



IBM Systems Director

The Single Point of Control to Manage Your Data Center



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What Customers Told Us

I don't need Director...I only have AIX

Director is too hard to set up

Tutorials are too long

Issues center on general installation tasks

Too difficult to find tasks

Health is #1 priority

Need understandable, rational, Tivoli/Director roadmap for BPs

Better alert management

Persistent status area, marquee

Can't wait until a real failure occurs to discover that Director is not working

Director has too much function
Director is too complicated
I want new function

Too many *\$&\$*@&#*\$(@ Icons

User Account Management not currently usable

Director is only product in world that doesn't include TCP Port Monitoring

If your mother can't understand it, it's too complicated.

Integration of storage management

NO JARGON.

Upgrade from one version to another is too difficult

Fly-over help needed with brief explanations of terms

Not accurate when monitoring of LED status

Need pre-canned automation plans

Would love to see a quick summary of how things are doing

With SMBs you get about 1-2 hours. If it doesn't work by then, we abandon it.

How We Responded

- **Simplified Setup**
 - Start, manage, learn
- **Focus on Health, Automation**
 - Health Summary
 - Monitors, Thresholds, Updates
 - Automation Plans
- **Easy to Navigate**
 - Power Systems summary
 - Intuitive drilldown and Views
 - Topology map
- **Simply Virtual**
 - Create virtual server
 - Edit virtual resources
 - Relocate
- **Energy Management**

The screenshot displays the IBM Systems Director web interface. At the top, a 'Welcome to IBM Systems Director' banner includes search and navigation options. Below this, a 'Getting Started' section provides instructions for initial setup and displays a 'Discovery complete' status with a pie chart showing 290 systems found: 20 with no agent, 120 with platform agent, and 150 with common agent. A 'Common Tasks' sidebar offers links for system discovery, inventory collection, and resource navigation.

The main dashboard features several performance monitors: CPU usage (100%), Packets (140), Processes (100), and Datagrams Received (10). Below the dashboard is a 'Health Summary' section with a table of system members and their status (e.g., OK, Minor). A 'Systems with Problems' table shows one system with a 'Minor' issue.

A 'Topology map' window shows a hierarchical network diagram of the system, including components like 'HMC 10', 'HMC 10', and various server nodes. A 'Monitor' window displays a graph of 'Active Energy Managed Resources' over time, with a table listing resources like '08AF000B-F1C5-11DA-BD...' and 'BSOCLANCEY'.

At the bottom, a 'Welcome to the Create Virtual Server wizard' is visible, with a sidebar menu containing options like 'Host', 'Name', 'Source', 'Processor', 'Memory', 'Disk', 'Disk Selection', 'Network', 'Device', 'Physical Slots', 'iSeries-specific Settings', 'Operating System Settings', 'TCP/IP Settings', and 'Summary'.

IBM Systems Director Overview

Highlights

- **Next Generation Solution**
- **End-to-end Management**
- **Systems Director Topology**
- **Consistent User Experience**

IBM Systems Director Overview

Next generation of IBM Director that delivers

- **Single point of control** from a consistent Web-based user interface
- Simplified deployment, installation and update process
- Easy-to-learn new tasks with intuitive wizards, tutorials and integrated help
- **Topology graph** views to simplify troubleshooting across server, storage and network resources
- Comprehensive system navigation through groups, search, status and relationships
- Integrates IBM's **best-of-breed virtualization** capabilities to provide new and radically improved ways to simplify the management of physical and virtual platform resources
- Increased **platform support through the addition of single system platform-level management functionality for AIX and IBM i**
- Increased platform support through leveraged industry standards **CIM**
- Support for **embedded agents** included with a platform or deployed by other systems management tools
- A consistent access point to integrate and extend platform management throughout the infrastructure



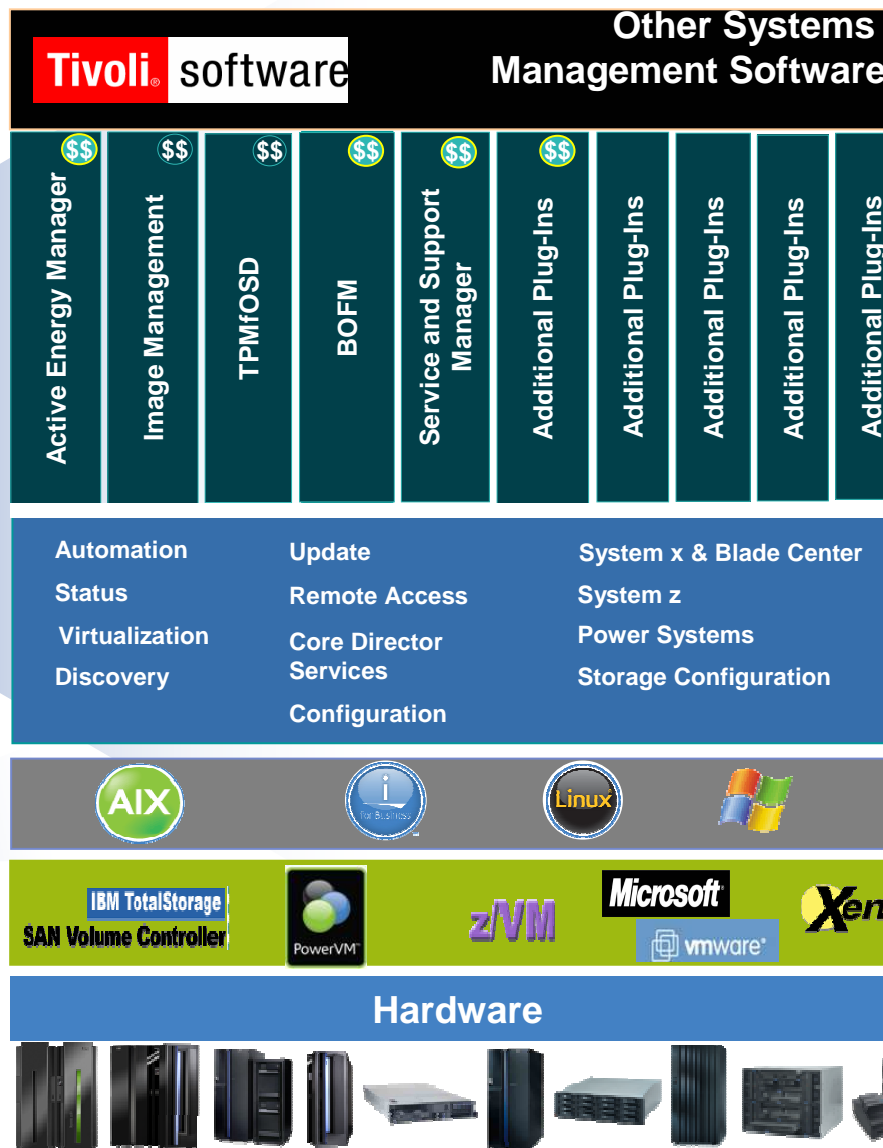
IBM Systems Director Overview

End-to-end Management



Platform Management

- Navigator for IBM i
- AIX web console
- HMC web console
- Remote Access



Enterprise Service Management

Advanced Managers & Priced Plug-Ins

Base Systems Director Managers & Hardware Platform Managers

Resource Management

Managed virtual and physical environments

IBM and non-IBM hardware

Tivoli and Systems Director

Tivoli = Service Management

Integrated visibility, control & automation across heterogeneous business and technology assets

