

# Multi-Subnet UFM

### **Table of contents**

Overview	 	 
Setting Up Multi-Subnet UFM	 	 
Functionality		

# **List of Figures**

Figure 0. MULTI SUBNET1 Version 1 Modificationdate 1716900116020 Api V2
Figure 1. Mullti Subnet1a Version 1 Modificationdate 1716900095533 Api V2
Figure 2. Multi Subnet2 Version 1 Modificationdate 1716900115317 Api V2
Figure 3. Multi Subnet2a Version 1 Modificationdate 1716900114660 Api V2
Figure 4. Multi Subnet2b Version 1 Modificationdate 1716900113760 Api V2
Figure 5. Multi Subnet2c Version 1 Modificationdate 1716900112907 Api V2
Figure 6. Multi Subnet3 Version 1 Modificationdate 1716900111977 Api V2
Figure 7. Multi Subnet3a Version 1 Modificationdate 1716900111380 Api V2
Figure 8. Multi Subnet3b Version 1 Modificationdate 1716900109807 Api V2
Figure 9. Multi Subnet3c Version 1 Modificationdate 1716900109313 Api V2
Figure 10. Multi Subnet4 Version 1 Modificationdate 1716900108617 Api V2

Figure 11. Multi Subnet4a Version 1 Modificationdate 1716900108210 Api V2
Figure 12. Multi Subnet5a Version 1 Modificationdate 1716900107333 Api V2
Figure 13. Multi Subnet5 Version 1 Modificationdate 1716900107833 Api V2
Figure 14. Multi Subnet5b Version 1 Modificationdate 1716900106917 Api V2
Figure 15. Multi Subnet6 Version 1 Modificationdate 1716900106073 Api V2
Figure 16. Multi Subnet7a Version 1 Modificationdate 1716900104650 Api V2
Figure 17. Multi Subnet7 Version 1 Modificationdate 1716900105557 Api V2
Figure 18. Ulti Subnet8a Version 1 Modificationdate 1716900099933 Api V2
Figure 19. Ulti Subnet8b Version 1 Modificationdate 1716900098813 Api V2
Figure 20. Multi Subnet9 Version 1 Modificationdate 1716900104137 Api V2
Figure 21. Multi Subnet10 Version 1 Modificationdate 1716900102983 Api V2
Figure 22. Ulti Subnet11a Version 1 Modificationdate 1716900098237 Api V2

Figure 23. Ulti Subnet11b Version 1 Modificationdate 1716900097267 Api V2
Figure 24. Ulti Subnet12 Version 1 Modificationdate 1716900096447 Api V2
Figure 25. Ulti Subnet13a Version 1 Modificationdate 1716900095943 Api V2
Figure 26. Mullti Subnet13b Version 1 Modificationdate 1716900116447 Api V2
Figure 27. Multi Subnet14b Version 1 Modificationdate 1716900101633 Api V2
Figure 28. Multi Subnet14a Version 1 Modificationdate 1716900102143 Api V2
Figure 29. Multi Subnet15b Version 1 Modificationdate 1716900100457 Api V2
Figure 30. Multi Subnet15a Version 1 Modificationdate 1716900101110 Api V2

### Overview

The Multi-Subnet UFM feature allows for the management of large fabrics, consisting of multiple sites, within a single product, namely Multi-Subnet UFM.

This feature is comprised of two layers: UFM Multi-Subnet Provider and UFM Multi-Subnet Consumer.

The UFM Provider functions as a Multi-Subnet Provider, exposing all local InfiniBand fabric information to the UFM consumer. On the other hand, the UFM Consumer acts as a Multi-Subnet Consumer, collecting and aggregating data from currently configured UFM Providers, enabling users to manage multiple sites in one place. While UFM Consumer offers similar functionality to regular UFM, there are several behavioral differences related to aggregation.

## **Setting Up Multi-Subnet UFM**

In /opt/ufm/files/conf/gv.cfg, fill in the section named [Multisubnet] for UFM Multi-Subnet Provider and Consumer.

#### To set up UFM as a MultI-Subnet Provider, perform the following:

- Set multisubnet\_enabled to true
- Set multisubnet\_role to provider
- Set multisubnet\_site\_name (optional, if not set, it will be randomly generated); e.g., *provider\_1*
- Start UFM

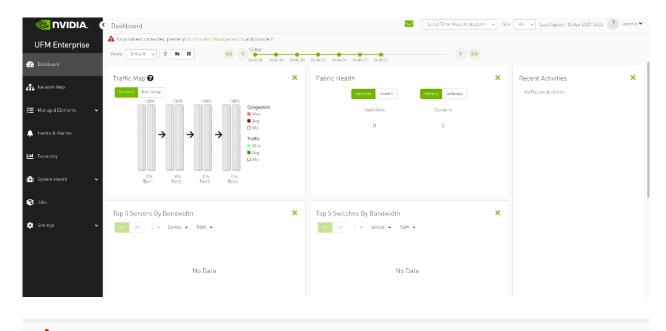
#### To set up UFM as a Multi-Subnet Consumer, perform the following:

- Set multisubnet\_enabled to True
- Set multisubnet\_role to consumer
- Start UFM

It is important to note that UFM Multi-Subnet Consumer can be configured on a machine or VM without an established InfiniBand connectivity. Additionally, users may customize UFM Provider and Consumer using optional configuration parameters found in the [Multisubnet] section of /opt/ufm/files/conf/gv.cfg.

# Functionality

1. Following the initial launch of the Consumer, the Dashboard view is devoid of data, and a message containing a hyperlink leading to the Provider Management section is displayed.



🚹 No providers connected, please go to Providers Management to add providers

2. As shown in the below snapshot, a new section for Provider Management has been added, enabling users to configure UFM Providers.

