



ECN PP & SESIP

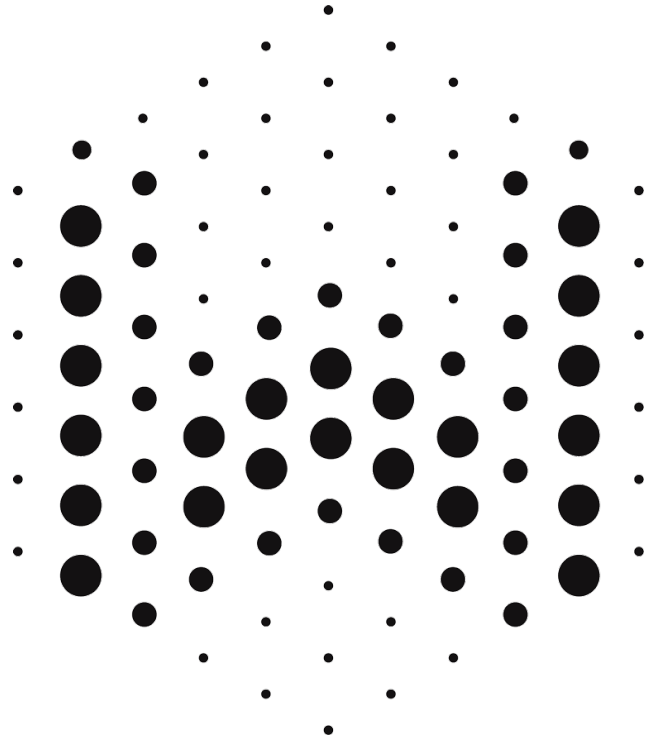
Practical complements for secured and compliant IoT solutions

Eustace Asanghanwa
Principal PM, IoT Security R&D



Agenda

-
- **Real world context and background**
 - **Introduce Edge Compute Node Protection Profile (ECN PP)**
 - **ECN PP + SESIP better together**



willow
know your world

The journey by our partner Willow

Willow empowers asset owners and operators to make proactive, data-led decisions in real time through the power of WillowTwin™.



Real Estate

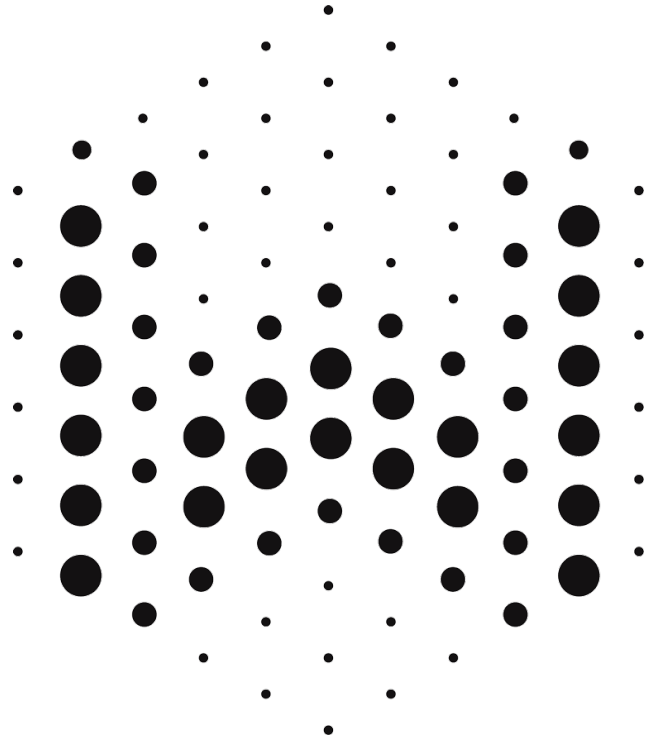
Developments . Operations . Experience



Infrastructure

Asset Creation . Asset Management . Government/Contractors/O&M





willow
know your world

WillowTwin™ under the hood

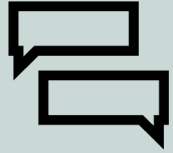


Scaly's

Security at the edge

Willow device partner for Willow TrustBox Edge

Challenges to securing IoT with COTS compute nodes



Can't ascertain security posture



Most resort to DIY



Increased time to market by years

We put our heads together with cross-domain industry experts for a solution that scales



