



Global Efforts to Secure Cloud Computing

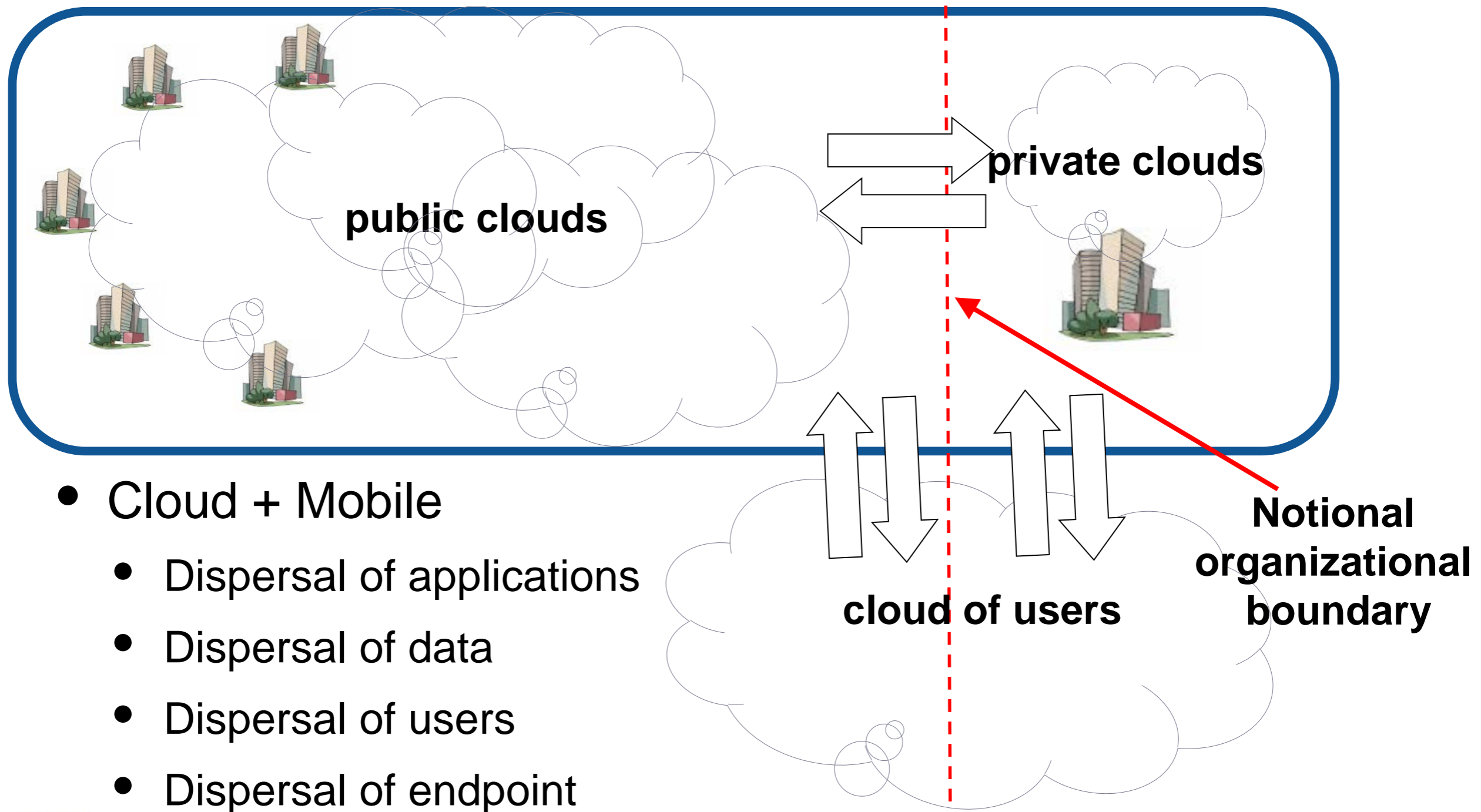
Jim Reavis
Executive Director

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



