

RN40/41

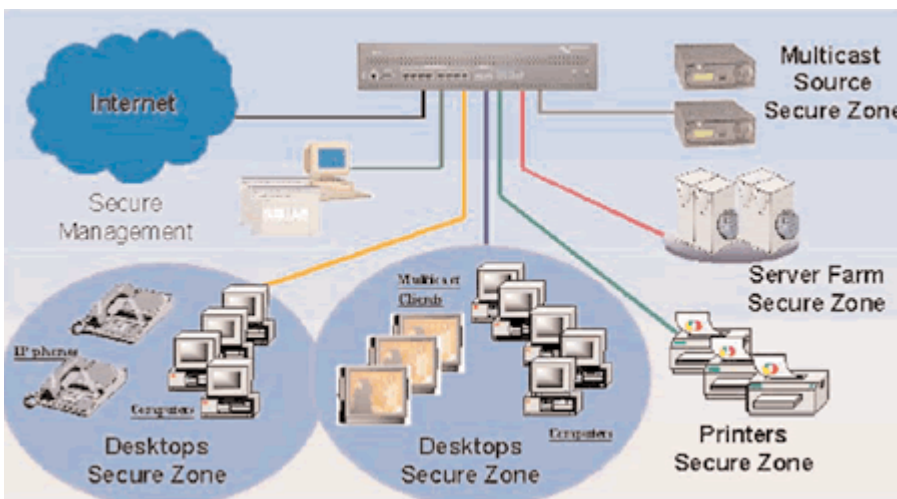
Security & Networking
Innovation



The RN40 and RN41 are advanced data networking products that combine numerous functions which have typically required separate devices. Ranch's Single Pass Packet Scan technology makes possible the integration of multiple services into this single unit – 30 Security Zones, Bandwidth Management, Load Balancing, Real Time Server Health Monitoring, IP Multicasting, Auto Discovery, Usagebased Accounting, and Layer 2-4 Switching – all with full manageability, and all at a single low price with no per-user licensing fees.

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 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.

Application Example



Benefits:

- Replace many boxes with a single device
- VoIP Security
- 30 Secure Zones
- Per-User Authentication
- Bandwidth Management for QoS/SLA
- Load Balancing of IP/TCP/UDP
- Real-time network/server monitoring
- Advanced Switching and Multicasting
- Usage-based Accounting
- Redundancy
- Integrated Web based Management System
- SNMP V1 / V2 / V3 Compliant

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 gov't, financial services, education, healthcare
- Financial services and Video IP Multicasting
- Network Discovery / Usage-based Accounting

SPECIFICATIONS

Security

- 30 Secure Zones
- Per-user Authentication and Authorization
- VoIP Security, compatible with encrypted traffic and signaling protocols such as SIP, H.323, MGCP, more
- Physical Zones or Virtual Zones
- 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 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 / SLA Bandwidth Management

- Contracts & Subcontracts
- Unique Split Subnets
- 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

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 1Gbps
- Fine-grained control on IP Multicasting
- Access Control based on VLAN, Physical Port, Source /Destination IP

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

Auto Discovery

- Subnet identification
- Discovery of Routers, Hosts, Services, Network Topology, Host Topology
- Host-to-IP determination
- Services discovery for telnet, DNS, ftp, HTTPs,
- SMTP, POP3

Server Health Monitoring

- ICMP ping
- TCP connection verification
- Active content verification for FTP, HTTPs:
 - 5 URLs 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

Technical Specifications

- 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: 2 GBIC Fiber ports; 8+1 10/100/1000 BaseT ports with RJ-45 connectors; 1 RS232 serial port with DB9 connector RN41 Interfaces: 10 GBIC Fiber ports; 1 10/100/1000 BaseT port with RJ-45 connector; 1 RS232 serial port with DB9 connector