



如何在集群模式Data ONTAP中启用SNMP v3

https://kb-cn-stage.netapp.com/on-prem/ontap/Ontap_OS/OS-KBs/How_to_enable_SNMP_v3_in_clust...

Updated: Wed, 22 Apr 2026 08:24:21 GMT

适用场景

- 集群模式 Data ONTAP 8.3
- 集群模式 Data ONTAP 8.2
- 集群模式 Data ONTAP 8.1
- 集群模式 Data ONTAP 8

描述

本文介绍如何在集群模式下启用和配置SNMP v3以及如何让DFM识别集群模式Data ONTAP中的SNMP v3。

操作步骤

请按照以下步骤操作：

- 1.为SNMP创建用户。此角色可以是"仅读"、"无"或"管理员"。

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对于无密码：

```
filer::~*> security login create -username snmp -application snmp -authmethod usm  
-role admin
```

Please enter the authoritative entity's EngineID [local EngineID]:

Please choose an authentication protocol (none, md5, sha) [none]:

要使用**MD5**或**SHA**实施密码：

```
filer::~*> security login create -username md5 -application snmp -authmethod usm  
-role admin
```

Please enter the authoritative entity's EngineID [local EngineID]:

Please choose an authentication protocol (none, md5, sha) [none]: md5

Please enter authentication protocol password (minimum 8 characters long):

Please enter authentication protocol password again:

Please choose a privacy protocol (none, des) [none]:

要使用**DES**加密：

```
filer::~*> security login create -username des -application snmp -authmethod usm  
-role admin
```

Please enter the authoritative entity's EngineID [local EngineID]:

Please choose an authentication protocol (none, md5, sha) [none]: md5

Please enter authentication protocol password (minimum 8 characters long):

Please enter authentication protocol password again:

Please choose a privacy protocol (none, des) [none]: des

Please enter privacy protocol password (minimum 8 characters long):

Please enter privacy protocol password again:

注意：如果SNMP主机的身份验证类型与为上面创建的已启用SNMPv3用户帐户选择的类型(-authMethod)不匹配，则会出现以下错误：

%Received a report pdu from remote host: Authentication failure (SNMPv3)

2. 验证是否已创建用户：

```
filer::*> security snmpusers -instance
```

```
User Name: des
```

```
Authentication Method: usm
```

```
Engine Id: 8000014603000000000000
```

```
Authentication Protocol: md5
```

```
Privacy Protocol: des
```

```
Security Group: readwrite
```

```
User Name: md5
```

```
Authentication Method: usm
```

```
Engine Id: 8000014603000000000000
```

```
Authentication Protocol: md5
```

```
Privacy Protocol: none
```

```
Security Group: readwrite
```

```
User Name: public
```

```
Authentication Method: community
```

```
Engine Id: 8000014603000000000000
```

```
Authentication Protocol: -
```

```
Privacy Protocol: -
```

```
Security Group: readonly
```

```
User Name: snmp
Authentication Method: usm
Engine Id: 8000014603000000000000
Authentication Protocol: none
Privacy Protocol: none
Security Group: readwrite
4 entries were displayed
```

3. 运行snmpwalk 以测试连接：

注：单击[此处](#)下载要运行的实用程序 `SNMPWalk`

在使用MD5或SHA且无加密的v3上测试snmpwalk的语法：

```
snmpwalk -v [version] -a [auth_protocol] -A [password] -u [username]
[hostname|IP]
```

例如：

```
snmpwalk -v 3 -a md5 -u md5 -A password21 10.10.10.10
```

用于测试采用MD5或SHA和DES加密的snmpwalk的语法：

```
snmpwalk -v [version] -a [auth_protocol] -A [protocol_password] -u
[username] -x [encryption] -A [encryption_password] [hostname|IP]
```

例如：

```
snmpwalk -v 3 -a MD5 -A password21 -l authNoPriv -u des -x DES -X
password21 10.10.10.10
```

注意：在集群模式Data ONTAP 8.1.1及更高版本中，`-l` `Snmpwalk`命令需要使用 `选项`。有关详细信息，请参见错误[498423](#)。

4. 按照以下步骤将集群添加到DFM：

- 按集群IP (通常为集群管理IP)添加存储系统：

```
dfm host add [IP_of_Cluster]
```

可在此处获取对象标识。

- 更改首选**SNMP**版本：

```
# dfm host get -q [ID_of_cluster]

host=cluster

hostLogin=

hostPassword=

hostPrimaryAddress=10.10.10.10

cpuTooBusyThreshold=95

cpuBusyThresholdInterval=00:15:00

hostAdminTransport=http

hostAdminPort=80

prefsnmpVersion=1 <-- set this

processHostIP=

autoClientStatEnabled=No
```

要设置选项：

```
dfm host set [ID_of_Cluster] optionname=[value]
```

例如：

```
# dfm host set 7553 prefsnmpVersion=3
```

主机集群的首选**SNMP**版本(7453)已更改为**3**。

要使**XML**正常工作、请确保为具有登录功能的用户设置了"**hostlogin**"和"**hostpassword**"。

- 设置**SNMP v3**登录名和密码：

```
# dfm snmp add -v 3 -U md5 -P password21 10.61.76.140/24
```

注意：DFM中的**SNMP v3**要求用户名和密码(长度为八个字符)。不支持空白密码。

- 测试SNMP v3与DFM的交互：

```
# dfm host diag [ID_of_cluster]
```

例如：

```
# dfm host diag 7553
```

```
Network Connectivity
```

```
IP Address 10.10.10.10
```

```
Network (discovery disabled)
```

```
DNS Aliases Failed <--dependent on DNS
```

```
DNS Addresses Failed <--dependent on DNS
```

```
SNMPv1 Failed: No community name given for SNMPv1 communication <--this  
needs to be set separately if using SNMPv1
```

```
SNMP Community
```

```
SNMPv3 Passed (132 ms) <-this should pass
```

```
SNMPv3 Auth Protocol MDS
```

```
SNMPv3 Privacy Enabled No
```

```
SNMPv3 Username md5
```

```
SNMPsysName br3040c
```

```
SNMP sysObjectID .1.3.6.1.4.1.789.2.5 (Cluster)
```

```
ICMP Echo Passed (0 ms)
```

```
HTTP Passed (0 ms)
```

```
NDMP (login not set) Skipped
```

```
RSH timed out
```

```
SSH Passed (9702 ms)
```

```
RLM Skipped (hostRLMAddress is empty) XML (http port 80) Passed (28 ms)
```

追加信息

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