



2nd November, 2009

Alison Kelly
Secretary
Senate Select Committee on the National Broadband Network
Parliament House
Canberra ACT 2600

TECC report on TasCOLT FTTP Trial

Dear Alison,

Please find attached the report on the rollout of the TasCOLT Fibre to the Premises commercial trial, prepared by the Tasmanian Electronic Commerce Centre, released in October 2009.

It provides valuable evidence on the rollout of FTTP into brown field areas of Tasmania passing 1,250 residences, connecting 600 and providing more than 300 with a triple play of services.

Key findings

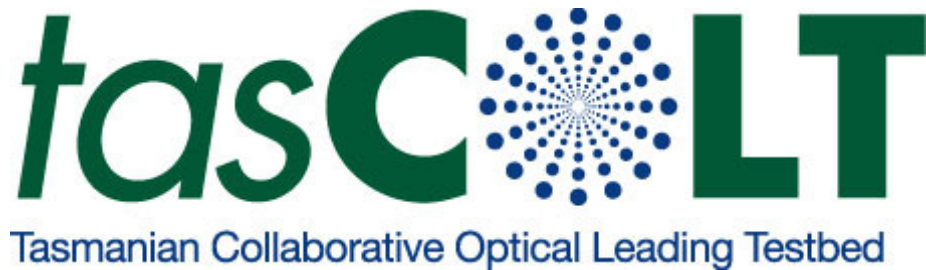
- Installing optic fibre in to established areas is complex.
- Design, approvals and deployment took far longer than expected. 24 rather than 6 months as expected.
- Integration with the aerial power network caused additional delays.
- Consultation and collaboration with utilities, councils and others is necessary to achieve an effective and efficient rollout.
- PON (Passive Optical Networking) has continued to improve with increased data capacity and distribution concentration.
- Cost per installation was around \$1,000, far lower than the expected \$1,800. Even lower for premises which are simply "passed" but not connected.
- Costs should further reduce as skills and technology matures.
- An external expert panel has found TasCOLT to be a benchmark in Australian FTTP deployment.

We believe that a National Broadband Network comprising primarily of a FTTP deployment utilising PON, with appropriate consumer safeguards on pricing and wide-ranging consultation will establish a telecommunications platform to revolutionise Australia.

Digital Tasmania wishes to take this opportunity to thank the committee for receiving its submissions and evidence during the period of the inquiry.

Yours truly,

Andrew Connor
Spokesperson



Report on the rollout of the tasCOLT Fibre to the Premises Commercial Trial

October 2008

Prepared by:
Tasmanian Electronic Commerce Centre Pty Ltd



tecc.com.au

Tasmanian Electronic Commerce Centre Pty Ltd

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1. Background

In 2003 the Tasmanian Government announced a number of initiatives to help develop a more competitive telecommunications market in Tasmania. These included the commercialisation of government owned telecommunications assets to facilitate competition in the State and exploring the benefits of investment (both public and private) in advanced telecommunications as an economic and lifestyle enabler.

The Tasmanian Government's interest in the benefits of advanced telecommunications or broadband stemmed from strategies announced as part of the Australian Government's National Broadband Strategy.

During August 2003 the Tasmanian government committed \$50,000 to conduct a scoping study to be undertaken by CEOS/Tasmanian Electronic Commerce Centre (TECC) into running a similar trial to one that the Victorian Government had funded at Ballarat. Responsibility for the study and any recommendations to hold a trial in Tasmania were delegated to the government's Telecommunications Infrastructure Steering Committee (TISC) as part of its role to oversee the government's proposed telecommunications initiatives.

During an industry workshop conducted by TISC in September 2004 it was suggested that a limited Fibre-To-The-Premises (FTTP) trial would provide significant learning opportunities in Tasmania about the development of competitive broadband technology.

Following this workshop, CEOS Pty Ltd (CEOS) the company involved in the Ballarat trial, was asked to consider presenting a proposal to the government for an FTTP trial in Tasmania.

In December 2004 CEOS presented its proposal for the Tasmanian Collaborative Optical Leading Test bed (tasCOLT) supported by a full business plan through TISC to the Department of Economic Development. The plan was to establish a potential \$12 million test bed, connecting up to 1,000 homes, businesses and government institutions. It also involved the establishment of a consortium which consisted of international partners such as Hitachi Communications Systems, Corning Cable Systems, Intel Australia, Acer Computers, Cisco Systems, Agilent Technologies, EFTel, IP Systems, Commtel and local Tasmanian partners including Tasmanian Electronic Commerce Centre (TECC), Aurora Energy Pty Ltd, and its telecommunications retailing subsidiary TasTel.

The plan sought a total of \$3 million from the government, \$2 million to fund capital expenditure on equipment for the trial and \$1.0 million for CEOS to project manage the trial over a two and half year period.

On 31 January 2005, the Premier Mr Paul Lennon, Ms Lara Giddings, Minister for Economic Development and Mr Eiji Aoki, President and CEO Hitachi Communications Technologies Limited along with representatives from all consortia company members launched the tasCOLT project in Hobart.

In addition Paul Lennon and Lara Giddings visited both Hitachi and NTT West in Japan to assist with firming up those companies support for this project.

