WIRELESS BROADBAND INQUIRY

A submission for
The House of Representatives
Standing Committee on
Communications, Information and the Arts.

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A submission from SP Telecommunications Limited (ASX code: SOT)

Introduction

SPT welcomes the opportunity to respond to the Wireless Broadband Enquiry being conducted by the Standing Committee on Communications, Information and the Arts.

SPT believes it can comment authoritatively on Wireless Broadband issues and particularly the implication of those issues to the regional markets of Australia. SPT is an infrastructure based licensed carrier which currently provides broadband services predominately utilising wireless technology. SPT is in the unique position of being an Australian owned and regionally based carrier that is trading profitably and Net Cash Flow Positive today.

SPT is currently providing broadband products and services to all regional markets between Melbourne and Cairns adopting various forms of technology. SPT is not technologically or vendor dependant and provides services adopting wireless (point-to-point and point-to-multi-point) fibre, satellite and copper mediums for broadband delivery. Attached to this submission is a brief summary on the current business operations and achievements of SPT which is confirmation of SPT'S credibility to comment specifically on regional broadband issues and the potential of wireless solutions.

General Overview of Regional Broadband Availability

Today there exists significant regionally based broadband networks, which pass through regional communities. It has been well documented in a number of publications and public discussion that there is an abundance of broadband capability existing within regional markets that is either operating or capable of being turned on or lit to provide broadband delivery. Building broadband long haul networks is not the answer to improving regional broadband delivery. What is lacking in regional markets is a broadband customer access network (CAN) and the provisioning of last mile or tail technology to the CAN. Carriers today that profess to provide coverage of regional communities with a broadband network include Telstra, Optus, AAPT, SPT, FlowCom, NextGen and Powertel, to name a few. All of these parties operate broadband networks that pass through various communities along the Eastern seaboard. What these parties do not operate or provide, to a great extent, is regionally based CAN and last mile or tail connectivity to the CAN, except for Telstra.

SPT currently operates Australia's 2nd largest regional CAN to that of Telstra. SPT has in excess of 120 Points of Interconnect (POI) or Points of Presence (POP's) in regional communities.

One of the features of SPT's network is not just its regional coverage but more importantly its regional reach. The SPT network does not only pass through regional communities in NSW, it terminates in most regional centres and provides a CAN for interconnect in that regional town for the delivery of broadband services.

There are numerous examples in the Australian telecommunications market today of infrastructure based operations unsuccessfully entering the market as telecommunications service providers (measured financially). These parties owned, purchased or acquired rights of access to infrastructure that facilitated the rollout of broadband telecommunications network, mainly in metropolitan markets. The majority of these new market entrants have successfully constructed and operated these networks, however they have not met with financial success. There are a number of factors that contribute to this result. One important reason is that success as a telecommunications service provider requires more than just state of the art broadband network. It requires an ability to design and deliver demanded services and products that utilise that network and successful execution of the service delivery function. This is partly the reason for the success of SPT.

What is required is regional communities to increase broadband availability, capability and utilisation, is :

- Efficient CAN availability & capability and efficient access regime to existing CAN.
- A cost effective access to CAN
- Alternative CAN choice
- Cost effective "tail" technology to interconnect to CAN
- Lower cost and more efficient access to existing "tail" infrastructure
- Increased choice in "tail" technology to introduce competition
- The development of products and services that can utilise broadband capability. Demand for broadband based services needs to be encouraged

Sufficient long haul bandwidth exists today to interconnect the various CAN's in regional communities, to provide connectivity throughout Australia and, for that matter, the rest of the world. What is required in these regional areas is new or improved network interconnect capability, the CAN technology and new or improved last mile or tail technology, to connect the consumer and customer's premises or device to the CAN.

To improve regional broadband availability requires expanded or improved CAN and tails or last mile access. This can be achieved in a number of ways primarily:

1) Deployment of new competitive infrastructure to that of Telstra, of which Wireless technology can be partly a solution.

2) Improving terms and conditions of access to Telstra infrastructure where this can meet demand and otherwise supplement existing Telstra technology with new technology, once again, Wireless being one of those.

