



# CVE-2019-0056

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## CVE-2019-0056 - advisory for JSA10954

[Source: Mitre](#)[Source: NIST](#)[CVE.ORG](#)[Print: PDF](#)

CVSS:31/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:H



Certain versions of [Junos](#) from [Juniper](#) contain the following vulnerability:

This issue only affects devices with three (3) or more MPC10's installed in a single chassis with OSPF enabled and configured on the device. An Insufficient Resource Pool weakness allows an attacker to cause the device's Open Shortest Path First (OSPF) states to transition to Down, resulting in a Denial of Service (DoS) attack. This attack

requires a relatively large number of specific Internet Mixed (IMIXed) types of genuine and valid IPv6 packets to be transferred by the attacker in a relatively short period of time, across three or more PFE's on the device at the same time. Continued receipt of the traffic sent by the attacker will continue to cause OSPF to remain in the Down starting state, or flap between other states and then again to Down, causing a persistent Denial of Service. This attack will affect all IPv4, and IPv6 traffic served by the OSPF routes once the OSPF states transition to Down. This issue affects: Juniper Networks Junos OS on MX480, MX960, MX2008, MX2010, MX2020: 18.1 versions prior to 18.1R2-S4, 18.1R3-S5; 18.1X75 version 18.1X75-D10 and later versions; 18.2 versions prior to 18.2R1-S5, 18.2R2-S3, 18.2R3; 18.2X75 versions prior to 18.2X75-D50; 18.3 versions prior to 18.3R1-S4, 18.3R2, 18.3R3; 18.4 versions prior to 18.4R1-S2, 18.4R2.

CVE-2019-0056 has been assigned by [JJ](#) [sirt@juniper.net](#) to track the vulnerability - currently rated as **HIGH** severity.

Juniper SIRT is not aware of any malicious exploitation of this vulnerability.

### Vulnerability Patch/Work Around

There are no known workarounds for this issue.

CVSS3 Score: **7.5 - HIGH**

Attack  
Vector

**NETWORK**

Attack  
Complexity

**LOW**

Privileges  
Required

**NONE**

User  
Interaction

**NONE**

| Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Confidentiality Impact | Integrity Impact                                                          | Availability Impact                                                                                                 |        |         |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------|---------|----------|
| UNCHANGED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | NONE                   | NONE                                                                      | HIGH                                                                                                                |        |         |          |
| CVSS2 Score: 5 - MEDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                                                           |                                                                                                                     |        |         |          |
| Access Vector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Access Complexity      | Authentication                                                            |                                                                                                                     |        |         |          |
| NETWORK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LOW                    | NONE                                                                      |                                                                                                                     |        |         |          |
| Confidentiality Impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Integrity Impact       | Availability Impact                                                       |                                                                                                                     |        |         |          |
| NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NONE                   | PARTIAL                                                                   |                                                                                                                     |        |         |          |
| CVE References                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                           |                                                                                                                     |        |         |          |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        | Tags                                                                      | Link                                                                                                                |        |         |          |
| 2019-10 Security Bulletin: Junos OS: MX Series: An MPC10 Denial of Service (DoS) due to OSPF states transitioning to Down, causes traffic to stop forwarding through the device. (CVE-2019-0056) - Juniper Networks                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | <div>Vendor Advisory</div> <div>kb.juniper.net</div> <div>text/html</div> |  MISC<br>kb.juniper.net/JSA10954 |        |         |          |
| By selecting these links, you may be leaving CVEreport webspace. We have provided these links to other websites because they may have information that would be of interest to you. No inferences should be drawn on account of other sites being referenced, or not, from this page. There may be other websites that are more appropriate for your purpose. CVEreport does not necessarily endorse the views expressed, or concur with the facts presented on these sites. Further, CVEreport does not endorse any commercial products that may be mentioned on these sites. Please address comments about any linked pages to <a href="mailto:comment@cve.report">comment@cve.report</a> . |                        |                                                                           |                                                                                                                     |        |         |          |
| There are currently no QIDs associated with this CVE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        |                                                                           |                                                                                                                     |        |         |          |
| Known Affected Configurations (CPE V2.3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                           |                                                                                                                     |        |         |          |
| Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Vendor                 | Product                                                                   | Version                                                                                                             | Update | Edition | Language |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | -      | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r2     | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r2-s1  | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r2-s2  | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r3     | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r3-s2  | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r3-s3  | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1                                                                                                                | r3-s4  | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.1x75                                                                                                             | d10    | All     | All      |
| Operating System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Juniper                | Junos                                                                     | 18.2                                                                                                                | -      | All     | All      |

