

Product Line Data Sheet

Ranch Networks products are advanced data networking devices that combine numerous functions such as Firewall with multiple Security Zones, Bandwidth Management, VPN, VoIP, Load Balancing, Real Time Server Health Monitoring, IP Multicasting, Usage-based Accounting, and Layer 2-4 Switching.

Ranch Networks offers a series of Carrier Class products that consolidate Network security, control, and management for VoIP, IPTV types of traffic for Enterprise, ISP, SMB markets, increasing security and performance while improving reliability and reducing costs.

The architecture is perfectly suited to support a variety of IP Telephony and IPTV Service types. The RN devices dynamically adapt network resources regardless of the signaling protocol used or whether the signaling or media traffic is encrypted. This allows Service Providers and Enterprises to control network resources on a per-call basis, including per-call security and per-call bandwidth allocation.

	RN300	RN20	RN40	RN41
Performance and Capacity				
Backplane Switching Capacity	1 Gbps	4.8 Gbps	12 Gbps	12 Gbps
Firewall Throughput	100 Mbps	500 Mbps	1 Gbps	1 Gbps
Multicasting	No	1 Gbps	10 Gbps	10 Gbps
Concurrent Sessions	24,000	256,000	256,000	256,000
New Sessions per second	2,000	18,000	18,000	18,000
Total Policies/Rules	256	1024	1024	1024
Interfaces	3 10/100	12 10/100	8 x 10/100/1000 + 2 x SFP GBICs (Fiber or Copper)	10 x SFP GBICs (Fiber or Copper)
Modes of Operation				
Layer 2 Mode / Transparent Mode	No	Yes	Yes	Yes
Layer 3 Mode / Route Mode	Yes	Yes	Yes	Yes
NAT (Network Address Translation)	Yes	Yes	Yes	Yes
PAT (Port Address Translation)	Yes	Yes	Yes	Yes
Policy-based NAT	Yes	Yes	Yes	Yes
Virtual IP	32	128	256	256
Mapped IP	Unlimited*	Unlimited*	Unlimited*	Unlimited*
Users supported	Unlimited*	Unlimited*	Unlimited*	Unlimited*
IP Routing – Static Routes	128	512	1,024	1,024
IP Address Assignment				
Static	Yes	Yes	Yes	Yes
DHCP Server / Client, DHCP Relay	Yes	Yes	Yes	Yes

*Note: Some restrictions may apply due to physical memory size and/or internal CPU performance.

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Secure Zones

Max. Physical Zones	3	12	10	10
Max. Virtual Zones	5	30	30	30
Overlay without IP addresses reconfig.	Yes	Yes	Yes	Yes

Virtualization

	Yes	Yes	Yes	Yes
Total number of supported VLANs	4K	4K	4K	4K
Number of VLANs between Zones	32	512	1,024	1,024

Firewalls

Denial of Service and DDoS protection	Yes	Yes	Yes	Yes
Out-of-band Management port	No	Yes	Yes	Yes
Rate Limiting between any zones	Yes	Yes	Yes	Yes
Policy-driven security-on-demand	Yes	Yes	Yes	Yes
Security based on MAC address	No	Yes	Yes	Yes
Deny outgoing connections	Yes	Yes	Yes	Yes
Network attack detection	Yes	Yes	Yes	Yes
SYN attack	Yes	Yes	Yes	Yes
Large ICMP, ICMP flood, UDP flood	Yes	Yes	Yes	Yes
Ping of death	Yes	Yes	Yes	Yes
IP spoofing attack	Yes	Yes	Yes	Yes
Port scan attack	Yes	Yes	Yes	Yes
Fragmented packet protection	Yes	Yes	Yes	Yes
Malformed packet protection	Yes	Yes	Yes	Yes
Land attack and Tear drop attack	Yes	Yes	Yes	Yes
Filter IP source route option	Yes	Yes	Yes	Yes
IP address sweep attack	Yes	Yes	Yes	Yes
Default packet deny	Yes	Yes	Yes	Yes
Per-source session limiting	Yes	Yes	Yes	Yes
SYN fragments	Yes	Yes	Yes	Yes
SYN and Fin bit set	Yes	Yes	Yes	Yes
No flags in TCP	Yes	Yes	Yes	Yes
Fin with no ACK	Yes	Yes	Yes	Yes
ICMP fragment	Yes	Yes	Yes	Yes
IP option based filtering	Yes	Yes	Yes	Yes
Unknown protocols	Yes	Yes	Yes	Yes

User Authentication

Number of Users (internal database)	256	2048	2048	2048
Web-based authentication	Yes	Yes	Yes	Yes
Group or individual profiles	Yes	Yes	Yes	Yes
Profile-based internal restrictions	Yes	Yes	Yes	Yes
User Authentication based on LDAP, RADIUS, MS Active Directory, Local Data Base, IPSec	Yes	Yes	Yes	Yes

