hp Servicecontrol Manager 3.0 for hp servers

System administration in an HP-UX and Linux environment

Outline

Product information

Architecture

S C M 3.0

Resources

Product information

- Analyst statement
- Multi-OS trends
- What is SCM 3.0?
- New or changed
- Default and bundled features
- Features for HPUX
- Features for Linux
- Manageability functions
- Summary

Industry Analysts on Multi-OS Management

- **There is a strong divide between unix and windows administrators driven by philosophy/culture and the administrative interfaces to the operating systems.**
- **In larger enterprises, you find specialists for operating systems, databases, etc. In small to medium sized companies, more likely to administer across operating systems.**
- **Catalysts for enabling multi-OS management**
  - Stronger management tools.
    - These must be web based.
    - Must mask the differences in the OS's. (Not an easy task!)
  - Trend towards services management.
    - It doesn't matter whether you are managing a unix or windows server at the access, app or data tier. The thing to manage is the service level and response time.
  - Operating systems becoming more alike. E.g. Windows .NET will include a command line interface.
- **Most critical functions to make common across OS's are deployment (hw/os/apps), inventory management and remote management**

Multi-OS Management Trend

	Today	12/02	12/03
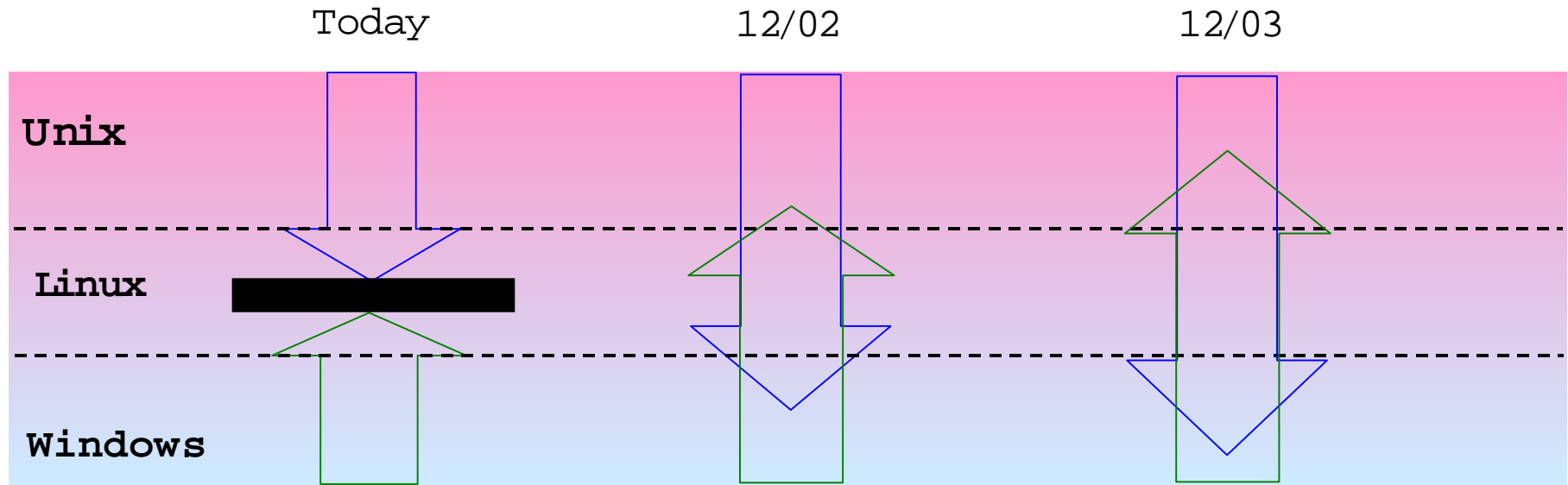
Unix

Linux

Windows

- •Unix admins managing Linux

- •Windows admins managing Windows

- •No cross-over across Linux border

- •Admin tools designed for different segments

- •A few companies crossing border to save IT money

- •MS .NET blurring hard enterprise OS line

- •Multi-OS management tools starting to appear to target above

- •Enterprise OS line further blurred by IA-64

- •More multi-OS tools sharing look and feel (GUI, command line)

- •Continued IT consolidation forcing economies of scale

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What is SCM 3.0?

- Developed for the next release of HP-UX
- Web-based GUI
- Integrated single point of administration for hp servers
  - distributed task facility
    - define once – execute simultaneously
  - roles based security
  - launch point of tools
    - hp and non hp
    - user defined scripts
  - deploy and monitor
- Secure

Summary
HP Servicecontrol Manager 3.0
HPUX and Linux systems management

- One management tool that runs in any HPUX or Linux (HP supported distributions) environment

- Continue the best features from SCM 2.5 including roles, tool launch, event log, discovery, inventory database with custom query capability

- An architecture that allows other applications to integrate. Leverages SCM components and functions of other integrated applications.

- A browser based graphical user interface usable by Unix and Linux administrators

- Fully functional command line interface supporting scripting, VT-100 and telnet

- Supports medium business', enterprise and xSP server farms

- Initially manage HP Servers, blades, appliances.

