



WP4-install status update

WP4 workshop 12/02

German Cancio, Enrico Ferro

The logo for 'Data GRID' features the word 'Data' in orange above 'GRID' in black. A blue globe icon is positioned behind the 'I' in 'GRID'.

Data GRID Agenda

- ◆ Release 2 work since last workshop
- ◆ Release 3 work progress
- ◆ Outlook



LCFGng (I)

Release 2 work: *concentrate on making LCFGng stable and available on RH7, while preparing the field for Release 3*

- ◆ Prepare LCFGng / RH62 for deployment on EDG testbeds:
 - documentation,
 - RPM lists,
 - component configuration lists
- ◆ Port LCFGng to RH72 ... and then RH73 ;-(
- ◆ Migration documentation: how to go from LCFG to LCFGng
 - Template testbed configurations made available



LCFGng (II)

- ◆ PXE support and web interface
 - EDG LCFGng supports now PXE.
 - Looks for the XML profiles available to detect which nodes could be installed
 - Uses HTTP/cgi to acknowledge installation completion
 - Web interface to select if and which installation type
- ◆ Updaterpms 'light'
 - Updaterpms can be configured to respect local installation
- ◆ Separate 'first installation' from 'update' phases during RPM installs
 - 99% of the updaterpms failures were due to badly packaged RPM's. These errors can be avoided now with the two-phase installation.
- ◆ Replace populate-server by Steve Traylen's edg-updaterep



LCFGng (III)

- ◆ Wrote new components (AFS, xinetd,..), distribute 'external' components (Monitoring, WP2 RC..)
- ◆ CDB->Kickstart translator prototype
- ◆ Others
 - clean up pending bugzilla reports
 - Enable autobuild
 - Write unit tests
- ◆ Teaching:
 - "How to write LCFG components" tutorial at CERN
 - LCFGng tutorial at CERN
- ◆ Coordination workshops in October
 - CERN-Edinburgh (2 days)
 - CERN-INFN (1.5 days)



LCFGng (IV)

Main issues:

- ◆ **RH release and updates were not available on Marianne** -> relying on external repositories, which lead to inconsistencies as these change over time!
- ◆ **Late decision in deciding which RH 7 version to take.** When we had EDG LCFG already available for RH72, it was decided to go for RH73. ☹
- ◆ **Ongoing support for "old" LCFG.** Neither the production nor the development testbeds have been migrated yet to LCFGng. Thus, new components have been made available both for LCFG and LCFGng, which has lead developers to write them in shell - but shell component support will be discontinued in R3!
- ◆ **Updaterpms is not available for rpm 4.0.4,** which is the rpm version used by RH73! We are using rpm4.0.2 instead. A special package was built to solve some dependancy problem. Anyway it is working



