



[GET STARTED](#)

VMware Aria Operations for Networks Search Query Posters

Get Deeper Insights from
Your Infrastructure, Faster



Introduction

As a VMware admin, you know VMware Aria Operations for Networks provides a robust search for all of the entities in your environment. It has property and entity terms, as well as aggregate function terms you can tune for best-results infrastructure to cloud to branch planning and analysis.

But we're all busy. And with so little time and so many questions, our team came up with a series of VMware Aria Operations for Networks search query cheat sheets to inspire you while getting to insights faster.

Download, view, and display one. Or download, view, and display them all. As a go-to resource or simply an office conversation starter, each guide includes everything you need for results.

Search Guide Topics

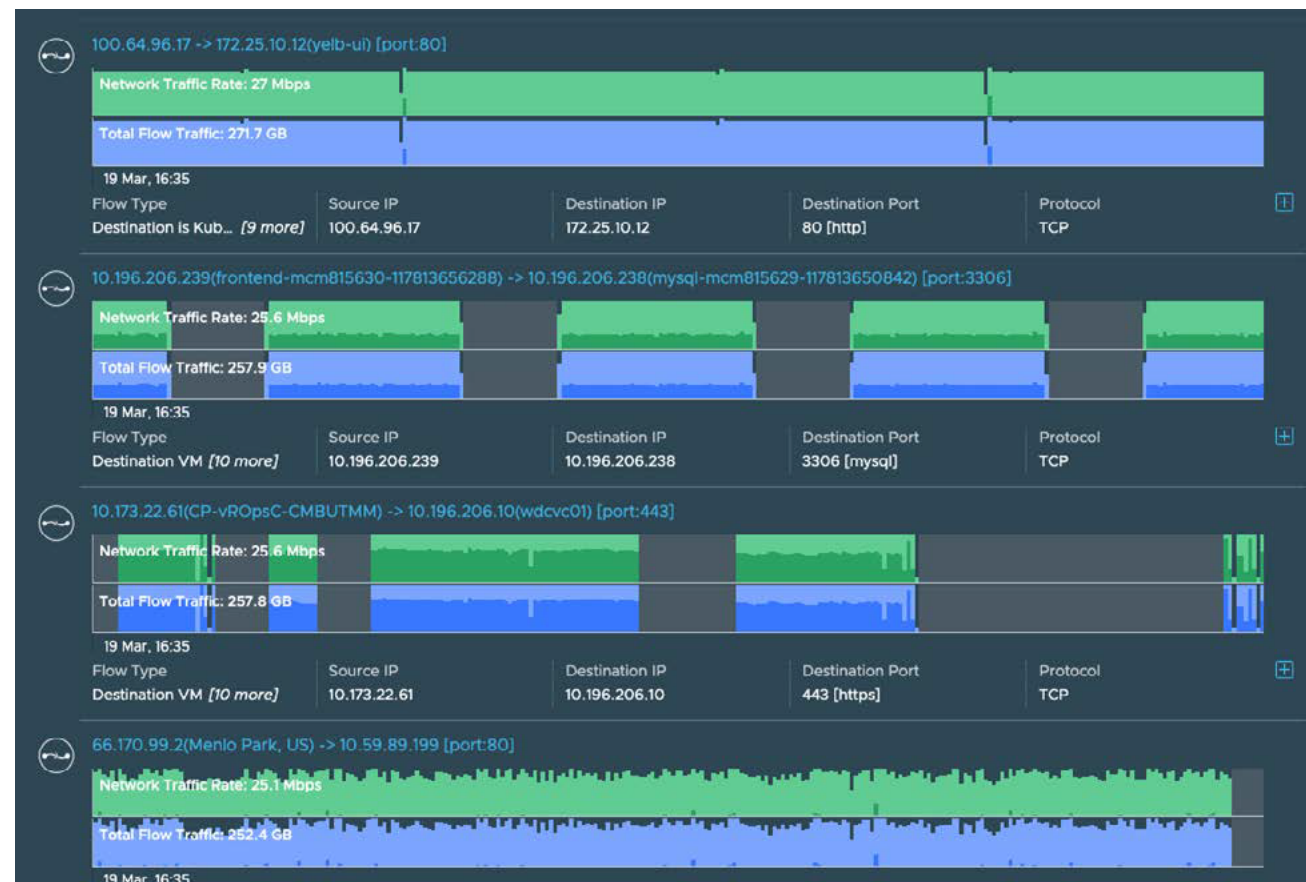
1. Flows
2. PKS – Kubernetes
3. VMware NSX
4. VMware NSX® Data Center for vSphere®
5. Virtual machine

Ready Queries

<div> <div>vmware</div> <div>vRealize Network Insight</div> <div>NSX-T Search Poster</div> </div> <div> <div>Sample Queries</div> <div> nsx-t logical switch where Tx Packet Drops > 0 top 10 nsx-t firewall rules order by sum(bytes) Internet traffic by source VM nsx-t logical port where Rx Packet Drops > 0 nsx-t controllers where Management Connection Status = 'Connected' nsx-t manager where VC Managers Count = 1 nsx-t edge cluster where Deployment Type = 'VIRTUAL_MACHINE' top 10 nsx-t firewall rule order by Hit Count flows where firewall rule is not set nsx-t firewall rule where Flow Packets = 0 in last 30 days new nsx-t firewall rule in last 30 days Flows flow where application = appl1 flow where application = appl1 and tier = Web flow where bytes > 100 gb flow group by vm top 5 flow order by packets flow group by Destination Country count of flow group by Destination IP Address Internet traffic by source VM sum(bytes) of flows where Flow Type = 'Internet' group by source vm order by sum(bytes) Internet traffic flows where Flow Type = 'Source is Internet' and Flow Type = 'Destination is VM' order by bytes Top VM pair by total bytes sum(bytes) of flows group by src vm, dest vm order by sum(bytes) </div> </div>	<div>Build your own query</div> <div> <div>Filters:</div> <ul style="list-style-type: none"> =, !=, like, not like in, not in (membership) is set, is not set (existence) > (numeric), AND, OR (logical) <div>Aggregation</div> <div>SUM(), MAX(), MIN(), AVG()</div> <div>Modifiers: GROUP BY, ORDER BY, Projection: LIST(), COUNT()</div> </div> <table> <tr> <th>NSX-T Data Source</th><th>NSX-T Firewall</th></tr> <tr> <td>Change Enabled Event IPFIX Enabled Latency Enabled NI Collector Name Problem Published Version Rule Count Rulesets Type URL</td><td>Change Event Exclusion Firewall Status Manager Model Name Member Name Published Rule Count Problem Rule Count Scope Tag Translated VM Vendor Vendor ID Version</td></tr> <tr> <th>NSX-T Logical Switch</th><th>NSX-T Layer2 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<div>NSX-T Manager</div> <div> Incomplete tcp flow drop count Outbound expire flow drop count Wrong colored flow drop count </div> <div>NSX-T Logical Switch</div> <div> Multicast Broadcast Rx Bytes Multicast Broadcast Rx Packets Multicast Broadcast Tx Bytes Multicast Broadcast Tx Packets Rx Packets Drops Rx Packets Total Rx Bytes Total Tx Bytes Tx Packet Drops Tx Packets Unicast Packets Rx Unicast Rx Bytes Unicast Tx Bytes </div> <div>NSX-T Service</div> <div> Change Event Location Manager Name Port Member Node Type Members Name Problem Protocol Source Port Vendor ID </div>	<div>Action</div> <div> Application Application ID GUID Appletto Category Source Address Destination Destination Address Destination IPSet Destination VM Destination Zone Device Group Direct Group Direct NSX-T IPSet Direct Security Group Direction Direction HIP Profile IP Address IPSet Manager Manager Model Manager Serial Manager Version NSGroup NSX Manager NSX Policy Firewall Rule NSX-T IPSet Name Packet Type Port Port Range Port Range Port Range Display Problem Protocol Protocol Port Range Rule Type Scope Section ID Section Name Security Group Sequence ID Service </div> <div>NSX-T Router</div> <div> Advertise NAT Routes Advertise Static Routes Connected Routes Connected Routes Advertise Static Routes Change Distributed Router ECMP Edge Cluster Event HA Mode Inactive Mode Unlinked Routers Manager Name OSPF OSPF Area ID OSPF Area Type Problem Router Interface Router Interface Count Routing Advertisement Enabled Scope Service Router Tag Tier Router Type Vendor ID </div> <div>NSX-T Logical Port</div> <div> Administrative Status Attachment Type Change ConnectedTo Event Manager NSX-T L2 Network NSX-T Logical Switch Name Numbered Network Interface Operational Status Problem Scope Tag VM Vendor ID Vnic </div>
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- Choose sample queries in **grey**
- View properties to search in **green**
- Find metrics delivered in **blue**

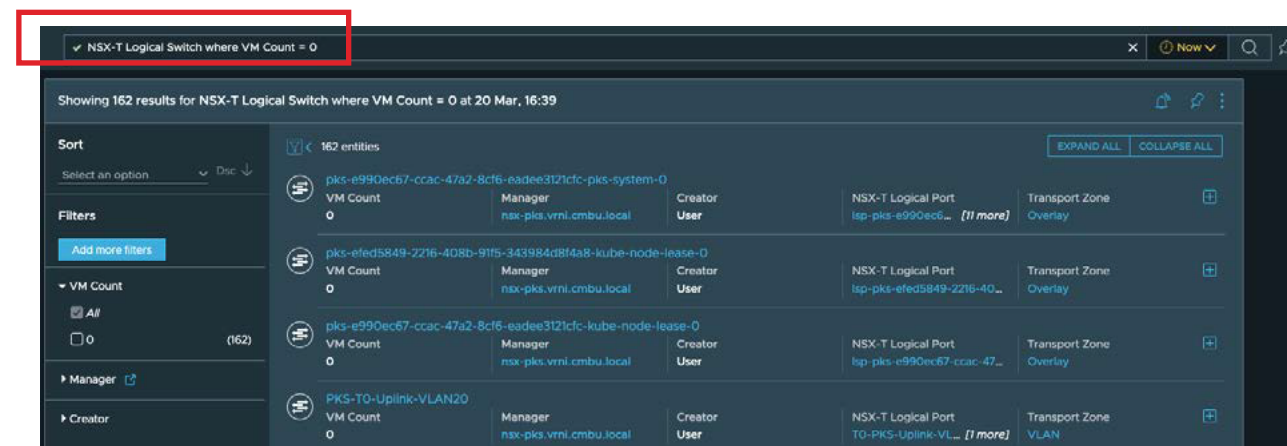
Visual Results



- View tables and graphs
- Sort options
- Filter results

How to Get Started

When you need results fast, select the search feature in VMware Aria Operations for Networks and start typing in the syntax highlighted on a poster.



