

# **Application Note**



# **Application Note**

# Setting Group Thresholds Using Configuration Management

2/22/2019

**Pete Bartz - Entuity** 



# **Table of Contents**

1	Overview		3
2	Identify the	thresholds that are needed	4
3	Use Case 1	<ul> <li>Show the current threshold value for CPU</li> </ul>	6
4	Use Case 2	<ul> <li>Show the current threshold value for a dynamic threshold name</li> </ul>	8
5	Use Case 3	<ul> <li>Set the threshold value for CPU</li> </ul>	10
6	Use Case 4	<ul> <li>Set the threshold value based on dynamic parameters</li> </ul>	13
7	Running the	e new tasks in ENA	17
	7.1	Show CPU for a device	17
	7.2	Set Device Average CPU Critical threshold to 63% for all devices in a view	19
	7.3	Set a threshold for devices in a view based on parameters for the name and value	22



### **1** Overview

This Application Note describes a method that can be used to set device-based thresholds for a group of devices (view based) using an ENA Configuration Management Task.

This task will examine a selected device, device set or device in a view and set configured threshold values.

Note that this example applies to device level thresholds and the scripts can be adapted to include port-based thresholds if needed.

For additional detail on the default and custom thresholds that have been set, users have access to 2 standard reports in ENA.

eports > Administrative				
Report	Schedule	History	Description	
Custom Threshold Settings	11		Threshold settings that have been manually overridden	
Default Server Threshold Settings	11	-	Threshold settings used as server level defaults and view level overrides	

These can provide valuable details to support the changes you may want to make for groups of devices.



# 2 Identify the thresholds that are needed

The first step in this process is to identify the thresholds that are needed to be set for a given group of devices. Once these are identified, you will need to identify the specific Threshold Name from the ENA data model for each one.

You can easily generate a list of threshold names that are configured on your server.

a. From the ENA UI, go to the System Information UI and access "Show Data Dictionary".

	ORK ANALYTI	Y cs					-		(
: Syst	em Informa	tion					Show Audit Logs	s Show Da	ta Dictionary
Server 🗸	Version	Uptime	Processes	Reports	License	Database	Data Export	Flow Collect	Events
hamplin-SV	Entuity 17.0 (	1 hr, 17 mins	<b>Ø</b>	<b>I</b>	<b>Ø</b>	<b>I</b>	<b>I</b>	N/A	
Content	<mark>s Normal</mark> EGHIJK	Advanced		WXYZ I	All				
croll to a <u>Thresho</u> <u>Thresho</u> <u>Thresho</u>	and select <u>Id</u> - Display <u>Id</u> - Object • <u>IdEx</u> - Object	the Thres	hold objec	c <b>t</b> Dject					

Copy and paste the Direct Subtypes into a new document. You can delete the ThresholdEx type form the document. Then from the Threshold object, select the ThresholdEx Subtype.

#### SwObject Type Threshold



Copy and paste all of the Direct Subtypes into the new document.



