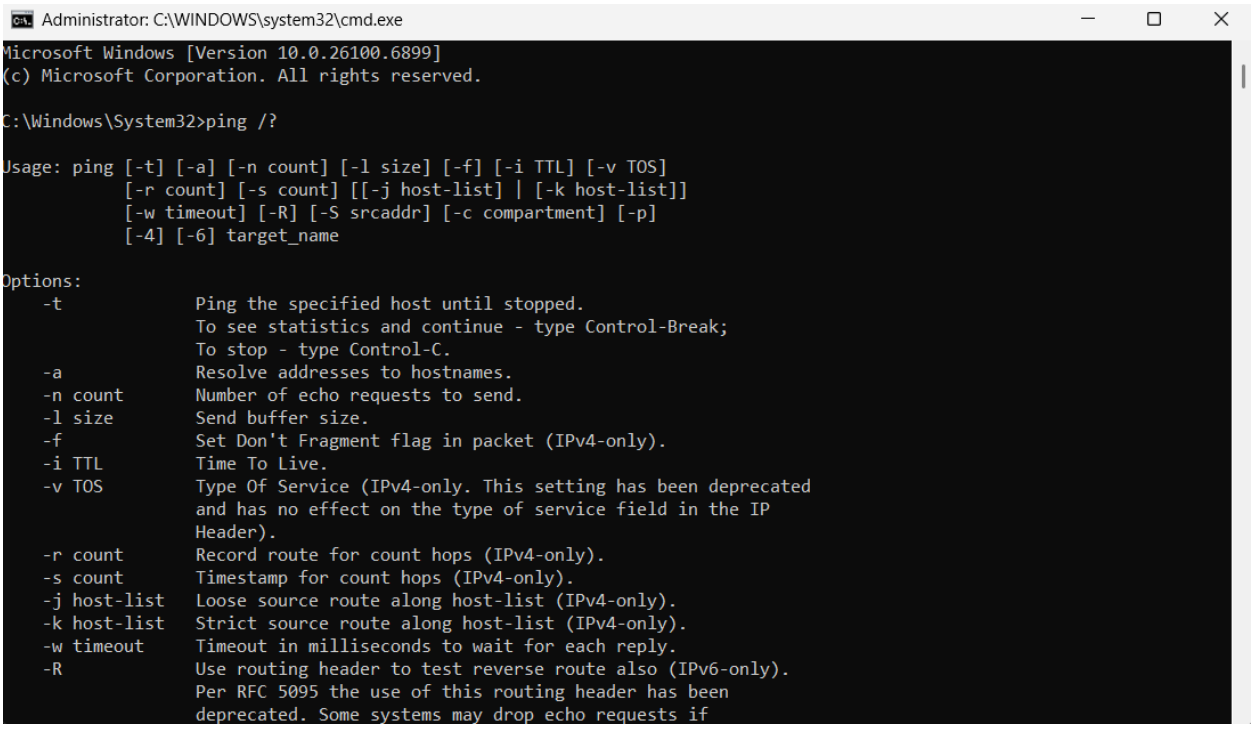
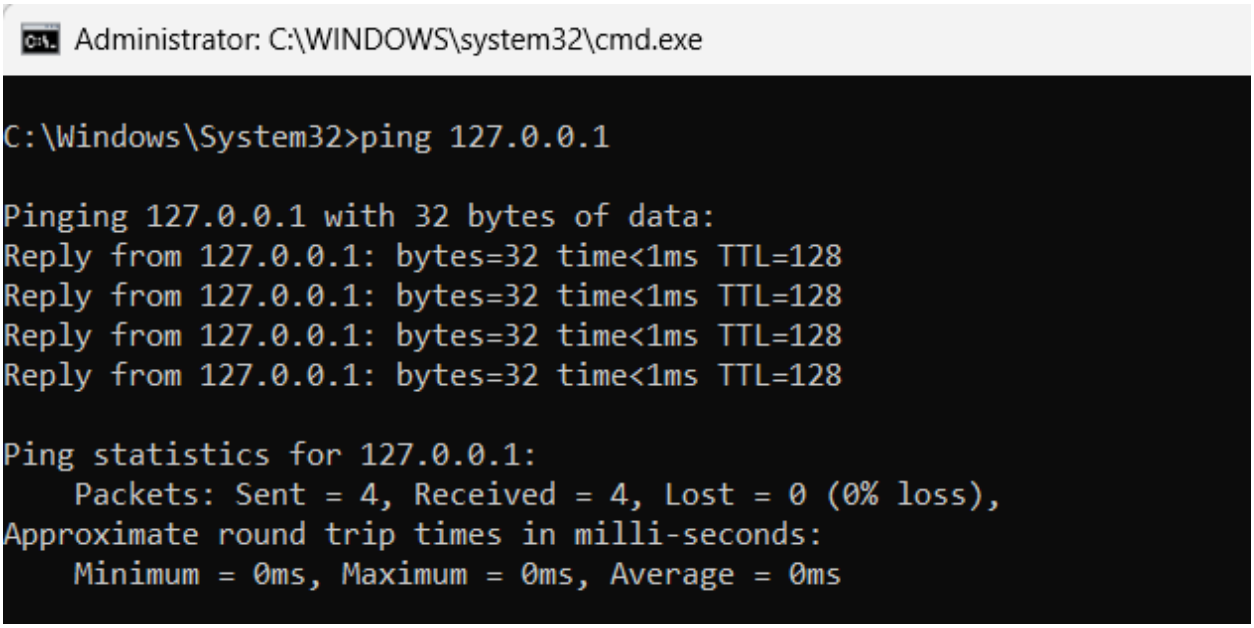
Task 3: Basic Networking Commands