These are sample searches:

- Discover which VMs have too many snapshots by entering this query: Top 10 vms by snapshot count
- Identify the top talkers from this VM by entering the following: sum(-bytes) of flows where Flow Type = 'Src is VM' and Flow Type = 'Dst is Internet'
- Find out which countries your customers are coming from by entering this query: flow group by Destination Country
- Discover Kubernetes PODs that are failing due to image errors by entering the following: Kubernetes events where Event code = 'Image-PullBackOff' in last 24 hours
- Identify unstable internet connections in your SD-WAN by entering this code: SD-WAN Link where Connectivity State != 'Stable'

Flows Search Poster

Sample Queries

flow where bytes > 100 gb
flow group by vm
top 5 flow order by packets
flow group by Destination Country
count of flow group by Destination IP Address
Internet traffic by source VM: sum(bytes) of flows where Flow Type = 'Internet' group by source vm order by sum(bytes)
Internet traffic: flows where Flow Type = 'Source is Internet' and Flow Type = 'Destination is VM' order by bytes
Sum of bytes between VM & internet: Sum(bytes), sum(src bytes), sum(dest bytes) of flows where Flow Type = 'Source is VM' and flow type = 'Destination is Internet'
Total VTEP traffic: sum(bytes) of flows where Flow Type = 'Source is VTEP' or Flow Type = 'Destination is VTEP'
VTEP traffic grouped by VMKNIC: sum(bytes) of flows where Flow Type = 'Source is VTEP' or Flow Type = 'Destination is VTEP' group by IP
Top VM pair by total bytes: sum(bytes) of flows group by src vm, dest vm order by sum(bytes)
Aggregated traffic series for matching flows: series(sum(byte rate)) of flows where host = 'myhost.abccorp.com' and (flow type = 'source is vm' or flow type = 'destination is vm')
VM flow between hosts:

- flow where Flow Type = 'VM-VM' and Flow Type = 'Diff Host' order by bytes
- sum(bytes) of flow where Flow Type = 'VM-VM' and Flow Type = 'Diff Host' group by vm order by sum(bytes)

NSX-V Firewall - Configuration Properties

NSX Manager	Flow	Destination IPSet
Name	HIP Profile	Destination Negate
Packet Type	IP Address	Destination Security Group
Port	Status	Destination Vm
Port Range	Target	Destination Zone
Port Range	Target Negation	Device Group
Port Range Display	Vendor	Direct Destination Address
Problem	Vendor	Direct Destination Address Group
Protocol	vm series	Direct Destination IPSet
Protocol Port Range	Indirect Source IPSet	Direct Destination Security Group
Rule ID	Indirect Source Security Group	Direct Security Group
Rule Type	Logging Enabled	Direct Source Address
Scope	Manager	Direct Source Address Group
Section ID	Manager Model	Direct Source IPSet
Section Name	Manager Serial	Direct Source Security Group
Security Group	Manager Version	Direction
Sequence ID	Action	IPSet
Service	Application	Indirect Destination Address
Service	Application ID GUID	Indirect Destination Address Group
Service Any	Appliedto	Indirect Destination IPSet
Service Profile	Category	Indirect Destination Security Group
Shared	Change	Indirect Security Group
Source	Configured Destination	a Source Address
Source Negate	Configured Source	Indirect Source Address Group
Source Security Group	Destination	Source Address
Source User	Destination Address	Source Address Group
Source Vm	Destination Address Group	Source Any
Source Zone	Destination Any	Source IP
Event	Destination IP	Source IPSet

NSX-V Policy Firewall - Configuration Properties

Change
Event
Exclusion
Firewall Status
Manager
Model
Name
Problem
Published Version
Rule Count
RuleSets Type
Rules
Serial
Spoofguard Status
Vendor
Vendor ID
Version

NSX-V Manager - Metrics

Incomplete tcp flow drop count
Outbound expire flow drop count
Wrong collector flow drop count

NSX-V Controller - Configuration Properties

Activated
Change
Enabled
Event
ID
IP Address
Join Status
Ldr
Majority Status
Manager
Master
NSX Manager
Name
Network Address
Problem
Role Name
Scope
Status
Upgrade Available
VM
VXLAN
Vendor ID
Version

NSX-V Security Group - Configuration Properties

All Direct Child Group
All Parents
Change
Child
Direct Destination RuleSets Type
Direct Incoming Rules
Direct Outgoing Rules
Direct Source RuleSets Type
Event
Excluded
IP Address
IPSet
Incoming Rule Count
Indirect Destination RuleSets Type
Indirect Incoming Rule Count
Indirect Incoming Rules
Indirect Outgoing Rule Count
Indirect Outgoing Rules
Indirect Source RuleSets Type
Manager
Manager Model
Manager Serial
Manager Version
Member
Member
NSX Manager
Name
Outgoing Rule Count
Problem
Region
Rule Count
Security Tag
Translated VM
Vendor
Vendor ID

NSX-V Manager - Configuration Properties

Backup Enabled
Change
Event
IP Address
Model
NTP Server Configured
Name
Problem
Serial
Syslog Server Configured
Transport Zone
VM
Vendor
Version

NSX-V Policy Based VPN - Configuration Properties

Change
Enabled
Event
Local Address
Local Address
Local Endpoints
Local Network
Local Network
Manager
Peer VPN Connection
Peer VPN Gateway
Peer VPN Session
Problem
Remote Endpoints
Remote Network
Remote Network
Remote Private Address
Remote Private Address
Remote Public Address
Remote Public Address
Tier0
name