	Consumer Settings	Local Time (As a/Jerusalem) 🔍 Site 🛛 All 🗸	Last Update: 12 Apr 2023 16:11 🔹 admin 🗸
UFM Enterprise	A No providers connected, please go to Providers Management to add providers		
😰 Cashboard	User Management Access Tokens Plug in Management Providers Management	gement	
👬 Network Map			
🚝 - Managed Elements 🗸	+ Add Provider Displayed Columns +		
🔔 Events & Alarms	Site Name Connected		
🔟 Telemetry	No items were found		
<ul> <li>System Health </li> <li>Jobs</li> </ul>	Stavery B-0 of 0 H ← → H 2E →		
🔅 Settings 🔺			
Consumer Settings			
Providens Settings			

1. To add a provider, the user is required to enter its IP address and credentials. Unless there are multiple instances of UFM providers on a single machine, the advanced section parameters should be set with default values. However, if there are multiple instances, the advanced parameters may be set per Provider and then be configured in the Providers Management view.

Add Provider		×
General		
Address	10 . 209 . 36 . 74	
Credential		
User Name	admin	
Password	•••••	
Advanced		
Topology Port	7102	
Proxy Port	443	
Telemetry Port	9001	
		Save

2. By editing the Provider view, you can change Provider's credentials.

User Management Access Tokens Plugin Management	Providers Management	
	provider_1000 - Information	n
+ Add Provider	General	
Site Name Connected	Address	10 - 209 - 36 - 74
(Filter) <b>Y</b>   (Filter) <b>Y</b>	Credential	
provider 1000 🥥	User Name	admin
	Password	
	Advanced	
Viewing 1-1 of 1   ℓ		
	Topology Port	7102
	Proxy Port	443
	Telemetry Port	9001
		Save

3. The "Delete Provider" function removes the selected Provider from the Consumer. Please note that this action may take some time to complete, and changes may only be reflected in the view after approximately 30 seconds.

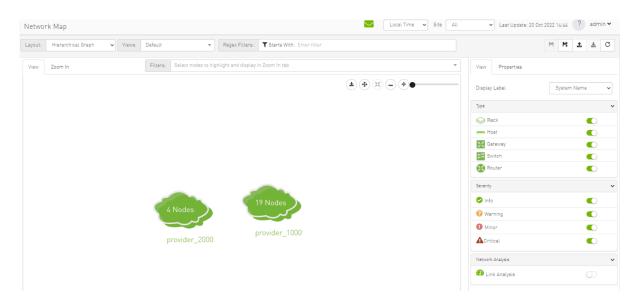
+ Add Provider	Displayed Columns 🗸
Site Name	Connected
Filter 🗸 🗸	Filter 🏼 🗸
provider_1000 Viewing 1-1	Copy Cell Delete
viewing 1-1	

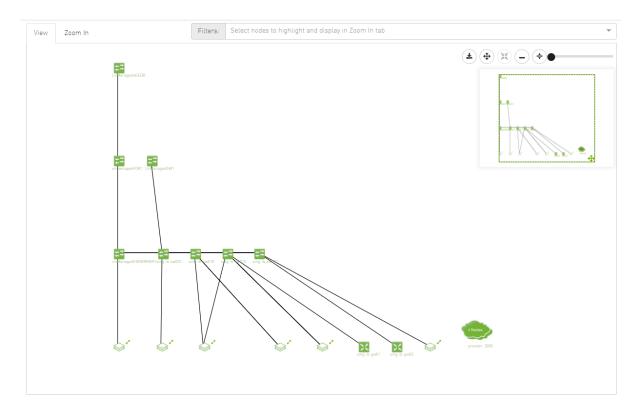
3. A general filter has been added to the top right corner of the page, enabling users to filter displayed data by site.

🛛 🕺 NVIDIA. 🔍	Dashboard		Local Time V Site All	→ Last Update: 20 Oct 2022 13:58 ? admin ★
UFM Enterprise	Views: Default Views:	19 01:58:50 02:02:07 02:02:19	prov	/ider_1000 /ider_2000
Dashboard	Traffic Map 😧	× Fabric Health	×	Recent Activities 🗙
A Network Map	Network Pert Group 100% 100% 100% 100% Congestion	Switches Routers	Servers Gateways	
¥⊟ Managed Elements 🗸 🗸	Congression ■ Max ■ Arg □ Min Traffic	Switches	Servers	Fabric Analysis Report failed, Return code: 1
🔔 Events & Alarms	Max Avg			
Ltd Telemetry	0% 0% 0% 0% Tier1 Tier2 Tier3 Tier4	Critical: 0		
📳 System Health	iter) iter2 iter3 iter4	Normal: 10 War	ing: 0 🔲 Normal: 11 💭 Warning: 0	
S Jobs	Top 5 Servers By Bandwidth	× Top 5 Switches By Bandw		
💿 Settings	Bar List 5 + Devices + TxBW +	Bar List 5 + Devices -	- TxBW -	
	smg-ib-svr034	61.05 smg-ib-sw015	244.15	
	smg-lb-svr011	30.5 smg-ib-sw017	183.1	
	smg-tb-svr020	30.5 smg-ib-sw018	106.8	
	smg-ib-apl005-gen2	15.25 smg-ib-sw024	76.3	
	smg-ib-svr014	15.25 UnManagedFDRRRRR1	61.05	
Site All	✓			
All				
pro	vider_1000			
	vider_2000			
pio	10c1_2000			

