IBM zEnterprise™ 196
Unified Resource Manager Hands-On Lab : Part 2

Hiren Shah (hiren@us.ibm.com)
IBM
August 11th, 2011
9818
Trademarks
The following are trademarks of the International Business Machines Corporation in the United States, other countries, or both.

Not all common law marks used by IBM are listed on this page. Failure of a mark to appear does not mean that IBM does not use the mark nor does it mean that the product is not actively marketed or is not significant within its relevant market.

Those trademarks followed by ® are registered trademarks of IBM in the United States; all others are trademarks or common law marks of IBM in the United States.

For a complete list of IBM Trademarks, see www.ibm.com/legal/copytrade.shtml:

*, AS/400®, e business(logo)®, DBE, ESCO, eServer, FICON, IBM®, IBM (logo)®, iSeries®, MVS, OS/390®, pSeries®, RS/6000®, S/30, VM/ESA®, VSE/ESA, WebSphere®, xSeries®, z/OS®, zSeries®, z/VM®, System i, System i5, System p, System p5, System x, System z, System z9®, BladeCenter®

The following are trademarks or registered trademarks of other companies.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency, which is now part of the Office of Government Commerce.

* All other products may be trademarks or registered trademarks of their respective companies.

Notes:
Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency, which is now part of the Office of Government Commerce.

* All other products may be trademarks or registered trademarks of their respective companies.

Notes:
Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

All customer examples cited or described in this presentation are presented as illustrations of the manner in which some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual customer configurations and conditions.

This publication was produced in the United States. IBM may not offer the products, services or features discussed in this document in other countries, and the information may be subject to change without notice. Consult your local IBM business contact for information on the product or services available in your area.

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

Information about non-IBM products is obtained from the manufacturers of those products or their published announcements. IBM has not tested those products and cannot confirm the performance, compatibility, or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

Prices subject to change without notice. Contact your IBM representative or Business Partner for the most current pricing in your geography.
agenda

1. Demo Setup
2. Ensemble Details
3. Manage Workload: Delete Workload
4. Manage Workload: Create Workload and Policy
5. Update Workload: Add additional VS
6. Workload Report
7. Monitor Dashboard
zEnterprise hardware management and platform management

**Hypervisor Management**
- Integrated deployment and configuration of hypervisors
- Hypervisors (except z/VM) shipped and serviced as firmware.
- Management of ISO images.
- Creation of virtual networks.
- Manage and control communication between virtual server operating systems and the hypervisor.

**Operational Controls**
- Auto-discovery and configuration support for new resources.
- Cross platform hardware problem detection, reporting and call home.
- Physical hardware configuration, backup and restore.

**Energy Management**
- Monitoring and trend reporting of energy consumption and environmental data.
- Ability to query maximum potential power.
- Power saving and capping controls

**Network Management**
- Management of virtual networks including access control

**Workload Awareness and Platform Performance Management**
- Wizard-driven management of resources in accordance with specified business service level objectives
- HMC provides a single consolidated and consistent view of resources
- Monitor resource use within the context of a business workload
- Define workloads and associated performance policies

**Virtual Server Lifecycle Management**
- Single view of virtualization across platforms.
- Ability to deploy multiple, cross-platform virtual servers within minutes
- Management of virtual networks including access control
Demo Setup

IEDN – VLAN handson

Workload – handson_workload
Delete Workload

<table>
<thead>
<tr>
<th>Select</th>
<th>Name</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Members</td>
<td>OK</td>
<td>Represents one defined CPC</td>
</tr>
<tr>
<td></td>
<td>SHARESE1</td>
<td>Operating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Workloads</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default</td>
<td></td>
<td>The default workload containing all</td>
</tr>
<tr>
<td>True</td>
<td>handson_workload</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Max Page Size: 500  Total: 5  Filtered: 5  Selected: 1

Tasks: handson_workload

- Workload Details
- Daily
- Operational Customization
  - Activate Performance Policy
  - Customize Scheduled Operations
- Monitor
- Configuration
  - Delete Workload
  - New Performance Policy
  - New Workload
New Workload

- New Workload
New Workload

**Workload Name**

Enter a name, description, and category for the workload.

- **Name:** Share_Workload
- **Description:** Workload for share demo
- **Category:**
Add VS to Workload

Select Virtual Servers
Select virtual servers and custom groups to add into the workload. Adding a custom group into the workload adds all virtual servers in the group.

