	0
F2.MV1-E2	The destination file path is invalid	VishnuException	VishnuException	0
F2.MV1-E3	Not access rights to the file	VishnuException	VishnuException	0
F2.MV1-E4	Bad machine Identifier	VishnuException	VishnuException	0

2.15 F2.MV2-B: Execute an asynchronous move of files

API command: *amv*

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.MV2-B	Normal execution of amv	The copy of source file is on the destination path and the source file is deleted.	The copy of the source file is on the destination path and the source file is deleted.	0
F2.MV2-E1	The source file path is invalid	VishnuException	VishnuException	0
F2.MV2-E2	The destination file path is invalid	VishnuException	VishnuException	0
F2.MV2-E3	Not access rights to the file	VishnuException	VishnuException	0
F2.MV2-E4	Bad machine Identifier	VishnuException	VishnuException	0

2.16 F2.CA1-B: Cancel file transfer

API command: *stopFileTransfer*

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.CA1-B	Normal execution of stopFileTransfer	The file transfer is cancelled.	The file transfer is cancelled.	0
F2.CA1-E1	A given parameter is invalid	VishnuException	VishnuException	0

2.17 F2.CA2-B: Cancel all users file transfers

API command: stopFileTransfer

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.CA2-B	Normal execution of stopFileTransfer	All users file transfers are cancelled.	All users file transfers are cancelled.	0
F2.CA2-E1	A given parameter is invalid	VishnuException	VishnuException	0

2.18 F2.LT1-B: List all file transfers

API command: listFileTransfers

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.LT1-B	Normal execution of listFileTransfers	The file transfers are listed.	The file transfers are listed.	0
F2.LT1-E1	a given parameter is invalid	VishnuException	VishnuException	0

2.19 F2.LT2-B: List all users file transfers

API command: listFileTransfers

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.LT2-B	Normal execution of listFileTransfers	The file transfers are listed.	The file transfers are listed.	0
F2.LT2-E1	a given parameter is invalid	VishnuException	VishnuException	0

Chapter 3

Stress tests

ID test	Date	Test description	Command(s) tested	Results
STR-SERV-DOWN	14/06/11	The fms sed is stopped and restarted	cpAsync	Success - normal update file transfer status setting
STR-AGENT-DOWN	14/06/11	The SysFera-DS Agent is stopped and restarted		failure

Chapter 4

Load tests

ID test	Date	Test description	Command(s) tested	Results
LOAD-2.1-touch	13/06/11	Simultaneous launch of 100 commands	touch	Success - normal execution of all commands launched
LOAD-2.1-listFileTransfers	13/06/11	Success - Simultaneous launch of 100 commands	listFileTransfers	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-vishnu_cp	comparison with "scp"	vishnu_cp	0,04s	0,02s	Success
CDP-3.1-vishnu_stat	comparison with "ssh host stat "	vishnu_stat	0,04	0,03s	Success

ID test	Test description	Command(s) tested	Consumption	Results
CDP-3.2.1-vishnu_cp	memory consumption less than 500 Mb	vishnu_cp	1,3% of the RAM	Success
CDP-3.2.1-vishnu_stat	memory consumption less than 500 Mb	vishnu_stat	1,6% of the RAM	Success
CDP-3.2.2-vishnu_cp	CPU consumption less than 10%	vishnu_cp	0,7% of the CPU	Success
CDP-Memserver	Memory consumption of fms server running during 24 hours	fms server	0,7% of the RAM	Success