New or changed features

- Better web interface – uses html for faster response
- Interface security improved – browser to CMS now uses SSL
- CMS will now run on Linux
- Multiple CMS support
  - individual nodes share more than one CMS
  - provides redundancy and/or sharing across groups
- SuSE support
- Certified HP ProLiant Linux agents
- Integrates web-based applications
  - on CMS
  - on remote systems
  - access via URL with the display in the workspace
    - example: display Insight Manager web-based agents
- XML file format

Service Control Manager 3.0 default features on the CMS (1/3)

- DTF for remote management
  - DTF agent for single or multiple remote systems
- CMS – central management server
- Set of management applications under SCM umbrella
  - System Administration tasks (SAM)
  - SD – software distributor
  - Deploy IUX – Ignite UX
  - Event monitoring service
  - Partition manager, hard disk plus virtual partitions
  - SCR – was on 2.5, now replaced by SIM
- Command-line interface (CLI)

Service Control Manager 3.0 features bundled – added or changed (2/3)
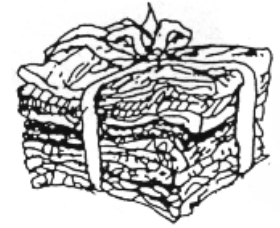
- **Pure HTML web interface** for CMS
  - supports SSL and any Netscape 6.x or IE 5.5+ browser (faster response)
- **Web-based interface**
  - System Inventory Manager (SIM)
- **Web-enabled access** added
  - Partition Manager,
  - System Inventory Manager (SIM)
  - SAM-kernel-configuration
- **X-Window manager** for X-Windows based tools such as Reflection X is required
  - Dropped "gojo" (X-application from a PC)
- **WBEM services** added – Industry standard. Provides system properties from supported devices
  - moving to instrument HPUX with WBEM providers.
  - HPUX 11.23 will provide a standard WBEM set
- **SCM 3.0** – first step in the new-HP manageability strategy

Service Control Manager 3.0 features bundled – added or changed (3/3)

- **First release** with a fully capable Linux stack allowing the SCM 3.0 CMS to be installed on supported Linux configurations
- **SAM** – System Application Manager
  - SAM functional area launcher via SCM 3.0
- SCM 3.0 will be **automatically installed** with the next release of HP-UX
  - the first step in the convergence of single and multiple system management
- **WEB download** last quarter 2002

Single-point, multi-system configuration management for HP-UX

- Servicecontrol Manager
- Event Monitoring Service
- System Inventory Manager (web-enabled)
- Security Patch Check
- Ignite-UX (IUX)
- Software Distributor
- System Administration Manager (SAM) tasks
    - kernel configuration (web-enabled)
    - additional tasks

- ParMgr / VParMgr (web-enabled)
- secure web console

Partition Manager

- Process Resource Manager (PRM) – fee
- Workload Manager (WLM) – fee
- ServiceGuard Manager – fee

HP-UX system management functions and products are integrated under HP Servicecontrol Manager, which provides a single, secure administration point for system administrators.

Single-point, multi-system configuration management for Linux

- Servicecontrol Manager
- Event Monitoring Service
- Insight Manager ELM agents
- Blade Logic, Network Shell Deploy
- Security patch check

- Secure web console
- WBEM properties
- Insight Manager revision management agents

bladelogic

HP-UX system management functions and products are integrated under HP Servicecontrol Manager, which provides a single, secure administration point for system administrators.