CEOS and TECC agreed to forego management fees to help the project meet unanticipated budget costs.

2. Objective of the Trial

The trial network was to allow for the delivery of Video on Demand (VoD), Digital free to air TV (IPTV), Voice over Internet Protocol (VOIP), Internet and Video Conferencing services to all premises connected to the trial. The primary purpose of the trial would be to verify or otherwise the potential commercial viability for providing these services widely using the most advanced technology available.

The network also included the opportunity to include high speed data and peer to peer networking connections under the service offerings that were made available.

In addition the trial would provide an opportunity for a number of case studies in the areas of e-health, e-learning and the delivery of web based government services electronically to be undertaken. A particular emphasis was placed on creating virtual clusters across the three footprints in order to encourage collaboration, creativity and greater productivity.

Summary of Project Objectives

A \$12 million collaborative ultra broadband project consisting of:

- A consortium of leading technology partners
- \$3 million in government support
- A set of standard services
- A two year commercial trial

The test bed was to be created with the follow characteristics:

- A FTTP network using Passive Optical Network (PON) technology
- Deployed mainly on overhead cables
- Consist of a Head End located in Hobart

- Deliver network services capable of speeds up to 100Mbps on average to homes, with a capability of 1000 Mbps (1 Gbps)

tasCOLT has been a key component of the Tasmanian government's telecommunications industry strategy and has several specific objectives. These include:

- Exploring a range of variables as inputs for the commercial roll out of the technology across Tasmania
- Exploring new services and applications using the technology to determine their impact across business and the community
- To create national and international focus on Tasmania
- Conduct case studies involving government service delivery and innovative digital based applications
- Stimulate further ICT investment and development in Tasmania

3. Achievements

The tasCOLT project has successfully utilised the State government owned optic fibre and deployed FTTP connections in three dispersed footprints within the State. In the South of the State, South Hobart and New Town were connected in late 2006 and early 2007, with the final group of premises in the State's North West (Devonport) being connected in September 2008.

Besides meeting the physical connection and network goals set for the trial, the tasCOLT project has lifted Tasmania's profile in the national debate regarding the delivery of broadband services. It has ensured that Tasmania is considered to be at the leading edge in Australia regarding its telecommunications strategy for the innovative delivery across a range of services.

The establishment of a consortium that includes a number of the world's major participants in the field of optic fibre development and deployment has helped lift the profile nationally and internationally of the project.

The single greatest achievement has been the successful roll-out of a FTTP network in brown-field deployments area where local planning, environmental and heritage issues have all been taken into account. The tasCOLT network is the first of its kind and scale in Australia to undertake such a rigorous approach in the design, planning and implementation of fibre based technology all the way to the premises

The delivery by the network of a true "triple play" of services that includes high speed internet, VoIP, IPTV, video on demand and teleconferencing from a under a single wholesale provider model is a first in Australia.

Other services are expected to be added when and if they become available through the relevant service providers.

The ability to offer higher internet bandwidth has been restricted due to the costs associated with purchasing bandwidth across Bass Strait. This is recognised as a bigger issue than tasCOLT. The project has however inspired alternative network deployment models based on local caching of data in repositories to overcome backhaul capacity costs and bottlenecks. It is anticipated that should TasCOLT be expanded it would only include services supported over high capacity backhaul (such as VOIP and Internet) where necessary and look to establish as many applications and services locally as possible.

This issue has been addressed in November 2008 with the operating agreement being signed by the State government, Aurora Energy and Basslink. This will overcome the major impediment to a competitive wholesale telecommunications marketplace in the State.

A number of normal business issues were addressed more effectively by having Consortium members who already had formal processes in place for functions such as marketing and billing even though their normal operational details needed to be amended to reflect the tasCOLT profile.

The Commonwealth Government initially through the Department of Communications, Information Technology and the Arts, then later as The Department of Broadband Communications and the Digital Economy (DBCDE) has monitored the roll-out and learnings from this project in particular as it has related to the greater Fibre to the Node debate and subsequent expert panel process developed by the Commonwealth.

Another significant achievement for this project has been the way that it has contributed to Aurora's knowledge basis and enabled it to mature its view of the area of telecommunications it will concentrate on in the future. It has helped Aurora define its strategic position and continue to expand its fibre deployment accordingly.

4. Coverage

The tasCOLT network passes approximately 1,200 premises in New Town, South Hobart and Devonport footprints.

Following a low key marketing campaign that included a letter drop to each property in the footprint of approximately 600 property owners consented to have the optic fibre cable connected directly to the fascia of the property,

A follow-up door knocking campaign to those properties that consented to have the fascia connection has resulted in excess of 300 customers signing up for the full range of "triple play" services available.