Wireless Technology Capability

SPT today provides broadband products and services to regional communities utilising wireless technology, both point-to-point and point-to-multi point. Wireless technology is used for the long haul broadband backbone network running Melbourne to Cairns with up to 1 Gigabit of capacity. SPT is also using wireless point-to-point and point-to-multi point for customer interconnect to the SPT CAN, that is for last mile or "tails" interconnect.

SPT's conclusion from using both forms of Fixed Wireless applications, that is, point-to-point and point-to-multi point, is Fixed Wireless point-to-point is ideally suited for products and services that require the following functionality:

- High capacity bandwidth or broadband capability, say, 2Mb and upwards
- Quality of Service
- Scalability
- Security
- Mission critical type applications
- Redundancy and high level availability
- Separation of traffic
- Classes of service
- Symmetric bandwidth

Fixed Wireless point-to-multi point, sometimes referred to as Wireless Local Loop (WLL), is better suited for applications where :

- Broadband services required are less than 2MB
- Asymmetric services are preferred
- Applications can accommodate shared bandwidth

- Security and QoS is not important
- Lower level service levels

SPT experience with using various forms of Wireless technology is that Unlicensed Point-to-Multipoint technology is limited in its product applications today to basic Internet access. Point-to-Multipoint licensed can be utilised for broadband tails in data networking and other specific applications where sharing of bandwidth is acceptable but QoS is more important. Point is a point preferred application where QoS is an important consideration.

SPT utilises both licensed and unlicensed point to point wireless technology, some of which is carrier grade service & technology and some of which has proven to be of questionable quality.

SPT has now concluded it will only install protected or unprotected licensed equipment for all future customer interconnect, unless otherwise specifically requested by the customer.

Experience has shown that unlicensed wireless applications do not provide the QoS that customers now expect of a broadband service.

Commercial Considerations of Wireless Broadband

Wireless broadband as a technical solution for long haul bandwidth requirements is currently deployed and operated competitively by SPT.

SPT currently provides services to numerous customers, including carriers, carriage service providers, corporate & government, at rates less than previously paid. SPT is trading profitably and cash flow positive (after capital expenditure), which indicates the commercial viability of long haul carrier grade wireless as a technology.

SPT is not aware of an operator who is utilising wireless broadband universally for last mile or tail access bandwidth requirements. SPT does deploy fixed wireless point to point and point to multi point for tails, based upon a number of criteria, including :

- Location of customer
- Location of customer relative to an SPT PoP, POI or CAN
- Bandwidth required
- QoS required
- Type of traffic

The use of wireless technology for tails is predominantly determined by the commercial considerations.

Based upon current market conditions and Telstra access pricing, it is SPT's conclusion that point-to-point fixed wireless is a more economic solution as a tail technology for SPT, where bandwidth requirements exceed 2Mb. Where bandwidth access is at the 2Mb level, the wholesale rates offered by Telstra are often a more economic alternative than the point-to-point wireless. For bandwidths of less than 2Mb, point-to-multipoint wireless is less competitive than where current DSL capability does exist. Where DSL capability does not exist, point-to-multi point wireless is a possible solution for sub 2Mb, dependent upon location and ISDN pricing.

SPT has found, on some occasions, that Telstra's ISDN pricing is more cost competitive than WLL dependent upon the pricing factors adopted by Telstra for that location and the ISDN service.

It is SPT's experience that when the cost of a WLL base station is combined with spectrum licensing costs, site access costs and customer premise equipment costs, invariably wireless point-to-multi point technologies are not competitive in more densely populated regions compared to existing Telstra infrastructure or point-to-point wireless. However, point-to-multi point wireless does have applicability to less densely populated areas where there is limited existing Telstra or DSL network capability, either due to lack of infrastructure or the distance between the CAN and the customer's location. In these regions SPT has seen the commercial applicability of WLL in preference to other technology.