Manageability functions

- Event monitoring and management
- Inventory management
- Security management
- Deployment and software management
- System configuration
- Performance monitoring
- Resource management
- Multi-system management
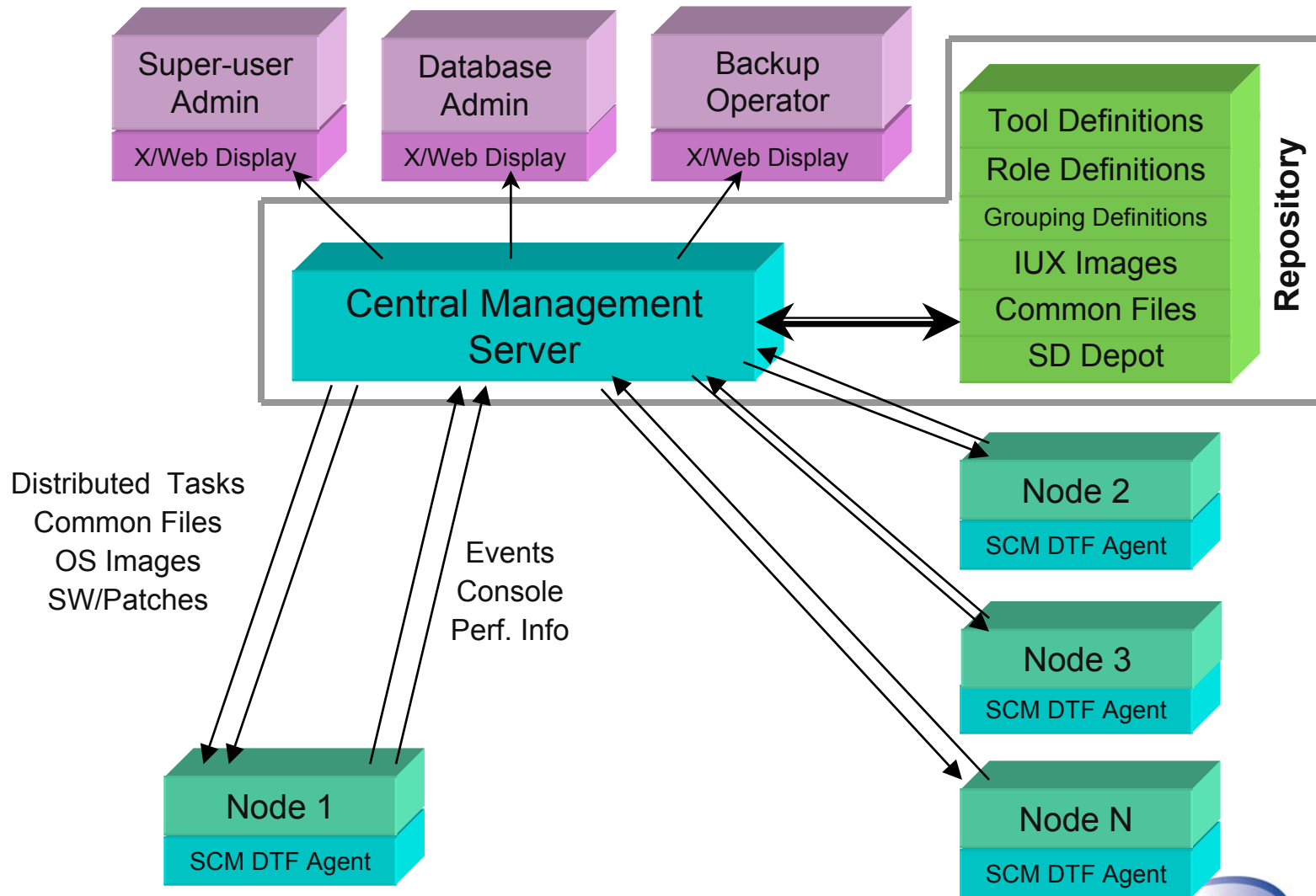- Remote management

HP ServicecontrolManager 3.0 summary

- **Increased productivity** through utilizing a single point of administration of HP-UX and Linux.

- **Gained efficiency** through multi-system management capabilities such as group operations and role-based management

- **Improved security** through user authentication before performing any management tasks

- **Ensured accountability** through audit logging of changes across the IT environment

- **Expanded flexibility** by easily customizing scripts and commands which can be used across multiple systems simultaneously

Architecture

General Architecture

Security features

Role based security

ServicecontrolManager Architecture

Super-user Admin — X/Web Display

Database Admin — X/Web Display

Backup Operator — X/Web Display

Repository
- Tool Definitions
- Role Definitions
- Grouping Definitions
- IUX Images
- Common Files
- SD Depot

