

RN40/41 Product Brief

The RN40 and RN41 are advanced data networking products that combine numerous functions such as – 30 Security Zones, Bandwidth Management, VPN, VoIP, Load Balancing, Real Time Server Health Monitoring, IP Multicasting, Usage-based Accounting, and Layer 2-4 Switching.

Ranch's Secure Zones capability offers Multipoint-to-Multipoint security which cost-effectively segments a LAN into multiple individually-secured zones – each with its own stateful and stateless security policies in both directions between each pair of zones. Additional security layers such as VPN, per-user authentication, virtual zones, and policy-based security-on-demand are included. Each Secure Zone can be dedicated to an enterprise department, application, or special-purpose LAN segment, or to multiple customers in a Multi-Tenant environment.

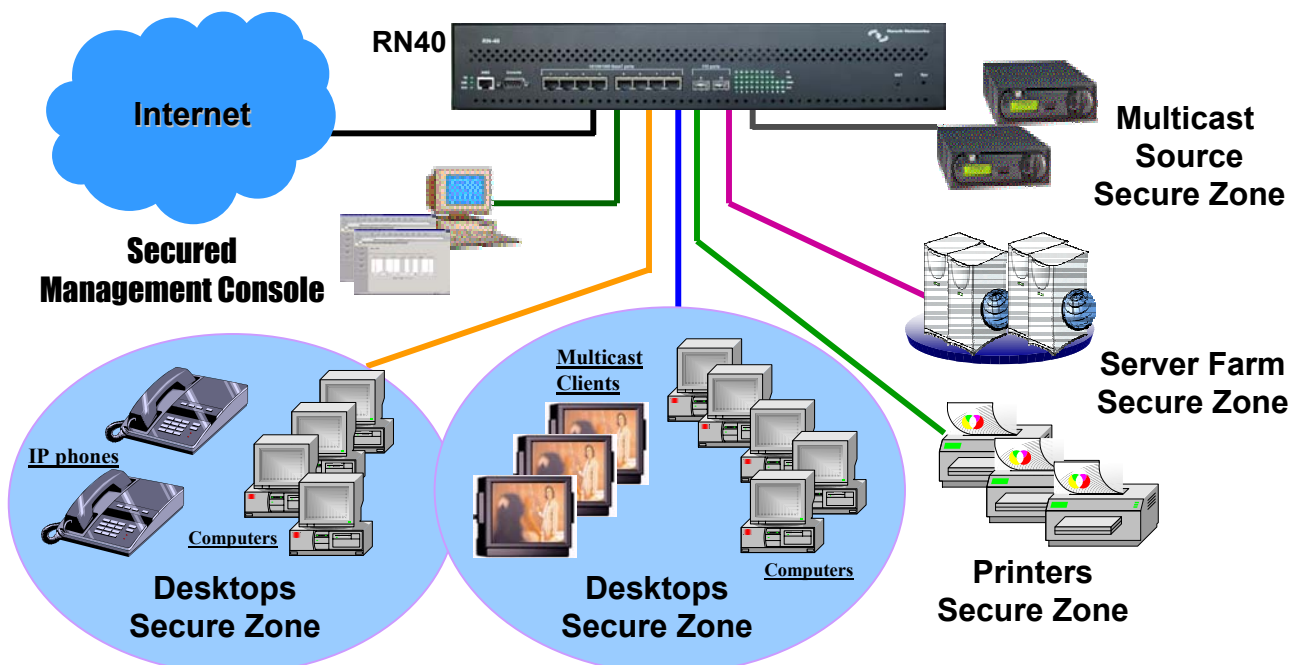
RN40/41 Key Benefits

- ✓ Replace many boxes with a single device
- ✓ Strongest security solution for VoIP
- ✓ 30 Secure Zones
- ✓ Authentication
- ✓ VPN tunneling
- ✓ Fine-grained Bandwidth Management and QoS
- ✓ Load Balancing of IP/TCP/UDP
- ✓ Real-time network/server monitoring
- ✓ Advanced Switching and Multicasting
- ✓ Accounting
- ✓ High availability and Redundancy
- ✓ Integrated Web based Management System