#### **Direct Subtypes:**

AbsoluteMemoryThreshold, AngularVelocitySensorHiThreshold, AngularVelocitySensorLoThreshold, APICHighCPUThreshold, APICHighMemoryThreshold, AtmVccInUtilizationHiThreshold, AtmVccInUtilizationLoThreshold, AtmVccOutUtilizationHiThreshold, AtmVccOutUtilizationLoThreshold, AwapHostCountHiThreshold, AwapHostCountLoThreshold, BackplaneUtilizationBusAThreshold, BackplaneUtilizationBusBThreshold, BackplaneUtilizationBusCThreshold, BackplaneUtilizationSystemBusThreshold, BECNThreshold, BroadcastTrafficThreshold, CPUUtilizationThreshold, CurrentSensorHiThreshold, CurrentSensorLoThreshold, DEThreshold, EPGLowHealthThreshold, FabricNodeLowHealthThreshold, FanTrayLowHealthThreshold, FECNThreshold, FrequencySensorHiThreshold, FrequencySensorLoThreshold, EWAcceptedPacketRateHighThreshold, FWCurrentConnectionsHighThreshold, EWDroppedPacketRateHighThreshold, EWLoggedPacketRateHighThreshold, EWRejectedPacketRateHighThreshold, HighMacAddressCountThreshold, HighVPNTotalHitsRateThreshold, HostResourcesLowDiskThreshold, HostResourcesPackagesThreshold, ICMPLatencyFallingThreshold, ICMPLatencyRisingThreshold, ICMPLatencyThreshold, ICMPLatencyTrendRisingThreshold, ICMPRedirectsThreshold, ICMPTILThreshold, InboundPVCUtilizationThreshold, IPNoRoutesThreshold, IPSLAHighICPIFThreshold, IPSLAHighLatencyThreshold, IPSLALowMOSThreshold, IbConnectionLimitThreshold, IbCurrentSessionsThreshold, IbDroppedPktsThreshold, IbInErrRateThreshold, IbLpCriticalAvailThreshold, IbLpCriticalServiceAvailThreshold, IbLpLowAvailThreshold, IbMaxSessionsThreshold, IbMemoryErrorThreshold, IbNoHandlerDeniedThreshold, IbOutErrRateThreshold, IbSynDeniedThreshold, IbTotalErrorsThreshold, LineCardLowHealthThreshold, ManagedHostActiveSessionsHighThreshold, ManagedHostMessagesReceivedThreshold, NewAndChangedMacInhibitThreshold, opticalInputPowerHighThreshold, opticalInputPowerLowThreshold, opticalOutputPowerHighThreshold, opticalOutputPowerLowThreshold, OutboundPVCUtilizationThreshold, PodLowHealthThreshold, PortInDiscardsHiThreshold, PortInFaultHiThreshold, PortInUtilizationHiThreshold, PortInUtilizationLoThreshold, PortOutDiscardsHiThreshold, PortOutEaultHiThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationLoThreshold, PortOutUtilizationHiThreshold, PortOutUtilizationLoThreshold, PortOutUtil PortPacketMinRateForDiscardsThreshold, PortPacketMinRateForFaultThreshold, PowerSensorHiThreshold, PowerSensorLoThreshold, PSULowHealthThreshold, QOSClassBitRateHiThreshold, QOSClassDropBitRateHIThreshold, QOSClassDropPktRateNoBufHIThreshold, QOSQueueDropBitRateHIThreshold, RelativeDeviceCPUThreshold, RelativeDeviceCriticalCPUThreshold, RelativeDeviceCriticalMemoryThreshold, RelativeDeviceMemoryThreshold, RelativeHumiditySensorHiThreshold, RelativeHumiditySensorLoThreshold, ServiceInTrafficHiThreshold, ServiceInTrafficLoThreshold, ServiceOutTrafficHiThreshold, ServiceOutTrafficLoThreshold, SIbSPCurrentHighThreshold, SNMPResponseTimeThreshold, SupervisorCardLowHealthThreshold, TemperatureSensorHiThreshold, TemperatureSensorLoThreshold, TenantLowHealthThreshold, ud\_ahRadioTxPowerLowThreshold, ud\_ifInTrafficThresholdLowThreshold, ud rPDU2DeviceStatusPowerCriticalThreshold, ud rPDU2DeviceStatusPowerHighThreshold, VDiskHiDiskUsageThreshold, ViewDeviceReachabilityThreshold, VMHiCPUThreshold, VMHiGuestMemoryThreshold, VMHiMaxDiskUsageThreshold, VoltageSensorHiThreshold, VoltageSensorLoThreshold, VolumeFlowSensorHiThreshold, VolumeFlowSensorLoThreshold, VpnActiveTunnelsHighThreshold, VPNHighClusterCurrentUsersThreshold, VPNHighCurrentUsersThreshold, VpnLoadAvgHiThreshold, VpnNetPortUtilHiThreshold, VpnTunnelUsageHiThreshold, vServerCurrentSessionsHighThreshold, vServiceSessionsRateHighThreshold, vServiceCurrentSessionsHighThreshold, vServiceFailedSessionsRateHighThreshold, vServiceSessionsRateHighThreshold, vServ WanPortInDiscardsHiThreshold, WanPortInErrorsHiThreshold, WanPortInUtilizationHiThreshold, WanPortInUtilizationLoThreshold, WanPortOutDiscardsHiThreshold, WanPortInUtilizationHiThreshold, WanPortInU WanPortOutUtilizationHiThreshold, WanPortOutUtilizationLoThreshold, WcApHostCountHiThreshold, WcApHostCountLoThreshold, WcBaseAerialIfChannelChangeFreqThreshold, WcBaseAerialIfHostCountHiThreshold, WcBaseAerialIfHostCountLoThreshold, WcBaseAerialIfPowerChangeFreqThreshold, wcCurrentNumberOfAPsConnectedHighThreshold, WpHostCountHiThreshold, WpHostCountLoThreshold