evices					All	vr. 2000	
					provide		
					All Types 🗸 🛛 All Gro	oups 🗸 🛃	Displayed Columns 🗸 CSV
Severity	Name	GUID	Туре	Model	IP	Firmware Version	Site Name
V	Filter 🎔	Filter 🗸		Filter	) 🗸 [Filter	Filter	Filter 5
🕑 Warn	r-ufm83	0xec0d9a0300bf52f4	host		0.0.0.0	16.33.1048	provider_2000
🕗 Info	sharp2	0x7cfe900300a5a2a0	switch	@MSB7800	0.0.0.0		provider_1000
🕗 Info	switchib	0xec0d9a030029dba0	switch	🚳 FDR	0.0.0.0		provider_1000
🕗 Info	utm-host87	0xec0d9a03007d7f0a	host		0.0.0.0		provider_1000
🕗 Info	r-utm254-hyp-04	0x043f720300dd1d3c	host		0.0.0.0		provider_1000
🕗 Info	r-utm254-hyp-03	0x0c42a103007aca90	host		0.0.0.0		provider 1000
🕜 Warn	desc1	0x043t720300206650	switch	🚳 EDR	0.0.0.0	15.2007.354	provider 2000
			host		0.0.0.0	16.31.1046	provider 2000
	node001	0xec0d9a0300c04bf4					
🕗 Info	node001 swx-tor01	UxecUdVaU30UcUxbr4 0xecOdVa0300469tfc	host		0.0.0	Viewing 1-	provider 2000
Info				Local Time (Asia/Jerusale			-9 of 9 M 4 > M 2/
≥ Into ≥ Into evices				Local Time (Asia/Jerusale	em] v Site provide	r_2000 V Last Update: 12	-9 of 9 M 4 > M 20 Apr 2023 16:35 ? admi
> Into > Into vices	swx-tor01	UxecDd9a0300469ttc	host		em) V Site provide	r_2000 V Last Update: 12	-9 of 9 N    > N 20 Apr 2023 16:35 ? admi Displayed Columns   CSV
> Info > Info Vices	swx-tor01	UxecDd9a0300469ttc		Model	em) V Site provide All Types V All Gro IP	r_2000 V Last Update: 12 oups V 2	-9 of 9 H    > H 20 Apr 2023 16:35 ? admi Displayed Columns - CSV Site Name
Into Into Into wices	swx-tor01	UxecDd9a0300469ttc	host		em) V Site provide All Types V All Gro IP V (Filter	r_2000 V Last Update: 12 Dups V 2 Firmware Version V (Fitter.c.	-9 of 9 M    > M  20 Apr 2023 16:35 ? admi Displayed Columns   CSV
> Into > Into > Into vices everity > ₩arn	swx-tor01	Uxec0d9a0300469ttc	host	Model	em) V Site provide	r_2000 V Last Update: 12 Dups V 2 Firmware Version V (Pitters 16.33.1048	-9 of 9 M    → M 20 Apr 2023 16:35 ? admi Displayed Columns   CSV
<ul> <li>Into</li> <li>Into</li> <li>Into</li> <li>Into</li> <li>Into</li> <li>Into</li> <li>Warn</li> <li>Warn</li> </ul>	swx-tor01	UxecDd9a0300469ttc	host	Model	em) V Site provide All Types V All Gro IP V (Filter	r_2000 V Last Update: 12 Dups V 2 Firmware Version V (Fitter.c.	-9 of 9 N    N 20 Apr 2023 16:35 ? admi Displayed Columns    CSV
> Into > Into > Into vices everity > ₩arn	swx-tor01	0xec0d9a0300469ttc	host Type host switch	Model	em) V Site provide All Types V All Gro IP V I Filter. 0.0.0.0 0.0.0	r_2000 V Last Update: 12	-9 of 9 M    > M  20 Apr 2023 16:35 ? admi Displayed Columns  CSV

4. Network map contains "clouds" for each provider.





5. A "Site Name" column is present in all Managed Elements sections. The column is disabled (hidden) by default.

Displayed Columns 🗸 CS
Restore Default
Severity
🖌 Name
SUID
🗸 Туре
Model
V IP
Firmware Version
Site Name

