



# Global Efforts to Secure Cloud Computing

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Founding Member of CSA

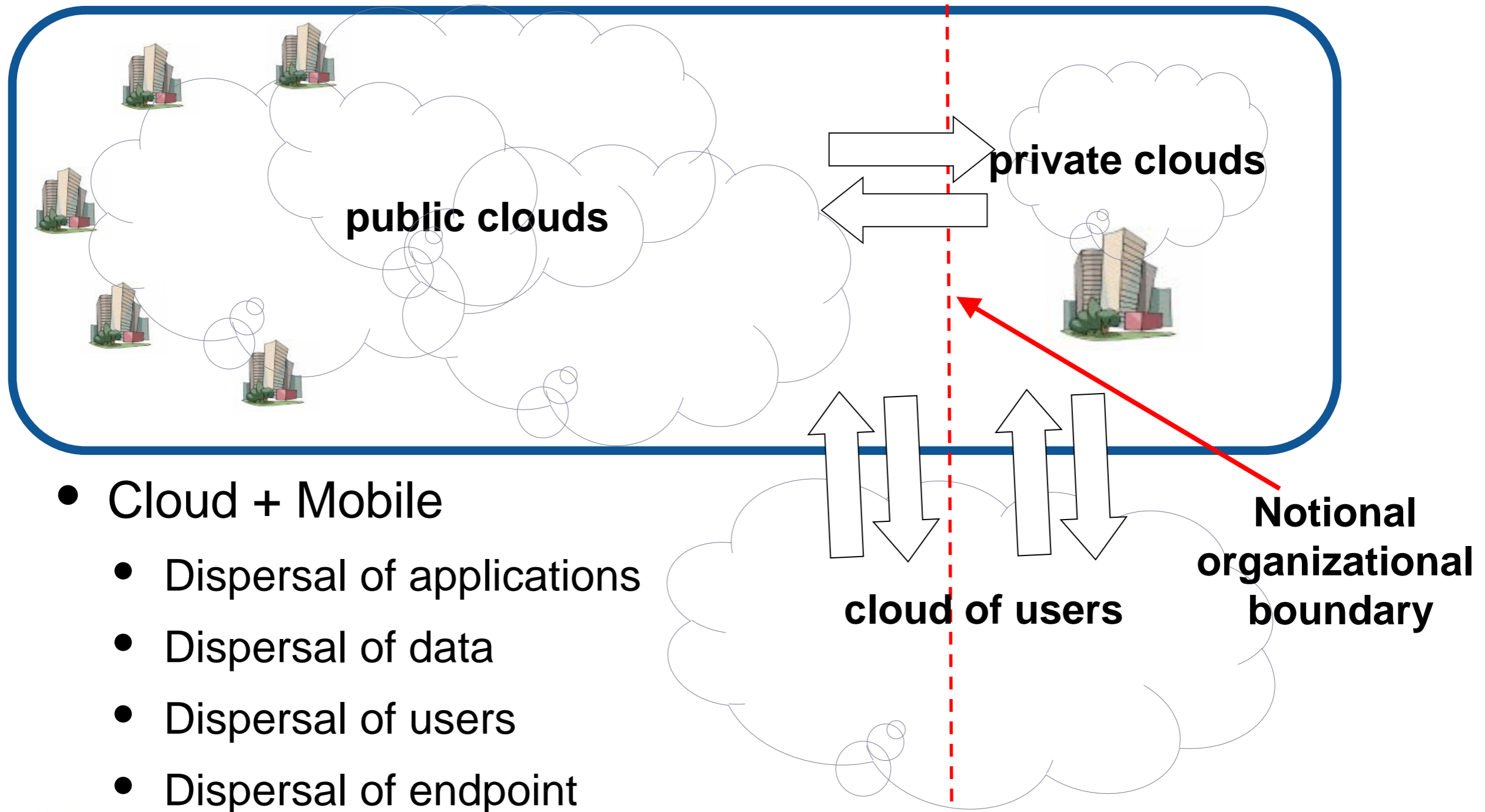
Chief Security Architect, eBay

April 2012

# Cloud: ushering in “IT Spring”

- Technology consumerization and its offspring
  - Cloud: Compute as a utility
  - Smart Mobility: Compute anywhere
- Challenges our assumptions about.. everything
  - Shifting balance of power towards technology users
  - Barriers to market entry in any industry
  - Organizational structure and business planning
- Disrupting IT and IT security through agility
- *“Revolutions are not about trifles, but spring from trifles.”*  
Aristotle

