

This module shows you how to configure adaptive polling in Tivoli[®] Network Manager V3.9.

	IBM
Assumptions	
Before you proceed, the module designer assumes that you have these skills and knowledge: – Understanding of IBM Tivoli Network Manager polling – Access to the GUI Tivoli Integrated Portal to make configuration changes to polling policies.	
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The module developer assumes that you understand IBM Tivoli Network Manager polling, and the properties that are associated with it, and have access to the GUI to create and change the configuration for polling policies.

Objectives

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When you complete this module, you can perform these tasks:

- Create a network view to use with the adaptive polling policy.
- Create adaptive polling policies and understand the timing of their proper operation.

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When you complete this module, you can create a network view and adaptive poll policies.

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Definition	
Adaptive polling is an extra poll policy use to dynamically react to changing network events	
Adaptive polling is an extra poll policy use to dynamically react to changing network events.	
Adaptive poils can be created for both ping of Sinivier type policies.	
These polls can more quickly determine whether a device failed a poll policy or is merely an ano does not need to be pursued.	maly that
Adaptive polling documentation	
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Sometimes a poll policy will fail for a particular device. Adaptive polling allows Tivoli Network Manager to begin rapidly polling the device so that the failure event can be more quickly confirmed or eliminated. Review the online documentation for more details.

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Tivoli. View: All tasks		Welcome itnmadmin	Help Comm	unities Logout IBM.
• •	Network Polling ×	+		Select Action
Welcome My Startup Pages	Configure Poll Policie	es M39 • 🎤 🏋		*1 ?
Osers and Groups Settings Administration	Enabled	Status Name cpuBusyPoll	Poll Definitions cpuBusyPoll	Device Membershi Devices
Event Management Tools		Default Chassis Ping	Default Chassis Ping	Devices 🗉
Network Management Database Assess		Default Interface Ping	Default Interface Ping	Devices
Database Access Configuration Network Polling	•		II Color	tod: 0 Total: 20 *
= Path View Administration	Configure Poll Defin	itions		* ?
Availability	2 3 0 0)	·	Dâ
Network Availability	Status N	Name	* Type Descri	ption
Event Dashboard	🔲 🌒 c	seSysMemoryUtilization	Basic Threshold	E
= Performance		Default Chassis Ping	Chassis Ping	
Details and Journals	🔲 🖾 D	Default Interface Ping	Interface Ping	
 Active Event List (AEL) Lightweight Event List (LEL) 		N-E	III Color	tod: 0. Total: 97

Log in to the IBM Network Manager GUI, and click Administration, Network, and Network Polling. You can review active polling policies here. In this screen, a Default Chassis Ping is enabled.



Click Availability, Network Availability, and Network Views. A new tab will open with a list of current network views for this user. Here you can create a new view that will be used by the adaptive poller. Click 'new view' and a new pop-up window will appear.

		IBM
Create a view and give	it properties	
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https://	18311/ibm/console/ncp_topoviz/netview/Properties.do?id=-1&acces 合	
General Filter		
*required field		
*Name:	Rapid chassis	
Parent:	NONE -	
Туре:	Filtered 👻	
Layout:	Symmetric 🔹	
Map Icon:		
Tree Icon:		
Background image:		
Background Style:	Centered 👻	
Line Status:	System Default 🔹	
?	OK Cancel	
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Create properties in the pop-up window. The view to be created will be a filtered view. Any name can be used.

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Create the filter for the view	
Mozilla Firefox: IBM Edition	
A https:// .8311/ibm/console/ncp_top	oviz/netview/Properties.do?id=-1&acces 🏠
General Filter	
Domain: PCOM39 🗸	
Filter: 💿 All 💿 Any	
Table Filter	
activeEvent EventId = 'NmosPingFail	' and Tally <= 18 👔 📮
End Nodes: Include Connectivity: IP Subnets	
2	OK Cancel
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The 'active event' table is a table that is similar to alerts status in the object server. The creation filter is based on EventId and Tally. Events that occur less than 19 times will be displayed. For purposes of configuration, the 18 signifies how many times rapid polling of the device will confirm its outage. The 'End Nodes' setting at the bottom of the screen is set for Include if you are interested in the inclusion of devices like 'NoSnmpAccess' or 'Printer'.



The view finds two devices, device11 and device10. This view is dynamic. When a device has a tally greater than 18, the devices will vanish from this view. These failures might still exist in the object server or active events list, but they will vanish from the view.

