

ProLiant Essentials Performance Management Pack: Resolving ProLiant server performance issues

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PMP overview

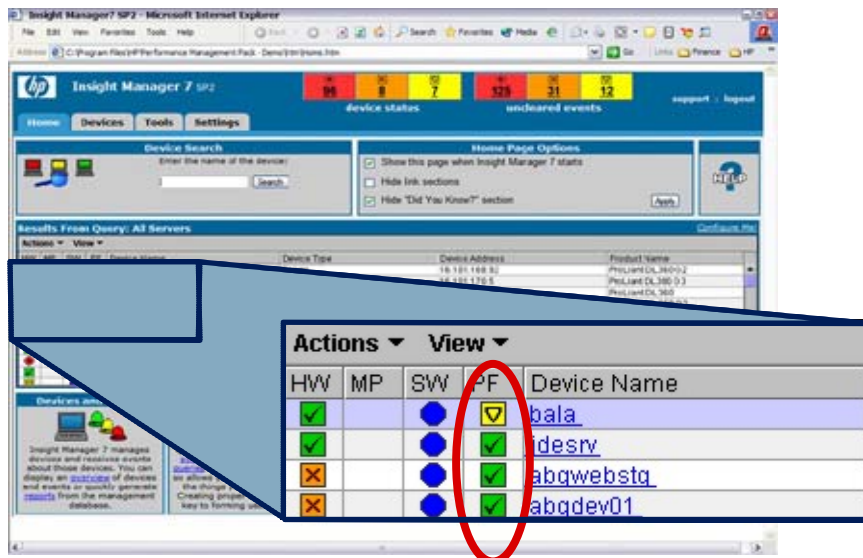
A performance management solution, part of the ProLiant Essentials family, seamlessly integrated with Insight Manager 7 and Insight Management Agents

- All salient performance parameters **predetermined**
- **Explanation** of the values supplied
- Uses **Insight Management Agents** to collect data
- User interface is **browser-based**
- Performance **data** can be **logged** for later playback, summary reporting and data extraction
- Monitors **ProLiant** servers running Microsoft **Windows** server operating systems

Insight Manager integration

Shipped in the Foundation Pack with IM7

- Automatic **silent** install & common **database** with IM7
- Server performance status on **IM7 home page**
- Send **performance events** to IM7 for notification
- Launch PMP **in context** of managed device



Event: Performance Status Change

The following information is known about this event:

Event Identification and Details	
Event Severity:	Minor
Cleared Status:	Not Cleared (Clear this event)
Event Source:	Talios
Associated Device:	Talios
Associated Device HW Status:	UNKNOWN
Received:	09-Jul-2002, 13:53:58 CDT
Description:	This event is created as the result of receiving a performance status change event from the Performance Analysis tool

Compaq Performance Event Details	
Subsystem Name:	Storage Subsystem
Previous Subsystem Status:	Normal
Overall Performance Status:	Critical
Explanation:	SCSI Bus Number 2 is nearing saturation due to a large number of I/O requests. Note that the Overall Performance Status is Critical due to another subsystem.

PMP product architecture



■ Front-end:

- Workstation with Microsoft Internet Explorer

■ Middle-tier:

- Server or workstation running IM7 and PMP
- Microsoft Windows NT, 2000, & Server 2003

■ Monitored servers:

- ProLiant servers with Microsoft Windows NT, 2000, or Server 2003 & management agents

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- ☑ pro-active notification
- ☑ interactive analysis



- ✓ data logging
- ✓ offline analysis



- ✓ pinpoint component causing performance issues
- ✓ explanation of issue

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- ☒ inventory
- ☒ data logging
- ☒ summary reporting

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- ☑ monitoring after the fact to guard against incompatible workloads

PMP demo

ProLiant Essentials Performance Management Pack 2.0.1 - Online Analysis Tool - Microsoft Internet Explorer

File Edit View Favorites Tools Help Back Forward Stop Search Favorites Media

Address C:\Program Files\HP\Performance Management Pack - Demo\htm\PPAMain.htm Go Links Finance HP

hp ProLiant Essentials Performance Management Pack 2.0.1
i n v e n t

Inventory Status Graph Static Analysis Admin

Server Name : Perf310
Server IP : 172.25.56.131
Sample Rate : 120 s
of Samples : 5
Session Start Time: Jan 16, 2003 9:00:00 AM
Mode Of Operation: Monitor & Alert

Help | Close

Server Jan 16, 2003 9:04:00 AM

Server

CPU SubSystem
Memory SubSystem
NIC SubSystem
Storage SubSystem
PCI SubSystem

Analysis Data

Counters	Last	Average	Minimum	Maximum
Average Processor Busy%	37	34	37	55
Available KBytes	62448	63295	62448	64080
Page Faults/Sec	38	51.4	38	88
Network Bytes/Sec	5965.943	5935.974	5637.572	6478.728
Storage Bytes/Sec	30766	13952	4567	30766
PCI Bytes/Sec	36731.943	19887.974	10438.13	36731.943

Analysis Explanation

At least one subsystem is reporting performance degradation.