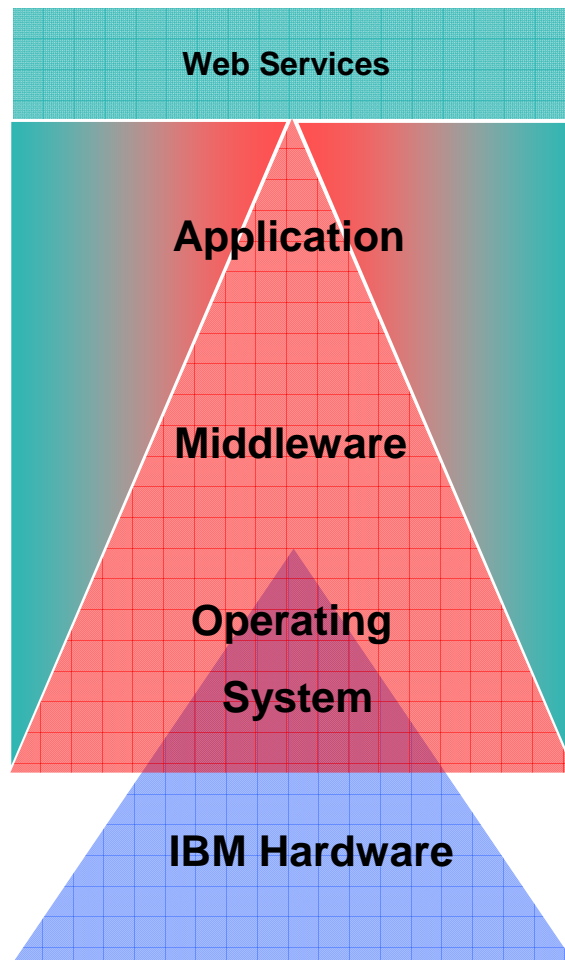
- ✓ See the business
- ✓ Govern and control the business
- ✓ Optimize the business

Systems Director = Platform Management

Detailed “care and feeding” of IBM hardware

- ✓ Tell me what I have
- ✓ Let me install & configure it
- ✓ Tell me if it's working
- ✓ Let me update it

IBM Monitoring Capabilities



Systems Director

Tivoli ITM

Tivoli ITCAM

IBM Systems Director

- For IBM servers, task-oriented detailed management of power, hardware, firmware and basic monitoring of OS health
- Platform level maintenance of firmware and OS updates
- Base Systems Director included with with IBM System x, BladeCenter, Power Systems and Linux on System z

IBM Tivoli Monitoring

- Extensive monitoring capabilities focused on management of performance and health of OS, middleware, applications and transactions (composite applications) across heterogeneous platforms
- Historic data available through TDW for analysis and reports
- Tivoli provides a Systems Director connector agent to deliver hardware metrics from Systems Director to ITM
- ITM agents and infrastructure shipped with IBM System p and System z

IBM Systems Director Overview

Topology



- **Three-tiered architecture**
- **Thousands of managed nodes**
- **Upward Integration modules supporting**
 - Tivoli, Computer Associates, Hewlett Packard, Microsoft

IBM® Systems Director 'tiered' agent support

■ Common Agent

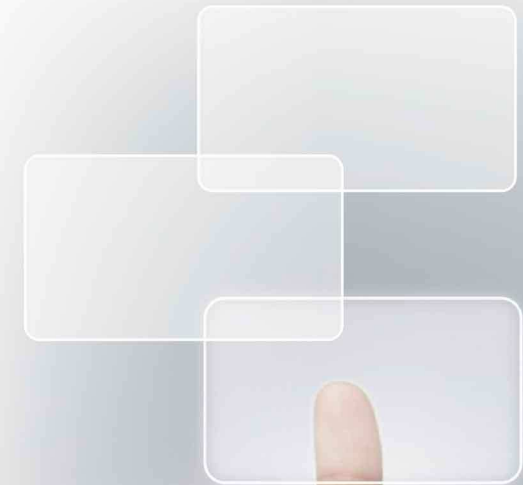
- Provides a single agent management system for status reporting and operations
 - Common authentication and credential management using a single agent manager
 - Single, shared incoming port (firewall friendly) for management
 - Increased availability using a watchdog to restart common agent, if needed
- Single agent runtime shared by IBM systems and Tivoli products like Tivoli Provisioning Manager reduces agent footprint, supports shared credentials and drives discovery, inventory and other common services
- Replaces the previous 5.x Level 2 Agent while providing Seamless integration of Platform Agent

■ Platform Agent

- Provides a subset of Common Agent functions used to communicate with and administer the managed system, including hardware alerts and status information
- Improved interoperability through open standards, rather than through proprietary technologies
- Firmware and driver updates and remote deployment

■ Agent-less Management

- Agent-less managed systems are best for environments that require very small footprints and are used for specific tasks, such as one-time inventory collection, firmware and driver updates and remote deployment.



IBM Systems Director Agents

	Agentless	Platform Agent	Common agent
Discovery	✓	✓	✓
Collect limited operating-system inventory data	✓	✓	✓
Remotely deploy and install Common Agent and Platform Agent.	✓	✓	✓
Perform limited remote access	✓	✓	✓
Perform restart capabilities	limited ✓	limited ✓	✓
Manage alerts	limited X	limited ✓	✓
Monitor health and status - enabling UIM to enterprise environments	X	limited ✓	✓
Collect platform inventory data	X	X	✓
Perform power management function	X	X	✓
Collect comprehensive platform and operating system inventory data	X	X	✓
Perform remote access, including transferring files	X	X	✓
Additional event support	X	X	✓
Monitor processes and resources, and set critical thresholds send notifications when triggered	X	X	✓
Manage operating system resources and processes	X	X	✓
Manage updates	X	X	✓

IBM Systems Director Overview

Consistent user experience with common tasks

- Discover, navigate and illustrate systems on the network, visualize detailed inventory and relationships
- Identify problematic systems and drill down to the root cause
- Update firmware, drivers, and operating systems, and orchestrate the installation process
- Update plug-ins to add new functions to the base capabilities
- Monitor systems in real time and set critical thresholds to notify administrators of emerging problems
- Configure settings of a target system and create a configuration plan to deploy these settings to similar systems
- Reduce virtualization complexity
- Manage energy

The screenshot displays the IBM Systems Director web interface. At the top, a 'Welcome to IBM Systems Director' page shows a 'Getting Started' section with a pie chart indicating '290 systems found: 26 systems with no agent, 120 systems with platform agent, 150 systems with common agent'. Below this is a 'Resource Navigator' window showing a network topology diagram with nodes like 'hc031_520', 'hc030_520', and various network interfaces. To the right, an 'Overview' panel shows a small map of the network. At the bottom, a 'Navigate Resources' window displays a table of 'Healthy Resources'.

Select	Name	Access	Problems
<input type="checkbox"/>	nibrown-win.raleigh.ibm.c...	No access	OK
<input type="checkbox"/>	arizona.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	jacdev2.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	sandy-linux.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	dyn55696.raleigh.ibm.c...	OK	OK
<input type="checkbox"/>	AlvinLee.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	theshield.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	win2003dir61ta.raleigh.i...	OK	OK
<input type="checkbox"/>	jaquer-13f8mby.raleigh...	No access	OK
<input type="checkbox"/>	prorocks.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	WIN2003-DIR52.raleigh.i...	No access	OK
<input type="checkbox"/>	jhmahan1.raleigh.ibm.com	No access	OK
<input type="checkbox"/>	SAHFRISCO.raleigh.ibm.c...	No access	OK
<input type="checkbox"/>	win2003-devsys.raleigh.i...	No access	OK
<input type="checkbox"/>	644AC64.raleigh.ibm.com	No access	OK

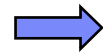
Simplified Setup and Getting Started

Highlights

- **Start tab**
- **Manage tab**
- **Learn tab**

Simplified Setup and Getting Started

■ Start tab



- Click discover
- View results

■ Manage tab

- Simple “activity-based” approach
- Highlight platform management

■ Learn tab

- Learn each activity
- Learn Power systems integration

Welcome to IBM® Systems Director

I'm a 5.20 user; how do I use 6.1.0? About Web resources View updates

Find a resource Find a task

Start Manage Learn

Before IBM® Systems Director can manage your systems, they must be discovered. Use this page to set up IBM® Systems Director for the first time.

