



Capability Statement

pactel
INTERNATIONAL

CONNECTING YOU IS WHAT WE DO®

Company Overview

Using over 15 years experience in the Australian and Pacific satellite industry, Pactel International has built a reputation of getting the job done reliably, efficiently and cost-effectively. We design, deliver, install, manage & maintain numerous links for a variety of customers.

Together with carefully selected partners, integrators and contractors, we have developed the optimum mix of products and services to provide enhanced satellite offerings. Pactel International primarily works with Shiron Advanced VSAT technology for Hub based solutions. The Shiron system is designed on a bandwidth efficient platform that reduces operational costs, increasing value.

Nevertheless, today's varying requirements mean that Pactel International doesn't limit itself to a specific technology or satellite. As a result we are able to investigate all communication options and advise the best solution to meet customer needs. This ability gives us the advantage and flexibility to address unique or unusual requirements as well as provide standard products and services.

Pactel International operates multiple hubs, utilizing both dedicated and shared C-Band and Ku-Band services. These are used for a large variety of customers from enterprise, resource sectors and government through to NGO's and other entities, requiring managed high end solutions such as remote connectivity, disaster recovery, redundancy as well as primary data links to and from the other side of the world. Through our service offerings across Asia-Pacific, we have developed solid core network infrastructure using redundant connections to primary interconnection and peering points in Australia at Global Switch and Equinix Data Centres for internet and/or corporate networks. Our Mobile Switching Centre (MSC) and VoIP gateways are co-located at these premises to serve the growing GSM mobile services and connection to the PSTN and PLMN.

Pactel International is committed to the highest level of customer service. With the head office and 24 x 7 x 365 NOC in Sydney, Australia and offices in Perth, Hawaii, PNG, Indonesia and the Pacific Islands, Pactel International is well placed to offer service and support to all types of customers in the region.

With a positive cash flow and no external debt, Pactel International's revenues reached over AUD\$30 Million in 2009.

Health, Safety & Quality Management

Pactel International employs health and safety policies that allow us to adhere to the strict requirements of major projects while allowing us to apply them to small operations in the same way.

All of our product offerings are tested and verified by us, generally due to the requirement to place them in some of the remotest places on earth. Using leading world-class technologies and products, we ensure quality with the procedures and policies of our Quality Management System.

Best of Class Bandwidth

It is crucial for our customers to have access to reliable and bandwidth-efficient voice, video and data communications. Pactel International provides enhanced bandwidth optimisation and efficiency to enable our customers to get the most out of their bandwidth, reduce risk, improve performance and maximise productivity in a cost-effective way.



Products and Services

Satellite

- **Internet & RICS** - The RICS platform is directly connected to our backbone via APSTAR-6, NSS-9 (C-Band) and GE-23 (Ku-Band) and provides unprecedented performance and low latency.
- **Mobile VSAT Solutions** - Pactel's Mobile VSAT solutions provide secure, easy to operate, bandwidth-on-demand Voice, Video and Data applications anywhere in the world
- **SCPC Star** - Pactel's SCPC Star topology networks provide IP connectivity from our teleports in Sydney or Hawaii.
- **SCPC Point to Point** - Pactel's SCPC Point to Point solution offers a fixed, continuous and single satellite communications channel with both upstream and downstream capacity.

GSM Mobile

- **Voice calls** - local and international
- SMS
- Voicemail & EDGE (2.5G) data services

Telephony over IP (TOIP)

- **Voice Trunking** - Pactel's Voice Trunking System has a range of VoIP interconnect products designed to meet the needs of various applications, including connection to PSTN and Mobile Networks.
- **Prepaid Calling Cards** - Pactel International offers a range of pre-paid calling card services, provided in any denomination with multi-currency options available.
- **Performance Reporting & Management** - In order to offer affordable and error-free ToIP solutions to our customers, Pactel International implements a sophisticated and highly-functional voice reporting system.

Key Customers

Pactel International supplies high quality, customised and affordable telecommunications solutions for:

- Telecommunications carriers
- Mining, Oil & Gas
- Government organisations & NGOs
- Broadcasters
- Construction & Engineering
- ISPs
- Enterprise and Corporate
- Marine

Pactel International works closely with their customers* and adopts a hands-on approach during the design, implementation, and delivery of all solutions. What sets Pactel International apart is their expertise in using satellite-based technologies to provide advanced telecommunications solutions at highly competitive rates.

