Senetas debunks the myth that fibre optic networks are 'inherently secure'…readily available wiretap device demonstrated

Senetas, an Australian ASX-listed company, and the world's leading developer and supplier of high speed network encryption hardware, has exploded the myth that network communications over optical fibre is secure.

Using a readily available coupling device bought over the Internet, Senetas engineers were able to tap into a single strand of fibre and extract information. Senetas has produced a video demonstrating the ease with which information carried over the popular fibre optic data networks can be tapped. The fibre optic vulnerability was recently featured on a prime time Australian television current affairs program for which Senetas was asked to provide expert comment.

Senetas demonstrated the interception of broadband information – in this case a video with audio streamed over fibre in a simulated corporate network – using a coupler clipped on to the fibre, and was able to simply extract the same quality audio and video signal and send it to a "hacker" laptop.

When Senetas encryptors were switched on to protect each end of the optic fibre, the encrypted video data stream could not be read, even with the coupler attached inline. Senetas CEO John DuBois said the demonstration, using a popular network topology, fibre over Ethernet - known as metro Ethernet - should send a strong message to corporations who were often sold on the myth that optical fibre is inherently secure.

"Clearly we were able to debunk this myth employing a readily available device that takes advantage of a bend in the fibre to extract the signal without damaging the fibre or disrupting communications," Mr DuBois said.

Using this device someone with mischief or malicious intent can read what's being sent between offices, yet remain virtually undetectable to either the original sender or intended recipient.

Many businesses were sold on the belief that optical fibre is inherently secure because it employed light beams to carry data rather than the usual electrical signals. With more than 480 million kilometres of fibre deployed around the world over the past 25 years and enterprises pumping data along these fibres at up to ten gigabits per second, there's a lot at stake.

"Almost anywhere along those millions of kilometres, company-sensitive data and financial transactions could be extracted," he said.

Senetas Corporation, Level 1, 11 Queens Road, Melbourne, Vic, 3004
Tel + 61 3 9868 4555 | Fax + 61 3 9821 4899   www.senetas.com

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Mr DuBois said the global use of metro networks using fibre backbones was estimated to triple, so the need to secure data-in-motion has never been clearer. Most corporations also run both production and backup systems connected by high speed fibre, so all corporate information is potentially at risk.

He said many businesses still regarded expenditure on security as unnecessary, a reluctant purchase, often agreeing to loosen the corporate purse strings only after a security breach. "Far from being a low-priority expenditure item, proper security is a business enabler.   Unauthorized access to sensitive data not only affects the bottom line of organizations, it damages their public reputation," he said.

Even private fibre optic networks are vulnerable to this type of attack.

"The truth is that even so called 'dark fibre' used for point to point network communications is not immune from this type of security breach if it travels through telecommunications pits outside offices, or via switchboards that are not physically secured," he said.

"The best security for private and business sensitive data carried over fibre is high speed Layer 2 hardware encryption such as Senetas SONET encryptors, developed here in Melbourne and sold to some of the world's most security conscious governments, law enforcement agencies, military and enterprises," Mr DuBois added.

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About Senetas
Senetas Corporation Limited (ASX Code: SEN) is an Australian public company and is the world's leading developer and supplier of high speed network encryption hardware products. Its products are accredited to the highest international government security standards. Customers include Government departments in the USA, Australia, the Middle East, Asia, and European Countries as well as some of the world's leading financial institutions.

For further information contact:

John DuBois, CEO, Senetas Corporation Limited, Tel: +61 3 9868 4555 john.dubois@senetas.com