Generate Reports

Over the last four modules, you have populated your monitored inventory with some sample Elements, got to know the main areas of the Uptime Infrastructure Monitor UI, and learned about how the intersecting properties of Elements and Element Groups, service monitors and Service Groups, Users, and Views allows you to configure Uptime Infrastructure Monitor for every type of user in your organization. While doing these modules, you've hopefully used up enough time to allow some data collection cycles to happen, meaning there can be data in reports.

This module consists of the following exercises:

Exercise	Description	Time required
generate a hot spot report	drawing from now-collected metric data for your Elements, identify which are performance hotspots	1 slice
generate a server uptime report	explore the default uptime reports that help you assess your infrastructure immediately upon installation	1 slice
Revisit the Quick Snapshot pages	When you first added the VMware vCenter Server Element in Track 1 of the first module, you examined the (empty) contents of the vCenter Server's Quick Snapshot, and a random VM's Quick Snapshot. Let's revisit these pages to see what they look like with a little more data on them.	1 slice

Generate a Resource Hot Spot Report

- 1. Click Reports, then click Resource Hot Spot in the left pane.
- 2. In the opening set of of options, click **Last**, then leave the selection at **1 Days**.
- Because you presumably have only had these Elements monitored over the course of this Getting Started Guide, you do not have more than a days' worth of data to draw; however, feel free to increase the time frame if you have collected more data.
- 3. In the **Report Options**, let's **Select All Options** to also include any possible network-device issues.
- 4. The report allows you to define what constitutes a hot spot, and the default values are reasonable. In the hopes of having some "resource gluttons" appearing in your report, let's manufacture a crisis, and configure new, lower thresholds, as shown below:
 - CPU Used: 20%
 - Memory Used: 20%
 - In-Rate: 5%
 - Out-Rate: 5%

Dashboards My Portal	My Infrastructure Services Us	sers Reports Config Search Uptim	e admin 👻 SysList Help								
Performance and Analysis	Resource Hot Spot	Resource Hot Spot									
Resource Usage	Specific Date and Time	Specific Date and Time									
Resource Hot Spot	Last	Last I V Days									
Resource Cold Spot	Quick Date										
Multi-System CPU											
CPU Utilization Summary	Report Options (Select All Options	Report Options (Select All Options 🗹)									
CPU Utilization Ratio											
▶ Wait I/O	Show Top Server Summary										
Inventory Report	Show elements with average C	CPU greater than 20 %									
Service Monitor Metrics	Show elements with average 8	Memory Used greater than 20 %									
Capacity Planning											
Enterprise CPU Utilization	Show elements with average S	Swap Used greater than 5 %									
File System Capacity Growth	🖉 Show elements with average E	Disk Busy greater than 5 %									
Server Virtualization	Shaw Tap Natwork Dawica Summar										
Solaris Mutex Exception		7									
Network Bandwidth	🗹 Show elements with average p	per-port In Rate greater than 5 %									
Disk I/O Bandwidth	🖌 Show elements with average p	per-port Out Rate greater than 5 %									
CPU Run Queue Threshold	Show alamants with swarage n	#/sec									
▶ File System Service Time	 Snow elements with average p 	per-port Errors greater than									
Service Level Agreements	Show elements with average p	per-port In Discards greater than 1 #/sec									
SLA Summary											
SLA Detailed	List of Groups (Select All Groups	, Include Subgroups 🗹)									
Availability	Discovered Hosts	Discovered Virtual Machines	Juniy Servers								
Server Uptime											
Application Availability	My Infrastructure	Production	Windows Servers								
Incident Priority											
Service Monitor Availability	(Select All Views)										
Service Monitor Outages	Linux Servers										
Applications											
▶ WebSphere	List of Elements (Select All Elemen	nts 🗆)									
WebLogic	huildebambaa	huild-linuu-01	huld linux 00								

Below the **Report Options** section are three sections that allow you to select what is to be included in the report. You can use any of the ways you've organized your inventory to select which Elements are included in the report: Element Groups, Views, and individual Elements. Note in the above screenshot that the **Linux Servers** View you created in the previous module, and the **Production**, **Linux Servers** and **Window s Servers** Element Groups you created in the module before that are available.

5. For simplicity, select All Groups from the List of Groups section (as shown in the image above), to include everything we have added to our monitored inventory.