Done My Computer

PMP cost & licensing

Priced & licensed to make purchasing PMP as easy & simple as possible

- Internet list price: **\$99** per monitored server
- Licenses **"lock"** to a server serial number – not floating or transferable. Exceptions:
 - Replacement of system board without serial number reassignment
 - Purchase of PMP for replacement or consolidation onto new servers
- **Three** product license kits (part numbers) for convenience:
 - Single server license (306696-B21) : 1 key = 1 server licensed
 - Flexible license (306697-B21) : 1 key = n servers licensed
 - Tracking license (306698-B21) : used with Master License Agreement
- **1 free license** built into each PMP middle-tier installation – more licenses for evaluation available through HP field offices

PMP server configuration examples

■ 20 monitored servers

- ProLiant DL320 G2
- 256MB memory
- 40GB ATA drive

■ 200 monitored servers

- ProLiant DL360 G2 (1P)
- 1GB memory
- two 36GB SCSI drives

The examples given are configured to allow for high frequency polling, alerting, and data logging with room for growth and performance spikes

■ 2000 monitored servers

- console server
 - ProLiant DL360 G3 (2P 2.8GHz)
 - 2GB memory
 - two 18GB SCSI drives
- database server
 - ProLiant DL380 G3 (2P 2.8GHz)
 - 2GB memory
 - two 18GB SCSI drives
 - four 36GB SCSI drives

PMP Return on Investment

PMP ROI Calculator Demo

performance resolution costs without PMP

number of servers to analyze	<input type="text" value="25"/>	totals/yr
average number of performance issues experienced per month per server	<input type="text" value="1/4"/>	<input type="text" value="75"/>
average hours spent analyzing each performance issue	<input type="text" value="3"/>	<input type="text" value="225"/>
average hourly rates (loaded costs):		
internal personnel	<input type="text" value="\$85"/>	
outside consultants	<input type="text" value="\$180"/>	
% age of hours by outside consultants	<input type="text" value="0 %"/>	<input type="text" value="\$19,125"/>

performance resolution costs with PMP

number of servers to analyze	<input type="text" value="25"/>	totals/yr
average number of performance issues experienced per month per server	<input type="text" value="1/4"/>	<input type="text" value="75"/>
average hours spent analyzing each performance issue	<input type="text" value="1/2"/>	<input type="text" value="37.5"/>
average hourly rates (loaded costs):		
internal personnel	<input type="text" value="\$85"/>	
outside consultants	<input type="text" value="\$180"/>	
% age of hours by outside consultants	<input type="text" value="0 %"/>	<input type="text" value="\$3,188"/>

acquisition and deployment costs of PMP

net cost per PMP license	<input type="text" value="\$99"/>	<input type="text" value="\$2,475"/>
Is Insight Manager already installed?	<input type="text" value="No"/>	
deployment time for IM7 console (hours)	<input type="text" value="2"/>	<input type="text" value="\$170"/>
console server hardware	<input type="text" value="\$1,375"/>	<input type="text" value="\$1,375"/>
management agent installation/upgrade time per server (hours)	<input type="text" value="1/2"/>	<input type="text" value="\$1,063"/>
total acquisition & deployment costs		<input type="text" value="\$5,083"/>

total savings with PMP

performance resolution costs per year:		
without PMP	<input type="text" value="\$19,125"/>	
with PMP	<input type="text" value="\$3,188"/>	-/
cost of deployment of PMP	<input type="text" value="\$5,083"/>	-/
total first-year net savings		<input type="text" value="\$10,855"/>
net first-year savings per server		<input type="text" value="\$434"/>
time to ROI (months)		<input type="text" value="3.8"/>

PMP information sources

- www.hp.com/products/pmp
 - External product page
 - Links to ROI calculator, downloads, documentation
- <http://issg.inet.cpqcorp.net/iss/workgroup/software/packages/pmp.asp>
 - Internal product page
 - Similar links to product page plus internal product information
- **ISS PIT**
 - Internal site
 - Demo versions
 - Product presentations



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