

Date: April 5th, 2018

Version: 1.0

| Revision | Date | Changes |
|----------|-----------------|-----------------|
| 1.0 | April 5th, 2018 | Initial Release |

Affected Platforms: All EOS platforms

Affected Software Version: EOS-4.20.1F release.

The CVE-ID tracking this issue is CVE-2018-5254

CVSS v3: 5.0 CVSS:3.0/AV:N/AC:L/PR:L/UI:N/S:C/C:N/I:N/A:L

Impact: This advisory is to document a security vulnerability that affects Arista products.

The switch's Rib agent may restart if a malicious BGP peer sends an UPDATE message containing a malformed path attribute. Such BGP updates are not expected to be received in typical production environments and have to be crafted and sent with the malformed values by a malicious BGP speaker.

There will be a log message when the switch receives such malformed packets prior to the rib agent restarting.

```
20xx-xx-08T04:27:52.328647+00:00 switch Rib: %BGP-5-UPDATE-ERROR: attr
ibute AS Path in update from peer 1.1.1.2 (AS 65502) is malformed, tre
ating as Withdraw.
20xx-xx-08T04:27:52.328647+00:00 switch Rib: %AGENT-6-INITIALIZED: Ag
ent 'Rib' initialized; pid=10873
```

Mitigation:

It is recommended to configure static BGP neighbors with strong BGP authentication keys to protect against unauthorized BGP peers in sending malformed BGP packets.

BUG 229418 tracks this vulnerability. A fix for this issue is available from SW versions 4.20.2F onwards.

Note: This vulnerability was identified internally by Arista Networks and Arista has not received evidence of this being exploited, as of the date of this update.



Resolution: It is recommended to upgrade EOS to versions with the fix or install the patch provided on affected versions of EOS

Patch file download URL:

SecurityAdvisory0033Hotfix.swix

Sha256 sum is:

[admin@switch flash]\$ sha256sum SecurityAdvisory0033Hotfix.swix

c0d8bea145222d9e28eca08d429bc3e14f8e30a86495a41501f1fefe84b9713b SecurityAdvisory0033Hotfix.swix

Note:

- This hotfix can be installed on the affected versions of EOS.
- A reload of the switch is not required for the patch to take effect

Instructions to install the patch:

1. Download the patch file and copy the file to the extension partition of the switch using one of the supported file transfer protocols:

```
switch#copy scp://10.10.0.1/SecurityAdvisory0033Hotfix.swix exten
sion:
switch#verify /sha256 extension:SecurityAdvisory0033Hotfix.swix
```

- 2. Verify that the checksum value returned by the above command matches the provided SHA256 checksum for the file
- 3. Install the patch using the extension command. The patch takes effect immediately at the time of installation.

switch#extension SecurityAdvisory0033Hotfix.swix

4. Verify that the patch is installed using the following commands:

| switch#show extensions | | | | |
|---------------------------------|-----------------|----|---|--------|
| Name | Version/Release | | | Status |
| Extension | | | | |
| | | | | |
| | | | | |
| SecurityAdvisory0033Hotfix.swix | 1.0.0/eng | A, | Ι | 1 |
| | | | | |

5. Make the patch persistent across reloads. This ensures that the patch is installed as part



of the boot-sequence. The patch will not install on EOS versions with the security fix.

switch#copy installed-extensions boot-extensions switch#show boot-extensions SecurityAdvisory0033Hotfix.swix

6. For dual supervisor systems run the above copy command on both active and standby supervisors:

```
switch(s1)#copy installed-extensions boot-extensions
switch(s2-standby)#copy installed-extensions to boot-extensions
```

References:

CVE-2018-5254

For More Information:

If you require further assistance, or if you have any further questions regarding this security notice, please contact the Arista Networks Technical Assistance Center (TAC) by one of the following methods:

Open a Service Request:

By email: support@arista.com By telephone: 408-547-5502 866-476-0000