6. Scroll to the bottom of the page to view the last two sections: Generate Now and Save Report:

Email Prin	t to Screen PDF	⁼ to Screen XML to Sc	reen	
Ilcari	S.			
Oserr				
Group:				
Distribution List:				
Email Address:				
Administrator, Uptime (ad	min) 💌			
Save Report				
Save Report				
Save Report Save to My Portal As:		Description:		
Save Report Save to My Portal As:		Description:	port(Run at □	
Save Report Save to My Portal As:	Publish Report	Description:	port(Run at 13 ▼	: 57)
Save Report Save to My Portal As: HTML PDF	Publish Report	Description: Scheduled Rej Daily	port (Run at 13 V] * [57 ♥]) Every 1 ♥ day(6)
Save Report Save to My Portal As: HTML PDF XML	Publish Report	Description: Scheduled Reg Daily Weekly Veekly	port(Run at <u>13</u> ▼ @] [±] [57 ▼]) Every [1 ▼] day(s) Every Weekday
Save Report Save to My Portal As: HTML	Publish Report	Description: Scheduled Rej Daily Weekly Monthly Search Research Res	port (Run at <u>13</u> ▼ @ 	1 57 ♥) Every 1 ♥ day(s) Every Weekday
Save Report Save to My Portal As: HTML DPDF XML Email	Publish Report	Description: Scheduled Reg Daily Weekly Monthly Separate Repu	port (Run at 13 V] : [57 ♥) Every 1 ♥ day(s) Every Weekday

When configured to perfection, reports can be saved to be generated at a precise time, at a specific schedule, in various formats. Users also can save reports to their **My Portal**. Administrators and end-users can schedule reports for themselves, or as part of an agreement, deliver them to managers.

Reports can also be generated in real time, to assist with diagnosis, or to fine-tune the configuration of a report. This example uses this process. 7. In the **Generate Now** section, click **Print to Screen**.

Validation: Admire the Resource Hot Spot Report

The results of the report depends on the activity and performance of your Elements, but hopefully there is enough activity for resource hot spots to be listed, such as in the following example:

Resource Hot Spot Report

For Period: 2014-07-14 13:52 to 2014-07-15 13:52

Produced By: Administrator, uptime (admin)

Top Resource Consumers Summary

These systems are your top consumers in each capacity category

Top Servers

CPU	%	Memory	%	Swap	%	Disk	%
vmh-rd14.rd.local	22	win-ken	59	Cleaner	0	March	1
vmh-rd11.rd.local	20	Cleaner	19	March	0	Cleaner	0
vmh-rd15.rd.local	13	vmh-rd10.rd.local	12	vmh-rd10.rd.local	0	vmh-rd10.rd.local	0
vmh-rd10.rd.local	9	vmh-rd11.rd.local	8	vmh-rd11.rd.local	0	vmh-rd11.rd.local	0
vmh-rd12.rd.local	8	vmh-rd14.rd.local	6	vmh-rd12.rd.local	0	vmh-rd12.rd.local	0

Top Network Devices

In Rate	%	Out Rate	%	Errors	errors/sec	Discards	discards/sec
PowerOver9000/ch1	0	PowerOver9000/ch1	0	PowerOver9000/ch1	0	PowerOver9000/ch1	0
PowerOver9000/ch2	0	PowerOver9000/ch2	0	PowerOver9000/ch2	0	PowerOver9000/ch2	0
PowerOver9000/ch3	0	PowerOver9000/ch3	0	PowerOver9000/ch3	0	PowerOver9000/ch3	0
PowerOver9000/ch4	0	PowerOver9000/ch4	0	PowerOver9000/ch4	0	PowerOver9000/ch4	0
PowerOver9000/g1	0	PowerOver9000/g1	0	PowerOver9000/g1	0	PowerOver9000/g1	0

Servers with High CPU Usage

These elements averaged > 20%

🚳 vmh-rd14.rd.local

Min 0

57



0

The opening **Top Resource Consumers Summary** lists Elements regardless of your configured thresholds; subsequent sections list any hot-spot Elements.

Generate a Pre-configured Server Uptime Report

When Uptime Infrastructure Monitor is first installed, a few broad-coverage, quick-value reports are created out of the box for the **admin** user. One of these is the Server Uptime report, which is ideal for all the ESX hosts and VMs that are managed by your VMware vCenter Server Element.

1. Click My Portal, then click the Saved Reports tab.

0

Note the report you generated in the last exercise is also in this list as a pre-configured report. One of the benefits users saving reports to their respective My Portal Saved Reports lists is they can generate at any time, based on saved settings. Let's demonstrate how to live in the moment.

