Enable Ceph Zabbix Plugin on Ambedded Mars400

(Applicable for UVS Manager 2.12.15)

Install Zabbix Sender on Mars400

1. Make sure your PC could connect to the UVS web page.

OniVirStore Manager	Dashboard CEPH	✓ Object Storage ✓	Storage -	OpenStack	Settings -	👤 admin 👻
Dashboard						
Click here for Ceph	I-Mgr Dashboa	ird				
Cluster ID: 5bc69621-17b0-4e2c-b83	3f-e47a3a4c17fa					
Ceph Cluster Status						^
✓ Cluster Status:HEALTH	ок					
	on					
Ceph Cluster Monitor Statu	s()					~
Monitor DEMO111-3C8B	D: HEALTH OK					
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l						

2. Untar "uvs-ceph-zabbix-v1.tar.gz" or unzip "uvs-ceph-zabbix-v1.zip" and you'll see rpms to zabbix & template to zabbix server.

```
🗿 Ubuntu 18.04 LTS
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LAPTOP-52G5R491:
                                                                                                   ~
  tar zxvf uvs-ceph-zabbix-v1.tar.gz
uvs-ceph-zabbix/
uvs-ceph-zabbix/zabbix30/
uvs-ceph-zabbix/zabbix30/zabbix30-3.0.22-2.el7.aarch64.rpm
uvs-ceph-zabbix/zabbix30/zabbix30-agent-3.0.22-2.el7.aarch64.rpm
uvs-ceph-zabbix/zabbix40-4.0.12-1.el7.aarch64.rpm
uvs-ceph-zabbix/zabbix40-agent-4.0.12-1.el7.aarch64.rpm
uvs-ceph-zabbix/zabbix L.xml
uvs-ceph-zabbix/zabbix_N.xml
LAPTOP-52G5R491:~
  cd uvs-ceph-zabbix/
LAPTOP-52G5R491:uvs-ceph-zabbix
total 1056
drwxr-xr-x 1 cooper cooper
                                     512 Oct 29 14:32 zabbix30
-rwxr-xr-x 1 cooper cooper 353900 Oct 29 14:25 zabbix40-4.0.12-1.el7.aarch64.rpm
-rwxr-xr-x 1 cooper cooper 202172 Oct 29 14:25 zabbix40-agent-4.0.12-1.el7.aarcl
 54.rpm
-rw-r--r-- 1 cooper cooper 68982 Mar 3 10:16 zabbix_L.xml
-rw-r--r-- 1 cooper cooper 105924 Oct 29 17:10 zabbix_N.xml
LAPTOP-52G5R491:uvs-ceph-zabbix
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    🗾 Desktop
                         👃 zabbix30
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    Skecent places
                         🖹 zabbix_N
                                                                                                4 KB
                                                           XML Document
                         zabbix40-4.0.12-1.el7.aarch64.rpm
                                                           RPM File
                                                                                               343 KB
   🛤 This PC
                         zabbix40-agent-4.0.12-1.el7.aarch64.rp... RPM File
                                                                                               195 KB
   Network
                      <
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                                                                                                  >
                                                                                                 5 items
```

 Go to UVS web > Settings menu > Firmware Update page. Push zabbix40 rpms. (zabbix40-4.0.12-1.el7.aarch64.rpm & zabbix40-agent-4.0.12-1.el7.aarch64.rpm)

