

QoS Guarantees and SLA Assurance over Wireless Links Digicel, Fiji

# Delivering High-Quality Ethernet Service in the Middle of the Ocean

RAD's Airmux family is an ideal wireless broadband solution for island nations

# Challenge

Provide Business Ethernet services over wireless links where fiber doesn't exist, and the only other alternative is to rely on slow and expensive satellite connections.

# Solution

RAD's Airmux broadband wireless radios function as subscriber units at each remote customer site while Airmux-5000 point-to-multipoint Ethernet radios serve as hubs in the country's capital city.

Incorporated in Bermuda, Digicel is an international phone operator primarily serving the Caribbean and neighboring mainland countries in Central and South America. But its experience in bringing cellular connectivity to island nations has also brought it to the South Pacific, including the Republic of Fiji.

In planning its service roll out for Fijian Business Ethernet customers, Digicel had to overcome one major obstacle: there are no fiber connections between Suva, the country's capital on the island of Viti Levu, and outlying islands. And that's no minor problem: Of Fiji's more than 300 islands, over 100 are permanently inhabited.

The only possible solution would have to be wireless. But in Fiji's case that is not a simple trick. The country's islands are spread out over an area that stretches a thousand kilometers from one end to the other, and wireless systems all have a limited range and finite capabilities. To provide a solution that would indeed be able to meet all its requirements, Digicel turned to RAD's regional office for Oceania.



"RAD's Airmux family represents an ideal wireless broadband solution for island nations like Fiji. This is primarily because Airmux enables operators to provide their end users with Quality of Service (QoS) guarantees and SLA assurances, two must-have attributes for delivering Ethernet services."

Mark Glison, Managing Director of RAD Australia.



### The National Business Ethernet Standard.

RAD's proposal was based on its Airmux family of broadband wireless radios. Airmux-5000 point-to-multipoint Ethernet radios would serve as hubs in Suva. Each supports up to 32 remote subscriber units (SUs) with multi-band operation. Smaller Airmux point-to-point broadband wireless radios function as SUs at each customer site on the remote islands. Today there are over 200 such links employing over 400 radios, and RAD's wireless solution has become the country's de facto standard for business Ethernet connectivity.

"Airmux enables us to deliver high-quality Ethernet service to our customers in the middle of the ocean, where the only alternative would be to rely on slow and expensive satellite connections," notes Sushil Chandra, Head of ICT and WiMAX Technical at Digicel (Fiji) Ltd. "Remote island resorts, as well as banks and even some private subscribers, are finally able to take full advantage of high speed Ethernet and be in touch with the rest of the world," he adds. "This is important for the resorts in particular since it increases their guest numbers and makes a significant contribution to each island's economy."

"RAD's Airmux family represents an ideal wireless broadband solution for island nations like Fiji," states Itzik Swissa, Managing Director of RAD Australia in Sydney. "As part of our Service Assured Access Solution, it enables operators to provide their end users with Quality of Service (QoS) guarantees and SLA assurances, two must-have attributes for delivering Ethernet services."

Remote Sites

Airmux-5000 SU

Airmux-5000 BS

Viti
Up to 32 Sites

Airmux-5000 SU

RAD Australia

RAD Data Australia Pty. Ltd. Level 7, Suite 2, 100 Walker Street. North Sydney NSW 2060 Tel: +61-2-9922 7581 Fax: +61-2-8011 0979 email: info@raddata.com.au "Airmux enables us to deliver high-quality Ethernet service to our customers in the middle of the ocean, where the only alternative would be to rely on slow and expensive satellite connections."

Sushil Chandra, Head of ICT and WiMAX Technical at Digicel (Fiji) Ltd.

## **Features**

- Aggregated throughput of up to 250 Mbps
- Transmits up to 120 km (75 miles)
- Incorporates advanced features such as MIMO and OFDM

# Benefits

- Quick Ideal for broadband Ethernet access
- Extended range
- Delivers optimal performance





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