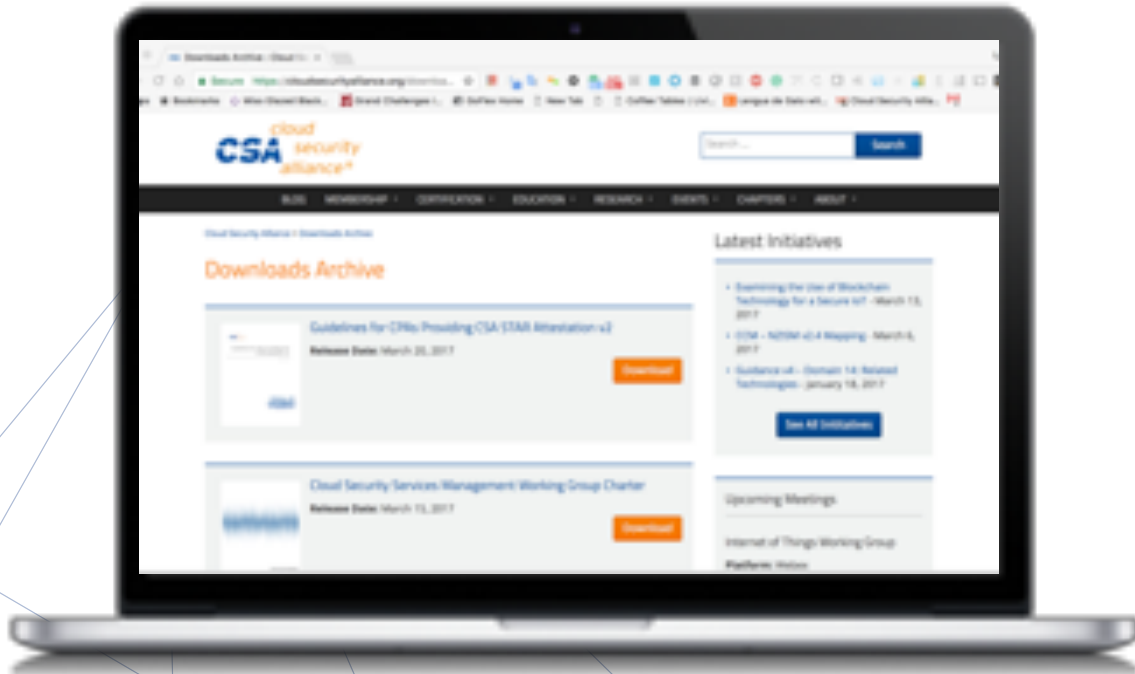# Transitioning, Enhancing, and Innovating In the Cloud

Presented by the Cloud Security Alliance

John Yeoh Global Vice President of Research

CCSK™

Certificate of
Cloud Security Knowledge

- Fundamental cloud security research that started CSA
- 4th version, released July 2017
- Significant enterprise lessons learned

