Palo Alto VPN Emulation on TeraVM™

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TeraVM

TeraVM is a software based L2–7 test tool running on x86 servers and in the Cloud (Azure, Amazon, Google, Openstack etc.), delivering a fully virtualized application emulation and security validation solution to test and secure devices, networks and their services.

What's New?

- **PAN VPN Client Emulation:**
  - TeraVM now delivers Palo Alto Networks remote access Global Protect VPN client emulation at high scale, along with video, voice and data applications.

- **X86 servers and Cloud based:**
  - TeraVM runs on standard servers (e.g. Dell) and in the cloud – Amazon Web service, Microsoft Azure, Google Cloud, Oracle Cloud Infrastructure

- **Use TeraVM to:**
  - Test how many Global Protect VPN tunnels (ESP /TLS) can be established on headend
  - Test VPN tunnel establishment with both GlobalProtect Portal and GlobalProtect Gateway
  - Test how quickly can Global Protect tunnels be brought up/torn down
  - Test what happens with real video, voice and data applications in the Global Protect VPN tunnels
  - Test physical vs virtual Global Protect VPN headends functionality, scale and QOS
  - Test GP clients with different User-Agent Name/OS Name/OS Version
  - Test Split tunnel configurations

- **Centralized License Server/Elastic Test Bed:**
  - Scale with realism and grow on demand with license sharing across geographical locations
  - Sharing test resources and methodologies delivering the most cost-effective solution

Key Facts

TeraVM is 100% virtual

- PAN Global Protect VPN Client Emulation and measurement in real time at scale (eg >60,000 tunnels)
- Video, voice and other applications emulated and measured in real time over each individual GP VPN tunnel
- In Global Protect Client emulation – session establishment/authentication rate can be controlled, user name/password authentication supported, IPv4/IPv6, IPv6/IPv4 supported, PAN GP VPN Client NFPA (Next Gen Prisma Access) support
- Configurable authentication rate
- Ability to do decrypted Wireshark capture of the Global Protect VPN client for debug
- Real time metrics per GP VPN tunnel and per application per tunnel
  - Time to set up a GP VPN tunnel
  - Number of attempted, completed, Errored, Established, Rejected GP VPN tunnels
  - Statistics giving the current authentication rate

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