cloud security alliance®

FUTURE-PROOFING YOUR CONNECTED WORLD

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Building a Trusted Ecosystem

Community

CSA brings together SMEs, companies, and global leaders to identify common pain points and generate common solutions in cloud and next-generation IT technologies.

Research

CSA explores technologies and methodologies that impact the IT industry and connect to cloud services developing best practices and tools for the community.

Education

CSA shares user stories and management tools to help organizations adopt the latest technology in IT and cloud in the form of trainings, webinars, and events.

They Get One Chance

- For clients to use a cloud provider, they must trust the provider.
- This is especially true for anything with a sensitive data or process.
- Thus security has to be a top priority for a provider or you won't use them.
- A major breach for a provider that affects multiple customers is an existential

Tools for Due Diligence

Cloud Security Controls

- Common framework for technology, IS management
- Assesses the overall security risk of a cloud service
- Provides standardized security, operational risk management
- Harmonizes to security standards and compliance frameworks

Provider Assessment Questions

- Questions to enable cloud computing assessments
- Establish the presence and testing of security controls
- Discover presence of security capabilities and gaps
- Document security controls in IaaS, PaaS, SaaS

Provider Assessment Reports

- Provider listing of security controls
- Transparency, auditing, and harmonization of standards
- Level of assurance meeting requirements
- Industry acceptable

Cloud Solutions Management Dashboard

- Solution to help organizations manage compliance
- Assign maturity and relevance scoring
- Provision and manage user access to assessments
- Compare assessments based on common criteria

Internet of Things

Creating guidance and security controls for new types of devices, systems, and data.

Dev(Sec)Ops

Strives to automate security tasks by embedding security into the DevOps Workflow.

Big Data, AI, Automation

Promises to transform society on the scale of the industrial revolution before it.

Fog Computing

Orchestration, interoperability, connectivity and analytics at the edge..

Cloud and DevOps

Abstraction breaks existing architectures

Automation breaks existing processes

Existing security patterns won't effectively translate. It may look like they do on the surface, but sticking with the "familiar" and "manageable" will merely bring over all the liabilities and mistakes of the past.

The Dev and Ops Problem

- Configurations drift over time.
- Manual intervention creates error,
- Different teams work in different environments.
- The longer the update cycle, the greater the chances for error.