DOWNLOAD at
WWW.CLOUDSECURITYALLIANCE.ORG/DOWNLOAD

SECURITY GUIDANCE

For Critical Areas of Focus
In Cloud Computing v4.0

CSA

Due Diligence in the Cloud

Cloud Security Controls

CCM — Cloud Controls Matrix

- 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

CAIQ

- 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

CSA STAR

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

Cloud Solutions Management Dashboard

STARWATCH — Assurance on Demand

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

The Value Equation in the Cloud

Security Service + Transparency Service =

Compliance & Trust ⇒ VALUE Captured

…**delivering evidence-based confidence** …
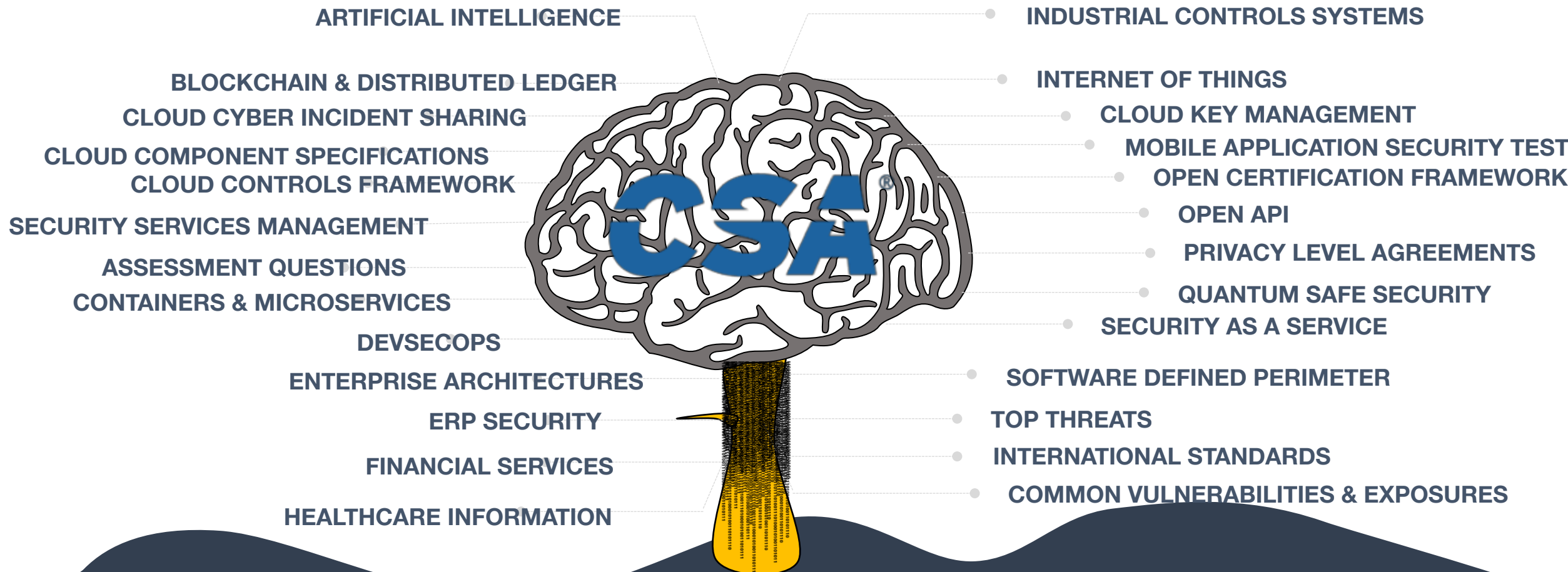
…**with compliance-supporting data & artifacts** …

… using the best virtualization and cloud technologies …

… within quality processes …

… operated by trained
and certified staff
and partners …

CSA RESEARCH

28 ACTIVE PUBLIC Working Groups

ARTIFICIAL INTELLIGENCE

INDUSTRIAL CONTROLS SYSTEMS

BLOCKCHAIN & DISTRIBUTED LEDGER

INTERNET OF THINGS

CLOUD CYBER INCIDENT SHARING

CLOUD KEY MANAGEMENT

CLOUD COMPONENT SPECIFICATIONS

MOBILE APPLICATION SECURITY TEST

CLOUD CONTROLS FRAMEWORK

OPEN CERTIFICATION FRAMEWORK

SECURITY SERVICES MANAGEMENT

OPEN API

ASSESSMENT QUESTIONS

PRIVACY LEVEL AGREEMENTS

CONTAINERS & MICROSERVICES

QUANTUM SAFE SECURITY

DEVSECOPS

SECURITY AS A SERVICE

ENTERPRISE ARCHITECTURES

SOFTWARE DEFINED PERIMETER

ERP SECURITY

TOP THREATS

FINANCIAL SERVICES

INTERNATIONAL STANDARDS

HEALTHCARE INFORMATION

COMMON VULNERABILITIES & EXPOSURES

EDUCATION

THOUGHT LEADERSHIP

TOOLS & STANDARDS

COLLABORATION

Best Practices

BEST PRACTICES & SOLUTIONS

Top Threats to Cloud Computing
The Egregious 11
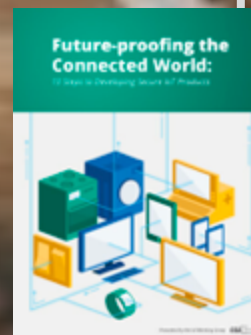
1. Data Breaches (=)
2. Misconfiguration & inadequate change control (new)
3. Lack of cloud security architecture & strategy (new)
4. Insufficient identity, credential, access & key mgmt (-2)
5. Account hijacking (=)
6. Insider threat (=)
7. Insecure interfaces and APIs (-4)
8. Weak control plane (new)
9. Metastructure and applistructure failures (new)
10. Limited cloud usage visibility (new!)
11. Abuse and nefarious use of cloud services (-1)

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Adoption of Cloud and Related Technologies

What Are Providers Doing About Security?