Show: All virtual servers

Available Virtual Servers:

<table>
<thead>
<tr>
<th>Select</th>
<th>Name</th>
<th>Hypervisor</th>
<th>Workloads</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OD0LP03</td>
<td>SHARESE1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OD0LP04</td>
<td>SHARESE1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>app1</td>
<td>B.2.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>app2</td>
<td>B.2.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>app3</td>
<td>RCF3</td>
<td>P0000R28</td>
</tr>
<tr>
<td></td>
<td>RLI4</td>
<td>P0000R28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROS1</td>
<td>P0000R28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROS2</td>
<td>P0000R28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WebSvr</td>
<td>B.2.12</td>
<td></td>
</tr>
</tbody>
</table>

Total: 12  Filtered: 12  Selected: 0

Selected:
- app1 (B.2.10)
- app2 (B.2.10)
- WebSvr (B.2.12)
Create Workload Performance Policy

Create Performance Policy
You may create a performance policy for the workload now or use the default performance policy and create a performance policy later.

*Create Option
- Default
- New
  - New based on: 

Policy Details
- Workload: Share_Workload
- Name: ShareWrkld_Policy
- Description: Performance Policy for Share_Workload

Business importance: 
- Highest
- High
- Medium
- Low
- Lowest
Create Service class

Create Service Class - ShareWkld_Policy

You may create a service class for the performance policy now or use the default service and create a service class later.

*Create Option
- Default
- New
- New based on: [dropdown]

Service Class Details
- Workload: Share_Workload
- Performance policy: ShareWkld_Policy
- Name: *Gold
- Description: Service class for gold work
Set Service Levels

<table>
<thead>
<tr>
<th>Service Class Goal - ShareWkld_Policy:Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select the performance goal and business importance for this service class.</td>
</tr>
</tbody>
</table>

**Performance Goal**

- **Velocity**: Fastest
- **Discretionary**

**Business importance**: Highest
Associate VS to Service Class

Classification Rule - ShareWkld_Policy:Gold
Define the service class's classification rule using the rule builder.

Classification rule:

Logical Operators:

- AND
- OR

Virtual Server Name == app1
Virtual Server Name == app2
Virtual Server Name == Web.*
Schedule Policy Activation

New Workload - SHAREENS

Activate Policy
Select the performance policy to activate when the workload is created.

Select Performance Policy  Business Importance  Description
ShareWkld_Policy  Highest  Performance Policy for Share_Workload
Default  Medium  The default workload performance policy

Launch Customize Scheduled Operations to schedule future performance policy activations. The task will be launched after the workload has been created.
New Workload - Summary

Summary
Click Finish to create the workload, its performance policies and their service classes and activate the selected policy.

Default
Description: The default workload performance policy
Business importance: Medium

Service Classes
Default
Description: The default workload performance policy service class.
Performance goal: Velocity - Moderate
Business importance: Medium
Classification rule: \* == ",*"

ShareWkld_Policy
Description: Performance Policy for Share_Workload
Business importance: Highest

Service Classes
Gold
Description: Service class for gold work
Performance goal: Velocity - Fastest
Business importance: Highest
Classification rule: (Virtual Server Name == "app1"
OR Virtual Server Name == "app2")
OR Virtual Server Name == "Web.*"

Default
Description: The default workload performance policy service class.
Performance goal: Velocity - Moderate
Business importance: Medium

Finish
Setup schedule for Policy activation

SHAREHMC: Customize Scheduled Operations

Customize Scheduled Operations - Share_Workload

Options View Sort Help

All scheduled operations are currently displayed.

Select Target Date Time Operation Remaining Repetitions

Set up a Scheduled Operation - Share_Workload

Date and Time

Repeat Policy

The following scheduled operation will be created:

Activate Performance Policy

Select the date and time of the initial execution, then select a time window.

Date: 8/2/11
Time: 7:28 PM

Time Window:

0 10 minutes 0 20 minutes 0 30 minutes
0 40 minutes 0 50 minutes 0 60 minutes

Save Cancel Help

Customize Scheduled Operations - Share_Workload

Options View Sort Help

All scheduled operations are currently displayed.

