HP Systems Insight Manager Best Practices

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Topics for discussion

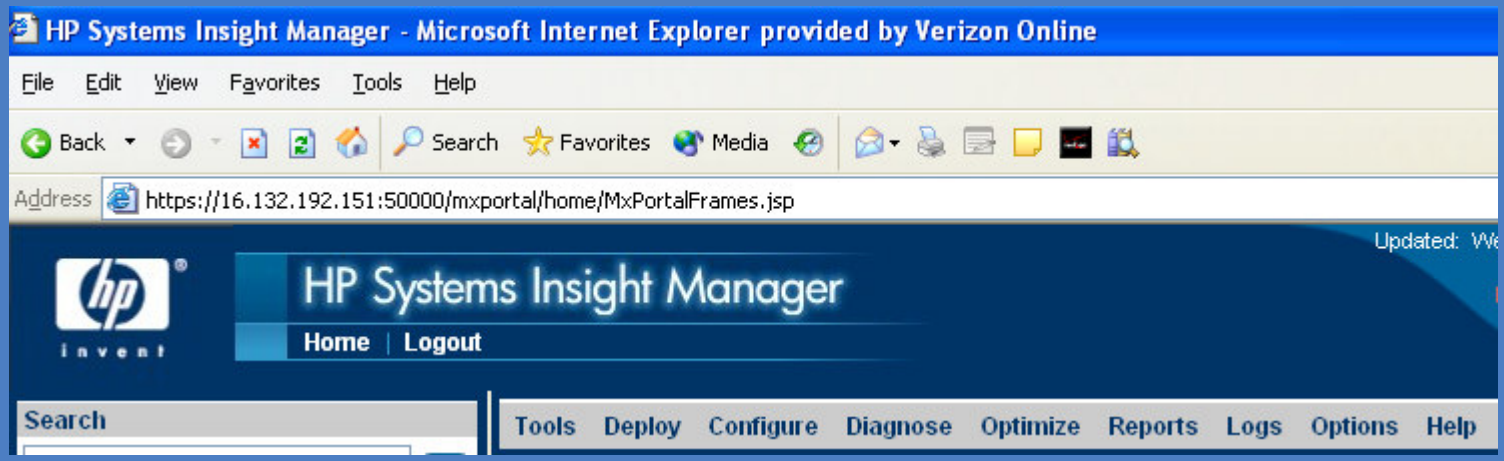
- **HP Systems Insight Manager Introduction and Basics**
  - **What's new? What's cool? What's useful?**
- **Migration from Insight Manager 7**
- **Security Hardening**
- **Local iLO Configuration**
- **Why use Performance Monitor**

HP Systems Insight Manager: The Basics

What's it called now?

- **Management Server is Central Management Server (CMS)**
- **Queries are either Systems Lists or Event Lists**
- **Tasks are still task but**
  - **Created using a step wise process under various menus**
  - **Resulted view in Logs menu**
- **Devices are System Lists**
- **Events are Events Lists**
- **Application Launch is Tools->Commands**
- **Event Notification is Automatic Event Handlers**
- **Reports are still Reports**
- **MIB loads use command line utilities**

The Basics



The diamond icons are replaced with dropdown menus

Menus can be customized and menu options added

Specific tools for specific platforms, actions will warn you about inappropriate usage

Uses the same ports for console access: http: 280 and https: 50000 and agent access: http: 2301 and https: 2381

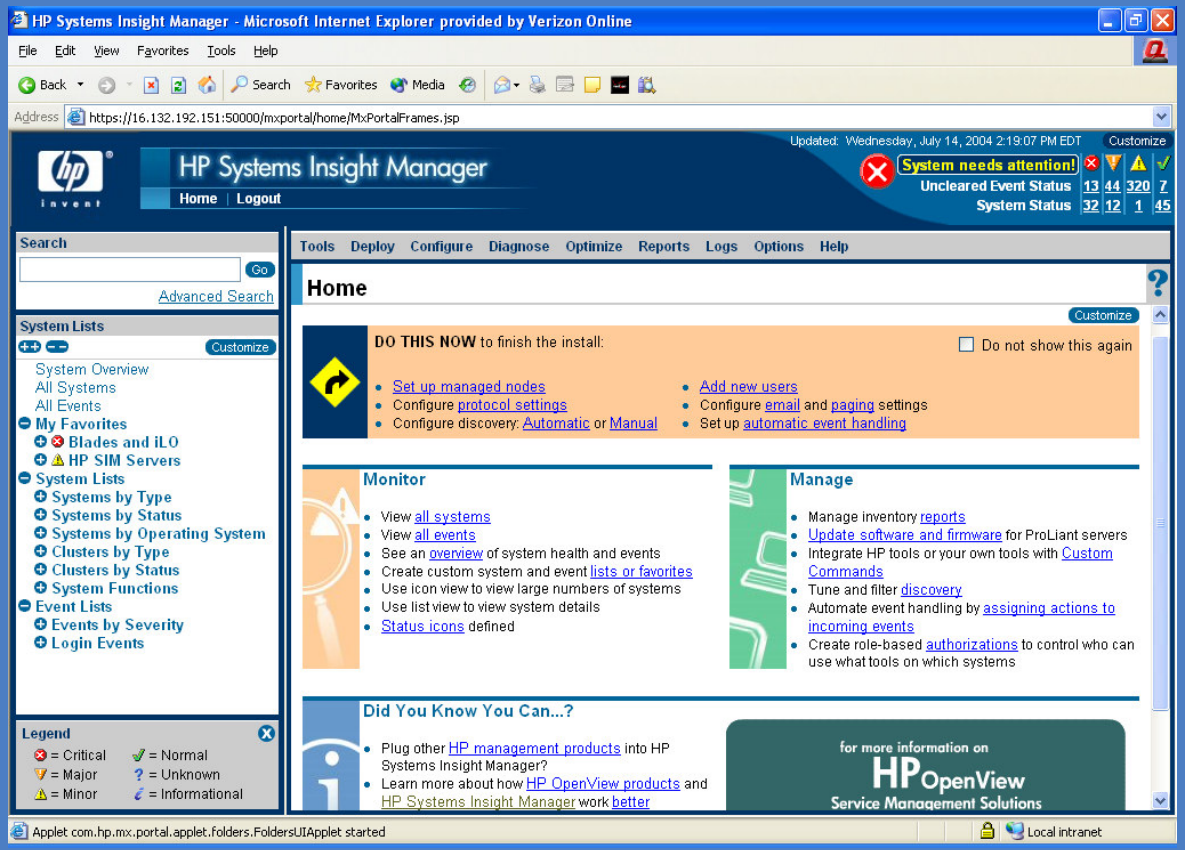
Uses SSL for communication to the agents

Uses SSH for remote tools (e.g., ls, dir, cp) and for any custom commands

Lots of CLIs for managing the CMS

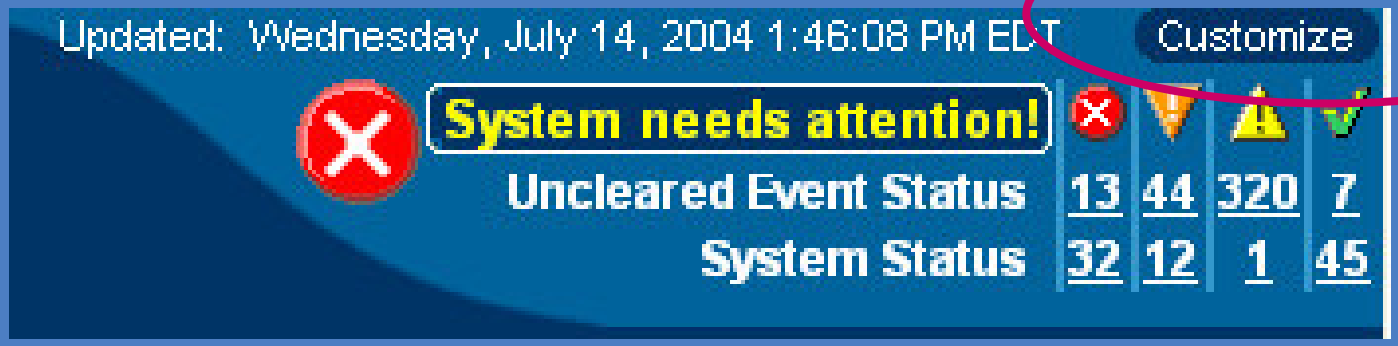
New Home Page

- **Customize to your favorite list as new Home Page**
- **Reminder for first things to do:**
  - **Discovery**
  - **Add Users**
  - **Setup email**
  - **Create Event Handlers**



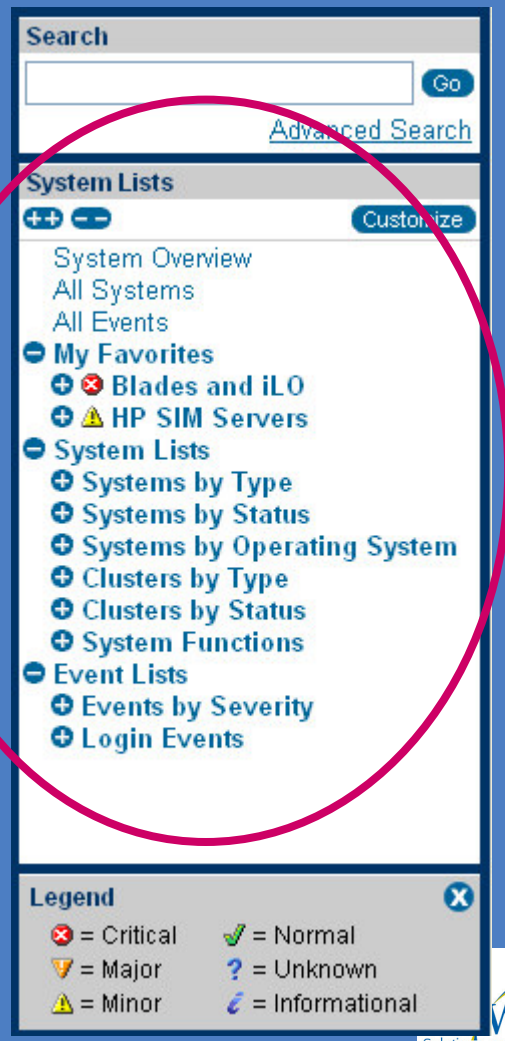
Over all Status

- **Using ISO color and shape codes**
- **Customize view of status**
- **Special messages can be created for critical systems**
- **Still click on the number to view the system list**



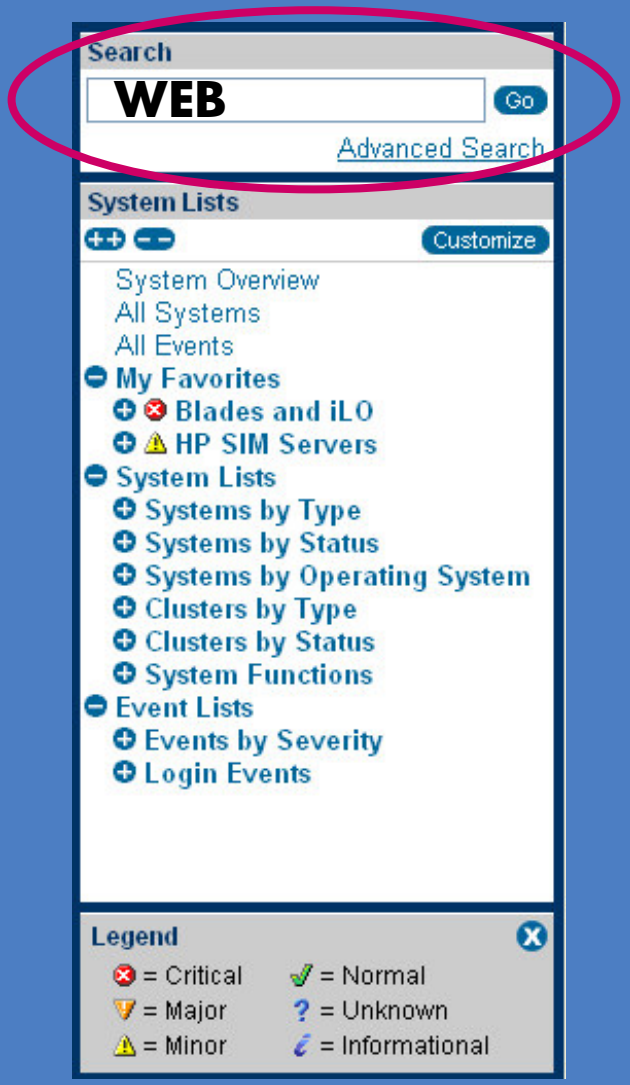
Working with System Lists

- **List of systems**
  - **Untrusted Servers**
  - **Server with agents older than 7.10**
  - **Blades and iLOs**
  - **HP SIM Servers**
- **Lists of events**
  - **Events older than 7 days**
- **My Favorites with status**
  - **Add any System or Events list to your favorites and see aggregate status**



