TVM-630

TeraVM application emulation and security validation appliance

The most important thing we build is trust

TeraVM 630 (TVM-630) is an Application Emulator and Security Validation appliance with support for 1GbE, 10GbE and 40GbE I/O. TVM-630 is ideal for lab and data center deployment where network performance needs to be measured with real-world traffic scenarios.

Advantages

- Pre-packaged TeraVM appliance
- Reliable and repeatable performance validation
- Datacenter ready, ideal for NFV validation
- Elastic test bed support enabling up to 1Tbps of application emulation

Features

- Support for 8 x 1GbE or 4 x 10GbE or 4 x 40GbE interfaces
- Rack & Stack
- Stateful traffic (L1-7) emulation
- Emulation and real-time measurement of millions of unique application on a per flow basis
- Comprehensive CyberSecurity Database
- Easy pinpointing and isolation of problem flows

TVM-630 high performance and reliable validation solutions

TeraVM is pre-packaged on datacenter ready hardware, which is ideal for physical network appliance performance test use cases.

As the test platform is delivered on standard hardware, it can be easily plugged into any datacenter infrastructure or centralized resource pool, making it easy for carriers and vendors to deploy, manage and scale as part of an elastic test bed, which can be enabled to deliver terabits per second of application traffic.

TVM-630 delivers reliable and repeatable testing for both physical and virtual network functions, alongside of performance validation of network services.

.

Figure 1: TVM-630 1u rack server

Per flow performance validation

The TVM-630 is complemented by a comprehensive validation suite covering key network segments such as access, application services, mobile network back-haul and security. TeraVM provides validation for key application services such as video, voice and data. TeraVM's per flow emulation architecture delivers the necessary granularity required to pin-point and isolate poor quality flows out of the millions of emulated flows.

Security performance validation

TVM-630 is a high performing platform and software offering, ideal for validating a wide range of next generation firewalls and VPN access devices. TeraVM enables mixed application traffic emulation of legal or good flows with malicious flows; including a CyberSecurity Database.

Run anywhere performance validation

TeraVM enables customers to analyse, develop and validate the performance and capability of a wide variety of network functions and services for both fixed and wireless networks. TeraVM is used for performance validation; in the lab, datacenter and/or cloud.

TVM-630

TeraVM application emulation and security validation appliance

TVM-630: 1u rack server specification

Feature	Description
Hardware	Dell R630
Size	1u rack server
Processor	Intel Xeon E5-2697 or Intel Xeon E5-2699
Cores	14 CPU (@2.6GHz) or 18 CPU (@2.3GHz)
Hard Drive	500GB
RAM	128GB
Test Interfaces	8 x 1GbE
	4 x 10GbE
	4 x 40GbE
Management Interface	1GbE
Power Supply	750w
Rack Rail	Sliding rails with cable management
Datacenter ready	ESXi
Weight	16.9kg (37.3lbs)

TeraVM features and functionality

GENERAL
- Real-time isolation of problem flows
- Elastic Test bed (up to 1Tbps)

NETWORK INTERFACE SUPPORT
- Support for 1/10/40Gbps I/0
- Mellanox ConnectX-4 support for 56/100Gbps

DATA
- TCP / UDP, Teraflow, Ookla speed test
- HTTP/HTTPS (v1/2, incls. stateful response parser)
- SMTP / POP3 (incl. file attachments)
- FTP (Passive/Active), P2P applications, DNS

ADDRESS ASSIGNMENT
- Configurable MAC
- DHCP, PPPoE (IPv4 & IPv6)
- Dual Stack (6RD, DS Lite)

ETHERNET SWITCH
- VLAN Tagging (up to 8 concurrent tags)
- ACL, 802.1p, DSCP

DATA CENTER
- VxLAN, GRE, SR-IOV

REPLAY
- Replay large PCAP files - TCP, UDP and raw data playback
- Amplify and dynamically substitute data into PCAP files

VIDEO
- Multicast: IGMP v1/v2/v3 & MLD v1/v2
- Automatic Multicast Tunelling (AMT)
- Video on Demand (RTSP)
- Adaptive Bit Rate Video (HLS, HDS, MPEG-DASH, Smooth)
- Video conferencing, Webex

SECURE ACCESS / VPN
- Clientless VPN (SSL/TLS/DTLS), IPSec (IKEv1/v2), Generic remote access
- Cisco AnyConnect SSL VPN Client, Cisco AnyConnect IPsec VPN
- Cisco ScanSafe
- Juniper Pulse, Juniper Network Connect
- SAML (F5, Citrix SSO), Dell SSO
- 802.1x EAP-MD5

SECURITY ATTACK MITIGATION
- Spam / Viruses / DDoS
- Cybersecurity Database

VOICE
- VoIP: SIP & RTP (secure & unsecure), SMS
- Dual Hosted UACs, SIP Trunking
- Voice & Video quality metric (MOS)

LTE/4G
- EPC and RAN (Rel.8, 10, 11)
- VoLTE (secure/unsecure), ViLTE
- Wifi Offload (EoGRE)

SLA
- TWAMP, PING

AUTOMATION
- CLI, Perl, TCL, XML, Java API
- Python, Jython
- Qualisystems (CloudShell)
- OpenStack

For further information please contact:

Cobham Wireless
teravm@cobham.com

US Tel: +1-408-385-7630
EMEA Tel: +353-1-236-7002