					About		
⑦ Upload Firmware	❶ Push Update	• Push RPM	to all Nodes		NTP Audit Logs Notifications Users		0
					Firmware Update	earch	U
Node Name	* IP Ac	Idress	¢	/ersion	0700		
demo111-368bd	192.1	68.1.111		CEPH: 12.2.11 CEPH: 12.2.11 CERNEL: 4.19.52-	0722 MARS400+		
demo112-89da7	192.1	68.1.112		JVS: 2.12-15.2019 CEPH: 12.2.11 KERNEL: 4.19.52-	0722 MARS400+		
demo113-8e123	192.1	68.1.113		JVS: 2.12-15.2019 CEPH: 12.2.11 KERNEL: 4.19.52-	0722 MARS400+		
demo114-2ceee	192.1	68.1.114		JVS: 2.12-15.2019 CEPH: 12.2.11	0722 MARS400+		
demo115-89da7	192.1	68.1.115		JVS: 2.12-15.2019 CEPH: 12.2.11	0722		
2 UniVirStore Manager	Dashboard C	EPH 👻 Obiect Storad	ie 👻 Storage	- OpenStack	Settinas 👻		👤 admin 🚽
	Push RP	M to all Nodes			×		
Upload Firmware	Pu: Browse	M File*:	7.aarch64.rpm				
	Upload 8	Push			S	earch	☑
Node Name	A IP Ad	dress	t Ve	ersion			
demo111-3c8bd	192.1	58.1.111	U CI	/S: 2.12-15.20190 EPH: 12.2.11 ERNEL: 4.19.52-M	722 ARS400+		
demo112-89da7	192.1	58.1.112	U CI	/S: 2.12-15.20190 EPH: 12.2.11 ERNEL: 4.19.52-M	722 ARS400+		
demo113-8e123	192.1	58.1.113	U C	/S: 2.12-15.20190 EPH: 12.2.11 ERNEL: 4.19.52-M	722 ARS400+		
demo114-2ceee	192.1	58.1.114		/S: 2.12-15.20190 EPH: 12.2.11 ERNEL: 4.19.52-M	722 ARS400+		
demo115-89da7	192.1	58.1.115	U	/S: 2.12-15.20190 EPH: 12.2.11	722		
2 UniVirStore Manager	Dashboard C	EPH 👻 Object Storag	ge 🗸 Storage -	 OpenStack 	Settings 🗸		👤 admin 🕤
<pre>rpm file uploaded successfu =>> [Copying zabbix40-4.0.1: =>> [Installing zabbix40-4.4 =>> [Final Cleanup] ******** Exit status : 0</pre>	ly -1.el7.aarch64.rp 0.12-1.el7.aarch64	m to other Nodes] **** .rpm on all Nodes] ***	************ *************				
	Push Update	Push RPM	to all Nodes				
Node NamelP AddressVersion							

4. After pushed two zabbix40 rpms, ssh login to Mars400 Ceph monitor node and check "**zabbix_sender**" command.

\$ ssh root@\${Mars400_Ceph_Monitor_Node_IP}

uname -a

which zabbix_sender



Enable & Configure Ceph Zabbix Plugin

1. Let's ssh login to Mars400 Ceph monitor node and **enable** Ceph Zabbix.

\$ ssh root@\${Mars400_Ceph_Monitor_Node_IP}

ceph mgr module enable zabbix

ceph mgr module Is

ceph zabbix self-test

🗿 Ubuntu 18.04 LTS

```
LAPTOP-52G5R491:
Warning: Permanently added '192.168.1.111' (ECDSA) to the list of known hosts.
root@192.168.1.111's password:
Last login: Tue Oct 29 07:16:16 2019 from 192.168.1.2
[root@demo111-3c8bd ~]# ceph mgr module enable zabbix
[root@demo111-3c8bd ~]# ceph mgr module ls
    "enabled modules": [
         "balancer",
         "dashboard",
         "restful",
         "status",
    ],
"disabled_modules": [
         "influx",
         "localpool",
         "prometheus",
         "selftest"
    ]
[root@demo111-3c8bd ~]# ceph zabbix self-test
Self-test succeeded
```

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2. Configure Zabbix Server Name & Zabbix Client Identifier.