1 ping — Test Network Connectivity

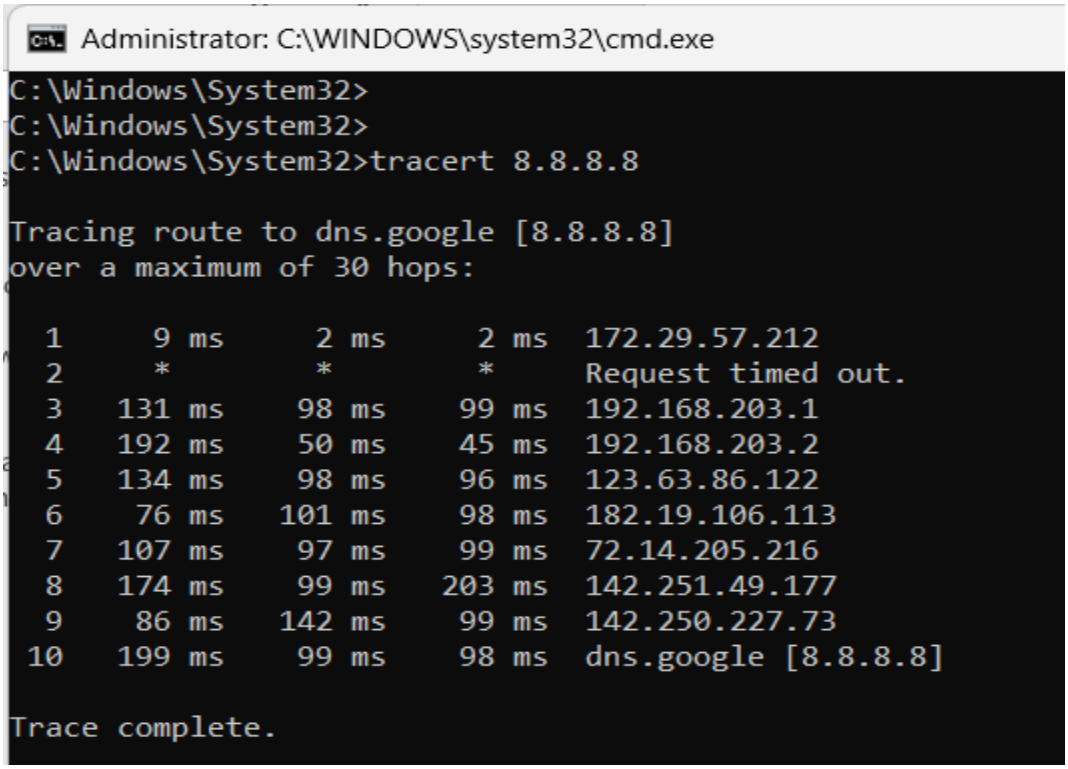




Detail	Description
Purpose	Checks if a host is reachable on a network
Protocol Used	ICMP
Example Command	**ping** google.com

📌 It shows packet loss, latency, and whether target is alive or not.