Services provided (not uniformly, but during segments of the trial) included:

- High speed internet
- Multiple voice lines using Voice Over IP (VOIP)
- Digital broadcast TV
- Video on Demand (VOD)
- High speed data networks/Virtual Private Networks (VPN)
- Video conferencing
- Video security

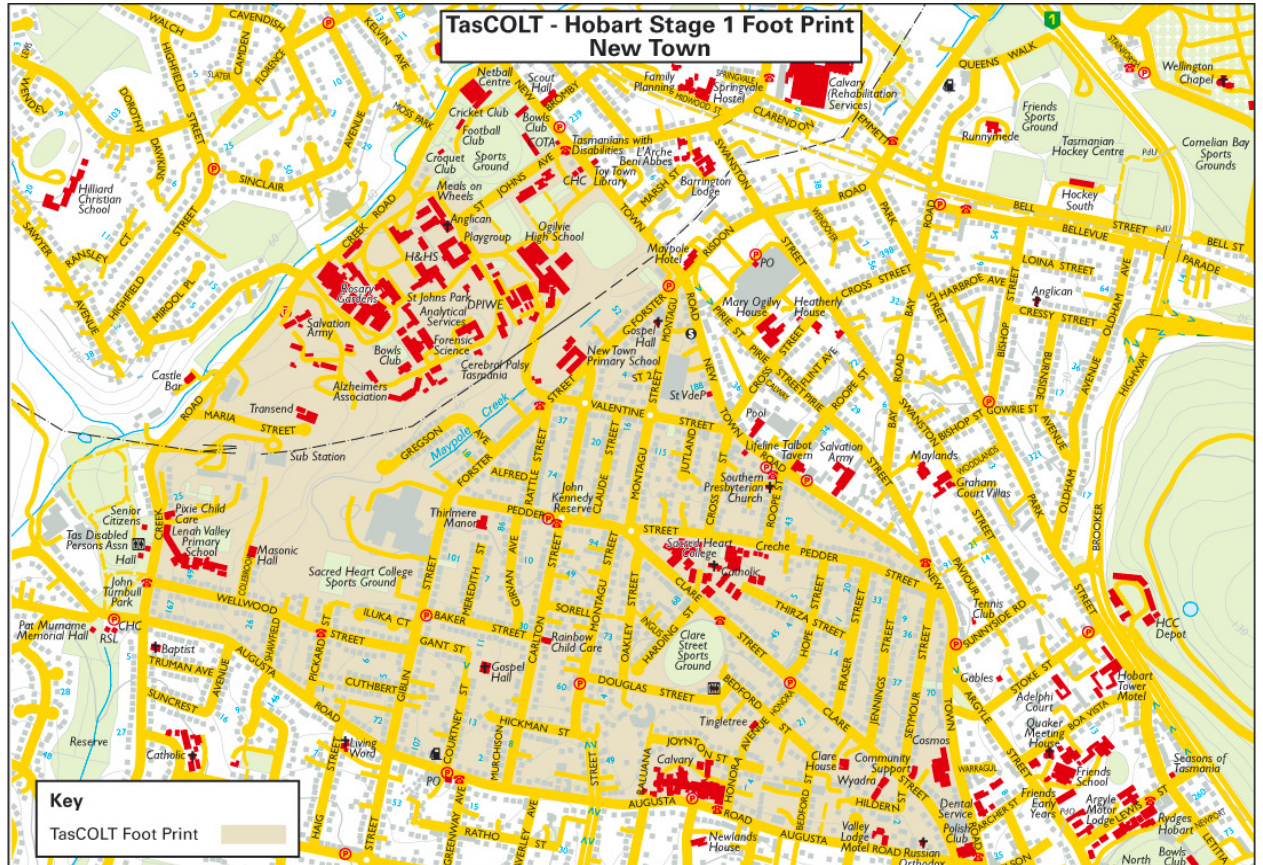
Foot Print Selection

Several factors were considered when selecting the three discrete foot prints. Factors included demographic, topography, location of public institutions and relevance to future rollout planning, variety of businesses and current services provided.

In the South of the State, New Town and South Hobart were chosen as typical Tasmanian high density suburbs established in the first half of the last century.

Devonport was chosen as a mixed regional centre in the North West of the State that offered some unique characteristics to the southern foot prints and would also require the TasGovNet backbone to connect to the Hobart head end. All three foot prints have provided valuable learnings from the tasCOLT consortia