Scalys
Security at the edge

SGS | brightsight



PROVE & RUN

arm



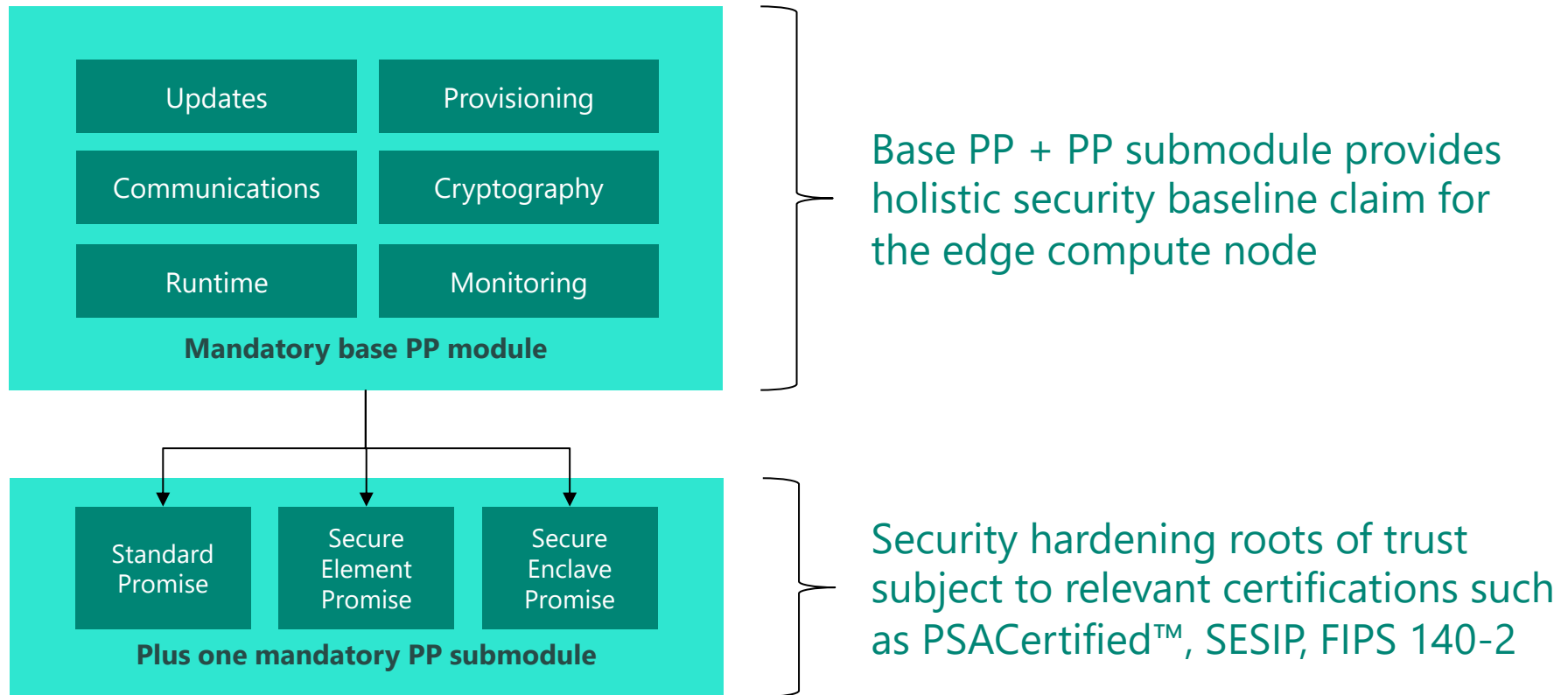
