

SUMMER 2017

◀ THE SOURCE ▶

Hints, tips, tools and resources from real IT geeks.

SHARPEN YOUR BLADE

Track down office printing, slash costs and slice waste like a paper cutting ninja.

IN THIS EDITION

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Source  ne™
T E C H N O L O G Y




All articles written
by Source One
Technology's team of
engineers!

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Welcome to the Summer edition of The Source - hints, tips, tools, and resources for IT novices and experts alike.

In this edition, we show you how to trim office print costs with help from PrintLogger, lock your digital doors with simple firewall checks and introduce a free open source VPN tool. We also look at keeping your firmware looking its best and free back up tools to protect your data.

I hope you find the magazine useful and if you have any other questions check out our blog, connect with us online or give us a call.

Sincerely, Jesse.



Jesse Rink
OWNER, SOURCE ONE
TECHNOLOGY.

An experienced network engineer, Jesse has been sharing his expertise and experience with schools, non-profits and businesses in South Eastern Wisconsin for over 18 years.

点検技術 NINJA

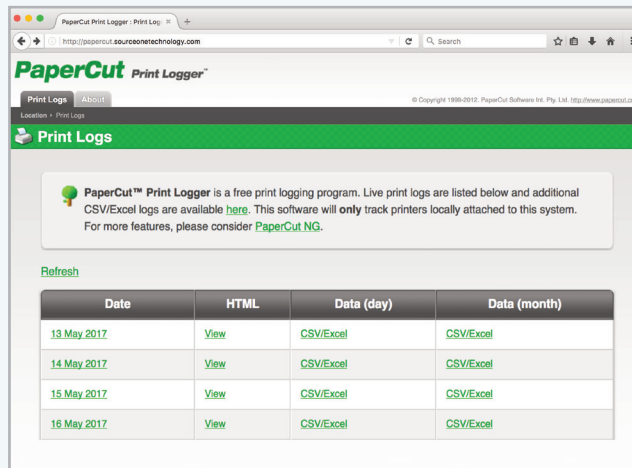
→ REAL-TIME PRINT ACTIVITY LOGS

Cut your office printing costs

Would you like to have an easy way to audit printer usage on your network? There are many ways you can accomplish this, but one quick and easy way we found, is by installing a free program developed by PaperCut called PrintLogger.

PrintLogger runs as a system service and teams-up with your Windows Print Spooler service to log printer use.

- PrintLogger can be installed and running within minutes
- Works with dedicated Windows print servers or on individual PCs
- Logs user history, number of pages printed and more
- Keeps a historical timeline of all printed files
- Archives are stored in CSV file formats (which can be later analyzed in Excel)



PrintLogger immediately starts collecting information on installation. From there, you can import the CSV log files into your favorite spreadsheet program and run quick filters and calculations.

Get creative with a PowerShell script, and you can automatically send reports via email or revoke printing after a quota limit is reached.

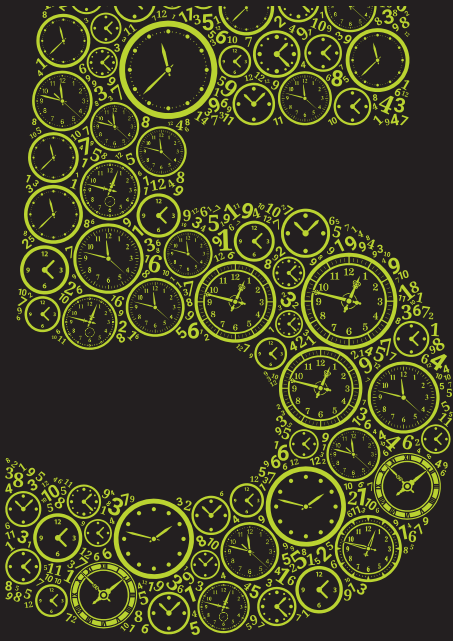
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minute firewall check



Out of the box, most default policies allow any internal host on your network to access any external host over any port or service.

Instead, implement egress / outbound access rules to allow internal hosts to access external hosts using only services that you specify. By whitelisting outbound traffic at the network level, you're gaining more control over your network as well as further reducing the surface area for threats.

In addition, today's next-gen UTM firewalls are far more advanced than firewalls of old. To supplement standard network-level whitelisting, consider enabling other security services such as intrusion detection/prevention and application whitelisting, as well.

Combining network and application-level filtering will further bolster your network against some of the more recent and advanced threats. In many environments, especially schools, this combination can also prevent the more inquisitive users on your network from circumventing other controls, such as web filtering!

