Quattor without QUEST

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Outline

- QUEST project
- Reasons for QUEST failure and consequences
- What remains of QUEST?
- Proposals for the future

QUEST Objectives...

- QUEST = Quattor Enhancements
  - Usability: improve end-user tools and low-level componenents
    - Panc editor and debugger
    - Tooling for writing configuration modules
    - Support for package managers other than RPM
  - Scalability: number of nodes managed, integration with workflows and dynamic resource provisionning (clouds)
    - Aquilon integration into the core toolkit
    - IPv6
    - Hooks for integrating with mgt workflows or cloud managers
  - Maintainability
    - Review/refactor the code and enforce development best practices
    - Set up a build and test infrastructure for Quattor

... QUEST Objectives

- Grid and generic service configuration: QWG and related configuration module enhancements
  - Support for other MW and generic services
  - Integration with monitoring (Nagios)
  - Basic VM support: enhancement of what exists today

- Enlarge Quattor adoption through strong dissemination and training activities
  - Establish close contacts with new NGIs which could benefit from management models enabled by Quattor
  - Improve documentation, lower learning curve with appliances
  - Study feasibility/interest for a commercial support

- Long-term organization of the community
  - Study feasibility and best type of consortium
  - Study possibility to register Quattor as a trademark

Link with the Community

- QUEST is a project to serve the Quattor community
  - The work plan comes from the discussions inside the community
  - Everything done will be contributed to the standard toolkit
- Quattor community is an explicit partner in the QUEST proposal
  - Quattor Workshop will be one of the major place for interactions between QUEST and the community
  - Quattor community will be asked for an early feedback about QUEST developments
  - No attempt to cover all the Quattor development needs
    - Focus on what is difficult to do on a best effort basis
- Ensure the long-term dynamism of the community
  - QUEST is only a focused 2-year project
  - We want Quattor to be in a better position to meet future challenges

Reasons for QUEST Failure

- From Evaluation Summary Report

- The high level objective of the project is clear and the concept is sound, the overall workplan structure is adequate but...

  - Also "efforts to investigate commercial support and consultancy of Quattor and adherence to software quality standards are adequate »

- The work mainly aims at eliminating deficiencies of and providing incremental enhancements ... their value is not sufficiently elaborated and tied to user requirements.

  - We were said the goal of the call was consolidation...

  - We thought we described in great details user requirements motivating the work plan...

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Reasons for QUEST Failure

- Our dissemination effort was not received as credible

  - The dissemination plan is not well focused and does not present a concerted effort to promote the results of the project beyond the Quattor community. (1st criteria)

  - The approach to significantly enlarge the existing community of Quattor and to promote it to a larger target audience is insufficient and no actions are foreseen to reach out to other communities. (3d criteria)

- Dissemination credibility was probably the most important weakness

  - Lack of a LoS from a NGI interested by Quattor?

  - Recent adopters tend to prove we were right…

Failure Consequences

- 11 FTEs lost
  - Very significant compared to the current manpower available
  - Will have to rely more on our existing forces
    - And need to increase them by extending the community
  - Cannot expect to do everything planned without it
- Money for dissemination and training actions
  - ~50 k€
  - Dissemination remains critical for Quattor
- Ability to involve external partners bringing some specific expertise like quality expertise
  - Role of SixSq in QUEST
  - Including detailed review of existing components by people outside the community

What Remains of QUEST?

- Probably the first attempt to produce a consistent workplan for Quattor toolkit covering all aspects
  - Not covering all needs (contribution by the community)
  - With a roadmap that is certainly no longer feasible
  - Involved most of the active partners in the community covering different usage patterns
  - May release the workplan to the community
- Demonstrated a great maturity of the community
- Showed an important consensus on what should be done (ideally)
- Probably no new possibility to get a *big project* funded but may be some opportunity to set up smaller projects for some parts
  - E.g. panc debugger
  - National funding?

The Difficult Parts...

- Support for platforms other than RH derivatives
  - Main priority: Debian/Ubuntu
  - Main issue: package management

- Pan debugger
  - Eclipse Pan editor easier
  - In fact something (very basic) started in the meantime

- Aquilon integration, in particular with QWG
  - Mainly rely on MS + RAL resources, except if CERN is interested

- Build and test infrastructure
  - Critical for improving the quality and lowering the maintenance cost
  - Can probably be done incrementally
  - Some parts require significant manpower/resources

... The Difficult Parts

- Quality review of existing code base
  - In-depth review of everything probably impossible
  - A significant work happened in the last year with NCM components, the weakest part
    - Several entirely rewritten by Luis and me
    - This work must continue... rewrite rather than hack existing old-style components (e.g. use getTree() and CAF APIs in replacement of old ones)
    - Need to agree and document best-practicies: concentrate on API to use rather than number of spaces...
    - Probably need to obsolete or deprecate some components

Proposal 1: Roadmap

- We need to convert todo list into a feasible roadmap

  - QUEST workplan can be taken as an input, even if not covering everything

  - Roadmap must be feasible = people should take actions!

- Quattor Workshop is the place to establish and discuss the roadmap

  - Roadmap must include a concrete plan until the next workshop

  - Must cover all areas of the toolkit

- The roadmap must be published and serve as a proof of credibility for Quattor

  - Must follow-up progress on decided actions

Proposal 2: Dev Meeting

- QUEST showed the benefit of meeting regularly to increase the sense of the community

- Quattor Workshop proved to be a very valuable place to discuss plans but not frequent enough to do a follow-up on actions

- Number of people actively involved in development is fairly limited
    - Not much larger than QUEST preparation committee
    - Short phone/video meeting should be feasible

- Proposal: 1 meeting every month of all people involved in roadmap actions to discuss progresses and problems
    - Based on the roadmap discussed during workshops
    - Summary of meetings on the mailing list to ensure interaction with the wider community