* Please refer to the back of this brochure for a variety of case study projects.

Satellite Access and Points of Presence

Satellites

Existing coverage is available on the following satellites (others available upon request):

- Apstar-6 @ 134 East
- GE-23 @ 172 East
- Intelsat 602 @ 178 East
- AsiaSat 4 @ 122 East
- NSS-9 @ 183 East
- IS-5 @ 169 East
- Intelsat 701/Intelsat 18 @ 180 East
- Intelsat-8 / IS-19 @ 166 East

Points Of Presence

- Sydney
- Brisbane
- Adelaide
- Perth
- Hawaii
- Los Angeles

CAPABILITY STATEMENT

Coverage

Apstar 6 at 134°E

C-Band



Pactel Access: Perth, Adelaide and Hawaii

IS-5 at 169°E

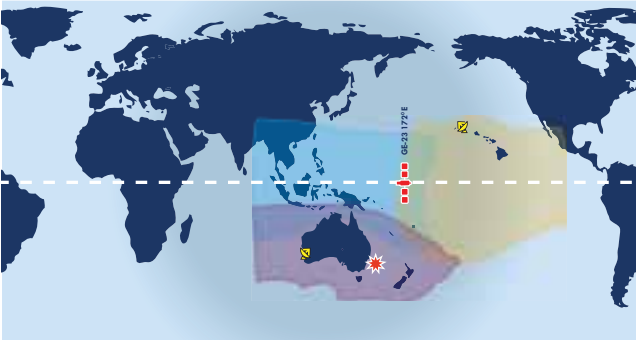
C-Band



Pactel Hub Location: Brisbane

GE-23 at 172°E

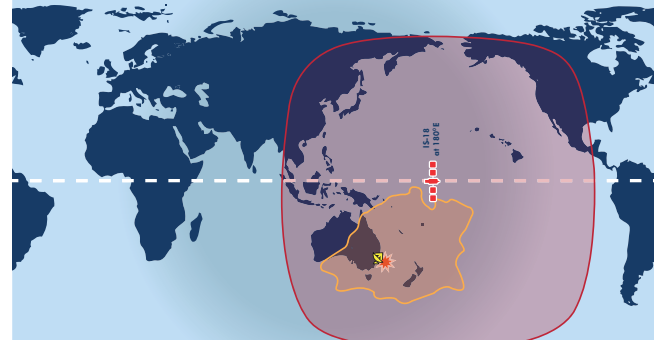
Ku-Band



Pactel Hub Location: Hawaii (SEP & SWP beams), Perth (SP Beam)

IS-18 at 180°E

Ku-Band & C-Band

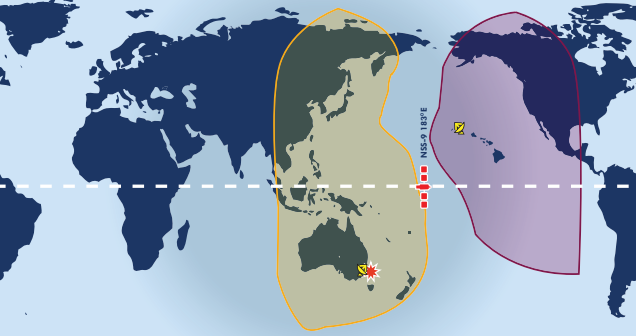


Pactel Hub Location: Sydney

■ Ku-Band Beam
■ C-Band Beam

NSS-9 at 183°E

C-Band



Pactel Hub Location: Sydney (West Hemi Beam);
Hawaii (East Hemi Beam)