Getting Started

Discovery completed

28 Operating systems:

- 3 systems with no agent
- 0 systems with Platform Agent
- 25 systems with Common Agent

22 systems have no access
42 systems do not have inventory collected

Optional tasks

- System discovery
- Advanced system discovery
- Collect and view inventory
- Navigate resources

Next Steps

- Register IBM® Systems Director
Register your product with IBM
- Create event thresholds and automation plan
Use the Automation Plan wizard to create thresholds and select actions to run
- Check for updates on discovered systems
Check IBM for updates your systems may need
- Install agents on systems
Fully enable your systems for management by installing the common agent
- Set up additional user security
Create users and assign user roles
- Start configuring your systems
Use configuration templates to configure your systems

Simplified Setup and Getting Started

- **Start tab**
 - Click discover
 - View results
- **Manage tab** →
 - Simple “activity-based” approach
 - Highlight platform management
- **Learn tab**
 - Learn each activity
 - Learn Power systems integration

Welcome to IBM Systems Director

Find a resource Find a task

About
Web resources
View updates

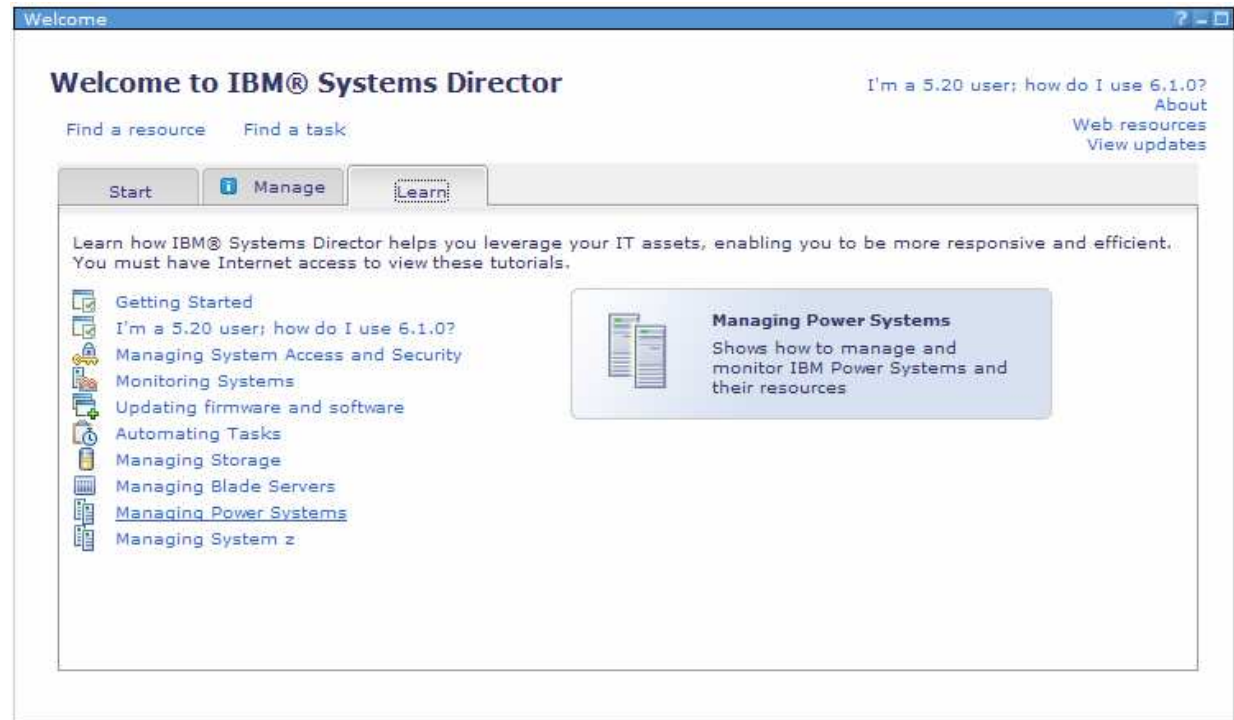
Start **Manage** Learn

IBM Systems Director contains the following plug-ins. Depending on its "readiness," the plug-in might be ready to use, or might require additional setup and configuration.

- IBM Systems Director Server** 6.1.0
1 User does not have access to any resources
Manage Users
- Discovery Manager** 6.1.0
No access to 128 systems. 148 Systems have no inventory collected.
System Discovery View systems needing access
Navigate Resources View and Collect Inventory
- Status Manager** 6.1.0
Ready.
Health Summary Monitors
- Automation Manager** 6.1.0
Ready
Automation Plans Active and Scheduled Jobs
- Update Manager** 6.1.0
Ready
Getting Started with Updates Check for Updates
- Configuration Manager** 6.1.0
Ready
Plans Configuration templates
- Virtualization Manager** 6.1.0
Ready
Set up virtualization manager: Virtual Servers and Hosts
- Remote Access** 6.1.0
Ready

Simplified Setup and Getting Started

- **Start tab**
 - Click discover
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Focus on Health, Status, Automation

Highlights

- **Health summary**
- **Monitoring**
- **Update Compliance**
- **Automation Plans**

Focus on Health, Status, Automation

Health summary

- Favorite systems
- Critical monitors
- Group thumbnails

Monitoring

- Monitor resources
- Thresholds
- Events
- Update Compliance

Automation Plans

- Notify
- Run commands
- Trigger tasks

The image displays three screenshots of the IBM Tivoli Monitoring interface:

- Scoreboard:** A summary view showing 'Active Status' with icons for a warning and information, and a table with columns for 'Problems' (1) and 'Compliance'.
- Dashboard:** A view with four monitors: 'CPU' (line graph), 'Packets' (area graph), 'Processes' (bar chart), and 'Datagrams Received' (bar chart). A 'View Monitors' button is at the bottom.
- Health Summary:** A detailed view with an 'Actions' dropdown and three tables:
 - Favorites - Administrator.SCENARIOX141 (View Members):**

Name	Type	Access
scenariox141.scenario.netfin	Operating System	OK
BladeCenter Chassis and Me	Dynamic: System	
HMC and Managed Power Sy	Dynamic: System	
IBM 7998 60X 100DF5A	Server	OK
NETVQ10	BladeCenter Cha	OK
 - BladeCenter Chassis and Members (View Members):**

Name	Access	Problems
NETVQ10	OK	OK
D3C9E249-57C1-3553-	OK	OK
IBM 7972 3AZ 23A0259	OK	OK
IBM 7998 60X 100DF5A	OK	OK
IBM 7998 61X 100246A	OK	OK
 - Systems with Problems (View Members):**

Name	Access	Problems
scenariox141.scenario.netfin	OK	Minor

Focus on Health, Status, Automation

- **Health summary**
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- **Monitoring**
 - Monitor resources
 - Thresholds
 - Events
 - Update Compliance

- **Automation Plans**
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The screenshot shows the 'Monitor View' interface. At the top, it says 'This page displays the Common Monitors monitors: otto01.austin.ibm.com'. Below this is a table with columns: Select, Name, Monitor Name, Monitor Type, Threshold St, Current, and Warn. The table lists various system metrics like Active Virtual Memory, CPU Utilization, and Disk Space. A 'Threshold' dialog box is open over the 'CPU Utilization' row, showing configuration options for high and low values.