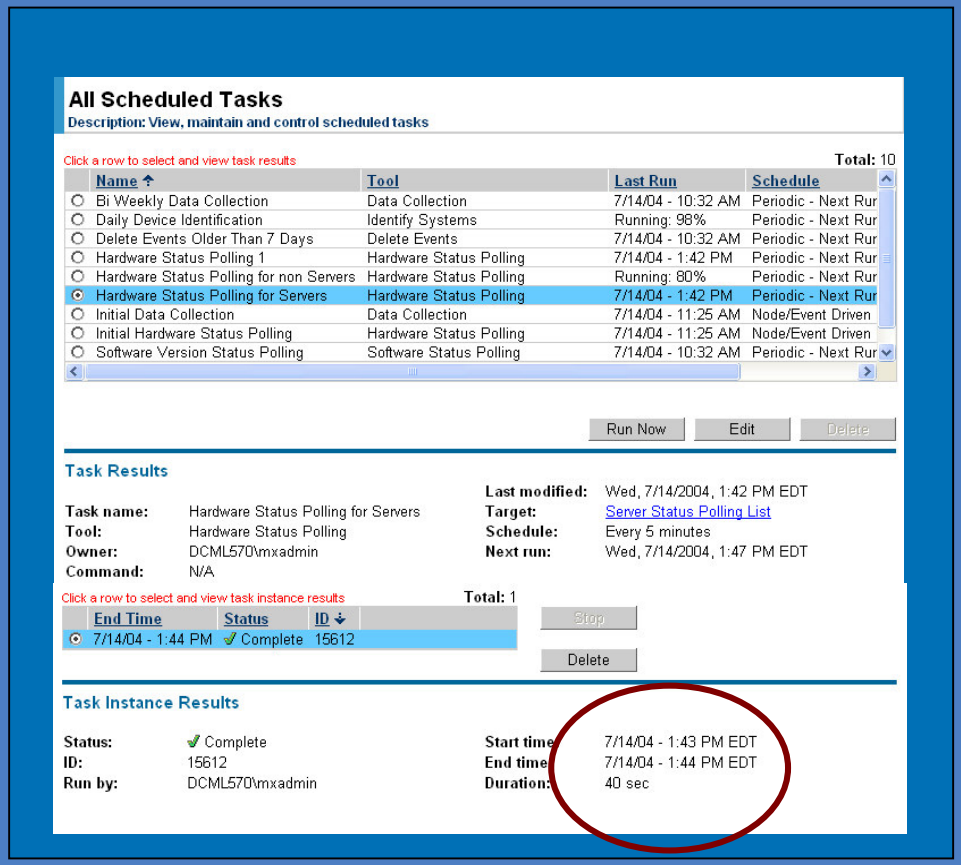
Searching

- **Search improved to match across several common attributes**
- **Modify Server Role field of several agents to be "Web Server"**
- **Searching on "Web" will list anything containing that in common attributes fields.**
- **Best way to do some event handlers**
- **Good for finding systems with bad trusts, so you can fix them**



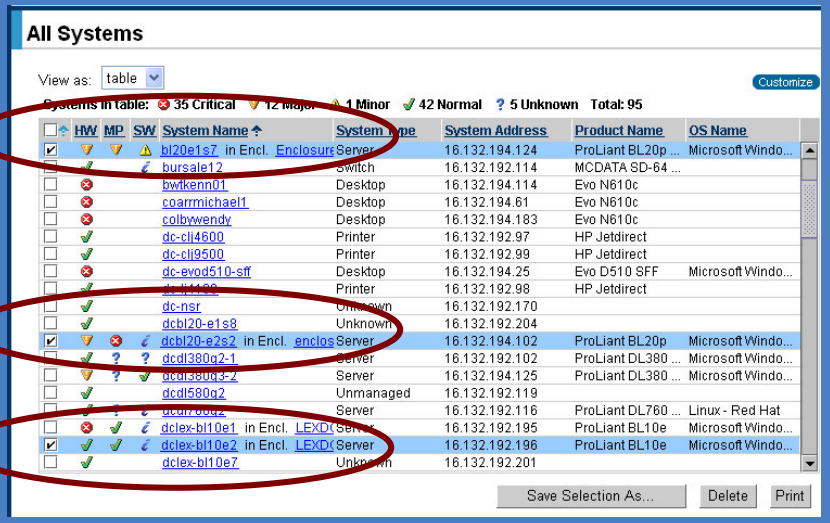
Tasks

- **Located under Logs->View All Schedule Tasks**
- **The same status polling and identification tasks**
- **Displays how long it took to run**
  - **Determine best interval for status polling in large environments**
  - **Gauge how long a VCA updates might take (rule of thumb 30 minutes for older machines, 10-15 for newer machines)**



Lists – selecting targets

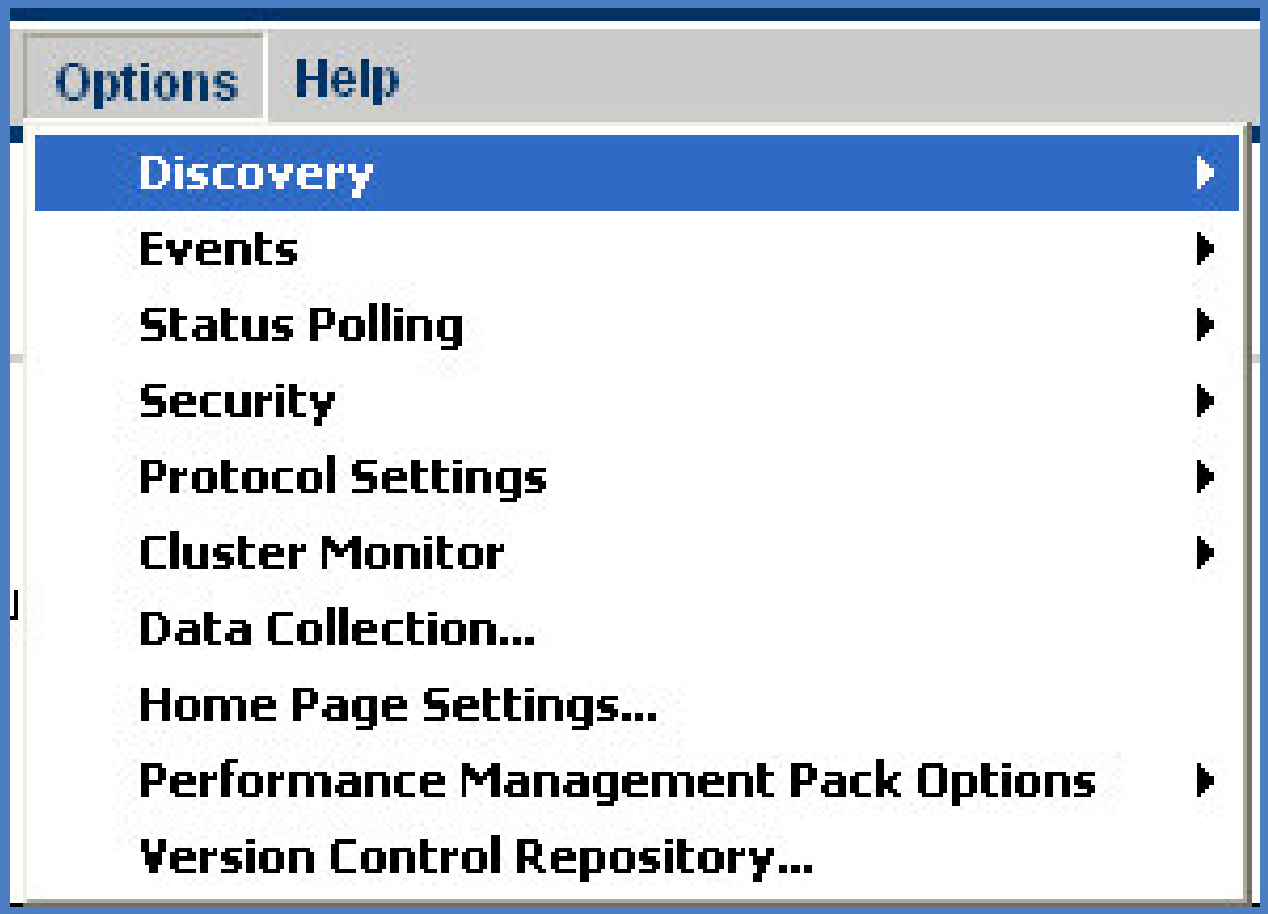
- **Imbedded in the tasks**
- **Simple check boxes in a list**
- **Tells if the items are OK with this tool**
- **Preserved for the next task**



In this case for Configure -> Replicate Agent Settings

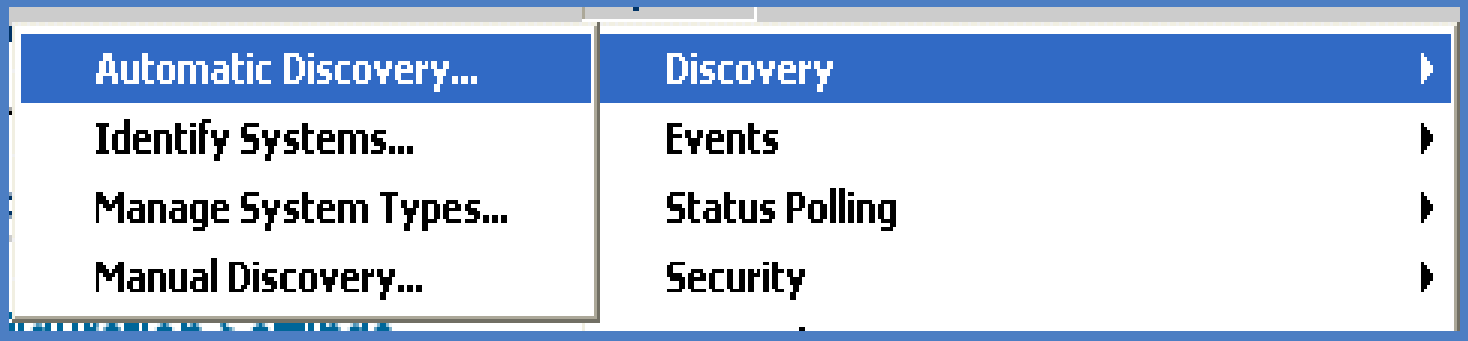
Options Menu

Options Menu



Discovery

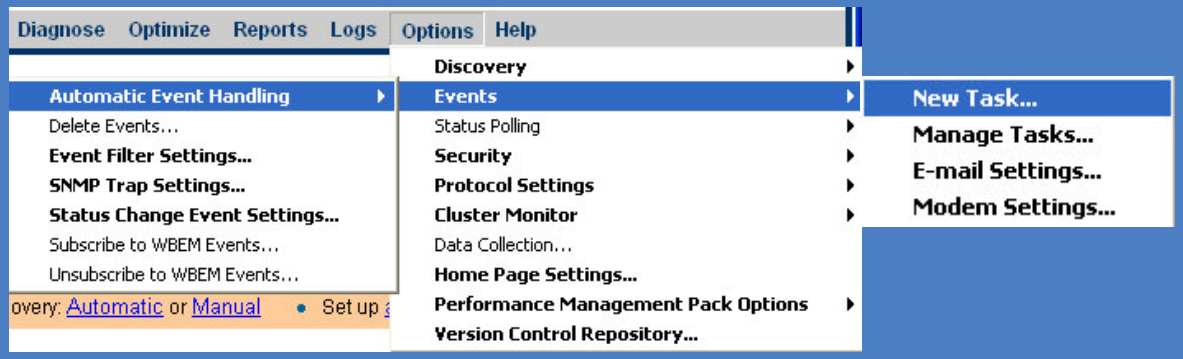
- **Located under Options->Discovery**
- **Filters are the same**
- **Methods:**
  - **You can disable UDP PING discovery and use IP**
  - **WBEM and configuration added**
  - **More communities (you only need READ_ONLY)**
  - **Windows 2003 sets Accept SNMP Packets to localhost only; add your HP SIM servers**
- **Ranges: same – by segment, by hostfile (can be imported from IM7)**



Discovery Notes

- It will take awhile – large populations may take 24 hours or more to complete
  - First the CMS sees if a system responses
  - Next the CMS collect data on the system type to see it passes the filter
  - Then the CMS collects inventory data
- It may use a lot of CPU, 80-90% not uncommon
- Dual processors help a lot
- Lots of memory (2GB)

Options-> Events



Event Handlers guide through the selection of events and devices as well as actions to perform

Using New Task or Manage Tasks

E-mail Settings are to set up the Send From Account

Modem Settings enable the use of a local modem for paging

Creating an Event Handler

Six easy steps:

Name it

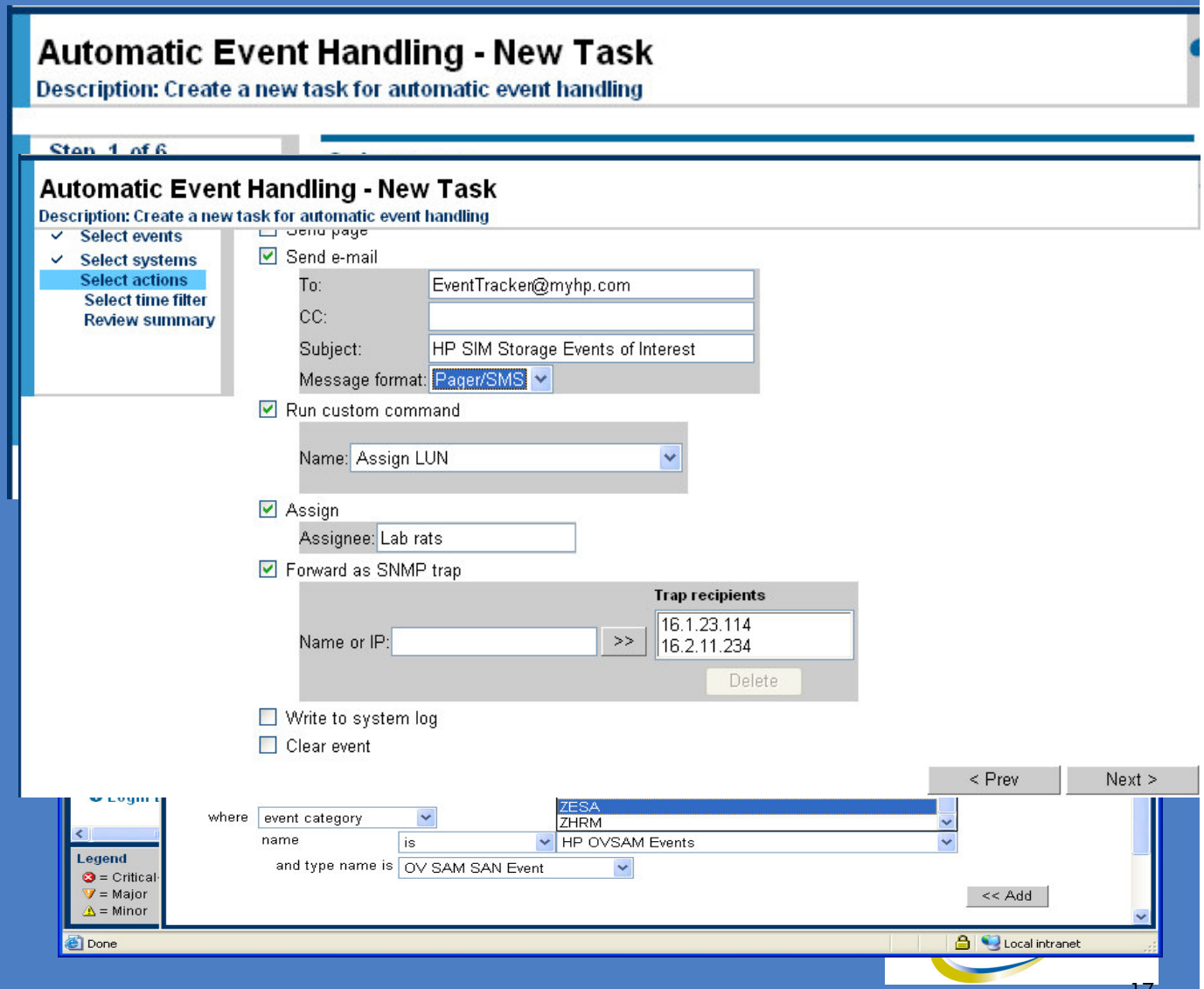
Select Events

Select Systems

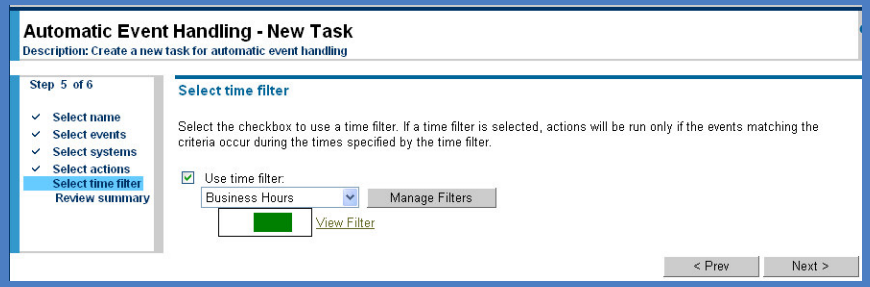
Select Actions

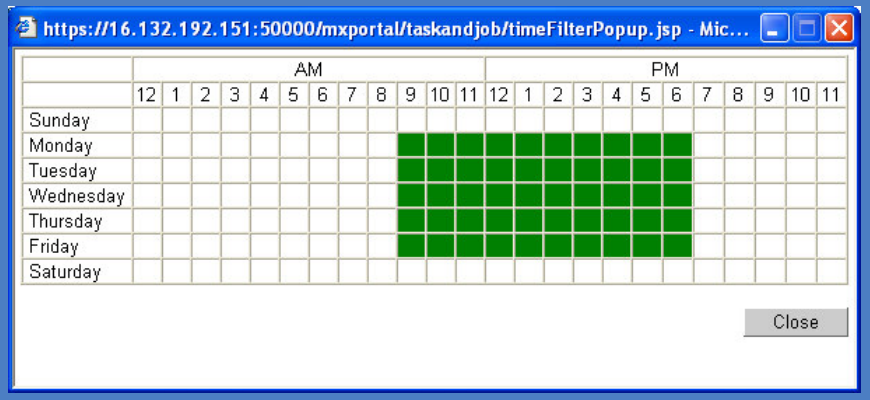
Select Time Filters

Review and Save

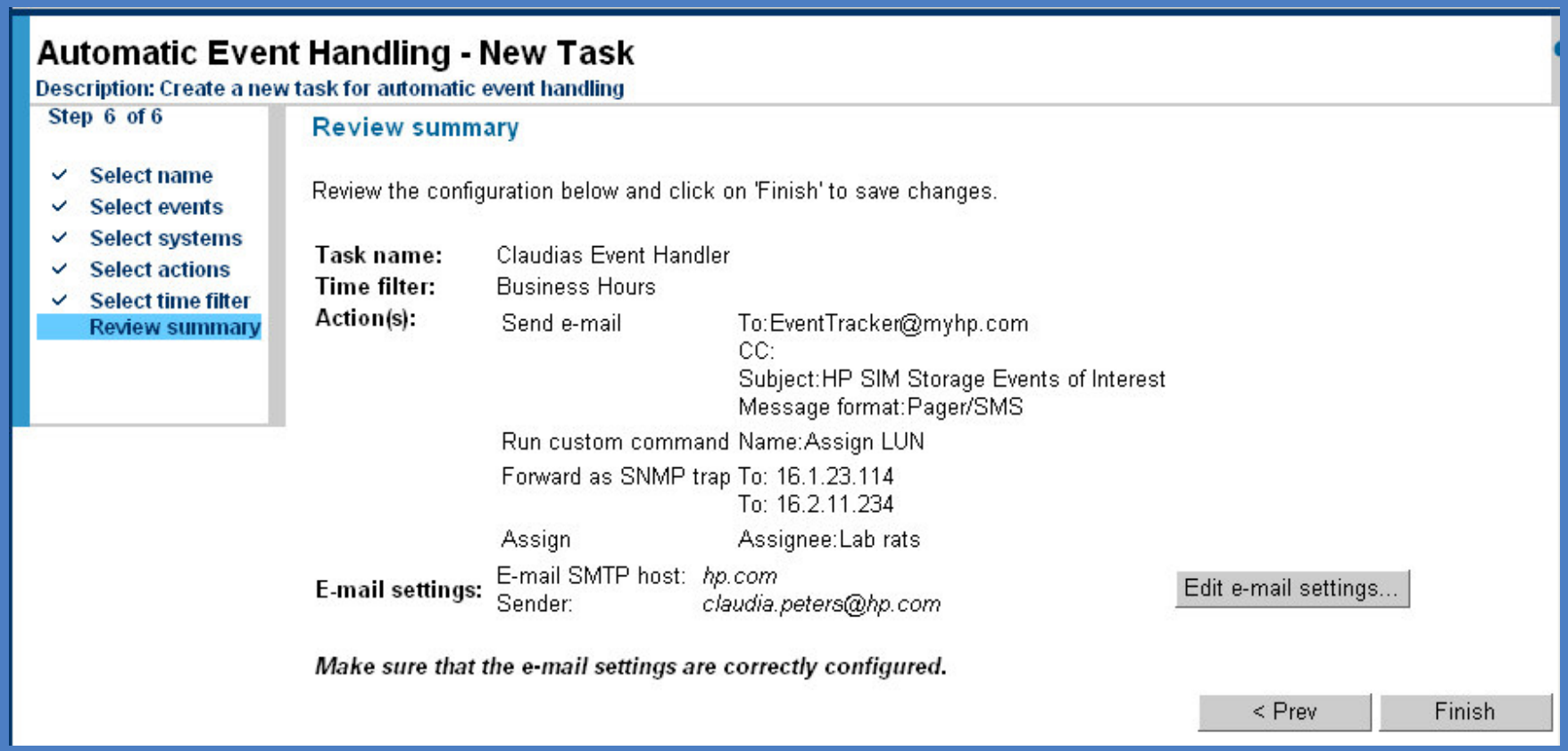


Event handling – Time filters

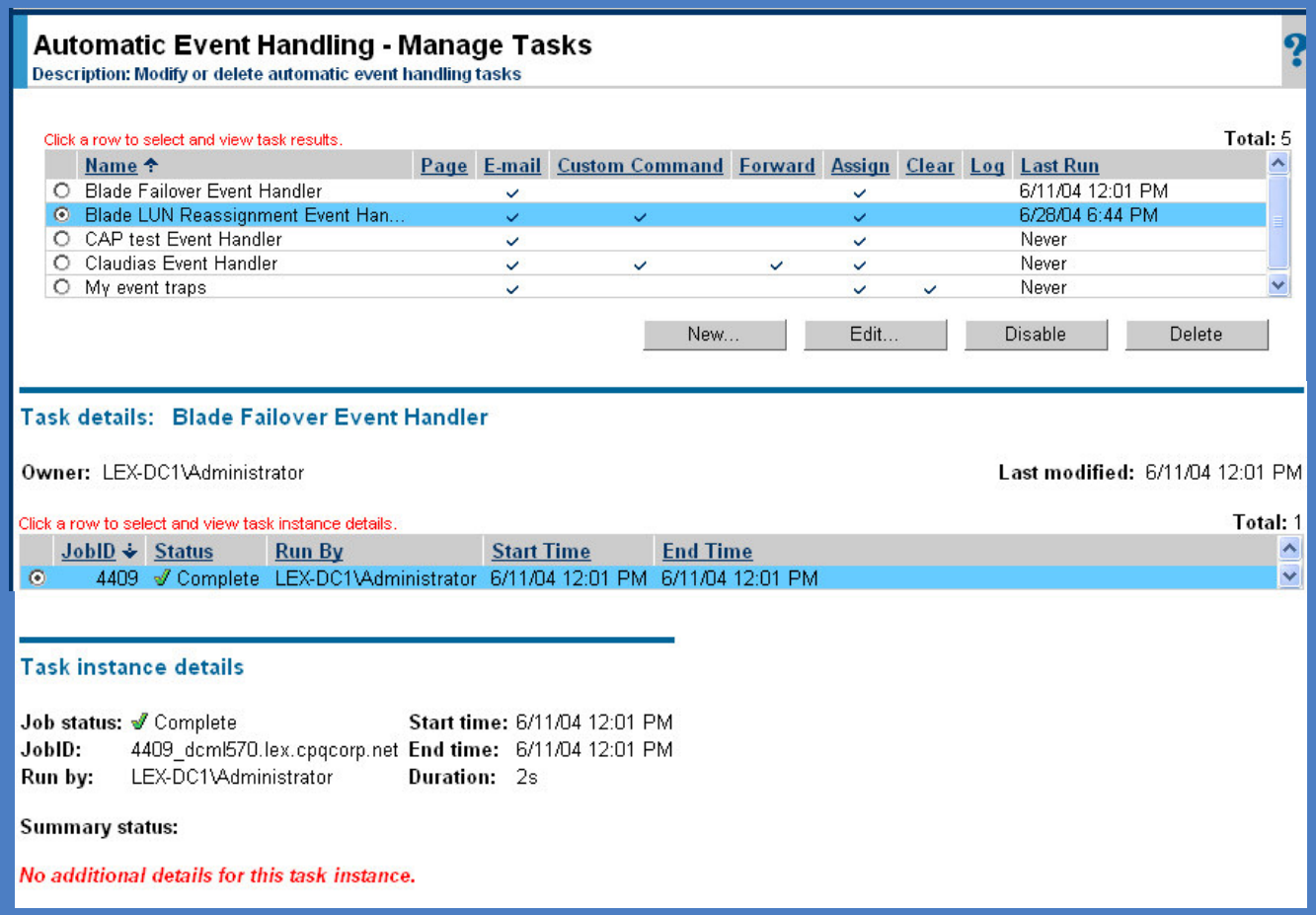




Event Handlers – Review and Save

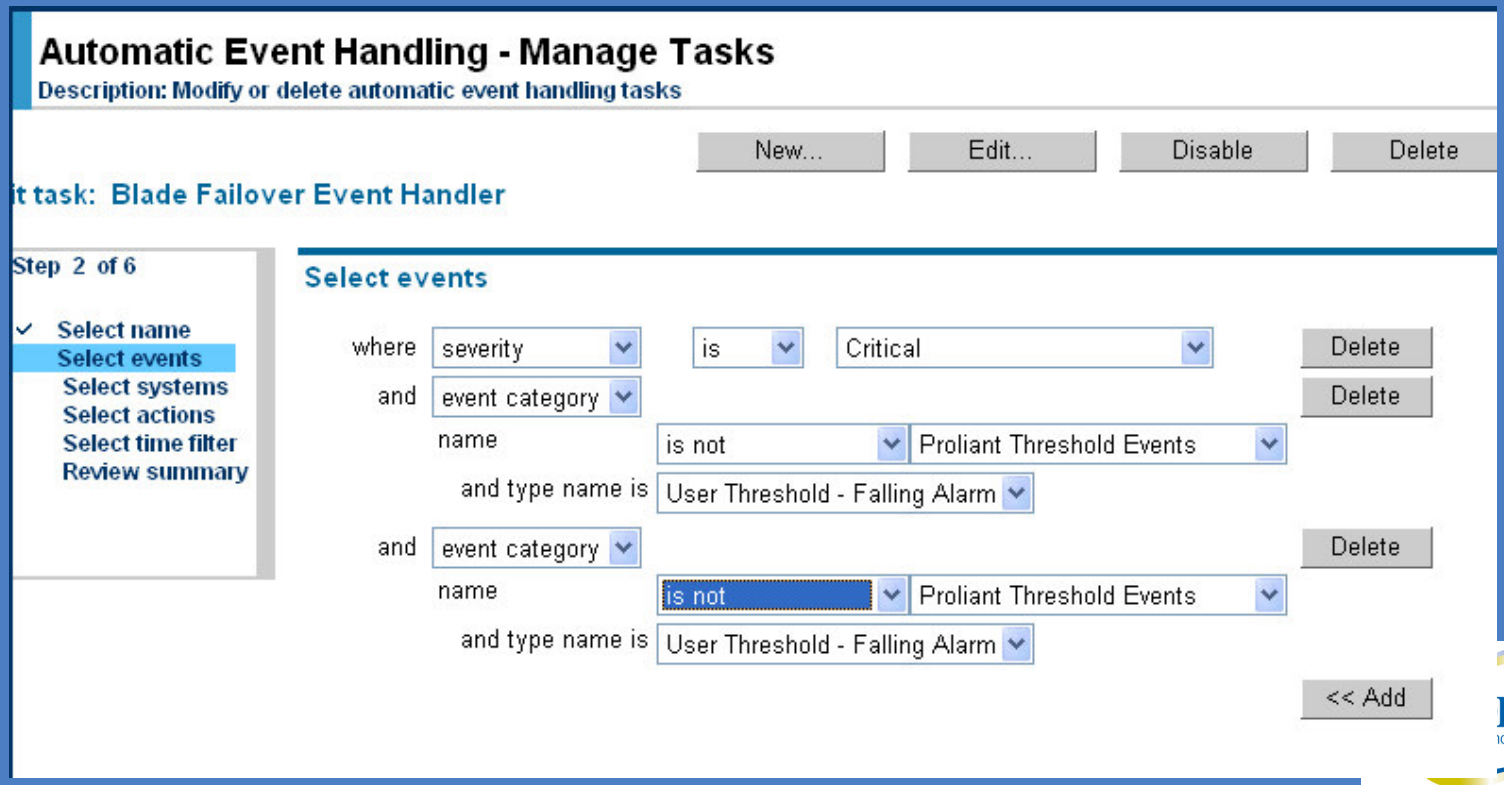


Event Handlers – See How They Run



Event Handlers – Inclusion and Exclusion

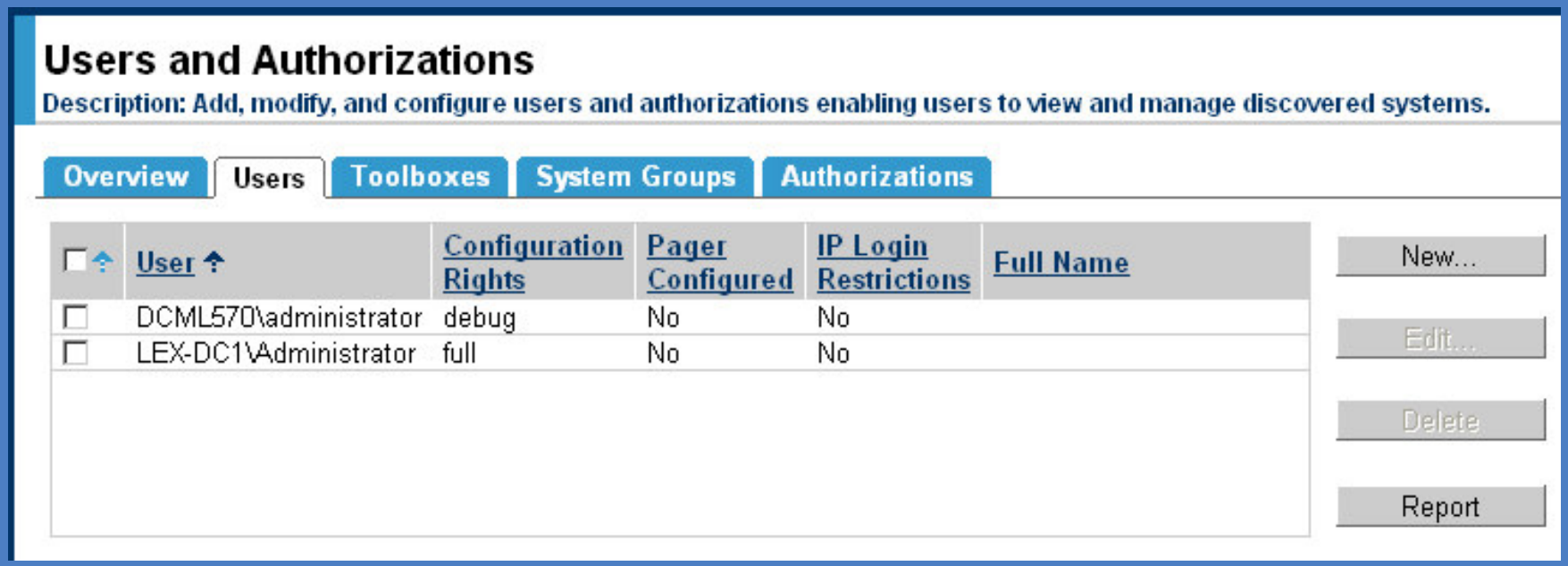
- Very common to want all Critical Events