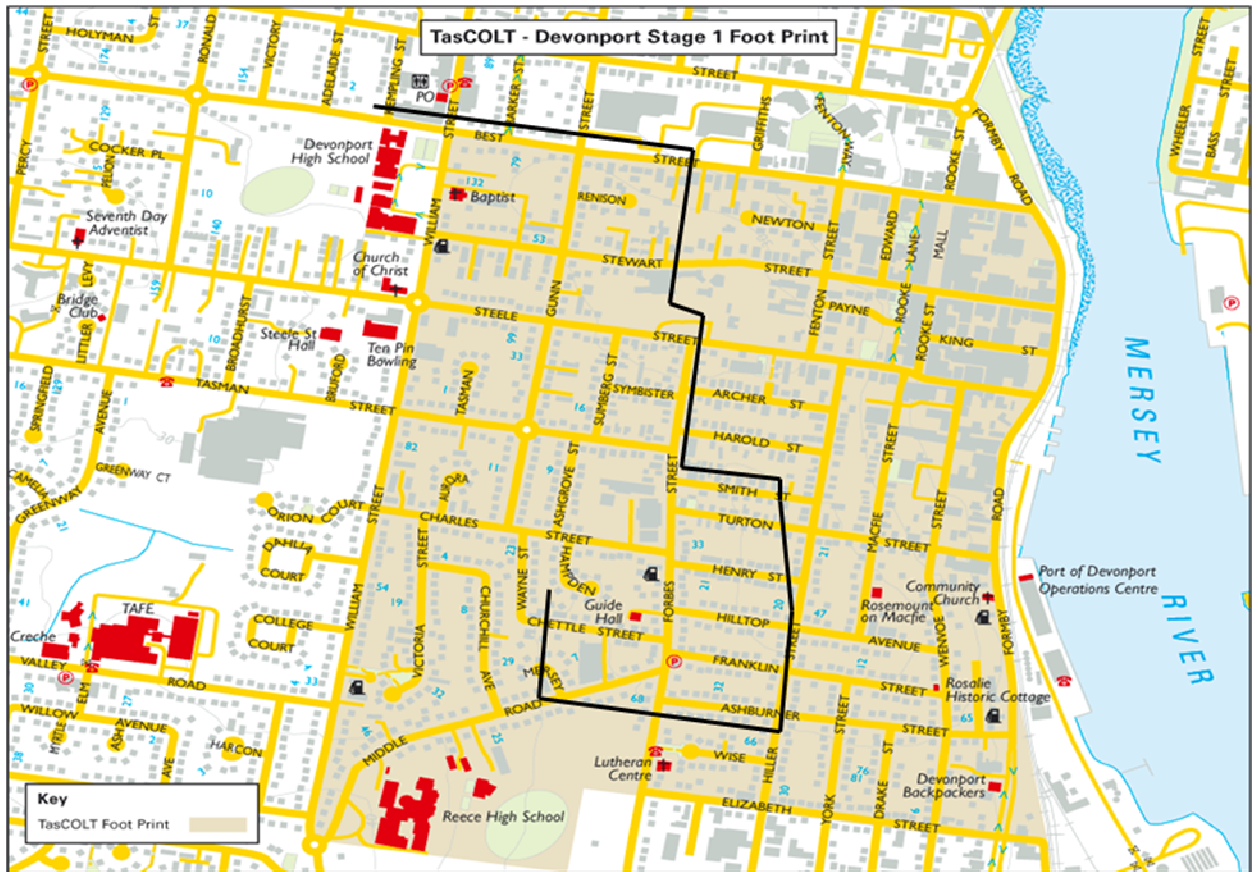
The following diagrams illustrate the tasCOLT footprint



New Town is a well established 1930's residential suburb, incorporating a mix of major educational, health, and Aged Care providers, with aerial utility service provision.



Macquarie and Davey Streets incorporates CBD in the trial as well incorporating heritage buildings dating back to the 1830's.



Devonport was selected as a regional centre away from the Southern foot prints that could utilise the optic fibre backbone known as TasGovNet. The footprint selected in Devonport due to its mixed residential/business makeup.

5. Technology Overview

Overview

The tasCOLT project involves the deployment of a world class FTTP (Fibre-to-the-Premises) communications pilot in three 'brownfields' foot prints in Tasmania. It is used to demonstrate the business case for a major FTTP deployment in Tasmania and it may assist in the growth of a competitive communications market in Tasmania. By September 2008, tasCOLT had connected 1,250 premises including businesses, homes, healthcare facilities, education institutions and government departments in selected suburbs in Hobart and Devonport.

Aurora Energy is the long-term infrastructure owner and TasTel is the service retailer. This partnership between the state government, Tasmanian organisations and international market leaders is attracting global interest and investment into Tasmania.

tasCOLT delivers the following services to the premises connected:

- High-speed Internet and virtual private networks;
- Multiple voice lines using Voice over Internet Protocol (VoIP);
- Broadcast digital TV, Video-on-Demand (VoD) and videoconferencing;
- Content rich community intranet and digital home applications;
- Telemedicine applications including large image transfer for real-time diagnosis;
- eLearning and distance learning services.

A demonstration facility was installed in Hobart with all of the voice, video and data services that are supplied over tasCOLT.

The company has co-developed the CEOS-Hitachi ultra-broadband FTTH/P Passive Optical Network (PON) system as the ideal underlying transport technology for the delivery of ultra-broadband multi-media services to homes and small to medium enterprises. The network will also be connected to a state government-owned backbone fibre network that stretches the length of Tasmania and connects, via an undersea cable, to the Australian mainland.

Video Communications Selections

In July 2006 they announced that they had selected Entone's StreamLiner network video recorders (NVR) and Minerva Network's iTVManager for their Internet Protocol TV (IPTV) deployments in Victoria and Tasmania and throughout Thailand.

The deployments will support more than 100,000 subscribers. Minerva's iTVManager middleware platform provides the necessary tools to manage all

key aspects of an IPTV service and fully supports popular features such as Personal Video Recording (PVR), High Definition Television (HDTV) and VOD.

Entone's StreamLiner NVR is the world's most deployed IPTV VOD solution. It provides an open, highly scalable software architecture that transforms standard server hardware from vendors such as HP and IBM into specialized, high-performance video servers that ingest, store and stream on-demand content without the costs, risks, and inflexibility that comes with competing proprietary solutions.

