Why To Series

The series that focuses on why

pfSense Best Practices – Part 1

5 Tips for Using pfSense Software

Overview

Whether you're new to pfSense firewalls or a seasoned pro, there are always things to do that make your network more secure. Some of the tips provided here are simple, while some serve as good reminders of the simple things we often forget to do.

This is the first in a series of Why To articles to help you get more out of your experience with pfSense firewall, VPN, and routing software. There are many great articles and videos available that explain how to implement the tips in this series.

1) Change the Password

This may sound basic, but it's easily overlooked. And while you're at it, make sure to use a **strong password**. pfSense doesn't have limitations on what special characters you can use, so make it a good one.

2) Backup the Configuration File

Having a backup of the configuration file (config.xml) is a lifesaver if you have to reinstall pfSense software from scratch. Restoring a current backup can save *hours*, depending on the complexity of your configuration.

There are a couple of ways to create a backup of your configuration. You can create a manual backup of config.xml by choosing **Backup & Restore** from the Diagnostics menu.

You can also use AutoConfigBackup (ACB). With pfSense version 2.4.4 and above, navigate to **Services -> Auto Config Backup** to use the service. ACB saves the last **100 configurations**, so stepping back to a previous configuration is easy to accomplish.

If you are using the package that was available with a pfSense Gold Subscription (called Legacy ACB), visit **Diagnostics -> AutoConfigBackup** to access the package.

You will still be able to view or restore your Legacy backups by clicking the **Legacy** button on the ACB page, but you can no longer create backups using the Legacy ACB package.

You can find a lot more information on the Automatic Configuration Backup Service at https://www.netgate.com/docs/pfsense/backup/autoconfigbackup.html.

3) Perform the Updates

Again, it sounds basic, but **run the updates** when they're available. pfSense firewall software is a very stable product, and it's easy to set it and forget it. Don't.

It's not unusual to see social media posts bragging about 900 or more days of uptime on a firewall. That isn't a bragging right. A firewall that hasn't been updated has all kinds of security holes and vulnerabilities that can be fixed by applying the updates.

If you haven't performed an update on your firewall in a while, stop reading this and go do it. Now. **It's that important**.

4) Perform Graceful Shutdowns

Be sure the pfSense firewall doesn't lose power abruptly. This can happen if you are running the firewall in an environment with dirty power, a power loss, or if you pull the power cord to reboot the system.

Depending on the state of the firewall and what is occurring, abrupt loss of power can corrupt the firmware and require running the *fsck* command to clean up the firmware or in extreme cases, a complete reinstallation of the pfSense software.

It's important to ensure that your pfSense firewall is on an **uninterruptable power supply** (UPS) and that you shut it down gracefully from the **Diagnostics** menu in the web GUI or option 6 from the serial or video console (depending on the system).

5) Use the Console

Speaking of the console, there are some important features there that can help you resolve issues quickly. You can reboot or shutdown the firewall, you can restore the firewall back to **factory default**, assign interfaces, and you can **reset the password** for the webConfigurator.

These are just a few of the things you can do from the console. If you're administrating a pfSense firewall and you aren't using the console, you're missing out on some powerful features.

About Netgate

Netgate, the open-source secure networking company, delivers superior value firewall, VPN, and routing solutions. With over 1 million active pfSense installations – businesses, educational institutions, and government agencies around the world depend on Netgate for cloud or premises, enterprise ready, secure networking solutions.

Find out more at www.netgate.com