



THREE-OPP (M) SDN BHD



Delivering Innovative Fiber Networks

Delivering Innovative Broadband Infrastructure Systems



VIDEO

VOICE

DATA



About 3OPP



*Left to right: Chairman Hj. Rosli Shukor,
CEO Mohd Shajahan Iqbal and
Founding Chairman & Advisor Dato' Mohamed Iqbal*

Since its inception in 1991, Three-OPP (M) Sdn Bhd (3OPP) has charted a remarkable success in the design, manufacture and installation of end-to-end, superior quality broadband infrastructure components and switches for wired and Internet Protocol (IP) based access networks. These products are currently marketed locally and abroad. 3OPP, a Malaysian company, offers telecommunications service carriers, the means to provide innovative, efficient and scalable voice, data and internet services through its vast array of world-class network products.

3OPP has positioned itself at the forefront of the telecommunications industry in Malaysia through its supply and installation of high quality locally manufactured broadband infrastructure systems. These systems are being supplied to leading companies in the local public and private sectors such as Telekom Malaysia Berhad, Tenaga Nasional Berhad, Celcom Malaysia Berhad and Maxis Berhad. Overseas customers include telecommunications service carriers in Singapore and Brunei.

3OPP received the approval to manufacture fiber optics products from the nationally established Perbadanan Usahawan Nasional Berhad (PUNB) and to date, has a comprehensive range of over 600 telecommunications products and components. The Company also owns patent rights to some of its products whose innovative designs are registered with the Intellectual Property Corporation of Malaysia.

Today, 3OPP is a well recognised and respected fiber optics and broadband infrastructure systems supplier with offices in Malaysia, Australia and India.



VISION

To excel as a leader in product knowledge and the development of new products required by the telecommunications industry

MISSION

To provide technologies that create telecommunications products that work intelligently and efficiently

To build a strong results driven organisation that helps its customers upgrade and expand their business networks profitably and efficiently

To exceed customer expectation through dedication and excellence in quality products and services

PHILOSOPHY

We are committed to our customers and business partners and have a passion for technology and innovation. We take on big challenges, and pride ourselves in seeing them through. We hold ourselves accountable to our customers, shareholders, partners, and employees by honouring our commitments, providing results, and striving for the highest quality in our products and services that we deliver.

Our team of highly talented and skilled individuals at 3OPP share core values and guiding principles which incorporate:

Integrity – Being ethical, dependable and honest in all our dealings with our stakeholders at all times

Quality – Consistently providing the highest level of standards in terms of products and services to our Customers

Excellent Customer Service – Taking responsibility and ownership in delivering our promise to our Customers

Initiative – Being proactive and responsive to our Customers' business needs and providing solutions which give them a competitive edge

Commitment – Working with dedication and urgency

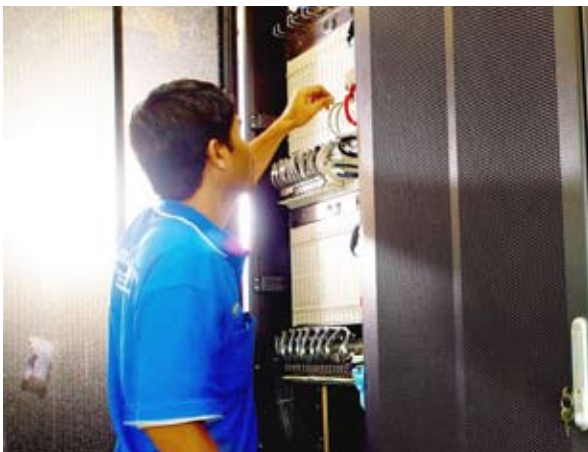
Teamwork – Listening and respecting the views of our partners whom we work with to achieve mutually beneficial results

Our Journey So Far

Our Accomplishments

In Malaysia, 3OPP has an excellent track record in providing end-to-end telecommunications exchange solutions for Telco-carrier class and Consumer customers. We have set new industry benchmarks by delivering several “nation’s first” telecommunication technologies. Our success stories include:

- We are Malaysia’s only single end-to-end supplier of high quality locally manufactured fiber optics and broadband infrastructure products and systems.
- We were the first to implement the Fiber to the Home (FTTH) and Ethernet to the Home (ETTH) technologies in the country in 2007
- We are the infrastructure provider for the country’s first High-Speed Broadband (HSBB). The infrastructure was built on Gigabit Ethernet Passive Optical Network (G-PON) system to deliver FTTH technology which in turn enables triple play capabilities. The project, initially rolled out in Subang Jaya is now implemented throughout the country



Keeping abreast with the latest in world-changing technologies, 3OPP is affiliated with a number of international professional bodies such as the FTTH Council Asia Pacific. The FTTH Council Asia Pacific is a not-for-profit organisation established to help its members plan, market, implement and manage FTTH solutions. It is affiliated worldwide by companies interested in leading the FTTH revolution. As a gold member, 3OPP votes on the Council’s issues. In addition to this, our engineers are members of the Institute of Electrical and Electronic Engineers (IEEE) and the International Telecommunications Union (ITU) based in Geneva.



3OPP in the World of Convergence

Innovative Research & Development Capabilities

As a company with global outreach, we believe that the key to in-market insights can be obtained through thorough innovative research and development (R&D) initiatives.

Our focus is on combining customer-driven product designs that are cost-efficient, with aesthetic and easy deployment features. We are committed to introduce innovative cutting-edge technology to provide the best possible solutions for our customers.

In Malaysia, our R&D Division plays a central role in the development of strategic partnerships with leading organisations such as Telekom R&D and Universiti Malaya Photonics Lab. With such partnerships, we hope to help accelerate the growth of the Malaysian telecommunication industry, in-line with the national Information Technology and Broadband agenda.



As part of our vision to play a leading role in the global FTTH expansion, we are constantly looking at establishing collaborative partnerships with industry experts across borders. One of our strategic collaborations involve our partnership with the Indian Institute of Technology (IIT) and Midas Communication Technologies Pte Ltd (MIDAS), where we were granted an exclusive license to manufacture our very own fast ethernet switch. With such strategic alliances, we are able to acquire and utilise the latest global technologies and know-how.

Our innovative and strong R&D capabilities have led us to produce unique and patented FTTH product designs for the following:

- The Single-Dwelling Unit
- The Multi-Dwelling Unit
- The Fiber Distribution Panel (Storage)
- The Optical Distribution Frame
- Fiber Distribution Cabinet
- Self-Adhesive Tape Fiber for Indoor Drop Cable Application

3OPP and its homegrown Olive

With its homegrown Olive Broad Band Access Switch (OBBAS), 3OPP is now ready to expand beyond the Southeast Asian borders. The OBBAS suite of fiber and ethernet-based products

has the capacity to provide broadband speed of up to 100Mbps directly to users. Performance wise, the technology is fast to deploy, requires less network elements and is cost effective whilst maintaining its required high-speed broadband access.

In June 2007, 3OPP successfully introduced its OBBAS system products domestically for Telekom Malaysia. In fact, it was the only local product that was considered for the high-speed broadband 100Mbps rollout throughout Malaysia. A trial run of the OBBAS system as proof of concept was

successfully carried out in Precinct 9, Putrajaya in 2007, earning appreciation and commendation from the Ministry of Energy, Water and Communications as well as the Malaysian Communication and Multimedia Commission.



Why Olive Broad Band Access Switch?

- Multiple access switches can be cascaded and power fed from a single place
- Access switches can run distances of 300m for 100Mbps and 600m for 10Mbps
- Access switches can be mounted outdoors
- It is completely managed until port level – including rate limiting functions
- Access switches are very cost effective
- Lowest cost of deployment and maintenance
- Access switches present unlimited opportunities to scale up the number of subscribers at a building reliably
- High bandwidths (100 Mbps) to users
- Fast deployment
- Centrally controlled, monitored and managed
- Protected from lightning surges



3OPP Matching Local Conditions with Global Trends

Globally Local

Our ability to customise solutions and systems for our customers helps us create higher value for our stake-holders, business partners, employees and communities worldwide.

