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D2.4.1

Cloud Application Template Catalogue Report

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Author(s)	Consonni, Marco (marco.consonni@hp.com) Milani, Andrea (andrea.milani@hp.com)		
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Abbreviations

Acronym	Description
DB	Database
DBaaS	DB as a Service
DNS	Domain Name System
IaaS	Infrastructure as a Service
PaaS	Platform as a Service
SCP	Storm Clouds Platform
URL	Uniform Resource Locator
VM	Virtual Machine
VPN	Virtual Private Network
WLAN	Wireless Local Area Network

1 Introduction

Surfing Towards the Opportunity of Real Migration to Cloud-based public Services (STORM CLOUDS) is a project partially funded by the European Commission within the 7th Framework Program in the context of the CIP project (Grant Agreement No. 621089).

The project has the objective of exploring the shift to a cloud-based paradigm for deploying services that Public Authorities currently provide using ‘more traditional’ IT deployment models. In order to meet the project objectives, the consortium decided to conduct pilot experiments consisting in porting already implemented application programs to a cloud computing environment.

The implementation of the pilots uses a common centralized infrastructure that provides the computing resources. Computing resources are made available on an “as-a-Service” paradigm, meaning that resources are activated and de-activated on an on-demand basis. For this reason, in addition to providing the physical equipment used for running applications (i.e. server machines, mass storage and network connections), the project requires the implementation of a cloud computing platform that actually implements the “as-a-Service” paradigm.

Storm Clouds Platform (SCP) is the cloud computing platform designed and implemented for the Storm Clouds Project and this document reports the current implementation status.

According to [1], an actual implementation of the SCP shall be provided to the project participants in order to allow the migration of applications to a cloud infrastructure and, once the migration is complete, the applications shall be available on Internet to the end-users (e.g. citizens, public servants).

2 Current Implementation Status

As anticipated in [2], HP decided to take advantage of a public cloud operator for hosting the migrated applications. The public cloud operator provides computing resources like servers, connectivity, storage, Internet access, etc; HP uses such resources for implementing the SCP.

In addition, HP has implemented an in-house SCP instance at its own premises with the main purpose of providing all the partners with a testing and staging environment.

At the current stage, both the SCP instances fully implement IaaS functions. The in-house instance partially implements DBaaS features through some “*prefabricated*” virtual machine images.

3 Cloud Application Catalogue

According to the [2], HP has also implemented a library of artefacts used for facilitating the deployment of cloud based applications. They come as prefabricated virtual machines images that can be used both as the basis for implementing the migrated applications as well as for directly implementing general purpose functions of the Storm Cloud Platform.

The following table reports what has been made available:

Area	VM Image	Function
Virtual Server	ubuntu-lucid-10.04-amd64	It provides an Ubuntu virtual server VM (10.04 lucid version) for installing and running applications
	trusty-server-cloudimg-amd64	It provides an Ubuntu virtual server VM (10.04 lucid version) for installing and running applications
General Purpose Services	DNS-Ubuntu14.04	It provides a Domain Name Service for applications running in the Storm Cloud Platform
DBaaS	MySQL-5.5_Ubuntu-14.04-External-DB	It implements a MySQL DB engine
	PostgreSQL-9.3.5_Ubuntu-14.04-External-DB	It implements a PostgreSQL DB engine

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