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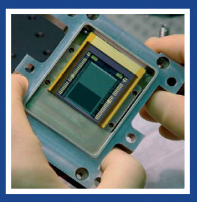

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METHOD FOR PREFIX PRESERVING ANONYMIZATION

SOLUTION AND ITS BENEFITS

Protecting and managing large IP networks has become very important, especially from the security point of view. There is a clear indication that an IP traffic intelligence market is solidifying and growing rapidly. Network traffic is driving substantial revenues and protecting those revenues is raising the interest for different types of security. The complexity of the modern networks and the plurality of different security threats requires concurrent measurements for efficient analysis. The invention allows distributed anonymization of user/device identifying information, e.g. IP addresses, and thus enables secure lawful inspection of the network traffic.

COMPETITIVE ADVANTAGE

Prefix preserving anonymization is a critical element in network forensics. IP traffic intelligence systems for security, intercept and management will grow to over 1,3 billion USD market in the next three years. Tracking and analyzing IP traffic is challenging from the legislation and privacy point of view: usually only the network operator is allowed to handle any identifiers that can reveal who is communicating with whom. At the same time, there is an increasing trend to out-source most of the network management tasks to 3rd parties. Therefore, it can be estimated that different type of anonymization technologies will have an important role in this growing market. Online marketing is a potential second market for the invention.

TECHNICAL DESCRIPTION

The invention allows altering user/device identifying information, e.g. IP addresses, efficiently into anonymized information. If the identifying information contains a prefix part, e.g. IP prefix, and a second part, e.g. host address, the parts are anonymized separately. The resulting identifier contains thus both and anonymized prefix and anonymized second part. In this way, the information about the network structure is not lost and it can be used, e.g., to identify DDOS attacks. For distributed measurements, a secure anonymization key distribution system is used. Shared anonymization keys ensure that measurement results from different locations can be combined at the analysis. The major advantage of this invention is that it is relatively light-weight and thus it allows for line-speed anonymization at Gbit/s speed without any specialized hardware.

INTELLECTUAL PROPERTY

Patent pending (international)

VTT produces research services that enhance international competitiveness of companies, society and other customers at all stages of their innovation process, and thereby creates the prerequisites for growth, employment and wellbeing.

VTT promotes the realisation of innovative solutions and new businesses by foreseeing the future needs of its customers already in strategic research.

With its 2,700 employees, VTT is the largest research organization in Northern Europe. VTT's Ventures operation creates profitable and growing technology and wellbeing as well as more effective use of VTT produced Intellectual Property Rights.

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