SH*T MY CLOUD EVANGELIST SAYS...

...JUST NOT TO MY CSO

2012

State Of the Union

Cloud. Security. Alliance. Congress.

Remember:

- *Live Heckling Appreciated & Encouraged*
- *Twitter:* ***@beaker***
- *Blog: rationalsurvivability.com/blog*

Everyone's Got An Agenda

- *What's Happened*
- *What's Happening*
- *What's Coming*

What's Happened?

2008

PLATFORMS DICTATE CAPABILITY AND OPERATIONS

The Four Horsemen Of the Virtualization Security Apocalypse

- *Monolithic Security Vendor Virtual Appliances Are The Virtualization Version Of the UTM Argument*
- *Virtualized Security Can Seriously Impact Performance, Resiliency, and Scalability*
- *Replicating Many Highly-Available Security Applications and Network Topologies In Virtual Switches Don't Work*
- *Virtualizing Security Will Not Save You Money, It Will Cost You More*

2009

REALITIES OF HYBRID CLOUD, INTERESTING ATTACKS, CHANGING SECURITY MODELS

The Frogs Who Desired A King

A Virtualization & Cloud Computing Fable
Set To Interpretive Dance

- *Cloud Is Actually Something To Be Really Happy About; People Who Would Not Ordinarily Think About Security Are Doing So*
- *While We're Scrambling To Adapt, We're Turning Over Rocks & Shining Lights In Dark Crevices*
- *Sure, Bad Things Will Happen, But Really Smart People Are Engaging In Meaningful Dialog & Starting To Work On Solutions*
- *You'll Find That Much Of What You Have Works...Perhaps Just Differently; Setting Expectations Is Critical*

2010

TURTLES ALL THE WAY DOWN...

Cloudifornication

Indiscriminate Information Intercourse Involving Internet Infrastructure

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- *Security Becomes a Question Of Scale*
- *Attacks On & Using Large-Scale Public Cloud Providers Are Coming & Cloud Services Are Already Being Used For $evil*
- *Hybrid Security Solutions (and More Of Them) Are Needed*
- *Service Transparency, Assurance, & Auditability Is Key*
- *Providers Have The Chance To Make Security Better. Be Transparent*

2010

PUBLIC CLOUD PLATFORM DEPENDENCIES WILL LIBERATE OR KILL YOU

Cloudinomicon

Idempotent Infrastructure, Survivable Systems & The Return Of Information Centricity

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- *Not All Cloud Offerings Are Created Equal Or For The Same Reasons*
- *Differentiation Based Upon PLATFORM: Networking, Security, Transparency/Visibility & Forensics*
- *Apps In Clouds Can Most Definitely Be Deployed As Securely Or Even More Securely Than In An Enterprise*
- *...However, Often They Require Profound Architectural, Operational, Technology, Security and Compliance Model Changes*
- *What Makes Cloud Platforms Tick Matters In the Long Term*

2011

SECURITY AUTOMATION FTW!

Commode Computing

From Squat Pots To Cloud Bots - Better Waste Management Through Security Automation

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- *Don't Just Sit There: It Won't Automate Itself*
- *Recognize, Accept & Move On: The DMZ Design Pattern Is Dead*
- *Make Use Of Existing/New Services: You Don't Have To Do It All Youself*
- *Demand & Use Programmatic Interfaces From Security Solutions*
- *Encourage Network/Security Wonks To Use Tools/Learn To Program/Use Automation*
- *Squash Audit Inefficiency & Maximize Efficacy*
- *DevOps + Security Need To Make Nice*
- *AppSec and SDLC Are Huge*
- *Automate Data Protection*

2012

KEEPIN

CHALLENGES AND CHANGING LANDSCAPE

The 7 Dirty Words Of Cloud Security

- *Scalability*
- *Portability*
- *Fungibility*
- *Compliance*
- *Cost*
- *Manageability*
- *Trust*

2012

DEVOPS, CONTINUAL DEPLOYMENT, PLATFORMS

Sh*t My Cloud Evangelist Says

...Just Not To My CSO

- *[Missing] Instrumentation That Is Inclusive Of Security*
- *[Missing] Intelligence & Context Shared Between Infrastructure & Applistructure Layers*
- *[Missing] Maturity Of "Automation Mechanics" and Frameworks*
- *[Missing] Standard Interfaces, Precise Syntactical Representation Of Elemental Security Constructs*
- *[Missing] An Operational Methodology That Ensures A Common Understanding Of Outcomes & "Agile" Culture In General*
- *[Missing] Sanitary Application Security Practices*