				All Types 🗸	All Groups ~	C Displayed Columns - C
Severity	Name	GUID	Туре	Model	Filter	Restore Default
≥ Info	r-ufm83	0xec0d9a0300bf52f4	host	V Finer	0.0.0.0	🛛 🔽 Severity
2 Info	sharp2	0x7cfe900300a5a2a0			0.0.0.0	✓ Name
linto	switchib	0xec0d9a030029dba0		MSB/000	0.0.0.0	GUID
> Info	ufm-host87	0xec0d9a03007d7f0a		2011	0.0.0.0	V Type
Info	r ufm254 hyp 04	0x043f720300dd1d3c			0.0.0.0	
Into	r-utm254-hyp-03	0x0c42a103007aca90			0.0.0.0	Model
Info	desc1	0x043f720300206650	switch	📀 FDR	0.0.0.0	IP
🕗 Info	node001	0xec0d9a0300c04bf4	host		0.0.0.0	Firmware Version
🕗 Into	swx-tor01	0xec0d9a0300469ffc	host		0.0.0	Site Name
vices			Local Time	e [Asia/Jerusalem] 💙 Site 🗌		ewing 1-9 of 9 M ( ) M
vices			Local Time	e [Asia/Jerusalem] v Site (		
ices			Local Time	e [Asia/Jerusalem] v Site ( All Types v	All  V Last Upda	
erity	Name	GUID	Туре	All Types ∽ Model	All   Last Upda  All  All  Site Nam	te: 12 Apr 2023 16:56 ? ad Displayed Columns • C Restore Default
erity ▽	(Filter) V	Filter	Type	All Types ↓ Model   Ier ♥   (Filler	All  Last Upda All  All  All  Site Nam P Site Nam P Celler.	te: 12 Apr 2023 16:56 ? ad Displayed Columns • C Restore Default ✓ Severity
erity ⊽ Info	(Filter ♥ r-ufm83	Filter     V       0xec0d9a0300bf52f4	Type	All Types ~ Model	All  Last Upda All  All Groups IP Site Nam Filter. provider_2000	te: 12 Apr 2023 16:56       ?       ad         Ø       Displayed Columns •       C         re       Restore Default       ✓         V       Severity       ✓         Name       Vame       Vame
erity ⊽ Info	(Filter) V r-ufm83 sharp2	Filter     V       0xec0d9a0300bf52f4     0x7cfe900300a5a2a0	Type Fit host switch 2	All Types マ           Model           ter           0.0 0.0           MSB7800         0.0.0.0	All  Last Upda All  All  All Groups IP Site Nam Provider_2000 provider_1000	te: 12 Apr 2023 16:56       ?       ad         C       Displayed Columns •       C         Restore Default        Severity         V       Name          Image: Column set of C
erity Info Info Info	(Filter ▼ r-ufm83 sharp2 switchib	Filter         V           0xec0d9a0300bf52f4         0x7cfe900300a5a2a0           0xec0d9a030029dba0         0xec0d9a030029dba0	Type Type Total Type T	All Types ~           Model           ter:         V           0.0.00           MSB7800         0.0.00           EDR         0.0.00	All Last Upda All Stroups IP Site Narr Provider_2000 provider_1000 provider_1000	te: 12 Apr 2023 16:56 ? ad Displayed Columns • C Restore Default Severity Name GUID
erity   V   Info Info Info	Filter r-ufm83 sharp2 switchib ufm-host87	Filter         ▼           0xec0d?a0300bl52t4         ▼           0x7cte900300a5a2a0         0xec0d?a030029dba0           0xec0d?a030029dba0         0xec0d9a03007d7f0a	Type Type Type Total T	All Types ∨           Model           term         ▼         Filter           0.0.0.0         0.0.0.0           MSB7800         0.0.0.0           EDR         0.0.0.0           0.0.0.0         0.0.0.0	All Last Upda All Stroups IP Site Nam Provider_1000 Provid	te: 12 Apr 2023 16:56 ? ad Displayed Columns • C Restore Default Severity Name GUID GUID Type
erity   V   Info Info Info Info Info	Filter	Filter.         ▼           0xec0d?a0300b/52f4         ▼           0x7cfe900300a5a2a0         0xec0d?a030029dba0           0xec0d?a030029dba0         0xec0d?a03007d7f0a           0x043/720300dd1d3c         0x043/720300dd1d3c	Type Type Type Type Total Type Type Total Type Type Total Type Type Total Type Type Total Type Tota	All Types ∨           Model           ter         ▼           0.0.0.0           MSB7800         0.0.0.0           EDR         0.0.0.0           0.0.0.0         0.0.0.0	All Last Upda All Stroups IP Site Nam Provider_1000 Provid	te: 12 Apr 2023 16:56 ? ad
erity Info Info Info Info Info Info	Filter	Filter.         ▼           0xec0d?a0300b/52f4         ▼           0x7cte900300a5a2a0         ■           0xec0d?a030029dba0         ■           0xec0d?a03007d7f0a         ■           0x043/720300d41d3c         ■           0x0c42a103007aca90         ■	Type Type Type Teal host switch Switch Switch Nost host host host	All Types ∨           Model           ter.         マ         Filter.           0.0.0.0         0.0.0.0           MSB7800         0.0.0.0           EDR         0.0.0.0           0.0.0.0         0.0.0.0           0.0.0.0         0.0.0.0	All Last Upda All Statupa All Statupa IP Site Nam Provider_1000 provider	te: 12 Apr 2023 16:56 ? ad
erity Info	Filter	Filter.         ▼           0xec0d?a0300b/52f4         ▼           0x7cfe900300a5a2a0         ■           0xec0d?a030029dba0         ■           0xec0d?a03007d7f0a         ■           0x043/720300dd1d3c         ■           0x0c42a103007aca90         ■           0x043/72030026650         ■	Type Type Type Teal host switch switch host host host host switch	All Types ∨           Model           ter           0.0.0.0           MSB7800         0.0.0.0           EDR         0.0.0.0           EDR         0.0.0.0           EDR         0.0.0.0	All Last Upda All Last Upda All Groups IP Site Nam Provider_1000 provider_1000 provider_1000 provider_1000 provider_1000 provider_1000 provider_1000 provider_1000 provider_2000	te: 12 Apr 2023 16:56 ? ad
Aerity IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Filter	Filter.         ▼           0xec0d?a0300b/52f4         ▼           0x7cte900300a5a2a0         ■           0xec0d?a030029dba0         ■           0xec0d?a03007d7f0a         ■           0x043/720300d41d3c         ■           0x0c42a103007aca90         ■	Type Type Type Teal host switch Switch Switch Nost host host host	All Types ∨           Model           ter.         マ         Filter.           0.0.0.0         0.0.0.0           MSB7800         0.0.0.0           EDR         0.0.0.0           0.0.0.0         0.0.0.0           0.0.0.0         0.0.0.0	All Last Upda All Statupa All Statupa IP Site Nam Provider_1000 provider	te: 12 Apr 2023 16:56 ? ad

6. The "Group" and "Telemetry" sections include "Site" filters.

General te All provider_2000 provider_1000 wailable Devices Type				2 Members Selected Devices
All provider_2000 provider_1000 waitable Devices				Selected Devices
Туре				
	Name 🕆	Site Name	>>	Type Name Site Name
▼   (	Filter V	Filter V	>	Y     Filter     Y     Filter     Y
	desc1	provider_2000	<	
	node001	provider_2000		
	r-ufm83	provider_2000	<<	
	r-ufm254-hyp-03	provider_1000		
	r-ufm254-hyp-04	provider_1000		No items were found
	sharp2	provider_1000		
	switchib	provider_1000		
host s	swx-tor01	provider_2000		

7. The filter in "Groups" impacts the Members table only.

lew Telemetry Session		View by	Name 🗸
Telemetry Session Timeseries Top X			
Members           Devices         Ports			
Counters			
Select Counters	V All counters		
Sites			
provider_1000	·		
Devices			
Select Devices	All devices		
			Finish