- But not everything label Critical is necessarily Critical to you
- Create a basic event for all Criticals and exclude the ones you don't want



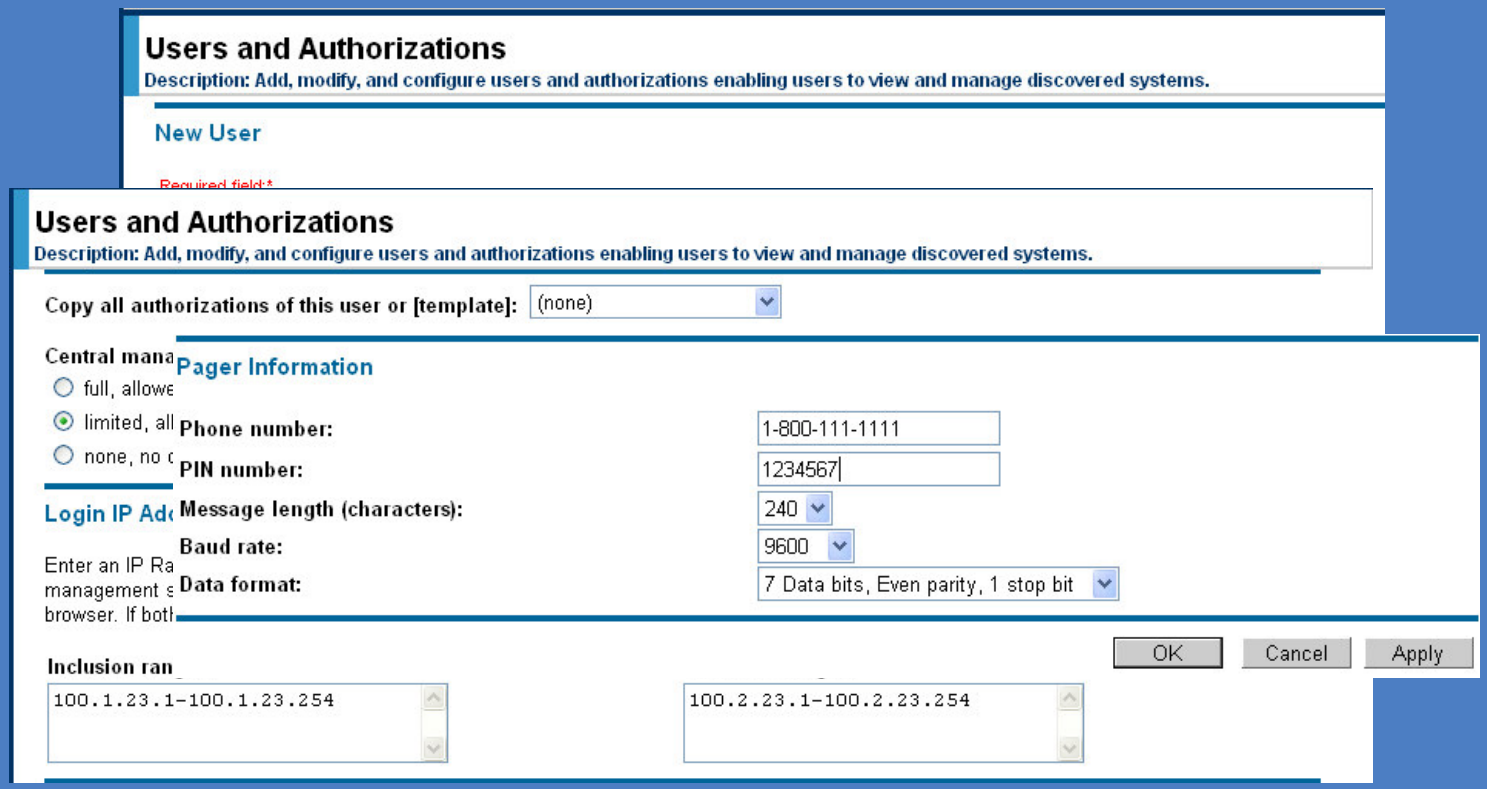
Event Handlers – Tricks and Tips

- At this time you must group systems by some preset feature and custom List won't work
  - System by Type
  - System by Status
- What to do?
  - Use the Server Role feature in the agent
- How?
  - Create a custom list
  - Create an Replicate Agent Settings task using that list
  - Edit the Agent's Server Role, as "Web Server", "Email Server", "File and Print"
  - Create Event Handlers specifying "Server Role"

