



# Detect and block Attacks on networks using new plug in hardware

Never Stand Still

NewSouth Innovations

**A plug in box that can be used to ensure a network and communication lines are secure and identify and/or protect against attacks in real time.**

## The Technology

Attacks on modern network and communication technology are extremely difficult to detect and protect against especially with today's high volume of data. A UNSW developed technology however could make this as simple as plugging a box onto the network.

The System uses a neural network on readily available FPGA hardware to unobtrusively detect network intrusions and attacks. By analysing captured packets a system is trained to recognise the abnormal patterns which signal an attack.

If a signal is detected an alert can be raised or data flow blocked to secure the network and notify of a breach in real time ensuring communications are secure and unaffected. Ongoing training of the system ensures future protection against new threats.

## Key Benefits

- Simplicity of the system as a single hardware device.
- Real-time identification and response to attacks as they happen.
- Self-training with the potential benefit of learning from data collected from many systems. This self-learning may then be packaged to train other units
- Relies simply on identifying patterns not known and understood threats and can adapt to new threats.

## Applications

- Network security device/service for servers and major installations.
- Consumer security devices for use on home networks.
- Communication between secure sites.
- Portable security devices for easy installation on any network.
- Detection of suspect signals.



## The Opportunity

UNSW researchers have created a template device that can be developed into a product with great impact on the security of networks and communications. NewSouth Innovations is currently looking for partners to licence the technology for use in their commercial products.

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