The conclusion is that wireless point to multi point, as a broadband tail technology solution today, is competitive and efficient, where :

- Bandwidth is less than 2Mb
- Distances are greater
- QoS and security are not essential criteria
- Asymmetric products and services are carried

Wireless point to point, as a broadband tail technology solution today, is competitive and efficient, where :

- Bandwidth interconnect is 2Mb or greater
- Distance is less than, say, 50 Km
- Symmetric services are carried
- QoS and security are essential criteria

Spectrum Licensing

Licensed spectrum for broadband wireless technologies is an important consideration in the rollout of broadband in some regions. The cost of

spectrum in the various bands is a tax in the use of this commodity, which is regarded as scarce. Reality is, for fixed wireless point to multi point services, the majority of spectrum licensed is not being utilised. The result is no Wireless broadband services of any size have been deployed regionally and the spectrum remains under-utilised.

The fact that, to date, a fixed wireless broadband access network has not been deployed in Australia, despite the sale of the spectrum, is a confirmation of the commercial reality of this technology considered above. Existing broadband access technology offered by carriers, predominantly fibre, DSL and point to point wireless, is more competitive, particularly where the infrastructure exists.

A fixed wireless broadband access network (as point to multi point) is more applicable to regional and remote areas where the access network can interconnect to a broadband backbone. The cost of this spectrum is a limiting factor to rollout because it does contribute to the non viability of these services.

The cost of annual rental of point to point broadband wireless spectrum is also a factor in the slowdown of this regional broadband access technology rollout. Furthermore, this spectrum is scarce in some regions and is held but not used on occasions. This also impedes the rollout of wireless broadband access technology.

The cost of spectrum is prohibitive to the rollout of wireless broadband services. A regime could be considered to rebate costs where the spectrum is actually utilised to deliver broadband services to regional communities. The cost of the spectrum should be reviewed to lower the impact of this upon rollout.

Telstra Network Access

SPT is of the opinion that the ACCC has played a successful role in the de-regulation of the telecommunications industry. The ACCC has particularly performed well in regulating the cost of access to Telstra infrastructure. What has not been achieved efficiently, in SPT's opinion, is the conditions and terms of access to Telstra's infrastructure. It is SPT's experience that the process and protocols which must be followed by a carrier to gain access to existing Telstra infrastructure has been the main contributing factor to the delay in rollout of broadband connectivity to customers' locations in regional markets.

It is SPT's experience that the process, cost and time to access existing Telstra infrastructure is far more onerous than that which occurs with other carriers operating in the market and certainly in the case of SPT.

Consequently, carriers tend to, firstly seek to build where economically feasible, secondly, access any alternative carriers that may exist before accessing Telstra and then either not pursue the business or revert to Telstra as a carrier of last resort. As a result, the overbuild of existing networks is often pursued as opposed to wholesale access to existing network infrastructure.

If the cost, time and process for a carrier to gain access to existing Telstra infrastructure could be reduced to levels that other carriers operating in Australia offer, it is possible the regional broadband rollout would be enhanced, leading to the introduction of new products and services.

Under an improved arrangement, service providers would utilise Telstra infrastructure where competitive in terms of price, access and technology. The build of broadband regional access network would only occur where the existing infrastructure was deficient. Invariably this would occur in regional and remote areas and often wireless technology would be most suitable.
For example :

DSL Technology – to utilise Telstra's Flexstream product to gain access to DSL, SPT must interconnect with Telstra in each capital city of a state where services are to be delivered. This is prohibitive upon SPT introducing regional broadband services. SPT would like to interconnect in each regional town where it wishes to deliver broadband services, thereby ensuring :

(i) Utilisation of the SPT long-haul network
(ii) Deployment of SPT CAN
(iii) Introduction of products & services to specific regions where DSL is not a solution
(iv) Deployment by SPT of alternative tail technology including Wireless.

Datacasting

Regional communities are different to metropolitan areas due to the lack of existing CAN and "tail" technology.

There is little understanding or recognition of the benefits and use of datacasting. Essentially, it is "broadcast" technology. As a telecommunications carrier with a broadcast heritage and underlying investment, SPT recognises the potential use of datacasting for the delivery of high speed broadband products and services to a wide geographical area, as well as to areas that may not currently have access to these high speed services.

SPT would welcome the opportunity to discuss the benefits with Government and to evaluate a trial to demonstrate the potential uses for datacasting.