RN40/41 Applications

- ✓ Internal and external enterprise LAN security
- ✓ Data Center Security and Load Balancing
- ✓ Voice-over-IP Security and Quality of Service
- ✓ Multi-Tenant / Multi-Dwelling
- ✓ Isolation of viruses, worms, etc.
- ✓ Group users into “areas of trust”
- ✓ Special security policies for Wireless LANs, conference rooms, and guests
- ✓ Insurance and regulatory requirements for financial services, education, healthcare
- ✓ Financial services and Video IP Multicasting
- ✓ Network Discovery / Usage-based Accounting

RN40/41 Application example



RN40/41 features Specification

✓ Security

- Up to 10 physical or 30 virtual security zones
- IPSec VPN – Remote Access or Site-to-Site
- Authentication and Authorization based on Internal DB, LDAP, RADIUS, Microsoft Active Directory
- LAN Segmentation into Secure Zones with unique Split Subnets feature
- Policy-driven security-on-demand (dynamic firewall control)
- Access Control Lists
- Stateful Firewall, Full NAT / Half NAT
- DoS Prevention
- Redirection to IDS
- Stateful firewall by TCP/UDP proxying
- Classification based on source IP, dest. IP, source port, dest. port, protocol, TCP flags, TCP options, ICMP Message types, TCP/FTP/UDP proxying
- Logging

✓ QoS and Bandwidth Management

- Contracts & Subcontracts
- Guaranteed / Minimum / Maximum allocations
- Multiple bandwidth levels
- Priority through TOS 7-tuple classification
- 1024 bandwidth contracts
- 8 bandwidth sub-contracts per bandwidth contract
- TOS marking for supporting QoS
- DiffServ compatible
- Traffic policing & guaranteed bandwidth per contract

✓ Server farm Load Balancing

- Round Robin
- Weighted Round Robin
- Least connections
- Persistency: Cookie, SSL, Client IP HTTP, HTTPs, FTP (active and passive)
- RFC-822 based application
- UDP application based on 4-tuple
- Common UDP applications including DNS
- Up to 1024 Logical Servers

✓ IP Multicasting

- IP Multicasting based on RFC 1112/2236/2933
- Hardware Assisted; Up to 10 Gbps
- Fine-grained control on IP Multicasting

- Access Control based on VLAN, Physical Port, Source/Destination IP
- Up to 10 Gbps of Multicast Traffic

✓ Voice-over-IP

- Independent of signaling protocols; thus compatible with SIP, H.323, MGCP, and proprietary signaling protocols
- Compatible with encrypted signaling and/or media streams; or RN40/41 can encrypt these streams
- Dynamic per-call Firewall control
- Dynamic per-call Bandwidth allocation
- Media bridging
- Multi-NAT Traversal

✓ Switching/VLANs

- Wire-speed L2 switching
- Wire-speed L3 forwarding, static routing
- VLAN support
- Unique VLAN subnets splitting
- Multiple default gateways routing with dead gateway detection
- IEEE 802.3x, 802.1D, 802.1P, 802.1Q

✓ Server Health Monitoring

- ICMP ping
- TCP connection verification
- Active content verification for FTP, HTTPs:
 - 5 URLs per server farm for ACV testing
 - FTP: configurable login ID
 - HTTPs – client/server hello test

✓ Accounting

- Instrumentation based on:
 - Packet classification
 - 7-tuple classification
 - 1024 bandwidth contracts and 8 subcontracts
 - Real-time counters (Tx, Rx, packets, bytes)
 - Packets dropped on purpose
 - Per-minute counters

✓ High Availability and Redundancy

- WAN redundancy
- Link and Device redundancy
- Configuration synchronization
- Back-up Power Supply and redundant Fans

RN40/41 Technical Specification

Power input: AC 100-240 VAC, 50/60 Hz

Power Consumption: 150W max (2.2A)

Operating Temperature: 32-113°F (0 to 45° C)

Operating Humidity: 5% to 95% non-condensing

Dimensions (h, w, d): 2U 3.5" x 18" x 18"

Weight: 16 lb (7.2 kg)

RN40 Interfaces: 2x SFP 1000BaseSX/LX/EX ports;

8 x 10/100/1000 BaseT ports;

1x10/100 BaseT management port and RS232 serial port

RN41 Interfaces: 10x SFP 1000BaseSX/LX/EX ports;

1 x 10/100 BaseT port and RS232 serial port.