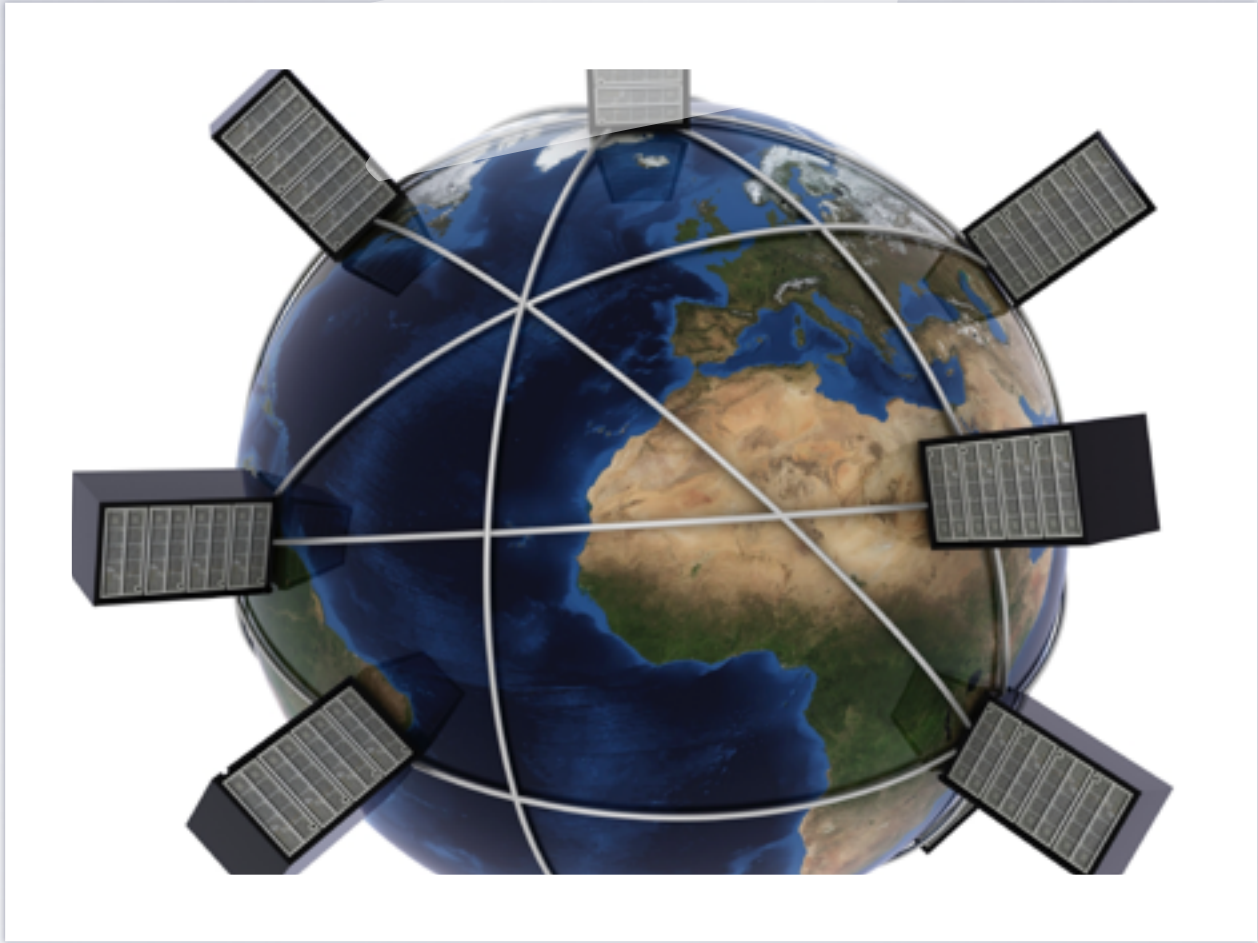
What's Happening?