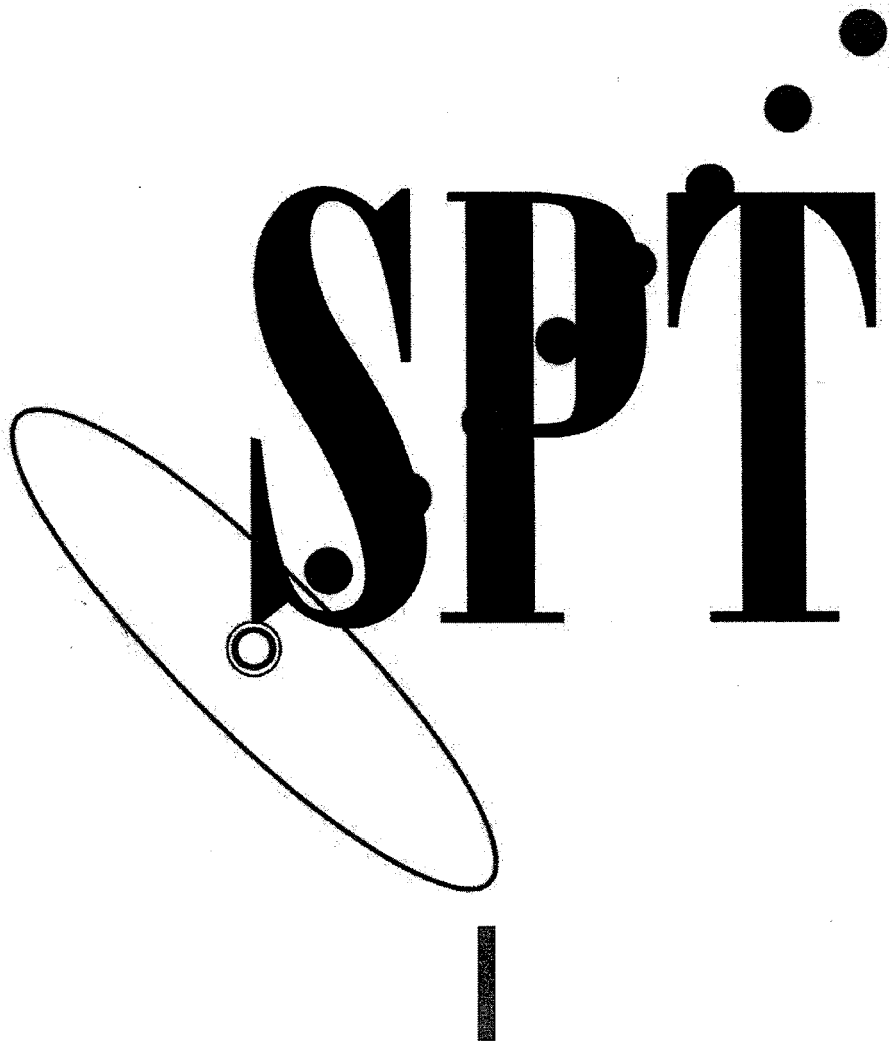
Datacasting is a form of wireless technology which can be utilised to provide broadband products and services, particularly regionally. SPT currently operates or has access to a number of the necessary ingredients to provide a datacasting service, including :

- Transmission sites.
- Transmitting antennae.
- Back channel or return path capability.
- Content and product distribution, storage, management and playout capability.
- Long haul broadband distribution capability.

Spectrum has been set aside for use in datacasting applications. To date the commercial viability of datacasting has been questioned. With the assistance of government and other regional interest groups, SPT could undertake the rollout of regionally based datacast products and services to determine demand and viability of various services and, at the same time, trial the technical competency of the applications.

An excellent example of the potential use of this technology is the provision of educational applications and, in effect, the "virtual" classroom to those school / TAFE students who cannot access the physical classroom.

As the technology develops (ie: the set top box capability), SPT could look at other opportunities for more sophisticated content delivery on this network.