(ePON) Technology

The FTTH network will use Ethernet Passive Optical Networking (ePON) technology and be fed by a head-end operated by Tasmanian electricity company Aurora. Trial services will be offered in two suburbs in Hobart as well as the city of Devonport on the state's north coast. The majority of the optical equipment for the test bed is being provided by Hitachi with assistance from Melbourne-based optical technology specialist CEOS.

The network would also be connected to a state government-owned backbone fibre network that stretches the length of Tasmania and connects, via an undersea cable, to the Australian mainland.

The ground-based fibre was originally intended to provide a commercial alternative to Telstra's infrastructure in the state. It has remained virtually unused since being purchased by the Tasmanian government from construction company Downer EDI for \$23 million in 2003.

Services will be offered to trial participants through Aurora's telecommunication subsidiary TasTel. TasTel has signed with content agreements with a range of providers for the trial. VoIP services will be provided by Sydney-based engine. The trial will also involve a number of Tasmanian hospitals and allow staff to share high-quality medical images. Discussions have included the connection of schools in each of the areas covered by the network.

The project has not been designed to be economically self sustaining, however if the customer response is positive then similar services are likely to be rolled out to other parts of the state on a commercial basis.

tasCOLT includes construction of a small distribution network supported by a full carrier-grade head end capable of supporting 60 000 properties.

The majority of the investment so far has been in this head end equipment, making tasCOLT effectively a stand-alone telecommunications network with links to the Internet and the switched telephone network.

The head end includes a network operations centre and switching equipment, Internet gateway, VoD and broadcast TV storage and delivery equipment, and network storage equipment for other content and applications.

The Tasmanian Government's initial investment in tasCOLT has been doubled twice over by financial and in-kind contributions from private sector participants.

Optical Connectors on tasCOLT Fibre Distribution Cables

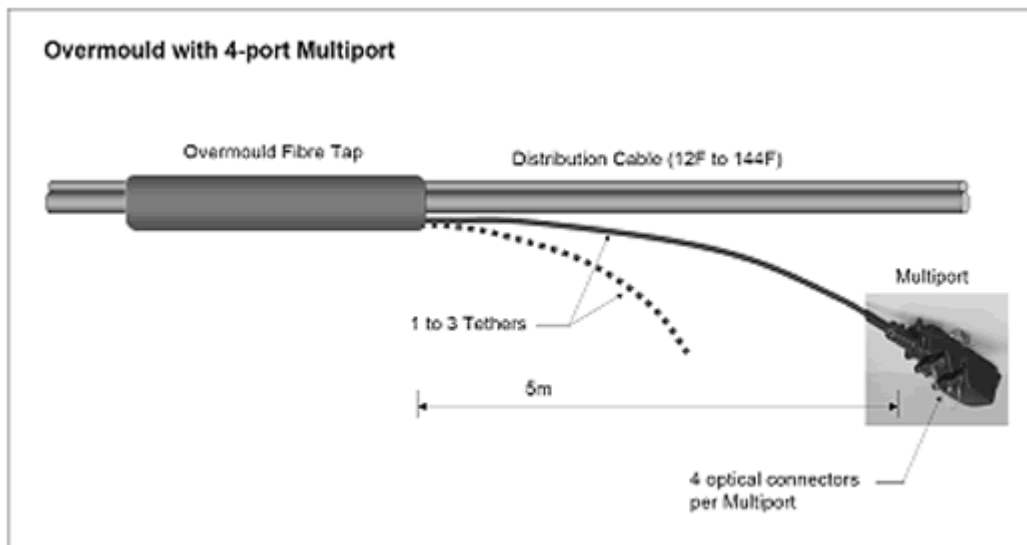
A unique aspect of the Corning Distribution fibre cable technology used in the tasCOLT trial was the way Corning added optical connectors to the cable.

In earlier generation Corning fibre cables, the optical connectors were spliced into the Distribution cables after they were erected on poles or pulled through underground ducts. Splicing was a complex process. It required a "splice box" to be fitted over the cable loaded with the required number of optical connectors. The connectors all had a small fibre cable "pigtail" attached to them. The installation technician had to carefully cut open the sheath of the Distribution cables, identify the tube that held the required fibre strands, open the tube to expose the required fibre strands (identified by their colour), cut the fibre strands and then weld (splice) the pigtails of the optical connectors to the appropriate strands.