NSX-V IPSet - Configuration Properties

All Parents
Change
Event
IP Address
IP Address
IP Range
IP Address Range end
IP Address Range start
Translated VM
Vendor ID
Network Address
Problem
Scope
Scope
Tag
Manager
NSX Manager
Name
Netmask
Indirect Incoming Rules
Indirect Outgoing Rules
Direct Destination RuleSets Type
Direct Incoming Rules
Direct Outgoing Rules
Direct Parent Security Group
Direct Source RuleSets Type
Indirect Destination RuleSets Type
Indirect Source RuleSets Type

PKS - Kubernetes Search Poster

Sample Queries

Common Queries

Search Flows: flows where Kubernetes Object = Object name

Example: flows where Kubernetes Cluster = 'Production'

View the service scale:

kubernetes pods group by Kubernetes Services

View the node load:

kubernetes Pods group by Kubernetes Node

View the node health:

MemoryPressure and PIDPressure and DiskPressure and

Ready of Kubernetes Node

View flow compliance:

flows from Kubernetes Object name of the object to

Kubernetes Object name of the object

Example:

flows from Kubernetes Namespace'PCI' to Kubernetes

Namespace'Non-PCI'

View the Path topology:

Kubernetes service service name to Kubernetes service

service name

Kubernetes service service name to Kubernetes pod pod

name

Kubernetes pod pod name to Kubernetes pod pod name

Kubernetes events

kubernetes events where Problem Entity = '<pod/namespace/
node Name>'

kubernetes events where Event code =

'ImagePullBackOff' in last 24 hours

kubernetes events where problem entity.Kubernetes Cluster =

'<cluster-a>'

View Application

application where virtual member = 'service-a'

application where virtual member = 'service-a' and virtual

member.Kubernetes Namespace = 'namespace-b'

count of applications where Virtual Member in (kubernetes

services)

list (virtual member) of applications where Name = 'app-1' and

virtual member.Kubernetes Cluster is set

View Tier Information

tier where virtual member = 'service-a' and virtual member.Kuber-

netes Namespace = 'namespace-b'

Flows

flows where firewall action = 'DROP' group by Kubernetes Service

flows where firewall action = 'DROP' group by source Kubernetes

Namespace

flows where firewall action = 'DROP' and Flow Type = 'Destination

is Internet'

Packet drops group by kubernetes pod

nsx-t logical port where (ConnectedTo in (Kubernetes Pods where

kubernetes cluster is set)) and Rx Packet Drops > 0 group by

ConnectedTo order by max(Rx Packet Drops)

Packet drops group by kubernetes node

nsx-t logical port where (ConnectedTo in (Kubernetes Nodes

where kubernetes cluster is set)) and Rx Packet Drops > 0 group

by ConnectedTo order by max(Rx Packet Drops)

Packet drops by kubernetes namespace

nsx-t logical switch where Rx Packet Drops > 0 and Tag like 'ncp/
project:' order by Rx Packet Drops

Packet drops group by kubernetes services

nsx-t logical port where (ConnectedTo in (Kubernetes Pods where

kubernetes cluster is set)) and Rx Packet Drops > 0 group by

ConnectedTo.Kubernetes service order by max(Rx Packet Drops)

Kubernetes Objects

Nodes :

kubernetes nodes where Ready != 'True'

kubernetes node where Virtual Machine = 'vm-a'

Flows:

flows where kubernetes service is set

flows where source kubernetes node = 'a'

Services:

kubernetes pods where kubernetes services is not set

kubernetes pods group by Kubernetes Services, Kubernetes

Cluster

Namespace:

kubernetes namespace where L2 Networks = 'a'

list(Kubernetes Node) of Kubernetes Pod where

Kubernetes Namespace = 'a'

Pod:

NSX-T Logical port where connectedto.modelKey in (modelKey of kubernetes nodes) order by Tx Packets desc

NSX-T Logical port where connectedto.modelKey in (modelKey of kubernetes pods) and Rx Packet Drops > 0 new kubernetes pod

in last 1 hour

Show <config Property> of kubernetes object

Supported properties for Configuration Queries

Group by – Ex: kubernetes pods group by kuberentes services

Aggregate Functions

max, min, sum, avg

Ex: sum(MemoryPressure) of kubernetes node

Configuration Properties

Kubernetes Service

Annotations Key
Annotations Key Value
Change
Cluster IP
Cluster IPAddress
Cluster Netmask
Cluster Network Address
Creation Time
Event
External IP
External IPAddresses
External Netmask
External Network Address
Kubernetes Cluster
Kubernetes Namespace
Label
Label Key
LoadBalancer IP
LoadBalancer IP Address
LoadBalancer Netmask
LoadBalancer Network Address
Manager
Name
Node Port
Port
Port Name
Problem
Protocol
Selectors
Selectors Key
Target Port
Type
Vendor ID
modelKey

Kubernetes Service - Metrics

Nodes count
Pods count

Kubernetes Node

Annotations Key
Annotations Key Value
Change
Creation Time
DiskPressure
Event
HOST
IP Address
IPAddress
Kube-Proxy Version
Kubelet Version
Kubernetes Cluster
Label
Label Key
Logical Port
Manager
MemoryPressure
Name
Node Condition Status
Node Condition Status Message
Node Condition Status Type
OS Image
OutOfDisk
PIDPressure
Problem
Ready
Roles
Vendor ID
Virtual Machine
modelKey