Central Management Server

Distributed Tasks
Common Files
OS Images
SW/Patches

Events
Console
Perf. Info

Node 1 — SCM DTF Agent

Node 2 — SCM DTF Agent

Node 3 — SCM DTF Agent

Node N — SCM DTF Agent

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Architecture SCM 3.0

HPUX
or Linux

CMS

security
multi-sys mgt

DTF-URL-WBEM

DTF-URL-WBEM

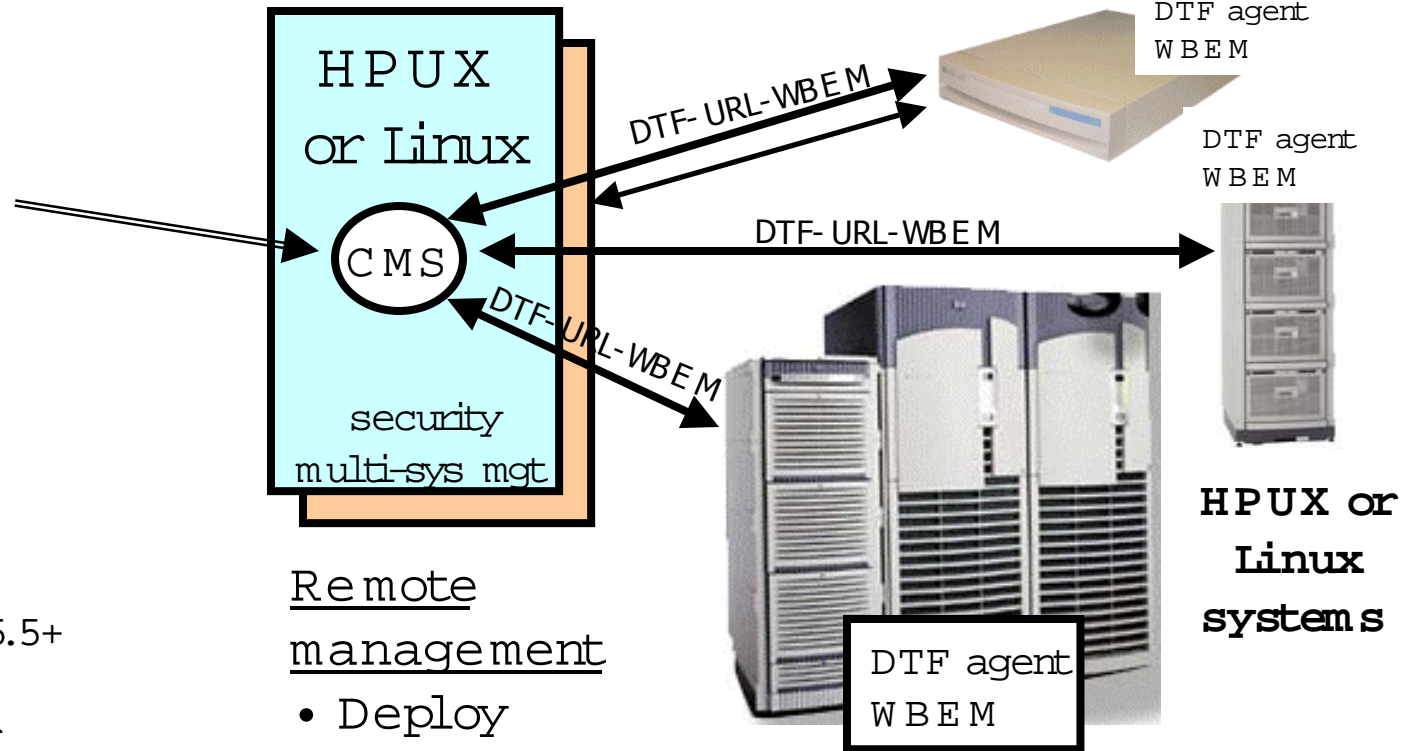DTF-URL-WBEM

DTF agent
WBEM

DTF agent
WBEM

DTF agent
WBEM

HPUX or
Linux
systems

Web-based GUI
- Netscape 6.x
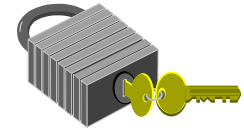- Internet Explorer 5.5+

X-Windows Manager
- X-Windows tool displays

Remote
management
- Deploy
- System Config
- Resource mgt
- Inventory mgt
- Security check
- EMS Config

Security features

- **Authentication using native OS**
  - No separate passwords stored for SCM users
  - No unauthenticated access to SCM

- **Spoof protection**
  - SSL support for browser-CMS and WBEM
  - PKI signing for core & DTF communication

- **Privacy**
  - SSL support for browser-CMS and WBEM
  - Local-host for core communication
  - Optional IPSec for DTF Agent communication

- **Authorization**
  - Role-based authorization by SCM core
  - Instrumentation passwords access to CMS root only
  - CMS root applications trusted by core

- **Auditing**
  - All actions logged with user name & time
  - Log protected (CMS root access only)

- **Firewall Friendly**
  - Small defined set of ports to access portal or instrumentation
  - Standard HTTP protocols for browser and instrumentation

