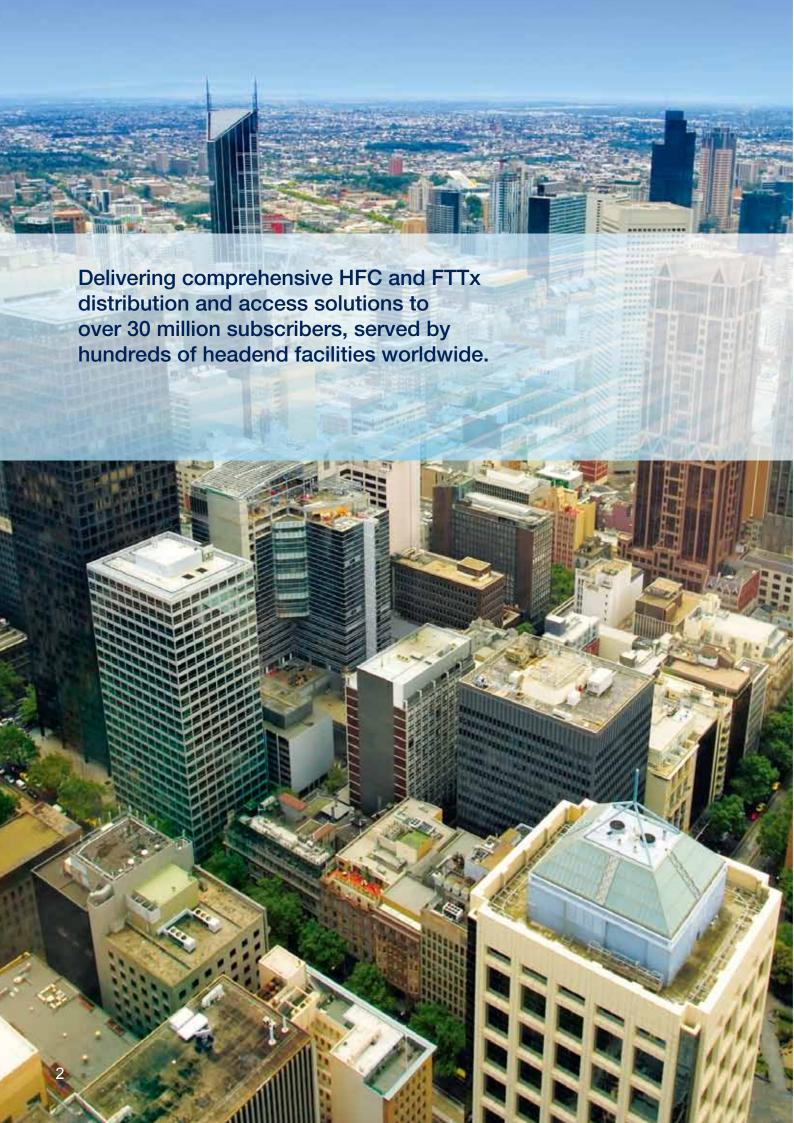




# A Global Technology Company www.pbnglobal.com



## PBN - A Global Technology Company



Pacific Broadband Networks (PBN) is a well-known supplier of innovative products and solutions which enable a range of video, voice, data and special services to run over a broadband network. Our equipment, software and technical support helps Multiple Systems Operators (MSOs) to keep up with market requirements and high-speed broadband connectivity.

PBN is a fast-growing global technology company that originated from Australia in 1994, as a subsidiary of Pacific Dunlop Limited. PBN first made its mark in the early 90's, when the company participated alongside other international leaders in the very first Fiber-to-the-Home (FTTH) development trials in Australia.

Since then, PBN has continued to anticipate future requirements in broadband communications by focusing on optical technology. This provides MSOs with the flexibility and capacity to extend broadband services and grow their customer base. PBN is one of only a few global companies that uniquely offer leading-edge products and solutions, which represent significant advantages for operators of next-generation broadband networks.

Our products and solutions have evolved from many years of R&D excellence through innovation and experience. Today they are responsible for delivering comprehensive broadband distribution and access solutions to over 30 million subscribers, served by hundreds of headend facilities worldwide. PBN bridges infrastructure to support an evolving and connected world.