IS-602 at 178°E

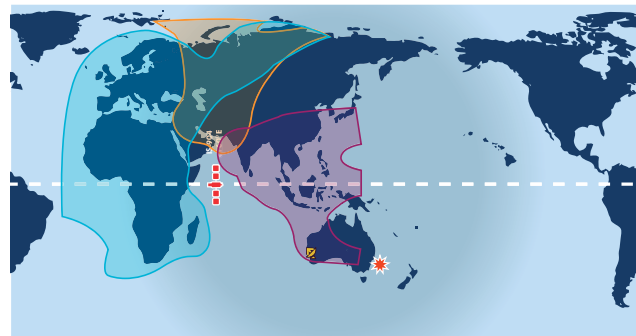
C-Band



Pactel Hub Location: Belrose, Sydney

IS-904 at 60°E

C-Band



Pactel Access: Perth

Satellite Network Capabilities

In most remote environments, the satellite space segment is the most expensive resource of the communications network, hence it is important to optimise its use. Pactel's key satellite network capability lies in its leading ability to optimise the delivery, performance and profitability of satellite networks.

QoS

Utilising our technical capabilities in QoS, and relationships with world renowned suppliers, we guarantee bandwidth to our customers' time-critical and real-time applications. Our policy-based bandwidth management allows us to assign multiple levels of QoS based on protocol and IP address range.

Our redundant platform consists of an additional by-pass feature to quickly eliminate complex QoS policies in fault finding. Our advanced analysis capabilities allow for efficient distribution of traffic through WAN channels, resulting in a more efficient system for delivering applications over the network.

Filtering

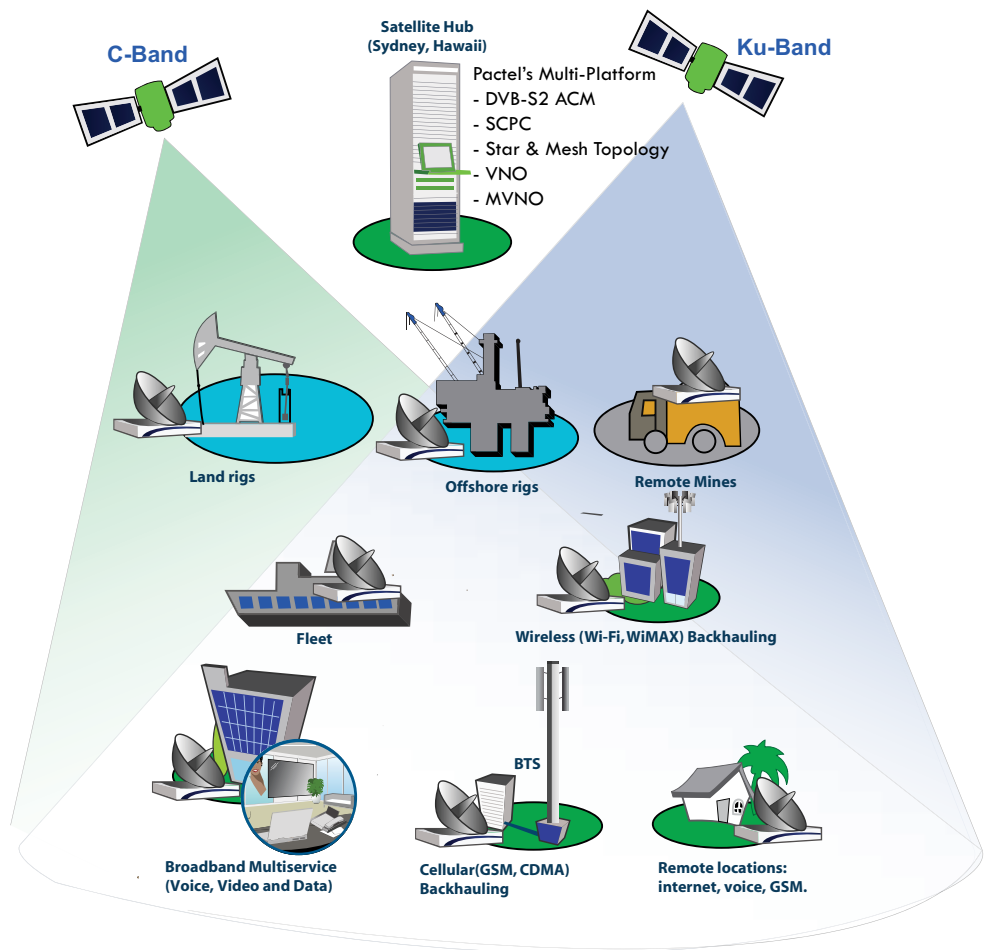
Pactel's filtering can be configured to create customer-defined protocols as well as different access policies based on user group types. The application filtering service allows our customers to 'shape' and filter their IP traffic to suit specific needs. Pactel's tools allow customers to be kept up to date with overall throughput, the nature of the passing traffic and the amount of bandwidth being used.

