

VISHNU - FMS - Tests report



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Chapter 1

Introduction

Author of the test code : Benjamin Isnard

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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 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: *createFile*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.CR1-B	Normal execution of createFile	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: *removeFile*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DE1-B	Normal execution of removeFile	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: *createDir*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.CR2-B	Normal execution of createDir	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

2.4 F1.DE2-B: Delete directories

API command: *removeDir*

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DE2-B	Normal execution of removeDir	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: headOfFile

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI1-B	Normal execution of headOfFile	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: tailOfFile

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI2-B	Normal execution of tailOfFile	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: contentOfFile

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI3-B	Normal execution of contentOfFile	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: listDir

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

ID test	Description of the test cases	Output expected	Output gotten	Error
F1.DI5-B	Normal execution of getFilesInfo	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: *copyFile*

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.CP1-B	Normal execution of copyFile	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: *copyAsyncFile*

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.CP2-B	Normal execution of copyAsyncFile	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: moveFile

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.MV1-B	Normal execution of moveFile	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: moveAsyncFile

ID test	Description of the test cases	Output expected	Output gotten	Error
F2.MV2-B	Normal execution of moveAsyncFile	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	copyFileAsync	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-createFile	13/06/11	Simultaneous launch of 100 commands	createFile	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_copy_file	comparison with "scp"	vishnu_copy_file	0,04s	0,02s	Success
CDP-3.1-vishnu_get_file_info	comparison with "ssh host stat "	vishnu_get_file_info	0,04	0,03s	Success

ID test	Test description	Command(s) tested	Consumption	Results
CDP-3.2.1-vishnu_copy_file	memory consumption less than 500 Mb	vishnu_copy_file	1,3% of the RAM	Success
CDP-3.2.1-vishnu_get_file_info	memory consumption less than 500 Mb	vishnu_get_file_info	1,6% of the RAM	Success
CDP-3.2.2-vishnu_copy_file	CPU consumption less than 10%	vishnu_copy_file	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