In your document, select a find and replace option to replace all of the ", " (comma space) characters with a new line. This will create a list of Threshold Names (1 per line) and this can be copied into an Excel spreadsheet.

The threshold names that are device based can be used for the configuration scripts defined in steps 4 and 6 below.



# **3** Use Case 1 – Show the current threshold value for CPU.

In this example we will create a Task to show the Device Average CPU Critical threshold for a device(s).

a. From the Configuration Management UI, add a new step.

Edit Step	X
Name:	Use Config to show Threshold - CPU
Description:	Use Config to show Current Threshold Value for CPU
Contoxt	device
Context.	
Script:	printin "current inresnoid value: " + target.@cache.@dao.evaluateSwExpression("simple;variable object = g

Set the name: Use Config to show Threshold – CPU

Set the Description: Use Config to show Current Threshold Value for CPU

Set the Context: Device

Set the following into the Script (Note to make sure this is standard text and is a single line with no page breaks):

println "Current Threshold Value: " + target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject(\${target.id}); eval(object, object,

get\_threshold(\"RelativeDeviceCriticalCPUThreshold\"))")

Select OK to save the step.

b. From the Configuration Management UI, add a new task.

,
Add
Remove
Move Up
Move Down
New
Edit
Delete

Set the name: !!Use Config to show CPU Threshold



Note that I added "!!" at the front to help force the task to the top of the list. You can name this appropriately for your environment.

Set the Description: Use Config to show CPU Threshold

Set the Context: Device

Add a new step to include the new "Use Config to show Threshold – CPU" step created above.

Select the Advanced tab and set the parameters consistent with the screen below.

Edit Task		X
General Advanced		^
Execution		
Job Timeout (seconds):	300	
Connection Method:	none	~
Raise Event on Completion: Collect Diagnostic Data: Filter:		
-Context Menu		
Show on Context Menu: Show on View Selection: Confirm Execution:		_
	ОК	Cancel

Select OK to save the task.

This task is now available to run. Note that from a device, you can right click and see the new configuration task. If it doesn't show up, reload your browser screen.



# 4 Use Case 2 – Show the current threshold value for a dynamic threshold name

In this example we will create a Task to show the threshold value for a threshold name that is passed as a parameter in the task.

a. From the Configuration Management UI, add a new step.

	Edit Step		×
1	Name:	Use Config to show Threshold - Dynamic Name	^
	Description:	Use config to show Threshold with a variable of the data model threshold name.	]
ъ Г			
	Context:	device	
ł	Script:	println "Current \${param.name1} Value: " + target.@cache.@dao.evaluateSwExpression("simple;variable object =	1
С			
•			

Set the name: Use Config to show Threshold - Dynamic Name

Set the Description: Use config to show Threshold with a variable of the data model threshold name.

Set the Context: Device

Set the following into the Script (Note to make sure this is standard text and is a single line with no page breaks):

println "Current \${param.name1} Value: " +

target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject(\${target.id}); eval(object, object, get\_threshold(\""+param.name1+"\"))")Select OK to save the step.

b. From the Configuration Management UI, add a new task.