Servicecontrol Manager (SCM) with role-based security to reduce operator errors
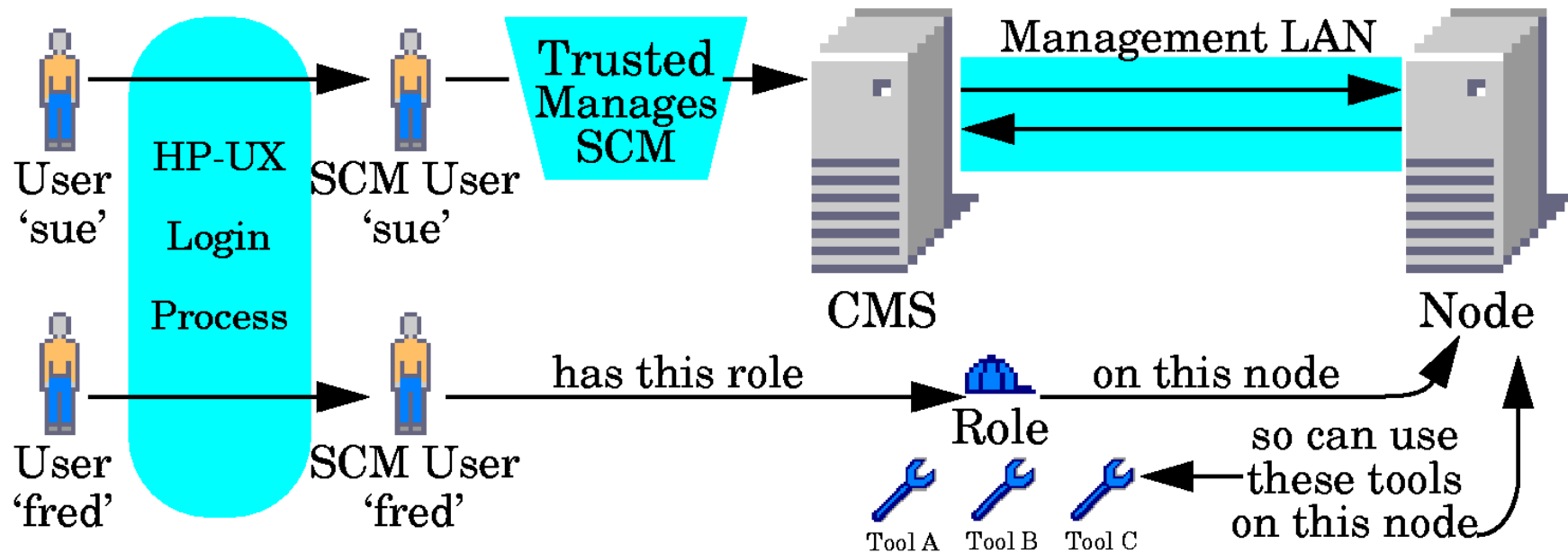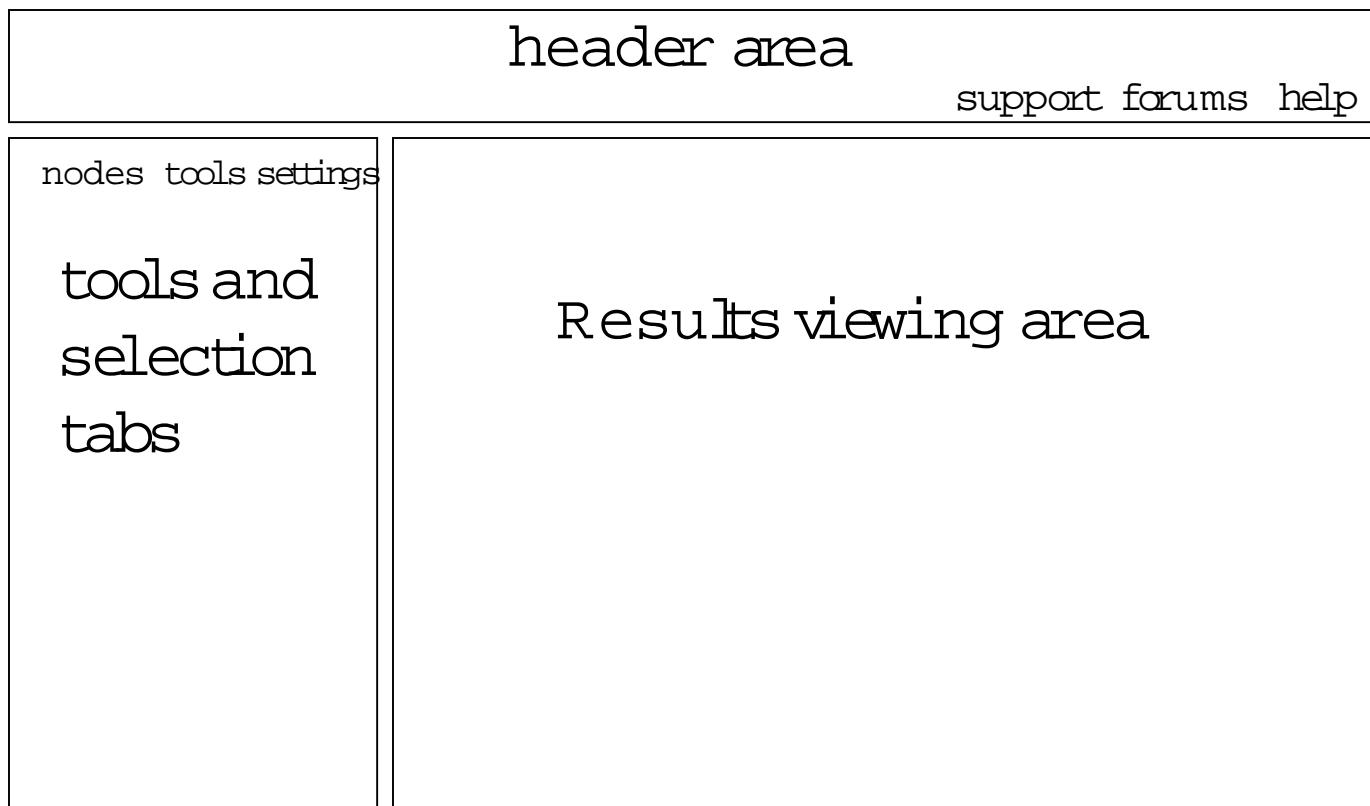

- no separate login/password

- trusted user manages central management server (CMS)