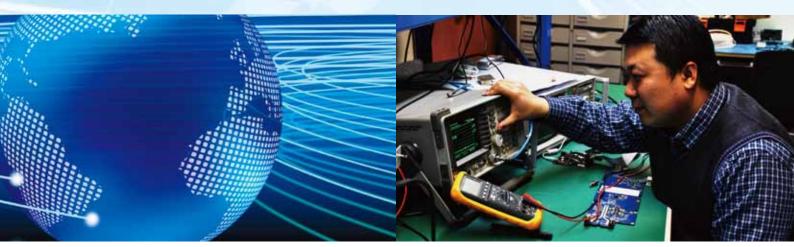
### WHAT WE DO

PBN delivers end-to-end HFC and FTTx solutions tailored towards the needs and challenges of MSOs by offering pre-integrated, off-the-shelf solutions with professional services allowing a rapid turn-up of new systems.

PBN applies strong relationship, innovation, reliability and value as prime objectives in the product design phase. Our experience and advanced portfolio speak for themselves. PBN caters for mature MSOs requiring large-scale, rapid upgrades of existing networks; also for smaller start-up operators looking for a low-cost and practical solution.

PBN is committed to continuously delivering innovative and flexible technology for operators looking for leverage their existing HFC network and protect their investment, while they gradually migrate to FTTx. Some of the many benefits of a fiber-optic backbone include improved network reliability, lower operating expense, reduced capital investment and the ability to generate multiple revenue streams.





### **OUR VISION**

Our vision is for MSOs throughout the world to recognize PBN as a leading supplier of innovative hardware and software solutions that enable IP networks and streamline business operations, for profitable and scalable delivery of the latest entertainment, information and communications.

PBN continually introduces new products into the market that complement the existing product portfolio. For the future, PBN will continue to enhance its product offering, to ensure that the company is even better positioned to take full advantage of the significant opportunities in the area of HFC, RFoG and FTTx.

PBN's product road map is focused on building cost-efficient solutions for MSOs through price improvements, space reductions, power efficiencies and more intelligent software.

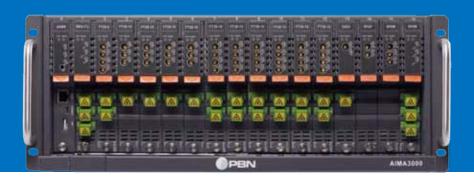
### **OUR TECHNOLOGY**

PBN's highly successful LightLink® Series communications platforms consist of a full suite of products for distributing services from a central headend to a business or residential subscriber.

With our LightLink® optical platform, services are aggregated to be simultaneously transmitted over an ultra-high-speed broadband network. Each product is optimized for its unique function in the network. The LightLink® multiple services platform is a crucial element in any network headend, as it is designed with fully modular, hot-swappable components, allowing continuous system operation and uninterrupted services to the subscriber.

MSOs invest in the LightLink® multiple services platform, knowing that it will continue to function reliably for years to come.





# HFC NETWORKS ARE THE REVENUE GENERATORS OF TODAY

Traditional Hybrid Fiber Coaxial (HFC) has long been a proven and well-established network technology that has successfully delivered cable TV, Internet and telephony to the business and home.

These days, HFC networks satisfy the need for content delivery, but the constant demand for more services and increased bandwidth means that MSOs are looking for innovative ways to utilize the full capabilities of existing infrastructure. This is required to keep up with demand and remain competitive with other established technologies, such as Digital Subscriber Line (DSL) and satellite.

As service demands and expectations change, we see the evolution of HFC networks continue. Analogue channels are turned off in a push towards digital TV, bandwidth is reclaimed from the analogue switch-off and encoding schemes are improved to more efficiently use the available bandwidth. These improvements come with benefits, as well as individual challenges and setbacks. All of which must be understood by the product vendor in order to effectively support existing Broadband Network Operators and MSOs alike.

With the emergence of the DOCSIS 3.0 standard as an ideal means of increasing the speed capacity for cable Internet subscribers, MSOs will be able to provide downstream data and Internet speeds equivalent to today's FTTx PON technologies, all using HFC infrastructure. PBN's products and solutions enable MSOs to leverage existing HFC plant to grow their portfolio of services.







### **RFoG AS A STEPPING STONE**

RF over Glass (RFoG) is the logical stepping stone to a full FTTx network. It enables MSOs to smoothly migrate subscribers to full FTTx without the need to forklift out the existing infrastructure.

MSOs can install an RFoG network and operate it alongside existing HFC infrastructures for many years to come. There is no need for MSOs to change any back-office operational and business support systems (OSS/BSS), or their investment in CMTS and cable modem equipment, or cable-based video-on-demand television services. In the future, as the demand for more services evolves, MSOs can simply migrate to PON-based technologies that use the same fiber plant as RFoG, but provides much higher bandwidths.