General Adva	inced		
Name:	IIUse Config to show	Threshold - Dynamic Name	
Description:	Use Config to show Th the correct threshold r	nreshold using Dynamic Threshold name. name from the data model.	Make sure to have
Context:	device		~
Steps:	Name	Description	Add
	Use Config to show T	Threshold - D Use config to show Thresho	Remove
			Move Up
			Move Down
Parameters:	Name	Default Value	New
	name1		Edit
			Delete
			OK Cana



Set the name: !!Use Config to show Threshold - Dynamic Name

Note that I added "!!" at the front to help force the task to the top of the list. You can name this appropriately for your environment.

Set the Description: Use Config to show Threshold using Dynamic Threshold name. Make sure to have the correct threshold name from the data model.

Set the Context: Device

Add a new step to include the new "Use Config to show Threshold - Dynamic Name" step created above.

Add a new Parameter as defined below.

Edit Parameter	×
Name:	name1
Description:	For dynamic input
Data Type:	String
Default Value:	
Password Field:	
Always Prompt:	
	OK Cancel

Select OK.

Select the Advanced tab and set the parameters consistent with the screen below.



Edit Task		×	)
General Advanced		^	
Execution			
Job Timeout (seconds):	300		
Connection Method:	none ~		
Raise Event on Completion: Collect Diagnostic Data:			
Filter:			
-Context Menu			
Show on Context Menu:	$\checkmark$		
Show on View Selection:			
Selection Limit		~	
	OKCan	cel	

Select OK to save the task.

This task is now available to run. Note that from a device, you can right click and see the new configuration task. If it doesn't show up, reload your browser screen.

# 5 Use Case 3 – Set the threshold value for CPU.

In this example we will create a Task to set the Device Average CPU Critical threshold to 63% for a device(s).

a. From the Configuration Management UI, add a new step.

Edit Step		X	
Name:	Use Config to set Threshold - CPU	^	
Description:	Example to set CPU threshold to 63%	<pre></pre>	
Context:	device		
Script:	println "Current CPU Threshold: " + target.@cache.@dao.evaluateSwExpression("simple;variable object = getObj println "Updated Threshold: " + target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject	j (	

Set the name: Use Config to set Threshold – CPU



Set the Description: Example to set CPU threshold to 63%

Set the Context: Device

Set the following into the Script (Note to make sure this is standard text and is a single line with no page breaks):

println "Current CPU Threshold: " + target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject(\${target.id}); eval(object, object,

replace\_individual\_threshold(\"RelativeDeviceCriticalCPUThreshold\",{63.0,\"enabled\"}))")

println "Updated Threshold: " + target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject(\${target.id}); eval(object, object, get\_threshold(\"RelativeDeviceCriticalCPUThreshold(\"))")

Select OK to save the step. Note that RelativeDeviceCriticalCPUThreshold is the threshold name that is being set. This is consistent with the data model and the document created in step 2. The value to be used in this example is 63.0 and can be changed as appropriate.

b. From the Configuration Management UI, add a new task.

	Edit Task				×
	General Advance	đ			^
~	Name:	IIUse Config to set CPU Threshold	to 63%		
	Description:	Use Config to set CPU Threshold to	0 63%		
i					
5	Context:	device T		~	
,	Steps:	Name	Description	Add	
C		Use Config to set Threshold - CPU	Example to set CPU threshold to (	Remove	

Set the name: !!Use Config to set CPU Threshold to 63%

Note that I added "!!" at the front to help force the task to the top of the list. You can name this appropriately for your environment.

Set the Description: Use Config to set CPU Threshold to 63%

Set the Context: Device

Add a new step to include the new "Use Config to set Threshold – CPU" step create above.

Select the Advanced tab and set the parameters consistent with the screen below.