# The Hybrid Enterprise & Shadow IT



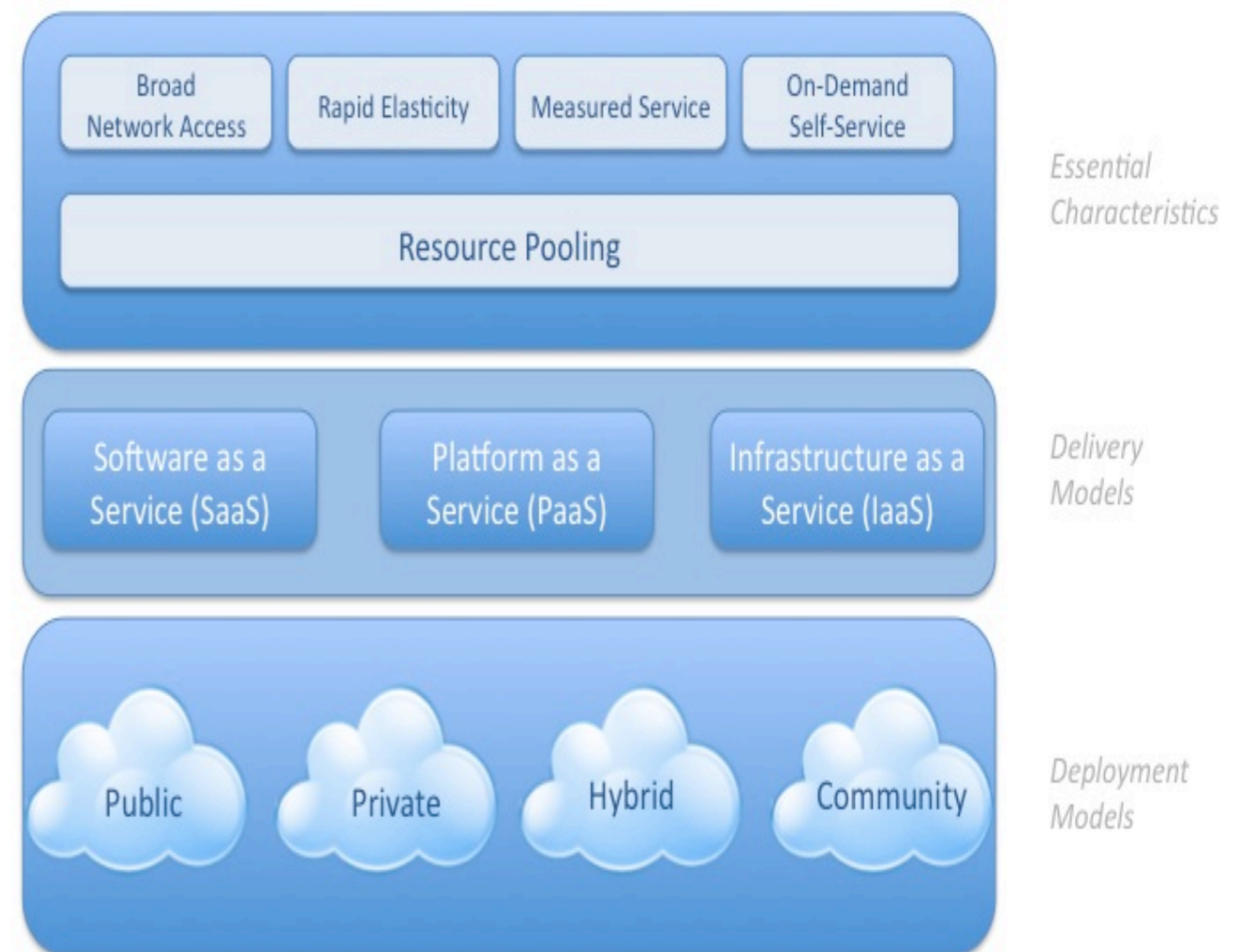
- Cloud + Mobile
  - Dispersal of applications
  - Dispersal of data
  - Dispersal of users
  - Dispersal of endpoint devices

# What is Cloud Computing?

- Compute as a utility: third major era of computing
- Cloud enabled by
  - Moore's Law
  - Hyperconnectivity
  - Provider scale
  - SOA
- Key characteristics
  - Elastic & on-demand
  - Multi-tenancy
  - Metered service
  - Broadly available
- But, can we Trust the Cloud?