			<	Servers - Members			
		All V Disp	layed Columns 🗸 🛛 CSV 🗸			Displayed	Columns
Severity	Name 🕆	Description	Туре	Name 🕆	GUID	IP	
	Filter 🗸	Filter 7   Filter	·	Filter		▼ Filter	
🕗 Info	1U Switches	Includes all 1U Switches that exi	General	MT25408 ConnectX Mellanox Technolo	0xf452140300154060	0.0.0.0	
🕗 Info	Alarmed Devices	Devices with alarms	General	smg-ib-apl005-gen2	0x0c42a1030074f8e6	0.0.0.0	
🕗 Info	Devices Pending FW Transceiver	Includes all Devices that pendin	General	smg-ib-svr010	0xe41d2d030061f032	0.0.0.0	
🕗 Info	Gateway Devices	Includes all Gateway Devices tha	General	smg-ib-svr011	0xe41d2d03005cefc8	0.0.0.0	
🕗 Info	Modular Switches	Includes all Modular Switches th	General	smg-ib-svr014	0x7cfe90030063f2da	0.0.0.0	
🕗 Info	Routers	Includes all Router Devices that	General	smg-ib-svr019	0xe41d2d0300af5ec0	0.0.0.0	
🖌 Info	Servers	Includes all Hosts that exist in t	General	smg-ib-svr020	0x7cfe900300d5ba1c	0.0.0.0	
🕗 Info	Servers With DPU	Includes all Devices that has DP	General	smg-ib-svr034	0xec0d9a0300469e2c	0.0.0.0	
🕗 Info	Suppressed Devices	No event notifications issued	General	smg-ib-vrt005-068	0x0002c903001c5770	0.0.0.0	
🕗 Info	Switches	Includes all Switches that exist i	General				

- 8. In the System Health tab, subsections for Consumer and Provider are available.
  - 1. Consumer System Health tab contains sections applicable to Consumer UFM specifically (e.g., logs from Consumer UFM).

	Consumer System Health Site Cocal Time (Asia/Jerusalem) Site All Last Update: 12 Apr 2023 17:29 ? admin 🕶
UFM Enterprise	UFM Logs UFM System Dump Daily Reports
🕧 Dashboard	Event Logs v Time Last 24 hours v 10000 v Search Occurrences Show Hide
🚠 Network Map	Log View 2
Y Managed Elements ✓	2023-04-11 IB:11:44 [1] [1] S2] INFO (Logical_Model] Ord [Cind]: Network management is added     2023-04-11 IB:12:44 [4] [S25] [NFO (Logical_Model] Ord [Cind]: Fabric Analysis Report succeded     3 2023-04-11 IB:12:44 [4] [S25] CRITICAL [Maintenance] Ord [Ord]: Disk space usage in /op/Urfm/files/log is above the threshold of 90.0%.     4 2023-04-11 IB:16:44 [1] (DI) (MINOR [Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700001F30]; Found a [25:0] (ink that operates in [14:0] speed mode.     5 2023-04-11 IB:16:44 [1] (DI) (MINOR [Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700001F30]; Found a [25:0] (ink that operates in [14:0] speed mode.     5 2023-04-11 IB:16:44 [1] (DI) (MINOR [Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700001F30]; Found a [25:0] (ink that operates in [14:0] speed mode.     5 2023-04-11 IB:16:44 [1] (DI) (MINOR [Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700001F30]; Found a [25:0] (ink that operates in [14:0] speed mode.     5 2023-04-11 IB:16:44 [1] (DI) (MINOR [Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700003630]; Found a [25:0] (ink that operates in [14:0] speed mode.     5 2023-04-11 IB:16:44 [1] (DI) (DI) (Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700003630]; Found a [25:0] (ink that operates in [14:0] speed mode.     5 2023-04-11 IB:16:44 [1] (DI) (DI) (Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700003630]; Found a [25:0] (ink that operates in [14:0] speed mode.     1 200 [MINOR [Hardware] IBFORT [default / Switch : r-hyp-sw-O1 / 30] [dev_uid : 2480700003630]; Found a [25:0] (ink that operates in [14:0] speed mode.     1 30 [MINOR [Hardware] IBFORT [default / Switch : r-hyp-switch / 30] [MINOR [Hardware] IBFORT [default / Switch : r-hyp-switch / 30] [MINOR [Hardware] IBFORT [default / Switch : r-hyp-switch / 30] [MINOR [Hardware] IBFORT [default / Switch : r-hyp-switch / 30] [MINOR [Hardware] IBFOR
🔔 Events & Alarms	12 2023-04-12 1:06:34 [230] [517] CRITICAL [Fabric_Notification] Grid [Grid]: FabricHealth Report completed with 2 Errors and 2 Warnings 13 2023-04-12 1:06:34 [231] [604] INFO [Maintenance] Grid [Grid]: Fabric Health Report succeeded 14 2023-04-12 1:06:47 [234] [500] INFO [Maintenance] Grid [Grid]: FabricHealth Report succeeded
Ltd Telemetry	15 2023-04-12 1:06:47 [235] [544] MINOR (Maintenance) Grid (Grid): Unable to send mail - no recipients list 29 2023-04-12 14:44:10 [635] [332] INFO [Febric: Topology] Site (default[0] / NA / NA/ NA]: Site configuration changes: ec0d9a0300469ffc [swx-tor01] node is Up
📳 System Health 🔺	<ol> <li>2023-04-12 14:46:20 (637) [112] WARNING [Hardware] IBPort [default(0] / Switch: desc1 / 26] [dev_id: 043720300206650]: Link-Downed counter delta threshold exceeded. Threshold is 0, calculated delta is 1. Peer info: dafault(3) / Computer: node001 / HCA-1/1.</li> <li>2023-04-12 14:46:20 (638) [112] WARNING [Hardware] IBPort [default(0] / Switch: desc1 / 26] [dev_id: 043720300206650]: Link-Downed counter delta threshold exceeded. Threshold is 0, calculated delta is 1. Peer info: dafault(3) / Computer: node001 / HCA-1/2.</li> <li>2023-04-12 14:46:20 (638) [112] WARNING [Hardware] IBPort [default(0] / Switch: desc1 / 28] [dev_id: 043720300206650]: Link-Downed counter delta threshold exceeded. Threshold is 0, calculated delta is 1. Peer info: dafault(3) / Computer: node001 / HCA-1/2.</li> </ol>
Consumer System Health	33 2023-04-12 14:46:20 (639) [112] WARNING [Hardware] IBPort [default(0] / Switch: desc1 / 30] [dev_jd: 043f720300206650]: Link-Downed counter delta threshold exceeded. Threshold is 0, calculated delta is 87. Peer info: default(3) / Computer: swx-tor01 / HCA-1/1.
Providers System Health	<ol> <li>2023-04-12 14:46:20 [640] [112] WARNING [Hardware]  BPort [default[0] / Switch: desc1 / 32] [dev_id: 043/920300206550]; Link-Downed counter delta threshold exceeded. Threshold is 0, calculated delta is 87. Peer into: default[3] / Computer: swx-tor01 / HCA-1/2.</li> <li>2023-04-12 HA:46:20 [61112] WARNING [Hardware]  BPort [default[0] / Computer: r-ufm83 / HCA-1/2] [dev_id: ec0d9a0300bf52/4]; Link-Downed counter delta threshold exceeded. Threshold is 0, calculated delta is 2. Peer info: default[3] / Switch: desc1 / 24.</li> </ol>