No standards

=

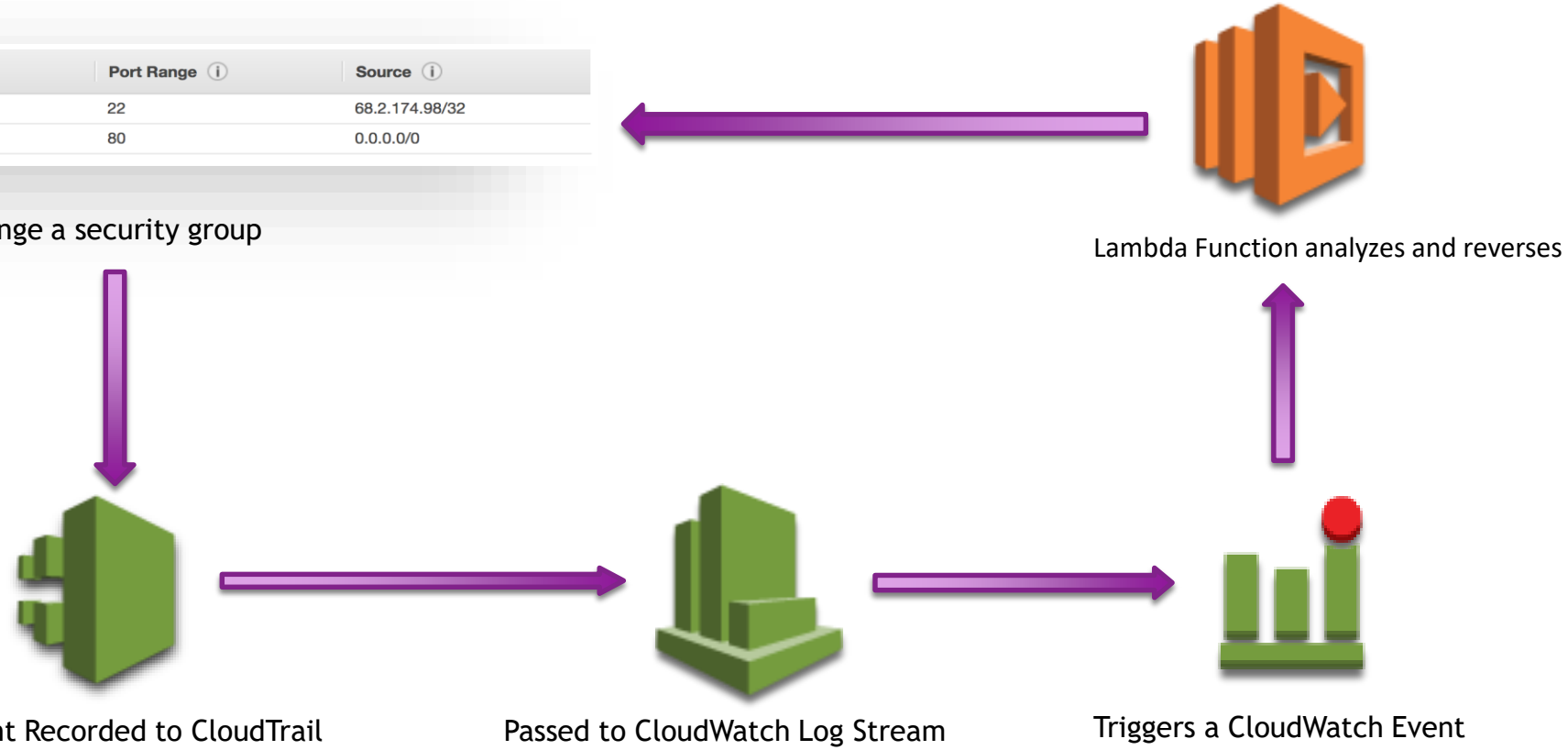
More complexity

Why DevOps Works

- There is no drift.There are no human-induced errors.
- The deployment pipeline is automated, for code, configurations, and toolsets.
- All environments, including supporting third-party applications, are consistent.
- Faster deployment cycles reduce error and improve business agility.
- Version control and consistency support instant rollback.

Self-Healing Infrastructure (yes, for real)

Type	Protocol	Port Range	Source
SSH	TCP	22	68.2.174.98/32
HTTP	TCP	80	0.0.0.0/0



Gartner® 20.4B

Internet of Things (IoT) Devices By 2020

The total number of “things” in the Internet of Things (IoT) is forecast to reach 20.4 billion in 2020.

The consumer segment is tipped to make up 63 per cent of the total IoT application market in 2017 with 5.2 billion units. Businesses are on pace to employ 3.1 billion connected things in 2017.