Visual Model Of NIST Working Definition Of Cloud Computing

<http://www.csrc.nist.gov/groups/SNS/cloud-computing/index.html>



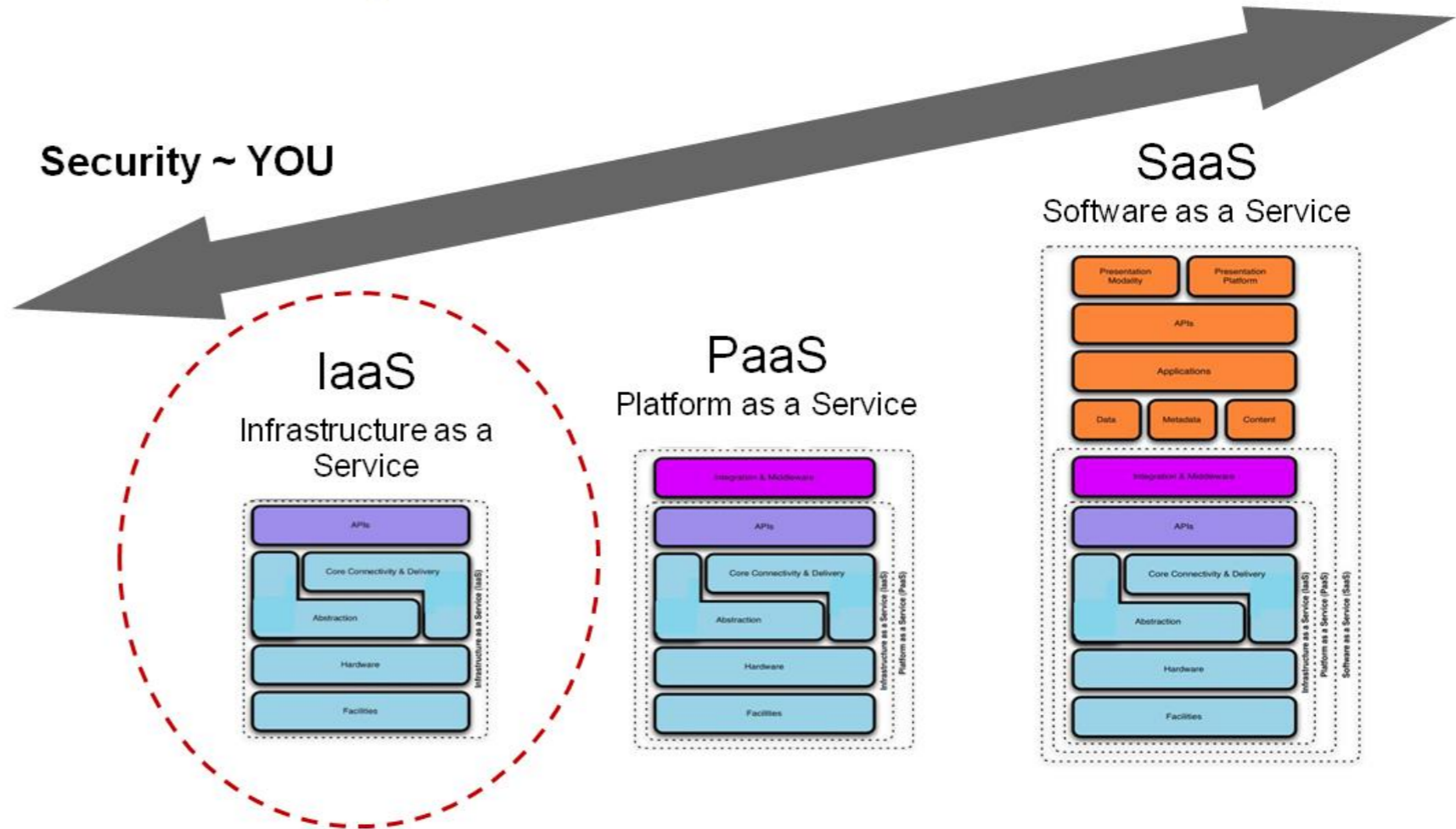
# Migrating to the Cloud

- Shared Responsibility
- Strategy
- Education
- Architecture / Framework
- Due Diligence