2. Provider System Health contains sections applicable to one or multiple providers (e.g., Fabric Health Report can be triggered on multiple Providers from the Consumer).

🥯 NVIDIA. 🤇	Providers System Health 🛛 💟 Local Time (Asia/Jerusalem) 🗸 Site 🛛 All 🔍 Last Update: 12 Apr 2023 17:31 💡 admin 🗸
UFM Enterprise	UFM Health UFM Logs UFM System Dump Fabric Health Daily Reports Fabric Validation
🕜 Dashboard	UFM Health Report
Retwork Map	No reports available, Please click on Run New Report to generate one Run New Report
🚝 Managed Elements 🗸	
🔔 Events & Alarms	
<b>Lui</b> Telemetry	
🔁 System Health 🔺	
Consumer System Health	
Providers System Health	

9. UFM Health tab contains sub report tables for each provider.

			Local Time v Site All v Last Update: 20 Oct 2022 15:14 ?
Health UFM Logs UFM Snapsho	ot Fabric Health Daily Report	ts Topology Compare Fabric Validation IBDiagnet	
Health Report			
e: 2022-10-20 15:13:32 ated By: admin			Show Problems Only Collapse All Run New Re
UFM Configuration			Completed Successfully. See details bei
Site: provider_1000			Displayed Columns
	Test		Status
		Fitter	
Release Number: 6.9.0 build 1			OK
License UID: 123456778-UFM			OK
License Customer Number: 495760397			OK
License Devices Limit: 1024			ОK
License Functionality: Advanced			OK
License Type: Evaluation			ОК
UFM runs in stand alone mode			ок
			Viewing 1-7 of 7
Site: provider_2000			Viewing 1-7 of 7 H 4 + H 10 Displayed Columns
Site: provider_2000	Test		
Site: provider_2000	Test	) <b>7</b>   [Film-	Displayed Columns
(Filter Release Number: 6.9.0 build 1	Test	) <b>7</b>   [Filter	Displayed Columns Status
(Filter. Release Number: 6.9.0 build 1 License UID: 123456778-UFM	Test	) <b>V</b>   (Film.	Displayed Columns Status
(Filter. Release Number: 6.9.0 build 1 License UID: 123456778-UFM License Customer Number: 495760397	Test	) <b>7</b>   (Film.	Displayed Columns- Status OK OK OK
(Filter. Release Number: 6.9.0 build 1 License UID: 123456778-UFM License Customer Number: 495760397 License Devices Limit: 1024	Test	) 🔻   (Filter	Сієріауе́ Соіципа: Status ОК ОК ОК ОК
(Filter Release Number: 4.9.0 build 1 License UID: 123456778-UFM License Customer Number: 458760397 License Devices Limit: 1024 License Functionality: Advanced	Test	) V   (Filter	Сперизуей Columns Status ОК ОК ОК ОК ОК
(Filter Release Number, 6.9.0 build 1 License UID: 12345978-UFM License Oustomer Number, 495760397 License Devices Limit: 1024 License Functionality, Advanced License Type: Evaluation	Test	) y   (Filter	Сперіоуей Columns Status ОК ОК ОК ОК ОК ОК ОК
(Filter Release Number: 4.9.0 build 1 License UID: 123456778-UFM License Customer Number: 458760397 License Devices Limit: 1024 License Functionality: Advanced	Test	) <b>7</b>   (Film.	Спраден Солития Status ОК ОК ОК ОК ОК ОК
Filer. Release Number 6.9.0 build 1 License UID 12345978-UFM License UID 12345978-UFM License Unition 1224 License Environality: Advanced License Type: Evaluation	Test	) <b>7</b>   (Film.	Сієріауе́й Соlumna Status ОК ОК ОК ОК ОК ОК ОК ОК
(Filter Release Number, 6.9.0 build 1 License UID: 12345978-UFM License Oustomer Number, 495760397 License Devices Limit: 1024 License Functionality, Advanced License Type: Evaluation	Test	) <b>7</b>   (Film	Спризен Социния Status ОК ОК ОК ОК ОК ОК ОК О

