3GPP SECAM

Security Assurance Methodology

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ENTERPRISE SECURITY MAGAZINE

TOP 10 VULNERABILITY MANAGEMENT
Solution Providers 2017

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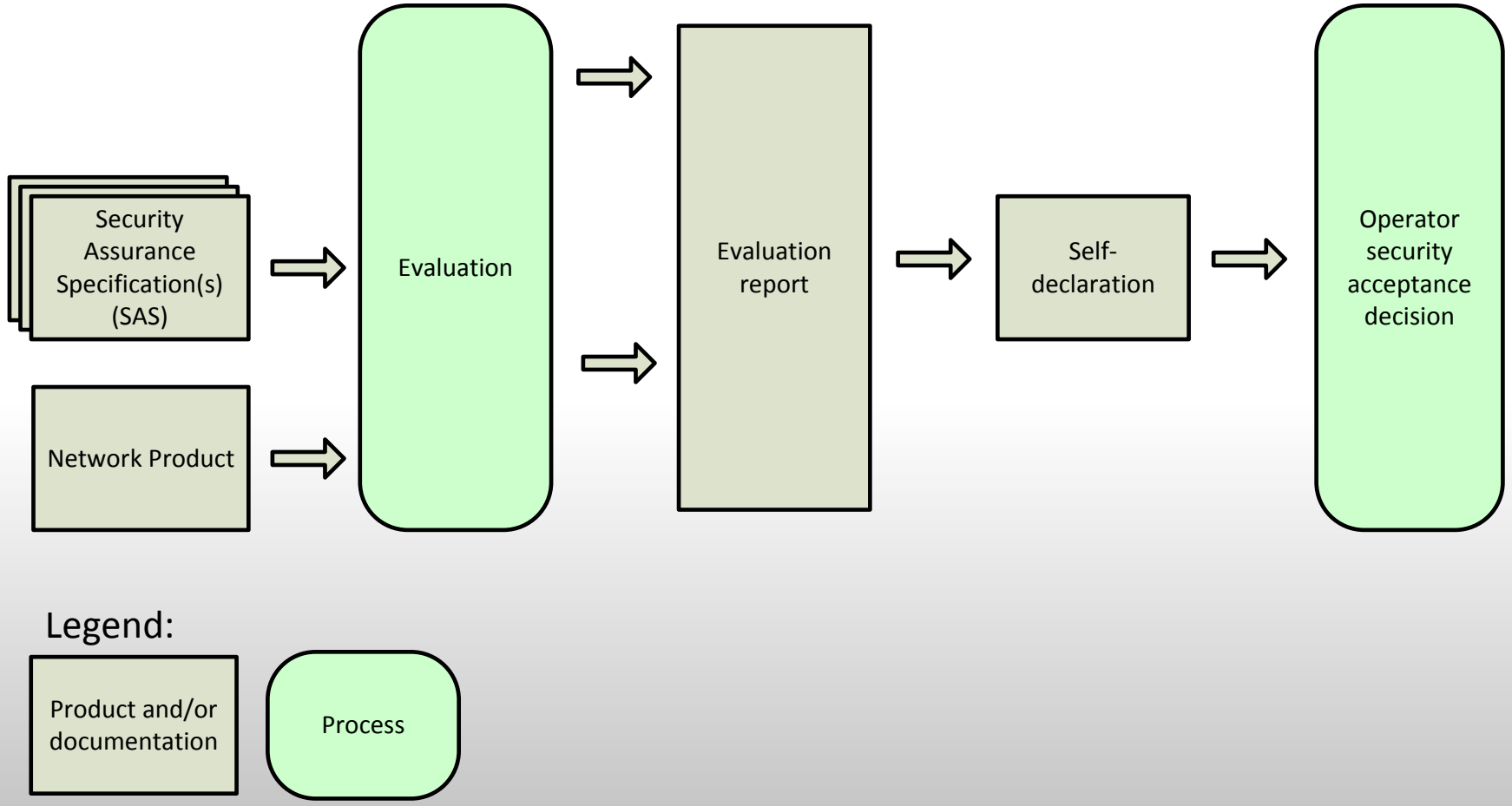
Agenda

- Background for 3GPP SECAM
- Overview of the SECAM/NESAS Process
- Current Status
- Conclusions