Select	Name	Monitor Name	Monitor Type	Threshold St	Current	Warn
<input type="checkbox"/>	otto01.austin.ibm.com	Active Virtual Memory (%)	Individual		126%	
<input type="checkbox"/>	otto01.austin.ibm.com	Active Virtual Memory (4K Pages)	Individual		564814	
<input type="checkbox"/>	otto01.austin.ibm.com	CPU Utilization	Individual	Activated	1.19%	>= 85
<input type="checkbox"/>	otto01.austin.ibm.com	Disk % Space Used	Individual		86.89%	
<input type="checkbox"/>	otto01.austin.ibm.com	Disk Space Remaining	Individual		67 Megabytes Fr	
<input type="checkbox"/>	otto01.austin.ibm.com	Disk Space Used	Individual		444 Megabytes U	
<input type="checkbox"/>	otto01.austin.ibm.com	IP Packets Received with Errors/sec	Individual		0 Packets/sec	
<input type="checkbox"/>	otto01.austin.ibm.com	IP Packets Received/sec	Individual		26 Packets/sec	
<input type="checkbox"/>	otto01.austin.ibm.com	IP Packets Sent/sec	Individual		22.77 Packets/se	
<input type="checkbox"/>	otto01.austin.ibm.com	IPv6 Error Packets Received/sec	Individual		0 Packets/secon	
<input type="checkbox"/>	otto01.austin.ibm.com	IPv6 Packets Received/sec	Individual		0 Packets/secon	
<input type="checkbox"/>	otto01.austin.ibm.com	IPv6 Packets Sent/sec	Individual		0 Packets/secon	
<input type="checkbox"/>	otto01.austin.ibm.com	Memory Usage				
<input type="checkbox"/>	otto01.austin.ibm.com	Paging Space Free (t				
<input type="checkbox"/>	otto01.austin.ibm.com	Paging Space Remai				

Threshold Configuration Dialog:

Selected Monitor is CPU Utilization

Threshold | Options

Monitor values that are too high:

- Critical: 95
- Warning: 85

Monitor values that are too low:

- Warning: []
- Critical: 1

OK Cancel

Focus on Health, Status, Automation

- **Health summary**
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- **Monitoring**
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 - Events
 - **Update Compliance**

- **Automation Plans**
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Summary page for single view

Update Management

Use update management to manage updates for your systems. Create update compliance checks on systems to ensure they remain current. Schedule a check for updates to ensure you always have the latest updates.

Systems (monitoring 73 out of 291 total)

Update compliance summary:

	6 systems
	12 systems
	2 systems
	53 systems

20 systems have not passed their update compliance checks

Updates

3 update groups

ProfileNavigatorPortlet

Use update profiles to manage updates and monitor system compliance. update_profiles stay current.

Update Profiles > brian01

Select	Name	Actions	Softw
<input checked="" type="checkbox"/>	Broadcom (tg3) NetXtreme Driver	Create Group... TemporaryFix Topology Map	50
<input type="checkbox"/>	i5/OS PTF SF12345	Install... Uninstall... Distribute... Download...	50
<input type="checkbox"/>	Core Agent Feature	Add to update profile... Locations... Properties	50
<input type="checkbox"/>	IBM Preboot Diagnostics Flash Update		50
<input type="checkbox"/>	HMC Driver SQ7_0616A (0502) Rev 1.0		50
<input type="checkbox"/>	IBM BIOS Flash		50



Integrated actions for download, distribute, install and uninstall

Focus on Health, Status, Automation

- **Health summary**
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The image displays two overlapping screenshots from the IBM Systems Director web interface. The top screenshot shows the 'Automation Manager' page, which provides a summary of automation jobs within the last 30 days. It includes a 'Scheduled Jobs' section with statistics: 0 jobs scheduled, 1 job completed successfully, and 0 jobs failed with errors. Below this, it shows 'Upcoming job runs' (None) and a table for 'Most recent job runs' with one entry: 'Collect Inventory - November 14, 2008 2:22 PM'. The bottom screenshot shows the 'Automation Plans' configuration window. It is divided into two panes: 'Automation Plans' on the left and 'Events' on the right. The 'Automation Plans' pane shows a 'Create Action' dialog with a list of actions to choose from, such as 'Start a program on a system' and 'Send an e-mail to a mobile phone'. The 'Events' pane allows for configuring event filters and selecting event types from a list including 'Common Agent', 'Updates', 'User Login Security', and 'Event Severity'.

Easy to Navigate Power Systems

Highlights

- **Power Systems summary**
- **Drilldown to properties**
- **Finger-tip troubleshooting**
- **Inventory**
- **Topology maps**
- **Launch embedded tasks**

Easy to Navigate Power Systems

■ Power Systems summary

- Launch-point
- Familiar
- Intuitive groups



■ Drilldown to properties

- Search
- Finger-tip troubleshooting
- Contextual tasks
- Inventory

■ View topology map

- Relationships
- Dependencies

■ Launch embedded tasks

Power Systems Management

The Power Systems Management summary page provides a summary of the Power Systems resources in your environment and gives details on their status. This page also provides navigational links to common management tasks.

Power Systems Resource Status

4 Power Systems resources found:

- 0 Critical
- 0 Warning
- 0 Informational
- 4 OK

Manage Resources

- 0 Platform Managers
 - 0 Hardware Management Console (0 no access)
 - 0 Integrated Virtualization Manager (0 no access)
- 1 Power Systems Hosts (Physical Servers)
 - 1 Power Systems servers
 - 0 Power Systems BladeCenter servers
- 0 Virtual Servers (Logical Partitions)
 - 0 AIX/Linux
 - 0 IBM i
 - 0 Virtual I/O Server
- 3 Operating Systems
 - 3 AIX
 - 0 Linux
 - 0 IBM i
 - 0 Virtual I/O Server

Common views

- Health summary
- Event log
- Problems

Common tasks

- System discovery
- Monitors
- Thresholds
- Check for updates
- Create virtual server
- BladeCenter management
- System Planning Tool

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The screenshot displays two windows from the IBM HMC console. The top window, titled 'Find a Resource', contains a search bar with 'hmc' entered and a 'Find' button. Below the search bar, it lists search results: 'All HMC Recommended Updates', 'HMC and Managed Power Systems Servers', and 'HMC and managed System z servers'. A 'Details...' link is visible next to the second result. The bottom window, titled 'Navigate Resources', shows a table of 'HMC and Managed Systems (View Members)'. A blue arrow points from the 'Drilldown to properties' section of the text to the table. The table has columns for 'Select', 'Name', 'State', 'Access', 'Problems', 'Compliance', 'CPU Utiliz...', and 'Processo'. The table contains 10 rows of system information, with the last row 'julie04' highlighted by a mouse cursor. The status bar at the bottom indicates 'Page 1 of 1', 'Selected: 0', 'Total: 10', and 'Filtered: 10'.

Select	Name	State	Access	Problems	Compliance	CPU Utiliz...	Processo
<input type="checkbox"/>	julie-hmc2.austin.ibm.com	8	OK	OK	OK	...	...
<input type="checkbox"/>	91117-570*109DB9D	Started	OK	OK	OK	...	...
<input type="checkbox"/>	7*91117-570*...	Started	OK	OK	OK	...	...
<input type="checkbox"/>	dan1	Stopped	OK	OK	OK	...	...
<input type="checkbox"/>	DanTest1	Stopped	OK	OK	OK	...	...
<input type="checkbox"/>	julie-vio	Started	OK	OK	OK	...	...
<input type="checkbox"/>	julie01_aix	Started	OK	OK	OK	...	...
<input type="checkbox"/>	julie02	Started	OK	OK	OK	...	...
<input type="checkbox"/>	julie03	Started	OK	OK	OK
<input type="checkbox"/>	julie04	Started	OK	OK	OK