Role Clarity

Security ~ THEM

Security ~ YOU



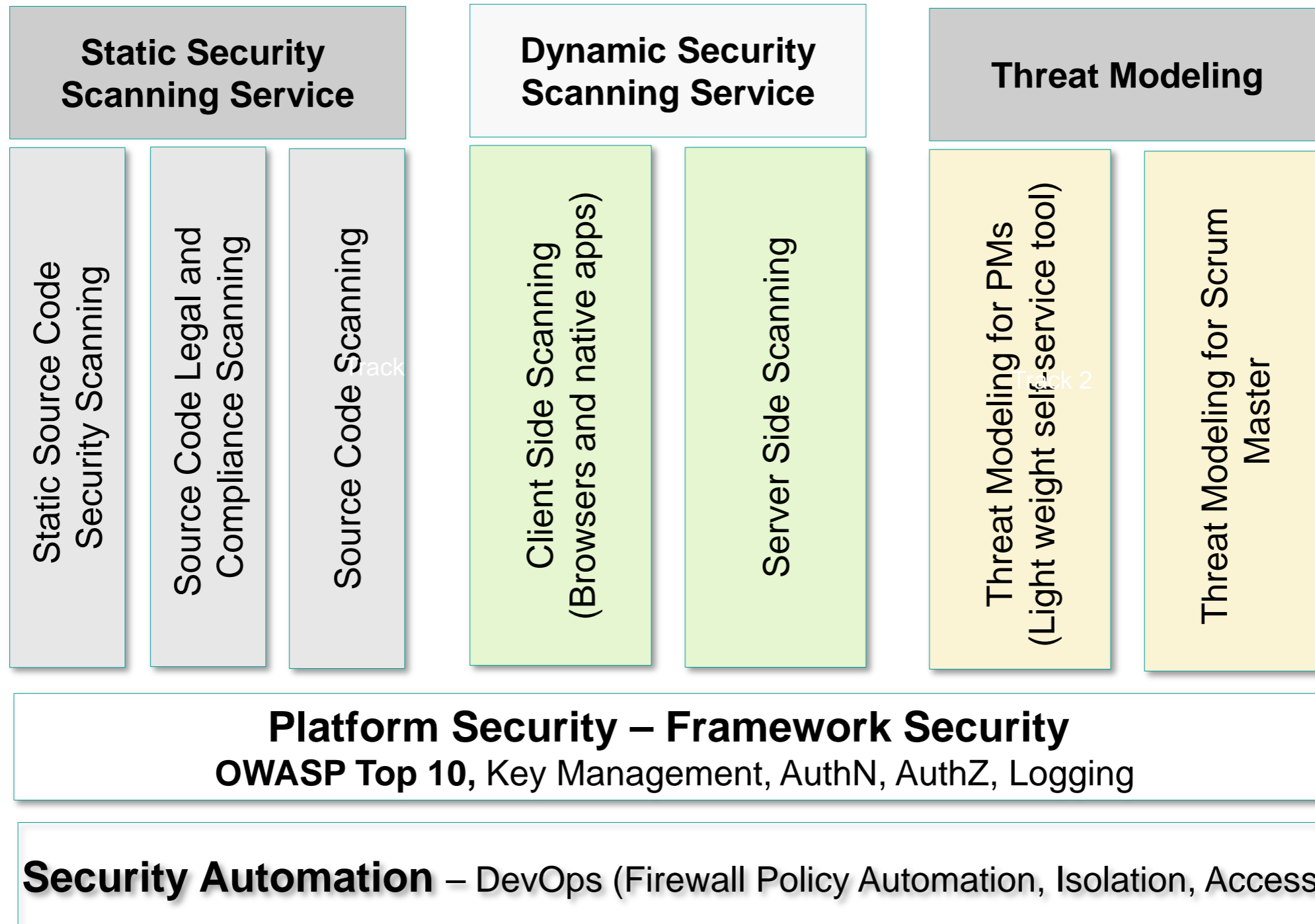
# Key Trust Issues

- Transparency & visibility from providers
- Compatible laws across jurisdictions
- Data sovereignty
- Incomplete standards
- True multi-tenant technologies & architecture
- Incomplete Identity Mgt implementations
- Consumer awareness & engagement
- *How do we gracefully “lose control” of IT and have greater confidence in its security?*

# Security as a Service

- Information Security Industry Re-invented
- Define Security as a Service – security delivered via the cloud
- Articulate solution categories within Security as a Service
- Guidance for adoption of Security as a Service
- Align with other CSA research
- Delivered as the 14<sup>th</sup> domain within CSA Guidance version 3.
- <https://cloudsecurityalliance.org/research/working-groups/secaas/>