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VPN

Max. Site-to-Site VPN tunnels	32	128	256	256
Max. Remote Access VPN tunnels	32	128	256	256
3DES/AES throughput	30	90	200	200
VPN policies	64	512	1024	1024
DES/3DES/AES/RC4/RC5 Encryptions	Yes	Yes	Yes	Yes
IPSec User Authentication	Yes	Yes	Yes	Yes

Support for Voice-over-IP

Dynamic Firewall control – per call	Yes	Yes	Yes	Yes
Dynamic Bandwidth control – per call	Yes	Yes	Yes	Yes
Compatibility with SIP, H.323, MGCP	Yes	Yes	Yes	Yes
Signaling protocol independent	Yes	Yes	Yes	Yes
Voice and Data in separate Zones	Yes	Yes	Yes	Yes
Proper handling of encrypted traffic	Yes	Yes	Yes	Yes

Bandwidth Management & QoS

Guaranteed bandwidth	Yes	Yes	Yes	Yes
Maximum bandwidth	Yes	Yes	Yes	Yes
Priority bandwidth	Yes	Yes	Yes	Yes
Minimum bandwidth	Yes	Yes	Yes	Yes
Packet/Connection based	Yes	Yes	Yes	Yes
Number of contracts	32	512	1,024	1,024
Number of subcontracts per contract	8	16	16	16
7-tuple classification	Yes	Yes	Yes	Yes
Classification based on DiffServ, ToS	Yes	Yes	Yes	Yes
DiffServ, ToS stamping	Yes	Yes	Yes	Yes

Server Load Balancing

Round Robin, Weighted Round Robin	Yes	Yes	Yes	Yes
Least Connections	Yes	Yes	Yes	Yes
Persistency based on: Cookie, SSL, Client IP, HTTP, HTTPS, FTP (active and passive)	Yes	Yes	Yes	Yes
Number of Logical Servers	64	512	1,024	1,024

Health Monitoring

Monitoring of any IP-addressable device	Yes	Yes	Yes	Yes
Link monitoring (Layer 2)	Yes	Yes	Yes	Yes
ICMP ping verification (Layer 3)	Yes	Yes	Yes	Yes
TCP connection verification (Layer 4)	Yes	Yes	Yes	Yes
Active content verification for HTTP, HTTPS, FTP	Yes	Yes	Yes	Yes
SNMP alarms/traps	Yes	Yes	Yes	Yes

Layer 2-4 Switching

	L3/4	Yes	Yes	Yes
Port Mirroring	No	Yes	Yes	Yes
Static Routing	Yes	Yes	Yes	Yes

Accounting

7-tuple classification	Yes	Yes	Yes	Yes
Real-time counting of packets or bytes	Yes	Yes	Yes	Yes
Number of Accounting classes	32	512	1,024	1,024

RN300**RN20****RN40****RN41****High Availability and Redundancy**

Device redundancy (device failover)	No	Yes	Yes	Yes
Link redundancy (link failover)	No	Yes	Yes	Yes
WAN redundancy	Yes	Yes	Yes	Yes
Back-up Power Supply (available)	No	Yes	Yes	Yes
Over-designed Fan Management System	No	Yes	Yes	Yes
Device failure detection / notification	Yes	Yes	Yes	Yes
Configuration synchronization	No	Yes	Yes	Yes
MTBF > 200,000 hours	Yes	Yes	Yes	Yes

System Management

Web-based GUI (HTTP, HTTPS)	Yes	Yes	Yes	Yes
Dedicated Management Port	No	Yes	Yes	Yes
SNMP (v1, v2c, v3)	Yes	Yes	Yes	Yes
SNMP standard and enterprise MIBs	Yes	Yes	Yes	Yes

Logging / Monitoring

Syslog (external server)	Yes	Yes	Yes	Yes
Email	Yes	Yes	Yes	Yes
SNMP (v1, v2c, v3)	Yes	Yes	Yes	Yes
SNMP standard and enterprise MIBs	Yes	Yes	Yes	Yes

Administration

Admin, User, and Guest access levels	Yes	Yes	Yes	Yes
Remote Firmware Upgrades	Yes	Yes	Yes	Yes
Configuration back-up	Yes	Yes	Yes	Yes
Restricted administrative networks	Yes	Yes	Yes	Yes

Certifications (varies by individual product)

ICSA, UL, CUL, CSA, FCC class A, CE , NEBS Level 3 compliant

Physical (except RN300)

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)

Physical (RN300)

Power input: DC 5VAC
 Power Consumption: 10W max (2A)
 Operating Temperature: 32-113°F (0 to 45° C)
 Operating Humidity: 5% to 95% non-condensing
 Dimensions (h, w, d): 1.1" x 6.7" x 4.2"
 Weight: 1.1 lb (0.5 kg)



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