

11th Quattor Workshop

Wednesday, 16 March 2011 - Friday, 18 March 2011

CERN

Book of Abstracts

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Security Management / 0**SINDES development**

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SINDES, Secure INFORMATION DELIVERY System, is a tool that can be used together with Quattor to ensure enough level of privacy in storing and delivering confidential files. Written in 2005, SINDES is now being reviewed in view of enhancing and/or rewriting it.

We propose to describe short-term enhancements to the current system (access control, improved logging, clearing old certificates, publishing the CRL) with some functional details and explanation about how it changes the application. Apart from that, the requirements collected from the CERN users of SINDES will be presented (file modifications, history, machine upload, unattended installations, support for different OS) . Each request for enhancement will be followed by a possible list of solutions and will be discussed whether it is possible to implement in current SINDES.

At the end, the proposal of the architecture of the new SINDES will be shown. Moreover, some implementation details will be proposed and prototype system will be presented. The presentation will be followed by a discussion/brainstorming session with the whole Quattor Community.

Summary:

Current development on SINDES will be presented. The proposal of the architecture of the new SINDES and summary of CERN user's requests for enhancement will be also shown. The discussion foreseen at the end.

Core Tools / 1**Pan Compiler Status**

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Status and roadmap for the pan compiler.

Development Tools and Process / 2**Maven-based build tools**

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Current status of the maven-based build tools for Quattor.

Tutorials and Hands-on / 3**StratusLab Cloud Tutorial**

Author: Cal Loomis¹

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Tutorial showing the StratusLab cloud developments as well as interactions with the Quattor toolkit.

Security Management / 4**Quattor and CERN security**

Author: Luis Fernando Munoz Mejias¹

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In this talk, we'll provide a small overview of how CERN deals and prevents with security vulnerabilities, and how Quattor is used in plenty of them.

QWG Templates and monitoring / 5**Lemon - The LHC Era Monitoring system at CERN**

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The LHC Era Monitoring (Lemon) system is addressing requirements for large scale infrastructure monitoring and is used in the CERN Computing Centre. Although Lemon is not directly integrated into Quattor, it is nonetheless a part of the Extremely Large Fabric management system (ELFms) tool suite and used by several Quattor community members.

We would like to share our experience, present on-going development activities as well as options open for future CERN CC monitoring. Depending on the time available we may address questions from Lemon users in the Quattor community.

Tutorials and Hands-on / 6**Tutorial: PAN language**

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I think that a tutorial on the PAN language would be useful (we could record it for later usage for new comers). With main features and best practices and how to improve compilation performance.

Could Cal provide it ?

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tutorial: NCM-components

Author: Luis Fernando Munoz Mejias¹

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I would propose to have another tutorial that presents all existing CORE components, what they do and examples of how to use them.

Also some guide lines about how to write new components ?

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example of quattor settings such that the authorized_keys for root/users account stay and don't get removed (nor changed) after re-configuring ncm component

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example of quattor settings such that the authorized_keys for root/users account stay and don't get removed (nor changed) after re-configuring ncm component.

Introduction / 10

Welcome

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QWG Update

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Changes in QWG templates since last workshop and planned new features

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example of quattor settings for RAID disk configurations (e.g. RAID 1, 6,10, 6E...)

Author: Michel Jouvin¹

¹ *LAL / IN2P3*

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example of quattor settings for RAID disk configurations (e.g. RAID 1, 6,10,6E...)

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Preparing glite updates in QWG

Author: Michel Jouvin¹

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Discussion/Tutorial on what is required to prepare templates for new gLite updates in QWG to allow more sites to contribute to teh effort.

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Status of Quattor Configuration Modules

This presentation will give a report on components available (number, main purposes..), identify the critical ones and those that urgently need some refactoring/rewriting or maintenance.

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Quattor Update

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Main actions and facts since the last workshop. Evolution of the community.

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Discussion

Core Tools / 18

Aquilon + QRD Status ?

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Development Tools and Process / 19

End of current sprint

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QWG Templates and monitoring / 20

Status of monitoring templates

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Development Tools and Process / 21

Discussion on development process

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Discussion on community organization (eg. monthly meeting) and scrum development process started after last workshop (sprint interval, standup interval)...

RHEL6 Discussion / 22

CERN experience and problems with RHEL6

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AUTH experience and success with FC 14

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Discussion

Major issues, workplan, specific needs for RHEL6, impact on component development

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Discussion on Pan annotations

Goal : agreement on how to use Pan annotations, which tags to use, which tools to compile and present them.

Site Experiences / 26

Quattor in CMS (a CMS for CMS).

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The CMS online cluster consists of more than 2500 computers, mostly under Scientific Linux CERN, running the 10000 applications instances responsible for the data acquisition and experiment control on a 24/7 basis.

The evolving nature of the acquisition applications requires an easy management and configuration infrastructure suitable for large scale installation and fast configuration turnaround. Quattor was chosen as the Configuration Management System for CMS.

Online computers, under Quattor, can be fully reinstalled and configured from scratch in 6 to 25 minutes. Full reconfiguration of the cluster takes smaller times. More than 1000 computers can be reinstalled concurrently in less than 60 minutes and the infrastructure is easily scalable to reduce the installation time and accommodate for more computers at the same time.

Several tools have been created to leverage the knowledge of Quattor for daily tasks and to allow it to be used by for non privileged users.

In this presentation we will revise the details of the CMS Quattor infrastructure, its performance and the tools created to ease administration and overcome the shortcomings of Quattor.

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Continuous integration server

Demo + discussion

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Pan annotation

Follow-up of Thursday morning discussion (<https://trac.lal.in2p3.fr/Quattor/ticket/238>)