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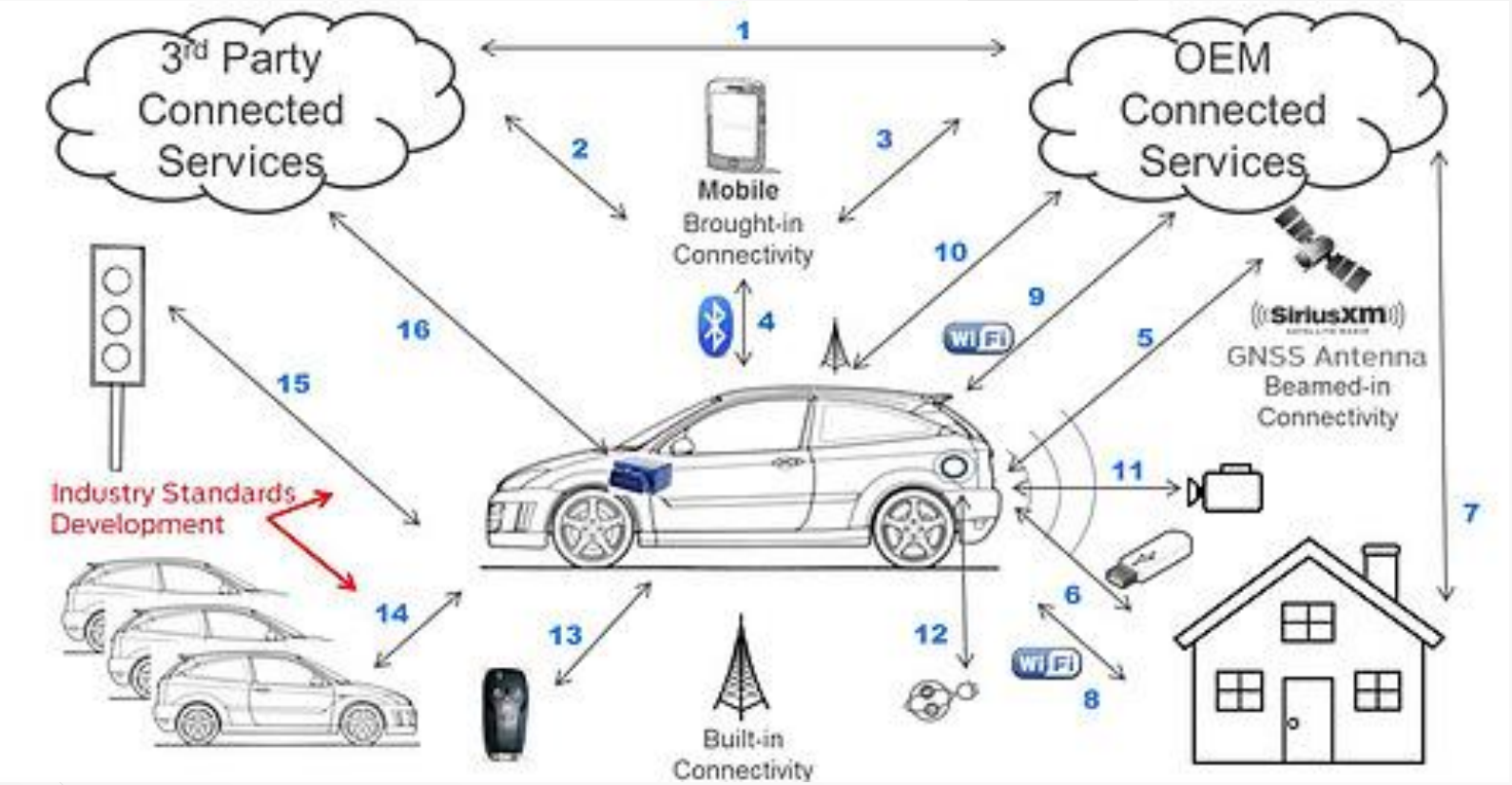
Securing the IoT

- Focusing on Cloud, Edge Devices, Applications, Networks, People
  - Cloud IoT Risks and Mitigations
  - Regulations applied to cloud services for the IoT
  - Security Considerations for Big Data Processing and storage
  - Secure Access to Cloud Services
  - Secure life-cycle management of users and devices through the cloud platform
  - Industry applications
  - IoT security controls
  - Data Privacy