Only a few venders worldwide can deliver an integrated RFoG and GEPON solution today and PBN is one of them. PBN has the people and the technology to make RFoG work for your business.

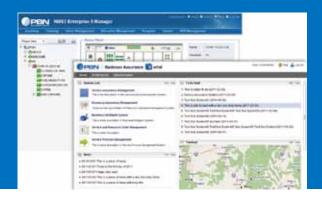
# FTTx IS THE FUTURE AND IS AVAILABLE NOW

Fiber-optic technology is the ultimate solution for satisfying the ever-growing demand for bandwidth to support voice, video and data.

One of the biggest drivers for the continued growth in bandwidth demand is the overwhelming amount of video content available on the public Internet. Over 50% of the total Internet traffic in 2011 was IP video, whereas one provider is responsible for over 50% of the IP video traffic. One of the main attractions of FTTx is the sheer range and choice of services. FTTx is the way forward to a future offering virtually infinite bandwidth, to provide customers with high-speed broadband access to services with up to 1000 Mbps to the home.

Not many vendors have been involved with FTTx networks as long as PBN. Since inception and the inaugural FTTx field trials in Australia, PBN has continued to evolve and refine its portfolio of products to suit the specific needs of MSOs. Nowadays, PBN has FTTx equipment installed throughout the world in residential areas, gated communities, business and industrial areas, resorts and hotels.





### NMS3 ELEMENT MANAGEMENT SYSTEM

A critical requirement of any HFC and FTTx system is the ability to effectively manage, monitor and maintain the active components of your network. Our very own user-friendly NMS3 software tools make this task easy.

Using PBN's NMS3 tools, MSOs are able to monitor and track system performance and capacity, detect component failures, pre-empt failures, quickly identify an alarm condition and understand the impact of the rest of the network. They can also use images, maps and schematics to quickly pin-point the location of an alarm condition and take remedial action.

### SERVICE AND SUPPORT

PBN understands what is required to build and maintain long-lasting business relationships. We have available a global support network. Our technicians are located worldwide and are available to assist you with your questions and enquiries.

Our products are designed to provide our customers with many years of reliable service. Our after-sales commitment is to ensure ongoing customer support – including product operation, maintenance, changeover and refurbishment.

All of our products benefit from years of research and development. Our modern state-of-the-art laboratory and testing facilities enable us to ensure that all products meet the highest standards. All products are compliant with both industry and international standards.

Delivering next-generation video, voice and high-speed data.



### **OUR CREDENTIALS**

PBN has a demonstrated ability to win business and for making key historical events, such as the Sydney 2000 Olympic Games, Beijing 2008 Olympic Games and Guangzhou 2010 Asian Games, a great success.

### Sydney 2000 Olympic Games

In 1999, the Sydney Organising Committee Olympic Games (SOCOG) needed an Olympic effort to install high-quality broadband networks on time, so they called PBN to rise to the challenge. PBN worked with key partners to design, supply, install, commission, maintain and operate the networks that served around 12,000 outlets in 48 venues across 4 States of Australia.

### Beijing 2008 Olympic Games

PBN was selected by Beijing Gehua CATV Network Co. Ltd (BGCTV) as the major partner to design, supply, install, commission and maintain the digital CATV network for all competition venues, the majority of non-competition venues and athlete villages. The services were distributed to thousands of outlets in 31 competition venues and 19 non-competition venues. PBN's element management software (NMS3) was updated to fit seamlessly into the unique requirements of the Olympic Games.

### Guangzhou 2010 Asian Games

PBN was selected by Guangzhou Digital Media (GZCATV) as the major partner to design, supply, install, commission and maintain the digital CATV network for all competition venues, the majority of non-competition venues and athlete villages. The services were distributed to thousands of outlets in 50 competition venues. PBN's NMS3 was updated to fit seamlessly into the unique requirements of the Asian Games.

### Telco and Cable MSO Networks

PBN is the preferred supplier of HFC optical network equipment to a Tier 1 telecommunications carrier in Australia. PBN is also the leading international supplier of HFC and FTTx solutions for up to 30% of the Tier 1 market of cable MSOs in China.





### THE PBN ADVANTAGE

Technical support from experienced and trusted global teams

Product portfolio which has evolved over many years of R&D excellence

Rapid turn-up of new deployments allow operators to start seeing returns sooner

Network solutions that are fully supported by the company's very own NMS/OSS

Migration paths to update technology, control costs and grow service offerings

Find out why so many MSOs around the world are choosing PBN as their preferred supplier. www.pbnglobal.com





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