Background

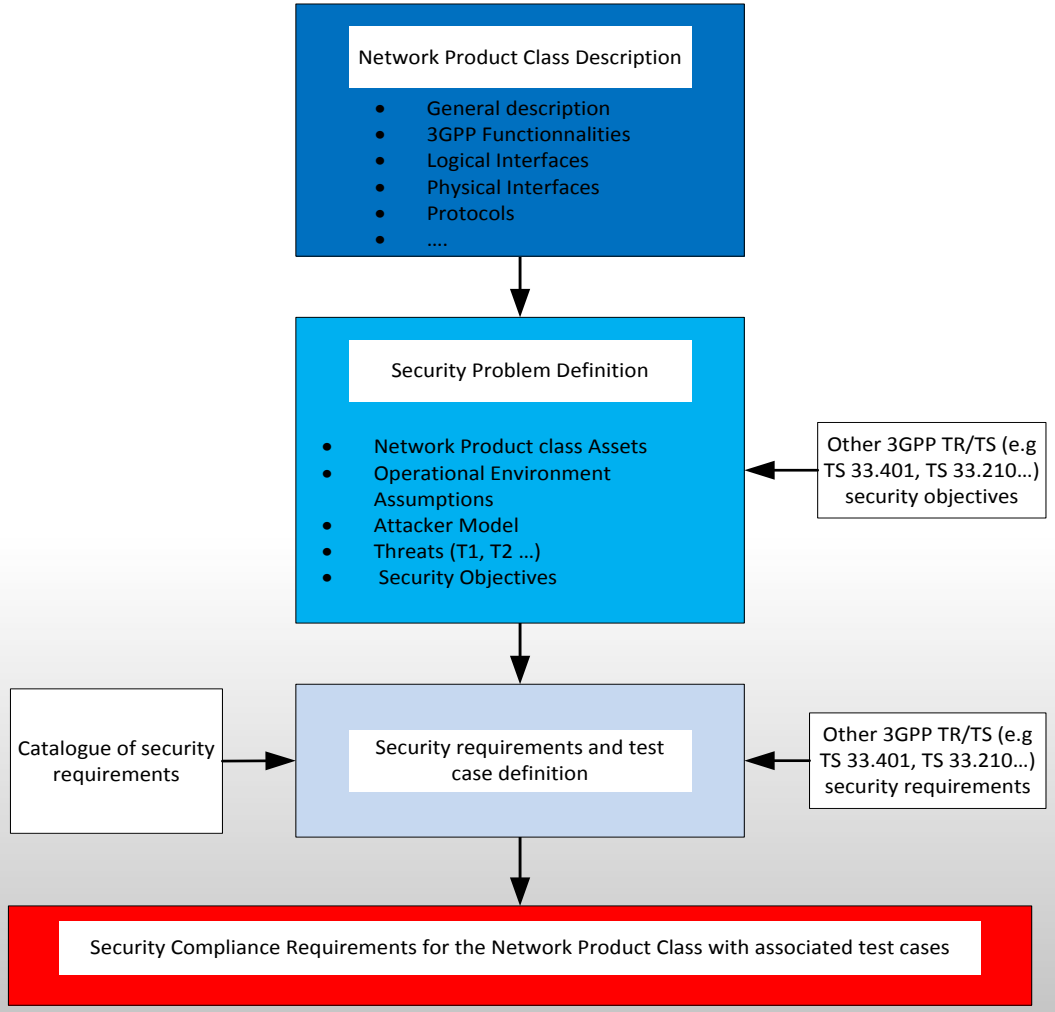
- Disparate and Overlapping Requirements
- Industry Trends
- Evolving Threat Landscape
- Evolving Architectures
- Increased Privacy Concerns
- Need to reduce time and cost

SECAM Process Overview



Source: 3GPP 33.916: Security Assurance Methodology (SCAS) for 3GPP Network Products