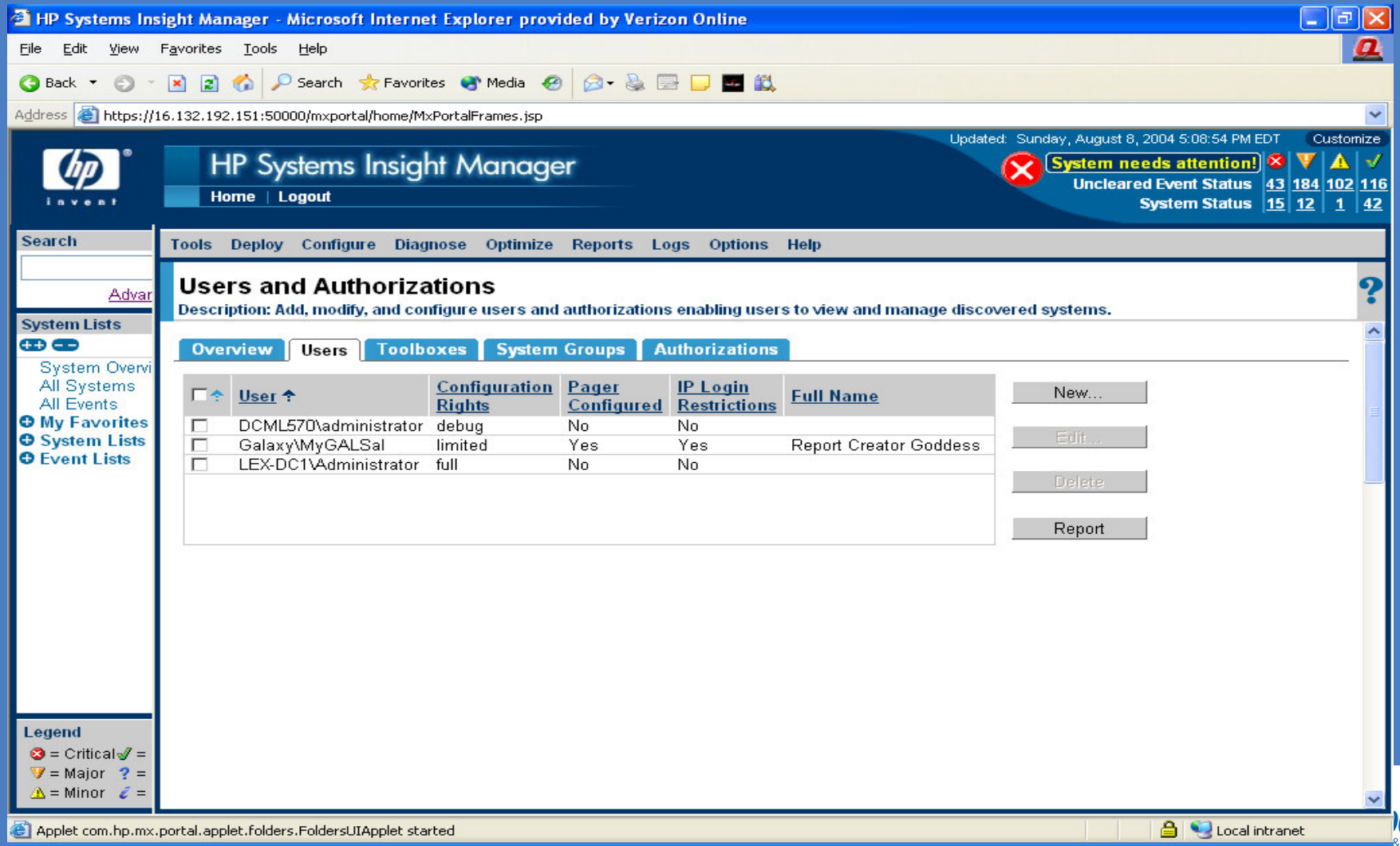
Options Menu - Security



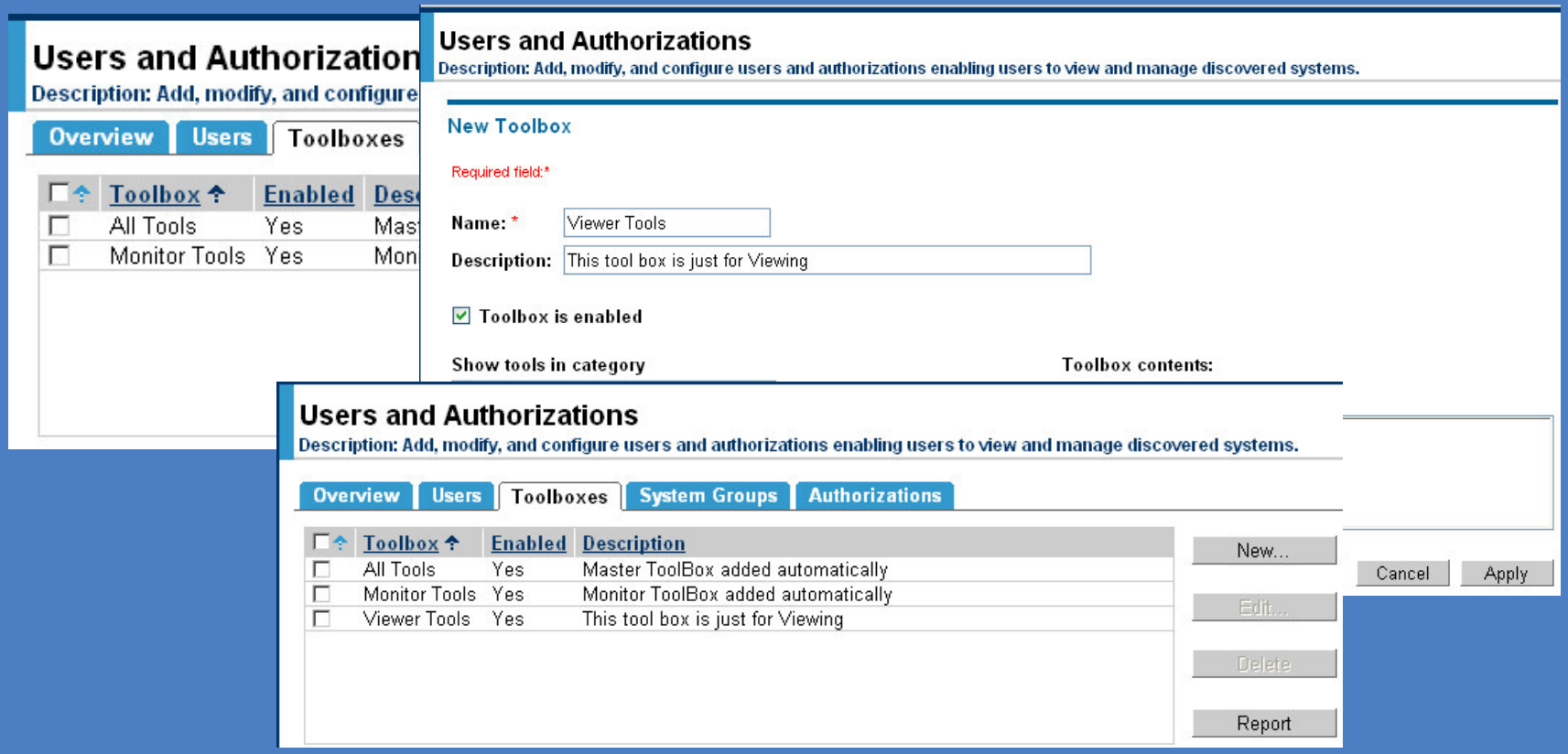
Options Menu – Adding a User



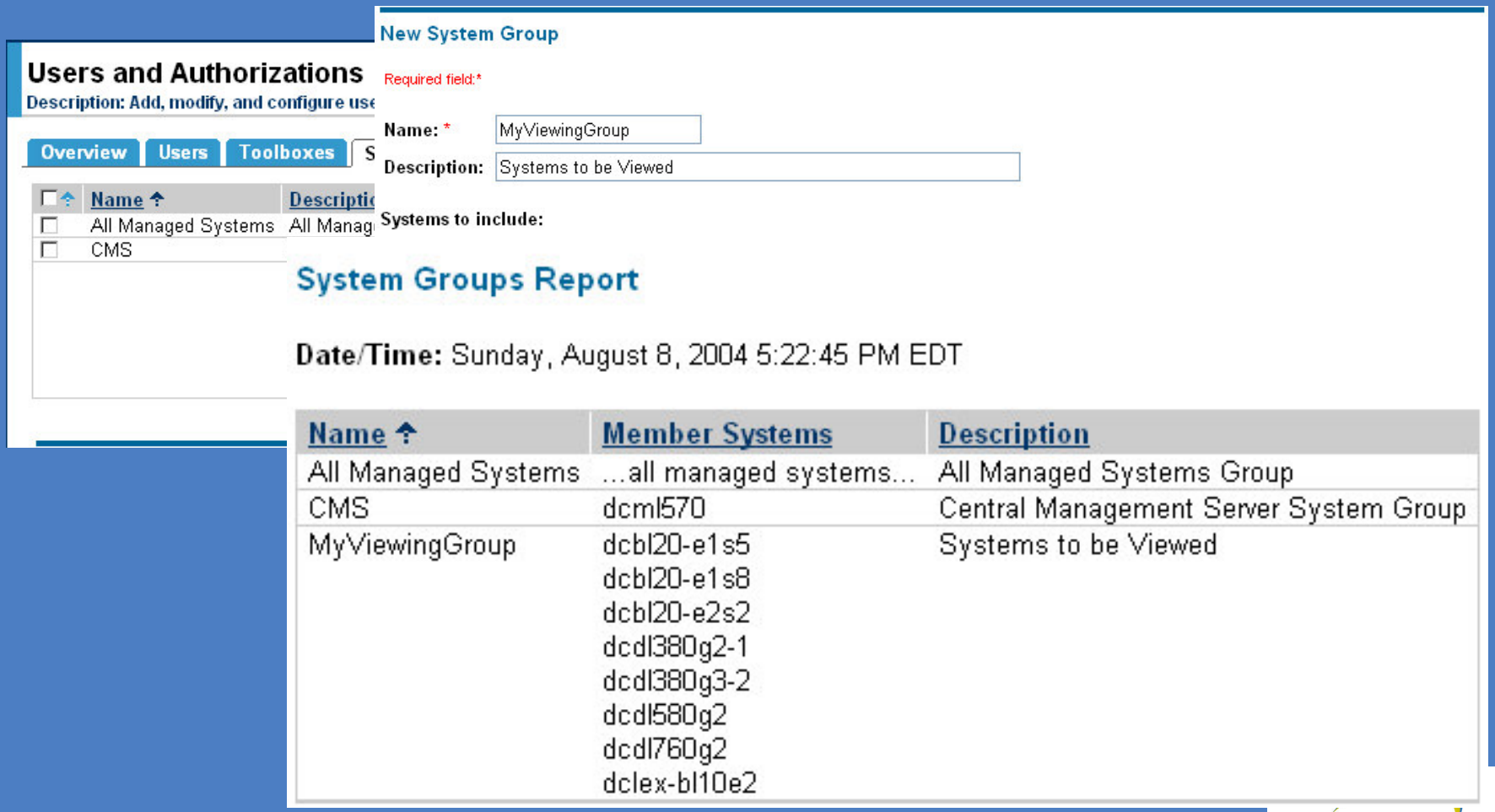
Options Menu – Review New User



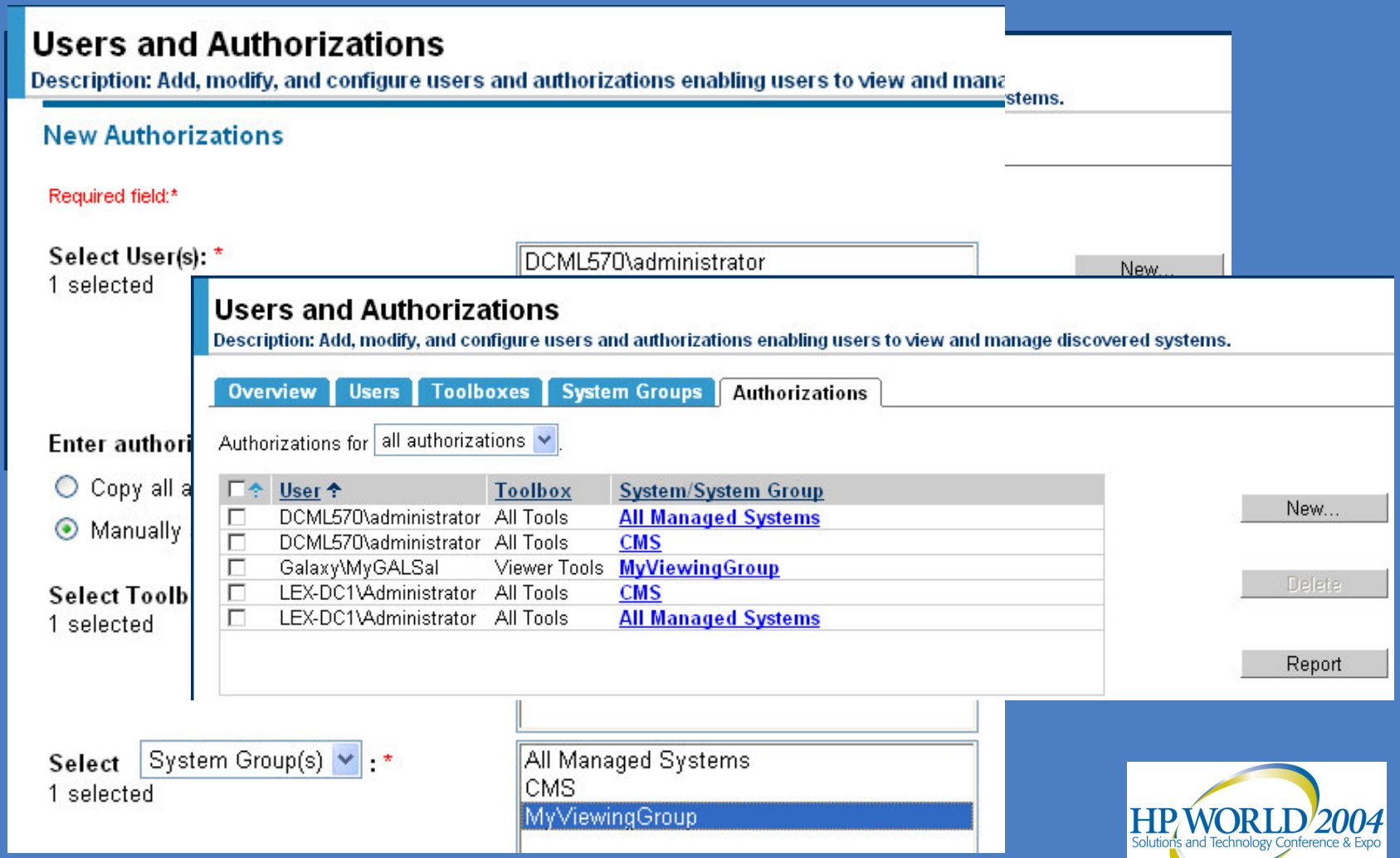
Options -> Security Toolboxes



Options -> Security Groups



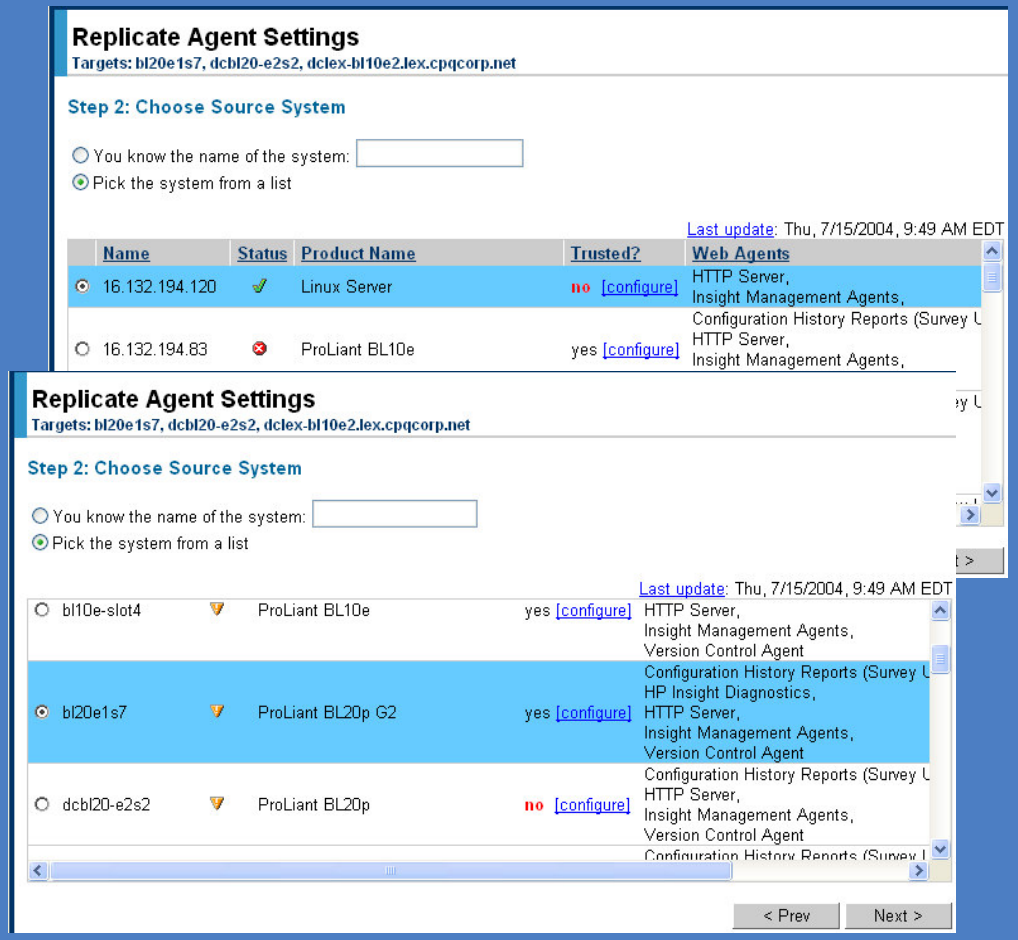
Options -> Security Authorizations



Agent Configuration – We do it until we get it right!

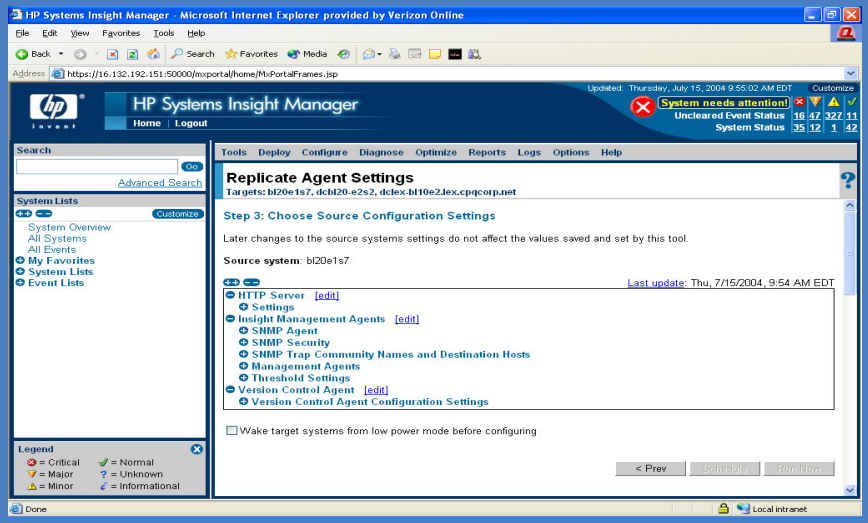
Task to Configure Agent Settings, part 1 – selecting the source

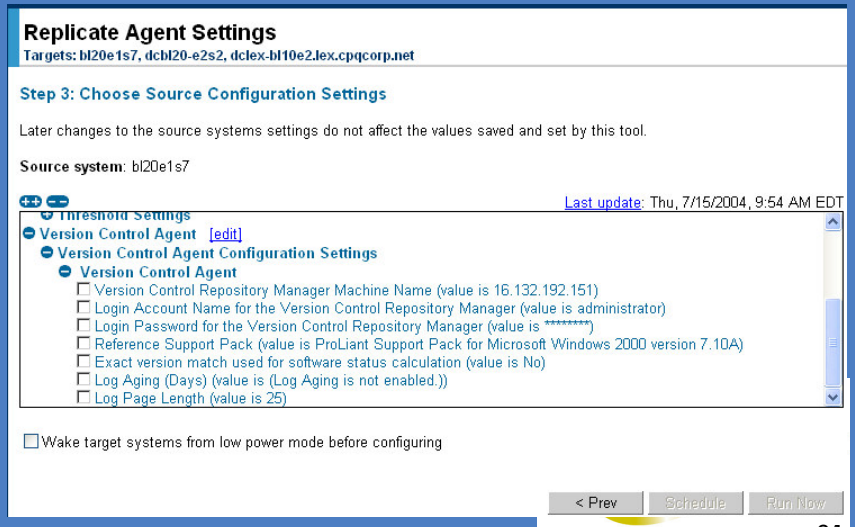
- **Offers a list of source systems**
- **Tells it capabilities**
- **If it is configurable**
- **Select the source**