WAN Acceleration

Pactel's robust WAN acceleration solution allows our customers to maximise effective throughput across their network, raise productivity, and eliminate the impact of distance between offices, mobile workers and business headquarters.

Pactel's unique network approach to WAN optimisation helps customers scale their existing bandwidth and realise more performance by offering the following benefits:

- Reduced use of WAN bandwidth by up to 40% percent
- Relieved network congestion
- Optimised file sharing, web, email, voice and video – all at the same time
- Accelerated, fibre-like user experience, mitigating the effect of satellite latency
- Locally available data caching reducing the time required to complete repetitive operations
- Up to an 8 fold increase in download speed



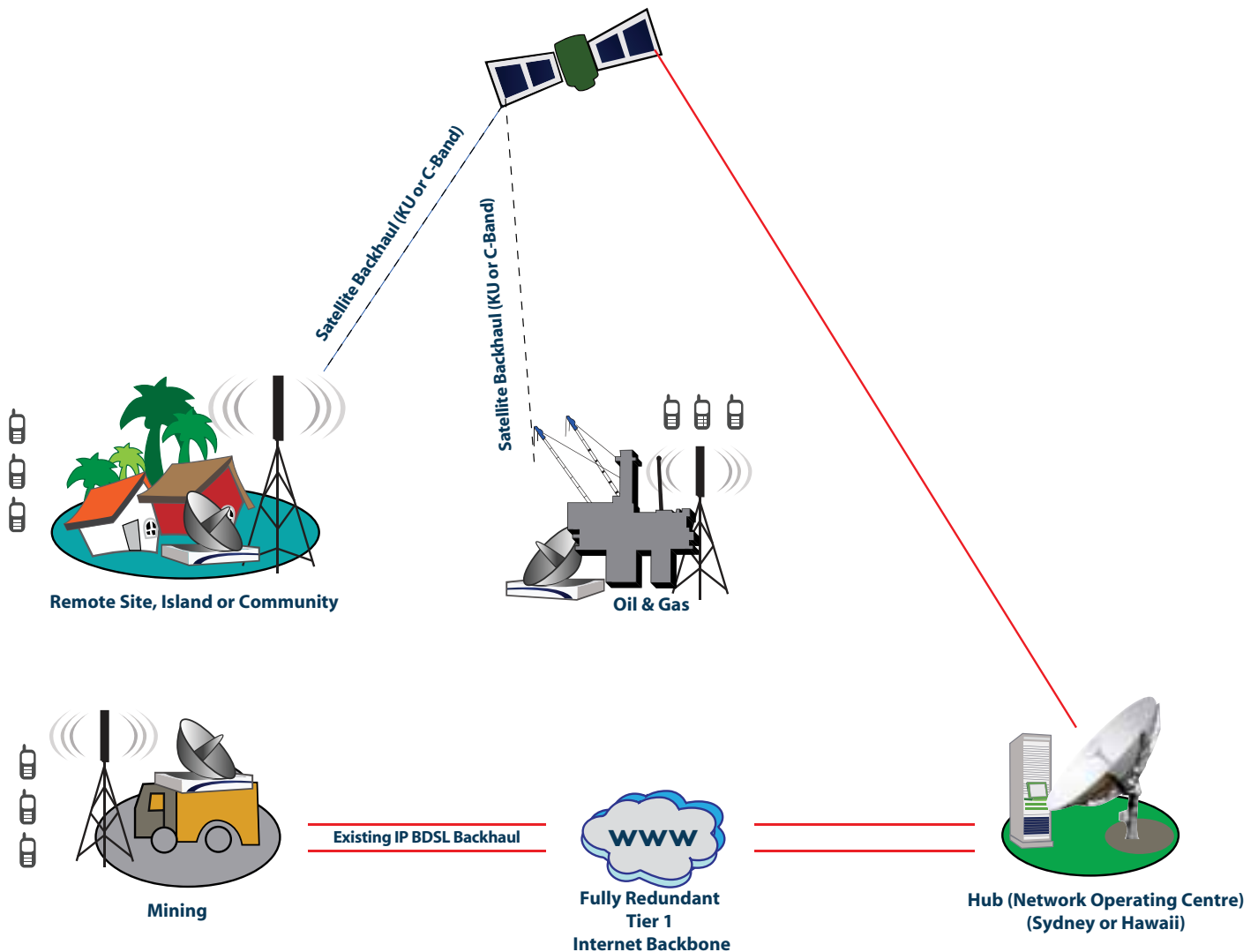
CAPABILITY STATEMENT

GSM Network Capabilities

Pactel Mobile's fully-featured cellular mobile telephone system allows for a cost-effective network to be rolled out even in extremely remote locations. This network can utilize any existing IP connection and offers a range of GSM solutions to accommodate any remote market, ranging from a single site to independent rural communities.

