**Ranch**Networks
*Security and Networking Innovation*

# RN20 Product Brief

The RN20 is an innovative networking product designed to leverage the existing network infrastructure in order to provide a very cost effective-solution for Enterprises, MTU/MDU, and Managed Service Providers networks. The RN20 enables customers easily and cost-effectively to deploy and manage multiple Layer 2-7 services for up to 30 secured zones. Ranch Networks Secure Zone technology logically separates a LAN into multiple networks each of which can have independent Security policies, VPN access, Bandwidth Management and QoS policies, Load balancing rules, and Administrative access. Secure Zone can be dedicated to enterprise business units, departments, applications, or to each dwelling/tenant in MDU/MTU environment.

Ranch Networks' unique solution enables a network architecture that can deliver VoIP services, IPTV broadcasting and many others, without the cost and complexity typically required to acquire, integrate, and manage such complex systems
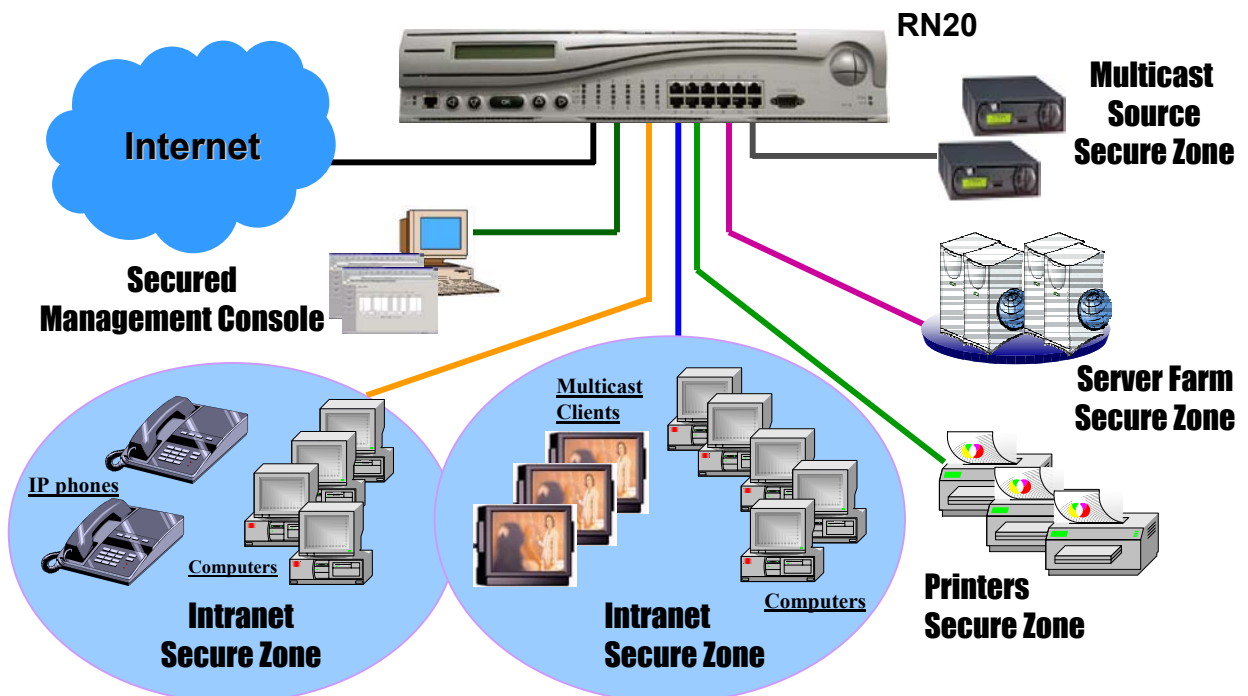
## RN20 Key Benefits

## The RN20

✓ **Strongest security solution for VoIP**
✓ **30 Security Zones**
✓ **Fine-grained and QoS Bandwidth Management**
✓ **VPN tunneling**
✓ **Load Balancing for any IP/TCP/UDP**
✓ **User Authentication**
✓ **Real-time network monitoring**
✓ **Advanced Layer 2/3/4 switching**
✓ **Accounting**
✓ **High availability and Redundancy**
✓ **Integrated Web based Management System**

## RN20 Application example



RN20

Internet

Multicast Source Secure Zone

Secured Management Console

Server Farm Secure Zone

IP phones

Multicast Clients

Computers

Computers

Printers Secure Zone

Intranet Secure Zone

Intranet Secure Zone

# RN20 Features Specification

## ✓ Security
- Up to 12 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
- Policy-driven security-on-demand
- LAN Segmentation into Secure Zones with unique Split Subnets feature
- Access Control Lists
- Stateful Firewall, Full NAT / Half NAT
- DoS Prevention
- Redirection to IDS
- 1024 Firewall rules per security Zone
- 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 support
- IP Multicasting based on RFC 1112/2236/2933
- Hardware Assisted
- Fine-grained control on IP Multicasting

- Up to 1.2 Gbps of IP Multicasting traffic
- Access Control based on VLAN, Physical Port, Source/Destination IP

## ✓ 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 RN20 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 and 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
- Three definable accounting bands
- Instrumentation based on packet classification, 7-tuple classification, bandwidth contracts and subcontracts, Real time counters, Per-minute counters etc.

## ✓ High Availability and Redundancy
- WAN redundancy
- Link and Device redundancy
- Configuration synchronization
- Back-up Power Supply and redundant Fans

# RN20 Technical Specification

*Power input:*  AC 100-240 VAC, 50/60 Hz
*Power Consumption*:    150W max (2.2A)
*Operating Temperature*: 32-113ºF (0 to 45º C )
*Operating Humidity*: 5% to 95% non-condensing

*Dimensions (h, w, d):* 2U  3.5" x 18" x 18"
*Weight:*  11.3 lb  (5.1 kg)
*Interfaces:* 12+1 10/100 BaseT ports RJ-45 connectors and RS232 serial port DB9 connector

## www.ranchnetworks.com

*65 Route 34, Suite 200, Beacon Hill Plaza, Morganville, NJ  07751 USA*
*Phone: (732) 817-1900; Fax: (732) 817-1799*
*Email: info@ranchnetworks.com*

**Ranch**Networks
*Security and Networking Innovation*