Kubernetes Cluster

Change
Data Source Type
Enabled
Event
NI Collector
NSX Manager
Name
Problem
URL

Kubernetes Namespace

Annotations Key
Annotations Key Value
Change
Creation Time
Event
Kubernetes Cluster
L2 Networks
Label
Label Key
Manager
Name
Problem
Router
Vendor ID
modelKey
status

Kubernetes Pod

Annotations
Annotations Key
CIF
Change
Containers
Creation Time
Event
HOST
IP Address
IPAddress
Kubernetes Cluster
Kubernetes Namespace
Kubernetes Node
Kubernetes Services
Label
Label Key
Logical Port
Manager
Name
Kubernetes Pod Name

PKS Data Source

Change
Enabled
Event
NSX Manager
Problem
URL

NSX Search Poster

Sample Queries

nsx-t logical switch where Tx Packet Drops > 0
top 10 nsx-t firewall rules order by sum(bytes)
top 10 router interfaces order by Total Tx bytes
nsx-t logical port where Rx Packer drops > 0
nsx-t controllers where Management Connection Status != 'Connected'
nsx-t manager where VC Managers Count > 1
nsx-t edge cluster where Deployment Type = 'VIRTUAL_MACHINE'

Firewall
top 10 nsx-t firewall rule order by Hit Count
flows where firewall rule is not set
nsx-t firewall rule where Flow Packets = 0 in last 30 days
new nsx-t firewall rule in last 30 days

Flows
flow where application = app1
flow where application = app1 and tier = Web
flow where bytes > 100 gb
flow group by vm
top 5 flow order by packets
flow group by Destination Country
count of flow group by Destination IP Address

Internet traffic by source VM
sum(bytes) of flows where Flow Type = 'Internet' group by source vm
order by sum(bytes)

Internet traffic
flows where Flow Type = 'Source is Internet' and Flow Type =
'Destination is VM' order by bytes

Top VM pair by total bytes
sum(bytes) of flows group by src vm, dest vm order by sum(bytes)

Build your own query

Filters:

- =, !=, like, not like
- in, not in (membership)
- is set, is not set (existence)
- >, < (numeric), AND, OR (logical)

Aggregation:
SUM(), MAX(), MIN(), AVG()

Modifiers: GROUP BY,
ORDER BY

Projection: LIST(), COUNT()

NSX-T Data Source

Change
Enabled
Event
IPFIX Enabled
Latency Enabled
NI Collector
Name
Problem
URL

NSX-T Logical Switch

Change
Creator
Event
NSX-T Logical Ports
Problem
Scope
Tag
Traffic Type
Transport Zone
VM Count
VNI
Vendor ID
manager

NSX-T Manager

Change
Event
FQDN
Host Name
IP Address
Kernel version
Manager
NSX-T IP Address
Name
Problem
VC Managers
Version

NSX-T Distributed Router

Change
Event
Logical Router
Manager
Name
Problem
Router Interface
Router Interface Count
Tier Router Type
VRF
Vendor ID

NSX-T Service

Change
Event
Location
Manager
Name
Port
Problem
Protocol
Source Port
Vendor ID

NSX-T Firewall

Change
Event
Exclusion
Firewall Status
Manager
Model
Name
Problem
Published Version
Rule Count
RuleSets Type
Rules
Serial
Vendor
Vendor ID
Version

NSX-T Layer2 Network

Change
Creator
Default Gateway
Event
Host Count
Hosts
Manager
NSX Policy Segment
NSX-T Logical Switch
Name
Network
Problem
Scope
Tag
Traffic Type
VLAN
VM Count
VNI
Vendor ID
Vlan ID

NSX-T Logical Port

Administrative Status
Attachment Type
Change
ConnectedTo
Event
Manager
NSX-T L2 Network
NSX-T Logical Switch
Name
Numbered Network
Interface
Operational Status
Problem
Scope
Tag
VM
Vendor ID
Vnic

NSX-T Security Group

All Direct Child Group
All Parents
Change
Child
Direct Destination RuleSets Type
Direct Incoming Rules
Direct Outgoing Rules
Direct Source RuleSets Type
Event
Incoming Rule Count
Indirect Destination RuleSets Type
Indirect Incoming Rule Count
Indirect Incoming Rules
Indirect Outgoing Rule Count
Indirect Outgoing Rules
Indirect Source RuleSets Type
Linked SG
Manager
Manager Model
Manager Version
Member
Member
Name
Outgoing Rule Count
Problem
Region
Rule Count
Scope
Tag
Translated VM
Vendor
Vendor ID

NSX-T IPSet

All Parents
Change
Direct Destination RuleSets Type
Direct Incoming Rules
Direct Outgoing Rules
Direct Parent Security Group
Direct Source RuleSets Type
Event
IP Address
IP Range
Indirect Destination RuleSets Type
Indirect Incoming Rules
Indirect Outgoing Rules
Indirect Source RuleSets Type
Manager
NSX Manager
Name
Netmask
Network Address
Problem
Scope
Scope
Tag
Translated VM
Vendor ID

NSX-T Transport Zone

Change
Event
Host Switch Mode
Host Switch Name
Manager
Name
Problem
Type
Vendor ID