Task to Replicate Agent Settings, part 2 – configure the source

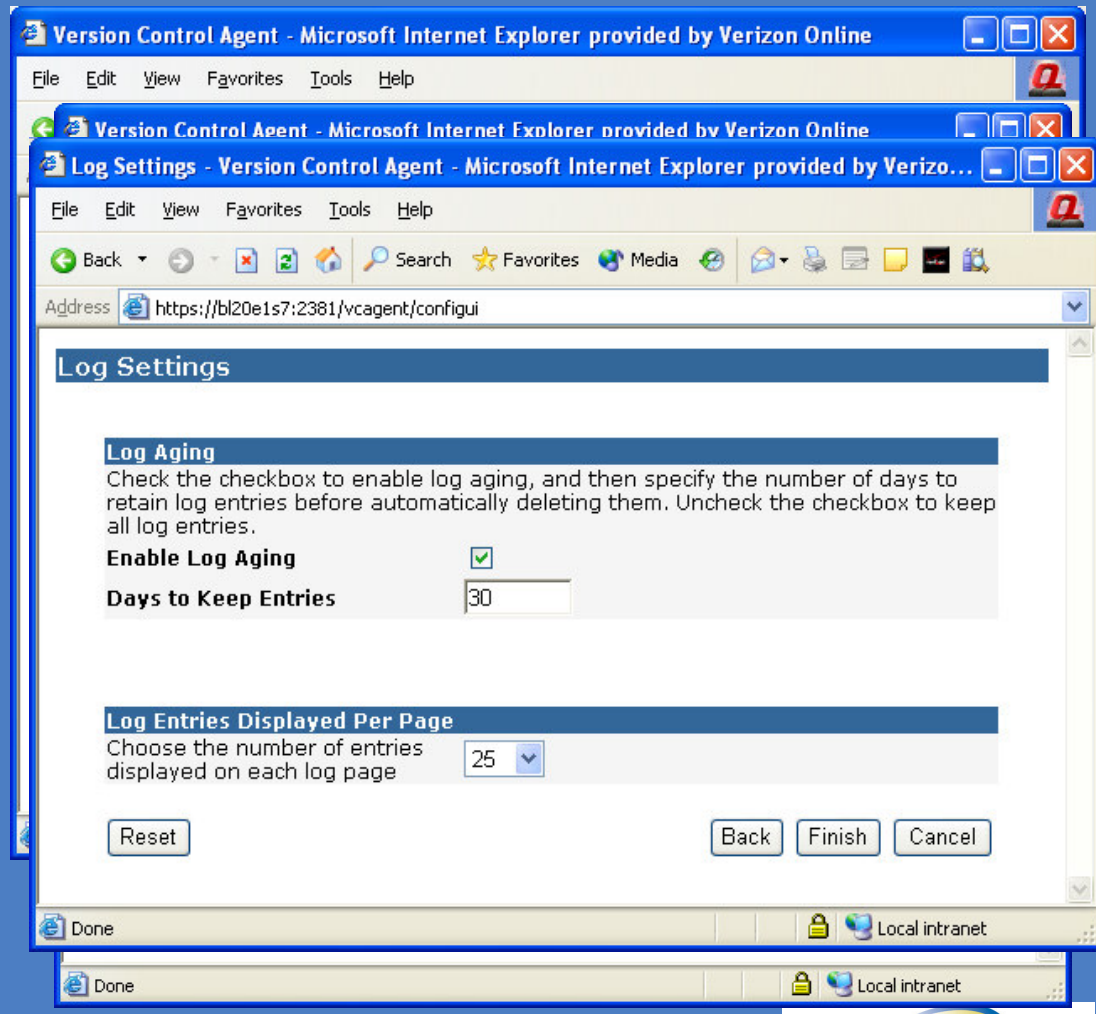
- **Shows the configurable components list**
- **This options selects the version control attributes and shows the current defaults**
- **Select Edit to modify**





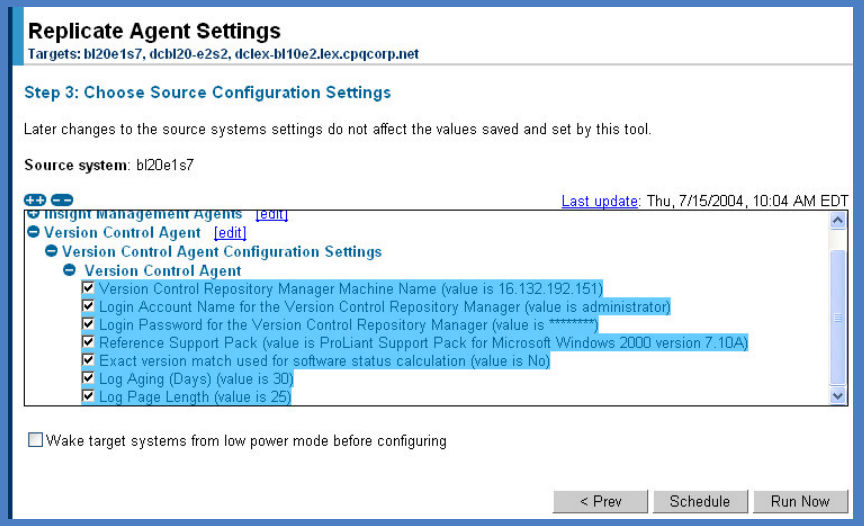
Task to Replicate Agent Settings, part 3 – edit the source

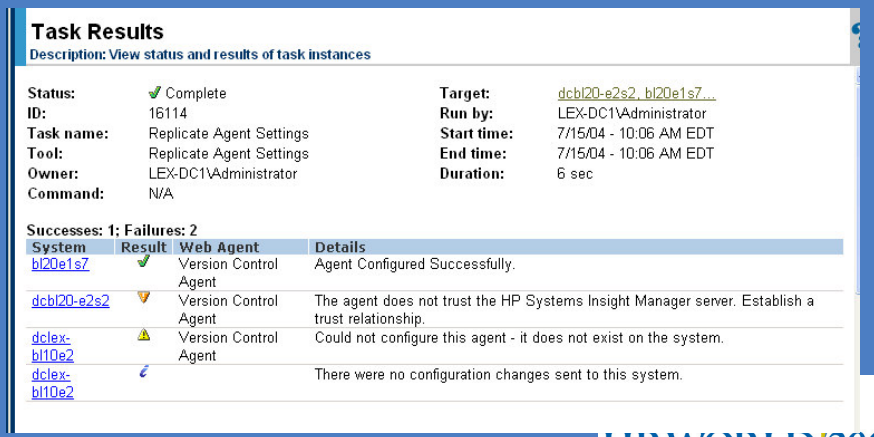
- **Edit the items**
- **Press Finish**



Task to Replicate Agent Settings, part 4 – select the attributes to send

- **Refresh the update**
- **Review the newly configured components, note the change in the log data**
- **Select Run Now**
- **Review the results, both successes and failures**