Select Target Date Time Operation

Share_Workload 8/2/11 7:28 PM Activate Performance Policy: ShareWkld_Policy

Save Cancel Help
**Policy Activation Complete**

### Workloads:

<table>
<thead>
<tr>
<th>Select</th>
<th>Name</th>
<th>Virtual Servers</th>
<th>Performance Policy</th>
<th>Performance Policy Status</th>
<th>Performance Policy Business Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Default</td>
<td>9</td>
<td>Default</td>
<td>Active</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>✔️</td>
<td>Share_Wkld_Policy</td>
<td>3</td>
<td>ShareWkld_Policy</td>
<td>Active</td>
<td>Highest</td>
<td></td>
</tr>
</tbody>
</table>

Max Page Size: 500, Total: 2, Filtered: 2, Selected: 1

---

**Tasks:** Share Workload
Modify Workload

Workload Details - Share_Workload

Select | Performance Policy | Status | Business Importance | Revision |
--- | --- | --- | --- | --- |
ShareWkld_Policy | Active | Highest | 1 |
Default | Medium | 1 |
Total: 2 Selected: 1

Details for ShareWkld_Policy
Activation status: Active
Last activation requested date: Aug 2, 2011 7:28:00 PM EDT
Last activation completed date: Aug 2, 2011 7:28:02 PM EDT
Created date: Aug 2, 2011 7:24:50 PM EDT
Last modified date: Aug 2, 2011 7:24:50 PM EDT

Create Service Class
Enter a name and description for the service class.

Service Class Details
Workload: Share_Workload
Performance policy: ShareWkld_Policy
Name: Silver
Description: Service Class for silver work

Performance Policy Details - ShareWkld_Policy in Workload

Service Classes

Select | Performance Goal | Business Importance |
--- | --- | --- |
Gold | Velocity - Fast | Highest |
Default | Velocity - Moderate | Medium |
Total: 2 Selected: 0

Classification Rule
Define the service class's classification rule using the rule builder.

Classification rule:

Logical Operators:
AND OR

Rule Builder: Filter Value
Enter the filter value for the first clause entry field. For instance, enter "*" to name when the filter type is "Hostname operator is equals (==).

Virtual Server Name == app3
# Modify Workload Results

## Workload Details - Share_Workload

### General

### Virtual Servers

<table>
<thead>
<tr>
<th>Select</th>
<th>Name</th>
<th>Hypervisor</th>
<th>Type</th>
<th>Performance Policy</th>
<th>Performance Policy Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>app1</td>
<td>B.2.10</td>
<td>POWER</td>
<td>ShareWkld_Policy</td>
<td>Activated</td>
</tr>
<tr>
<td></td>
<td>app2</td>
<td>B.2.10</td>
<td>POWER</td>
<td>ShareWkld_Policy</td>
<td>Activated</td>
</tr>
<tr>
<td></td>
<td>app3</td>
<td>B.2.10</td>
<td>POWER</td>
<td>ShareWkld_Policy</td>
<td>Pending</td>
</tr>
<tr>
<td></td>
<td>WebSvr</td>
<td>B.2.12</td>
<td>POWER</td>
<td>ShareWkld_Policy</td>
<td>Activated</td>
</tr>
</tbody>
</table>

Page 1 of 1

Total: 4  Filtered: 4  Displayed: 4  Selected: 0

[OK]  [Apply]  [Print View]  [Cancel]  [Help]
### Workload Report: Virtual Server Report

<table>
<thead>
<tr>
<th>Virtual Server</th>
<th>Virtual Processors</th>
<th>Allocated Memory (MB)</th>
<th>Physical CPU Utilization (%)</th>
<th>Hypervisor CPU Delay (%)</th>
<th>Idle Time (%)</th>
<th>Other Time (%)</th>
<th>Service Class (PI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>app1</td>
<td>2</td>
<td>2,048</td>
<td>41.1</td>
<td>6.8</td>
<td></td>
<td></td>
<td>Gold (0.72)</td>
</tr>
<tr>
<td>app2</td>
<td>2</td>
<td>2,048</td>
<td>39.9</td>
<td>9.7</td>
<td></td>
<td></td>
<td>Gold (0.72)</td>
</tr>
<tr>
<td>app3</td>
<td>2</td>
<td>2,048</td>
<td>38.1</td>
<td>9.7</td>
<td></td>
<td></td>
<td>Silver (0.50)</td>
</tr>
<tr>
<td>WebSvr</td>
<td>2</td>
<td>2,048</td>
<td>41.2</td>
<td>8.6</td>
<td></td>
<td></td>
<td>Gold (0.72)</td>
</tr>
</tbody>
</table>

