



# Integrating Linux on HP ProLiant Servers



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# Agenda

- RDP-LE 1.10 for scripted or image Server installation
- iLO for remote management
- ProLiant Support Pack installation and configuration
- Syslog, IML and /proc Server Agent Health Log Monitoring
- Insight Online Diags
- Integration with Systems Insight Manager
- CPQACUXE - HP Array Configuration Utility





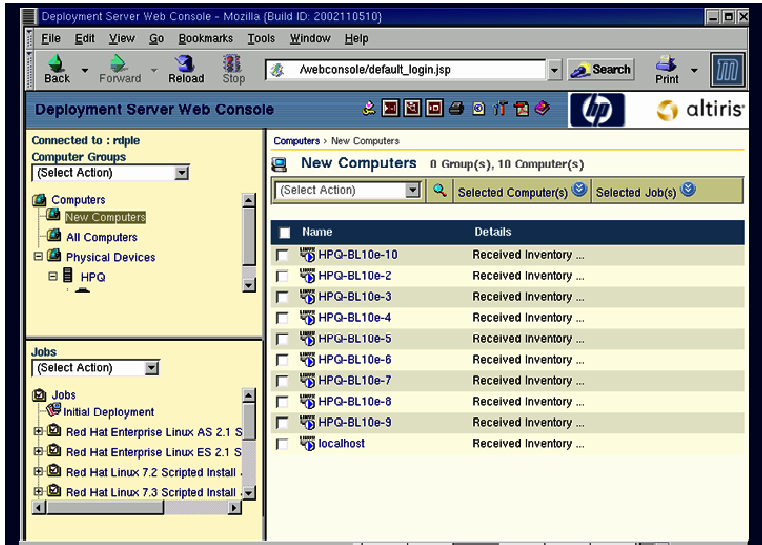
“[System] administration can prove quite challenging. It takes skill and experience...”

Bruce Momjian

Core developer on PostgreSQL



# RDP-LE 1.10 for scripted or image Server installation



- Deployment solution hosted on Linux server (Red Hat AS/ES 2.1, United Linux 1.0)
- Utilizes PostgreSQL, Apache/Tomcat, Samba
- Browser-based UI including Mozilla and Netscape
- Event utilities to initiate actions from a command line
- Supports scripted or imaged OS installation
- New imaging engine
  - Support for ext 2 and ext 3 file systems
  - Resize images to different disk types and geometries
  - Better compression than previous versions
  - Image editor to add or change image components
- Collects basic system inventory (hardware and software)
- Software Distribution (patches, security updates, applications)

## Joint HP and Altiris solution

- Altiris Deployment Server for Linux
  - Off the shelf version
- ProLiant Integration Modules
  - Includes SmartStart Scripting Toolkit and optimizations for ProLiant servers



# RDP-LE 1.10 Linux Deployment Server



- Scripted Linux OS install of RHEL 2.1/3.0 and SLES8 distribution from a configuration answer file
- Post OS installation steps to upgrade kernel and source tree
- Server image and recovery testing
- Demonstration of typical ongoing scripted server maintenance and upgrade tasks, i.e., online ROM flashing from within Linux host OS



# iLO Remote Management Processor

- (HPONCFG) Local Online Configuration of iLO
- (LOCFG) Perl implementation for Network based iLO configuration
- Simple Command Line Interface (CLI)
  - Serial (RS232) or network based
  - Network mode is provided via SSH or Telnet
  - Serial mode can operate non-authenticated
  - Serial port is shared with host system devices
- Command set:
  - HELP: Display help text
  - POWER: Control server power
  - UID: Control server Unit-ID light
  - NMI: Assert the NMI signal to the server CPU
  - REMCONS: Invoke Remote Console
  - SERIAL: Invoke Virtual Serial Port
  - EXIT: Exit the CLI
- Scriptable Virtual Media
- Sideband support on Nocona servers

# ProLiant Support Pack installation and configuration



- Graphical mode installation
- Terminal window installation
- Scriptable silent installation

# Syslog, IML and /proc Server Agent Health Log Monitoring



- /var/log/messages
- /proc
  - cpqfan
  - cpqpwr
  - cpqtemp
- hpimlview – text or XWindows viewer for the Integrated Management Log
- hpuid – check or change status of Unit ID light



# Online Survey Functionality

## Web-based management and service tool



- Captures hardware and operating system configuration
- Records critical information for documentation and disaster recovery
- Compares historical configurations on the same server or a baseline server
- Streamlines configuration analysis & troubleshooting process

The screenshot displays the HP Insight Diagnostics web interface. The top navigation bar includes 'Survey', 'Log', and 'Help' buttons. The main content area is titled 'View Current System Configuration' and shows a detailed list of system parameters for a ProLiant DL360 server. The interface is organized into sections: System, Total memory, System board, and Communication. A left-hand menu provides navigation options for various system categories.