Easy to Navigate Power Systems

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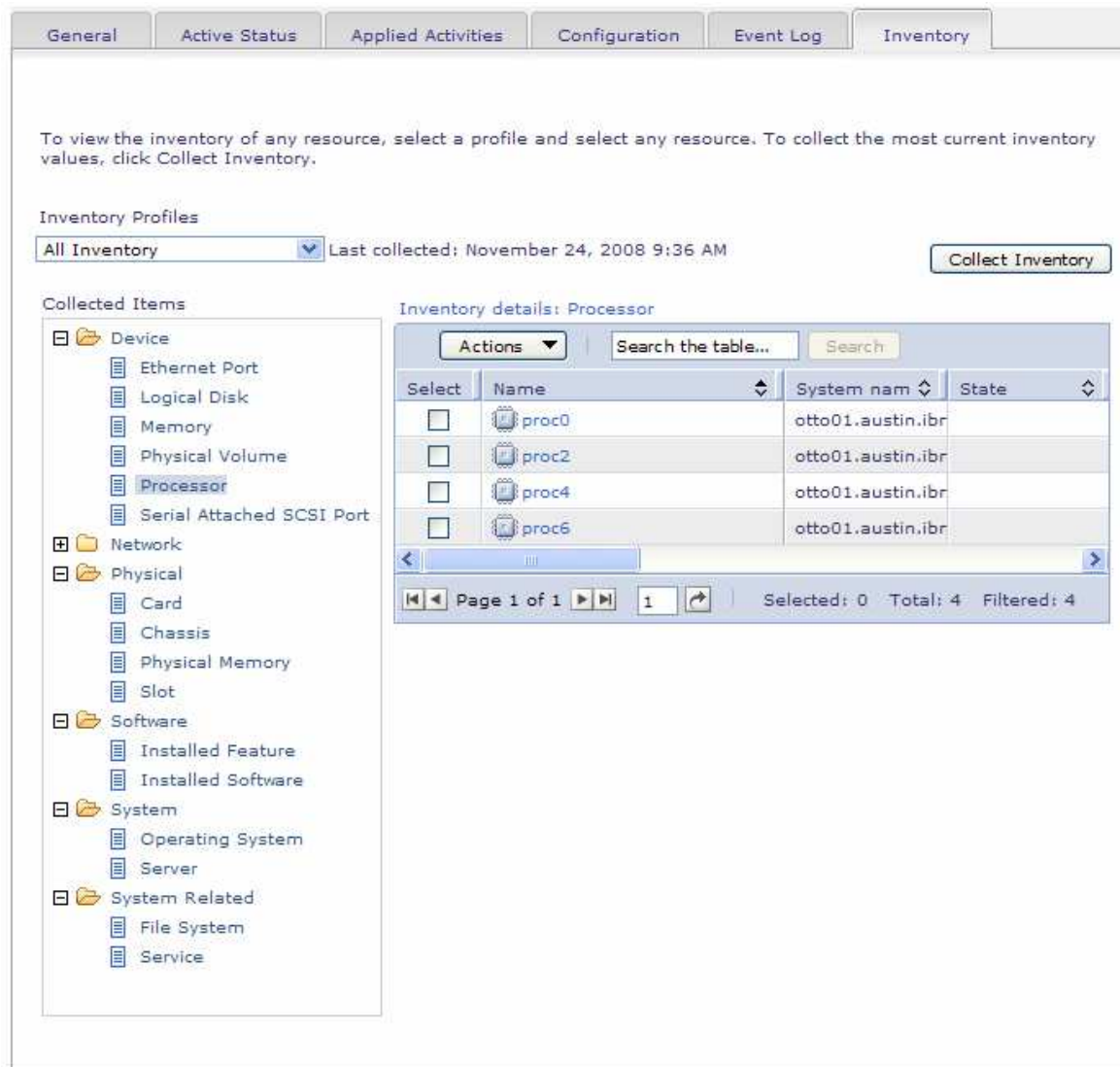
The screenshot displays the 'Navigate Resources' window for an IBM 9117 570 1053B6B server. The main window shows the 'General' tab with fields for Name, Access (OK), and Status (OK). Below this are tabs for Active Status, Applied Activities, Configuration, Event Log, and Inventory. The 'General' tab contains fields for Type (Server), Description, IP Addresses, IP Hosts, Agent Time Zone Offset, Architecture (ppc64), Communication State (Communication OK), and Machine Type (9117). A blue arrow points from the 'Finger-tip troubleshooting' text in the list to the 'Virtualization Properties' window.

The 'Virtualization Properties' window is open, showing a table of properties:

Category	Property Name	Property Value
Vendor Information	Vendor:	HMC
	Virtual Server Count:	1
Processor	Available System Physical Processors:	0
	Configurable System Physical Processors:	4
	Physical CPU Count:	4
	Available System Processing Units:	0.0
	Configurable System Processing Units:	4.0
Memory	Installed System Processing Units:	4.0
	Memory Block Size (MB):	32
	Available Memory (MB):	0
	Configurable Memory (MB):	7744
	Installed Memory Size (MB):	8192

Easy to Navigate Power Systems

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General Active Status Applied Activities Configuration Event Log Inventory

To view the inventory of any resource, select a profile and select any resource. To collect the most current inventory values, click Collect Inventory.

Inventory Profiles
 All Inventory Last collected: November 24, 2008 9:36 AM Collect Inventory

Collected Items

- Device
 - Ethernet Port
 - Logical Disk
 - Memory
 - Physical Volume
 - Processor**
 - Serial Attached SCSI Port
- Network
- Physical
 - Card
 - Chassis
 - Physical Memory
 - Slot
- Software
 - Installed Feature
 - Installed Software
- System
 - Operating System
 - Server
- System Related
 - File System
 - Service

Inventory details: Processor

Select	Name	System nam	State
<input type="checkbox"/>	proc0	otto01.austin.ibr	
<input type="checkbox"/>	proc2	otto01.austin.ibr	
<input type="checkbox"/>	proc4	otto01.austin.ibr	
<input type="checkbox"/>	proc6	otto01.austin.ibr	

Page 1 of 1 1 Selected: 0 Total: 4 Filtered: 4

Easy to Navigate Power Systems

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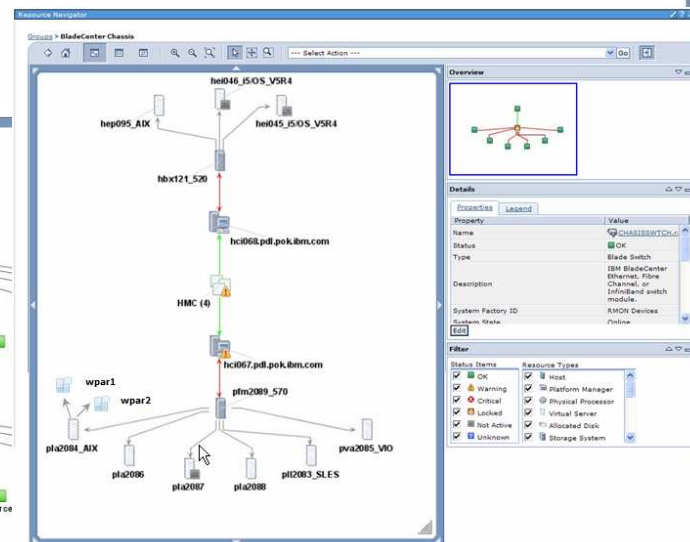
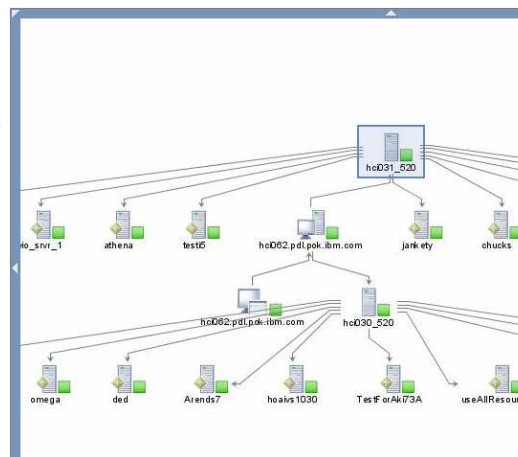
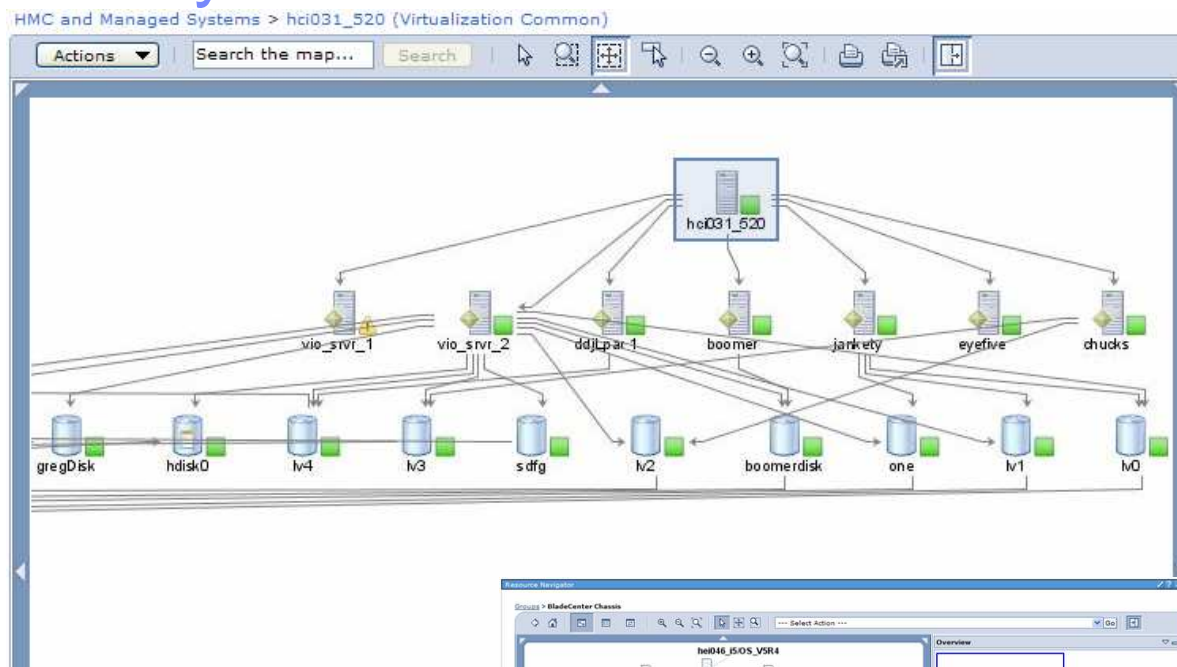
- **Drilldown to properties**

