Commands

Monday, October 16, 2023 5:42 PM

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ping
      ping IP
     ping google.com
      ping -t google.com
            mimic linux; doesn't stop until you cancel
      pint -c google.com
            linux version to mimic windows 4 ICMP echo requests
hping
     hping google.com
     hping -S -p 80 google.com
           -S = use TCP SYN packet
           -p = port
           -A = TCP ACK packets to check if ports are listening
           -F = TCP FIN packets to check for open ports (stealth)
           -U = UDP
ipconfig
     ipconfig
            shows summary info of TCP/IP config for NIC
     ipconfig /all
           detailed version of default
     ipconfig /displaydns
           shows DNS cache and hostname to IP
     ipconfig /flushdns
           clear DNS cache
ifconfig
     ifconfig -a
           windows /all
     ifconfig eth0
           shows individual NIC
     ifconfig wlan0
            shows wireless NIC
     ifconfig eth0 promisc
            enable promiscuous mode
     ifconfig eth0 -promisc
            remove promiscuous mode
     ifconfig eth0 allmulti
           view all multigroup traffic it processes
     if config eth0 -allmulti
           remove allmulti
     lo = loopback
            if only loopback exists then there is an issue with other NIC
     inet = ipv4
     inet6 = ipv6
     ether = MAC address
```

```
ip
     ip link show
           shows NIC and some details
     ip link set eth0 up
            enables NIC
     ip -s link
           shows stats of NIC
     ip link set eth0 promisc on
     ip link set eth0 promisc off
netstat
     netstat
            all open TCP connections
     netstat -a
            all open TCP/UDP connections
     netstat -r
            routing table
     netstat -e
           net stats like how many bytes received and sent
     netstat -s
           stats for each protocol (ipv4, ipv6, TCP, ...)
     netstat -n
           all addresses and ports in numerical order
            can combine with -a to show all ports
                  netstat -a -n
     netstat -p
           specify protocol
           netstat -p tcp
           netstat -p udp
tracert
     increments TTL value assigned to ICMP packets
     tracert google.com
     tracert -d google.com
            does not resolve Ips to hostnames
traceroute
     linux version
     traceroute google.com
     traceroute -n google.com
           same as -d for windows
pathping
     combines ping and tracert
           finds all hops between systems and pings each one
     pathping google.com
      pathping -n google.com
            doesn't resolve Ips to hostnames
arp
     arp
           windows = show help
```

```
linux = show arp cache
      arp -a
            windows = show arp cache
      arp -a 10.0.0.1
            shows ARP cache entry for the specified IP
head/tail
      tail -n 20 casino.py
      head -n 20 casino.py
grep "hello" casino.py
cat casino.py
      cat casino.py | more
            looks 1 page at a time
logger "Backup started"
      adds to syslog file
           /var/log/syslog
journalctl
      journalctl
            shows all logs
      journalctl --since "1 hour ago"
            shows log from last hour
      journalctl --list-boots
            shows boot logs
      journalctl -1
            shows previous log
            -0 shows current
            -2 shows 2 previous
chmod
      r = 4
      w = 2
      x = 1
      all = 7
      none = 0
      chmod 466 test.txt
            user = read
            group = read, write
            other = read, write
      chmod g-w test.txt
            remove write from group
      chmod u=r test.txt
            user only has read
      chmod o+x test.txt
            add execute to other
      chmod u=rwx, g+r, o-rw test.txt
            user = r, w, x
            add read to group
```

remove rw from other

```
faillog
     faillog
           show all failed login attempts
     faillog -u "username"
           show logs for user
nslookup
     nslookup
           start nslookup to then run options
     nslookup -querytype=mx gcgapremium.com
           manually do query type
     nslookup
           server=
                 set server
                 similar to @ in dig
           set type=MX
                 set query type
           Is -d gcgapremium.com
                 do zone transfer
dig
     dig google.com
           show general lookup and related IP of google.com
     dig -t <> google.com
           specify the lookup type (record type)
           dig -t A google.com
                 A record Ipv4
           dig -t AAAA google.com
                 AAAA record IPv6
           dig -t MX google.com
                 mx record
           dig -t NS google.com
                 name server
           dig -t CNAME google.com
     dig @8.8.8.8 google.com
           specify the server you want to lookup
     dig +short google.com
           shorten output
     dig +trace google.com
           do a trace through the root DNS to the authoritative servers
route
     route print -4
           ipv4
     route print -6
           ipv6
     route add <dest> MASK <netmask> <gateway>
```