System	
Product Name	ProLiant DL360
Processor 0	Pentium III @ 1.26 Ghz
Processor 1	Pentium III @ 1.26 Ghz
Operating system environment	Red Hat Linux release 8.0 (Psyche)

Total memory - 256 Mbytes		
System board		
DIMM 1 (SDRAM)	256 Mbytes (Speed not defined)	
DIMM 2 (SDRAM)	Not Installed	
DIMM 3 (SDRAM)	Not Installed	
DIMM 4 (SDRAM)	Not Installed	
Does the system have ECC memory		Yes
PAE enabled		Yes
Total RAM	254924 Kbytes	
Free RAM	135504 Kbytes	
Shared RAM	0 Kbytes	
Buffer RAM	9694 Kbytes	
Total swap	261112 Kbytes	
Free swap	261112 Kbytes	
Total high	0 Kbytes	
Free high	0 Kbytes	
Memory unit	0 Kbytes	

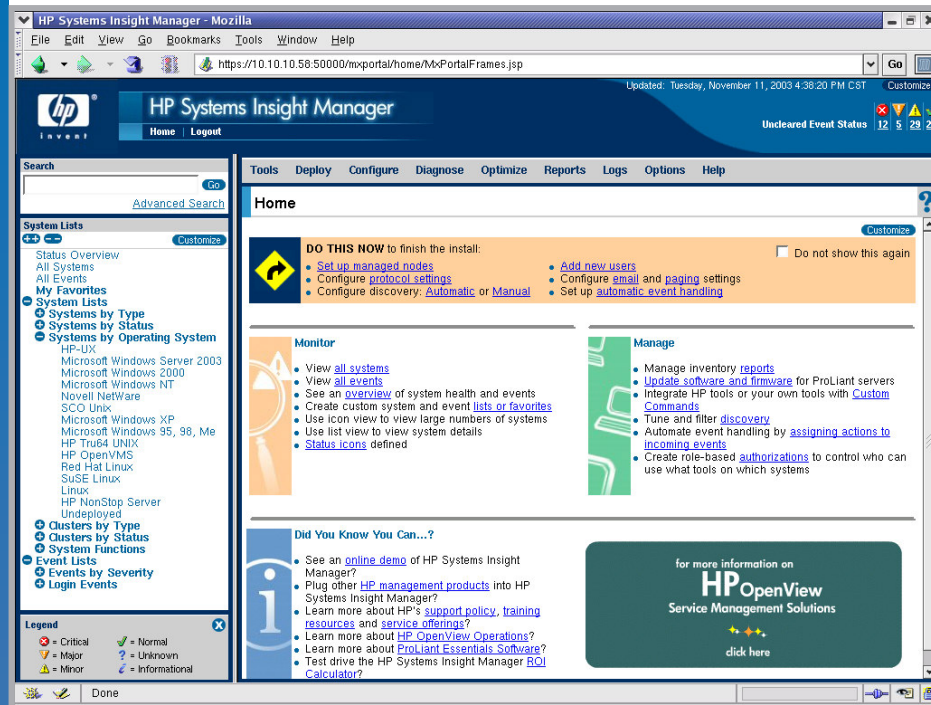
Communication	
Serial Port 1	(Address 3F8h)
Network Controller 0	eth0
Network Controller 1	eth1

### Accessibility

- Windows or Linux Browser
- From the System Management Homepage
- From HP Systems Insight Manager



# Integration with Systems Insight Manager



browser AND command line interfaces  
Mozilla compatible

- Combines all of the features from Insight Manager 7 and Servicecontrol Manager
- Central management server installed on Linux host and addressed through web browser or command line
- Provides comprehensive status information and alerting for ProLiant, HP 9000 and Integrity servers
- Communicates using industry standard protocols like WBEM, SNMP and HTTP
- Distributed task functionality through secure shell (SSH) allows management and distribution of jobs to one or many systems
- Role-based security provides ability to allow/deny access to tools and systems based on individual users

# CPQACUXE - HP Array Configuration Utility



- Online configuration utility for SmartArray controllers
- Local or remote browser access
  - when enabled remote only, will only respond to 127.0.0.1
- ACU can change stripe sizes, tune the accelerator, grow logical volumes, add additional drivers or arrays
- Command Line Interface can tune individual parameters or can be used to capture the entire configuration
- Configuration ini file can then be used to apply the configuration again to the same or a different drive



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