- normal sys admin user are delegated tools based on roles

SCM 3.0

Tentative screen
views
Tentative Menus

Screen views

header area
support forums help

nodes tools settings	Results viewing area
tools and selection tabs	

Tentative Default screen

Tool selection context based on OS and role

Tentative SCM 3.0 Menu lists
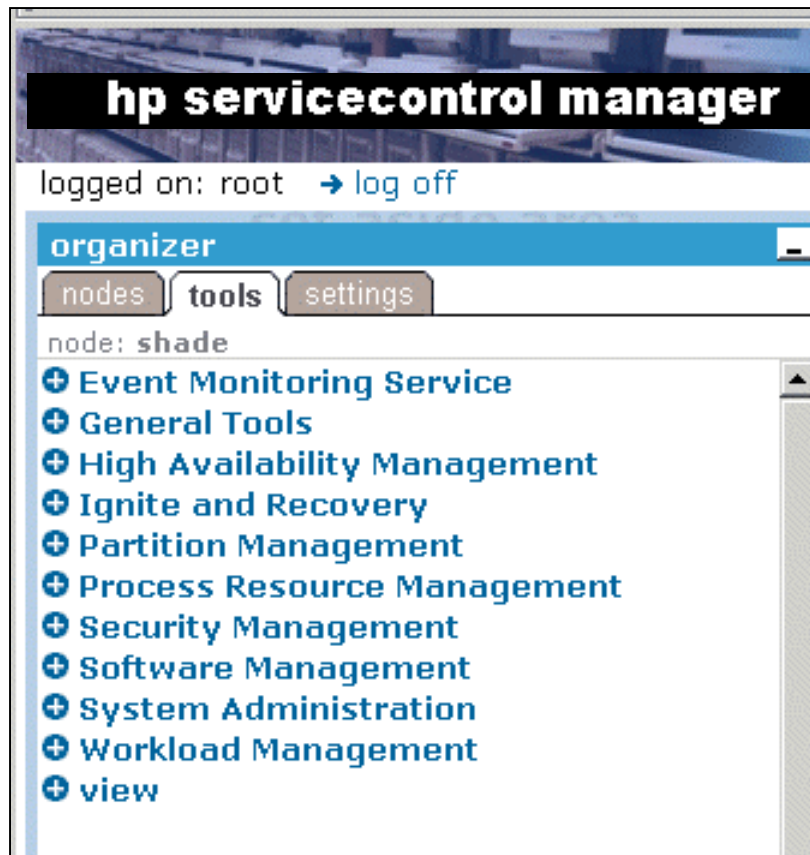
- This is a tentative full menu list
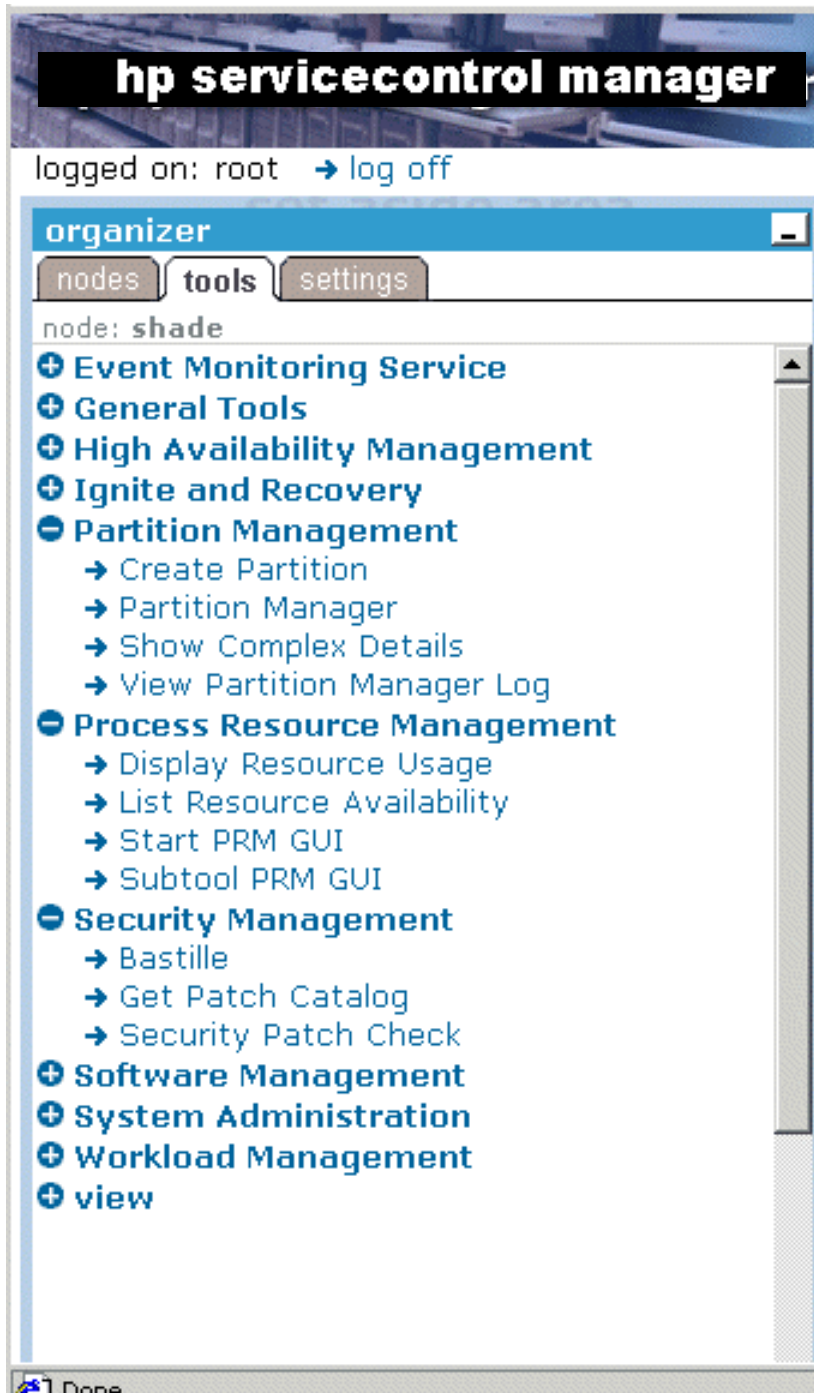- Tool availability varies by type of OS and user level
- If OS can't be determined, all tools are available