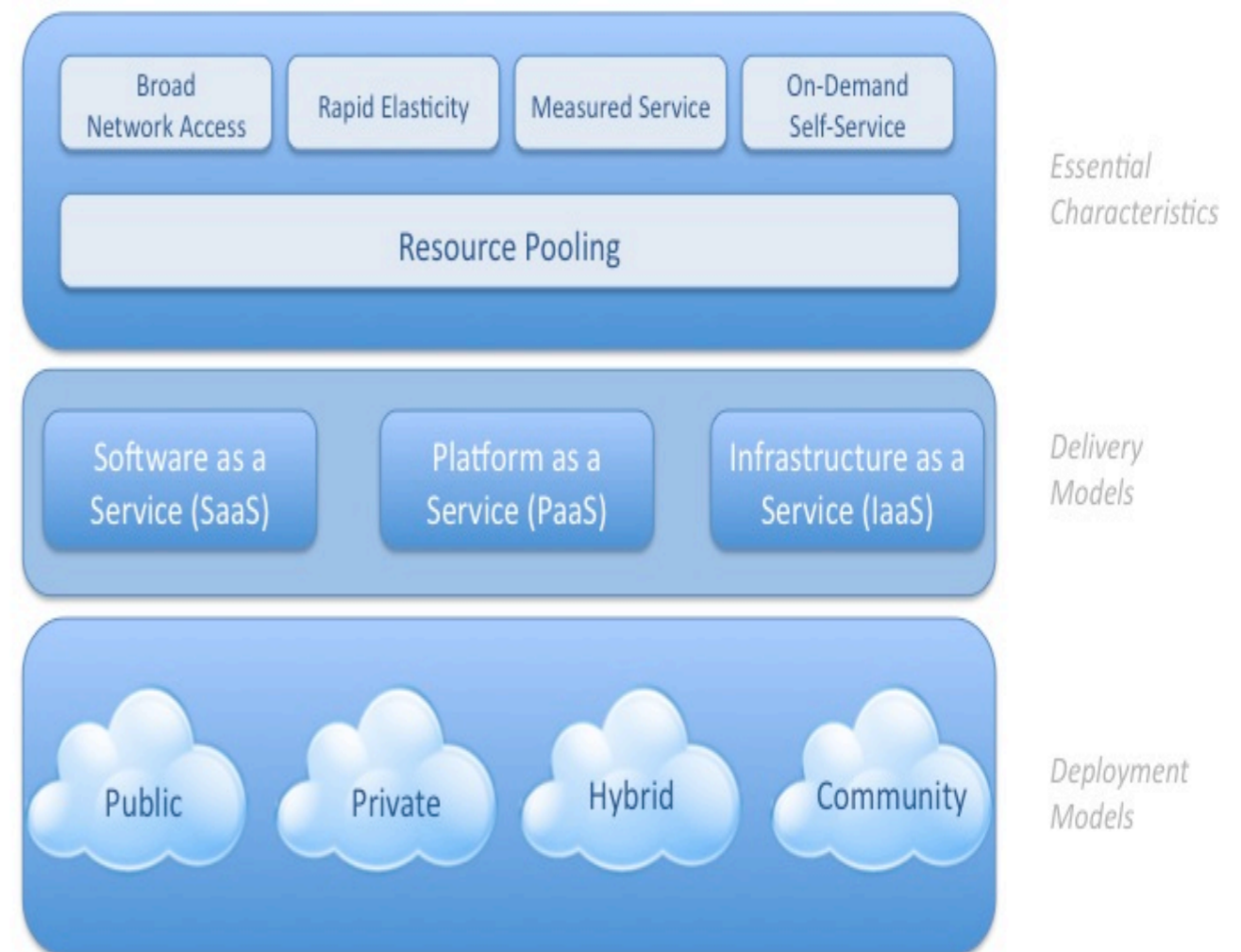
- Cloud + Mobile
 - Dispersal of applications
 - Dispersal of data
 - Dispersal of users
 - Dispersal of endpoint devices

