



Nutanix connector

March 27th, 2018

Eaton Solutions for Nutanix

IPM Nutanix connector allows to connect to one Nutanix unit : Prism Central or Prism Element.

In this integration, the scope is to protect the User Virtual Machines or the entire cluster from power events. Eaton IPM is set up to provide graceful shut down of the User Virtual Machines or to shutdown the cluster. Eaton IPM uses a navigation panel to simplify the connection of IPM to the Nutanix infrastructure. To create a Nutanix connector, the user only needs to provide the network address (or FQDN) of the Nutanix box and a valid login/password pair for the authentication. Once the connector is successfully created, a Nutanix node is created in IPM.

As soon as the connection is established, all clusters and all User Virtual Machines (UVM) are retrieved from the Nutanix box to be displayed in IPM as Cluster or Virtual Machine nodes.

"Configuration policies" and "advanced events and actions" features of IPM can be configured to ensure the protection of Nutanix environment, in case of a power or environmental event. Two type of policies are available :

- Cluster shutdown : The cluster are now monitored, and it's possible from IPM to perform graceful shutdown.
- VM management : The UVM nodes are now monitored and IPM provides the ability to apply the following actions: On, Off, Suspend, guest shutdown on each individual UVM.



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Nutanix DashBoard

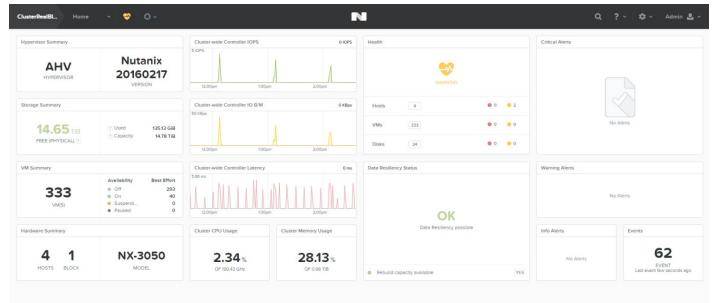


Figure 94. Infrastructure Connector Screen

Create Nutanix connector

1. From the left side navigation panel, select Infrastructure Connectors. Once you have selected Infrastructure Connectors a new screen will open. At the top right side of the page, click on Add a Connector.

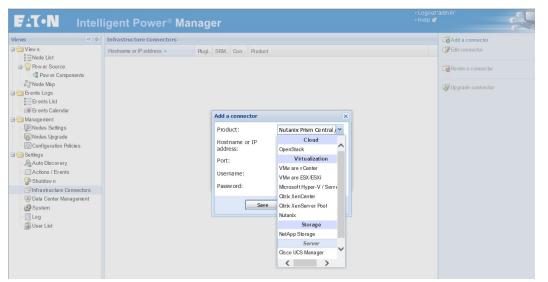


Figure . Add Connector Screen



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- 2. Select Nutanix as shown on the screen shot directly above.
- 3. Configure it with host name, user name and a password of the Nutanix system.

Product:	Nutanix	~
Hostname or IP address:	1	
Port:	9440 (default)	
Username:	admin	
Password:		

Figure. Add Connector User Name/Password

4. Check that the communication are Ok

Views « a	Infrastructure Connectors	Add a connector
Views	Hostname or IP address A Plu Con Product	C Edit connector
Node List	B Product: Nutanix Prism Central / Cluster (1 Item)	Remove connector
Type : 'Cluster' Type : 1PM' Type : Server' Type : Virtual machine' Events Logs Events Logs Events Calendar Management Nodes Settings Nodes Settings Configuration Policies Configuration Policies Settings Auto Discovery Actions / Events Infrastructure Connectors System Log Suser List	Product: Nutanix Prism Central / Cluster (1 Item) Image: Contral / Cluster	Remove connector

Figure. Communication Check





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Display Nutanix Clusters and UVM data

Select the Node List panel and create a filter by type, you will see the cluster list or the VM list that you see on the Nutanix UI.