Virtual Server Charts
### Workload Report : Hypervisor Report

#### Virtual Servers Report - Share_Workload

**Report Interval:** Starting 8/2/11 7:27:23 PM for 15 minutes (8/2/11 7:42:23 PM)  Modify

<table>
<thead>
<tr>
<th>Select</th>
<th>Virtual Server</th>
<th>Processor count</th>
<th>Min Virtual Processors</th>
<th>Max Virtual Processors</th>
<th>Consumed Processors</th>
<th>Hypervisor Processing Unit Delay (%)</th>
<th>Allocated Memory (MB)</th>
<th>Dedicated</th>
<th>Capped</th>
<th>Processing Units</th>
<th>Initial Processing Units</th>
<th>Min Processing Units</th>
<th>Max Processing Units</th>
<th>Min Memory (MB)</th>
<th>Max Memory (MB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>appl1</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>0.82</td>
<td>6.8</td>
<td>2.048</td>
<td>-</td>
<td>-</td>
<td>0.50</td>
<td>0.10</td>
<td>10.00</td>
<td>10.00</td>
<td>1.024</td>
<td>4.096</td>
</tr>
<tr>
<td></td>
<td>app2</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>0.80</td>
<td>9.7</td>
<td>2.048</td>
<td>-</td>
<td>-</td>
<td>0.50</td>
<td>0.10</td>
<td>10.00</td>
<td>10.00</td>
<td>1.024</td>
<td>4.096</td>
</tr>
<tr>
<td></td>
<td>app3</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>0.76</td>
<td>9.7</td>
<td>2.048</td>
<td>-</td>
<td>-</td>
<td>0.50</td>
<td>0.10</td>
<td>10.00</td>
<td>10.00</td>
<td>1.024</td>
<td>4.096</td>
</tr>
</tbody>
</table>

**Hypervisor Details:**
- **Hypervisor:** SHARESE1
- **Hypervisor type:** PowerVM
- **Total CPU consumption:** 47.6%
- **Total memory allocated for virtual servers:** 6,144 MB
- **Total allocated memory:** 2,048 MB
- **Total allocated processing units:** 1.50
# Workload Report: Resource Adjustment

## Virtual Servers Report - Share_Workload


<table>
<thead>
<tr>
<th>Select</th>
<th>Virtual Server</th>
<th>Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>app1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>app2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>app3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WebSvr</td>
<td></td>
</tr>
</tbody>
</table>

### Virtual Server Resource Adjustments Report - app1


**Successful Adjustments:**

<table>
<thead>
<tr>
<th>Receiver Virtual Servers</th>
<th>Receiver Workload</th>
<th>Receiver Service Class</th>
<th>Receiver Processing Units After (Before)</th>
<th>Donor Virtual Servers</th>
<th>Donor Workload</th>
<th>Donor Processing Units After (Before)</th>
<th>Time</th>
</tr>
</thead>
</table>

Total: 0  Filtered: 0  Displayed: 0

**Failed Adjustments:**

<table>
<thead>
<tr>
<th>Receiver Virtual Servers</th>
<th>Receiver Workload</th>
<th>Receiver Service Class</th>
<th>Failure Reason</th>
<th>Time</th>
</tr>
</thead>
</table>

Total: 0  Filtered: 0  Displayed: 0

Close  Help
Workload Report: Service Class

Service Classes Report - Share_Workload

Report Interval: Starting 8/2/11 7:45:44 PM for 15 minutes (8/2/11 8:00:44 PM)

<table>
<thead>
<tr>
<th>Select</th>
<th>Service Class</th>
<th>Performance Policy</th>
<th>Current Performance</th>
<th>PI</th>
<th>Goal</th>
<th>Business importance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Default</td>
<td>ShareWkld_Policy</td>
<td></td>
<td></td>
<td></td>
<td>Velocity - Moderate</td>
</tr>
<tr>
<td></td>
<td>Gold</td>
<td>ShareWkld_Policy</td>
<td>Fastest</td>
<td>0.72</td>
<td>Velocity - Fast</td>
<td>Highest</td>
</tr>
<tr>
<td></td>
<td>Silver</td>
<td>ShareWkld_Policy</td>
<td>Fastest</td>
<td>0.50</td>
<td>Velocity - Moderate</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Total: 3  Filtered: 3  Selected: 1

Service Class Charts

Service Class Performance Index (PI) for Workload Share_Workload
### Workload Report: Historic view