| Operating System | Vendor  | Series | Release | Model | Platform | Architecture |
|------------------|---------|--------|---------|-------|----------|--------------|
| Operating System | Juniper | Junos  | 18.2    | r2-s1 | All      | All          |
| Operating System | Juniper | Junos  | 18.2    | r2-s2 | All      | All          |
| Operating System | Juniper | Junos  | 18.2x75 | -     | All      | All          |
| Operating System | Juniper | Junos  | 18.2x75 | d20   | All      | All          |
| Operating System | Juniper | Junos  | 18.2x75 | d40   | All      | All          |
| Operating System | Juniper | Junos  | 18.3    | -     | All      | All          |
| Operating System | Juniper | Junos  | 18.3    | r1    | All      | All          |
| Operating System | Juniper | Junos  | 18.3    | r1-s1 | All      | All          |
| Operating System | Juniper | Junos  | 18.3    | r1-s2 | All      | All          |
| Operating System | Juniper | Junos  | 18.3    | r1-s3 | All      | All          |
| Operating System | Juniper | Junos  | 18.4    | -     | All      | All          |
| Operating System | Juniper | Junos  | 18.4    | r1    | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | -     | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r2    | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r2-s1 | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r2-s2 | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r3    | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r3-s2 | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r3-s3 | All      | All          |
| Operating System | Juniper | Junos  | 18.1    | r3-s4 | All      | All          |
| Operating System | Juniper | Junos  | 18.1x75 | d10   | All      | All          |
| Operating System | Juniper | Junos  | 18.2    | -     | All      | All          |
| Operating System | Juniper | Junos  | 18.2    | r2-s1 | All      | All          |

|                                                                                                                                                                                  |         |        |         |       |     |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|---------|-------|-----|-----|
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.2    | r2-s1 | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.2    | r2-s2 | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.2x75 | -     | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.2x75 | d20   | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.2x75 | d40   | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.3    | -     | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.3    | r1    | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.3    | r1-s1 | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.3    | r1-s2 | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.3    | r1-s3 | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.4    | -     | All | All |
| Operating System                                                                                                                                                                 | Juniper | Junos  | 18.4    | r1    | All | All |
| Hardware   | Juniper | Mx2008 | -       | All   | All | All |
| Hardware   | Juniper | Mx2008 | -       | All   | All | All |
| Hardware   | Juniper | Mx2010 | -       | All   | All | All |
| Hardware   | Juniper | Mx2010 | -       | All   | All | All |
| Hardware   | Juniper | Mx2020 | -       | All   | All | All |
| Hardware   | Juniper | Mx2020 | -       | All   | All | All |
| Hardware   | Juniper | Mx480  | -       | All   | All | All |
| Hardware   | Juniper | Mx480  | -       | All   | All | All |
| Hardware   | Juniper | Mx960  | -       | All   | All | All |
| Hardware   | Juniper | Mx960  | -       | All   | All | All |
| cpe:2.3:o:juniper:junos:18.1:-:*****:                                                                                                                                            |         |        |         |       |     |     |
| cpe:2.3:o:juniper:junos:18.1:r2:*****:                                                                                                                                           |         |        |         |       |     |     |
| cpe:2.3:o:juniper:junos:18.1:r2-s1:*****:                                                                                                                                        |         |        |         |       |     |     |
| cpe:2.3:o:juniper:junos:18.1:r2-s2:*****:                                                                                                                                        |         |        |         |       |     |     |
| cpe:2.3:o:juniper:junos:18.1:r3:*****:                                                                                                                                           |         |        |         |       |     |     |