NSX-T Firewall

Destination Address Group
Destination IPSet
Destination NSGroup
Destination NSX-T IPSet
Destination Negate
Destination Security Group
Direct Destination Address
Direct Destination Address Group
Direct Destination IPSet
Direct Destination NSGroup
Direct Destination NSX-T IPSet
Direct Destination Security Group
Direct Source Address Group
Direct Source Address
Direct Source IPSet
Direct Source NSGroup
Direct Source NSX-T IPSet
Direct Source Security Group
Indirect Destination Address
Indirect Destination Address Group
Indirect Destination IPSet
Indirect Destination NSGroup
Indirect Destination NSX-T IPSet
Indirect Destination Security Group
Indirect NSGroup
Indirect NSX-T IPSet
Indirect Security Group
Indirect Source Address
Indirect Source Address Group
Indirect Source IPSet
Indirect Source NSGroup
Indirect Source NSX-T IPSet
Indirect Source Security Group
Logging Enabled
Source Address Group

NSX-T Policy Based VPN

Change
Enabled
Event
Local Address
Local Address
Local Endpoints
Local Network
Local Network
Manager
Peer VPN Connection
Peer VPN Gateway
Peer VPN Session
Problem
Remote Endpoints
Remote Network
Remote Network
Remote Private Address
Remote Private Address
Remote Public Address
Remote Public Address
TierO
name

NSX-T Edge Cluster

Change
Deployment Type
Event
IP Addresses
IP Source
Name
Netmask
Network
Node Type
OS Type
OS Version
Problem
Transport Node
Vendor ID
manager

Source Security Group
Action
Application
Application ID GUID
Appliedto
Category
Change
Destination
Destination Address
Destination Any
Destination IP
Destination Vm
Destination Zone
Device Group
Direct NSGroup
Direct NSX-T IPSet
Direct Security Group
Direction
Event
HIP Profile
IP Address
IPSet
Manager
Manager Model
Manager Serial
Manager Version
NSGroup
NSX Manager
NSX Policy Firewall Rule
NSX-T IPSet
Name
Packet Type
Port
Port Range
Port Range

NSX-T Transport Node

Change
Control Status
Deployment Type
Edge Cluster
Event
Fabric Node
Maintenance Mode
Management Status
Name
Netmask
Network Address
Node Type
Pnic Status
Problem
Roll-up status
Transport Zones
Tunnel Status
Vendor ID
manager

NSX-T Fabric Node

Change
Deployment Type
Event
IP Addresses
IP Source
Name
Netmask
Network
Node Type
OS Type
OS Version
Problem
Transport Node
Vendor ID

Port Range Display
Problem
Protocol
Protocol Port Range
Rule ID
Rule Type
Scope
Section ID
Section Name
Security Group
Sequence ID
Service
Service
Service Any
Service Profile
Shared
Source
Source Address
Source Any
Source IP
Source IPSet
Source NSGroup
Source NSX-T IPSet
Source Negate
Source User
Source Vm
Source Zone
Status
Target
Target Negation
Vendor
Vendor
firewall type
vm series

NSX-T Service Group

Change
Manager
Name
Problem

NSX-T Router

Advertise NAT Routes
Advertise NSX Connected
Routes
Advertise Static Routes
Change
Distributed Router
ECMP
Edge Cluster
Event
Failover Mode
HA Mode
Linked Routers
Manager
Name
OSPF
OSPF Area ID
OSPF Area Type
Problem
Router Interface
Router Interface Count
Routing Advertisement
Enabled
Scope
Service Router
Tag
Tier Router Type
VRF
Vendor ID

NSX-T Logical Port

Multicast Broadcast Rx Bytes
Multicast Broadcast Rx Packets
Multicast Broadcast Tx Bytes
Multicast Broadcast Tx Packets
Network Rate
Network Rx Rate
Network Tx Rate
Rx Packet Drop Ratio
Rx Packet Drops
Rx Packets
Total Rx Bytes
Total Tx Bytes
Tx Packet Drop Ratio
Tx Packet Drops
Tx Packets
Unicast Packets Rx
Unicast Packets Tx
Unicast Rx Bytes
Unicast Tx Bytes

NSX-T Manager

Incomplete tcp flow drop count
Outbound expire flow drop count
Wrong collector flow drop count

NSX-T Logical Switch

Multicast Broadcast Rx Bytes
Multicast Broadcast Rx Packets
Multicast Broadcast Tx Bytes
Multicast Broadcast Tx Packets
Rx Packet Drops
Rx Packets
Total Rx Bytes
Total Tx Bytes
Tx Packet Drops
Tx Packets
Unicast Packets Rx
Unicast Packets Tx
Unicast Rx Bytes
Unicast Tx Bytes

NSX-T Firewall Metrics

Flow Bytes
Flow Packets
Hit Count
Session Count

VMware NSX® Data Center for vSphere® Search Poster

Sample Queries

top 10 nsx-v firewall rules order by connection count
sum(bytes) of flows where Flow Type = 'Src is VM' and Flow Type = 'Dst is Internet'
sum(Session Count) of flows group by firewall rule order by sum(session count) where firewall ruleid = 1032
host group by Firewall Status
host group by Hostprep Feature Status
host group by Hostprep Feature Version
vmware vm group by Firewall Rule
NSX-V Controller group by Ldr Count
NSX-V Controller group by Upgrade Available
Security group where Indirect Incoming Rules is not set and Indirect Outgoing Rules is not set and Direct Incoming Rules is not set and Direct Outgoing Rules is not set
[Un-Protected Flows](#)
Flows where firewall rule is not set
[List of firewall rules which are not hit by any flow in last 30 days](#)
NSX firewall rule where flows is not set in last 30 days
[Flows hitting specific rule id's / firewall rules/specific security group/specific application](#)
Flow where rule id in (1011, 1012, 1013)
Flow where firewall rule like rule1
Flow where security group like sg1
[Flows hitting on an application.](#)
Flow where application = app1
Flow where application = app1 and tier = TierName
[New Firewall rules](#)
New firewall rules in last 24 hours
New firewall rules in last 30 days

