



Motorola's UMTS 'Radio Network Controller' Solution

The Horizon RAN controller is Motorola's second generation UMTS Radio Network Controller, capable of supporting 5100 Node B cells and up to 51000 Erlangs of voice traffic or the equivalent of 6.4Gbps data traffic. The Motorola Horizon RAN controller is an intelligent, robust controller designed for rapid entry-level deployments and long-term future expansion.

Motorola's expertise in both GSM and CDMA Radio Access Network (RAN) ensures excellent radio performance from the Horizon RAN controller. The Horizon RAN controller provides a rich feature set, which ensures that network resources are effectively utilized and service revenue opportunities are maximized.

The Horizon RAN controller has been designed to have no single point of failure. This inherent redundancy ensures minimum network outages and maximum service quality. Online patch loads have also been adopted to further minimize the potential for network service interruptions while providing non-disruptive software upgrades.

The future capable Horizon RAN controller also ensures longevity of both standards support and capacity expansion. It complies with 3GPP Release 6 standards and is fully HSxPA and IP ready.

Its scalable design allows for low cost entry during network rollout while ensuring flexible capacity expansion options for future network growth.

FEATURES AND BENEFITS:

Fast Time to Revenue

- **Rapid Network Set-up** – Motorola's CDMA expertise allows us to pre-optimize ~90% of parameters before field deployment. This innate intelligence simplifies network rollout and ensures minimum time to operational networks.
- **Maximum Revenue Capture** – RNC Capacity can be dynamically allocated between voice and data services, allowing service providers to meet a variety of traffic mixes. This provides extra capacity and broadens coverage for UMTS service delivery while maximizing revenue opportunity.

Controlled Cost of Ownership

- **Highly Scalable** – The Horizon RAN controller’s scalable capacity and flexible configuration options allow for optimum initial rollout and efficient subsequent expansion to support high traffic volumes.
- **High Capacity** – Considerable capacity is provided, supporting up to 51000 Erlang voice traffic, or equivalent 6.4Gbps data traffic. Its high data capacity will meet the requirements of future data networks.
- **Future Standards Compliant** – The Horizon RAN controller is compliant with 3GPP Release 6 standards and is fully HSxPA and IP capable.
- **Modular Design** – The modular design of the Horizon RAN controller allows for complete independence between transmission configuration, switching and different protocol layers. This flexible architecture is compatible with a variety of field conditions ranging from high density, central business districts to low capacity, rural coverage deployments.

- **IP & ATM Support** – Simultaneous support of both Internet Protocol (IP) and Asynchronous Transfer Mode (ATM) interfaces enables controlled migration from ATM to IP.
- **Transmission Flexibility** – Support of multiple logical (lub, lur and lu) and physical (E1, T1, STM-1, FE, GE) transmission interfaces ensures ease of deployment.

High Quality Service Provision

- **Robust Service Provision** – The Horizon RAN controller architecture provides highly available networks through a robust platform and low impact upgrades to performance and capacity. Features such as online patch loads are used to minimize service interruptions.
- **Optimal UTRAN Performance** – The Horizon RAN controller delivers excellent network resource performance through extremely efficient call rate adaptation, directed retry, radio admission control, power control and hand-over features.

Specifications	
Size (H x W x D):	– 2200mm x 600mm x 800mm
Weight:	– Typical Configuration: 375kg
Capacity:	– Supports 250 to 51000 Erlangs of equivalent voice traffic – Supports up to 5100 cells – Supports up to 1700 Node Bs – Up To 6.4Gbps Data Throughput Capacity – 25Gbps ATM switching platform
Backhaul:	– 1152 E1/T1 – 320 STM-1 – 320 FE – 160 GE
Power Supply:	– 40VDC to -57VDC
Power Consumption:	10 kW for maximum configuration
Operational Environment:	– 0°C to +45°C – Humidity 5 to 85%
Feature set including:	– HSxPA – MBMS – IP Transportation on all interface – 3G-2G (Inter-System) handover – Dynamic AMR speech – Support for all 4 QoS classes – Support for simultaneous multiple RABs – Dynamic Channel Configuration Control – SRNS relocation and overload control – IP Multi-Media System (IMS) – Location Based Services – AGPS



MOTOROLA'S UMTS/HSxPA Solution Delivers:

- **Fast Time to Revenue** via rapid rollout of stable commercial networks
- **Controlled Cost of Ownership** via scaleable future capable networks
- **High Quality of Service Provision** matching today's standards of service delivery.



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