Security Layers for IoT

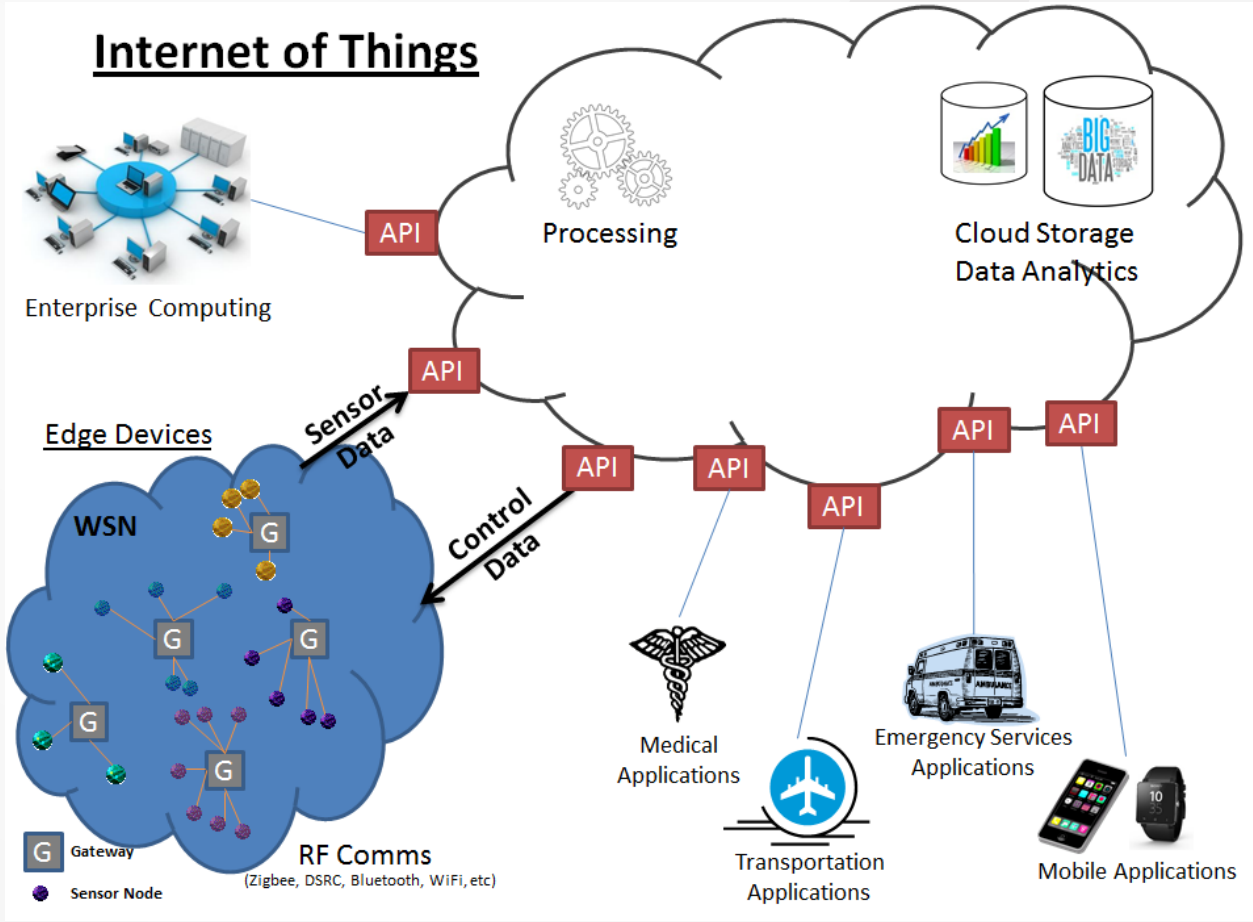
- Network
- Application
- Device
- Physical
- Human