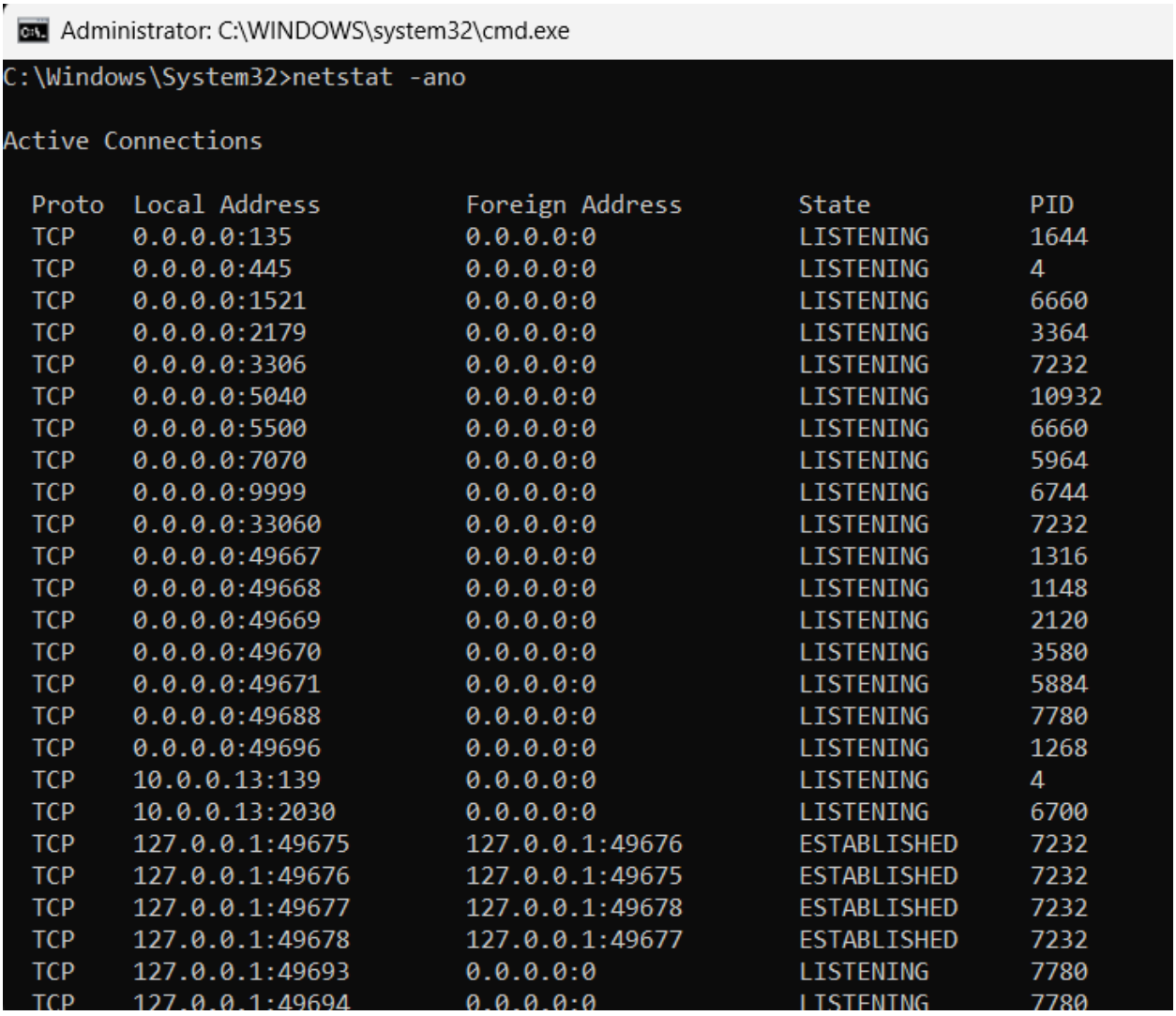
2️ traceroute / tracert — Trace Route Packets Travel



OS	Command
Windows	**tracert** google.com
Linux / macOS	**traceroute** google.com