#### Virtual Servers Report - Share_Workload

**Report Interval:** Starting 8/2/11 7:30:28 PM for 5 minutes (8/2/11 7:35:28 PM) - Modify

#### Select Action

<table>
<thead>
<tr>
<th>Select</th>
<th>Virtual Server</th>
<th>Virtual Processors</th>
<th>Allocated Memory (MB)</th>
<th>Physical CPU Utilization (%)</th>
<th>Hypervisor CPU Delay (%)</th>
<th>Idle Time (%)</th>
<th>Other Time (%)</th>
<th>Service Class (PI)</th>
<th>OS Processes Total CPU Using Samples (%)</th>
<th>OS Processes Total Delay Samp</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td>app1</td>
<td>2</td>
<td>2,048</td>
<td>41.4</td>
<td>6.7</td>
<td>Gold (0.72)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>app2</td>
<td>2</td>
<td>2,048</td>
<td>39.3</td>
<td>9.5</td>
<td>Gold (0.72)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>app3</td>
<td>2</td>
<td>2,048</td>
<td>37.5</td>
<td>9.5</td>
<td>Silver (0.50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>WebSvr</td>
<td>2</td>
<td>2,048</td>
<td>41.5</td>
<td>8.6</td>
<td>Gold (0.72)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 1 of 1  | Total: 4  | Filtered: 4  | Displayed: 4  | Selected: 1

---

#### Virtual Servers Report - Share_Workload

**Report Interval:** Starting 8/2/11 7:30:28 PM for 5 minutes (8/2/11 7:35:28 PM) - Modify

#### Select Action

<table>
<thead>
<tr>
<th>Select</th>
<th>Virtual Server</th>
<th>Virtual Processors</th>
<th>Allocated Memory (MB)</th>
<th>Physical CPU Utilization (%)</th>
<th>Hypervisor CPU Delay (%)</th>
<th>Idle Time (%)</th>
<th>Other Time (%)</th>
<th>Service Class (PI)</th>
<th>OS Processes Total CPU Using Samples (%)</th>
<th>OS Processes Total Delay Samp</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td>app1</td>
<td>2</td>
<td>2,048</td>
<td>43.2</td>
<td>6.8</td>
<td>Gold (0.71)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>app2</td>
<td>2</td>
<td>2,048</td>
<td>38.5</td>
<td>9.6</td>
<td>Gold (0.71)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>WebSvr</td>
<td>2</td>
<td>2,048</td>
<td>37.5</td>
<td>6.5</td>
<td>Gold (0.71)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 1 of 1  | Total: 3  | Filtered: 3  | Displayed: 3  | Selected: 1
Monitor Dashboard

Virtual Servers Report - Share_Workload

Report Interval: Starting 8/2/11 7:30:28 PM for 5 minutes (8/2/11 7:35:28 PM) Modify

Select | Virtual Server | Monitor System Events | Select Action | Monitor Dashboard

<table>
<thead>
<tr>
<th>Select</th>
<th>Virtual Server</th>
<th>Monitor System Events</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>app1</td>
<td>Monitor Dashboard</td>
</tr>
<tr>
<td></td>
<td>app2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WebSvr</td>
<td></td>
</tr>
</tbody>
</table>

--- Select Action ---
- Virtual Server Resource Adjustments Report
- Hypervisor Report
- Monitor System Events

--- Table Actions ---
- Show Filter Row
- Clear All Filters
- Edit Sort
- Clear All Sorts
- Configure Columns

<table>
<thead>
<tr>
<th>Supervisor Down (%)</th>
<th>Idle Time (%)</th>
<th>Other Time (%)</th>
<th>Service Class (PI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8</td>
<td></td>
<td></td>
<td>Gold (0.71)</td>
</tr>
<tr>
<td>9.6</td>
<td></td>
<td></td>
<td>Gold (0.71)</td>
</tr>
<tr>
<td>6.5</td>
<td></td>
<td></td>
<td>Gold (0.71)</td>
</tr>
</tbody>
</table>

Selected: 1

Virtual Server Charts
Monitor Dashboard

Overview

Details Settings - SHARESE1

Define Details settings for:
SHARESE1

- Power Consumption
- Environmental
- Aggregated Processors
- Processors
- System Assist Processors
- Logical Partitions
- Channels
- zBX Blades
- Virtual Servers

OK  Reset  Cancel  Help
Thank You