- Search
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- **View topology map**

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- Launch-point
- Familiar
- Intuitive groups

- **Drilldown to properties**

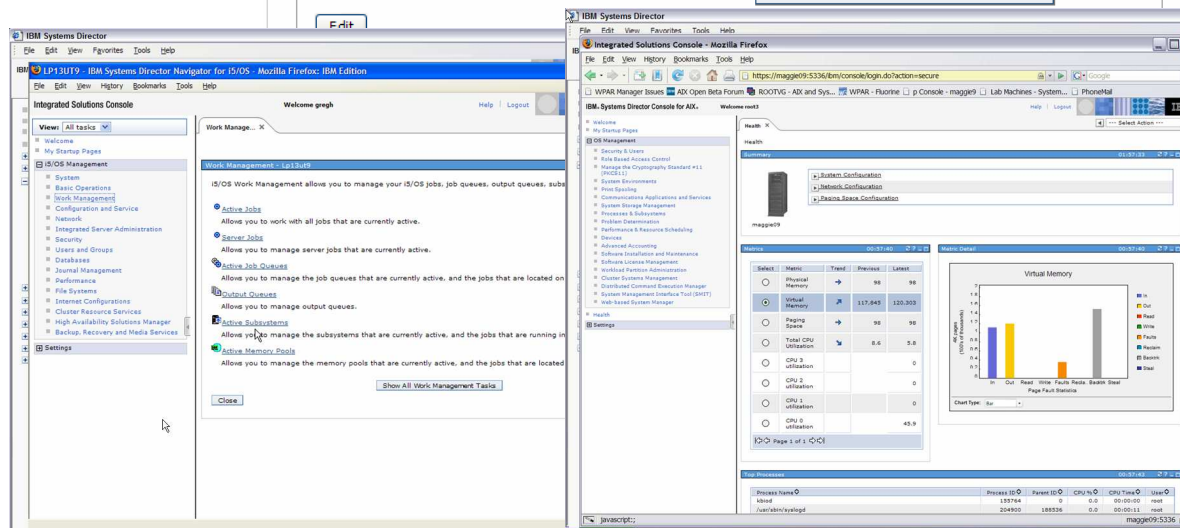
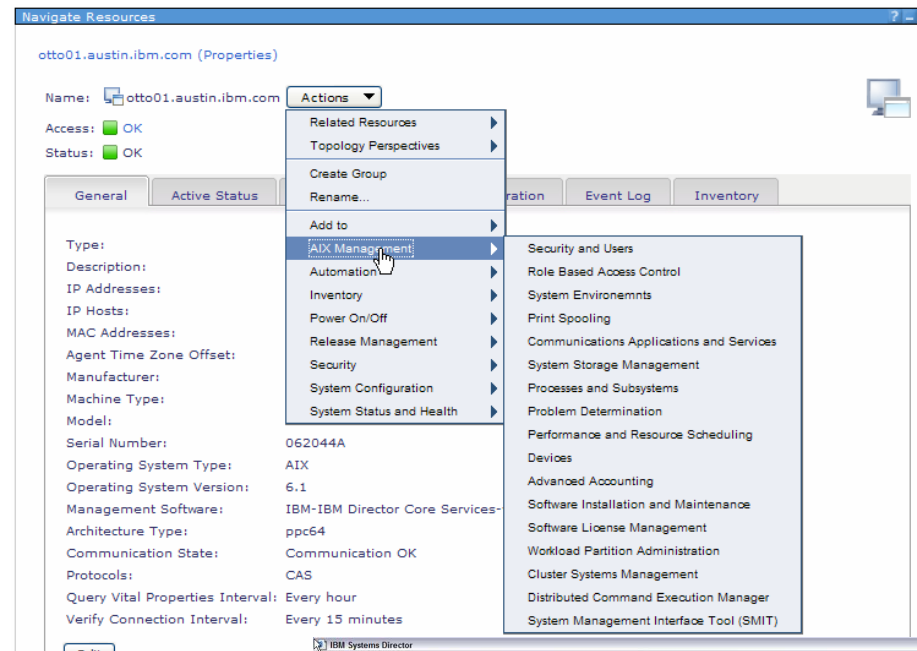
- Search
- Finger-tip troubleshooting
- Contextual tasks
- Inventory

- **View topology map**

- Relationships
- Dependencies

- **Launch embedded tasks**

- IBM i, HMC, AIX



Simply Virtual

Highlights

- **Multi-Platform Management**
- **Edit virtual resources**
- **Relocate**
- **Configure for Deployment**

Simply Virtual

Multi-Platform Management

- Virtual Servers and Hosts
- HMC and Systems
- Life-cycle management
- Topology Maps

Edit virtual resources

- Edit Hosts
- Edit Virtual Servers
- GUI or command line

Relocate

- Live relocation
- Plan for relocation

Configure for Deployment

- Real-time
- Templates
- Plans



Virtual Servers and Hosts (View Members)

Select	Name	State	Access	Problems	Compliance	IP Address	CPU Utilizati	Processors
<input checked="" type="checkbox"/>	vsmesx1-host		OK	OK	OK	9.5.23.51	1%	2
<input type="checkbox"/>	2003Server_Base	Stopped	OK	OK	OK		0%	2
<input type="checkbox"/>	2003Server_gwr59a	Suspended	OK	OK	OK		0%	2
<input type="checkbox"/>	bws_fr8	Suspended	OK	OK	OK		0%	1
<input type="checkbox"/>	hatteras	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	Ken	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	MIKE	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	rhSinstall	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	testgreg	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	vm1	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	vsmesx2-host		OK	OK	OK	9.5.23.53	2%	2
<input type="checkbox"/>	Dan	Stopped	OK	OK	OK		0%	1
<input type="checkbox"/>	gary	Suspended	OK	OK	OK		0%	1
<input type="checkbox"/>	Greg	Stopped	OK	OK	OK		0%	2
<input type="checkbox"/>	gwrtest	Stopped	OK	OK	OK		0%	2
<input type="checkbox"/>	vm2	Suspended	OK	OK	OK		0%	1
<input type="checkbox"/>	wlmcawen	Started	OK	OK	OK		1%	2
<input type="checkbox"/>	vsmesx3-host		OK	Information	OK	9.5.23.11	5%	2

Create Virtual Server

Welcome

This wizard will help you complete the following tasks:

- Selecting a host
- Providing a name
- Choosing an image
- Setting processor
- Selecting memory
- Selecting disks
- Selecting network
- Selecting device
- Selecting physical slots
- Selecting IBM i Settings
- Summary

Resource Navigator

Overview

Details

Status Items

- OK
- Warning
- Critical
- Locked
- Not Active
- Unknown
- Maintenance Mode

Simply Virtual

- **Multi-Platform Management**

- Virtual Servers and Hosts
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The screenshot displays two overlapping windows from the IBM Tivoli Management Console. The top window, titled 'Edit Host', shows the 'Processor' tab with a table of processor allocations across the host. The bottom window, titled 'Edit Virtual Resources -- virtual server mptestaix5', shows the 'Processor' tab with configuration options for processor mode, shared priority, and processing units.