It's key capability allows end-users to make calls using their standard mobile phone and their existing sim card. Other capabilities include:

- Standalone, fully-fledged cellular systems.
- Fill-in coverage in poor coverage locations or during extreme weather conditions.
- Disaster recovery system, which is capable of providing an instant, temporary mobile network solution in the affected area.
- Simple and centralised administration, which allows easy control of the mobile telephony system at remote sites.
- Multiple billing solutions, including subscriber registration and pre-paid top-ups (via scratch card, credit card and vendor), as well as balance transfers between mobile accounts.



Voice Network Capabilities

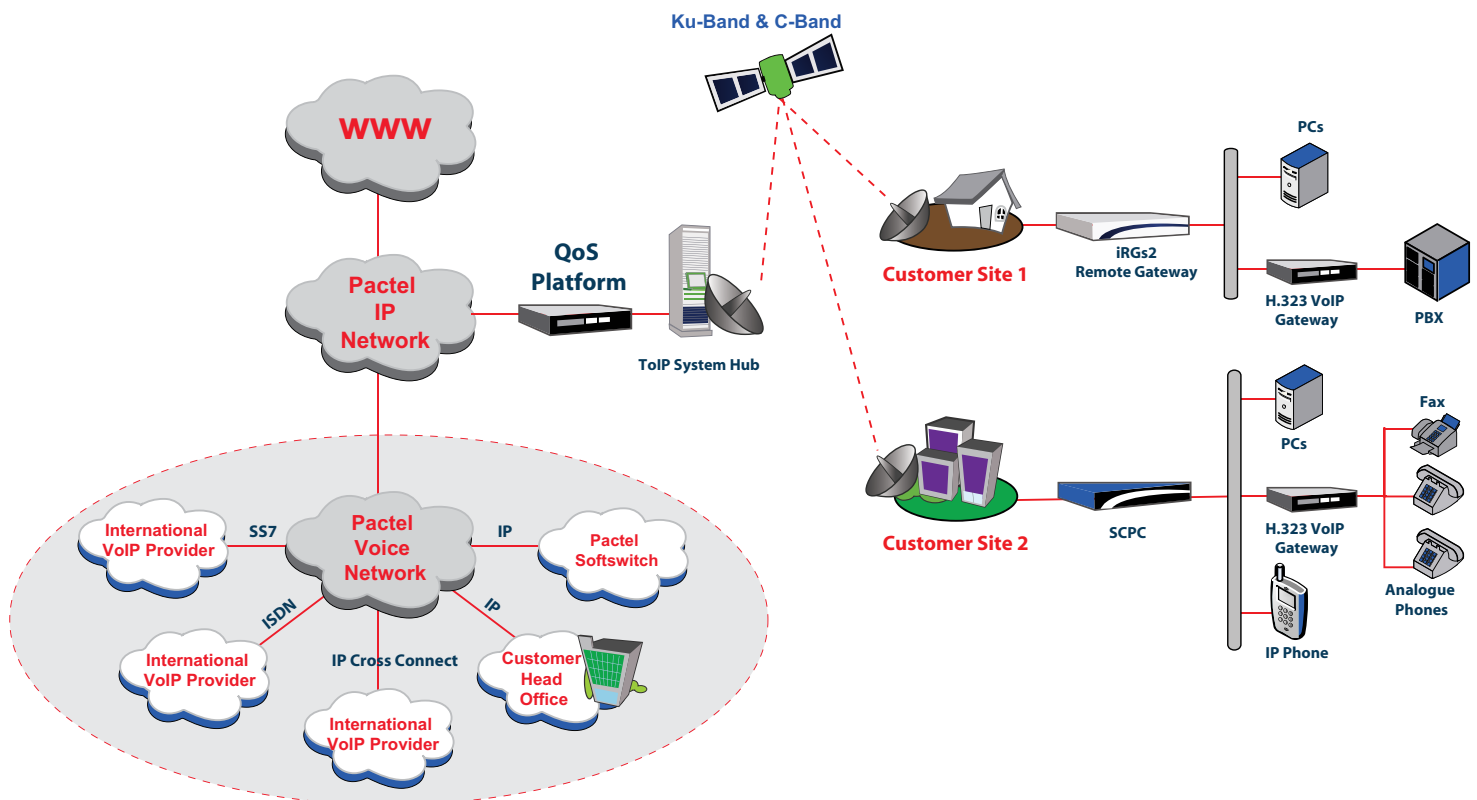
Operating as a wholesale transit provider, Pactel's voice platform enables connectivity between the various carriers in the Pacific region. Acting as a voice hub, the need for each operator to arrange multiple bilateral agreements is removed, instead relying upon Pactel to provide this connectivity.

