Secret Double Octopus

Goals

Next generation internet security using innovative authentication schemes.

Description

Secret Double Octopus grew out of Prof. Dolev's research group's activities at the Dept. of Computer Science. When postdoc Dr. Tzur-David joined the group with her interest in software defined networks (SDN), she was exposed to the group's work on multi-physical channels transmission and secret sharing; it was natural to go ahead and design multi-physical channels, secret sharing SDN.

Eventually, Prof. Dolev suggested the authentication schemes that form the Overlay Security concept that is at the heart of Secret Double Octopus technology. The Overlay Security concept is not necessarily tied to software defined networks, or to secret sharing, or to different physical routes. It is based on the security of existing protocols over (possibly) the same physical network and is the key innovative concept in the DNA of Secret Double Octopus technology. The idea is to use the combined security, authenticity and identification of existing logical channels - such as messengers, emails, push tokens - by using them in parallel, so hackers need to break them all to reveal the information sent. This novel concept is being used in the first password free authentication product of Secret Double Octopus and can certainly serve as the concept for the future quantum safe Internet.

Researchers

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Results

An authentication product is developed as a startup company in collaboration with JVP Cyber Labs. Several patents have been assigned to Secret Double Octopus.