Title: Collaborative Product Development – A Managed Firewall Service.

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Presenters Bio:

Stuart is passionate about products & services and REANNZ's role in empowering research and education in New Zealand. He is the Chief Product Manager at REANNZ, New Zealand's research and education network. He is responsible for ensuring the REANNZ products & services remain current and serve the needs of the New Zealand research and education community.

Stuart has been involved in the ICT industry for over 35 years, the last 10 of which has been spent in New Zealand working for Spark, Solarix, Vocus and now REANNZ. It the U.K. Stuart held various positions in large organisations like AT&T, Racal Telecom and Virgin Media, in addition to working in a startup joint venture between Motorola and Cisco, called Invisix.

Presentation Description:

The requirement for defence against online attacks is ever increasing. As the attacks continue to increase in sophistication, so does the complexity of the solutions on offer to defend against these. On the other-hand, the impact of improperly configured security solutions on network performance is well documented, and has led to multiple recommendations of how to support high performance data science while maintaining appropriate security such as ESnet's Science DMZ concept.

With the increasing use of the Internet for science and research-based activities, Member organisations are faced with a myriad of security challenges that either don't exist or are much less of an issue in a pure NREN connectivity model. There is a high level of trust between the NRENs that make up the global NREN community and a sense of academic freedom to be maintained. The use of the Internet challenges that thinking and creates new threats that must be taken seriously.

A well-managed Firewall is an important part of any organisation's ICT security practice. It is the first line of defence, only allowing authorized traffic into the environment. Traditional asset-heavy approaches have been the norm, with expensive appliances deployed at the edge of the LAN facing the Internet, creating performance bottlenecks. There is a desire to move to a more opex-driven service delivery approach in many areas and security is no different.

In this talk we discuss the challenges REANNZ members often face with the implementation and operation of security devices and how this experience has led to the development of a shared hosted firewall service inside of the REANNZ network. We discuss how this service

was developed in collaboration with the REANNZ membership to provide a modern security solution that has been designed from the ground up to support high performance data science. We will also explain how the architecture has been created to offer a vendor neutral approach to allow a flexible and pragmatic choice of security equipment that can change over time, while still offering the same performance focused design.

We will present case studies and demonstrate how important it is to adopt an iterative and agile approach when designing and developing products such as a managed firewall service.