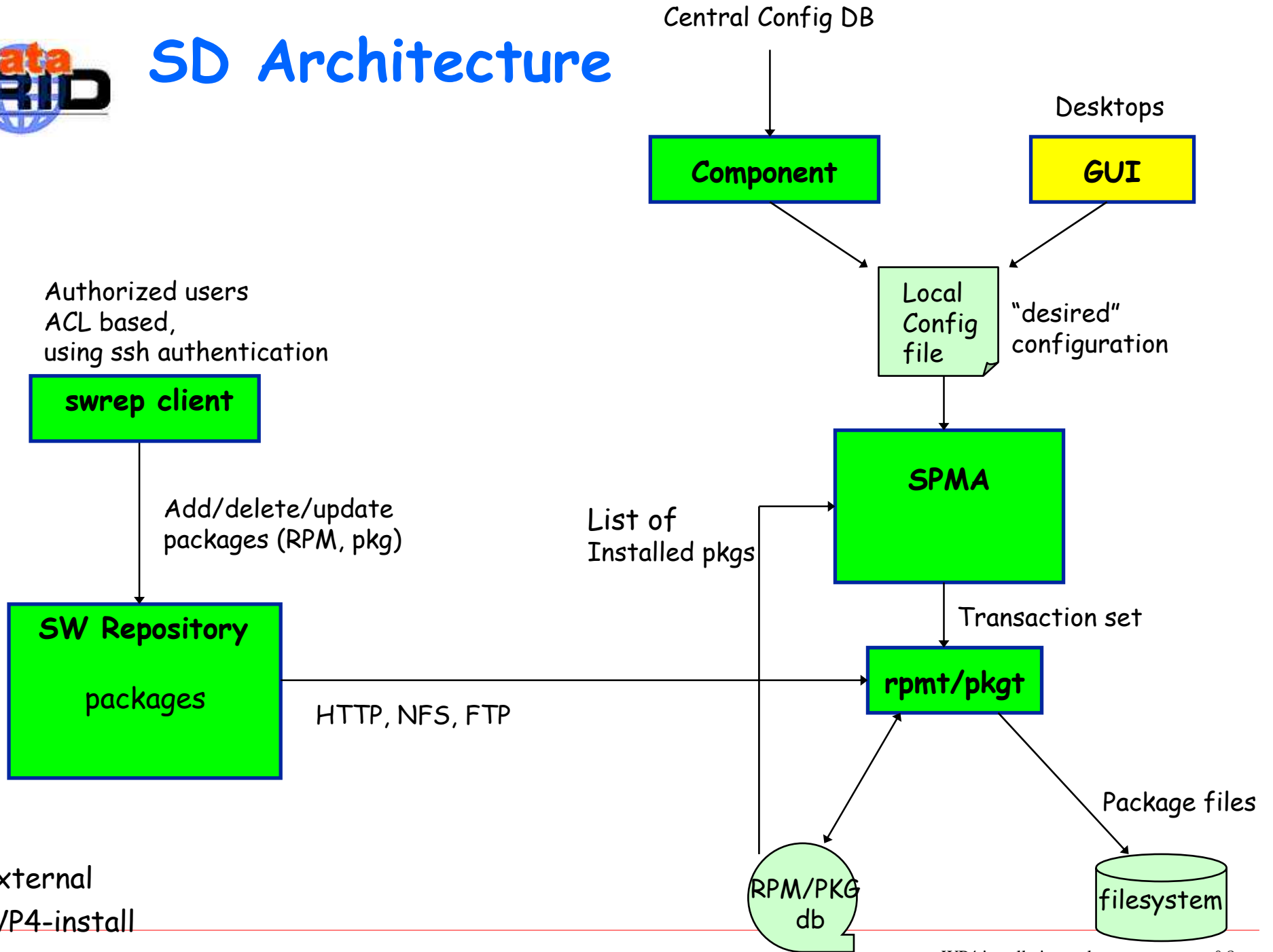
Release 3 developments

WP4-install has been working on the following R3 developments:

- ◆ Software Distribution:
 - Software Repository (SWrep)
 - Software Package Management Agent (SPMA)
 - Transactional RPM front-end (rpmt)
- ◆ Global Configuration Schema



SD Architecture





Current status (I)

SWrep:

- ◆ A first version of the SWrep is available for tests in CVS.
- ◆ Currently, manages RPM packages. Can be extended to manage Solaris PKG packages.
- ◆ SW manager's access is based on ACL's and SSH authentication.
- ◆ Packages can be uploaded via SSH tunnel or using HTTP.
- ◆ SW client access is done by exporting the directory with the packages over HTTP, NFS, FTP, ...

- ◆ Documentation:
 - <http://cern.ch/wp4-install/R3/SPM/SoftwareRepository.pdf>



Current Status (II)

Transactional RPM (rpmt):

- ◆ Prototype extensions for supporting per-package flags (no dependencies, no scripts)
 - However, this implied a higher complexity in the rpmt tool
 - We also found out that most of the LCFG per-package flags are not necessary
 - Thus, we have decided to **drop** per-package flag support for the future.
- ◆ CERN Solaris team has released a first version of an equivalent tool for PKG, 'pkgt'.



Current Status (III)

Software Package Manager Agent (SPMA):

- ◆ First pre-alpha version being tested internally
 - Early tests at CERN using it for ASIS package distribution
- ◆ Modular plug-in design for packagers
 - current implementation supports RPM
 - CERN Solaris team looking at providing an PKG plug-in (interfacing to pkggt)



Current Status (IV)

Global Configuration Schema:

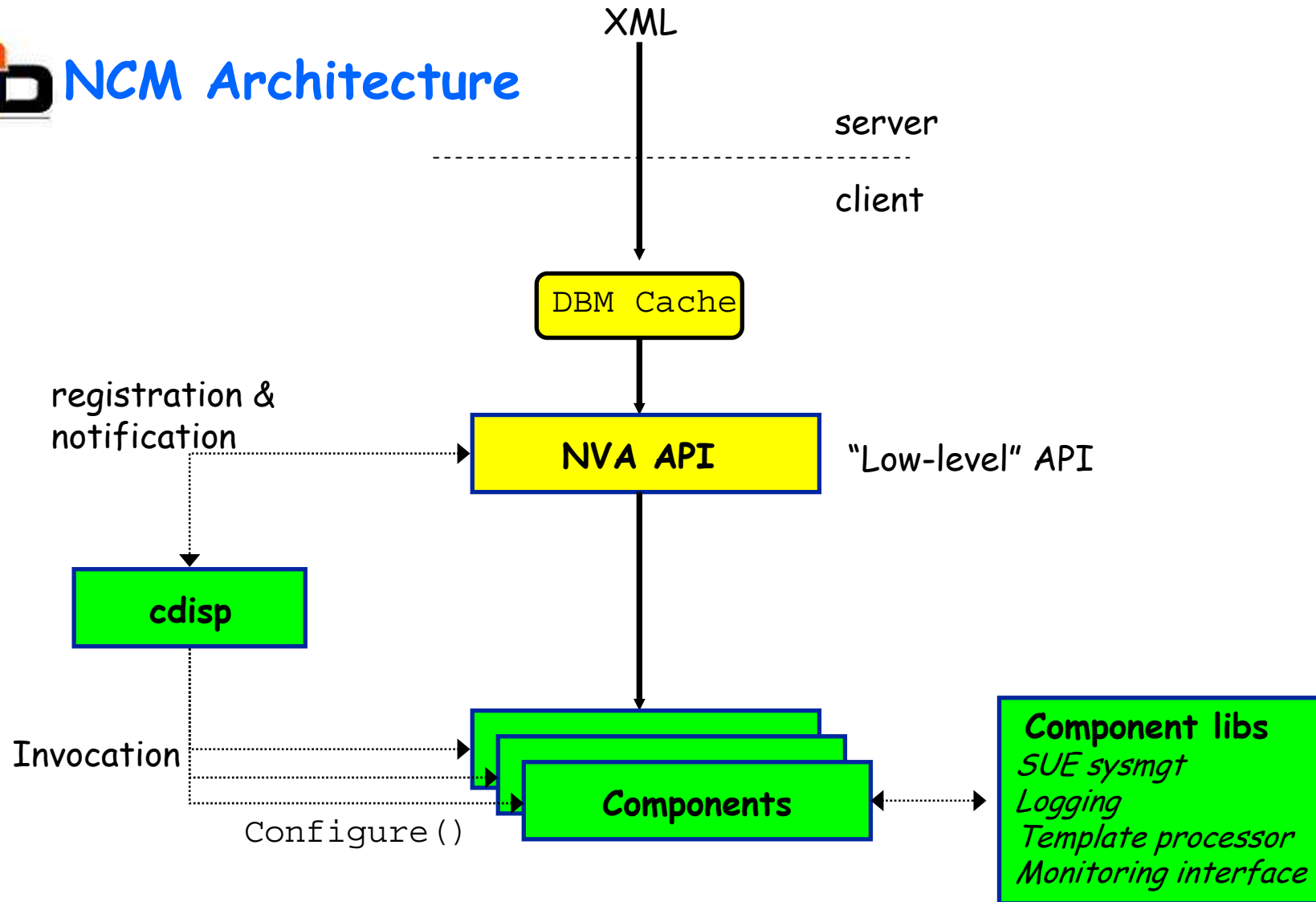
- ◆ Revised large parts of the initial Global Configuration Schema
- ◆ Specially concentrating on the `/system` and `/software` trees
 - `/software` sub-tree 'owned' by WP4-install
- ◆ Propose functions for accommodating Software Package lists in the HLDL language

- ◆ Proposal found at:
 - <http://cern.ch/wp4-install/R3/GlobalSchema>

The logo for Data GRID, featuring the word "Data" in orange above "GRID" in black, with a blue globe icon behind the letters "I" and "D".

Data GRID Outlook

- ◆ Future work will be focused on Release 3 developments
 - Node Configuration Management developments (next slide)
 - Component support libraries
 - Component porting to new framework when available
- ◆ We are a bit behind schedule, but we hope to have a first R3 solution ready for tests in Spring next year
- ◆ Development, support and teaching for legacy systems is an extremely manpower consuming issue, which has to be weighted against the need for new developments
- ◆ Political issues may interfere with and/or slow down developments..
 - PACMAN



- WP4-config
- WP4-install