10. Fabric Health contains sub report tables for each provider.

I Health UFM Logs UFM Snapshot	Fabric Health Daily Reports	Topology Compare	Fabric Validation IBDiagnet				
ic Health Report							
te: 2022-10-20 14:49:44					Show Proble	ems Only Collapse All	Run New Rep
eated By: admin							
Report Summary							
Site: provider_1000						Displ	ayed Columns
Fabric Test		Warnings		Errors		Total	
	Filter		Filter		Filter		
Non-unique and Zero LID Values	0		0		0		
Non-unique Node Descriptions	2		0		2		
SM Status	0		0		0		
Bad Links	0		0		0		
Link Width	0		0		0		
Link Speed	0		6		6		
Firmware Versions	2		0		2		
UFM Alarms	0		1		1		
BER Error and Warning check	0		0		0		
Symbol BER Error and Warning check	0		0		0		
						Viewing 1-10 of 11	► <b>H</b> 10
Site: provider_2000						Displa	yed Columns •
Fabric Test		Warnings		Errors		Total	
	Filter		Fitter		Filter		
Non-unique and Zero LID Values	0		0		0		
Non-unique Node Descriptions	2		0		2		
SM Status	0		0		0		
Bad Links Link Width	0		0		0		
Link Width Link Speed	0		6		6		
Firmware Versions	2		0		2		
UFM Alarms	198		2		200		
BER Error and Warning check	0		0		0		
Symbol BER Error and Warning check	0		0		0		
						Viewing 1-10 of 11  4 4	► <b>H</b> 10

- 11. Daily Reports:
  - 1. Consumer Daily reports display consumer reports.

Consumer System Health	Local Time (Asia/Jerusalem)	∽ Site	All	~
UFM Logs UFM System Dump Daily Reports				
Recipients List Displayed Columns 🗸				
Report $\downarrow$				
Filter 7				
2023-04-11				
Viewing 1-1 of 1 🛛 🖌 🕨 20 🗸				

2. Providers Daily reports display reports from all providers.

Providers S	System Hea	lth			.ocal Time (Asia/Jerusalem)	∽ Site	All	~
UFM Health	UFM Logs	UFM System Dump	Fabric Health	Daily Reports	Fabric Validation			
Pan	Recipients	s List Displayed Colu	mns 🔻					
Filter		Filter						
2023	-04-11	provider_2000						
2023	-04-10	provider_2000						
	Viewing 1-2	2 of 2 🕅 🖣 🕨 🕨	20 ~					

12. The "Fabric Validation" tab contains sub report tables for each provider.

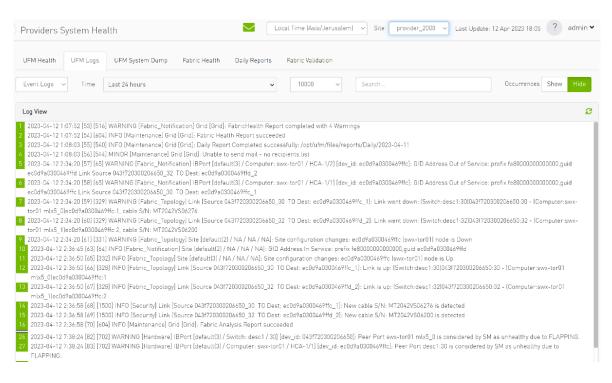
Providers System Health	Local Time (Asia/Jerusalem) 🗸 Site 🛛 All 🗸 🗸	Last Update: 12 Apr 2023 17:47 ? admin 🗸
UFM Health UFM Logs UFM System Dump	Fabric Health Daily Reports Fabric Validation	
Tests	Check Lids	
Test	Created At: 2023-04-12 17:48:06 Site: provider_1000 Status: O Passed	
Filter     Check Lids	S Fabric Summary	~
Check Links     Check Subnet Manager		
Check Duplicate Nodes	Filter 🛛 🗸 🛛 Filter	7
Check Duplicate Guids	Total Nodes 7	
Check Routing	IB Switches 1	
Check Link Speed	IB Channel Adapters 6	
Check Link Width	IB Aggregation Nodes 0	
Check Partition Key	IB Routers 0	
Check Temperature		
Check Cables		Viewing 1-5 of 5 🔣 ∢ → 🕅 10 ∽
Check Effective BER		
Check Symbol BER	Created At: 2023-04-12 17:48:06 Site: provider_2000	
Rail Optimized Topology Validation	Status: Sassed	
<ul> <li>Dragonfly Topology Validation</li> </ul>	Fabric Summary	~
SHARP Fabric Validation	•	
Tree Topology Validation		
Socket Direct Mode Reporting		
	(Filter 🗸 🗸 (Filter	$\nabla$
	Total Nodes 7	