# Security-As-A-Service - eBay





# About the Cloud Security Alliance

- Global, not-for-profit organization
- Over 33,000 individual members, 150 corporate members, 60 chapters
- Building best practices and a trusted cloud ecosystem
  - Research
  - Education
  - Certification
  - Advocacy of prudent public policy
- Innovation, Transparency, GRC, Identity

*“To promote the use of best practices for providing security assurance within Cloud Computing, and provide education on the uses of Cloud Computing to help secure all other forms of computing.”*

# Global efforts

- Europe
  - Proposed EU Data Privacy Regulation
  - EC European Cloud Partnership
- US Federal government
  - NIST
  - FedRAMP
- APAC
- Standards bodies
  - ISO SC 27
  - ITU-T FG 17
  - DMTF, PCI Standards Council



# Key CSA Contributions



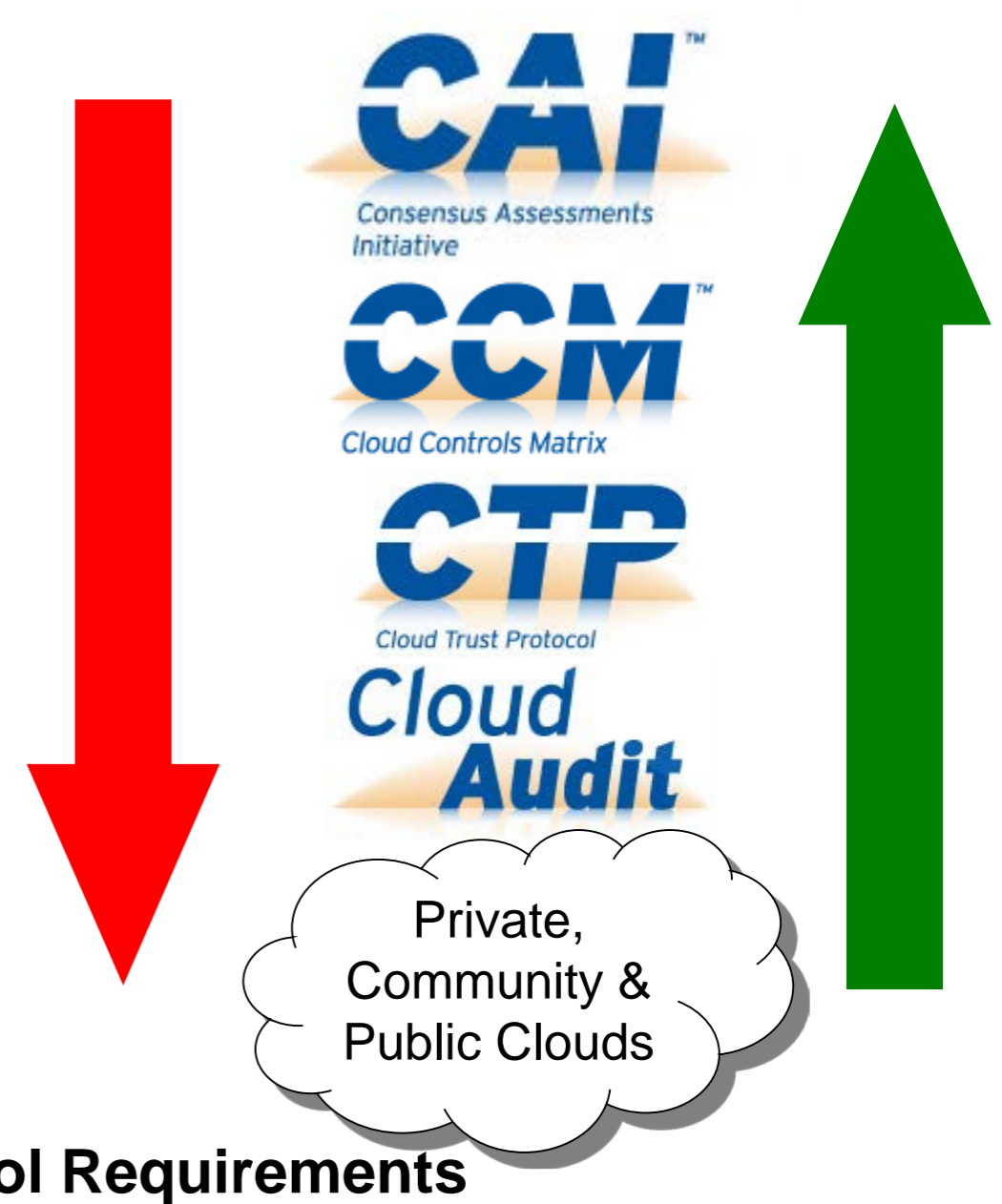
Research to Secure Mobile Endpoint Computing