HP-UX system (1/4)

hp servicecontrol manager

logged on: root → log off

organizer

nodes | tools | settings

node: shade

- **Event Monitoring Service**
  - → EMS Configuration
- **General Tools**
  - → bdf
  - → cat
  - → cp
  - → df
  - → find
  - → ls
  - → mv
  - → ps
  - → rm
- **High Availability Management**
  - → Serviceguard Manager
- **Ignite and Recovery**
  - → Create or Modify Recovery Archive
  - → Create or Modify Tape Recovery Archive
  - → Ignite-UX Console
  - → Ignite-UX Restricted Console
  - → Install or Recover System
  - → Refresh Recovery Archive
  - → Refresh Tape Recovery Archive
  - → Subtool Add New Ignite-UX Client
  - → Subtool Boot Install Wait
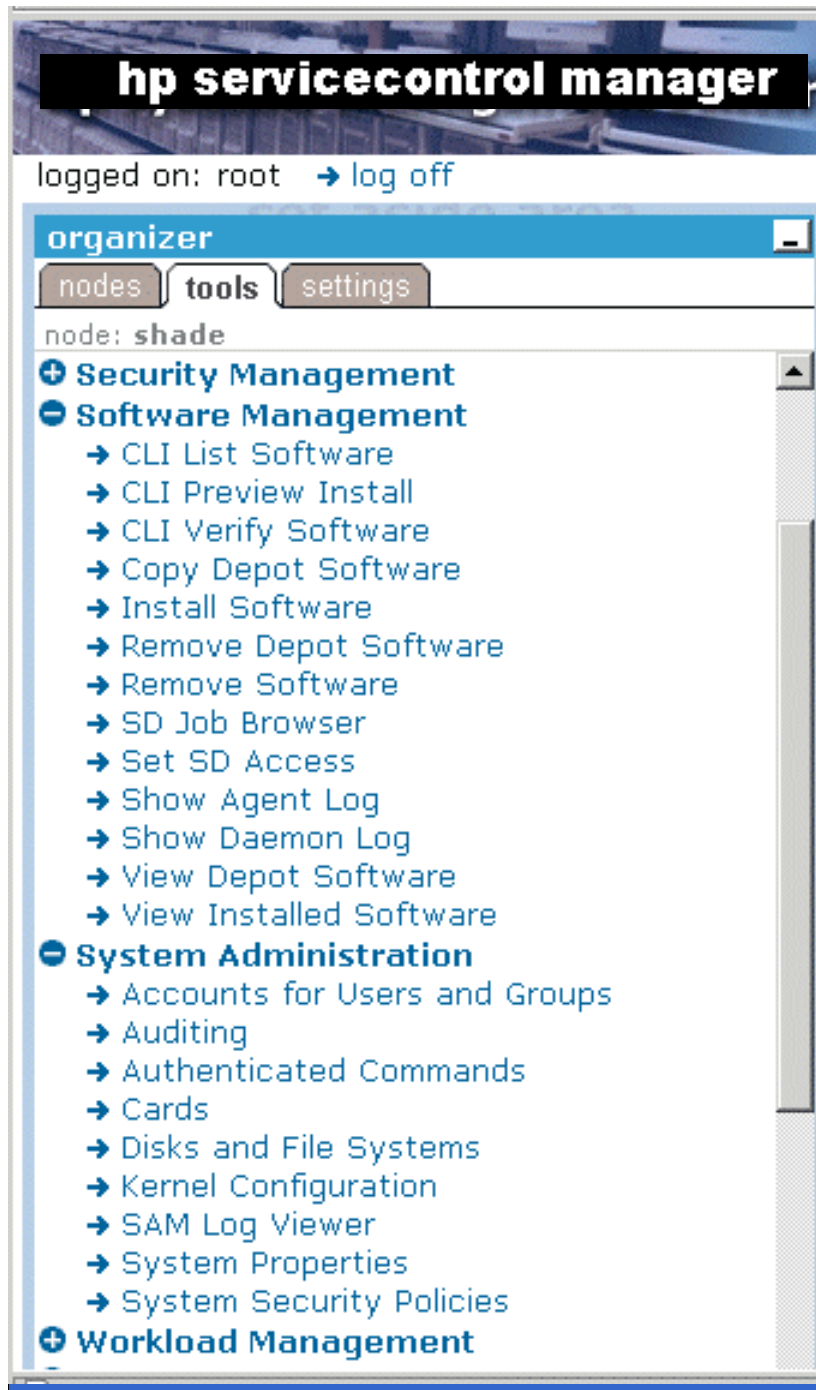 - → Subtool Recovery Tools Update
- **Partition Management**

- Tentative Sub-tool menu view for
  - EMS
  - General
  - High Availability
  - Ignite and recovery

HP-UX system (2/4)