# ENTUITY

Edit Task		×
General Advanced		^
Execution		
Job Timeout (seconds):	300	
Connection Method:	none	~
Raise Event on Completion Collect Diagnostic Data: Filter:		
Context Menu		
Show on Context Menu: Show on View Selection: Confirm Execution:		<b>~</b>
	ОК	Cancel

Select OK to save the task.

This task is now available to run. Note that from a device, you can right click and see the new configuration task. If it doesn't show up, reload your browser screen.



# 6 Use Case 4 – Set the threshold value based on dynamic parameters

In this example we will create a Task to set the threshold value for a threshold name and value that are passed as parameters in the task.

a. From the Configuration Management UI, add a new step.

Edit Step	X
Name:	Use Config to set Threshold - Dynamic Parameters
Description:	Set thresholds with dynamic name and value parameter
Context:	device
Script:	<pre>statusnow=target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject(\${target.id}); eval(ob println "Current \${param. Threshold1} Value: " + statusnow if (statusnow == null) throw new Exception("Error in Threshold Name. Check Data Model. Failed to set thresho</pre>
	<pre>statusupdated=target.@cache.@dao.evaluateSwExpression("simple;variable object = getObject(\${target.id}); eva println "Updated \${param. Threshold1} Value: " + statusupdated if (statusupdated == null) throw new Exception("Failed to set threshold");</pre>

Set the name: Use Config to set Threshold - Dynamic Parameters

Set the Description: Set thresholds with dynamic name and value parameter

Set the Context: Device

Set the following into the Script (Note to make sure this is standard text and is a single line with no page breaks):

statusnow=target.@cache.@dao.evaluateSwExpression("simple;variable object =
getObject(\${target.id}); eval(object, object,
replace\_individual\_threshold(\""+param.Threshold1+"\",{"+param.Value1+",\"enabled\"}))")
println "Current \${param.Threshold1} Value: " + statusnow
if (statusnow == null) throw new Exception("Error in Threshold Name. Check Data Model. Failed to set
threshold");

statusupdated=target.@cache.@dao.evaluateSwExpression("simple;variable object =
getObject(\${target.id}); eval(object, object, get\_threshold(\""+param. Threshold1+"\"))")
println "Updated \${param. Threshold1} Value: " + statusupdated
if (statusupdated == null) throw new Exception("Failed to set threshold");

Note that the parameters are passed in the task below and need to match exactly by name in the script.

Note that this example sets 1 threshold. The step can be updated to include more than 1 parameter and threshold. Duplicate the script and change both Threshold1 and Value1 to another numeric value (ie Threshold2). Also add additional parameters in the task below to match the updated script.

Select OK to save the step.



IIUse Config to set threshold - Dyna Use Config to set threshold with a v	amic Parameters						
Use Config to set threshold with a v	alue parameter						
Jse Config to set threshold with a value parameter							
device		~					
Name	Description	Add					
Use Config to set Threshold - Dyn	Set thresholds with dynamic name	Remove					
		Move Up					
		Move Down					
Name	Default Value	New					
Threshold1		Edit					
Value1							
	device Name Use Config to set Threshold - Dyn Mame Threshold1 Volum1	device       Description         Use Config to set Threshold - Dyn       Thresholds with dynamic name         Mame       Default Value         Threshold1       Value1					

b. From the Configuration Management UI, add a new task.

Set the name: !!Use Config to set threshold - Dynamic Parameters

Note that I added "!!" at the front to help force the task to the top of the list. You can name this appropriately for your environment.

Set the Description: Use Config to set threshold with a value parameter. Make sure to have the correct threshold name from the data model.

Set the Context: Device

Add a new step to include the new "Use Config to set Threshold - Dynamic Parameter" step created above.

Add a new Parameter as defined below.



CF	Edit Parameter		×
Th a	Name:	Threshold1	
ni	Description:	Threshold name from data model	
s			
g	Data Type:	String	
c	Default Value:		-
fo			
ni			
ni	Decovord Fields		
s	Always Prompt:		
ta	, and jo riomper	_	
e tr		OK Cano	el

Select OK.

Add a second parameter as defined below.