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>



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?*

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



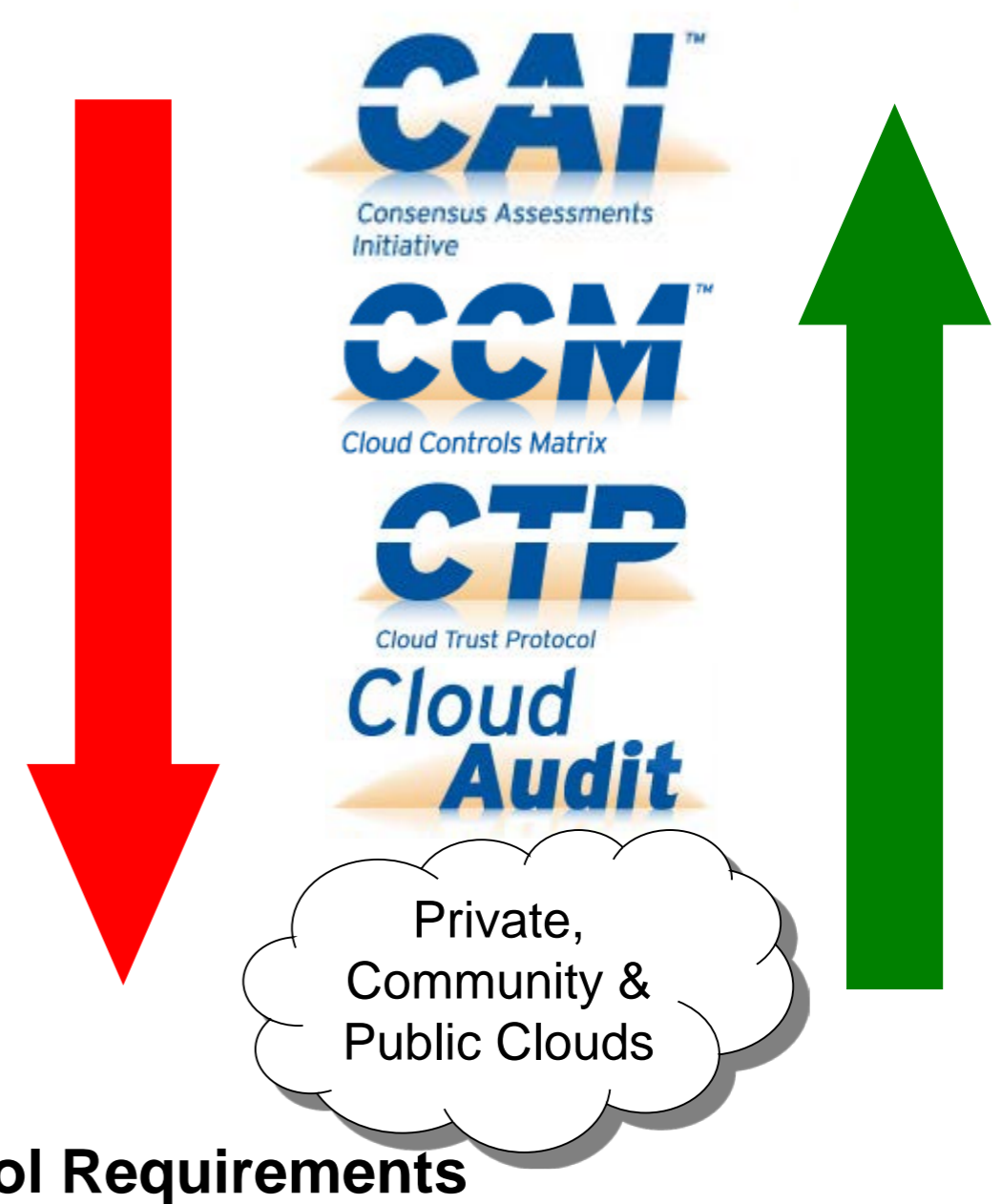
Research to Secure Mobile Endpoint Computing



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



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
- www.cloudsecurityalliance.org/training



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 14th domain within CSA Guidance version 3.
- <https://cloudsecurityalliance.org/research/working-groups/secaas/>