OVERVIEW

Overview

- SOT listed on the ASX (Call code: SOT) in May 2001.
- Washington H Soul Pattinson and Company Limited (WHSP) own 56% of the share capital in SOT and undertook the IPO of SOT.
- WHSP is listed on ASX and this year celebrates 100 years as a listed company in Australia making it the 4th oldest listed Company in Australia.
- WHSP is a diverse Australian owned company with interests in:
  - * Pharmaceuticals
  - * Coal Mining
  - * Fruit Juices and essences
  - * Plastics
  - * Investment
  - * Media (through 100% ownership of NBN Television)
- SOT is an Australian owned regionally based Company with its registered office in Newcastle and a physical presence in most regional towns between Melbourne and Cairns.
- SOT operates the 2nd largest regional access network in Australia through an owned high capacity broadband telecommunications network that extends from Melbourne to Cairns. The network can deliver broadband services to all regional centres in between (please see attached Map).
- SOT's main business activity is the provision of broadband telecommunications products to regional Australia, through the SPT brand.
- SOT also provides mainstream telecommunications voice products through the commonly applied switchless resale model adopting the Kooee brand.

Milestones

January 2001

- Completed construction of Sydney to Brisbane broadband network.
- Commercial carriage of services.

April 2001

- SOT records first Net Profit before Tax in the month.

May 2001

- SOT lists on ASX in an IPO raising a net 13.7 million. Shares listed at 25 cents.

November 2001

- SOT holds first AGM in Newcastle reporting a Net Loss before Tax of $1.4M the year end July 2001

February 2002

- SOT enters into Joint Venture with ntlt expanding broadband network coverage from Melbourne to Cairns

March 2002

- Releases half yearly results reporting a Net Profit Before Tax of $684,000.

Today

- SOT share price at 70 cents (High of 79 cents)
- Annualised Turnover approaching $30M

SPT

- Licensed telecommunications carrier.
- Designs, builds,operates and maintains long haul and tail broadband network in regional Australia.
- These functions are performed by SPT in regional communities and not outsourced to vendors of telecommunications products.
- SPT is not technology dependant and currently builds and operates fibre, copper, satellite and microwave based networks.
- SPT also provides value added broadband services including data centres, maintenance services, traffic management, content management, web hosting and data and video storage, distribution and management.

SPT Products and Services:

- Full Carrier Services
- High Capacity Bandwidth
- SDH Leased Lines
- WAN / IP VPN Network
- High Capacity Internet Access
- Co locate services
- Data Centre Services
- Video, Audio and data duplication, management, storage, archiving and distribution.

The ntlT Joint Venture

- SOT has a 50% interest commencing 1st February 2002
- JV branded as "SPT" and managed by "SOT"
- SOT geographic reach expanded to create one of the largest regional broadband access networks in Australia
- SPT current model and products and services to be adopted and continued Broadcaster involvement maintained through WIN Television and Southern Cross broadcasting.

Financials

SPT is a wholly owned subsidiary of SP Telecommunications Limited (ASX Code:SOT), a listed Australian public company. SOT is an Australian based company which listed on the Australian Stock Exchange in May 2001 following an IPO raising a net $13.7 million and listing at an initial share price of 0.25 cents. Since this time SOT has experienced exceptional growth and success in a depressed telecommunications market. At this time, SOT's share price has

reached a high of 79 cents and SOT is now capitalised in excess of $140 million and is an independent and financially secure group. The financial highlights include:

- ☐ SOT is trading profitably, measured as Net profit Before Tax and not just EBITDA.
- ☐ SOT is trading cash flow positive, both operating cash flow and after capital expenditure.
- ☐ Share price increase greater than 300% in less than 12 months.
- ☐ Cash on hand in excess of $15 million.
- ☐ Balance sheet free of any intangibles, goodwill or capitalised expenses.
- ☐ One of only two licensed carriers currently paying Australian income tax.
- ☐ Current annualised turnover in excess of $30 million.

Innovative Technology

- SDH Network
- Carrier Grade / Best in breed technology and network
- Cisco MPLS IP Network
- Data storage / content management
- Fibre / Copper / Microwave / Satellite service offered
- Not technology dependent
- Not outsourced – SPT designs, builds and operates the network
- 24 / 7 Network management and Help Desk
- Internet access, caching, hosting and management

Please see SPT's Eastern seaboard Map below.