CoherentPaaS

Coherent and Rich PaaS with a Common Programming Model

ICT FP7-611068

Hypervisor Resource Usage Monitoring and Profiling

D8.3.2

March 2015

Document Information

Scheduled delivery	31.03.2015
Actual delivery	31.03.2015
Version	1.0
Responsible Partner	FORTH

Dissemination Level: RE

PU Public
PP Restricted to other programme participants (including the Commission)
RE Restricted to a group specified by the consortium (including the Commission)
CO Confidential, only for members of the consortium (including the Commission)

Revision History

Date	Editor	Status	Version	Changes
15.02.2015	A. Bilas	Draft	0.1	Table of contents and initial version
22.02.2015	S. Papageorgiou	Draft	0.2	Content
29.02.2015	A. Bilas	Draft		Review and comments
31.02.2015	S. Papageorgiou	Draft	0.3	Edits
10.02.2015	G.Saloustros	Draft		Review
15.02.2015	A. Bilas	Draft	0.4	Release for project review
17.02.2015	Ying Zhang	Draft		Review by MonetDB Solutions
17.02.2015	J.O.Pereira	Draft		Review by INESC
19.02.2015	A. Bilas	Final	1.0	Final release

Contributors

S. Papageorgiou (FORTH) and Angelos Bilas (FORTH)

Internal Reviewers

INESC, MonetDB Solutions

Acknowledgements

Research partially funded by EC 7th Framework Programme FP7/2007-2013 under grant agreement n° 611068.

Moreinformation

Additional information and public deliverables of CoherentPaaS can be found at:http://coherentpaas.eu

1. Executive Summary

This deliverable discusses how SSWAT, the performance analysis tool for the systems software layers, can be deployed and used by users. This type of monitoring is important as systems software is rather complex in servers that support analytics and in addition, different resources can constitute performance bottlenecks.

The purpose of SSWAT (System Wide Analysis Tool) tool is to provide the user with an infrastructure for system wide analysis at the OS and the hypervisor level. The analysis is divided into three different parts that we will discuss in detail later: gathering, analysing, and visualizing the data.

SSWAT uses oprofile [8] to profile the kernel and along with other Linux features, data from various sources are gathered. By analysing these data a visual representation of live system state is possible and a wealth of accompanying information is available which aid in decoding complex system behaviour.

This report builds on D8.3.1 and provides information on how SSWAT should be used to gather and visualize statistics from the OS kernel and the hypervisor. SSWAT can be use as part of the overall monitoring system of the project or in standalone mode and provide monitoring statistics for the lower system layers.