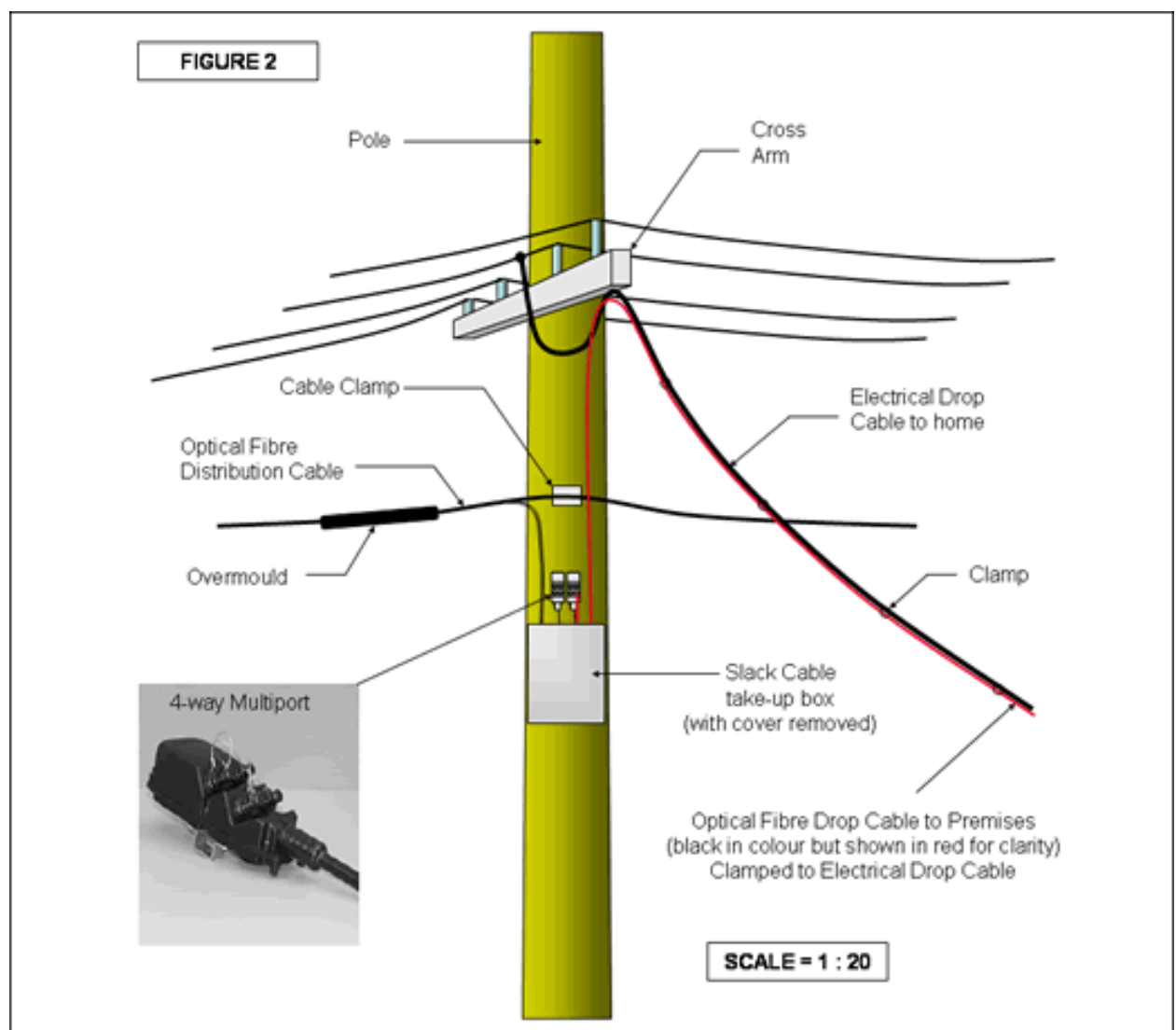
This was a time consuming and expensive exercise and often resulted in pigtails either having a poor splice joint or being splicing into the wrong Distribution fibres.

In the new generation Corning cables, the optical connectors are mounted on a multiport terminal block that is attached to a fibre cable tether. The tether is spliced to the required fibres in the Distribution cable and the splice joints are sealed in a plastic over mould as shown in the figure below. This work is performed in the Corning factory and results in high quality splice connections. The extra cost of having to determine the precise locations of the overmoulds is offset by the reduced cost of installation and maintenance of the cable.

A significant feature of this technology is the way in which it reduces the visual impact of the optical termination point on the Distribution fibre cable.



Overview of tasCOLT optic fibre aerial cable



6. tasCOLT Consortium

For a project of this scale, with the initial \$3M funding provided by the Tasmanian State government, involved several key local, national and international organisations. These inputs are detailed below. It is worth noting that the project on a modest government contribution was leveraged to \$10M value of equipment and services. Significant scale has been achieved through the leverage provided by the involvement of world class vendors and network providers.

The skills transfer with both the Tasmanian government and local ICT sector has been substantial and of long term benefit to the State as it contemplates a full roll out of ultra broadband infrastructure and services across the State.

CEOS Pty Ltd and Hitachi Ltd – Supply of leading FTTP passive optical network (PON) technology that formed an integral part of tasCOLT. CEOS continued to work closely with the TECC to manage the scope and the project.

Tasmanian Electronic Commerce Centre Pty Ltd – TECC is Tasmania’s leading EC and digital development organisation. The TECC and CEOS worked closely together to manage and expand tasCOLT, as well as capturing learnings and promoted greater understanding of Broadband uptake and development .

Department of Economic Development and Tourism – DEDT was the lead agency for the project

Aurora Energy – managed and oversaw the FTTP network infrastructure rollout that formed the basis of tasCOLT

Cisco – Cisco is the world leading supplier of communications network equipment. Cisco equipment is deployed in the tasCOLT network

Intel Australia Pty Ltd – Intel is the world leading supplier of communications network processors and hardware. Intel components and hardware were used to power tasCOLT. Intel also provided initial project development IP and were a strong promoter of the tasCOLT learnings nationally.

