

# Technology Paper

Making Mobile Data a Reality



## Seamless Roaming

Wireless LANs are being rolled out in places such as trains, railway stations, airports, coffee houses and garages, creating WLAN hotspots. These are pushing forward the dream of 'wire-free' working, but this does bring further challenges, such as integration of WLAN access, network security and other wireless access methods. This is where Brand can help.

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Brand's Apollo solution, matured over 14 years of successful deployment, is making mobile data a reality for business-critical data applications using Seamless Roaming for many carrier and enterprise users throughout the world. It removes the uncertainty of using a wireless network to transfer vital information by transparently integrating GSM, GPRS and 802.11b networking with LAN environments, both within the enterprise, and in the field, and provides automatic recovery from dropped connections without repeating a data transaction and assures that data is never lost, corrupted or compromised.

In a train application, the Brand Communications Seamless Roaming solution automatically manages data devices and aggregated bandwidth from whatever is available to it along a given route. The system can be sending data down all the public operator networks, packet or switched or any combination at the same time and will automatically bring on-line high speed WiMAX, Microwave, PWLAN, 2.5G, 3G or Satellite as they come into range. The system continually monitors the performance, integrity, availability and latency of each data pipe to ensure that optimal use is made of it. The solution can also accommodate asymmetric working to allow use of broadcast based bearers. The system can provide seamless roaming across all the bearers or aggregate them as required to achieve a high-speed service, ensuring continuity of connection without the end user having to re-start their Internet session. The system has also been fully tested with 3G devices incorporates these into the data path as they come into coverage which is more likely to be found in Metropolitan areas in early days of deployment.

If the signal is lost, for instance during travel through a tunnel, the system will recover the data connection when signal has been regained, buffering data so that the mobile user does not have to re-connect to the internet.

The solution also includes a Web Optimiser engine developed by Brand Communications that ensures that heavy graphics are optimised for un-wired connections, reducing the size of web site downloads and so enhancing the user experience.

Brand provides significant protection to the mobile user and the data by providing authentication using AES (Advanced Encryption Standard – 3DES replacement) as the VPN.

Brand's solutions are deployed in many carrier and Enterprise customers across the world and the company specialises in implementing mission critical wireless solutions and strategies. Brand's Apollo solutions make mobile data a reality using robust session management. It removes the uncertainty of using a wireless network to transfer vital information and ensures compatibility with almost all data devices and networks resulting in a future proof investment for any organisation.

The solution is equally at home in the hands of a single device consumer, or as an intelligent router managing a train backhaul or other mission critical broadband application. The system can also handle automatic hotspot logon through profiles which can manage the authentication for the user and not require the web based pop up screen. This can also be used to optimise connectivity for the user in cumulative time based billed public hotspots.