

How to Manage Hundreds of Controls Computers Offering Different Functionalities with Only Two System Administrators

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Controls Computing Infrastructure

Controls Section is responsible for the control system

- ⇒ four accelerators (HIPA, PROSCAN, SLS, SwissFELTest Facility)
- ⇒ ~20 SLS beamlines, ~10 HIPA beamlines, ~4 PROSCAN beamlines

Control systems run on IOCs (VME, Linux,). They need a special computing infrastructure.

- ⇒ service computers for IOCs development, booting, etc.
- ⇒ NFS and Storage file servers, Archiver servers
- ⇒ operators and experts consoles, etc.

Controls system administrators (two persons) deal with

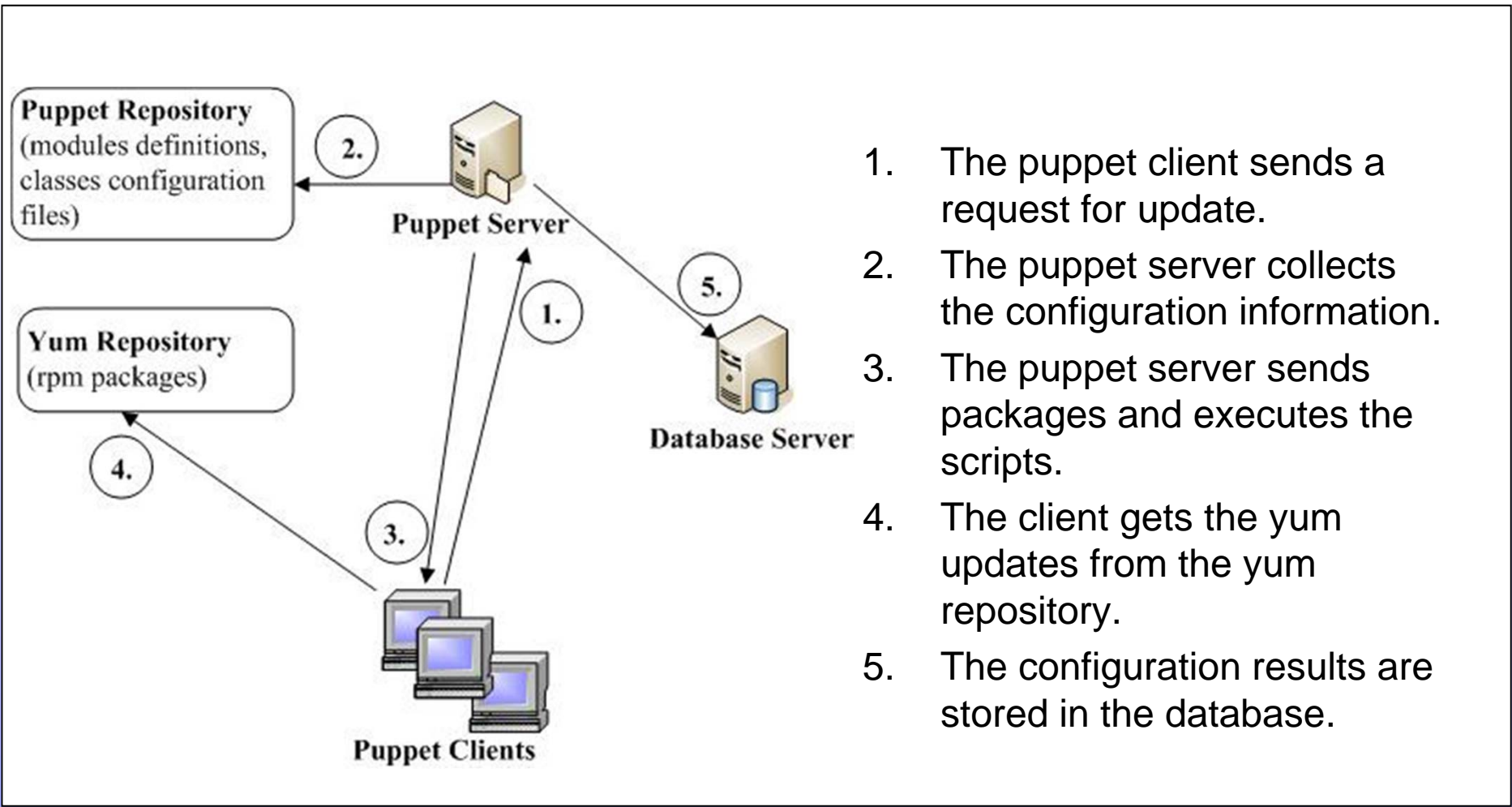
- ⇒ maintenance of ~500 Linux computers
- ⇒ many requests for a new Linux computer

How to handle this?