### 13. In "UFM Logs" Tab:

### 1. Consumer logs:

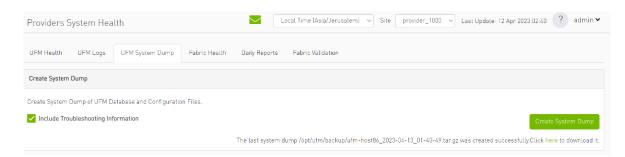
Consumer System Health Local Time (Asia/Jerusalem) 🗸 Site All 🗸 Last Update: 12 Apr 2023 18:01 ? admin							? admin∨
UFM Logs UFM System	Dump Daily Reports						
Event Logs 🗸 Time	Last 24 hours	~	10000 ~	Search		Occurrences S	ihow Hide
Log View							ø
2 2023-04-11 18:12:09 [3] [60 3 2023-04-11 18:12:44 [4] [52 4 2023-04-11 18:16:44 [10] [7 5 2023-04-11 18:16:44 [11] [7	2] INFO [Logical_Model] Grid [Grid]: Ne 4] INFO [Maintenance] Grid [Grid]: Fabr 5] CRITICAL [Maintenance] Grid [Grid]: 11] MINOR [Hardware] IBPort [default / 11] MINOR [Hardware] IBPort [default /	c Analysis Report succeede Disk space usage in /opt/ufr Switch: r-hyp-sw-01 / 36] [c Switch: SwitchIB Mellanox ]	d n/files/log is above the ti lev_id: 248a07030Def19a Technologies / 36] [dev_i	0]: Found a [25.0] link that ( d: e41d2d030003e3b0]: Fou			mode.
13         2023-04-12         1:06:34         [231]           14         2023-04-12         1:06:47         [234]           15         2023-04-12         1:06:47         [235]	517] CRITICAL [Fabric_Notification] Grid 604] INFO [Maintenance] Grid [Grid]: Fa 540] INFO [Maintenance] Grid [Grid]: Dc 544] MINOR [Maintenance] Grid [Grid]:	bric Health Report succeed ily Report Completed succe Jnable to send mail - no rec	ad ssfully: /opt/ufm/files/re ipients list	ports/Daily/2023-04-11			
31 2023-04-12 14:46:20 [637]	[332] INFO [Fabric_Topology] Site [defa [112] WARNING [Hardware] IBPort [def Computer: node001 / HCA-1/1.		° °			d. Threshold is 0, calo	culated delta
is 1. Peer info: default(3) /	[112] WARNING [Hardware] IBPort [def Computer: node001 / HCA-1/2. [112] WARNING [Hardware] IBPort [def		_				
34 2023-04-12 14:46:20 [640] is 87. Peer info: default[3]	/ Computer: swx-tor01 / HCA-1/1. [112] WARNING [Hardware] IBPort [def / Computer: swx-tor01 / HCA-1/2.		-				
calculated delta is 2. Peer	[112] WARNING (Hardware) IBPort (dei info: default(3) / Switch: desc1 / 24. [332] INFO [Fabric_Topology] Site (defa					ld exceeded. Thresh	old is 0,
<ul> <li>2023-04-12 16:29:10 [645]</li> <li>2023-04-12 16:31:40 [647]</li> <li>calculated delta is 2. Peer</li> </ul>	[525] CRITICAL [Maintenance] Grid [Gri [605] CRITICAL [Maintenance] Grid [Gri [112] WARNING [Hardware] IBPort [def info: default[3] / Switch: desc1 / 24. [112] WARNING [Hardware] IBPort [def	d]: Fabric Analysis Report fa ault[6] / Computer: r-ufm83	iiled, Return code: 1		ed counter delta thresho	ld exceeded. Thresh	old is 0,

2. Providers logs display providers log separately, displaying logs for all providers is not supported.



#### 14. In the "System Dump" tab:

1. "Consumer System Dump" collects system dump for consumer



2. "Providers System Dump" collect system dumps for one or all providers and mergeS them into one folder

Consumer System Health	Local Time (Asia/Jerusalem) 🗸 Site provider_2000 🗸 Last Update: 12 Apr 2023 02:03 ? admin 🗸
UFM Logs UFM System Dump Daily Reports	
Create System Dump	
Create System Dump of UFM Database and Configuration Files.	
✓ Include Troubleshooting Information	Create System Dump
	The last system dump /opt/ufm/backup/ufm-host86_2023-04-13_01-03-16.tar.gz was created successfully.Click here to download it.

15. Under "Settings", subsections for Consumer and Provider are available.

n Dashboard	Events Policy Device A	Access N	letwork Mana	gement	Subnet Manager	Non-Optimal L	inks User N	fanagement Em	nail Remote Loca	tion Data Strea	ming	
	Access Tokens Plugin	Managemen	t									
Network Map							All		Recipients List	Save Revert	Displayed Colu	umns
	Event	Category	Mail	GUI	Alarm	Syslog ()	Log File	SNMP	Threshold	TTL(Sec)	Severity	
Managed Elements 🗸	Filter 🗸 🗸								Filter 🔽 🗸	Filter 🗸		
Events & Alarms <u>I</u> Telemetry	GID Address In Service	몲		<ul> <li>Image: A set of the set of the</li></ul>			<ul> <li></li> </ul>		1	300	🕑 Info	
	GID Address Out of Se	윰							1	300	(?) Warning	
	New MCast Group Cre	格							1	300	🥑 Info	
	MCast Group Deleted	몲							1	300	🕑 Info	
	Symbol Error								200	300	😮 Warning	
🛃 System Health 🛛 🗸	Link Error Recovery	**		$\checkmark$					[1	300	🕕 Minor	
	Link Downed	44 44 45		$\checkmark$					0	300	😮 Warning	
	Port Receive Errors								5	300	😮 Warning	
🕤 Jobs	Port Receive Remote			$\checkmark$					5	300	Minor	
	Port Receive Switch R	¢°							9999	300	Minor	
Settings 🔨	Port Xmit Discards	<b>~</b>		$\checkmark$					200	300	() Minor	
	Port Xmit Constraint			$\checkmark$	<b>~</b>				200	300	1 Minor	
onsumer Settings	Port Receive Constrai	7		$\checkmark$					200	300	🕕 Minor	
	Local Link Integrity Er								5	300	() Minor	
	Excessive Buffer Over	7						Solution	1	300	😮 Warning	
Providers Settings	VL15 Dropped	<b>1</b>							50	300	( Minor	
	Congested Bandwidth	<b>1</b>		<b>~</b>					10	300	Minor	,
	Port Bandwidth [%] T								95	300	Minor	

1. "Consumer Settings" contain sections applicable to Consumer UFM specifically (e.g., creation of access tokens for UFM consumer authentication);

2. "Provider Settings" contain sections applicable to one or multiple providers (e.g., Event Policies can be changed for multiple Providers at once from the Consumer).

UFM Enterprise	User Management Access Tokens	Plugin Management Providers Managem	ent
î Dashboard			
🕂 Network Map	+ New ID ↓ Name	Displayed Columns 🗸	
-			
🚝 Managed Elements 🗸	Filter <b>7</b>	Y   Filter	
	1 admin	System Admin	
🔔 Events & Alarms			
III Telemetry			
	View	ving 1-1 of 1 🚺 🔸 🕨 🕅 10 🗸	
📳 System Health 🗸 🗸			
🗇 Jobs			
Jobs			
🔹 Settings 🗛			
Consumer Settings			
Providers Settings			
	Copyright 2024 NIVIDIA DI	DE Generated on 06/06/2024	

© Copyright 2024, NVIDIA. PDF Generated on 06/06/2024