Virtual Server	Shared	Minimum Proce:	Assigned Proce:	Maximum Proce:	Sharing Priority	Minimum P
mptestaix5	<input checked="" type="checkbox"/>	1	1	4	Medium(128)	
hy21vs1	<input checked="" type="checkbox"/>	1	1	4	Medium(128)	
mptestaix2	<input checked="" type="checkbox"/>	1	1	4	Medium(128)	
mptestaix3	<input checked="" type="checkbox"/>	1	1	1	None(capped)	
mptestaix1	<input checked="" type="checkbox"/>	1	1	1	None(capped)	
pva0021.pdl.p...	<input checked="" type="checkbox"/>	1	4	4	Medium(128)	
pll0023_SuSE10	<input type="checkbox"/>	1	2	4	None(capped)	
zjltest1	<input type="checkbox"/>	1	1	2	None(capped)	

Edit Virtual Resources -- virtual server mptestaix5

Processor mode: Use Shared Processors

Shared priority: Medium(128)

Processors	Processing units
Minimum: 1 (1-4)	Minimum: 0.1 (0.1-0.2)
Assigned: 1 (1-4)	Assigned: 0.1 (0.1-0.2)
Maximum: 4 (1-4)	Maximum: 4 (0.1-4)

Simply Virtual

- **Multi-Platform Management**
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Relocation Plans (View Members)

Select	Name	Plan type	Source	Destination	Description
<input type="checkbox"/>	1171ToSystem2	Single	pla1171_AIX5.3	RM SVT Power6 Sy	
<input type="checkbox"/>	Relocate ALL System I to System II	All	RM SVT Power6 Sy	RM SVT Power6 Sy	
<input type="checkbox"/>	Relocate ALL System II to System I	All	RM SVT Power6 Sy	RM SVT Power6 Sy	
<input type="checkbox"/>	Relocate pla1171 to System				
<input type="checkbox"/>	Relocate pla1171 to System				

Simply Virtual

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 - Plans



Configuration Manager

? - □

Configuration Manager

Manage the configuration of your systems using configuration plans and templates.

Configuration Plans

Last 24 hours

0 New configuration plans
0 Resources configured by configuration plans

Last 30 days

1 New configuration plans
0 Resources configured by configuration plans

Configuration Templates

Last 24 hours

0 New configuration templates
0 Resources configured by configuration templates

Last 30 days

1 New configuration templates
0 Resources configured by configuration templates

Automatic Deploy

The following configuration plans will be automatically deployed when a new system is detected.

Chassis: No automatic configuration plan is set for chassis devices

Server: No automatic configuration plan is set for server devices

Storage: No automatic configuration plan is set for storage devices

Network: No automatic configuration plan is set for network devices

Configuration Settings

The following configuration settings are available to configure a resource. To configure the settings, find the resource and select its Configure tab.

Configuration tasks

[View configuration plans](#)

[Create a configuration plan](#)

[View configuration templates](#)

[Create a configuration template](#)

Energy Management

Highlights

- **Energy Usage Summary**
- **Configuring Energy**
- **Monitoring, automation**

Energy Management

- **Energy Usage Summary**
- **Configuring Energy**
 - Power capping
 - Power savings mode
 - Configure PDU
- **Update PDU firmware**
- **Monitoring, automation**
 - power and temperature values
 - Trend Data
 - Watt-Hour Meter
- **Topology Map**
 - System “plugged into” PDU

Active Energy Manager

Settings

Active Energy Manager

Work with active energy managed resources. View energy status. Monitor power and temperature values. Configure energy settings and automate tasks in response to energy events.

Status

Top 5 highest average input power values in the past

24 hours	30 days
600w BamBam	753w Corporate
350w Accounting 4	656w MidwestSales
549w Accounting 2	606w SouthSales
530w 40 others	600w BamBam
	599w Engineerin

Top 5 highest ambient temperature values in the past

24 hours	30 days
25C BamBam	30C Corporate
24C Accounting 4	28C MidwestSales
23C Accounting 2	28C SouthSales
20C 40 others	28C BamBam
	25C Engineering

Status Tasks

[Access event log](#)

[View problems](#)

Monitor

Navigate the list of active energy managed resources. Right-click a resource to view active energy properties and perform energy tasks.

Active Energy Managed Resources (View Members)

Name	Type	Description
OB4F0000-F1C6-11DA-8D...	Server	brownout22:
BSOCLANCEY	SystemChassis	
hfactor261.raleigh.ibm.com	Virtual Server	
IBM 8676 L2X KPFRZD8	Server	

Page 1 of 2 | Total: 7 | Filtered: 7

Monitor Tasks

[View trend data](#)

[Calculate energy cost](#)

[View data monitors](#)

Manage

Set power caps and power saver mode. Configure energy-related metering devices.

The number of resources using Active Energy management functions

Currently	Within last 24 hours
25 Power cap	34 Power cap
17 Group power cap	23 Group power cap
2 Power saver	12 Power saver

Management Tasks

[Work with power policies](#)

[Set power cap](#)

[Set power savings options](#)

[Configure metering device](#)

Automate

Create automation plans to run in response to energy events.

Event automation

Specify actions to take in response to energy events.

Automation Tasks

[Manage thresholds](#)

License

Beta period expires on Jan 13, 2009 (in 146 days).

[Active Energy Manager home page](#)

Go to the product home page to purchase the full license.

Active Energy management functions have been used on 65 resources in the past 24 hours.

Energy Management

- **Energy Usage Summary**
- **Configuring Energy** →
 - Power capping
 - Power savings mode
 - Configure PDU
- **Update PDU firmware**
- **Monitoring, automation**
 - power and temperature values
 - Trend Data
 - Watt-Hour Meter
- **Topology Map**
 - System “plugged into” PDU

Choose either an absolute power cap, or a percentage of the available power cap.

Activate Power Capping Deactivate Power Capping

Power cap type:
Absolute value (Watts)

Power cap value:
212W 816W 500W

Targets:

Name	Current power cap	Power Capping
0B4F0000-F1C6-11DA-8D44-000	500W (47.68%)	Active

Page 1 of 1 Total: 1

Save Close

Active Energy Manager Resources (View Members)

Actions Search the

Name
0B4F0000-F1C6-11DA-8D44-000
BC-HTNew
BSOCLANCEY
E45D1DD7-60C1-3604-8282

Page 1 of 4

- Related Resources
- Topology Perspectives
- Create Group
- Remove...
- Rename...
- Add to
- Energy**
 - Energy Cost Calculator
 - Trend Data
 - Manage Power
- Inventory
- Power On/Off
- Release Management
- Security
- System Configuration
- System Status and Health
- Properties

Energy Management

- **Energy Usage Summary**
- **Configuring Energy**
 - Power capping
 - Power savings mode
 - Configure PDU
- **Update PDU firmware**
- **Monitoring, automation** →
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Energy Cost Calculator

Target
To display metered energy and its corresponding cost, choose a target resource and time period. If the resource cost properties have not been set, use the cost properties link to set them before calculating the cost.

