FNGi
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Located in historic downtown Wapakoneta, Ohio, FNGi has been instrumental in developing and supporting Internet Networks across the U.S. since 1993. The FNGi team can assist you with all phases of your Internet Network from initial planning through long-term support.

www.network1.net
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FOCUS Newsletter

In this issue we discuss if you really need to keep Flash and Java installed on your computer. If you choose to keep Java, we have a neat trick for you to keep it from changing your default browser settings on each update. Speaking of updates, we take a look at how important they are for your products and how we can help with them. Finally we delve into the Suspend User feature of the DHCPatriot.

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Should You Keep Flash and Java?

When the web was first created, the simple language was built upon with a concept of plug-ins. These are additional pieces of software that can interact with your web browser or other program to offer additional functions beyond what standard HTML is capable of.

The two most popular and obvious are Adobe Flash Player and Java (not to be confused with Javascript). These plug-ins have allowed us to experience the web in whole new ways over the past many years, but at a high cost. Since most of their development and code is done in closed source and non-proprietary way, and their hooks can reach so deeply into the browser they are one of the biggest targets for hacking and viruses.

But the biggest issue is that they are so ubiquitous that they are an easy target. A report from security vendor Secunia ApS, in 2015, 48% of all installations of Java were not patched or updated. When users are not applying updates to these two pieces of software or the updates are not coming out fast enough to keep pace with the exploits it leads to one of the biggest vulnerabilities for your computer.

So do you need Flash and Java in 2016? The easy answer is NO. Modern browsers (Google Chrome, Microsoft Edge and Mozilla Firefox) have been including a source managed version of Flash for some time that is maintained by those respective companies for the browser itself and they all support HTML5 video standards that do not require Flash to play video content. So uninstall Adobe Flash Player from your computer.

Javascript and other software have matured to the point that most things done purely in Java are easier to do without using Java. However some desktop applications or specific websites that require Java will not run without it. The easiest thing to do is uninstall Java and see what happens. If there is a program that requires it, the next time you run it, it will let you know that it needs to be installed. Download it only from java.com and make sure to keep it up-to-date. Or, better yet, find an alternate program that doesn't rely on Java at all to accomplish your goal.

Keeping Java?

So you've decided to keep Java, or cant ditch it due to some program requirement. But with each update you have to put up with it possibly resetting your homepage, your search engine or some other money generating scheme they are using to fund its future.

Thankfully, Oracle (the current owner of Java), have noticed that this may be making it less likely for people to apply updates and as such have added a way to disable this in the future.

Remove the Sponsored Content:

1. Click on Start and type "Java" and open the "Configure Java" desktop application or Control Panel icon.
2. Click on the Advanced tab.
3. Scroll all the way to the bottom of the list.
4. Place a checkmark in "Suppress sponsor offers when installing or updating Java."
5. Click OK.

Keeping Up with Updates

It is commonly understood that computer systems need to be kept up to date in order to keep them secure, and to fix bugs. End-user computers have updates that either automatically happen, or at least notify the user when they are ready to be installed. For servers, it is typical to have scheduled maintenance to install updates and reboot.

Unfortunately, network routers, firewalls, and switches are often not given the same care. There are several reasons that this may happen:

1. The appropriate decision maker is not aware of the need
2. There is a desire to not modify network devices that are deemed "working"
3. There is a desire to not have any outages of network devices
4. A support contract is often required to get the latest software.

For #1, it is simply a matter of education, which we hope this article serves to help.

For #2, it needs to be understood that by not keeping network systems up-to-date, you are potentially exposing your network to security issues, and denial-of-service attacks.

For #3, there are a variety of techniques to make your network redundant, so that outages caused by updates are minimal. These features also make your network more robust in general, protecting against device failure. First Network Group can help to design and deploy a network architecture that is less vulnerable to outages.

#4 should be considered as a required cost of doing business. Depending on the hardware vendor, the costs will vary. There are some vendors whose support contracts are significantly less costly than others. It is important to factor in the ongoing operational costs when deciding on the particular brand and model of gear for your needs.

The bottom line is that updates to all server, storage, and network devices are critical to keeping your network secure and available to serve your customers.

To discuss your options, contact Randy Carpenter, Vice President of IT Services: rcarpen@network1.net or 1-800-578-6381, option 2

![DHCPatriot logo]

Using the Suspend Feature

Suspending authenticated devices on the DHCPatriot system provides an interesting alternative to simply disconnecting the service of a customer. Suspending a customer on the DHCPatriot allows you to leave a note for the customer. During the suspension process (Auth DHCP Actions -> Suspend User), placing text in field 3 (Note) will cause that messaged to be displayed to the customer. This message could display "You appear to have a virus infection" for example, in the case of large amounts of spam being sent by the customer's device(s).

You can use this method of suspending for what we call a "soft suspend". What that means is that the customer would still be able to authenticate and get back online if they were only suspended in the "Auth DHCP Actions -> Suspend User" area. The suspension can be done by either username or MAC address.

But what if you don't want them to get back online unless you intervene? Let's say that a certain group of customers did not pay for their service by the due date. You may want to prevent these customers from using the service until they have paid for the service.

If using the built-in authentication on the DHCPatriot system, this is a one step process. Simply navigate to "Auth DHCP Actions -> Built-in Authentication: User Maintenance" on the web administration interface. Click the "Mass Suspend" link at the top. Provide the list of users and enter a note in box 2. After clicking commit, all of the customers you provided usernames for will be suspended in the built-in authentication AND they will be suspended in the "Auth DHCP Actions -> Suspend User" area. What's more, the note you entered will be shown to the customer. A note such as "Contact our billing office at 555-555-5555" should tell them why they can no longer get online.

If using an external RADIUS server, then you would first need to suspend the customers on the RADIUS server. After that is complete, you would enter the "Auth DHCP Actions -> Built-in Authentication: User Maintenance" area on the web administration interface. Click the "Suspend Multiple Users" link. Add the list of users and note as described earlier. This can be made to be a one-step process, perhaps, by using the DHCPatriot systems API from the RADIUS server to automatically suspend customers on the DHCPatriot system as they are suspended on the RADIUS server. The API supports the note functionality too! For more information about the API, see the latest manual:

http://www.network1.net/products/dhcpatriot/documentation/

Did You Know?

It took 38 years for radio to reach 50 million people, 13 years for TV, and only 5 years for the Internet to achieve the same feat.

Phonetic Alphabet

Letter	As In ...
A	Alpha
B	Bravo
C	Charlie
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliet
K	Kilo
L	Lima (lee-ma)
M	Michael (or Mike)
N	November
O	October
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Uniform
V	Victor
W	Whiskey
X	X-Ray
Y	Yankee
Z	Zulu

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