# **VISHNU - TMS - Tests report**



#### Copyright © 2011 SysFera SAS

This report is provided under the following conditions:

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

This software is governed by the CECILL licence under French law and abiding by the rules of distribution of free software. You can use, modify and/ or redistribute the software under the terms of the at the following URL "http://www.cecill.info".

As a counterpart to the access to the source code and rights to copy, modify and redistribute granted by the license, users are provided only with a limited warranty and the software's author, the holder of the economic rights, and the successive licensors have only limited liability.

In this respect, the user's attention is drawn to the risks associated with loading, using, modifying and/or developing or reproducing the software by the user in light of its specific status of free software, that may mean that it is complicated to manipulate, and that also therefore means that it is reserved for developers and experienced professionals having in-depth computer knowledge. Users are therefore encouraged to load and test the software's suitability as regards their requirements in conditions enabling the security of their systems and/or data to be ensured and, more generally, to use and operate it in the same conditions as regards security.

CO			

	TITLE : VISHNU - TMS - Tests	report	
ACTION	NAME	DATE	SIGNATURE
WRITTEN BY	Benjamin Isnard, Daouda Traoré, Eugène Pamba Capo-Chichi, Kevin Coulomb, and Ibrahima Cissé	May 2011	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME
1	05/05/2011	Deliverable version	SYSFERA SAS

### **Contents**

1	Introduction															1
2	<b>Functional tests</b>	mit a job														2
	2.1 T1.1 - Sub	mit a job		٠,٠	 	٠.	٠,	٠.	, .		 	 	 			 2
	2.2 T2.2 - Can	cel a job			 	٠,	٠.	Α.			 	 	 			 2
	2.3 T2.1 - Get	job information			 		Α.				 	 	 			 2
	2.4 T2.5 - Get	jobs progression		٠,.	 	Υ.					 	 	 			 3
	2.5 T2.6 - Get	one job outputs			 						 	 	 			 3
	2.6 T2.7 - Get	all completed jobs output	s	٠,	 	٨					 	 	 			 3
	2.7 T2.3 - List	job queues		٠,	 					٠.	 	 	 			 4
	2.8 T2.4 - List	jobs		٠.	 						 	 	 			 4
3	Stress tests															5
1	I and tasts															6

### Introduction

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

• Batch scheduler : TORQUE V2.5

### **Functional tests**

### 2.1 T1.1 - Submit a job

API command: submitJob

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
T1.1-B	Normal execution of submitJob	The job identifier is returned	The job identifier is returned	0
T1.1-E1	Bad session key	VishnuException	VishnuException	0
T1.1-E2	Bad machine Identifier	VishnuException	VishnuException	0
T1.1-E3	Bad script content	VishnuException	VishnuException	0
T1.1-E4	Bad script path	VishnuException	VishnuException	0

### 2.2 T2.2 - Cancel a job

API command: cancelJob

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
T2.2-B	Normal execution of cancelJob	The job is cancelled	The job is cancelled	0
T2.2-E1	Bad session key	VishnuException	VishnuException	0
T2.2-E2	Bad machine Identifier	VishnuException	VishnuException	0
T2.2-E3	Bad job identifier	VishnuException	VishnuException	0
T2.2-E4	Job canceling by a user who is not an administrator and not the owner of the job	VishnuException	VishnuException	0

#### 2.3 T2.1 - Get job information

API command: getJobInfo

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
T2.1-B	Normal execution of getJobInfo	The job object is returned	The job object is returned	0
T2.1-E1	Bad session key	VishnuException	VishnuException	0
T2.1-E2	Bad machine Identifier	VishnuException	VishnuException	0
T2.1-E3	Bad job identifier	VishnuException	VishnuException	0

### 2.4 T2.5 - Get jobs progression

 $API\ command:\ getJobProgress$ 

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
Т2.5-В	Normal execution of getJobProgress	The job progression object is returned	The job progression object is returned	0
T2.5-E1	Bad session key	VishnuException	VishnuException	0
T2.5-E2	Bad machine Identifier	VishnuException	VishnuException	0
T2.5-E3	Bad job identifier	VishnuException	VishnuException	0

### 2.5 T2.6 - Get one job outputs

API command: getJobsOutput

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
T2.6-B	Normal execution of getJobsOutput	The job output files are returned	The job output files are returned	0
T2.6-E1	Bad session key	VishnuException	VishnuException	0
T2.6-E2	Bad machine Identifier	VishnuException	VishnuException	0
T2.6-E3	Bad job identifier	VishnuException	VishnuException	0
T2.6-E4	Identifier of job not terminated	VishnuException	VishnuException	0

#### 2.6 T2.7 - Get all completed jobs outputs

 $API\ command:\ getCompletedJobsOuput$ 

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
T2.7-B	Normal execution of getCompletedJobsOuput	The job output files of all completed jobs are returned	The job output files of all completed jobs are returned	0
T2.7-E1	Bad session key	VishnuException	VishnuException	0
T2.7-E2	Bad machine Identifier	VishnuException	VishnuException	0

### 2.7 T2.3 - List job queues

API command: listQueues

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
Т2.3-В	Normal execution of listQueues	The list of queues is returned	The list of queues is returned	0
T2.3-E1	Bad session key	VishnuException	VishnuException	0
T2.3-E2	Bad machine Identifier	VishnuException VishnuException	VishnuException	0

### 2.8 T2.4 - List jobs

API command: listJobs

ID test	Description of the test cases	Output expected	Output gotten	Error and remarks
T2.4-B	Normal execution of listJobs	The list of jobs is returned	The list of jobs is returned	0
T2.4-E1	Bad session key	VishnuException	VishnuException	0
T2.4-E2	Bad machine Identifier	VishnuException	VishnuException	0

### **Stress tests**

ID test	Date		Test description	Command(s) tested	Results
STR-SERV-DOWN	05/05/11		The tms sed is	submitJob	normal job
STR SERV BOWN			stopped and restarted		submission
STR-AGENT-	05/05/11		The SysFera-DS		
DOWN			Agent is stopped and		failure
DOWN			restarted		
	05/05/11		The batch scheduler		failure with the
STR-BATCH-			is stopped and the	submitJob	corresponding error message
DOWN			command submitJob		
			is launched		

# **Load tests**

ID test	Date	Test description	Command(s) tested	Results
LOAD-2.1-submitJob	05/05/11	Simultaneous launch of 100 commands	submitJob	normal execution of all commands launched
LOAD-2.1-listJobs	05/05/11	Simultaneous launch of 100 commands	listJobs	normal execution of all commands launched
LOAD-2.1- listQueues	05/05/11	Simultaneous launch of 100 commands	listQueues	normal execution of all commands launched