Before you check your rules, are you curious what your firewall allows out of your network? Load up your favorite port/security scanner, such as nmap, and target **allports.exposed**. You may be surprised—you may not.

back it up

Good backups are a critical piece of any IT infrastructure. Without good backups, your information is at high risk for data loss. Here are a few free options to get you started:

01

WINDOWS SERVER BACKUP

Windows Server Backup performs scheduled (and on-demand) backups of the server its installed on. It's built into Windows Server. Open *Server Manager* and *Add Roles/Features* to enable it. **Skill level required: Novice.**

02

VEAAM BACKUP FREE EDITION

If you're virtualized, check out Veeam Backup Free Edition. Veeam is a powerful backup solution for the enterprise. Free Edition supports a subset of Enterprise Plus features, making it an attractive option for VMWare and Hyper-V environments. **Skill level required: Intermediate.**

VEAAM.COM

03

UNITRENDS FREE

Unitrends Free allows you to protect up to 1TB of virtual machine data—with no limit on the number of sockets in the hypervisors or on the number of VMs. It even lets you back up physical Windows-based servers.

Skill level required: Intermediate.

UNITRENDS.COM



Introducing OpenVPN

If you're interested in connecting up branch offices or allowing remote users secure access to Head Office files and systems without the need for expensive VPN technology, you should look at OpenVPN.

All firewalls these days are capable of supporting Virtual Private Network (VPN) technologies that allow for site-to-site connectivity or remote user access. The differences in user interfaces between the different firewalls can often cause interoperability issues when trying to connect sites for VPN access, and often times remote user access is a paid-for licensed feature on top of the

→ AVAILABLE FOR: PC, MAC, IOS AND ANDROID

regular feature set included with the base firewall packages.

This is where OpenVPN really shines. The "Open" in the name means Open-Source. The code is developed by the community and the technology is free to use. The configuration is well documented, and connections between different firewall platforms all utilize a standardized configuration file. Performance is on par with any other VPN technology, and security is based on industry standard encryption and authentication.

Remote access is very easy to get working and connecting to the VPN is as simple as "Right-Click, Connect" with only so much as a password prompt for the user to complete.

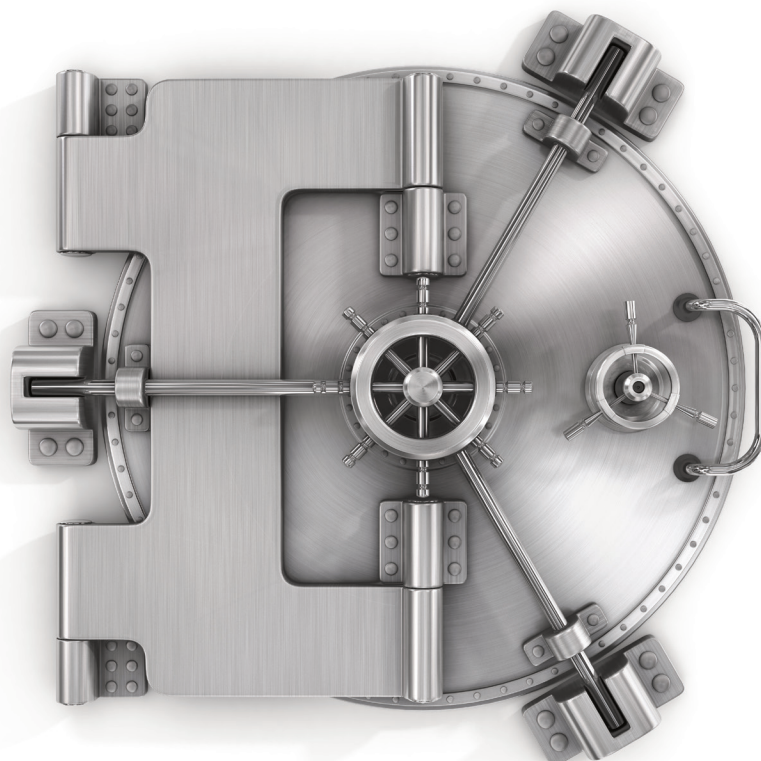
To find out more about how to get the best out of OpenVPN or VPN technology in general, get in touch, we're always happy to share what we know.

OPENVPN.NET



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Ever found yourself in a situation where your VMWare Host server has given you a Purple Screen of Death (PSOD), and you're not in the same location as the server?

If you don't have physical access to that server, or if there's no other technician on-site to walk through the process of restarting that server, your day (or weekend!) just got worse.

Enter the following three remote management cards options:

- **HP** - Integrated Lights Out (iLO)
- **Dell** - Dell Remote Access Control (DRAC)
- **IBM** - Integrated Management Module (IMM)

These cards give server administrators out-of-band management and the ability to remotely access the server as if you were there, -regardless- of the state of the server's operating system.

From the luxury of your home or office, you can:

- Power the server off/on, mount virtual media and .ISO files
- Remote console access (keyboard, mouse, and video)
- Adjust BIOS settings
- Watch/change the POST process
- Change boot priority
- Access hardware sensors
- Perform firmware updates
- Run diagnostics
- Access system logs
- Perform VMware host upgrades, and countless other helpful tasks.

Each manufacturer offers different levels of functionality; whether you are using the free version included with most lines of server products, or whether you require the advanced feature sets which are typically unlocked through the purchase of an upgraded license key.

Either way, the cards are extremely valuable and make your job as server administrators a lot easier!

HP, DELL AND IBM SERVERS



⊕ update your **firmware**

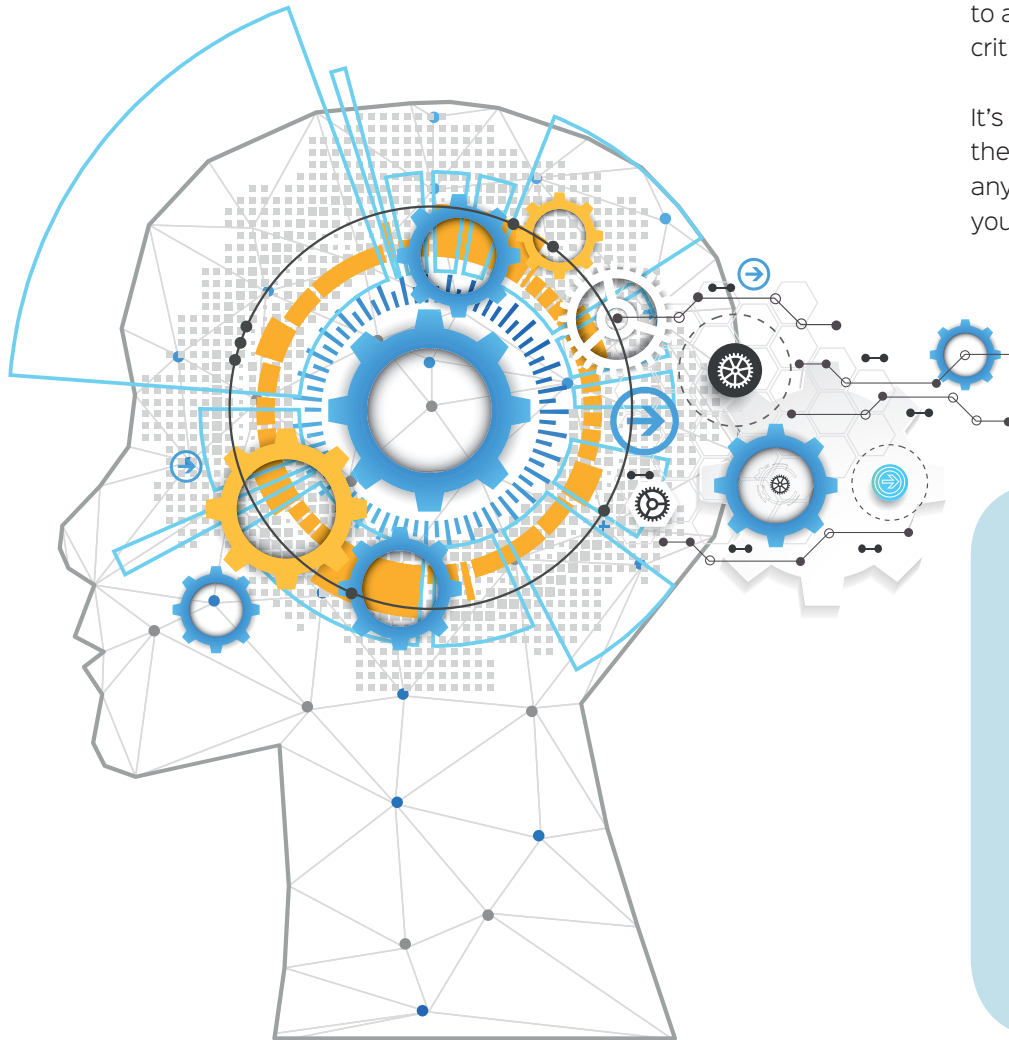
Nearly every device on your network, including components in your servers, runs some type of firmware or low-level OS. Occasionally, vendors will release updates to fix known issues, patch vulnerabilities, or introduce new features.

It's a good idea to register any equipment your purchase, so you receive notifications from the vendor when new firmware is released. This is especially important when it comes to addressing vulnerabilities or other critical issues.

It's also recommended to glance over the release notes to see if there are any impacts to the specific device you're updating. It's not uncommon

for vendors to bring the latest and greatest features to older platforms, but sometimes those new features come at a cost, such as reduced performance.

Finally, before you update firmware, make sure you back up the configuration! Some updates require a new configuration (check the release notes). Some updates go wrong.



→ RESEARCH

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Could you visit the website below and tell us what you think of it and how we can make it even better? Thanks for your help. Jesse.

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Source One Technology was instrumental in moving all of our IT functions from our Massachusetts office to our Milwaukee office, and did so, on time and within budget. Their expertise, attentive response, fair pricing, and down to earth professionalism is second to none.

Tony Conde
INFORMATION MANAGER
PFERD MILWAUKEE BRUSH



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