Robert Call

Linux Admin

11/9/21

**Script Research**

I started by first making a variable called current this uses the date command with options that gave me a certain specific outcome. I used the %a to show the day the %r to represent the current time. Then followed by the month day and year %m-%d-%Y. I chose this format because it will show at the end of a newly created file as the current day month and local time making it easier to figure out when the files were created and if multiple ones were created in a day. I feel this is a good format to keep an organized folder and a log of network information. I then have after the code add month, day, and year again but in a 11-11-21 format so if we wanted to do a search for the logs it would make this easier pulling or searching this information by month or day in the 11-11-21 format.

I set up a directory in my $HOME directory called network\_summary that way when we create this new file, we send it to a location that is specific for way for easy access and searching when needed. This also looks better in the way of organization so instead of files just being created in the current directory of where the script is run and just filling the directory up with numerous files. I also believe this looks cleaner and more professional, on top of making sure you know where these files are if you do need to search for them.

Next, we use the ip a command to grab the ip address information currently of ens33 this is good to see if the ip address has changed or has remained static also if the network device where to stop working this would show from this information. Also having it stored can show me if at said time on Sunday my ens33 was working but two hours later it was down or even the next day at least this way I have a record of when ens33 was working or what ip address it was using.

The next command is using the cat command to look at the resolv.conf file which holds dns information this will be useful to see what dns is currently being used and if we need to see if for some reason it changed. We have a 8.8.8.8 nameserver also being used and this is for google when a dns isn’t working using a alternative one can help prevent failure of a connection to do work. This code would be useful to show if we are using which dns and to see if it changes and when.

Sudo firewall-cmd –list-services will run a command that will show which services have ports open or in use. This is important if we want to se which services are using what ports or to check after setting a service up if it is using the right port and it hasn’t changed over time. The next command is a sudo firewall-cmd -list –list-ports this is useful to store data on what ports are in use and if we need using grep on this file, we could pull the open ports and just that making it neater and more organize.

We then use netstat -a we grab all this will show listening and non-listening sockets also it will display established connections which I find useful if I want to keep tabs on what connections are up. I Know netstat is older, but I personally am use to it and I like its look when it comes to reading the data in my files the format is what im use to so that’s why I chose it.

**Citation:**

<https://linuxhint.com/ubuntu_20-04_network_configuration/#1>

<https://stackoverflow.com/questions/48270960/how-to-create-a-file-with-todays-date-in-the-filename>

<https://linuxconfig.org/redhat-8-stop-start-firewall>

<https://linuxconfig.org/redhat-8-check-open-ports>

https://www.genesisadaptive.com/portal/knowledgebase/3/Using-Netstat-to-check-which-ports-are-listening-in-Linux.html