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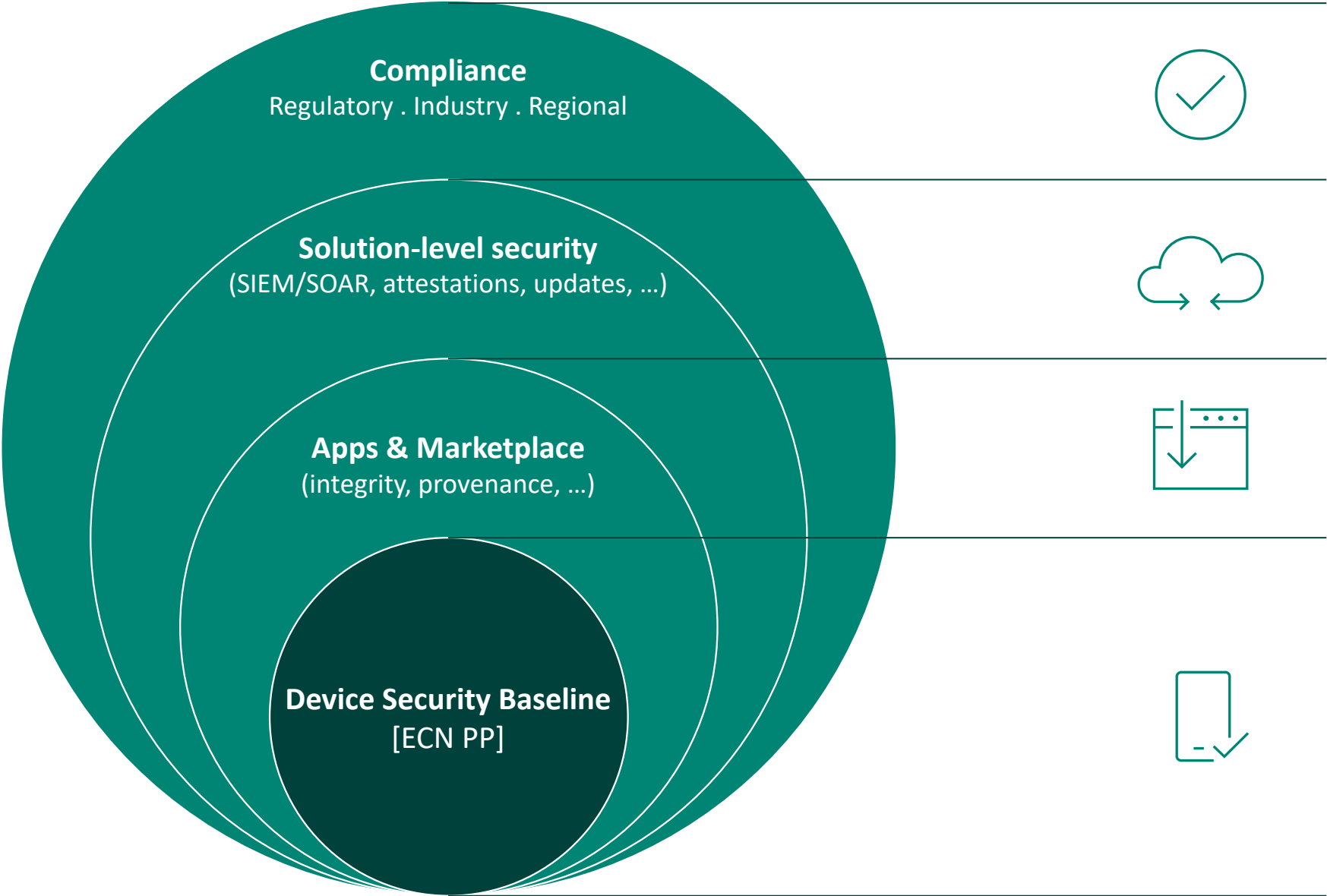


