GSMA NESAS Overview

Scheme Summary and Current Status

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gsma.com/nesas

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Agenda

Scheme background
Scheme summary
**Current status**
Future developments

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Need for Security Assurance

Mobile networks are critical infrastructure and need to be robust and reliable

Nation states beginning to regulate and restrict mobile network equipment supply

Security requirements and conformance obligations at risk of fragmenting

Isolated initiatives introduce complexity but do not demonstrably improve security

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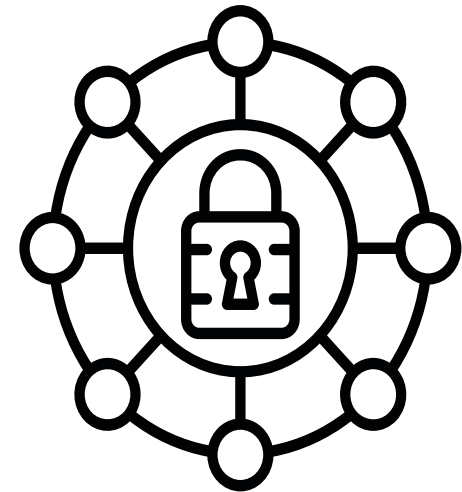
Motivation to Develop Assurance Scheme

Industry identified the need to encourage secure product development and lifecycle management for mobile infrastructure

Concept developed long before geopolitical interest in 5G infrastructure grew to current levels
Underlying goal to avert fragmented security requirements across the world

Need for a scheme to provide a common global baseline on top of which operators or national agencies may put additional security requirements

Objective is to provide an industry-wide security assurance framework to facilitate improvements in security levels across industry

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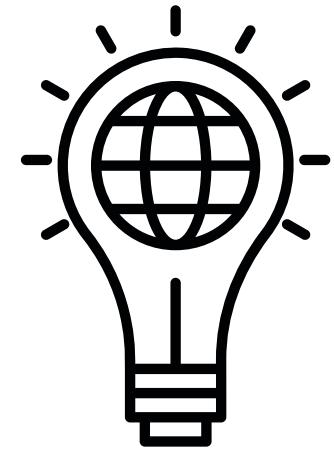
NESAS Summary

Defines a security baseline to evidence that;
- Network equipment has been developed according to standard secure by design guidelines
- Network equipment satisfies security requirements defined in security assurance specifications

Achieves security assurance by;
- Assessing vendors' product development and lifecycle management processes
- Evaluating network products against security requirements
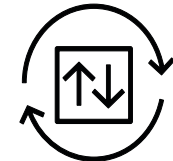
Scheme components;
- Security assessment of vendors' development and product lifecycle processes
- Accreditation of security test laboratories to undertake product evaluations
- Product evaluations by test labs using standardised requirements and test cases
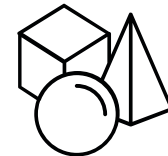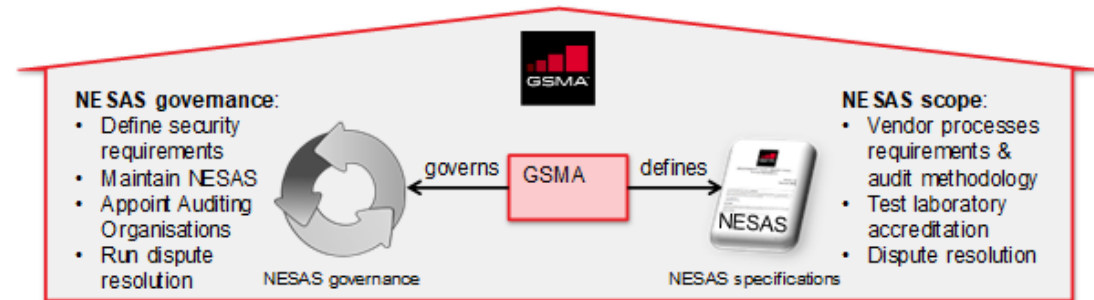
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GSMA and 3GPP Collaboration

3GPP

- Defines product security requirements and test cases
- Specified in Security Assurance Specifications (SCAS)
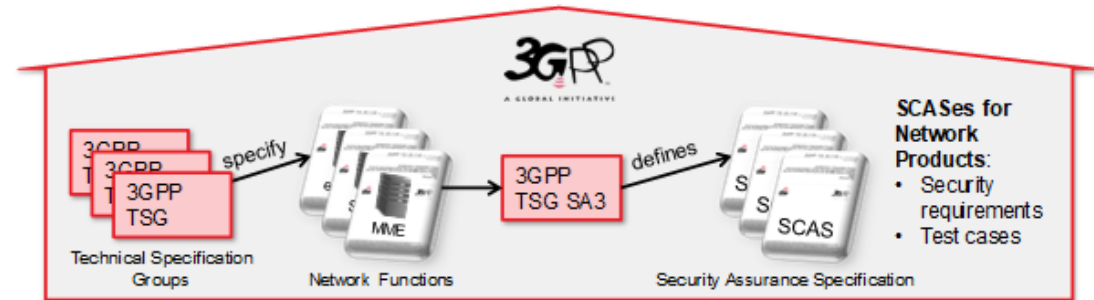
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- Defines methodologies and vendor process security requirements
- Appoints auditors and lists test labs

NESAS Benefits

Nation States

- Provides reference requirements for use in procurement RFPs
- Security assurance scheme accepted and funded by industry
- Single scheme that is globally relevant
- Low barrier for innovation and entering markets
- Cost effective scheme that drives security gains
- Extensible as needed
- Reuses mature models to deliver security gains

Operators

- Raise confidence and trust in equipment
- Increase transparency and comparability of security levels on offer
- Industry defined requirements decreases the need for individual security requirements
- Provides reference requirements for use in procurement RFPs
- Avoids duplications / fragmentation

Vendors

- Common set of assurance requirements
- Lowers duplication of work and security testing needs
- Highlights vendor ability to achieve/maintain security levels
- Encourages security by design culture across the entire vendor community
- Reduces workload responding to operator procurement processes

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NESAS in Numbers

ERICSSON

HUAWEI

MAVENIR™

NOKIA

SAMSUNG

ZTE

@SEC
the information security provider

CAICT
中国信息通信研究院
China Academy of Information and Communications Technology

CAICT
中国信息通信研究院
China Academy of Information and Communications Technology

DEKRA
On the safe side.

HUAWEI

Palindrome
Technologies

博鼎实华
POTIN-TECH

- Scheme launched in October 2019

- On version 2.1 with 2.2 coming in October

- 6 major equipment vendors participating

- 7 NESAS security test labs accredited globally

- 16 process product development audits completed and results published

- 37 network product evaluations completed and listed by GSMA

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NESAS Ongoing Enhancements

NESAS is designed to evolve and improve with stakeholder needs

- Strengthening of 'Security-by-default' auditing and evaluation

- Increased marketing and awareness of NESAS

- Release 3.0 planned for end 2022

- Coverage of non-3GPP functions

- Evaluation of virtualised functions

- Guidelines on development of SCAS documents

- Evaluation of products with high release frequency

- Evaluation report acceptance and guidelines

- Addition of certification component

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