3. Click the play icon to print the Server Uptime Report to screen.

Dashboard	is My Portal	My Infrastructure	Services	Users	Reports	Config	Search Uptime	admin 👻 SysList	Help			
My Portal S	All Portal Saved Reports											
My Reports												
	Report Name	Report Description							Saved By			
▶ 🕈 🚯	Incident Priority Repo	ort Weekly review of ke	Weekly review of key service delivery metrics, highlighting problem services and areas for improvement.									
► 🕈 🚯	Resource Hot Spot Re	port Hi, this report shows	Hi, this report shows you what elements have resource issues so you can focus on fixing them. You can change settings on the saved reports page. A									
	Resource Usage Repor	rt Weekly detailed per	Weekly detailed performance audit and planning report A									
h. 🕈 🚯	Server Uptime Report	Hi, this is your daily	Hi, this is your daily uptime report, you can change its settings on the saved reports page.									
print to sc	Server Uptime Report Hi, this is your daily uptime report, you can change its settings on the saved reports page. Administree print to screen											

Validation: Review the Server Uptime Report

The pre-configured options for this report include all of your Elements (by the report configuration, the **Infrastructure** Element Group, as well as its subgroups), and whether they met a target uptime threshold of 95%. This is reported for the last seven days. If you have completed all of this guide in the same sitting, unless you are very slow, you won't have a week's worth of data to display. Uptime Infrastructure Monitor reports with however much data it has collected, which in this case is likely a day's worth. The following example shows a full week of meeting up-time targets, with a modest number of outages:



Now that you've touched on a couple of reports, let's go back to what are essentially a real-time status report, the Quick Snapshot.

Revisit the Quick Snapshot pages

In the first module, specifically the first track, you added a VMware vCenter Server to your monitored inventory. In the final exercise, you viewed the Quick Snapshot for both the vCenter Server Element and one of its VMs. Because the vCenter Server was just added, there was no data in the graphs. Because the graphs show the last 24 hours of activity, you only need to wait overnight to fully populate them, but even a handful of data-collection cycles can suffice. Let's revisit these pages.

1. Click Infrastructure.

2. Click the vCenter Server's gear icon, then in the pop-up menu, click Graph Performance to display its Quick Snapshot.

Dashboards	My Portal	My Infrastructure	Services	Users	Reports	Config	Search U	ptime			admin 👻 S	ysList Help
Graphing Service	es Info	Quick Snapshot: v	Center - VMwa	are vCenter !	Server 5.1.0	VMware v	Center Server	5.1.0 build	-1364037]			
System Status		1 🚯 Datacenter	Summary									
Quick Snapsh	lot	RDLAB										
▶ VM Workload			_				1		-			1
▶ VM Sprawl		100		UPU range -	- CPU avg		¥	100 -	- M	emory range — N	emory avg	*
vSphere Performan	nce											
CPU Workload	d	50						50 -				
Memory Work	load	50						50		_		
Network Work	doad											
Disk Workload	d	0	18:00	12. Jui	1	06:00	12:00	0 -	18:00	12. Jun	06:00	12:00
Datastores											CE VIA-	
Storage Capa	city	Total Online CPU: 9	5 GHZ					Total Onli	ne Memory: 488 GB		65 0115 1	0 Active Outages
Metrics		RDPROD										
Instance Mot	ion			Oll range -	- CPU ava		1		— N		lemony ava	1
Power Consur	mption	100		or o range	crourg		-	100 -	-	ichtory runge in	iciniory arg	
Power States												
Service Metri	cs	50						50 -				
					_		_					
				_				-				
		0	18:00	12. Jur	ı	06:00	12:00	0	18:00	12. Jun	06:00	12:00
											29 VMs r	unning on 2 hosts
		Total Online CPU: 3	5 GHZ					Total Onli	ne Memory: 119 GB		25 0.051	0 Active Outages
		RDQA										
			— (CPU range -	- CPU avg		2		М	emory range — N	lemory avg	1
		100						100 —				
		50						50 -				
		0						0 -				
			18:00	12. Jur	1	06:00	12:00	-	18:00	12. Jun	06:00	12:00
		Total Online CPU: 6	2 GHZ					Total Onli	ne Memory: 257 GB		153 VMs r	unning on 3 hosts 0 Active Outages
		🕈 🏐 Top Clusters										
		🗧 🧑 Top Resourc	e Pools									
		2 🔋 Top ESX Ser	vers									
		Highest CPU Consume	d CF	U Trend 24H			Current %	Highest Me	emory Consumed	Memory Trend 24H		Current %
		vmh-rd11.rd.local					12%	vmh-rd11.	rd.local			68%
		vmh-rd10.rd.local					11%	vmh-rd10.	rd.local			60%
		See More	2					See More				

The this example, there is a full day's worth of data displayed for a same vCenter Server that comprises three datacenters. The top CPU and memory consumers are shown by cluster, ESX host, and resource pool; you should now see some ranked vCenter Server objects, accompanied by historical graphs.

- 3. Click Infrastructure to return to the main inventory view.
- 4. Expand the **Discovered Virtual Machines** Infrastructure Group, and click the gear icon for any of the VMs (preferably the same on you selected back in the first module). In the pop-up menu, again, click **Graph Performance** to display that Element's **Quick Snapshot**.



The key performance and resource metrics for the VM should now show some usage and baselines.

Back: Organize Users and Views Next: Uptime Infrastructure Monitor Documentation Home