What Are Enterprises Doing About Security?

The Threat Landscape Is Changing
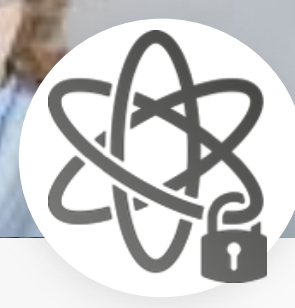
Working With Regulator

Industry Skills Gap

CSA cloud security alliance ®

STATE OF
Cloud Security
2018

CLOUD SECURITY ALLIANCE
GLOBAL ENTERPRISE ADVISORY BOARD

Blockchain

Acted as a Digital Ledger for Cryptocurrency but can now be applied in new use cases.

Internet of Things

Security for the management, orchestration, and analytics of new types of devices, systems, and data.

Dev(Sec)Ops

Strives to automate security tasks and embed security into the DevOps Workflow.

Artificial Intelligence

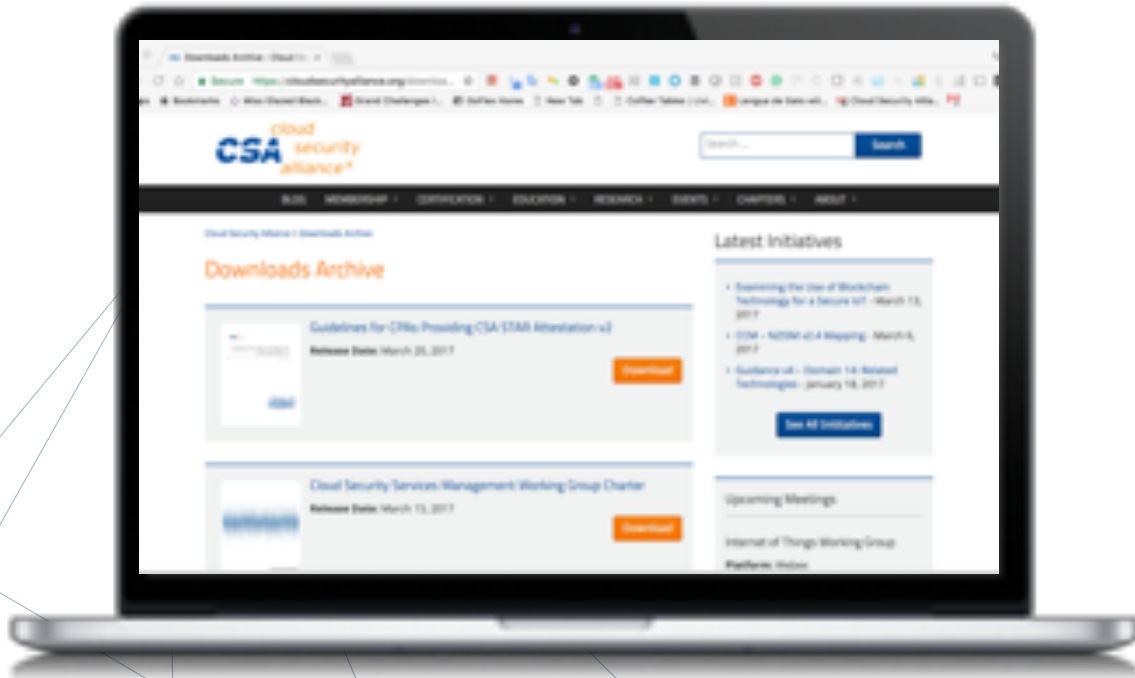Promises to transform society on the scale of the industrial revolution before it.

Quantum Computing

Preparing for compute capabilities beyond traditional binary code and into the qubit era.

Access Control/ Key Mgmt

Identity, role based access utilizing key management, SDP, zero trust approach in the cloud.

Thank You!

Contact CSA

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