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词 IBM SF lab 🥥 Support 🎑 portals 🥥 IBM						
Tivoli. View: All tasks		Welcome itnmadmin	He	elp Communities Logout IBM.		
• •	Network Views × No	atwork Polling × +		Select Action		
= Welcome	Configure Poll Policie	25		* ?		
My Startup Pages	🛃 Domain: PCOM39 🔹 🧪 🦉 🎵 💭 🖉 🤤					
Settings Administration	Enabled	Status Name	Poll Definition	s Device Membershi		
Event Management Tools		ConfirmDeviceDown	Default Chassis Interface Ping	Ping,Default Devices		
Network		ConfirmHighDiscardRate	HighDiscardRate	e Devices		
 Management Database Access Database Access Configuration 		-	ш	Colortedi O. Toteli 20		
Network Polling	C C D I D C			-12		
Path View Administration		tions	-			
Availability	Status N	ame	• Type	Description		
Discovery	🔲 🖾 bg	pPeerState	Generic Threshold	-		
Iroubleshooting and Support	🗆 🎯 bi	ufferPoll	Basic Threshold			
	🔲 🌒 ce	fcFanTrayOperStatus	Basic Threshold	E		
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The ConfirmDeviceDown policy can be used to initiate the adaptive polling. The chassis ping is enabled, and the network view is created. This poll can now be configured and enabled for adaptive polling to work.

https://	ditor - Mozilla Firef	ox: IBM Edition	/ibm/console/n	cp. monitor/	Policy do?key=	9238/action=DISPLAY	-	
Poll Polic	Properties N	letwork Views De	evice Filter	SPATIONICAL	i ancjiao incj			104
 Name: Poll Enabled 	ConfirmDeviceD	Down						
	2 3						•	D
	Store?	Name	• Туре	Status	Poll Inter	val Description		
		Default Chassis Ping	Chassis Ping	۲	15	•		
		Default Interface	Interface Ping	•	15	•		
Definitions:								
								þ.
							S	elected: 0, Total: 2
Assign to poller instance:	Default Poller	•						
Policy	100							

Adaptive polling commences with this policy and the polling will occur every 15 seconds. In this example, a chassis ping poll occurs at a 15-second interval.



The network view tab shows the most important piece of filtering to make this adaptive poll work. Not all devices will be polled; only the devices that appear in the 'rapid chassis' view that was previously created. So the ConfirmDeviceDown poll happens only for devices that are from the default chassis ping, currently down, and have a Tally of 19 or less.

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The 'command line' view, object server	
1> select Tally, NmosDomainName, LocalNodeAlias from alerts.status where NmosDomainName = 'PCOM39' and EventId = 'NmosPingFail'; 2> go Tally NmosDomainName LocalNodeAlias	
11 PCOM39 9.53.113.10 11 PCOM39 9.53.113.11	
(two rows affected)	
 1> select Tally, NmosDomainName, LocalNodeAlias from alerts.status where NmosDomainName = 'PCOM39' and EventId = 'NmosPingFail'; 	
2> go	
Tally NmosDomainName LocalNodeAlias	
12 PCOM39 9.53.113.10	
12 PCOM39 9.53.113.11	
(huo roue affected)	
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Note how fast the Tally increments. Once a device has a Tally of one and appears in the view, the ConfirmDeviceDown policy will rapidly poll this device. Every 15 seconds the event increments in Tally, or the device responds and it clears.



With adaptive polling enabled, devices that are down are quickly polled again in a rapid fashion. If an anomaly occurs, and the device was down for a short period, the event is quickly cleared and no action needs to be taken by an operator. If the device truly is down, it will use the chassis poll policy 18 times in approximately 6 minutes. Without the adaptive poller, it takes 36 minutes to see the same number of polls.



The network view is now cleared. What conclusion can be drawn? This device responded to one of the chassis ping or adaptive ping polls and the device is now up. Or the device is still down and the Tally of unanswered polls is now at 19. Typically it means that it was not a short anomaly and there is a significant outage to review.

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Summary of adaptive polling
Adaptive polling can be configured for ping based polls or SNMP-based polls
There is no change to existing polling. A view is created and a new policy added to enable such polling.
 Frequency interval and duration are configured by parameters in both the 'confirm device down policy and the newly created network view.
 Review Tivoli Network Manager blog for more details of practical examples
IBM Tivoli Network Manager blog
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Adaptive polling can be configured for both ping or SNMP-based poll policies. Review the Tivoli Network Manager blog for more examples of the timing and properties that are used by the adaptive poller.

Summary

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Now that you completed this module, you can perform these tasks:

- Create adaptive polling policies for IBM Tivoli Network Manager version 3.9
- Understand configuration and properties that are associated with the building of these policies

Now that you completed this module, you can create adaptive poll policies for Tivoli Network Manager, version 3.9

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