EndRun TECHNOLOGIES

2270 Northpoint Parkway, Santa Rosa, CA 95407

FIELD SERVICE BULLETIN

FSB# 140926-01

September 26, 2014

(Revised September 30, 2014)

Affected Products:

All Sonoma Time Servers.

Part Number:	Description:
3026-xxxx-xxx	Sonoma D12 Network Time Server (CDMA-Synchronized)
3027-xxxx-xxx	Sonoma D12 Network Time Server (GPS-Synchronized)
3028-xxxx-xxx	Sonoma N12 Network Time Server (CDMA-Synchronized)
3029-xxxx-xxx	Sonoma N12 Network Time Server (GPS-Synchronized)

Note: "x" is variable.

Problem:

Shellshock vulnerabilities CVE-2014-6271, -6277, -6278, -7169

Vulnerabilities have been detected in the Linux operating system **`bash`** shell. If you have the Web Interface (HTTP) enabled on your Time Server, or you have NOT secured your Time Server according to best practices, then it might allow remote attackers to execute code. Details are here:

http://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-6271
http://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-6277
http://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-6278
http://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-7169

Required Action:

Firmware is available that eliminates all Shellshock vulnerabilities listed above. Go to one of the following links for the new Linux Subsystem firmware with upgrade instructions:

Sonoma (GPS-Synchronized)	http://www.endruntechnologies.com/upgradesonomaG.htm
Sonoma (CDMA-Synchronized)	http://www.endruntechnologies.com/upgradesonomaC.htm

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Or... if you do not want to upgrade firmware at this time, then disable the Web Interface (HTTP) and follow best practices for access control. This will protect your Time Server from the Shellshock threat. Perform the following steps:

1. Disable the Web Interface (HTTP). See your ***User Manual, Chapter 5 – Security, Disable SNMP, SSH and HTTP.*** Links to the user manuals are listed below.

2. Disable TELNET which has always been insecure. See your ***User Manual, Chapter 5 – Security, Disable Telnet, Time and Daytime***. Links to the user manuals are listed below.

3. Configure *hosts.allow/hosts.deny* to limit SSH login access to specific hosts.
See your ***User Manual, Chapter 5 – Security, Restrict Access - Telnet, SSH and SNMP*** for details.
Links to the user manuals are listed below.

4. Disable login access for ALL non-administrative users by changing the unprivileged user password.
To do this, at the command line interface, type the following command:

```
passwd ntpuser
```

Background Information:

The ShellShock vulnerabilities are only a threat to your Time Server if the Web Interface (HTTP) is enabled and you are NOT managing the unit according to recommended best practices for access control. Otherwise, it is only possible to exercise the threat by an authenticated user, or via DHCP from a malicious DHCP server, such as from a public internet access point.

EndRun network products have always employed a minimalist suite of protocols--only those necessary for the specific function the appliances provide. By disabling those that are not essential, the security risks are minimized. Since the products are not general use servers, login access should be restricted to a handful of adminstrative personnel from a handful of specific hosts. We believe that restricting access will eliminate the risks presented by the ShellShock vulnerability and most future vulnerabilites as well.

The following paper describes recommended best practices for your Sonoma Time Server:
http://www.endruntechnologies.com/pdf/AppNoteSecurity.pdf

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User Manuals:

Sonoma D12 (CDMA)	http://www.endruntechnologies.com/pdf/USM3026-0000-000.pdf
Sonoma D12 (GPS)	http://www.endruntechnologies.com/pdf/USM3027-0000-000.pdf
Sonoma N12 (CDMA)	http://www.endruntechnologies.com/pdf/USM3028-0000-000.pdf
Sonoma N12 (GPS)	http://www.endruntechnologies.com/pdf/USM3029-0000-000.pdf

Contact Information:

Feel free to contact us if you have any questions or need help:

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