vl·e

virtual laboratory for e·science

Towards Production
VL-e PoC in 2008 and beyond

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VL-e SP meeting 2008-05-30

VL-e Scaling and Validation "P4"

The **Proof of Concept Environment** reminder

- It is the
  Experimentation environment for e-Science Infrastructure

  - Reliable
  - Supportable
  - Secure

Implemented through **three actions**

- PoC Software Distribution
- PoC Infrastructure and Environment
  (central facilities, distributed and contributed installations)
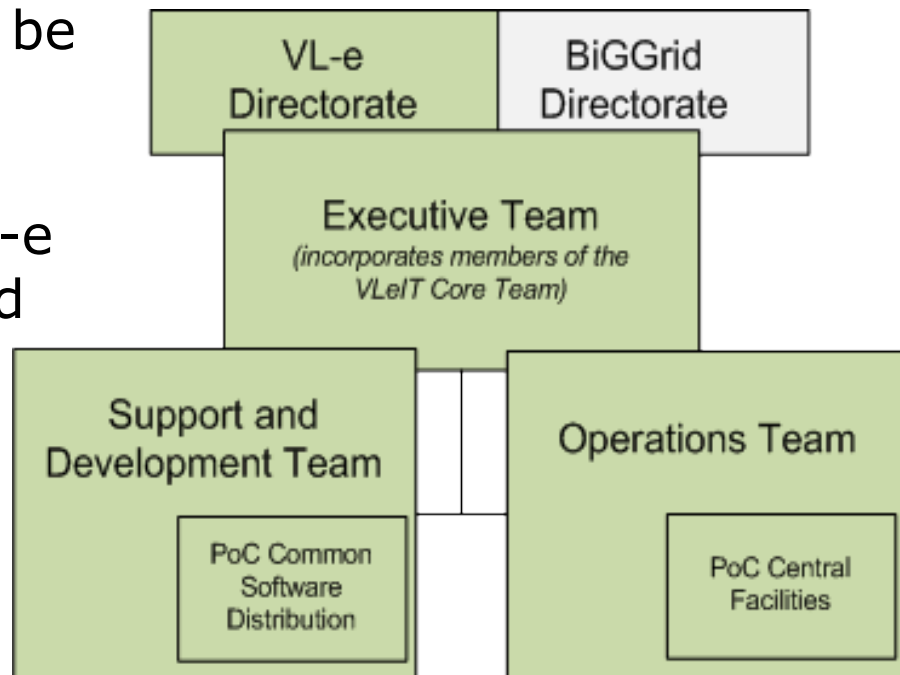- Software engineering for scalability and supportability

BiG Grid

With the roll-out of the BiG Grid project
the Netherlands gets a full scale e-Science environment

- Large-scale hardware infrastructure
  (cluster computing, HPC, mass storage)
- Support and Development
  (problem analysis, implementation of problem solving
  environments, systems and infrastructure standardisation)
- Operations Support
  (systems help desk, focus in stability, scalability and
  responsiveness)

VL-e P4 and BiG Grid: a Joint Strategy

Amalgamate P4 and BiGGrid operations

– Executive Team, with VLeIT core members, to oversee operations, support and development for both BiGGrid and VL-e PoC

– BiGGrid environment will be fully based on the existing VL-e distribution

– Applications using the VL-e PoC also 'join' the BiGGrid environment …

... *and thus profit from larger resource base for hardware and support**

VL-e Directorate

BiGGrid Directorate

Executive Team
(incorporates members of the VLeIT Core Team)

Support and Development Team

Operations Team

PoC Common Software Distribution

PoC Central Facilities

PoC and BiGGrid: Towards Production

PoC environment basis for the Infrastructure

- Virtually all services in PoC 'R3' are 'web services'
    - except: SRB – never
    - few hidden services – early 2009
- Promote use by applications of services through the GAT
- SRB: supported till end of VL-e project, but this 'vertical' will be split in components
    - Basic data storage through robust bulk services (GridFTP, or SRM for those applications that need that)
    - SRB-meta-data management (never used in VL-e!) using new components to be selected

- Adding simple but robust services for 'simple' applications
- *but also remain open for communities that favour complexity and functionality over robustness*

Towards production: stability and extensibility

'Core' PoC distribution focuses on stability
- managed software engineering track
- Components have designated maintainer and supporter
- Bug and vulnerability management

Contributed Software track
- interesting software that fit PoC distribution well
- Made available centrally, installed with minimal effort
- Possibility to extend to RESPECT (European equivalent)

Community Software Areas ('SGM')
- Community software area on each facility (site)
- Managed by the community
- *Interface and how-to will be more widely publicized*
- *And 'easier' management facilities added*

Towards production: central facilities

PoC facilities become integral part of BiGGrid

- Support at least at current levels guaranteed
- aim to improve reliability, availability and response

More support for 'hosting' environments

- Services, repositories, portals, &c
- Operation in collaboration with the user community
- e.g. life-science web service hosting

A Sustainable Infrastructure

Joint operation, development and support

- amalgamation of VL-e PoC and BiGGrid in 2008

- continuity after 2009
    BiGGrid continues service as before

- With the goal of creating a

    persistent, sustainable e-science environment

http://www.vl-e.nl/