Security Assurance Spec (SCAS) Development



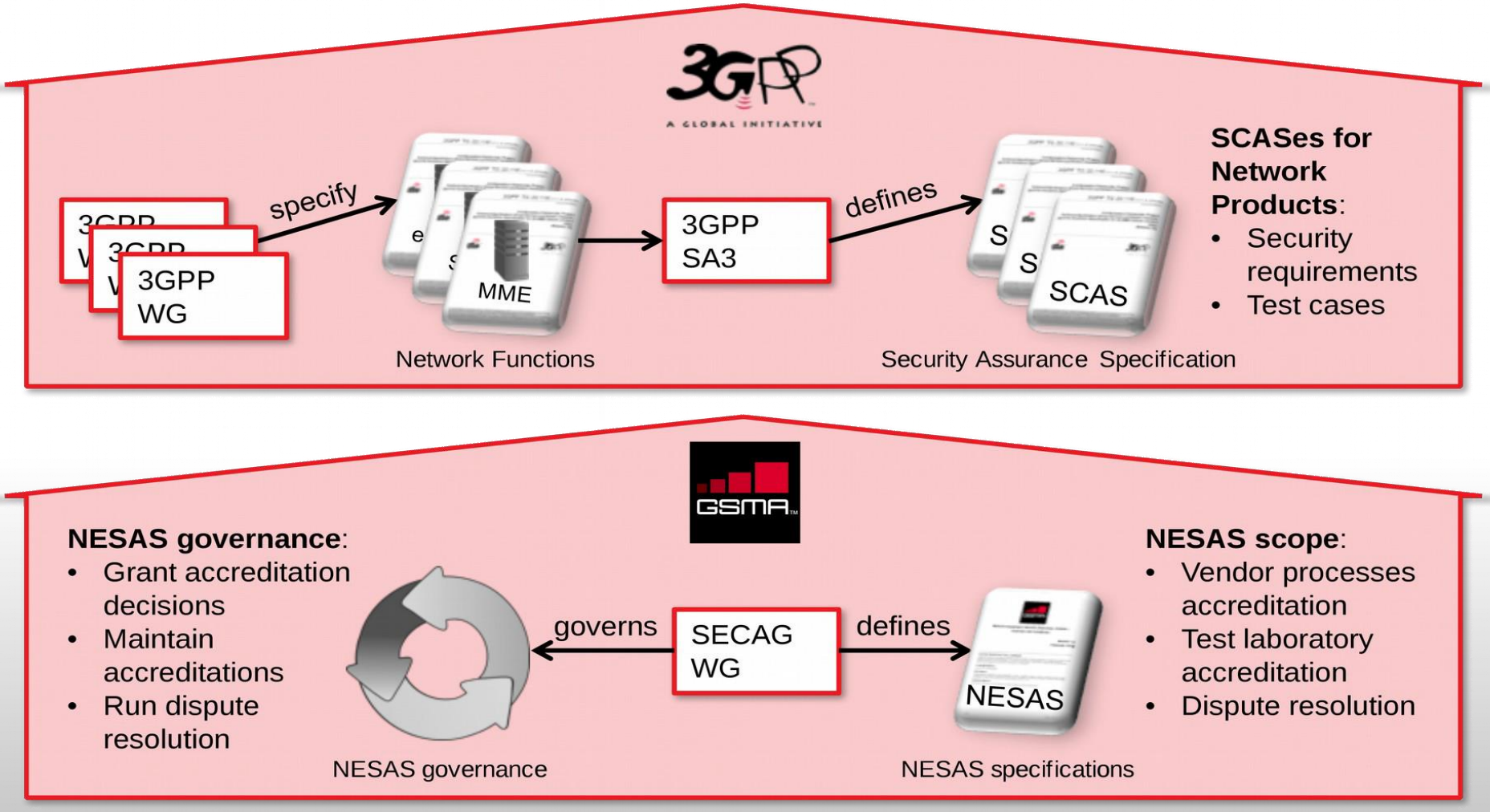
Source: 3GPP 33.916: Security Assurance Methodology (SCAS) for 3GPP Network Products

Testing performed under SECAM

- Product Development & Vendor Lifecycle Evaluation
- SCT – Security Compliance Testing
  - To the requirements in the SCAS as contained in the test cases
- BVT - Basic Vulnerability Testing
  - COTS and FOSS Tools/Scanners, External Interfaces
  - Port Scanning, Vulnerability Scanning, Fuzzing/Robustness Testing
- EVA – Enhanced Vulnerability Analysis
  - Custom Tools, Non-Deterministic, Internal
- For each phase specific inputs and outputs are defined.

Source: GSMA FS.13 Network Equipment Security Assurance Scheme Overview. http://www.gsma.com/NESAS_Overview

Roles of 3GPP and GSMA in SECAM



Source: GSMA FS.13 Network Equipment Security Assurance Scheme Overview. http://www.gsma.com/NESAS_Overview

Current Status

- 3GPP SECAM Groundwork Docs are close to completion:
  - 33.805 SECAM Overview
  - 33.916 Formal Definition of the Process
  - 33.316 First SCAS Covering MME Product
- 3GPP Security Assurance Specifications in Process:
  - 33.250 SCAS for Packet Gateway
  - 33.216 SCAS for eNodeB
- GSMA NESAS Docs are Published:
  - FS.13 NESAS Overview
  - FS.14 Security Test Lab Accreditation & Process
- Process Trial was planned for early 2017

Conclusions

- Process meant to reduce time & cost
- Provide a security assurance baseline
  - Measurable, Repeatable, Test-Oriented
- Changes will be needed:
  - Virtualization, Cloud Infrastructures, Network Slicing
  - Decoupling of software (function) from hardware (platform)

Q & A

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