The Common Criteria Edge Compute Node Protection Profile (ECN PP)

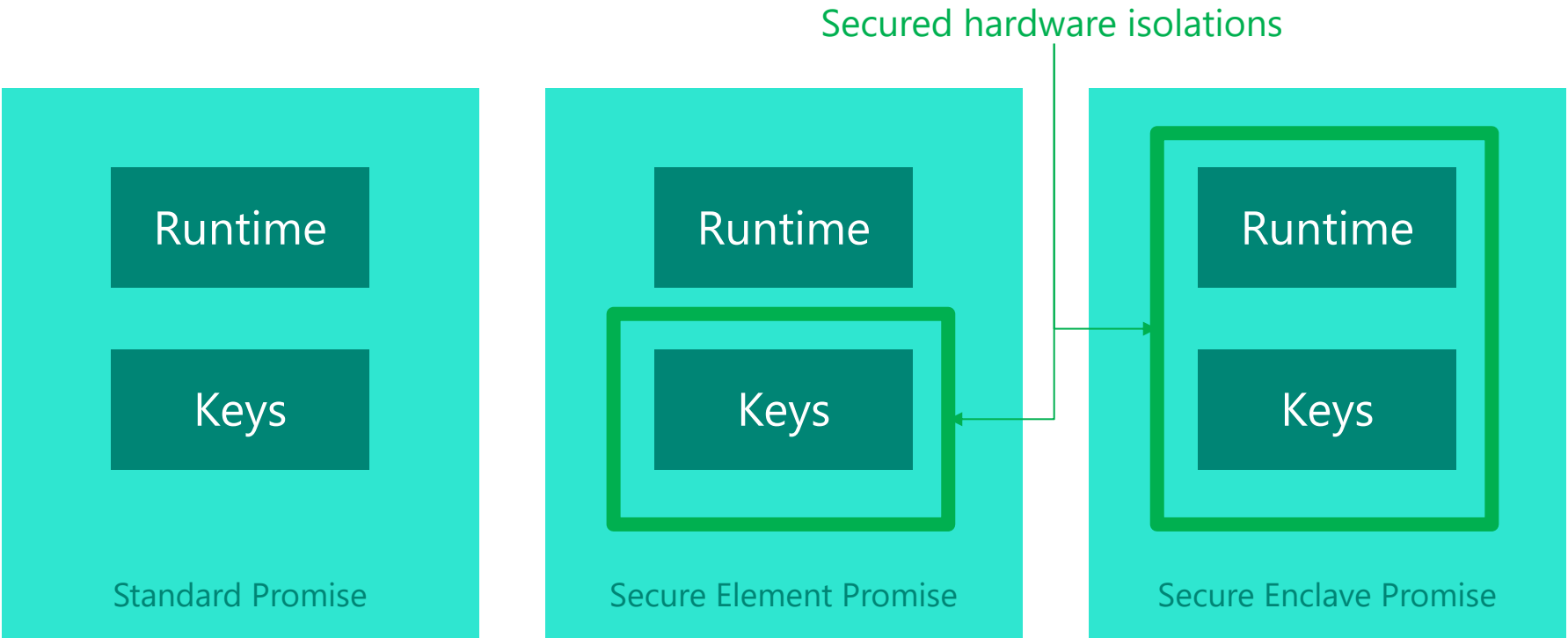
A holistic device security baseline structured for composition of standards and certified components



From secured devices to deployment compliance



ECN PP device security promises



Secured Software	Yes	Yes	Yes
Secured Isolations	Software	Hardware	Hardware
Common form factors	Filesystems	Secure elements	Trusted Execution Environments
Primary usage	- Developer mode/Brownfield	- Identity/workload integrity	- Identity/workload integrity - Confidential workloads
Costs (BOM, Ops, etc.)	\$	\$\$	\$\$\$

We're not new to SESIP

Azure RTOS currently certifying for SESIP Assurance Level 3

In addition to existing and past certifications for Functional safety (SIL 4, ASIL D, Med Class C), PSA Level 1, CC EAL4+, FIPS 140-2



ThreadX



GUIX
GUIX Studio



NetX



USBX



FileX



TraceX



NetX DUO

And we're really excited about ECN PP and SESIP mapping by GlobalPlatform SESIP Sub Task force



Mapping Edge Computing Standards to SESIP

By Carlos Serratos, SGS Brightsight

The objective of developers of Internet of Things (IoT) devices is to bring to market products that aim to operate a specific use case (home appliance, automotive, industrial, entertainment, etc.). When this use case does not have a security or safety purpose, developers focus more on functionality, usability, and performance than on security, a domain in

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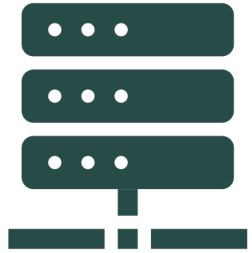
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The GlobalPlatform SESIP Sub Task force has undertaken the mapping between **ECN PP** and SESIP. The drivers and expected benefits of this work item are around two forms of composition:

- Lower composition, provides a path for making use of SESIP certified components and platforms for showing readiness towards this PP, reducing the effort for developers looking to achieve ECN PP certifications under CC
- Upper composition, as the mapping of the ECN PP using SESIP can be linked towards other standards like 62443, while maintaining the CC trust mark.

ECN PP + SESIP

like coffee and cream



ECN PP - Security without DIY

Device Builders and IoT Solution Developers
can now meaningfully exchange device
security claims to avoid costly DIY



SESIP – Compliance components

Regulatory – Industrial - Regional

ECN PP ↔ SESIP mapping for security + compliance on one go!

Fast time to market . Optimized eval/cert costs



Willow TrustBox Edge Gateway

A small & secure device that is both quick & easy to deploy, for network protocol connectors to stream live to the WillowTwin™.

