

Mobile Operators Transport

# Cellular Traffic over IP

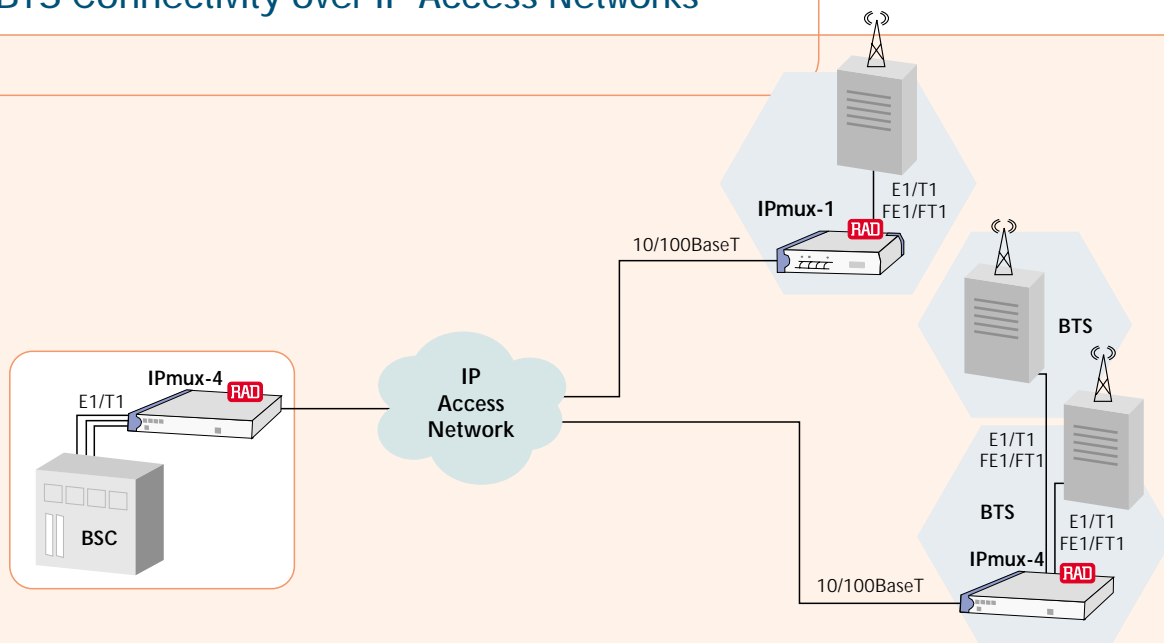
## IP for Next Generation Networks

As cellular traffic grows and begins to exceed the capacity of E1/T1 leased lines, cellular operators are looking for more cost-effective alternatives for connecting base stations to the BSC and MSC. They are turning to IP networks as an additional source of much needed bandwidth. With the growing demand for IP-based applications and converged services, it is expected that 3G networks will run over an IP transport network.

## Transparent Cellular Traffic over IP Networks

IP connectivity can be provided to cellular operators over fast IP networks that support Quality of Service (QoS) priorities. Cellular operators can use RAD's innovative IPmux™ gateway to convert E1 or T1 traffic to IP packets, providing TDM over IP service. The simple, scalable, plug-and-play unit protects the operator's investment in current equipment, which is supported even over new access networks. All TDM signaling is sent transparently, eliminating the need for any higher layer processing or conversion. A second IPmux at the remote location converts the packets back to the original E1/T1 traffic.

## BTS Connectivity over IP Access Networks



For more information on the IPmux

<http://www.rad.com/products/family/ipmux-4/ipmux-4.htm>



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## Why the IPmux Is Beneficial for the Cellular Operator

Features	Benefits
Transport over IP networks	<ul style="list-style-type: none"> <li>• Lowers the cost of network ownership by extending the use of legacy equipment</li> <li>• Meets Quality of Service requirements</li> <li>• Integrates into Next Generation Networks</li> </ul>
Transparent solution	<ul style="list-style-type: none"> <li>• Maintains existing PBX system's features and functionality</li> </ul>
Low end-to-end delay	<ul style="list-style-type: none"> <li>• Meets Quality of Service requirements</li> </ul>
Supports E1, IP and Ethernet interfaces	<ul style="list-style-type: none"> <li>• Standard interfaces</li> <li>• Flexible solution</li> </ul>
Compact	<ul style="list-style-type: none"> <li>• Low cost</li> <li>• Consumes minimal space at carrier site</li> </ul>
Plug-and-play unit; Remote configuration and management	<ul style="list-style-type: none"> <li>• Instant installation</li> <li>• Increases network uptime</li> <li>• Decreases on-site visits by technicians</li> <li>• Reduces operating costs</li> </ul>

Alternative solutions	Disadvantages of alternative solutions
Use additional TDM links	<ul style="list-style-type: none"> <li>■ Costly</li> <li>■ Not adapted to future trends</li> <li>■ Lacks expansion capabilities</li> </ul>



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**International Headquarters**  
 RAD Data Communications Ltd.  
 24 Raoul Wallenberg Street  
 Tel Aviv 69719, Israel  
 Tel: 972-3-6458181  
 Fax: 972-3-6498250  
 email: cellular@rad.co.il

**U.S. Headquarters**  
 RAD Data Communications, Inc.  
 900 Corporate Drive  
 Mahwah, NJ 07430, USA  
 Tel: 1-201-529-1100  
 Toll free: 1-800-444-7234  
 Fax: 1-201-529-5777  
 email: market@radusa.com

Visit our solutions for Cellular Networks

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