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The FTTdp Technology Option for the NBN

Presented by Craig Watkins and Kelvin Lillingstone-Hall

Tuesday, 30th September 2014

Non-members: $15.00; Financial members: No charge (full discount at checkout).

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This event is fully booked or has passed.

Fibre to the Distribution Point (FTTdp) has received relatively little national attention to date as a serious technology option for the Australian NBN. In recent months there has been further publication of difficulties of FTTP (Fibre to the Premises) connections, with fibre cabling failure rates of the order of 30%. These difficulties add to a long list of known challenges for FTTP in the national brown-field context. The FTTN (Fibre to the Node) approach faces a potentially equal number of different challenges, not the least of which is the very real prospect that FTTN will not deliver a significant enough increase in communication network capacity to satisfy connectivity increases. The reality is that FTTN is incapable of meeting the needs of high demand customers now, and the distribution of customer demand requirements is evolving rapidly.

The seminar considers the FTTdp option, where large savings in network installation cost and time are expected by avoiding individual deployment of fibre lead-in for the vast majority of customers. The key deployment and network capability differences between the three options of FTTP, FTTdp, and FTTN are outlined. This effectively presents a crude cost-benefit comparison, and suggests that a technology between the extremes of FTTP and FTTN must be fully considered for the nation to expect to maximise the cost-benefit relationship. FTTdp, with fibre to the street lead-in pit, provides the natural technology candidate for Australia to meet what may be somewhat unique deployment challenges.

FTTdp provides a significantly deeper fibre penetration compared to FTTN. Any future network upgrade involves limited (or nil) wide-scale civil works components. A fibre-on-demand model, paid for by consumers, and installed by independent contractors, provides a manageable and flexible upgrade path. The core network provider (NBN Co), is able to focus on maintenance and upgrade of active network elements to ensure sufficient network capacity continues to exist once the FTTdp network construction phase is completed.

While FTTdp is reliant upon the use of copper lead-in pairs, the very short length of copper involved, coupled with the relative lack of shared lead-in, contributing to cross talk, allows for extremely high data throughput. In this sense, FTTdp provides much of the network capability of FTTP, for potentially similar initial outlay to FTTN. The total lifetime cost of FTTdp is possibly significantly better than that of an initial FTTN build. FTTdp must not be dismissed prematurely due to prejudice obtained by observing other national network deployments globally, or by rigid adherence to a FTTN versus FTTP dichotomy.

AFTER the conclusion of Craig's and Kelvin's presentation at 1.30pm, there will be an opportunity for you to network with your industry colleagues over tea and coffee until 2.00pm.

Date and Time

Tue, 30 Sep 2014

12:30 - 14:00 AEST

Location

Telstra Conferencing Centre
Level 1 / 242 Exhibition St
Melbourne VIC 3000
Australia

Presenter(s)

Dr Craig Watkins

Craig has a Telecommunications Engineering R&D background forged at AT&T Bell Labs, Murray Hill, Motorola Corporate Research, Schaumburg, and Voxware Inc., Princeton. He has lectured in engineering communication systems at the ANU and has exposure to the Australian

start-up environment through an electric vehicle enterprise, in addition to involvement in the US start-up industry through Voxware (an early VoIP and internet audio-streaming company). He holds several patents and has contributed to a number of international standards. In addition to networks and telecommunications, Craig maintains technical interest in, and a healthy passion for, the energy market, the education sector, establishment of innovation culture, effective research management, elementary physics, and the environment. Craig maintains broad consulting, strategy, and research involvements.

Ing. Kelvin Lillingstone-Hall

Kelvin is the CEO of OAK Telecom which started in 2000. During this time he has worked with a number of both private businesses and government organisations and helped them develop and implement long term broadband networking strategies. OAK Telecom resells the broadband networks of the major telcos in Australia through wholesaling intermediaries with their own data centres and comprehensive connections into each of the telcos. After graduating from RMIT in Communication Engineering as a Professional Engineer, Kelvin spent 30 years in Telstra working and gaining knowledge and experience on microwave system design, transmission planning, corporate planning, business planning, forward network planning and strategic planning as part of skilled teams which helped develop and implement Telstra's extensive networks around Australia. Early in his Telstra career Kelvin went on a two-year engineering scholarship to GEC Telecommunications in Coventry, England. Subsequently he spent six months in Indonesia with the Foreign Affairs Department working on the design of the Trans Sumatra Microwave System. Kelvin later moved from Telstra to gain sales and marketing experience that lead him to work as a professional consultant to a number of medium to large corporations helping them to develop their voice and broadband networking arrangements. Kelvin has been deeply involved over many years in the Victorian and national committees of Engineers Australia and Professionals Australia (formerly APESMA). Kelvin is passionate about providing excellent service to his business clients as well as helping to promote Professional Engineers and their work in Australia.

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