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2015-12 Out of Cycle Security Bulletin: ScreenOS: Multiple Security issues with ScreenOS (CVE-2015-7755, CVE-2015-7756)

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PRODUCT AFFECTED:

Please see below for details.

PROBLEM:

During an internal code review, two security issues were identified.

Administrative Access (CVE-2015-7755) allows unauthorized remote administrative access to the device. Exploitation of this vulnerability can lead to complete compromise of the affected device.

This issue only affects ScreenOS 6.3.0r17 through 6.3.0r20. **No other Juniper products or versions of ScreenOS are affected by this issue.**

Upon exploitation of this vulnerability, the log file would contain an entry that 'system' had logged on followed by password authentication for a username.

Example:

Normal login by user **username1**:

```
2015-12-17 09:00:00 system warn 00515 Admin user username1 has logged on via SSH from ....
2015-12-17 09:00:00 system warn 00528 SSH: Password authentication successful for admin user
'username1' at host ...
```

Compromised login by user **username2**:

```
2015-12-17 09:00:00 system warn 00515 Admin user system has logged on via SSH from ....
2015-12-17 09:00:00 system warn 00528 SSH: Password authentication successful for admin user
'username2' at host ...
```

Note that a skilled attacker would likely remove these entries from the local log file, thus effectively eliminating any reliable signature that the device had been compromised.

This issue has been assigned [CVE-2015-7755](#).

VPN Decryption (CVE-2015-7756) may allow a knowledgeable attacker who can monitor VPN traffic to decrypt that traffic. It is independent of the first issue.

This issue affects ScreenOS 6.2.0r15 through 6.2.0r18 and 6.3.0r12 through 6.3.0r20. **No other Juniper products or versions of ScreenOS are affected by this issue.**

There is no way to detect that this vulnerability was exploited.

This issue has been assigned [CVE-2015-7756](#).

Juniper SIRT is not aware of any malicious exploitation of these vulnerabilities, however the password needed for the administrative access has been revealed publicly.

No other Juniper Networks products or platforms are affected by these issues.

Juniper has issued a statement about these vulnerabilities at: <http://forums.juniper.net/5/Security-Incident-Response/bg-p/SIRT>

SOLUTION:

The following software releases have been updated to resolve these specific issues: ScreenOS 6.2.0r19, 6.3.0r21, and all subsequent releases.

Additionally, earlier affected releases of ScreenOS 6.3.0 have been respun to resolve these issues. Fixes are included in: 6.3.0r12b, 6.3.0r13b, 6.3.0r14b, 6.3.0r15b, 6.3.0r16b, 6.3.0r17b, 6.3.0r18b, 6.3.0r19b.

All affected software releases on <http://www.juniper.net/support/downloads/screenos.html> have been updated with these fixes.

KB16765 - "In which releases are vulnerabilities fixed?" describes which release vulnerabilities are fixed as per our End of Engineering and End of Life support policies.

WORKAROUND:

The Juniper SIRT strongly recommends upgrading to a fixed release (in Solution section above) to resolve these critical vulnerabilities.

CVE-2015-7755 (unauthorized access) Mitigation

Restricting management access to only trusted management networks and hosts will help mitigate this issue. The attack can only be executed from a location where a legitimate management login would be permitted.

CVE-2015-7756 (VPN decryption) Mitigation

No workaround or detection exists for the VPN decryption vulnerability.

Security Best Current Practice (BCP)

In addition to the recommendations listed above, it is good security practice to limit the exploitable attack surface of critical infrastructure networking equipment. Use access lists or firewall filters to limit management access to the device only from trusted, internal, administrative networks or hosts.

IMPLEMENTATION:

How to obtain fixed software:

ScreenOS software releases are available at <http://www.juniper.net/support/downloads/screenos.html>

MODIFICATION HISTORY:

2015-12-17: Initial publication

2015-12-17: Clarified that VPN decryption requires access to VPN traffic.

2015-12-18: Clearly separated two issues with two CVE IDs and two mitigation statements.

2015-12-20: Researcher revealed password for administrative access publicly.

2015-12-20: Added more specific affected versions for each issue.

RELATED LINKS:

- [KB16613: Overview of the Juniper Networks SIRT Quarterly Security Bulletin Publication Process](#)
- [KB16765: In which releases are vulnerabilities fixed?](#)
- [KB16446: Common Vulnerability Scoring System \(CVSS\) and Juniper's Security Advisories](#)
- [Report a Vulnerability - How to Contact the Juniper Networks Security Incident Response Team](#)
- [CVE-2015-7755: Unauthorized remote administrative access to ScreenOS](#)
- [CVE-2015-7756: ScreenOS VPN decryption vulnerability](#)
- [Juniper Networks Security Incident Response Team J-Net Blog](#)

CVSS SCORE:

9.8 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H)

RISK LEVEL:

Critical

RISK ASSESSMENT:

Information for how Juniper Networks uses CVSS can be found at KB 16446 "Common Vulnerability Scoring System (CVSS) and Juniper's Security Advisories."

ACKNOWLEDGEMENTS: