Securing 5G Infrastructure

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Transparent 5G delivers on the promise of cloud

Open standards and x86 based servers

- 5G, built for the cloud, gets delivered reliably and efficiently, as the physical Communications infrastructure gets virtualized running x86 servers.
- New open standards, including for Core, RAN, Security, etc. foster an ecosystem of interoperable solutions based on software.
- Hardware moves from costly proprietary single function appliances to commercial off-the-shelf (COTS) servers running on general purpose processors and FPGAs. Specific uses are enabled by Network Function Virtualization, NFV and 5G deployments.
- Industry has rallied around open, scalable and secure 5G and Edge with standards and eco-system development.

Security is top of the mind for our Customers

Secure Key Management

Data Sovereignty, Confidentiality, Geo-Control

Recovery, Resilience

High Scale, Low Latency Network Performance

Secure Data Vault

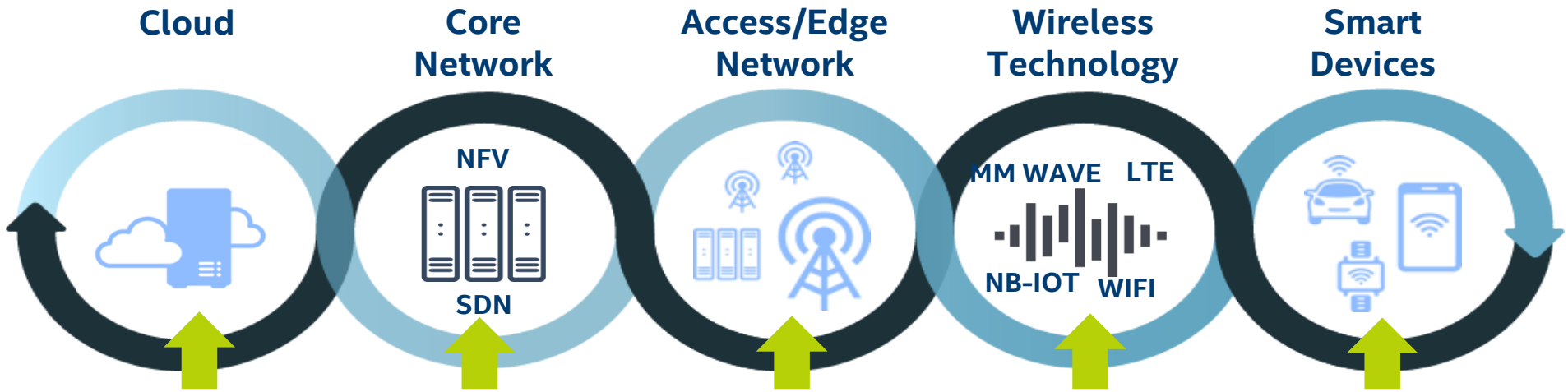
Attestation, Compliance Mapping

Isolation

Telemetry, Visibility

Requirement: Performance with Security for the next generation of E2E Services with 5G

Ubiquitous Encryption and Key Protection: Security @ High Performance



Main Drivers : Privacy, Regulatory, Data Protection

Physical and Virtual Network protection

Encryption at line rate – no performance loss!

Protect Customer Keys

Intel Platform Security

Secure the Platform

Secure Boot, Attestation, Physical Access Protection

Protect the Data

Security Accelerators, Key Protection, Regulatory

Secure Workloads

Multi-Domain Trust, Privacy

Security Ingredients	BootGuard, PFR	QAT, KPT, AES-NI	Slicing, Enclaves

Requirements

- Security for Workload & Orchestration
- Secure Remote Management; Anti Tamper, Post Quantum safe
- Platform Firmware Resilience (NIST 800-193); Supply Chain Security
- Security Acceleration with Key Protection
- Workload Protection (tenants IP in NFV, AI/ML on edge)
- Trustworthiness of Device, Data Protection
- Performance, latency, power: Network, client, cloud
- Ease-of-Deployment, Broad Eco-system enablement