FIT-N Intell	ige	nt	Ρο	wer®	Mar	nager					• Logout • Help 💕	'admin'		-
Views 🔍 💩	Node	List								8	Selectio	on view	()	» @
C Views	T	S	Name	3	 IP ad 	Class	-	Location	Li		Informa	tion		-
Type : 'Cluster'		0	BizDe	v0203		Nutanix Cluster	r 😵				O P	zDev0203		
Type : Cluster Type : TPM Type : Server' Type : Virtual machine' a Node Map Events Logs Events List Events Calendar												Serial number Class	0: 0: 0:000 0:000	0565 3f- a0e- 47a- 000- 0000 tanix uster
Configuration Policies											Status	Location		
Settings											Power S	ource		+
Auto Discovery											Events		0	
Actions / Events											Status	Date	Message	
System											0	23/03/2018-9:32:5	Communication wit.	
Log											0	16/03/2018-2:47:4	Communication wit.	
- 🖓 User List											0	16/03/2018-2:33:3	Communication wit.	
											0	16/03/2018-2:24:1	Communication wit.	
											0	16/03/2018-1:57:1	Communication wit.	
											0	16/03/2018-1:45:5	Communication wit.	•
🖉 OK: 5 📀 Warn	ing: 0	1 F	Page 1	of 1 Critical: 0		100 Ounknown: 0		page Displaying ist event: Ø			- 9:32:55	am - 10.16.0.45 - unde	fined	

Figure. Node List Cluster Filter



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FIT-N Logout
 Help S Intelligent Power® Manager Selection view **«** a Node List » @ VIEWS (3) Node List Type : IPM Type : IPM Type : SUJ Type : SUJ Type : VPS Type : VPS Type : VPS Type : VPS Type Status 🔺 Name Description Location Contact Link Information VM-Kalif-6 ClusterRealBlock 3 Ø Nutanix virtual machine Ø VM-100 VM--115 Nutanix virtual machine ClusterRealBlock Description Nutanix virtual machine VM--112 Nutanix virtual machine ClusterRealBlock Description IP address Serial number Class Location 3 0 0 VM-100 Nutanix virtual machine ClusterRealBlock M 8850c108eb9e Nutanix virtual machine ClusterRealBlock VM--108 Nutanix virtual machine ClusterRealBlock 6 0 Virtual Node Map Events Logs Events List Events Calendar 3 Ø VM-Kalif-5 Nutanix virtual machine ClusterRealBlock 8 Ø VM-Knif-3 Nutanix virtual machine ClusterRealBlock Status 3 Ø VM--111 Nutanix virtual machine ClusterRealBlock 👩 Connected Connection state Management
 Modes Settings
 Nodes Upgrade
 Configuration Policies 3 0 VM--117 Nutanix virtual machine ClusterRealBlock Power state Ø Powered On VM-Aurelien-5 Tools running state Not running 6 Ø Nutanix virtual machine ClusterRealBlock VM-1 ClusterRealBlock ß Ø Nutanix virtual machine Power Source VM-Kalif-2 Settings
 Auto Discovery
 Discovery
 Discovery Nutanix virtual machine 5 ClusterRealBlock Ø Events VM--116 Nutanix virtual machine ClusterRealBlock 3 Status Date Message VM--101 Actions / Evens Infrastructure Connectors System Log Suser List 3 Nutanix virtual machine ClusterRealBlock 29/08/2016-14:28:42 Ø Communication restored VM--102 Nutanix virtual machine ClusterRealBlock 3 29/08/2016-14:28:41 Ø Communication with devic.. VM-10 Nutanix virtual machine ClusterRealBlock 8 0 3 VM-Aurelien-1 Nutanix virtual machine ClusterRealBlock Ø 8 Ø VM--103 Nutanix virtual machine ClusterRealBlock 3 Ø VM-Kalif-7 Nutanix virtual machine ClusterRealBlock 3 0 VM--106 Nutanix virtual machine ClusterRealBlock 3 Ø VM-17 Nutanix virtual machine ClusterRealBlock ClusterRealBlock 3 Ø VM-12 Nutanix virtual machine VM-Kalif-10 Nutanix virtual machine ClusterRealBlock 5 Ø VM-Kalif-8 Nutanix virtual machine ClusterRealBlock 3 Ø VM--114 Nutanix virtual machine ClusterRealBlock 3 IN → Page 1 of 14 ► ► 25 ▼ Items per page Displaying 1 - 25 of 329 🕜 OK: 43 () Warning: 0 🕒 Critical: 294 🛛 🔇 Unknown: 0 🔹 Last event: 🥥 29/08/2016 - 14:28:46 - VM-Luc-9 - Communication restored 127.0.0.1:4679/#