ceph zabbix config-set zabbix_port 10051

- # ceph zabbix config-set zabbix_host 192.168.1.241
- # ceph zabbix config-set identifier demo111-3c8bd
- # ceph zabbix config-set zabbix_sender /usr/bin/zabbix_sender
- # ceph zabbix config-set interval 60

ceph zabbix config-show

Import Ceph Templates and Add Ceph Host to Zabbix Server

1. Go to your Zabbix Server web > Configuration menu > Templates page > Import button

ZABBIX Monitoring Inventory	Reports Configuration	Administration				Q 9 Support	Share ?	• U ^
Host groups Templates Hosts Maintenance	e Actions Event correlation	Discovery Services						zabbix
Templates				Gro	up all		Create template	Import
								Filter V
Name Linked templates Type here	e lo search	Ta Select	ags And/Or Or tag Add	Contains	Equals value	F	emove	
		Apply	Reset					
Name 🔺		Applications	Items Triggers	Graphs Screens	Discovery Web	Linked templates Lin	nked to	Tags
Template App Apache by HTTP		Applications 2	Items 22 Triggers 5	Graphs 3 Screens 1	Discovery 1 Web			
Template App Apache by Zabbix agent		Applications 2	Items 26 Triggers 6	Graphs 4 Screens 1	Discovery 1 Web			
Template App Apache Tomcat JMX		Applications 5	Items 32 Triggers 5	Graphs 4 Screens	Discovery Web			
Template App FTP Service		Applications 1	Items 1 Triggers 1	Graphs Screens	Discovery Web			
Template App Generic Java JMX		Applications 8	Items 55 Triggers 26	Graphs 11 Screens	Discovery Web			
Template App HTTP Service		Applications 1	Items 1 Triggers 1	Graphs Screens	Discovery Web			
Template App HTTPS Service		Applications 1	Items 1 Triggers 1	Graphs Screens	Discovery Web			
Template App IMAP Service		Applications 1	Items 1 Triggers 1	Graphs Screens	Discovery Web			
Template App LDAP Service		Applications 1	Items 1 Triggers 1	Graphs Screens	Discovery Web			~

2. Import "zabbix_L.xml" which can find in the "ceph-zabbix.tar.gz".

ZABBIX Monitoring Inventory Re	ports Confi	guration A	Administration					C	Support	Z Share	?	•	Ŀ
Host groups Templates Hosts Maintenance	Actions Ever	nt correlation	Discovery Se	ervices								zab	DD
Import													
* Import file Browse zat	bix_template.xn	1											
Rules	Update existing	g Create new	Delete missing										
Groups		~											
Hosts													
Templates	~	~											
Template screens	~	~											
Template linkage		~											
Applications		~											
Items	~	~											
Discovery rules	~	~											
Triggers	~	~											
Graphs	~	~											
Web scenarios	~	~											
Screens													
Maps													
Images													
Media types													
Value mappings		~											
Import	incel												
			Zabbiy	441 @ 200	n1_2010 7:	abbiy SIA							

 Go to your Zabbix Server web > Configuration menu > Hosts page > Create host button. Create a new hosts that related to your Mars400 Ceph monitor name and IP.

ZABBIX	Monitoring	Inventory F	Reports	onfiguration	Administ	ration						Q	O Support	Z Share	?	•	Ŀ
Host groups Temp	plates Host	s Maintenance	Actions	Event correlation	n Discov	ery Serv	rices									zab	bix
Hosts												Group all	~	Create	host	Impor	t
															FI	lter \	7
	Name	-				м	lonitored by	Any Ser	ver Proxy								
	Templates	type here to sear	:h		Select		Proxy										
	DNS						Tags	And/Or	Or								
	IP							tag Add		Contains	Equals	value		Remove			
	Port																
							Apply	Reset									
Name 🛦	Applications	Items Tri	gers Gra	ohs Discove	ery Web	Interface	Proxy Te	mplates			Status	Availabilit	y	Agent encr	yption In	fo Tag	gs
Zabbix server	Applications	16 Items 116 Tri	jgers 57 Graj	ons 22 Discove	ery 3 Web	127.0.0.1: 10050	Te by C fil Li Li	emplate App Za zabbix agent i evices by Zabbi PU by Zabbix a esystems by Za nux generic by nux memory by	DDix Server, To (Template Moo x agent, Temp gent, Template Ibbix agent, Te Zabbix agent, Zabbix agent,	emplate OS Lin lule Linux block late Module Linux Module Linux mplate Module Template Modul Template Module	ux Enable ux le ule	a ZBX SNM	ne JMX (PM)	NONE			
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ZABBIX Host groups Temp Hosts All hosts / demo11 Host Templates	Monitoring plates Host 11-3c8bd Eir IPMI Ta *Host nan Visible nan	Inventory F s Maintenance habled [ZBX] SMR ags Macros I ne [demo111-368 ne [Reports Cr Actions IP JAX IPAI INVentory Er	Application	Administr n Discove	ration ery Serv Triggers	Li Te Ilces Graphs	nux network inti mplate Module	erraces by Zat	rios		Q	Q Support	Displa	?	2 cb	d bix
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4. Add ceph-mgr Zabbix module for the same Hosts page.