The key advantage of using ToIP (Telephony over IP) within our overall network is that it simplifies the switching and transmission infrastructure considerably and enables us to leverage the latest IP technology.

Pactel has interconnect agreements with all the major carriers in the region ensuring the highest level of performance and optimal cost to our customers. Connections to carriers are both in the IP domain and the traditional TDM format (C7, ISDN, R2).

QoS
When connecting in the IP environment for voice, high grade QoS management is essential. Pactel's QoS-based services ensure better service levels for voice traffic. Protocols such as RTP and Signaling (SIP and/or H323) are given higher priority than standard IP traffic, ensuring voice packet delivery without packet loss, delay and jitter.

Performance Reporting and Management
Real time monitoring of network performance is imperative in the supply of voice services. Pactel's voice performance parameters are measured across all sections of the network, utilising our newly developed CDRA application interface. The product allows customers to monitor specific performance figures (such as ASR, ACD, AHT) and financial information stored in the warehoused database.



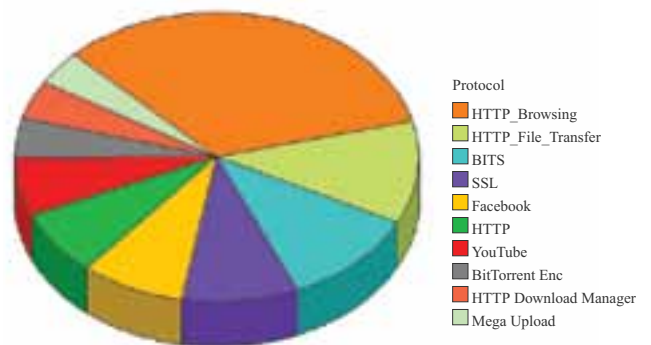
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Network Monitoring Capabilities

By utilising its Network Operations Centre (NOC) in Sydney, Pactel International operates a 24 x 7 online support system and customer network management that allows end users to remotely access information and monitor their sites on a continuous basis.