NSX-V Controller - Configuration Properties

Activated
Change
Enabled
Event
ID
IP Address
Join Status
Ldr
Majority Status
Manager
Master
NSX Manager
Name
Network Address
Problem
Role Name
Scope
Status
Upgrade Available
VM
VXLAN
Vendor ID

Version

NSX-V Manager - Configuration Properties

Backup Enabled
Change
Event
IP Address
Model
NTP Server Configured
Name
Problem
Serial
Syslog Server Configured
Transport Zone
VM
Vendor
Version

NSX-V IPSet - Configuration Properties

All Parents
Change
Event
IP Address
IP Address
IP Range
IP Address Range
end
IP Address Range
start
Translated VM
Vendor ID
Network Address

Problem
Scope
Scope
Tag
Manager
NSX Manager
Name
Netmask
Indirect Incoming
Rules
Indirect Outgoing
Rules
Direct Destination RuleSets
Type Direct Incoming Rules
Direct Outgoing Rules
Direct Parent Security Group
Direct Source RuleSets Type
Indirect Destination RuleSets
Type Indirect Source RuleSets
Type

NSX-V Security Group - Configuration Properties

All Direct Child Group
All Parents
Change
Child
Direct Destination RuleSets
Type
Direct Incoming Rules
Direct Outgoing Rules
Direct Source RuleSets
Type Event
Excluded
IP Address
IPSet
Incoming Rule Count
Indirect Destination RuleSets
Type
Indirect Incoming Rule Count
Indirect Incoming Rules
Indirect Outgoing Rule Count
Indirect Outgoing Rules
Indirect Source RuleSets Type
Manager
Manager Model
Manager Serial
Manager Version
Member
Member
NSX Manager
Name
Outgoing Rule Count
Problem
Region
Rule Count
Security Tag
Translated VM
Vendor
Vendor ID

NSX-V Policy Based VPN - Configuration Properties

Change
Enabled
Event
Local Address
Local Address
Local Endpoints
Local Network
Local Network
Manager
Peer VPN Connection
Peer VPN Gateway
Peer VPN Session
Problem
Remote Endpoints
Remote Network
Remote Network
Remote Private Address
Remote Private Address
Remote Public Address
Remote Public Address
TierO
name

NSX-V Manager - Metrics

Incomplete tcp flow drop count
Outbound expire flow drop count
Wrong collector flow drop count

NSX-V Firewall - Configuration Properties

NSX Manager
Name
Packet Type
Port
Port Range
Port Range
Port Range Display
Problem
Protocol
Protocol Port Range
Rule ID
Rule Type
Scope
Section ID
Section Name
Security Group
Sequence ID
Service
Service
Service Any
Service Profile
Shared
Source
Source Negate
Source Security Group
Source User
Source Vm
Source Zone
Event
Flow
HIP Profile
IP Address
Status

Target
Target Negation
Vendor
Vendor
vm series
Indirect Source IPSet
Indirect Source Security Group
Logging Enabled
Manager
Manager Model
Manager Serial
Manager Version
Action
Application
Application ID GUID
Appliedto
Category
Change
Configured Destination
Configured Source
Destination
Destination Address
Destination Address Group
Destination Any
Destination IP
Destination IPSet
Destination Negate
Destination Security Group
Destination Vm
Destination Zone
Device Group
Direct Destination Address
Direct Destination Address Group
Direct Destination IPSet
Direct Destination Security Group
Direct Security Group
Direct Source Address
Direct Source Address Group
Direct Source IPSet
Direct Source Security Group
Direction
IPSet
Indirect Destination Address
Indirect Destination Address Group
Indirect Destination IPSet
Indirect Destination Security Group
Indirect Security Group
Indirect Source Address
Indirect Source Address Group
Source Address
Source Address Group
Source Any
Source IP
Source IPSet

NSX-V Policy Firewall - Configuration Properties

Change
Event
Exclusion
Firewall Status
Manager
Model
Name
Problem
Published Version
Rule Count
RuleSets Type
Rules
Serial
Spoofguard
Status Vendor
Vendor ID
Version

Virtual Machine Search Guide

Sample VM Queries

vms group by Operating System
Vms group by I2 network
Vms group by VMTools Status
Top 10 vms by snapshot count
Top 10 vms by CPU usage
Top 10 vms by memory usage
Top 10 vms by CPU Wait Rate
Top 10 vms by Max Packet Drops
vms where memory > 4096 mb
Vms where Max Latency > 5ms
vms where cpu usage rate < 70%
vms where cpu usage rate <= 70%
vms where memory >= 4096 mb
vms where name like 'app'
vms where name not like 'app'
vms where firewall rule is set
vms where firewall rule is not set
vm where name matches '*. *'
vm where name matches 'a. *'
vm where Outgoing Port = 443
vm by vlan where vlan = "xyz"
show Max Network Rate of VM
show CPU Ready Rate of VM
show Memory Balloon of VM
show Memory Overhead of VM

vm where name matches '[a-z]vm-delta[0-9]'
vm where host in (host of vm where name = 'x')
vm where ip address in (192.168.91.11, 192.168.91.10)
series(sum(network usage)) of vms where name like 'app'
series(sum(memory usage)) of vms where name like 'db'
series(avg(cpu usage)), series(avg(memory usage)) of vms
vm where not in (vm where Power State = 'POWEREDON' in last 30 days)
L2 Network , vlan, ip address, default gateway of vms
flows where VM = 'Win2016-AD'
flows where Flow Type = 'Src is VM' and Flow Type = 'Dst is Internet' by bytes
flows where flow type = 'Source is VM'
sum(bytes) of flows where Flow Type = 'Src is VM' and Flow Type = 'Dst is Internet'