|                                                             |
|-------------------------------------------------------------|
| cpe:2.3:o:juniper:junos:18.1:r3-s2:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1:r3-s3:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1:r3-s4:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1x75:d10:~::~~::~~::~~::~~::~~:: |
| cpe:2.3:o:juniper:junos:18.2:-:~::~~::~~::~~::~~::~~::      |
| cpe:2.3:o:juniper:junos:18.2:r2-s1:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.2:r2-s2:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.2x75:-:~::~~::~~::~~::~~::~~::   |
| cpe:2.3:o:juniper:junos:18.2x75:d20:~::~~::~~::~~::~~::~~:: |
| cpe:2.3:o:juniper:junos:18.2x75:d40:~::~~::~~::~~::~~::~~:: |
| cpe:2.3:o:juniper:junos:18.3:-:~::~~::~~::~~::~~::~~::      |
| cpe:2.3:o:juniper:junos:18.3:r1:~::~~::~~::~~::~~::~~::     |
| cpe:2.3:o:juniper:junos:18.3:r1-s1:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.3:r1-s2:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.3:r1-s3:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.4:-:~::~~::~~::~~::~~::~~::      |
| cpe:2.3:o:juniper:junos:18.4:r1:~::~~::~~::~~::~~::~~::     |
| cpe:2.3:o:juniper:junos:18.1:-:~::~~::~~::~~::~~::~~::      |
| cpe:2.3:o:juniper:junos:18.1:r2:~::~~::~~::~~::~~::~~::     |
| cpe:2.3:o:juniper:junos:18.1:r2-s1:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1:r2-s2:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1:r3:~::~~::~~::~~::~~::~~::     |
| cpe:2.3:o:juniper:junos:18.1:r3-s2:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1:r3-s3:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1:r3-s4:~::~~::~~::~~::~~::~~::  |
| cpe:2.3:o:juniper:junos:18.1x75:d10:~::~~::~~::~~::~~::~~:: |
| cpe:2.3:o:juniper:junos:18.2:-:~::~~::~~::~~::~~::~~::      |
| cpe:2.3:o:juniper:junos:18.2:r2-s1:~::~~::~~::~~::~~::~~::  |

|                                           |
|-------------------------------------------|
| cpe:2.3:o:juniper:junos:18.2:r2-s2:~::~:  |
| cpe:2.3:o:juniper:junos:18.2x75:~::~:     |
| cpe:2.3:o:juniper:junos:18.2x75:d20:~::~: |
| cpe:2.3:o:juniper:junos:18.2x75:d40:~::~: |
| cpe:2.3:o:juniper:junos:18.3:~::~:        |
| cpe:2.3:o:juniper:junos:18.3:r1:~::~:     |
| cpe:2.3:o:juniper:junos:18.3:r1-s1:~::~:  |
| cpe:2.3:o:juniper:junos:18.3:r1-s2:~::~:  |
| cpe:2.3:o:juniper:junos:18.3:r1-s3:~::~:  |
| cpe:2.3:o:juniper:junos:18.4:~::~:        |
| cpe:2.3:o:juniper:junos:18.4:r1:~::~:     |
| cpe:2.3:h:juniper:mx2008:~::~:            |
| cpe:2.3:h:juniper:mx2008:~::~:            |
| cpe:2.3:h:juniper:mx2010:~::~:            |
| cpe:2.3:h:juniper:mx2010:~::~:            |
| cpe:2.3:h:juniper:mx2020:~::~:            |
| cpe:2.3:h:juniper:mx2020:~::~:            |
| cpe:2.3:h:juniper:mx480:~::~:             |
| cpe:2.3:h:juniper:mx480:~::~:             |
| cpe:2.3:h:juniper:mx960:~::~:             |
| cpe:2.3:h:juniper:mx960:~::~:             |

No vendor comments have been submitted for this CVE

Social Mentions

| Source | Title | Posted (UTC) |
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