

The PortaBella BBNA141

Broadband Bonding™ Network Appliance



The PortaBella Broadband Bonding Network Appliance, BBNA141, enables cost-effective Internet connectivity via bonding together multiple cellular Internet access cards for increased performance and reliability. The BBNA141 aggregates the capacity of as many as four USB based cellular data cards providing increased access bandwidth in both uplink and downlink directions.

BBNA141 FEATURES

Downlink/uplink bonding in peered mode
Bonds Internet access lines for all types of traffic (including encrypted traffic such as VPN) for aggregated downlink and uplink capacity when peered over the Internet with a Bonding Proxy Appliance device located at the headquarter office or data center. For single office setups optional Broadband Bonding Service subscription enables downlink/uplink bonding.

Aggregated downlink capacity in standalone mode - When not peered with a BPA device, all HTTP downlink sessions use the aggregated bandwidth of the combined Internet access links, even in the case of a single HTTP session. For non-

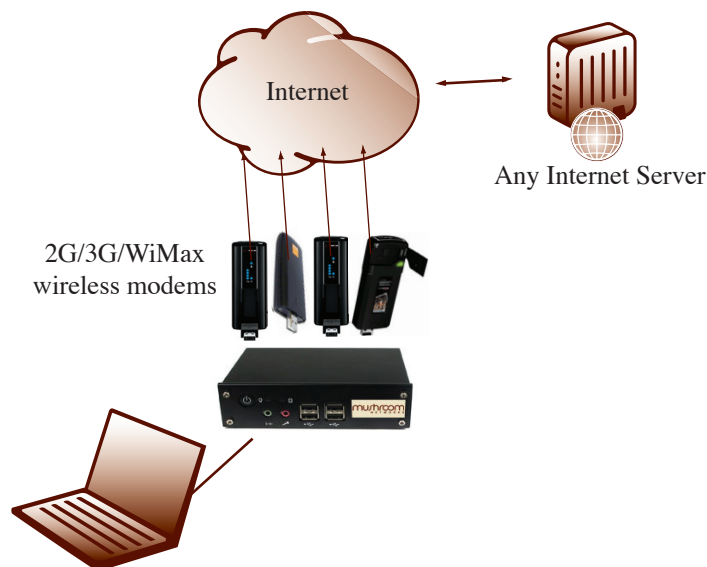
HTTP downlink sessions and all uplink sessions, PortaBella provides session-based intelligent load balancing across the access links in standalone mode.

Link failure recovery & link failover - In case of Internet access line failures, the PortaBella keeps the ongoing sessions alive by retransmitting the lost packets over the available access lines, even for the sessions in progress, without loss of data integrity. Additionally automatic failover protects against failures of one or more access link outages.

Advanced QoS algorithms - All traffic routed through the PortaBella is intelligently managed to prioritize real-time traffic. Additionally a unique set of proprietary algorithms are implemented to improve real-time traffic latency metrics. For low latency/jitter video applications, subscription to the video optimization module is required.

Transparent installation - The existing Local Area Network does not require any changes. No coordination, new equipment or software is needed from the Internet Service Provider(s). A remotely accessible browser-based management interface provides quick and easy configuration and system monitoring.

**Bonding
the world**



*"fastest mobile wireless
Internet access available"*

BBNA141 Front Panel



BBNA141 Rear Panel



DC Jack

VGA

RJ45

BBNA141 HARDWARE SPECIFICATIONS

Mechanical Dimensions	5.9"(W) x 4.3" (D) x 1.8"(H), ultra portable
Weight	1.14 lbs.
Input Power Requirement	external power supply or optional rechargeable battery
USB ports	4 (for cellular data card)
LAN ports (10/100baseT, auto-sensed)	1 (RJ-45 Ethernet connector)
Wired WAN ports	None
Certifications	FCC, CE, RoHS-5, ICES-03, UL, cUL
Operating Temperature Range	32-140 F, 0-60 °C
Operating Humidity Range	20-90%, non-condensing
Storage Temperature Range	32-158 F, 0-70 °C
Storage Humidity Range	5-95%, non-condensing
Cooling	Active cooling with fan

BBNA141 SOFTWARE SPECIFICATIONS

Max throughput	35 Mbits/sec
Max number of concurrent IP sessions	20,000 (customizable for higher number of concurrent IP sessions)
Device management	-Web based management -SNMP -Remote syslog -Email Alerts
DHCP and DNS servers	-DNS relay -Parallel DNS optimization -Support for DHCP server
DDNS	-Support dynamic DNS for multiple interfaces
WAN configurations	-Support for various configuration modes: static, PPPoE, DHCP, Passthrough. -Selectable "failover-only" or "aggregate" modes for cellular data cards and other WAN ports. -User configurable WAN interface binding
Routing	NAT and IP Forwarding, QoS and inbound/outbound VoIP quality management
VOM	Supports Video Optimization Module service