ENSURING A TRUSTED INTERNET OF THINGS

• IoT Tech Expo | November 2017
From autonomous connected devices to digital supply chain collaboration, from smart cars to smart healthcare — new technologies and new models of business are changing the worlds of industry, governance and commerce.

Digital transformation is estimated to create upwards of $100 trillion in value over the next decade.

Our world is being transformed by new connected technologies that are redefining business models and changing the way people, systems, and things interact.
NEW CONCEPTS, SOLUTIONS AND SERVICES

AGENCY
Ability to assign authority & responsibility

CONTEXT
Support for dynamic & adaptive security decisions

SPONTANEITY
Ability to act instantly—by choice, policy or AI-driven automation

SCOPE
Beyond human centric to include all entities – people, devices, systems
By 2020, 60% of digital businesses will suffer major service failures due to the inability of IT security teams to manage digital risk.
Our world runs on trusted interactions between people, systems and things.
DIGITAL TRUST IN CONNECTED ECOSYSTEM

Establishing and managing security in the myriad of digital interactions and relationships between businesses, individuals and things.


Through 2020, organizations that actively promote digital trust will be able to participate in 20% more digital ecosystems and will be able to attract and retain 40% more customers than those that don’t.

WHAT DOES IT LOOKS LIKE
TRUST MODEL IN DIGITAL ECOSYSTEM

Enterprise InfoSec

- Confidentiality
- Integrity
- Availability

IOT Cybersecurity

- Reliability
- Safety
- Privacy

PREVENT
DETECT
RESPOND
PREDICT

Enterprise Applications

Platform Hub

Edge

Endpoints

Configuration Management
Monitoring and Analytics
Connectivity and Communication
Endpoint Protection

Data Protection

Security Model and Policy

IIC, Industrial Internet Security Framework (IISF)
KEY CONSIDERATIONS

CREATE A TRUSTED ECOSYSTEM

SECURE OUTCOMES FROM CONNECTED ECOSYSTEMS

LEVERAGE ENTERPRISE ARCHITECTURE

ENHANCE USER EXPERIENCE
TRUST ENABLERS

IDENTITY

AUTHENTICATION & AUTHORIZATION

CREDENTIAL LIFECYCLE MANAGEMENT

EQUIPMENT DATA MODEL MANAGEMENT

DATA SECURITY

SUPPLY CHAIN INTEGRITY

DELIBERING VALUABLE, ACTIONABLE DATA
EXAMPLE: SUPPLY CHAIN INTEGRITY

1 – Establish Initial Identifier

2 – Create Managed Identity and Device Role

3 – Device Enrollment and Registration

4 – Establish User and Device Identity Relationship

5 – Secured Service Delivery
THE “HOW-TO”

Concept for Building Trust & a Competitive Digital Business
DIGITAL TRUST AN EVOLVING MODEL

DIGITAL TRUST MATURITY MODELS

Not a Moment in Time — Ongoing Optimization & Growth

LEGACY
- User centric
- Binary vs. Probabilistic
- Point in time vs Session
- Security viewed as required, Risk Prevention

EMERGING

EVOLVED
- Broad view - People, Systems & Things
- Adaptive, Session & Risk Based
- Risk acceptance based on context
- Trust is viewed as an essential enabler
### GETTING STARTED

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<th><strong>GET ALIGNED</strong></th>
<th>Assess where your organization is on the digital journey before jumping in</th>
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<tr>
<td><strong>SELECT A FRAMEWORK</strong></td>
<td>Leverage industry and consortium investments to create a baseline</td>
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<td><strong>PERSONALIZE</strong></td>
<td>Characterize architecture with key attributes and inventory devices, networks, and data</td>
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<td><strong>DEFINE THE SECURITY APPROACH</strong></td>
<td>Map security controls against the reference design and identify gaps</td>
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<td><strong>CONDUCT RISK ASSESSMENT</strong></td>
<td>Identify potential threats within the initiative, the risk they pose, and determine if controls are adequate</td>
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<td><strong>REVIEW</strong></td>
<td>Conduct period reviews based on design and environmental changes</td>
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### TIPS

- Engage with partners for learnings and best practices
- Consider a prototype depending on maturity of the use case
- Watch for spiraling integration requirements
- Starting with a strong Trust foundation can accelerate deployment
Innovator in trusted identities and secure payment technologies

$600M+ in annual revenue

2,000+ employees in 34 worldwide locations

Sales, service and support covering 150+ countries

Headquartered in Minneapolis, Minnesota USA

Privately held, founded in 1969

**Cloud Services and Enablement**

**Trusted Endpoints and Interactions**

**Ecosystem Enablement**

**Emerging Tech (Blockchain, Quantum, Things)**

**Authentication**

**Access & ID Solutions**

**Internet of Things**

**Certificates Solutions, PKI**

**Financial Instant Issuance**

**Bureau Services**
TRUST FOR YOUR CONNECTED ECOSYSTEM
Rooted to authoritatively issued Identities and managed throughout the life-cycle
THANK YOU