Target: Cost properties

Time period: Custom settings

Energy



Nameplate Metered i

Energy Cost

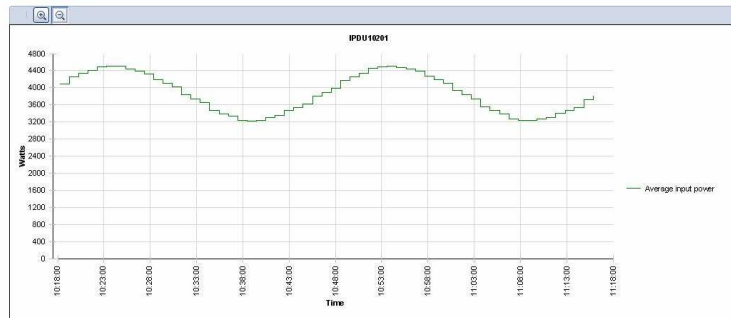
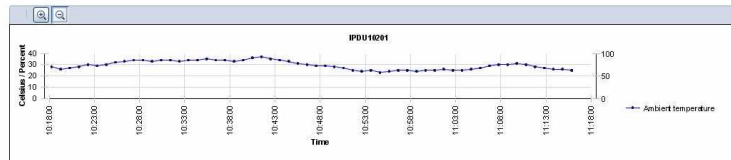
Price per kilowatt-hour: \$0.14
Cooling rate multiplier: 1.5
Nameplate energy cost: \$0.34
Metered energy cost: \$0.15

Trend Data

Target:

Time period: Custom settings

Charts:

This page displays the Active Energy Monitors monitors.
0B4F0000-F1C6-11DA-8D44-0...

Select	Name	Monitor Name	Monitor Type	Threshold St	Current
<input type="checkbox"/>	0B4F0000-F1C6-	Ambient Temperature	Individual		25.00
<input type="checkbox"/>	0B4F0000-F1C6-	Average Input Power	Individual		449.40
<input type="checkbox"/>	0B4F0000-F1C6-	Average Output Power	Individual		428.00
<input type="checkbox"/>	0B4F0000-F1C6-	Effective CPU Speed	Individual		100.00
<input type="checkbox"/>	0B4F0000-F1C6-	Exhaust Temperature	Individual		40.00

IBM® Systems Director 6.1 summary

- Integrates IBM's best-of-breed virtualization capabilities to provide new and radically improved ways to simplify the management of physical and virtual platform resources
- Unifies the monitoring and control of IBM systems, delivering a consistent look and feel for common management tasks
- Delivers multi-system support across IBM Power, System x, System z, and IBM Storage systems and non-IBM x86 systems
- Provides an extendable and modular foundation to advance the core systems management capabilities with additional plug-ins
- Enables seamless integration of IBM systems with the total infrastructure, and upward integration with enterprise service management solutions such as IBM Tivoli
- Delivers a consistent and unified platform management foundation that facilitates reduced training costs



Implementation Recommendations

- **Direct or proxy internet access from Ibm Systems Director Server is a recommended prerequisite**
 - update management processes facilitated
- **Unicity of Linux and AIX operating systems global ssh keys is a strict prerequisite**
 - regeneration of ssh keys should be added as a post-install script during cloning of operating systems
 - regeneration of UNIQUE ID (UID) should be done

not implicate with nim cloning either csm cloning either alt_disk_install
- **Discover from Hardware to Operating Systems order**
- **Remarks :**
 - IBM Systems Director Common Agent included with AIX distribution and base install since AIX 5.3 TL9 and AIX 6.1 TL3.
 - IBM Systems Director Common Agent included with VIOS 2.1

Recommended Documentation

PDFs

- IBM Systems Director for AIX Planning, Installation, and Configuration Guide ([GI11-8709](#))
- IBM Systems Director Systems Management Guide ([GC30-4176](#))
- IBM Systems Director Commands Reference ([GC30-4170](#))
- IBM Systems Director Troubleshooting and Support Guide ([GC30-4177](#))
- IBM Systems Director Active Energy Manager Installation and User's Guide
- IBM Systems Director VMControl Installation and User's Guide
- IBM Systems Director Network Control V1.1

Infocenter

<http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp>

References

- **IBM Systems Director Site**
 - <http://www.ibm.com/systems/management/director/>
- **IBM Director Documentation (education, tutorials, articles)**
 - http://publib.boulder.ibm.com/infocenter/systems/index.jsp?topic=/director_6.1/fqm0_main.html
- **IBM Director FORUM**
 - http://www.ibm.com/developerworks/forums/dw_forum.jsp?forum=759&cat=53
- **IBM Systems Director Download Site**
 - <http://www.ibm.com/systems/management/director/downloads/>
- **IBM Systems Management Web Site**
 - <http://www.ibm.com/systems/management>



Last Announcements

- **IBM Systems Director 6.2.0**
- **IBM Systems Director VMControl 2.3**
- **IBM Systems Director Active Energy Manager 4.3**
- **IBM Systems Director Network control 1.2**

General Availability : June, 25 , 2010

IBM Systems Director V6.2 : What is new ?

New features in IBM® Systems Director V6.2:

- **Improves the performance and scalability of IBM Systems Director in managing large environments**
- **Extends platform support to discover and manage IPv6-capable devices**
- **Simplifies the end-to-end installation and update processes**
- **Improves the usability of the Discovery Manager**
- **Enables hierarchical management of multiple IBM Systems Director Servers from a single IBM Systems Director Server**
- **Provides Representational State Transfer (REST) interfaces to help integrate IBM Systems Director functions with other data center management solutions**

Network control V1.2 : What is new ?

IBM® Systems Director, with its network management component, provides a single, integrated environment for managing both servers and networks.

IBM Systems Director Network Control extends the Systems Director product to include the integrated management of both physical and virtual network systems.

- **IBM Systems Director Network Management V6.2 adds the following new benefits:**
 - Support for IPv6 standards
 - Support for many new models of Ethernet switches and related networking devices
- **IBM Systems Director Network Control V1.2 adds the following new benefits:**
 - Facilitates the management of virtual switches
 - Combines views of both physical and virtual network topologies
 - Displays systems according to VLAN
 - Integrates the configuration of Brocade FCoCEE switches

VmControl V2.3 : What is new ?

- **IBM® Systems Director VMControl Image Manager for Linux® on System z®, V2.3, an IBM System Director plug-in, provides a comprehensive set of virtualization management tools that can be used to simplify and improve the utilization of virtual server, storage, and network resources, and to increase the level of workload resilience.**

The main features in this release:

- **Enhanced image management capabilities for Linux images running on z/VM® and Linux images running on Power® operating systems in PowerVM™ virtualization**
- **Virtual server life cycle management and relocation for VMware vCenter 4.1**
- **Virtual server life cycle management for Microsoft® Hyper-V V2**
- **System pools for IBM Power Systems™**
- **Data center integration and extensibility using Representational State Transfer (REST) interfaces**

Active Energy Manager V4.3 : What is new ?

IBM Systems Director Active Energy Manager™ (AEM) V4.3 software, an IBM® Systems Director plug-in, is available on the AIX® and Linux® operating systems to help you monitor and manage the power and thermal usage of your IT environment.

AEM is a unique energy management software tool that can provide a single view of the actual power usage across systems in your infrastructure as opposed to the benchmarked power consumption.

The main new features in this release are:

- **IBM POWER7™ technology-based servers can be monitored for energy consumption and can be energy-managed from AEM. This includes the ability to set power capping and set static power savings mode.**
- **PDU's from Server Technologies and Geist can now be monitored. By adding these popular products, AEM continues to increase its scope.**
- **AEM supports integration with the latest releases of APC's InfraStruXure Central V5.1 and V6.0 and Eaton's Power Xpert V2.0 for monitoring power and cooling infrastructure.**