Solution Description

Roqos Core 150 and the Roqos Core 1000 appliances are Cybersecurity SD-WAN Appliances leveraging Lanner Whiteboxes to provide secure VPN and Cellular Service.

Components of RC-150 and RC-1000

- Lanner NCA-1515 and NCA-2510 whitebox appliances
- 8 core and 16 core Intel Atom C3000 series with Quick Assist Technology (QAT)
- Single Root Input/Output Virtualization SR-IOV on all ports
- LTE connectivity with support of multiple LTE modems to support multiple network operators and multiple SIM options
- Fully carrier certified for PTCRB and Verizon ODI
- Next Generation IPS Firewall

Benefits of RC-150 and RC-1000

- Secure Internet in Public WiFi
- Company wide VPN support for remote locations
- Connectivity of multiple locations with support of NAT, Carrier Grade NAT (CG-NAT) and LTE using Roqos patent pending technology
- Remote Manageability using Roqos Cloud Operating Management System (OMS)

Solution Features

- SD-WAN with multi WAN, prioritization & QoS
- Always-on Internet connectivity with cellular backup
- Complete cybersecurity solution
- Comprehensive VPN features
- Open-Source & transparent solution
- Easy to use phone app & browser UI
- Secure cloud management with GPS locations
- Automatic software & security updates
- Patented usage data & hardware Inventory
- Real time notifications & weekly reports
- One-stop-shop with cellular data package
- Visualization of a rich array of operational data that improves monitoring and trouble shooting
- all hardware sensors
- NOS, CyberMapper, an Operating System logs
- SEL major event log

Security Features

- Intrusion Prevention System (IPS)
- Deep Packet Inspection (DPI)
- Country Block
- Ad Block
- Automatic Security Updates
- Multi-unit Management
- Country Block
- Add Block
- Automatic Security Updates

Contact Roqos today for a demo
571-323-1500
info@roqos.com / www.roqos.com
## Lanner Whitebox uCPE Platforms

### Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel® Atom® C3558</td>
</tr>
<tr>
<td>Memory</td>
<td>8GB</td>
</tr>
<tr>
<td>Storage</td>
<td>64 GB</td>
</tr>
<tr>
<td>Cellular Internet</td>
<td>CAT6 LTE supporting global frequencies (B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41)</td>
</tr>
<tr>
<td>GNSS</td>
<td>GPS, GLONASS, Beidou, &amp; Galileo</td>
</tr>
<tr>
<td>SIM</td>
<td>Dual nano SIM cards</td>
</tr>
<tr>
<td>Data ports</td>
<td>6x GbE RJ45, 2x GbE SFP</td>
</tr>
<tr>
<td>Console</td>
<td>RJ45 serial port</td>
</tr>
<tr>
<td>USB</td>
<td>2 x USB 2.0 Type A</td>
</tr>
<tr>
<td>Power</td>
<td>110/240 VAC, 50/60Hz, via external 60W DC power adapter</td>
</tr>
<tr>
<td>Certification</td>
<td>PTCRB, RoHS, CE/FCC CLASS B, UL, T-Mobile, Verizon (soon)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20°C to 70°C</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C to 40°C</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>5% to 95%(non-condensing)</td>
</tr>
<tr>
<td>Dimensions (W x H x D)</td>
<td>231 mm x 44 mm x 200 mm (9.09” x 1.73” x 7.87”)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.3 kg (2.86 lbs)</td>
</tr>
</tbody>
</table>

### SD-WAN With Always-On-Internet

**Features**

- Multi-WAN among wired ISP connections & cellular data
- WiFi as WAN
- Prioritized WAN connections with failover & restore
- QoS with device priority & bandwidth restrictions
- Dual SIM cellular network access for redundancy
- Selection what device will be on cellular network
- Use any port as LAN, WAN or Guest port
- Site-to site VPN to grow corporate network
- Dynamic DNS instead of static IP addresses
- No lengthy cellular data service contracts

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Deployment Scenarios

The combination of LTE connectivity, public WiFi connectivity and secure VPN connectivity provides a versatile deployment model. It can be used as a corporate branch office appliance to interconnect remote office branches or remote "Work from Home" location with secure fixed and LTE network connectivity. Other use cases can be a deployment as an IoT Gateway to connect smart censoring devices in applications like smart farming in rural locations with limited fixed networking connectivity as well security and video surveillance acting as a secure gateway. The remote management capability using Roqos cloud infrastructure allows to manage the devices through multiple end devices using the cloud.

VPN Services with Secure Internet in Public WiFi

- Public Internet Access
- Encrypted VPN connection
- Dynamic DNS service using NAT and CG-NAT
- Corporate wide VPN and location independent
- Selective networking option enabling VPN
- Site-to-Site VPN with multi-Branch connectivity with Roqos Core

Remote Management with Roqos Cloud

Roqos’s Operations Management System (OMS) provides remote management via cloud based & comprehensive dashboard as well as KPI’s and tools. OMS also allows configuration & troubleshooting of individual Roqos Cores via secure & encrypted connections initiated by Roqos appliances. Bulk activation feature allows configuring multiple Roqos Core with the same configuration by a couple clicks on OMS.

Lanner Whitebox uCPE Appliances

NCA-1515 Atom C3000 series CPU desktop appliance

NCA-2510 Atom C3000 series CPU rackmount appliance