Mobility, Internet Of Things & Consumerization

New Application Architecture & Platforms

APIs

DevOps



Programmatic (Virtualized) Networking & SDN

Advanced Adversaries & Tactics

What's Coming

Security Analytics & Intelligence

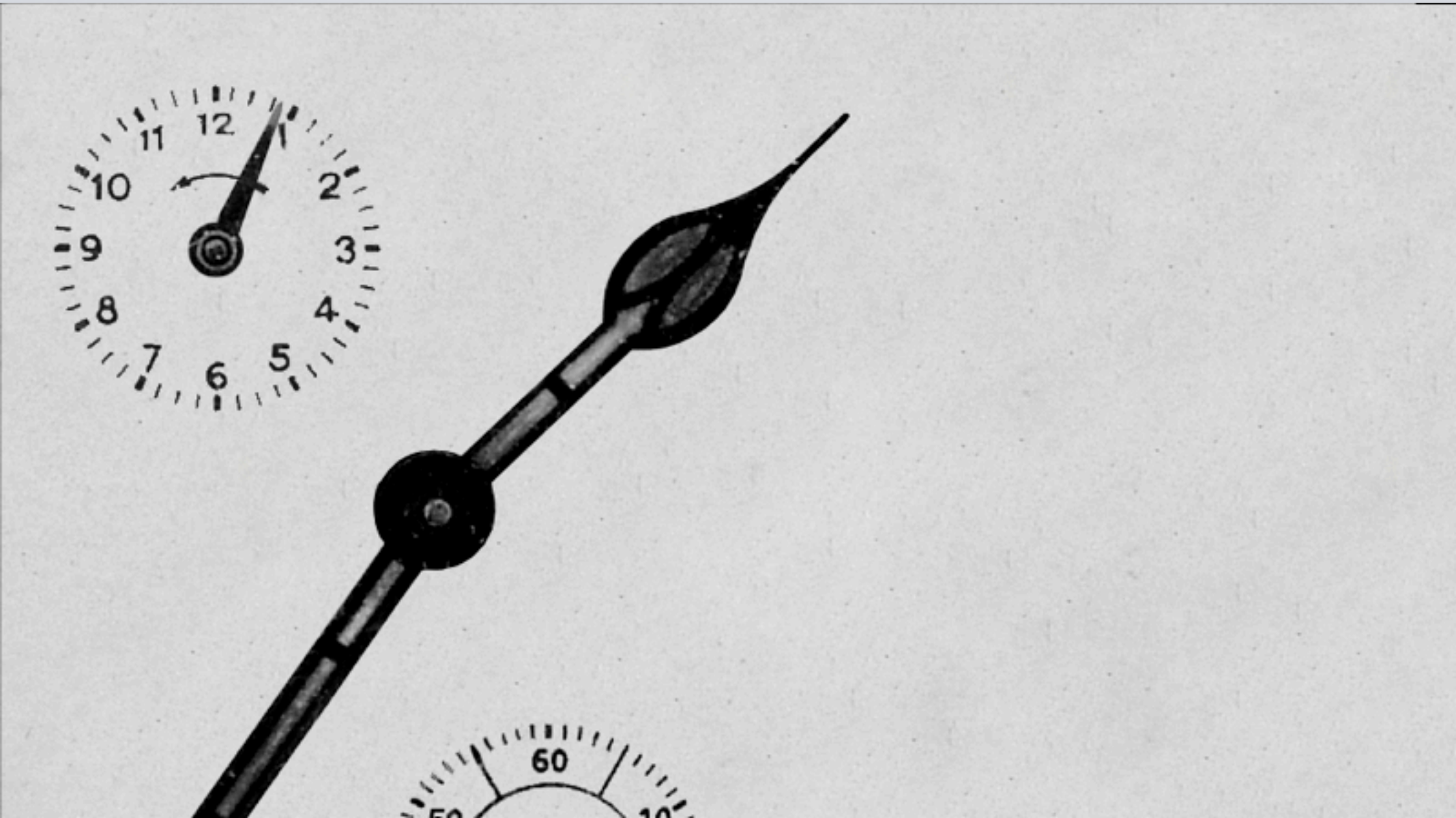
Volume.Velocity. Variety. Veracity

AppSec Reloaded
APIs. REST. PaaS. DevOps.

Security As A Service 2.0
"Cloud." SDN. Virtualized.

Offensive Security
Cyber. Cyber. Cyber. Cyber...

Time's Up...



In Summary

- *Public Clouds Are Marching Onward; Platforms Are Maturing...Getting Simpler to Deploy & Operate At The Platform Level But Have Heavy Impact On Application Architecture*
- *Private Clouds Are Getting More Complex (As Expected) and the Use Case Differences Between the Two Are Obvious; More Exposed Infrastruture-connected Knobs & Dials*
- *Hybrid Clouds Are Emerging, Hypervisors Commoditized And Orchestration/Provisioning Systems Differentiate As Ecosystem & Corporate Interests Emerge*
- *Mobility (workload and consuming devices) and APIs are everywhere*
- *Network Models Are Being Abstracted Even Further (Physical > Virtual > Overlay) and That Creates More Simplexity*
- *Application and Information "ETL Sprawl" Is A Force To Be Reckoned With*
- ***Security Is Getting Much More Interesting***

Cloud Security Alliance Congress

Let's Not Act Like Them...