Edit Parameter	×
Name:	Value1
Description:	Threshold value
Data Type:	Float ~
Default Value:	
D	
1	
1	
Password Field:	
Always Prompt:	
	OK I Cancel

Select OK.

Select the Advanced tab and set the parameters consistent with the screen below.

# ENTUITY

Edit Task		×
General Advanced		^
Execution		
Job Timeout (seconds):	300	
Connection Method:	none	~
Raise Event on Completion Collect Diagnostic Data: Filter:		
Context Menu		
Show on Context Menu: Show on View Selection: Confirm Execution:		<b>~</b>
	ОК	Cancel

Select OK to save the task.

This task is now available to run. Note that from a device, you can right click and see the new configuration task. If it doesn't show up, reload your browser screen.



### 7 Running the new tasks in ENA

Now that the new tasks are created, they can be run against a single device, set of devices or view. Below are examples based on some of the tasks defined above.

#### 7.1 Show CPU for a device

In this example, I am included a number of cases. In Use case 1, the threshold is not enabled.

Thresholds Related To: Processor -							
Threshold Name	Group	Enabled	Value	Overridden			
Device Average CPU Utilization High	Device CPU	No	25	Yes			
Device Average CPU Utilization Critical	Device CPU	No	99	Yes			
Processor Utilization High	Processor	Yes	80	No			

From either the bread crumbs or the Explorer, right-click on the device and select the "!!Use Config to show CPU Threshold below.



Check the Configuration Management History and examine the details of the target device.

22-Feb-20	19, 11:49:06	22-Feb-2	019, 11:49:06	!!Use Config to show CF	Champlin-SV-01: succee	manual	device	admin	SUCCEEDED	14811 1
22-Feb-2	Details for T	Task: !!!!	Confin to	show CDU Threshold						X
21-Feb-2			Details for (	ChamplinLabs-FW-01	L				×	
21-Feb-2	Server	0.1	Object:	764						Targets
21-Feb-2	Champin-3v-C	51	Output:	Current Threshold V	alue: null					1
21-Feb-2			Errors:							
21-Feb-2	Target									
21-Feb-2	ChamplinLabs	-FW-01								
21-Feb-2								C	к	
21-Feb-2	Details									ОК
21-Feb-2.	10,00.00.00	L1 1 CD L	010,00100100	Short OSTT Reighbors	champin or or randa	ocricatica	dence	Garrier	maceo	11000 11

Note that in this example the output shows a null value. This is because the threshold is not enabled.

In Use case 2 we will run the script for an enabled threshold as shown below:



Thresholds Related To: Processor 👻				
Threshold Name	Group	Enabled	Value	Overridden
Device Average CPU Utilization High	Device CPU	No	25	Yes
Device Average CPU Utilization Critical	Device CPU	Yes	99	Yes
Processor Utilization High	Processor	Yes	80	No

#### The output of the script will show the current value.

						5,					
22-Feb-20	19, 11:49:51	22-Feb-2	2019, 11:49:51	!!Use Config to show CF	Champlin-SV-01: succes	manual	device	admin	SUCCEEDED	14812	1
22-Feb-20	)19, 11:49:06	22-Feb-2	2019, 11:49:06	!!Use Config to show CF	Champlin-SV-01: succes	manual	device	admin	SUCCEEDED	14811	1
22-Feb-2	Dotails for 1	Tack: III	les Confie to	ahaw CDU Thrashal			• •	• •			~
22-Feb-2	Details for	rask. iit	Details for	ChamplinLabs-FW-0	1				×		
21-Feb-2	Server									Target	5
21-Feb-2	Champlin-SV-	01	Object:	/64 Current Threshold V	Zalue: 99 0 🛹					1	
21-Feb-2			Output:	Current Inteshord (							
21-Feb-2			Errors:								
21-Feb-2	Target										
21-Feb-2	ChamplinLabs	-FW-01						_			
21-Feb-2									ОК		-
21-Feb-2	Details									OK	
21-Feb-2.	1237 00:00:00	LITOPE	010,00100100	Short OSTT Heighbors	champin or or railed	Scheduled	Genee	uumm	ITALLO	11000	**



#### 7.2 Set Device Average CPU Critical threshold to 63% for all devices in a view

This example will set a predefined threshold to a predefined value using the task in step 5. If the CPU threshold is not enabled, the script will enable it and set the proper value.