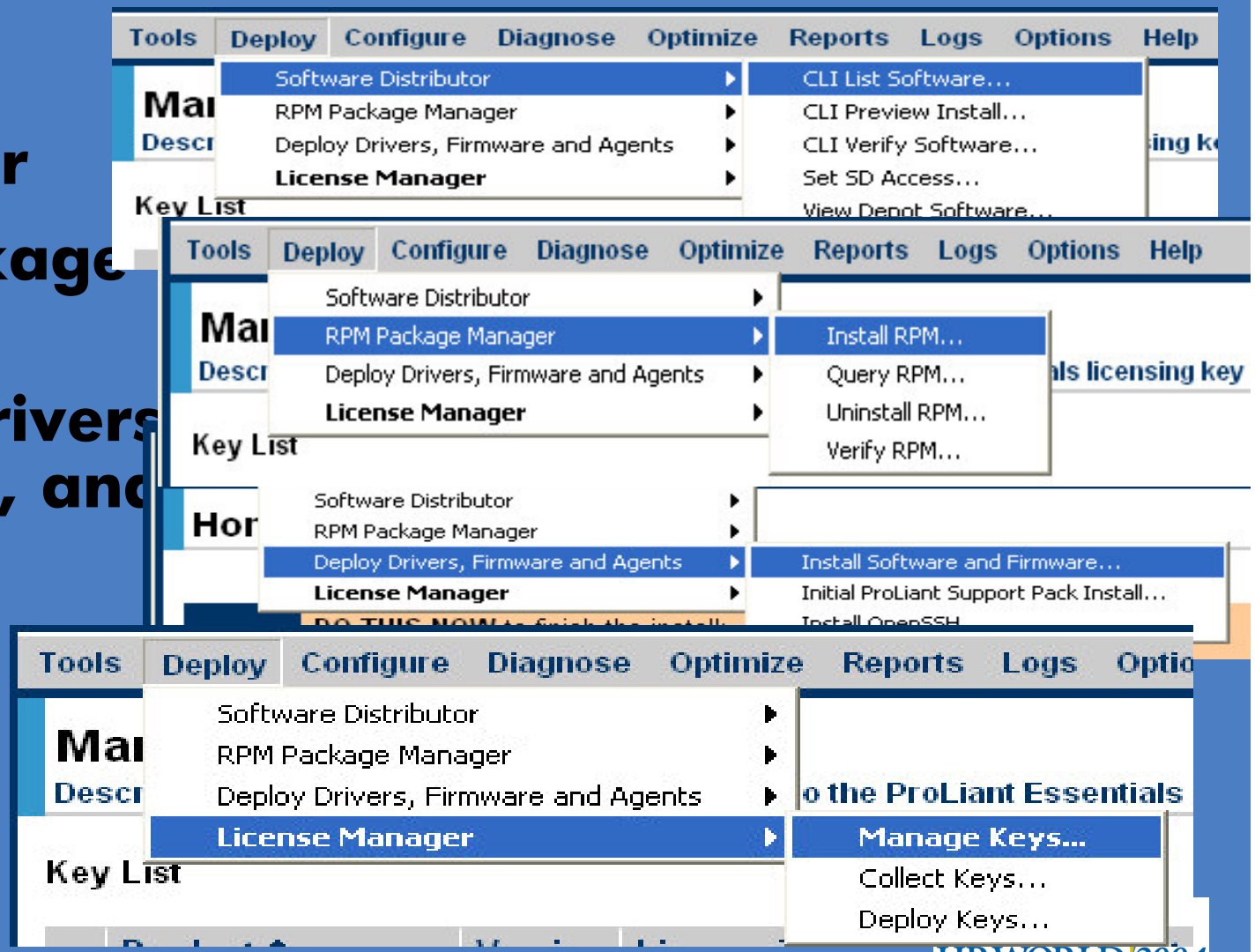


Agent Configuration

- **Linux and Windows agents need configuration**
- **Contained in the PSP by running setup on Windows or PSP install.sh on Linux**
- **If using the Rapid Deployment Pack with Altiris, synchronize the updates for the Version Control Repository Manager to the same locations**
- **Configure each new PSP**

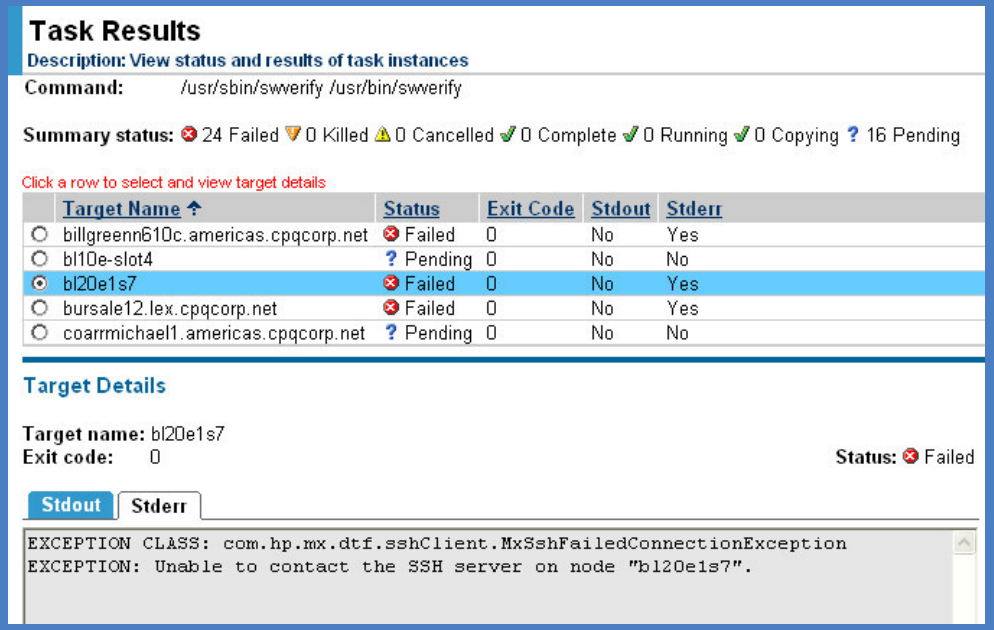
Deploy Menu Options

- **Software Distributor**
- **RPM Package Manager**
- **Deploy Drivers, Firmware, and Agents**
- **License Manager**



Deployment Failures

- **Bad Trusts**
- **No VCRM set**
- **Fails because of SSH permissions**
- **Initial Deployment if not using a domain account, must specify "localhost"**



Task Results

Description: View status and results of task instances

Command: /usr/sbin/swverify /usr/bin/swverify

Summary status: 24 Failed 0 Killed 0 Cancelled 0 Complete 0 Running 0 Copying 16 Pending

Click a row to select and view target details

Target Name	Status	Exit Code	Stdout	Stderr
billgreenn610c.americas.cpqcorp.net	Failed	0	No	Yes
bl10e-slot4	Pending	0	No	No
bl20e1s7	Failed	0	No	Yes
bursale12.lex.cpqcorp.net	Failed	0	No	Yes
coarrmichael1.americas.cpqcorp.net	Pending	0	No	No

Target Details

Target name: bl20e1s7
Exit code: 0
Status: Failed

Stdout | Stderr

```
EXCEPTION CLASS: com.hp.mx.dtf.sshClient.MxSshFailedConnectionException
EXCEPTION: Unable to contact the SSH server on node "bl20e1s7".
```

Migration from Insight Manager 7 to HP Systems Insight Manager

Data Migration Tool for IM7 to HP SIM

- **HP SIM 4.1 has a Data Migration Tool (DMT)**
- **Requires Insight Manager 7 SP2.3**
- **DMT migration in-place or remote**
- **Performance Management Pack (PMP 2.1) has a DMT to move to HP PMP 3.0**
- **Activated during installation process**
  - **Warns about versions**
  - **Creates DMT files in a special directory**
- **Whitepaper: HPSIM_Transitioning_IM7.pdf**

Data Migration Tool: What Does it Do

- **Migrates**
  - **Users**
  - **Tasks and Notification Tasks**
  - **Queries and Folders**
  - **Devices and Protocol Settings**
  - **All Reports**
  - **Server Settings**
  - **Certificates (in-place only)**
  - **Device Type Manager Rules**
- **Does not migrate**
  - **Events – archived to a CSV file**
  - **Historical or Single Instance Data**
  - **User enrolled MIBs**

To Use Data Migration Tool or Not?

- **Do you understand your current IM7 environment?**
- **Is the current Insight Manager 7 SP2.3?**
- **Is it OK to take Insight Manager 7 down to upgrade?**
- **Lots of custom**
  - **Queries**
  - **Control Tasks**
  - **Users**
  - **Event Notification Tasks?**

- **No = don't use the tool in place**

Migration Preparation

- **Take segment or hostfile lists**
  - **@segmentfile**
  - **$hostfile**
- **Good time to clean house**
  - **Remove old users, devices, events**
  - **Delete Orphans and other retired devices**
- **Use existing IM7 group configuration to move:**
  - **Trusts list – use FQDM name of HP SIM server**
  - **Accept IP packets list, community names**
  - **Trap destinations**
  - **Version Control Repository Manager location**

Migration on a new HP SIM CMS

- **Install a configured agent on the HP SIM system, then install HP SIM**
- **Set up SNMP community strings for CMS agent services and within HP SIM Protocol Settings and WBEM user accounts**
- **Set discovery filters**
- **Import host or segment lists**
- **Run discovery and wait**
- **Run version control status tasks**

Migration HP SIM 4.0 to 4.1

- **Before you start, create a document or folder containing:**
  - **Host list or segment files**
  - **A report of your user profiles**
  - **Save out the summary pages of Event Handlers**
  - **Include screen captures of important, hard to replicate procedures**
  - **Export reports of systems, perhaps Inventory**
- **If on the same system, uninstall HP SIM 4.0, including old version the PMP (perhaps from an earlier IM7 version)**
- **Install and configure using your documents**

Good Things to Know about the Database

- **Using MS SQL for HP SIM on Windows assumes that the user account you are logged into has rights to create the MS SQL database for HP SIM**
- **Linux/HP UX uses PostgreSQL = ~ 250 devices**
- **Assumes that MS SQL has set defaults and uses them, typically:**
  C:\Program Files\Microsoft SQL Server\MSSQL\Data
- **Can be changed after the installation**
- **May not have ODBC DSN, may have registry key called HKLM:Software\ODBC\ODBC.INI\ODBC Data Sources**
- **Recommendations:**
  - **Split the log and the data drives**
  - **Use a cluster server for the database**

Database Growth with Events

- **Events collected over a log period of time degrade performance**
- **Purge events regularly: create a task to run weekly that deletes events older that 7 days – that keeps a weeks history**
- **Keep the event volume below 50000, I would even say way below**
- **There is a notification table you can extract events to a CSV for historical purposes**
  - **The DMT extracts event data**

Security Challenges?