Security & Firewall

FirewallRule
FirewallStatus
IncomingRules
L2Network
L2NetworkCount
MacAddress
L2 Network
IP Address
IPSet
IPSet Count
Security Group
Security Group Count
Security Tag
Outgoing Port
Outgoing Rules
Incoming Port
Incoming Rules
Nsx
NSGroup
checkpoint host
nat device
Vlan
End Vlan

Network

Default Gateway
Default Gateway Router
Default Gateway Router -
Interface
Network
Network Address
Network Address Count
Network Group
NSGroupCount
NSXPolicyGroup
NSXPolicyGroupCount
NSX-TIPSet
NSX-TIPSetCount
NSX-TLogicalPort
NSX-TLogicalPortCount

Virtual Disk / VM Datastore - Config Properties

Change
Datastore
Event
Problem
VM
Backing Disk
Capacity
Change
Datastore
Device Name
Disk Format
Disk Mode
Event
File Name
Name
Name
Problem
Thin Provisioned
VM
Vcenter

Snapshots Config Properties

RW IOPS
RW Throughput
Read IOPS
Read Latency
Read Throughput
Used Space
Write IOPS
Write Latency
Write Throughput

Snapshot - Metrics

Snapshot Size

Show <config Property> of VM – show vxlan of vm VM where
<config property> = value

[Supported properties for VM Configuration Queries](#)

Group by – Ex: vms group by host

Order by – Ex: vms order by cores

[Aggregate Functions](#)

max, min, sum, avg

Ex: sum(memory), sum(cpu cores) of vms

Virtual Machine Configuration Properties

Tools Version	Host
VMTools Config Status	Tag
VMTools Status	Tag Key
Vcenter	ACI Application Profile
Vnic	Address
Vnic Count	Address Group
Vxlan	Address Range
Datacenter	Application
Datastore	Change
Datastore Count	Dns Server
Disconnected Vnic Count	Domain Name
Vendor	Endpoint Group
Vendor ID	Event
Version	Fqdn
Standard Switch	Operating System
StandardPortgroup	Other Names
Virtual Disk Capacity	Policy Group
Virtual Disks	Problem
Power State	Region
Resource Pool	Search Domain
SDDC Type	Serial
Snapshot Count	Service Nodes
Snapshot Create Time	Static IP
Snapshots	Tier
Switch Ports	Role
Switches	CPU Allocation Limit
Cluster	CPU Cores
Connected Vnics	CPU Reservation
Connection State	Memory
Dvpg	Memory Allocation
Dvs	Limit
Folder	Memory Reservation

VM Datastore Metrics

Committed Space	Read Throughput
RW IOPS	Uncommitted Space
RW Throughput	Write IOPS
Read IOPS	Write Latency
Read Latency	Write Throughput

Show <Metric> of VM – show Sys Uptime of vm VM where
<Metric> = value

[Supported properties for VM metric Queries](#)

[Group by is not available for metrics](#)

Order by – Ex: vms order by cores

[Aggregate Functions](#)

max, min, sum, avg

Ex: sum(cpu usage mhz), sum(active memory) of vms

Virtual Machine Metrics

Sys Uptime	Rx Broadcast Packets
CPU Costop Rate	Rx Broadcast Ratio
CPU Costop Rate vCPU	Rx Packet Drop Ratio
CPU Costop Time	Rx Packet Drops
CPU Ready Rate	Rx Packets
CPU Ready Rate vCPU	Tx Broadcast Packets
CPU Ready Time	Tx Broadcast Ratio
CPU Run Rate	Tx Packet Drop Ratio
CPU Run Rate vCPU	Tx Packet Drops
CPU Run Time	Tx Packets
CPU Usage Mhz	Total Network Traffic
CPU Usage Rate	Total Packet Drop Ratio
CPU Wait Rate	Total Packet Drops
CPU Wait Rate vCPU	Total Packets
CPU Wait Time	Unicast Rx Packets
Memory Consumed	Unicast Tx Packets
Memory Overhead	Max Latency
Memory Swapin Rate	Max Network Rate
Memory Swapout Rate	Max Network Rx Rate
Memory Swapped	Max Network Tx Rate
Memory Usage Rate	Max Packet Drop Ratio
Memory Balloon	Max Packet Drops
Active Memory	Multicast Rx Packets
	Multicast Tx Packets
	Network Rate
Provisioned Space	Network Rx Rate
RW IOPS	Network Tx Rate
RW Throughput	
Read IOPS	
Read Latency	
Snapshot Size	Uncommitted Space
Committed Space	Write IOPS
Read Throughput	Write Latency
	Write Throughput

Virtual Disk - Metrics

Change	Event
Child Snapshot Count	File Name
Child Snapshots	Manager
Create Time	Name
Current	Problem

RETURN TO FRONT

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