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# **Experiment No - 1**

***Aim:*** To study networking command.

**1)** **Trace route**

The tracert command is a Command Prompt command that's used to show several details about the path that a packet takes from the computer or device you're on to whatever destination you specify.

You might also sometimes see the tracert command referred to as the trace route command *or* traceroute command*.*

**Syntax:**

tracert [-d] [-h MaxHops] [-w TimeOut] [-4] [-6] target [/?]

* -d = This option prevents tracert from resolving IP addresses to hostnames, often resulting in much faster results.
* -h MaxHops= This tracert option specifies the maximum number of hops in the search for the target. If you do not specify MaxHops, and target has not been found by 30 hops, tracert will stop looking.
* -w Timeout = You can specify the time, in milliseconds, to allow each reply before timeout using this tracert option.
* -4 = This option forces tracert to use IPv4 only.
* -6 = This option forces tracert to use IPv6 only.
* target= This is the destination, either an IP address or hostname.

**2)** **Nslookup**

Nslookup is a network utility program used to obtain information about Internet servers. As its name suggests, the utility finds name server information for domains by querying the Domain Name Service (DNS).

The name "nslookup" means "name server lookup". nslookup does not use the operating system's local Domain Name System resolver library to perform its queries, and thus may behave differently from dig (which does). Additionally, vendor-provided versions can confuse matters by using or including output of other sources of name information (such as host files, Network Information Service). Some behaviors of nslookup may be modified by the contents of resolv.conf

nslookup operates in interactive or non-interactive mode. When used interactively by invoking it without arguments or when the first argument is - (minus sign) and the second argument is a hostname or Internet address of a name server, the user issues parameter configurations or requests when presented with the nslookup prompt (>). When no arguments are given, then the command queries the default server. The - (minus sign) invokes subcommands which are specified on the command line and should precede nslookup commands. In non-interactive mode, i.e. when the first argument is a name or Internet address of the host being searched, parameters and the query are specified as command line arguments in the invocation of the program. The non interactive mode searches the information for a specified host using the default name server.

### **Syntax:**

### nslookup [-SubCommand ...] [{ComputerToFind|[-Server]}]

* **Parameters:**
* SubCommand:Specifies one or more nslookup subcommands as a command-line option. For a list of subcommands, see Related Topics.
* ComputerToFind:Looks up information for ComputerToFind using the current default DNS name server, if no other server is specified. To look up a computer not in the current DNS domain, append a period to the name.
* Server:Specifies to use this server as the DNS name server. If you omit -Server, the default DNS name server is used.
* { help | ? }:Displays a short summary of nslookup subcommands.

**10) Dig**

Dig (domain information groper) query DNS related information like A Record, CNAME, MX Record etc. This command mainly use to troubleshoot DNS related query.

**Syntax**

dig www.tecmint.com;

**CONCLUSION:**

Networking commands are used to quickly find ip address, flush your DNS resolver cache, troubleshoot network connection issues, create shutdown shortcuts, find network loss and latency, remotely access other servers, find network configuration, etc.