- Tentative sub-tool menu view for
  - Partition management
 - Process resource Management
  - Security Management

hp servicecontrol manager

logged on: root → log off

organizer [_]

nodes | **tools** | settings

node: **shade**

⊕ **Security Management**
⊖ **Software Management**
→ CLI List Software
→ CLI Preview Install
→ CLI Verify Software
→ Copy Depot Software
→ Install Software
→ Remove Depot Software
→ Remove Software
→ SD Job Browser
→ Set SD Access
→ Show Agent Log
→ Show Daemon Log
→ View Depot Software
→ View Installed Software
⊖ **System Administration**
→ Accounts for Users and Groups
→ Auditing
→ Authenticated Commands
→ Cards
→ Disks and File Systems
→ Kernel Configuration
→ SAM Log Viewer
→ System Properties
→ System Security Policies
⊕ **Workload Management**

- Tentative sub-tool menu view for
  - Software Management
  - System Administration (selected SAM tools)

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HP-UX system (4/4)

- Tentative sub-tool menu view for
  - Workload Management
  - View (properties, tasks)

Tentative Linux
system and customize
views
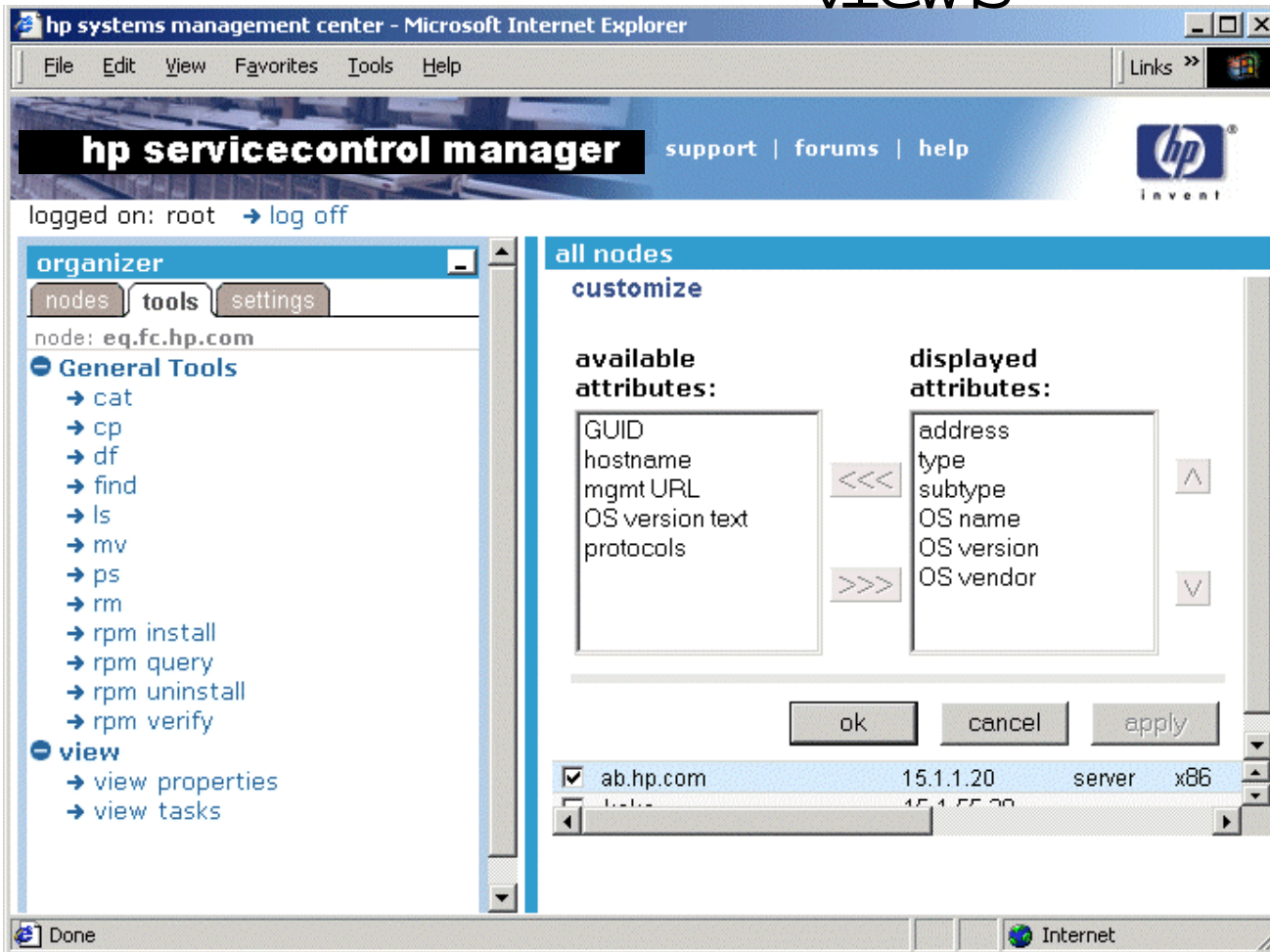
- Tentative view
- Additional menus will be available by launch date
- Tentative customize view available for all system types

Viewing SCM 3.0

- Demo of SCM 3.0

Resources

http://www.software.hp.com/
products/S C M G R/