

THE PING

CyberQuince

ICMP

The Internet Control Message Protocol (ICMP) is a network layer protocol used by network devices to diagnose network communication issues.

- Ping
- Traceroute
- Error reporting

TRACEROUTE

- ICMP tool used to map the routing path
- Helps admins find link interruptions and other network issues
- Windows: “tracert”
- Linux MAC: “traceroute”
- Example: “tracert udemy.com”

PING

- The ping utility is a simpler traceroute
- It sends out pings (also referred to as echo request) and then measures the amount of time it takes the message to reach its destination and return to the source

ERROR REPORTING

- Implementation of the protocol to automatically check links and report on issues
- When traffic is dropped or rejected, it is common for network devices to send out ICMP messages containing details

SECURITY

There are multiple ways an attacker can use ICMP to execute DDoS attacks, including the following:

- Ping of death
- Smurf
- ICMP flood

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