

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 : 2Gb
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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

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		