We understand the challenges faced by the industry and high costs incurred by customers in maintaining telecommunications networks. That is why at 3OPP, our innovative and scalable products and solutions are

designed to work intelligently and efficiently to suit diverse customers' requirements and environments. These uniquely tailored infrastructure solutions are able to support cross-border connectivity for high traffic volumes, high bandwidth data transfer and video streaming as well as storage applications to meet our customers' requirements.

We avail ourselves to market research initiatives to make ourselves significant globally and respond to in-markets needs and demands. One such effort was our collaboration with the American MIT Sloan G-Lab Team, to study and analyse the market potential of the Middle East telecommunications industry. This analysis was to ascertain the best entry strategy given our solid research and development and innovative capabilities to customise solutions according to the needs of people in the Middle East. Similar studies are also being carried out in other parts of the world.

We play a significant role in helping to create a world where telecommunication services become truly borderless and affordable enough to be enjoyed by the masses in urban and rural areas. We are agile and pride ourselves for being able to customise solutions for our customers with minimum turnaround time.



3OPP's Quest for Energy Sustainability

Bridging the digital divide using green energy technology

In parts of the developing world, less than 1 in every 1,000 people has access to a computer compared to nearly 600 in every 1,000 in the developed world. For this reason, 3OPP plays a significant role in providing telecommunication solutions which are in line with the United Nations target for bridging broadband penetration, PC penetration and telephony services



The world faces many new challenges. As telecommunications network equipment become more IP-based, energy consumption requirements have also increased steadily. There is a need to develop new, inexpensive, clean energy sources to fuel the growth of the industry. With its innovative research and development initiatives, 3OPP has over the years gained experience and technical acceptance in providing 'green' or integrated renewable energy to remote areas. Wind and solar power have been harvested to provide power requirements to close gaps in the broadband, PC and telephony services.

At 3OPP, we are continuously working to develop and improve our technical expertise to keep abreast with fast evolving technologies. We invest heavily in training our workforce as they are part of the bigger mission to absorb complex technologies. Our well trained staff are empowered to train local contractors and skilled workers on the new technologies that they acquire and this subsequently creates a pool of knowledgeable workforce in the country.

Bringing the World into Millions of Homes

Got speed? What's next?



The use of internet has evolved from personal emails and basic browsing to more bandwidth demanding and killer application activities such as online video and online games. The whole world is moving into a connected-home and connected-life environment. At home, more people are using the internet for real-time communication, Voice over Internet Protocol (VoIP), social networking and at the same time for entertainment like Hi-Definition TV and Internet Protocol Television (IPTV) streaming.

At 3OPP, we understand our customers' need to keep pace with the globally increasing demand for bandwidth. As the need for more bandwidth grows, telecommunications service carriers are being required to upgrade their networks to meet their customers' ever changing demand to support a variety of broadband applications.



By embracing fast evolving technologies, we are now looking into furthering the capabilities of fiber optic technology to include upgrades such as Gigabit and Terabit connections into homes as well as expanding, installing and managing other FTTx networks. Our innovative fiber and broadband infrastructure network systems are primed to enable our customers to meet the demands of their customers.

Creating New Meaning for Surrounding Communities

Fulfilling our social obligations

We strive to strike a balance between profiting and giving back to society. We believe that the ultimate enjoyment of telecommunication technology advancement can only be

attained when the world is a better place to live in. As such we highly support noble endeavours to improve global issues such as education of children and helping the needy.



3OPP together with Institut Antarabangsa IQRA, is currently in partnership with the Social Welfare Department of Malaysia and a local non-profit organisation Yayasan Pendidikan Islam, to train childminders and single mothers in early childhood

education and how to professionally run childcare centres. Selected childminders undergo ongoing free training which are sponsored by 3OPP for over a period of three weeks at a time. The training is to ensure that young children are able to enjoy quality early education based on living values within a loving and healthy environment during their formative years.

3OPP is an equal opportunity employer and believes in respecting human rights, equality and fairness through non-discrimination on the basis of gender, race, religion or impairments which are not relevant to employment. We recruit people who are motivated and results driven to join our organisation and contribute to the overall growth and success of our Company mission and vision.



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