Acer Pty Ltd – Acer is a world leader in the supply of personal computers, storage area networks and digital devices that will be used to drive applications on tasCOLT

Corning Cable Systems Pty Ltd – Corning is the world leading supplier of optical fibre and fibre management equipment. Corning supplied the G3 optical fibre cable and photonics hardware to connect users to tasCOLT.

This was the first time that this leading technology had been used outside of the USA.

TasTel – TasTel is the provider of voice and data services over tasCOLT

IP Systems – IP systems is a provider of video on demand and ecommerce services over tasCOLT

CommTel NS Pty Ltd – Systems integration of the optical and electronic network equipment for tasCOLT

Agilent Technologies Australia Pty Ltd – Agilent is the world leading supplier of network testing equipment. Agilent equipment was used to test the performance of tasCOLT

Redcentre (Redstart Pty Ltd) – Redcentre has a diverse range of associates including universities, SME's and established organisations. Redcentre provided networking opportunities for tasCOLT

Senko – Senko is a supplier of optical communications and photonics solutions

Keyvision Pty Ltd – Keyvision is a service provider for leading community intranet solution

Minerva – Minerva is a supplier of video on demand and digital pay TV head end equipment

Redlab Test Facility – Redlab is a world class facility that was available for tasCOLT participants to use at no cost for testing, trialling and preparing components for the project.

Besides a strong consortia list of contributors being assembled by CEOS, the project has also enhanced Tasmania's profile as a "test bed" for new and emerging technology trails. The consortia also provided significant value to the project design and development and significant learnings that have been captured to assist with future ultra broadband optic fibre roll out.

7. Managing the Trial

From the outset, tasCOLT had the benefit of being a second generation of the original COLT project in Ballarat Victoria. As a result, the tasCOLT project benefited from the learnings and management structures developed in the Ballarat trial.

In 2004, an Oversight Committee was established to meet quarterly and have the following responsibilities.

- To provide corporate governance to ensure that project funds are expended in accordance with the objectives of the tasCOLT project
- To review all reports that are sent to the Tasmanian State government
- To review progress of tasCOLT against key performance indicators and to advise on managing project risk
- To provide strategic advice and assistance throughout the project, both at meetings and informally
- To provide networking opportunities and to introduce strategic organisations and individuals
- To assist with key project meetings and to interact with Government and project partners as required

The key benefits of the oversight committee model to assist tasCOLT are detailed below:

- The strategic advice of each oversight committee member to assist tasCOLT remain focused on completing the project on time and within budget
- Reduce potential areas of risk
- Manage relationships with key stakeholders
- Grow the project through introduction to strategic organisations and individuals, as well as raising the profile and opportunities arising out of tasCOLT
- Have a detailed understanding of the communications and related broadband markets
- The project management expertise, market understanding and financial expertise of each oversight committee member provided tasCOLT with a unique opportunity to deploy a next generation testbed with international leaders and with a low risk profile

- The background in corporate governance of each oversight committee member provided tasCOLT with the benefit of many years of experience in the governance of publicly listed organisations

Oversight Committee membership:

The expertise that was secured for the tasCOLT Oversight Committee brought considerable commercial, public utility and telecommunications expertise to assist with management and refinement of the trial whilst in progress. The Oversight Committee was active from 2005 – 2007.

Ron Nissan – Chairman

Currently Chairman of the Kalori Group, Blue Box Devices, Vice President Pacific Region- Motorola and former Managing Director AAPT Australia. Provided extensive senior telecommunications and commercial experience.

Board Members

Robin Eckermann

Broadband expert, start up telecommunications experience. Former founding CEO TransACT. Employed by ACTEW and TECHWAY Limited

Dr Jon Spring

Technology and Photonics expert. Founder and Managing Director CEOS Pty Ltd. Formerly of Siemens Munich and Telstra Research labs Melbourne. Dr Spring has a Phd in Electrical Engineering

Rob Wooley

General business sector representative. Currently Chairman of Tasmanian Forest Industries Association. Former Chairman of Websters Limited and Partner Deloitte.

Norm Macilpatrick

Government representative. Former Secretary of Department of Economic Development. Former CEO of Aurora Energy, with prior roles at Hydro Tasmania, Powercor and PA Consulting .

8. Environment at the Commencement of the Trial

The trial was commenced in an environment where the State government had several key initiatives underway for the 'Broadbanding of Tasmania' and also owned the optic fibre backbone covering the State's major cities 'TasGovNet'.

There were however no current learnings relating to a major brownfields deployment using the most recent technology anywhere in Australia.

Within Tasmania

- No wholesale competition
- No plans for optic fibre deployment from private sector
- Powerco, Basslink and TREN activities under way
- Price constraints for data transfer via backhaul

Nationally

- Lack of large scale "brownfields" deployment trials or learnings
- "Bright" optic fibre trail in WA ceased in 2004 and many questions unanswered.
- International comparisons had Australia lagging behind broadband uptake
- Demand for knowledge and skills development for potential national investment
- TECC learnings from Regional Broadband Forums, showing demand and interest for broadband infrastructure deployment and utilisation in regional Australia

9. Learnings from tasCOLT

There have been significant learnings from the tasCOLT project to date from the largest and most recent installation of optic fibre in three “brownfields” areas.¹

Major Lessons Learnt

The tasCOLT project involved a complex technology deployment rarely undertaken in Australia previously. It was initially believed that the design and deployment of the testbed could be completed within six months. Due to a number of unforeseen factors, this blew out to almost two years. Early delays were caused due to the need to obtain local government approvals for the aerial cable deployment. This also included a need for an environmental impact study and approvals from the Tasmanian Heritage Council.