ZABBIX Monitoring	nventory Reports Configuration Administration			Q	O Support	Z Share	?	. U
Host groups Templates Hosts	Maintenance Actions Event correlation Discovery Services							zabbix
Hosts								
All hosts / demo111-3c8bd Enabl	ed ZBX SNMP JMX IPMI Applications Items Triggers Gra	phs Discovery rules Web s	scenarios					
Host Templates IPMI Tags	Macros Inventory Encryption							
Linked templates	Name ceph-mgr Zabbix module Add	Action Unlink						
	Update Cione Full clone Delete Cancel							
	Zabbix 4.4.	1. © 2001–2019, Zabbix SIA						

5. The new Zabbix host for Mars400 Ceph is rea	ady.
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ZA	ABBIX	Monitoring	Inventory	Reports	Configura	tion Adr	ministra	lion				Q	9 Support	Z Share	?	•	<u>ں</u>
Host	groups Temp	lates Host	s Maintenand	e Actions	Event cor	relation [Discovery	e Services								za	bbix
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																Filter	T
		Name						Monitored by	Any Server Proxy								
		Templates	type here to se	arch			Select	Proxy									
		DNS						Tags	And/Or Or								
		IP							tag	Contains E	quals va	lue		Remove			
		Port							Add								
								Apply	Reset								
	Name 🔺	Application	ns Items	Triggers	Graphs	Discovery	Web	Interface Pr	oxy Templates		Status	Availability		Agent encry	ption	Info Ta	ags
	demo111-3c8b	d Application	ns 1 Items 29	Triggers 4	Graphs 7	Discovery	Web	<mark>192.168.1.111:</mark> 10050	ceph-mgr Zabbix module		Enabled	ZBX SNMP J	IMX IPMI	NONE			
	Zabbix server	Application	ns 16 Items 116	Triggers 57	Graphs 22	Discovery	3 Web	127.0.0.1: 10050	Template App Zabbix Ser Linux by Zabbix agent (To Linux block devices by Za Template Module Linux C agent, Template Module 1	rver, Template OS emplate Module abbix agent, CPU by Zabbix Linux filesystems	S Enabled	ZBX SNMP	IMX IPMI	NONE			Ŷ

Send Ceph Status to Zabbix Server

Go back to Mars400 Ceph monitor node and try to send Zabbix Data manually. \$ ssh root@\${Mars400_Ceph_Monitor_Node_IP} # ceph zabbix send



Check Ceph Zabbix Data

Go to your Zabbix Server web > Monitoring menu > Graphs page. The Ceph Zabbix Data is available now.

ZABBIX Monitoring Inventory Reports Configuration Administration	Q G Support 🗹 Share ? 🔔 🖖
Dashboard Problems Overview Web Latest data Graphs Screens Maps Discovery Services	zabbi
Graphs Group all v Host all	✓ Graph Ceph storage overview ✓ View as Graph ✓ 😭 🖍
	< Zoom out > Last 1 hour ()
From now-1h To now Apply	Last 2 daysYesterdayTodayLast 5 minutesLast 7 daysDay before yesterdayToday so farLast 15 minutesLast 30 daysThis day last weekThis weekLast 30 minutesLast 3 monthsPrevious weekThis week so farLast 1 hourLast 6 monthsPrevious monthThis monthLast 3 hoursLast 1 yearPrevious yearThis month so farLast 6 hoursLast 2 yearsLast 2 yearsThis year so farLast 1 day
demo111-3c8bd: Ceph storage o	verview Value: 5.16 GB (0.03%) Value: 18.19 TB (99.97%)