Figure 98. Node List VM Filter

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N ÷ ClusterRealBl... Overview · Table 🗆 Include Controller VMs 🗉 1–10 of 329 (filtered from 333) 🐁 🔇 🔉 🔹 🕏 🗸 🕤 search in table Q CONTROLLER READ CONTROLLER WRITE PROVISIONED STORAGE VM NAME CORES CPU USAGE CONTROLLER IO BANDWIDTH CONTROLLER AVG IO LATENCY BACKUP AN. HOST IP ADDRESSES MEMORY CAPACITY USED STORAGE IOPS VM--101 NTNX-Block-1-A 10.13 4 6 GiB 20 GiB 3.75 GiB 0.01% Yes VM--102 NTNX-Block-1-D 10.13 6 GiB 20 GiB 3.76 GiB 0.02% Yes 4 VM--103 NTNX-Block-1-C 10.13 4 6 GiB 20 GiB 3.76 GiB 0.02% Yes 3.76 GiB VM--104 NTNX-Block-1-B 6 GiB 0.02% Yes 10.13 20 GiB 4 VM--105 6 GiB 20 GiB 3.75 GiB 0.02% Yes NTNX-Block-1-D 10.13 4 VM--106 NTNX-Block-1-A 10.13 4 6 GiB 20 GiB 3.76 GiB 0.02% Yes VM--107 NTNX-Block-1-C 10.13 4 6 GiB 20 GiB 3.75 GiB 0.02% Yes VM--108 NTNX-Block-1-B 10.13 4 6 GiB 20 GiB 3.75 GiB 0.02% Yes VM--109 NTNX-Block-1-B 10.13 6 GiB 20 GiB 3.75 GiB 0.02% 4 Yes NTNX-Block-1-D 10.13 4 6 GiB 3.76 GiB 0.02% VM--110 20 GiB Yes Summary VM SUMMARY Performance Summary All VM Tasks Total VMs 333 vide CPU Usage 2.35% of 190.43 GHz VM State Powered On 0 40 Powered Off 293 Suspended 0 1348 Total Provisioned vCPU Total Reserved CPU 0 Hz le Memory Usage 28.13% of 0.98 TiB 1.99 TIB Total Provisioned Memory Total Reserved Memory 280 GIB Cluste 6 IOPS e Controller IOPS 0 IOPS de Controller I/O Ba 0 KBps

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Figure. Node List VM Filter Nutanix



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Configure Nutanix Actions

To configure a Nutanix action, you should become familiar with creating actions in IPM by reading the section Advanced events and actions.

Main features for Nutanix :

- **Cluster shutdown** : possibility to perform graceful shutdown.
- VM power action: The UVM nodes are now monitored and IPM provides the ability to apply the following actions: On, Off, Suspend, guest shutdown on each individual UVM.

Cluster shutdown

Action active:	V			
ACDON aCOVE:				
Action name*:	shutdown			
Events List*:	List of events w			
event Source:	Any source			
Action type*:	Cluster shutdow	n		~
Action Settings:		lane -	T I	
	Name	Value		
	The cluster ta		0	
	Critical VMs	crit vms	Ø	
	VM shutdown	30	Ø	
	VM migration	120	0	
	Sa	Cancel		



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VM Power Actions

Edit action		$\overline{\mathbf{X}}$
Action active:		
Action name*:	NutanixStartVM	
Events List*:	List of events which will trigger this action	
Event Source:	Any source	
Action type*:	VM power action (stop/start)	~
Action Settings:	Name Value	
	Power comma Power ON	Ø
	The VM target* VM01 (AHV01)	Ø
	Shutdown gue 0	Ø
	Save	



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Edit action		X
Action active:		
Action name*:	NutanixStopVM	
Events List*:	List of events which will trigger this action	
Event Source:	Any source	
Action type*:	VM power action (stop/start)	•
Action Settings:	Name Value	
	Power comma Power OFF 🥖	
	The VM target* VM01 (AHV01)	9
	Shutdown gue 0	8
	Save Cancel	

Figure. Configure Start and Stop Action