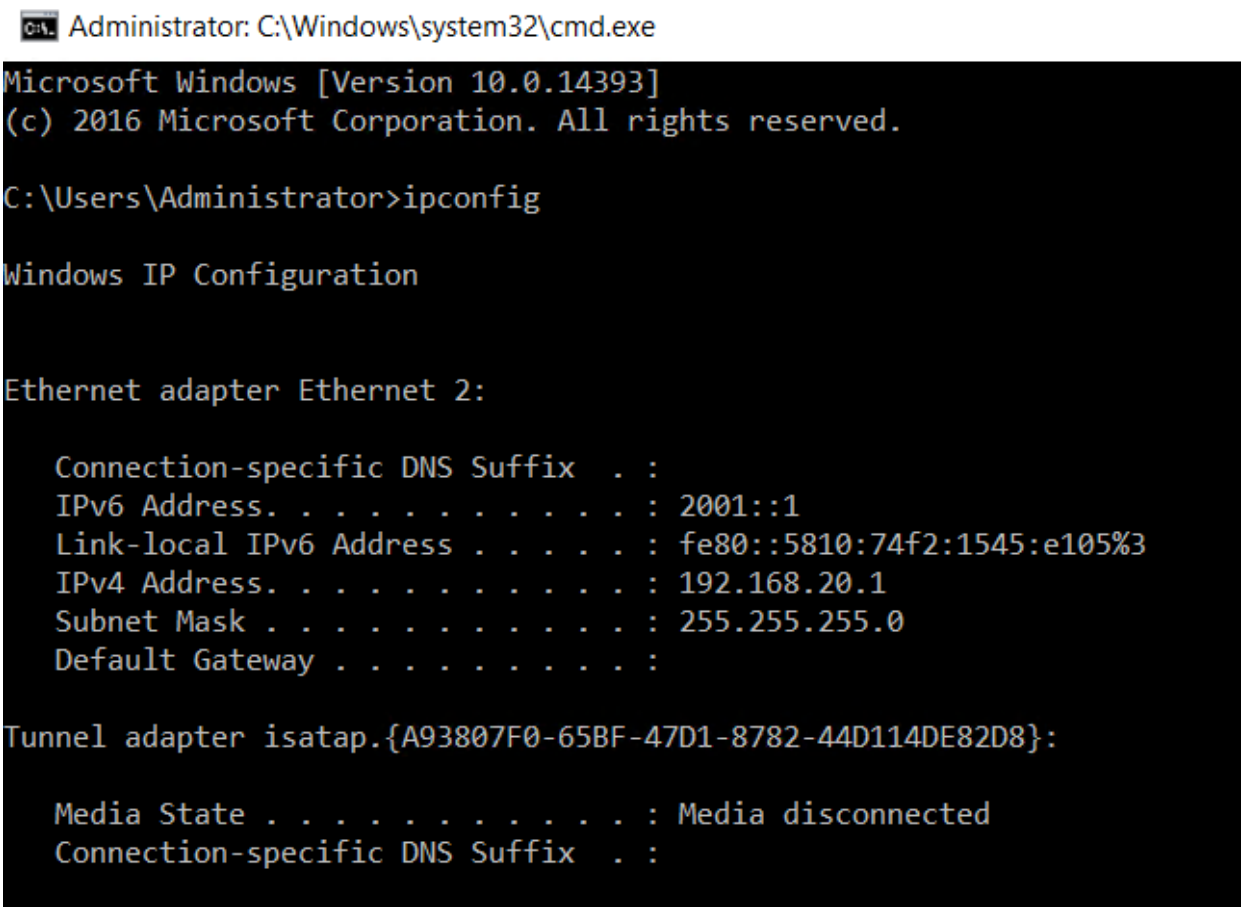
📌 Shows router hops & path taken by packets to reach destination.

3️⃣ netstat — Show Network Connections & Ports



Detail	Description
Purpose	Lists active connections, listening ports & routing table
Useful Options	**netstat -a (all), -n (numeric), -tulnp (Linux services)**

4 ipconfig / ifconfig — Interface Configuration



OS	Command	Purpose
Windows	**ipconfig**	Shows IP, subnet mask, gateway
Linux	**ifconfig**	Displays network interface details