The Challenge

- **Excessive security challenges?**
- **Options->Security->System Link Configuration and select "Use the system's full DNS name"**
- **Fix Trust by Certificate or Name**
- **Making sure your DNS naming is well behaved, multiple names may not be in the order HP SIM resolves**
- **Bad time with good cookies – synchronize your clocks, enable cookies**

Users

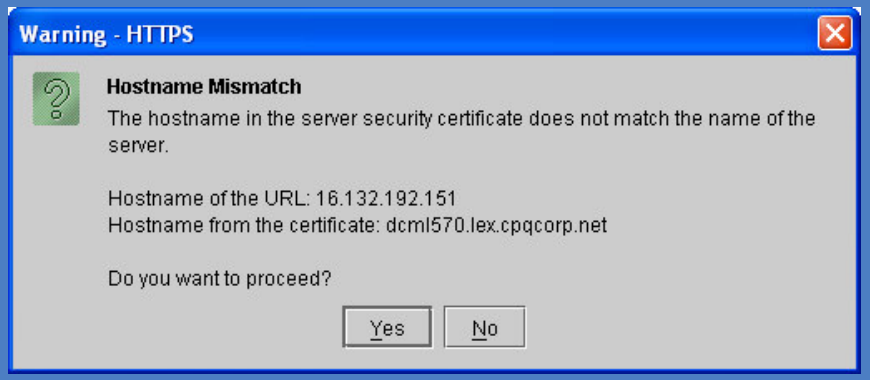
- **Located under Options->Security**
- **Users have profiles:**
  - **What rights – who can do what (toolboxes)**
  - **What systems – who can access which systems**
- **Still domain accounts not group accounts**
- **Managed servers**
  - **use the imbedded accounts (administrator, operator, user)**
  - **CMS trusts enable single sign on**
  - **Configurable prior to distribution or installation (how many times can I say this!)**

Logs

- **Located Agent's Logs tab**
  - **HTTP**
  - **Security – who has accessed the agent**
  - **Version Control – when and what software, firmware updates**
  - **Integrated Management Logs – what is happening to the device**

Naming

- **HP SIM really likes FQDN, IM7 did not**
- **Bad things happen if FQDN is not used:**
  - **Challenge pop-ups**
  - **Task failures, especially under deployment**
  - **Use NSLOOKUP to determine authoritative names**
- **Use FQDN for VCRM server names or IP address or create PTR records in the reverse lookup zone**
- **If DNS and reverse lookups are in flux create a host file on the HP SIM server, this helps discovery**



iLO Configuration

iLO & RiLOE II Configuration

- **Two methods: Local and remote**
- **Use the same XML scripts**
- **Local with Administrator or root access can be used to reset iLO/RiLO users accounts without rebooting the system**
- **Local – hponcfg for Linux and Windows, usage:**
  - **When you do not know the iLO passwords**
- **Remote – hplocfg and downloadable XML scripts, usage:**
  - **Group configuration resets**
  - **Server failure and recovery scenarios**
- **Combine multiple XML samples**

http://h18023.www1.hp.com/support/files/lights-out

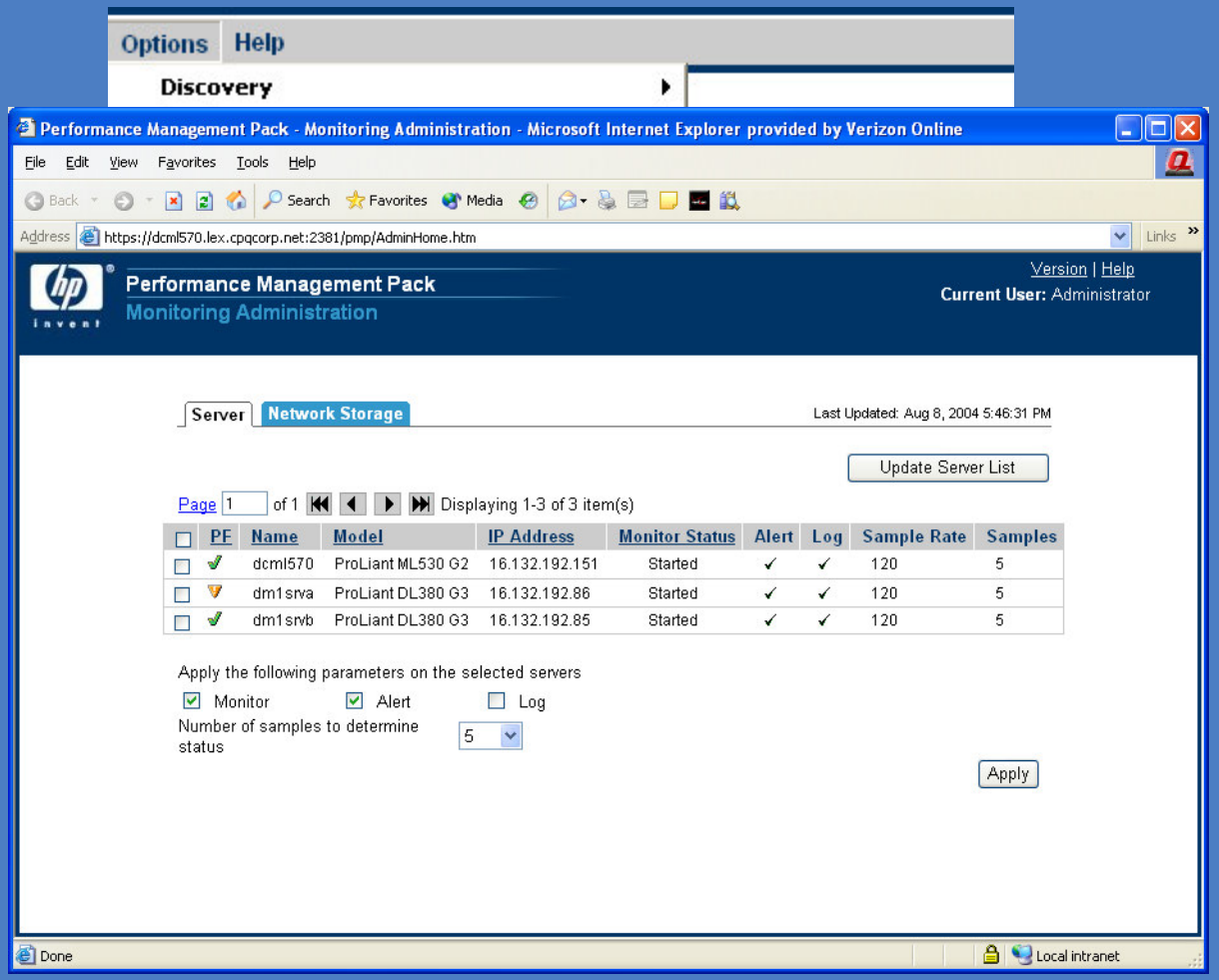
Performance Management

Performance Manager

- Views Hardware Performance by component
- Give textual recommendations
  - Needs more memory
  - Add a CPU
- Best used for:
  - Server Consolidation projects
  - "Prove in" or tune a platform for a project
  - Justify server replacement
- Licensed product with 1 free for the HP SIM server, 5 for any DL,ML,BL, or Storage Manager, unlimited on old ProLiants
- www.hp.com/servers/proliantessentials/pmp

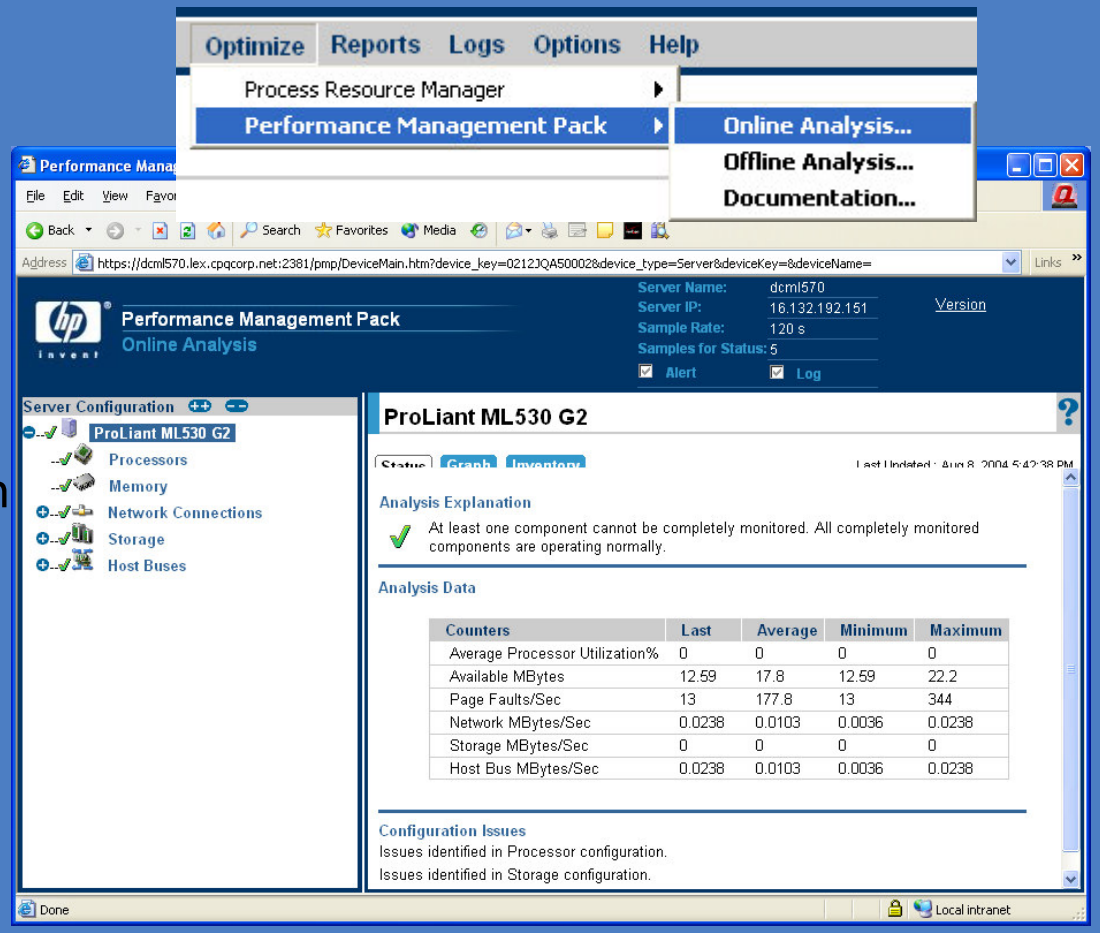
Performance Manager -> Options Licensing

- License distribution using HP SIM
- Licensed by SN
- DMT will migrate existing licenses
- Once Licensed and enabled, give the process time to collect samples

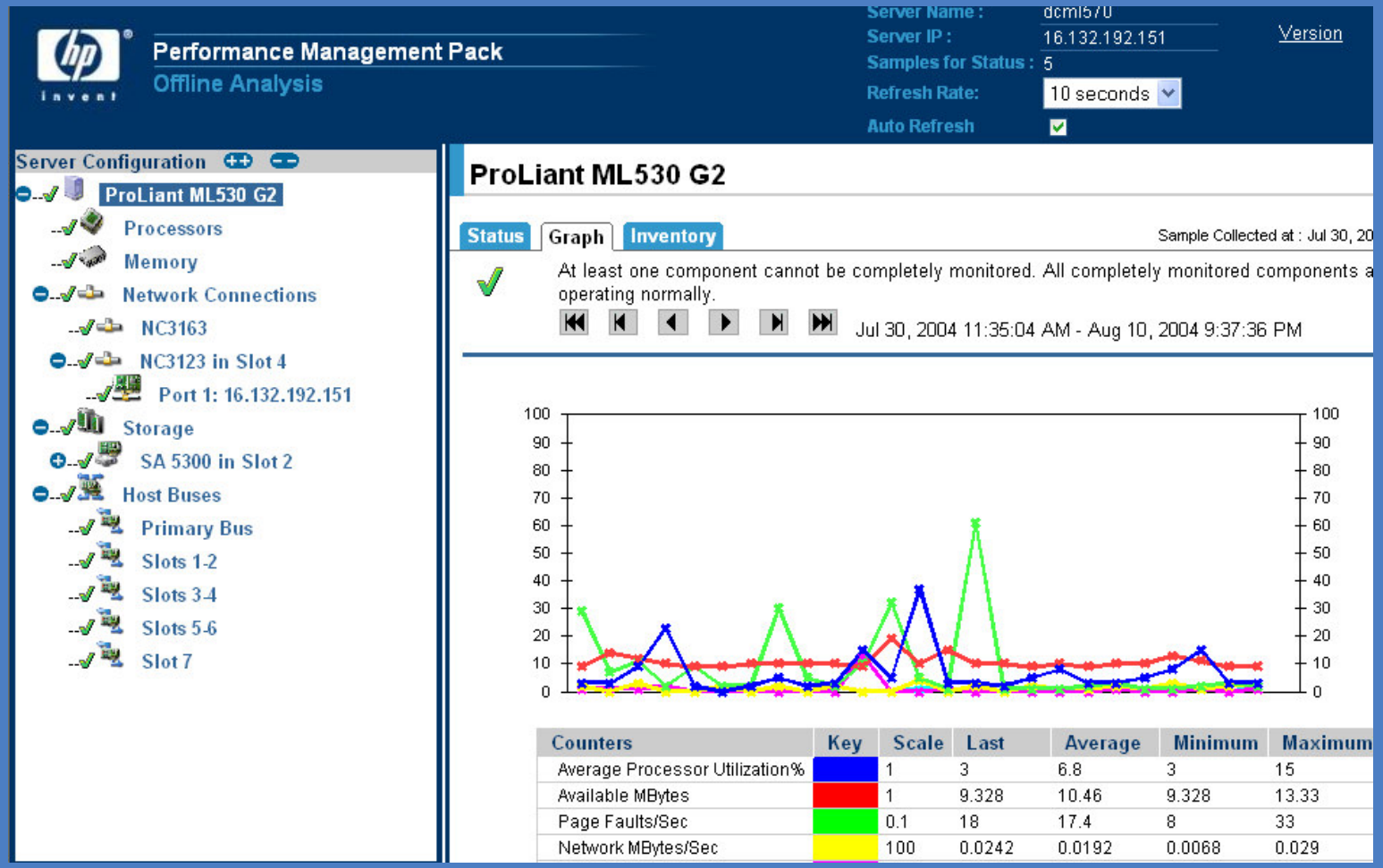


Performance Manager -> Optimize

- Viewing samples
- Select Online Analysis
- Select the Targets
- View the results
- Now for Linux in addition to Windows



Performance Manager view Offline Analysis - Graphs



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Review
Migrate
Use the extensions
Be creative
Contribute to the forum

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