- ✓ Hosts Willow protocol connectors
- ✓ Powered by Microsoft Azure IoT Edge
- ✓ Securely hardened, protected & actively monitored
- ✓ Remotely managed with outbound only communication
- ✓ GDPR, CIS & NIST compliant

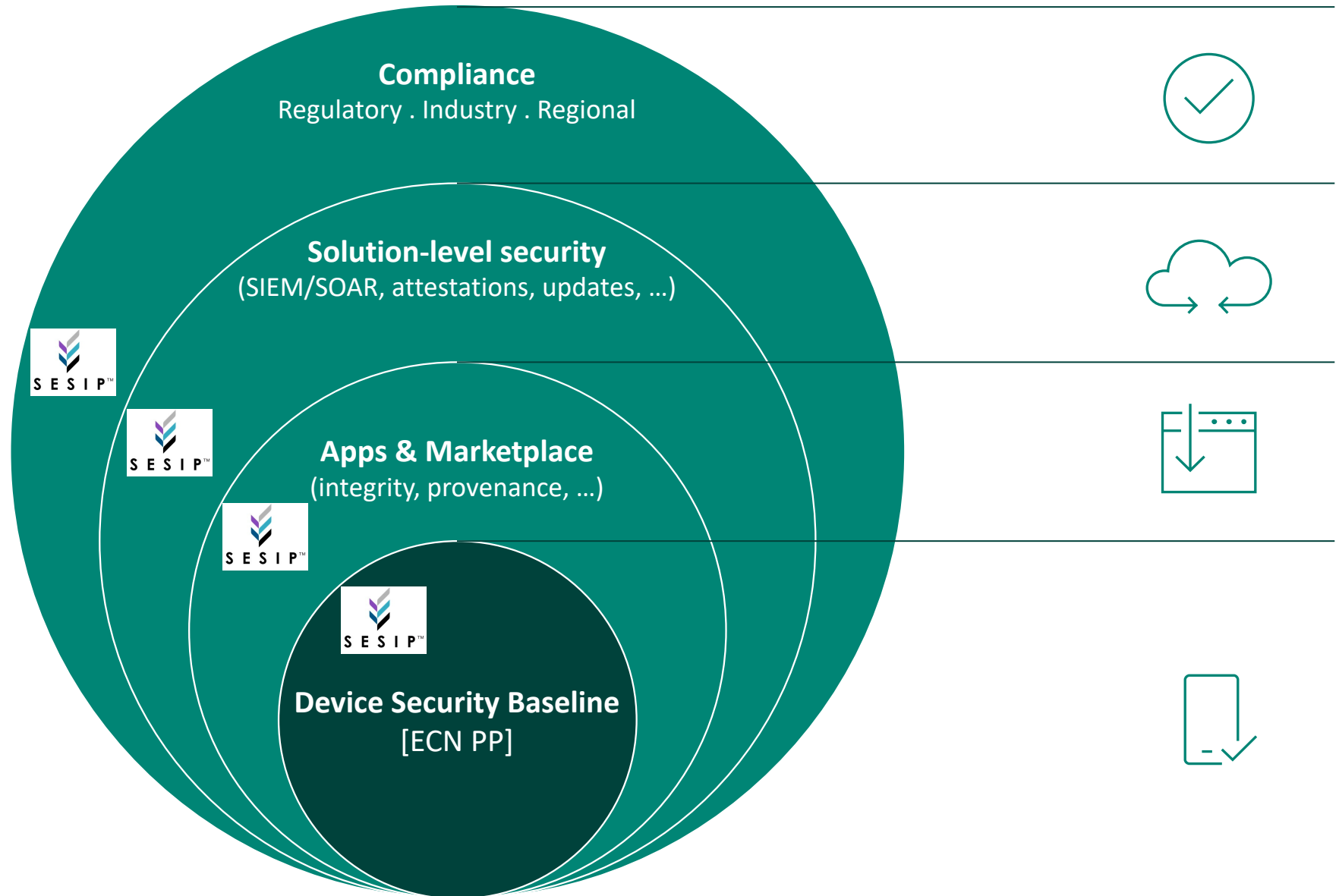
ECN PP

SESIP



ECN PP + SESIP for ultimate optimization

coffee and cream at any layer 😊



Learn more

- ECN PP Protection Profile: <https://aka.ms/ecn-pp-full-doc>
- ECN PP value proposition blog: <https://aka.ms/ecn-pp>
- GlobalPlatform ECN PP – SESIP mapping [blog](#).
- Azure RTOS: <https://azure.microsoft.com/en-us/services/rtos/>
- Willow: www.willowinc.com
- Scalys: www.scalys.com



Thank you!