The threshold is initially set as defined for at least one of the devices.

Thresholds Related To: Processor 👻				
Threshold Name	Group	Enabled	Value	Overridden
Device Average CPU Utilization High	Device CPU	Yes	22	Yes
Device Average CPU Utilization Critical	Device CPU	No	67	Yes
Processor Utilization High	Processor	Yes	80	No

#### Right-click on a view and select the Configuration task.



#### View the details of the task.

Int         Loc now         Lack all         Lack all         Lack all         Loc now           Details for Task: I!!Use Config to set CPU Threshold to 63%         X         X								
Server	▼ JobID	Dispatch Time	Last Updated	Message	Summary	Status	Targets	
Champlin-SV-01	14814	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Execution finished norm	ally. succeeded=10	SUCCEEDED	10	
Target			Finished	Last Updated	Server	Status		
SaoPaulo-SV-10		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
SaoPaulo-RR-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
SaoPaulo-ES-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
ChamplinLabs-FW-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
ChamplinLabs-SW-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
MexCity-SR-01.champlin.loca	d l	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
Minn-SR-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
Austin-SR-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
Champlin-SV-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
MexCity-SV-10		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Champlin-SV-01	SUCCEEDED		
Details							ОК	

Select a device and view the output details. Note that the current CPU shows to be disabled but is updated correctly.



Jeivei	<ul> <li>JobID</li> </ul>	Dispatch Time	Last Updated	Message	Summary	Status	Targets
Champlin-SV-01	14814	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	Execution finished norma	lly. succeeded=10	SUCCEEDED	10
farget	Details for	Austin-SR-01				×	
SaoPaulo-SV-10	Object:	772					
SaoPaulo-RR-01	Output:	Current CPU Thresho	old: [67.0, disabled	] 룾			
SaoPaulo-ES-01		Updated Threshold:	63.0				
ChamplinLabs-FW-01	Errors:						
ChamplinLabs-SW-01							
4exCity-SR-01.champli	4					OK	
MexCity-SR-01.champli 1/inn-SR-01							
MexCity-SR-01.champli 4inn-SR-01 \ustin-SR-01		22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41 C	hamplin-SV-01	SUCCEEDED	
MexCity-SR-01.champli Minn-SR-01 Austin-SR-01 Thamplin-SV-01		22-Feb-2019, 12:14:41 22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41 22-Feb-2019, 12:14:41	22-Feb-2019, 12:14:41 C	hamplin-SV-01 hamplin-SV-01	SUCCEEDED	

If you examine the threshold for the device, you can see that it is enabled and the proper value is set.

EXPLORER > My Network / Austin-SR-	D1	<ul> <li>Summary</li> </ul>	Incidents	💼 Ports 📲	Resources	Flow 🚦	All Dashboards 🔻
: Thresholds			Set Overrid	e Show Hiera	archy Sh	ow Dynamic Tł	nreshold Baseline
Thresholds Related To: Processor 🗸							
Threshold Name	Group	Enabled		Value		Overridden	
Device Average CPU Utilization High	Device CPU	Yes		22		Yes	
Device Average CPU Utilization Critical	Device CPU	Yes		63		Yes	
Processor Utilization High	Processor	Yes		80		No	

All of the devices in the view have been changed. The results can also be viewed by running the Custom Thresholds report against the view.