Further delays emerged during the time taken to work out the integration of the optical fibre cable system with Aurora Energy’s existing electrical distribution infrastructure. This included:

- Compliance with occupational health and safety standards
- Australian engineering standards
- Possible reconfiguration of existing poles and cabling
- Possible replacement of some poles and existing cabling

Availability and affordability of skilled installation contractors also contributed significantly to delay and final completion date of the network. An important factor in mitigating the impact of these delays and keeping the project on course was the role of the project oversight committee. This group remained *independent* of the day to day project management.

Towards completion of the network build, further delays were experienced during the process of seeking approval from landlords to connect a drop cable to each property. Installation crews were only deployed to areas of each footprint once a sufficient number of approvals had been received. This proved a major hurdle to a timely and efficient implementation process. For a national rollout it would be recommended that service leads are only installed on demand.

¹ Industry Supplementary Paper March 2008

Business Case

Initial estimates suggested that the construction cost of the network would amount to approximately \$1800.00AUD per property passed based on a full scale deployment model. Due to significant cost reductions in a number of network components and efficiencies achieved through lessons learnt during deployment, it is estimated that this figure is now likely to be around \$1000.00AUD. These figures are based on a three stage installation approach outlined above. Cost to undertake a stage one deployment (property passed) is lower again. During this time PON technology has also improved to be capable of higher speeds and increased distribution concentrations.

Overall, the learnings can be summarised as follows:

- Installing optic fibre in “brownfield” areas is complex. Involvement of local government and utilities are key to achieving such endeavours.
- The planning and design phases if carried out carefully, results in a smoother and more efficient implementation process, thereby reducing cost.
- It is possible to create distributed fibre networks by using the abundance of existing cables. The issues are negotiating access and “joining it all up”.
- A fibre optic network , designed to deliver multiple services at ultra high speeds, requires ‘very thick’ backhaul links to its head end.
- Immaturity of Next Generation Networks (NGN) builds in Australia adds to the cost.

Things to Consider

The tasCOLT project has raised a number of points for consideration regarding the development of NGN in Australia.

- Either build multiple ‘head ends’ across the country or link up distributed footprints with ‘very thick’ affordable backhaul pipes. This is a major commercial conundrum.
- Where possible, install conduit and cable with other utilities’ infrastructure, either planned for or in situ (gas, water, sewage and electricity).
- Local government is a key player in the deployment of optic fibre networks and should be included as a partner in any project.

- The cost of deploying such networks will reduce significantly over the next few years as construction contractors skills mature and key components reduce in price.

10. Conclusion

The single greatest benefit for the state in participating in the tasCOLT project has been the ability to identify and refine the most efficient model for the deployment of a next generation FTTP network in the Tasmanian context. Based on real learnings throughout the project it is recommended that any proponent should design and build a FTTP network based on a modified approach to that carried out through the TasCOLT project.

Solutions identified to overcome issues that arose and reflection on the mistakes made have resulted in a greater awareness of how to achieve a more optimal business model for the deployment and take up of a FTTP network.

The ground work carried out by the Tasmanian government through its participation in the tasCOLT project has placed it in a unique position amongst all other jurisdictions to lead the deployment of FTTP communications infrastructure in Australia. The Australian Government through its National Broadband Network initiative could realise large scale deployment of FTTP in a Brownfield situation today through partnering with the Tasmanian government to undertake an expansion of the tasCOLT experience.

The state possess the experience, commercial understanding and development potential to implement a large scale deployment of FTTP to all of its major population centres, covering some 120 000 premises. Such a deployment would provide Australia a real context in which to understand the commercialisation and utilisation of FTTP technology with a view to optimising its roll out across the rest of the country.

The project has produced a more refined understanding of the commercial models that could underpin the viable deployment of FTTP in brownfield areas. The business assumptions and commercial factors derived through the project have since been reviewed and validated by various industry participants. A collaborative endeavour of some 100 industry participants who co drafted a submission titled “An Industry Vision for the National Broadband Network Plan” to the expert panel identified the tasCOLT project as the best practice benchmark in Australia for the deployment of FTTP in a Brownfield area.

No jurisdiction in Australia is as equipped or prepared to undertake the roll out of FTTP as Tasmania. The government’s investment in fibre optic infrastructure coupled with the expertise built up across a range of industry participants through such projects and tasCOLT have provided the state with the foundations necessary to meet such a technical challenge.

The last piece in the puzzle has been defining the most effective business model to achieve a sustainable FTTP deployment. The tasCOLT project has gone a considerable way towards assisting the State government gain the understanding it required to make an informed view of the expanded deployment of FTTP in the Tasmanian context.