CSA Mobile

Mobile – the Portal to the Cloud

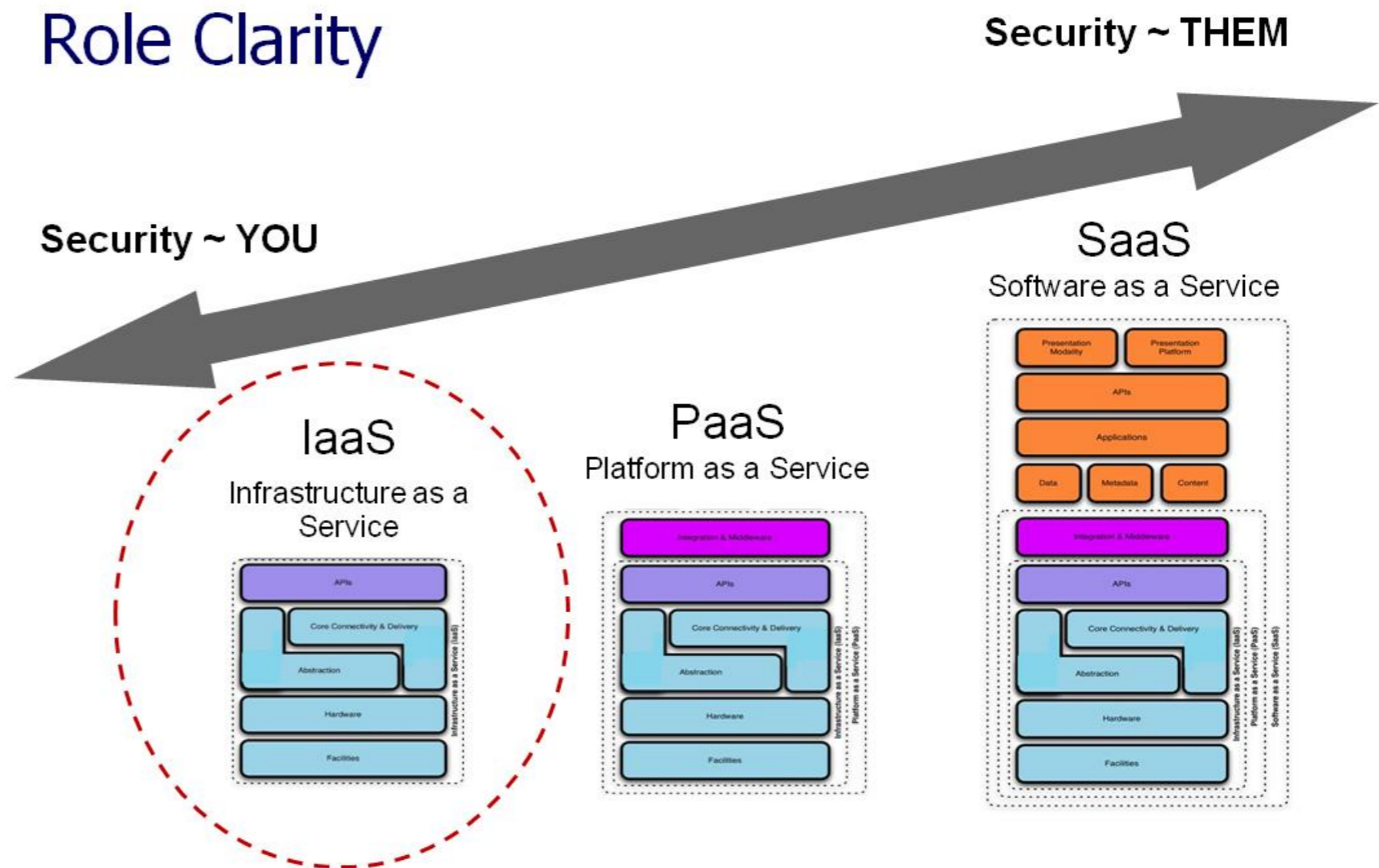
- BYOD, New OSes, application stores, mobile clouds...

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

Migrating to the Cloud

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



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/
- CCSK Certification: www.cloudsecurityalliance.org/certifyme
- Chapters: www.cloudsecurityalliance.org/chapters
- info@cloudsecurityalliance.org
- LinkedIn: www.linkedin.com/groups?gid=1864210
- Twitter: @cloudsa

Thank you!