BENTUITY

#### Entuity Report Custom Thresholds

Printed on:	22 Feb 2019 12:21:31 CST	
Description:	Threshold settings that have been changed from their default values	
View:	My Network/Americas	
Device:	AIIDevices	
Americas B	ranch Sites	(Champlin-SV-01)
Americas Bran	nch Sites: Service Low Outbound Aggregate Traffic Rate	100000.0
Austin SD (	04	
Ausun-SR-0	01	(Champlin-SV-01)
Austin-SR-01:	Device Average CPU Utilization Critical	63.0
Austin-SR-01: I	Device Average CPU Utilization High	22.0
Champlin-S	SV-01	(Champlin-SV-01)
Champlin-SV-0	1: Device Average CPU Utilization Critical	63.0
ChamplinLa	abs-FW-01	(Champlin-SV-01)
ChamplinLabs	-FW-01: Device Average CPU Utilization Critical	63.0
ChamplinLabs	-FW-01: Device Average CPU Utilization High	Disabled
ChamplinLa	abs-SW-01	(Champlin-SV-01)
[g1] Sonicwa	all Uplink: ud_ifInTrafficThreshold Low Threshold	300000.0
[g2] Ethernet	Hiterface. dd_ininTaffoThreshold Low Threshold	2.0
ChamplinLabs	-SW-01: Device Average CPU Utilization Critical	63.0
E:\ Label:E	ntuity_17_0_p Serial Number 3b2afb98	(Champlin-SV-01)



7.3 Set a threshold for devices in a view based on parameters for the name and value.

Note that this method can also be applied for the task in Use case 4 where you only need to show the thresholds. In this example we will use the task defined in Use case 6.

The threshold for one of my Wireless Access Points is shown below.

Thresholds Related To: Wireless 🗸					
Threshold Name	Group	Enabled	Value	Overridden	
AP Attached Host Count High	Autonomous AP	Yes	512	}No	
AP Attached Host Count Low	Autonomous AP	No	0	No	

Using the document of threshold names created in step 2, we will change the "AP Attached Host Count High" threshold to 2.

The threshold name for this is: AwapHostCountHiThreshold

From the bread crumbs, right-click on the view and select the "!!Use Config to set threshold – Dynamic Parameters" task.

Technology / AWAP	Configuration Management $\rightarrow$	Summany 🗮 Contents 🍂 Services 💭 Insidents 🎉 Map
	Create View	!!Use Config to set threshold - Dynamic Parameters
	Delete View	!!Use Config to show CPU Threshold
	🖍 Edit View	!!Use Config to show Threshold - Dynamic Name
Group	Create Service	Set sysContact Overric

In the Parameters dialog:

CANCEL	Parameters	Save
Thushold1		
Value1		
0		

Set Threshold1 to: AwapHostCountHiThreshold

Set Value1 to: 2



Select the Save button which will run the task.



#### View the details of the completed task.

22-F 22-F	Details for Task: !!!	Details for 127.0.0.16		×
	Server 192.168.12.165	Object: 775	Targel	ts
		Output: Current AwapHostCountHilhreshold Value: [null, null] Updated AwapHostCountHilhreshold Value: 2.0		
	Target 127.0.0.16	Errors:		
	Details	OK	ок	

In this example the output is showing the current value to be null. This may be a flaw in the output statement for the script but even if this is the case, the threshold has been correctly updated to 2.

Thresholds Related To: Wireless 🗸					
Threshold Name	Group	Enabled	Value	Overridden	
AP Attached Host Count High	Autonomous AP	Yes	2	Yes	
AP Attached Host Count Low	Autonomous AP	No	0	No	
AP Antenna Attached Host Count High	Autonomous AP Antenna	Yes	256	No	

In most cases the current value should output correctly.

In my lab environment this change has also generated an incident to detect an Awap Host Count Abnormaility.

1	#	Name	Source	Details	Last Updated	↑
2	1	Awap Host Count Abnormality	127.0.0.16	Count=15, High threshold=2.000	12:57, 22 Feb 2019	
4	1	Device Reboot	127.0.0.16	Reboot at Thu Feb 21 12:35:31	12:43, 22 Feb 2019	
\$	1	Network Outage	127.0.0.16 [ wifi1.5 ] wifi1.5	Port Unreachable: 127.0.0.16 [	09:38, 21 Feb 2019	