

Scripting for Video-VLAN

Feature Overview and Configuration Guide

Introduction

Today's video surveillance networks can require a large number of switches to serve small groups of cameras. This type of deployment can significantly increase the workload of network administrators, therefore it is desirable to have a mechanism that reduces the effort required to configure each switch.

Designed to ease the administrative burden on the network administrator, **Scripting for Video-VLAN** is an additional component that can be used with AlliedWare Plus products, without modifying or upgrading the current software. It utilizes existing CLI commands and features, such as the trigger mechanism, to **auto-configure** an interface when certain devices, such as IP cameras, are detected.

Scripting for Video-VLAN can be used directly on a single device and is easily deployed from an Allied Telesis Management Framework™ (AMF) management node onto an entire working-set at once.

When Scripting for Video-VLAN is deployed on a device, and you connect a downstream device whose MAC address matches the customizable list of MAC address pattern, this results in the following automatic changes to that port:

1. A backup of the port's current configuration is created.
2. The port is placed untagged on the pre-specified Video-VLAN.
3. Traffic on the port is restricted to the downstream device's MAC address.

When the downstream device is disconnected, the backup configuration is restored for that port.

This guide describes how to customize, distribute, and activate Scripting for Video-VLAN.

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Products and software version that apply to this guide

This guide applies to all AlliedWare Plus™ products, running version **5.4.7** or later.

However, feature support and implementation varies between products. To see whether a product supports a particular feature or command, see the following documents:

- The [product's Datasheet](#)
- The [AlliedWare Plus Datasheet](#)
- The product's [Command Reference](#)

These documents are available from the above links on our website at alliedtelesis.com.

Feature support may change in later software versions. For the latest information, see the above documents.

Related documents

You may also find the following documents useful:

- [AMF Feature Overview and Configuration Guide](#)
- [IGMP/MLD Feature Overview and Configuration Guide](#)
- The product's [Command Reference](#)

These documents are available from the links above or on our website at alliedtelesis.com

Customizing Scripting for Video-VLAN

Scripting for Video-VLAN should be customized prior to deployment on a network.

Perform the following steps to customize your Scripting for Video-VLAN:

1. Open the **vv_script.sh** file in a plain-text editor. The `vv_script.sh` script file is available from the [Allied Telesis Download Center](#). If you do not have a login to the Allied Telesis Download Center, please contact [Allied Telesis Support](#).
2. Locate the three Shell constants near the top, called: VIDEO_VLAN_NAME, IP_CAMERA_MAC_TABLE, and MAC_ADDRESS_TIMEOUT
3. Customize the constants values to suit individual use-cases
 - VIDEO_VLAN_NAME - is used to locate the VLAN onto which ports will be placed when a recognized IP camera is detected. This must be the VLANs name, not its numeric vlan-id, and it must be the **full** name rather than a sub-string. This VLAN must already exist on the target device.
 - IP_CAMERA_MAC_TABLE - is the list of recognized MAC addresses or MAC prefixes that are associated with known IP cameras. This list can have any number of entries. Each entry must be separated from the previous one by white space. Asterisks can be used to represent wild-cards.
 - MAC_ADDRESS_TIMEOUT - is the amount of time (in seconds) that the script will wait for a downstream device to report its MAC address after the link goes up. If the downstream device does not report a MAC address within this window, the script will not make any configuration changes to that port.

Distributing Scripting for Video-VLAN over an AMF Network

If you are using AMF, then before activating the script you need to copy it on to all target nodes. Please note that customizing Scripting for Video-VLAN involves directly modifying a file that must be distributed to all target nodes. For that reason, it is much easier to customize prior to deployment rather than after.

Version 5.4.7 introduced a modification to the **copy force** command which enables it to be executed on AMF working-sets of arbitrary sizes. This allows for easier distribution to all target nodes.

Complete the following steps from the AMF management node:

1. Copy the **vv_script.sh** file onto the management node's Flash file system:
 - Example: copy from USB drive


```
awplus#copy usb:vv_script.sh flash
```
2. Open a working-set containing all target nodes:
 - Example: select all devices of a certain model


```
awplus#atmf working-set group IE300
```

3. From within the working-set, copy the `vv_script.sh` file from the management node's Flash file system onto all target nodes' Flash file systems.

- Example: copy from a management node named 'ATMF-M'

```
atmf-8328 [2]#copy force ATMF-M.atmf/flash:/vv_script.sh flash
```

Useful Tip: You can display a list of all nodes and their names with the command **show atmf nodes**

Activating Scripting for Video-VLAN

The script must be activated in order to perform some first-time setup and begin monitoring the ports.

You can optionally specify any number of ports or port-ranges as arguments when activating the script; doing so will cause Scripting for Video-VLAN to monitor and configure only the specified ports and port ranges. If you do not specify any ports, Scripting for Video-VLAN will monitor and configure **all** ports on the device.

If you have deployed Scripting for Video-VLAN across an AMF network, activate the script from within an AMF working-set that includes all of the target nodes.

- Example: Activate Scripting for Video-VLAN for all ports on the device.

```
awplus#activate vv_script.sh
```

- Example: Activate Scripting for Video-VLAN for a specific list of ports.

```
awplus#activate vv_script.sh port1.0.5 port1.0.9-1.0.12
```

Activating the script will modify your running-config, and will present a summary of all modifications made. If you want these changes to persist after reboot, you must manually update the boot config yourself (after reviewing the changes made and ensuring there were no mistakes).

Disabling Scripting for Video-VLAN

Scripting for Video-VLAN works via the AlliedWare Plus Trigger mechanism. To disable its auto-configuration behavior, you need only boot into a config which does not have the triggers configured.

Note: Because Scripting for Video-VLAN works by making active changes to your running-config for monitored ports, be cautious when replacing your startup-config with your running-config while ports are being monitored.