# CSA GRC Stack

- Family of 4 research projects
  - Cloud Controls Matrix
  - Consensus Assessments Initiative
  - Cloud Audit
  - Cloud Trust Protocol
- Tools for governance, risk and compliance mgt
- Enabling automation and continuous monitoring of GRC

Provider Assertions



# CSA STAR Registry

- CSA STAR (Security, Trust and Assurance Registry)
- Public Registry of Cloud Provider self assessments
- Based on Consensus Assessments Initiative Questionnaire
  - Provider may substitute documented Cloud Controls Matrix compliance
- Voluntary industry action promoting transparency
- Security as a market differentiator
- [www.cloudsecurityalliance.org/star](http://www.cloudsecurityalliance.org/star)



# CCSK – Certificate of Cloud Security Knowledge

- Benchmark of cloud security competency
- Measures mastery of CSA guidance and ENISA cloud risks whitepaper
- Understand cloud issues
- Look for the CCSKs at cloud providers, consulting partners
- Online web-based examination
- [www.cloudsecurityalliance.org/certifyme](http://www.cloudsecurityalliance.org/certifyme)
- [www.cloudsecurityalliance.org/training](http://www.cloudsecurityalliance.org/training)



# CSA Mobile

## Mobile – the Portal to the Cloud

- BYOD, New OSes, application stores, mobile clouds...

## Our Initiative

- Security Guidance for Critical Areas of Focus in Mobile Computing
- Secure application stores
- Solutions for personal and business use of a common mobile device
- Cloud-based security mgt of mobile devices
- Security frameworks and architecture
- Scalable authentication and secure mobile app development
- [www.cloudsecurityalliance.org/mobile](http://www.cloudsecurityalliance.org/mobile)

# Summary

- Challenges remain
- Governments, SDOs, Industry actively addressing issues
- More tools available than you think
- Waiting not an option
- Identify IT options appropriate for specific cloud
- Leverage business drivers & risk mgt
- Be Agile!



# For more information

- Research: [www.cloudsecurityalliance.org/research/](http://www.cloudsecurityalliance.org/research/)
- CCSK Certification: [www.cloudsecurityalliance.org/certifyme](http://www.cloudsecurityalliance.org/certifyme)
- Chapters: [www.cloudsecurityalliance.org/chapters](http://www.cloudsecurityalliance.org/chapters)
- [info@cloudsecurityalliance.org](mailto:info@cloudsecurityalliance.org)
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Thank you!