A key feature of the Pactel NOC is the customer access to the network status and operational data via a secure web portal, providing statistics on the following elements:

- Up-time/Down time events
- Packet Loss
- Latency
- Financial analysis
- Equipment monitoring (temperature, power levels, error rates, etc.)
- Throughput
- Jitter



The Bottom Line: Why Pactel International

Pactel's Key Capabilities		Customer Benefits
Delivery of projects on a turnkey basis	➤➤➤	Full integration of all your communication needs
Tracking and monitoring the entire network from end-to-end with 24-hour phone support	➤➤➤	Ability for end users to remotely access information and monitor their sites on a continuous basis.
Pacific-Wide Coverage	➤➤➤	High-speed satellite links into any desired location of the Asia-Pacific region
Flexibility to change or expand existing services	➤➤➤	Ability to meet your new communications demand without a hassle
Bandwidth optimization and efficiency	➤➤➤	Maximised productivity for your business

Connectivity across the region: the WHO Pacific Network



The World Health Organisation had a need to keep connected to its staff working across the Pacific in areas with poor health infrastructure. Pactel International was able to provide a reliable network linking WHO's Geneva headquarters to multiple sites dotted around the Pacific. Service delivery has been improved through remote staff and HQ being able to communicate more effectively.

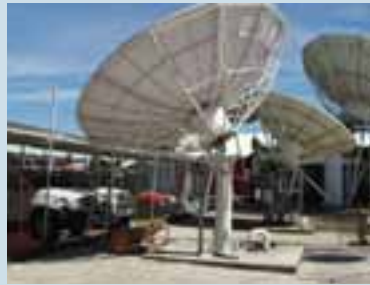
Large Fibre Backup: Service Provider in the Pacific



Pactel International signed a multi-year contract with OPT New Caledonia (a major service provider in the region) to create and operate a 90/40Mb satellite back-up link for their existing fibre-based networks.

This link enables automatic redundancy of the most critical applications of IP traffic in case of a fibre cut, including voice, video and data.

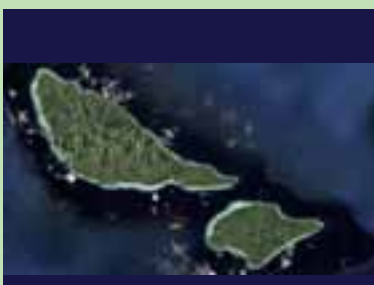
New Satellite link between US and Cocos Islands



Pactel International established a new satellite link between their US Hub and the Cocos Islands, using the latest C-Band technology. The new service addressed the immediate expansion needs for the local Internet service provider, CIIA.

This link is designed to carry Internet traffic to/from the Cocos Islands. The new DVB-S2 platform is directly connected to Pactel's redundant backbone and provides Cocos Island's residents with direct access to US Tier 1 Internet backbone, ensuring higher Internet speed and reliability.

Implementation of a large satellite IP trunk in Wallis and Futuna



Pactel International successfully implemented a large satellite IP trunk, linking the two French overseas territories of Wallis and Futuna to the International IP backbone via Australia. The link was commissioned only 2 months after signing the initial contract due to an immediate need in increased capacity and better load balancing between the two territories. This project has resulted in Wallis and Futuna residents having a higher internet connectivity speed at a lower cost.

COMPANY PROJECTS

VPN Connectivity to a Remote Mining Site



This customer's requirement was to establish reliable data transfer services between a remote mining site in PNG and the company's head office in Perth.

Pactel's solution included providing Virtual Private Network (VPN) connectivity, enabling seamless, secure and reliable communication between the two locations.

Connecting the unconnected: Rural Internet Connectivity System



Pactel International won a tender with the Secretariat of the Pacific Community for an AusAid funded project to provide internet access to the remotest villages in the Pacific Islands. Terminals have been deployed in every territory of the Pacific connecting the unconnected.

RICS Terminals are based on SHIRON's DVB-S2 ACM platform, utilizing the latest modulation techniques to ensure reliability, availability and throughput.

Restoring a destroyed Mobile network in Funafuti



The original network was damaged by a storm in 2007, leaving the Island's customers without mobile phone coverage.

Pactel International was appointed by Tuvalu Telecom Corporation to install and operate a replacement mobile phone network to operate on the island. This has allowed the Company's customers to access normal mobile services at very competitive rates.

New VSAT Network into Remote Oil Rigs



Pactel International designed a network, which could provide high speed internet, data & voice applications to and from remote oil rig locations.

The new network represented a complete turnkey solution, based on the C-Band VSAT network to provide a link from the two remote operational sites back to Sydney. This new link is now able to handle voice and data applications as well as allow for these locations to be remotely monitored by the data centre.

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