- ⇒ unified installation + automatic configuration

SL Kickstart + puppet

Controls Computers Configuration - Puppet



Configuration Results in Oracle Database

The screenshot displays the Puppet Advanced Search interface in Mozilla Firefox. The main window shows a list of hosts with columns for Host, Last Update, Ip, Linux Distribution, and Linux Version. A secondary window provides a detailed view of the configuration for host HOST0691, including a table of property names and values, and a section for attributes.

Host	Last Update	Ip	Linux Distribution	Linux Version
SLS-RF-A0	2011-09-27 01:03			54
X06DA-BPC-NEW	2011-09-27 03:02			
HIPA-RFMON02	2011-09-27 02:04			
PC7458	2011-09-27 01:03			
TRFCB-BPC	2011-09-27 03:02			
X11MA-CONS-4	2011-09-27 03:02			
X09LB-BPC-NEW	2011-09-27 03:02			
X03DA-SOFTIOC	2011-09-27 03:02			
PC8932	2011-09-27 02:04			
PC6282	2011-09-27 04:04			
X03MA-SOFTIOC-EPS	2011-09-27 03:03			
TRFCB-SOFTIOC-01	2011-09-27 04:03			
X03DA-CAGW	2011-09-27 02:03			
HIPA-SOFTIOC02	2011-09-27 04:04			
TRFCB-CONS-02	2011-09-27 01:03			
HIPA-RFMON01	2011-09-27 04:04			
SLSSTARCH	2011-09-27 03:03			
X12SA-BPC-NEW	2011-09-27 01:03			
X03MA-BPC-NEW	2011-09-27 03:03			
SLS-RF-A4	2011-09-27 01:02			
PC6714	2011-09-07 04:04			
PC6290	2011-09-07 02:03			
SLS-XTRA-14	2011-09-27 01:04			
PC7197	2011-08-10 04:03			
X03DA-CONS-1	2011-09-27 12:03			
SLS-RF-A1	2011-09-27 12:04			
GFA54T1	2011-09-06 11:03			
TRFCB-PSHOST	2011-09-27 03:02			
ACSVMM1	2011-09-27 02:04			
TRFCB-CAGW	2011-09-27 03:02			
PC7225	2011-09-27 12:03			
PC6110	2011-08-23 02:02			
TRFCB-CONS-5	2011-08-22 05:05			
X09LA-BPC-NEW	2011-09-27 01:04			
SLS-RF-A3	2011-09-27 02:03			
X07MA-BPC-NEW	2011-09-27 02:02			
PC6490	2011-09-09 06:04			
X10DA-BPC-NEW	2011-09-27 04:03			

Property Name	Property Value
AFSUSER	higgs
AUTO_UPDATE	yes
AUTO_UPDATE_AFS_USERS	yes
AUTO_UPDATE_CONFIG	yes
AUTO_UPDATE_KERNEL	yes
AUTO_UPDATE_MODULES	yes
AUTO_UPDATE_RPMS	no
AUTO_UPDATE_USERS	
CUSTOM	http://linux.web.psi.ch/dist/scientific/54/custom
CUSTOM_KEY	GFADesktop:load_definitions:GFADesktop /get_old_keys:GFADesktop:GFADesktop:partition:GFADesktop:puppet
CUSTOM_KEY_W480	yes
DRIVERDISK	
GATEWAY	
HOSTNAME	hipa-softioc02

Attributes	Value
PSI Label:	HOST0691
Responsible:	W. Portmann
Location:	Installed WMFA/C14.3
Object type:	Host
Type description:	
Health:	unknown