Securing IoT Layers

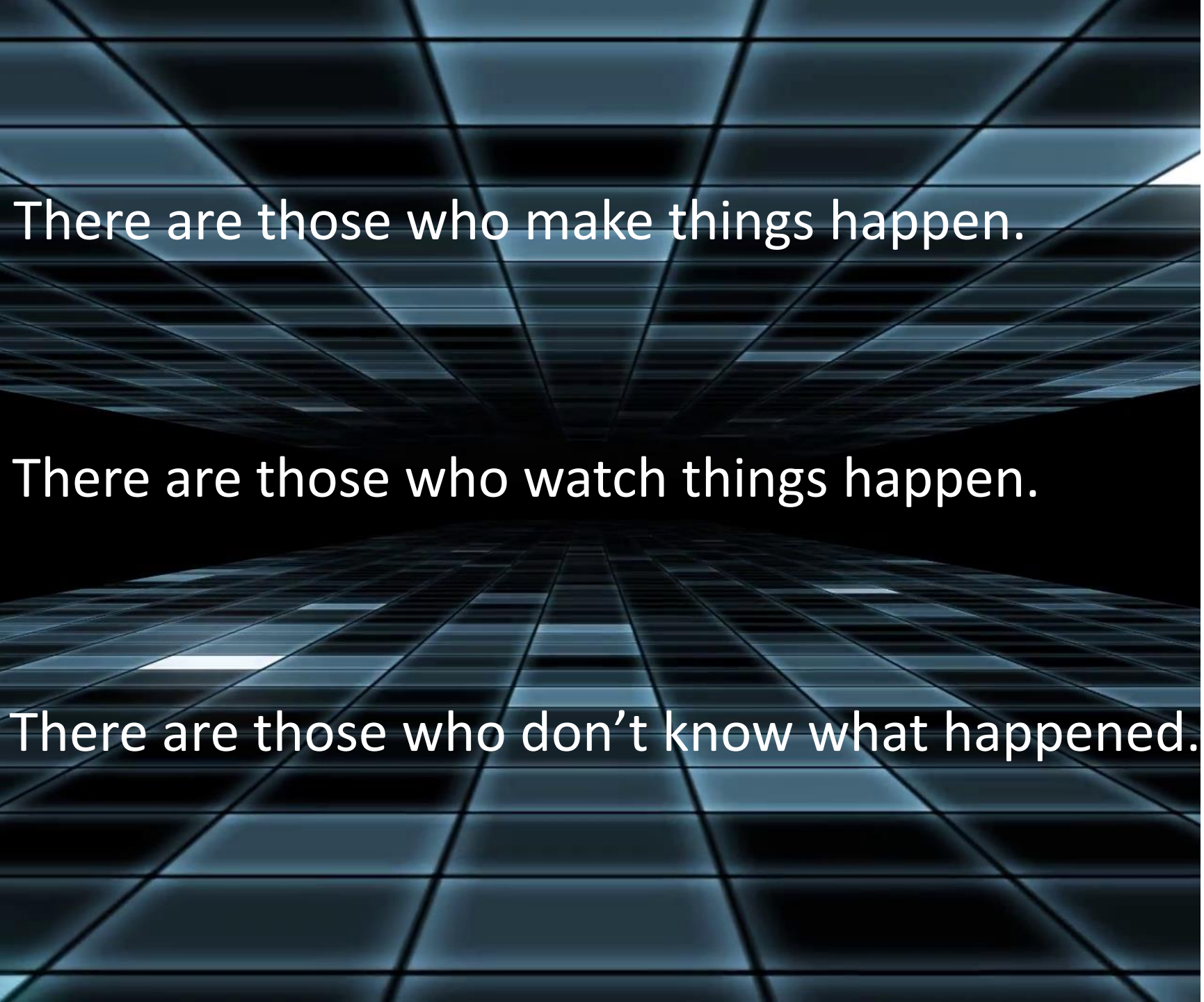
- Security Controls for the IoT

- New technologies to deploy/integrate security tools



START SMALL

- Pick a single project
- Even if you are losing control over everything else
- Ideally one that’s moving fast
- Use it to educate and build your patterns and requirements
- Only one provider at a time
- Integrate with the team
- Focus more on architectures and creating new processes, and less on enforcing the Old Ways
- Take the lessons and move to the next one



Be a Cloud Champion!

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