

Nokia Siemens Networks LTE transport security

Nokia Siemens
Networks



Securing LTE transport networks effectively

Security; a 'must-have' to take full advantage of LTE

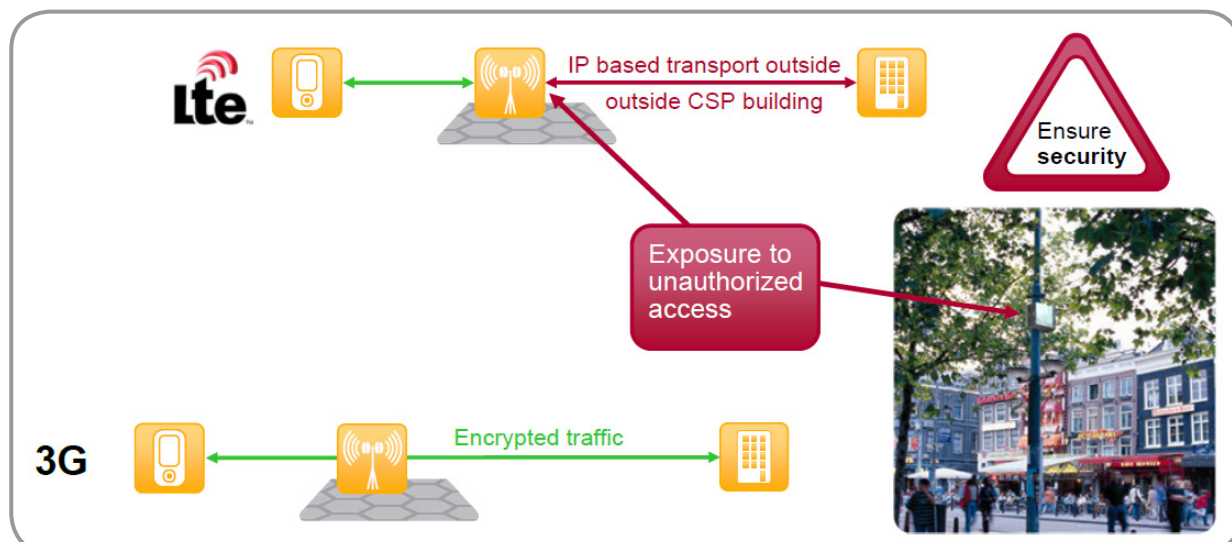
LTE is normally associated with delivering an enhanced user experience through high speed, fast reaction and extended broadband coverage in rural areas. Moreover, it also stands for higher efficiency provided by simplified and flattened architecture, all IP transport and high efficient radio technology providing higher data rates at reduced cost. At the same time, it opens up a host of opportunities for generating revenue through new services, business models and partners. The first batch

of LTE networks have already been deployed for commercial usage, with more expected to become functional this year. However, in order to exploit their potential to the fullest degree, we need to ensure security particularly with regard to the flat all IP architecture.

Across both 2G and 3G, the transferred data is typically encrypted from the user device to the Radio Network Controller, which is physically protected and located inside a trusted building. Talking specifically about LTE, the encryption phase is terminated in the base station due

to the inherent flat architecture that eliminates the controller. The fact that base stations are being progressively installed across public places, has indeed made them prone to unauthorized access.

In addition, the high bandwidth provided by LTE necessitates the creation of an efficient all IP transport network, which is inherently more open than traditional transport networks and might also be shared with other parties if & when required. As such, the process of transferring data from the base station to the



core network needs to be specifically secured through IP security (IPSec).

In fact, threats are manifold and the business impact of any disruptive event can be dramatic. As an example, any attempt to illegally track voice and data can damage the sensitive CSP-Customer relationship, ultimately leading to subscriber churn. Unauthorized access to the core network can also cause denial of service or even corrupt the CSP's systems e.g. the billing systems.

Nokia Siemens Networks' LTE transport security offers the triple benefit of comprehensive protection, without compromising on the overall performance; ensuring efficient operation

Our LTE transport security offering comprises 3GPP compliant certificate authority and IPSec based solution:

- Consulting
- Architecture & Design
- Implementation
- Support

and includes the following Hardware/ Software components:

- Certificate Authority
- Security gateway with Firewall and VPN

We leverage our experience to provide you the best-in-class security solution available in the market.

Here's what you can expect:

- Complete end-to-end security solution for LTE transport networks with live deployment experience
- In-built IPSec in our eNodeBs with high throughput ensuring highest performance.
- Pre-validated against our LTE RAN technologies as well as RAN from other leading vendors.
- Efficient operation through fully automated certificate life cycle management for both eNodeB and Security Gateway.

Our track record:

Nokia Siemens Networks' security practice is built upon a worldwide network of highly skilled and

experienced security experts, who have previously held operational and technical roles across a wide range of mobile and fixed line operators globally, as well as in numerous market leading product vendors and consultancies. Our team of experts holds more than 350 security certifications (e.g. CISSP, CCSA, CISA, CISM).

Nokia Siemens Networks' security practice has successfully delivered more than 250 security projects worldwide, ranging from consulting engagements to complete turnkey solutions and support.

The security practice is part of Nokia Siemens Networks' Consulting & Systems Integration Business Line with more than 28.000 services professionals operating in 150 countries, serving more than 160 mobile and 120 fixed line operators.