

Project Skylab:

Helping You Get Your Cloud On

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whoami

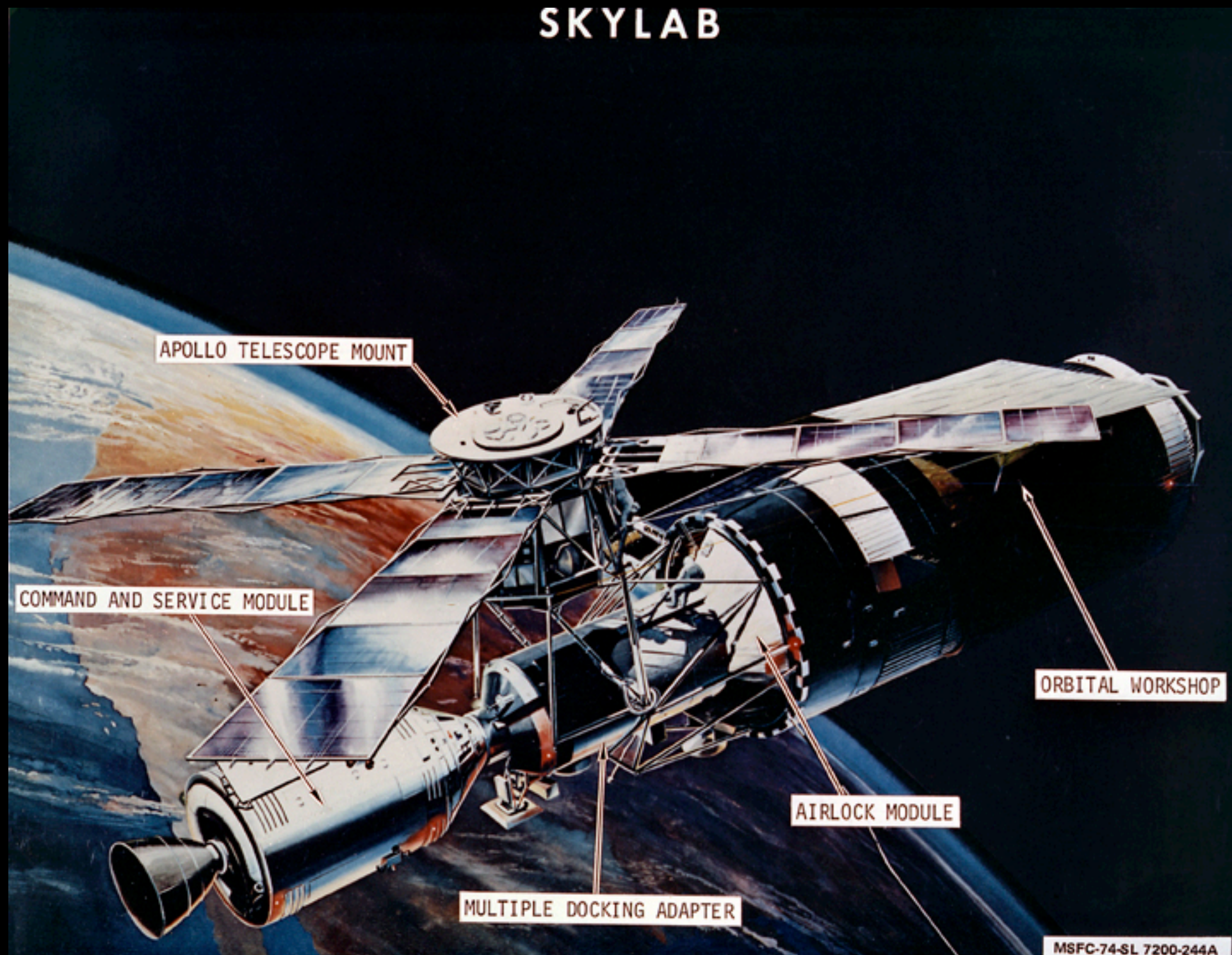
- Global Tech Security Lead @F500
 - UNIX, Pen-Test, Incident Response
- Other blog: SecurityWannabe.com
- EuroTrash Security Podcast (Full crew here!)
- More @ cloudsecurity.org/about

3 Questions For You

- Do you use cloud storage?
- Have you booted a cloud compute instance in a public cloud?
- Have you played with cloud network overlays?

The Theory Bit

Prior Art



Motivation

- Learn
- Get Practical
- Home Server RIP
- Geekin' Out
- Community Project

Use Case: Pen-test target practice

- Testing new/updated tools
- Software NIDS/NIPS testing
- Exploit testing



Use cases

Use Case: Assurance Testing

- Package Golden Image as AMI
- Upload, launch [1...n]
- Apply patches/
workarounds & run tests



Use cases

Public Cloud Cloud Networking 101

- Black Box
- One NIC Per VM
- Limited Routing
- Basic Firewalls
- Think Different

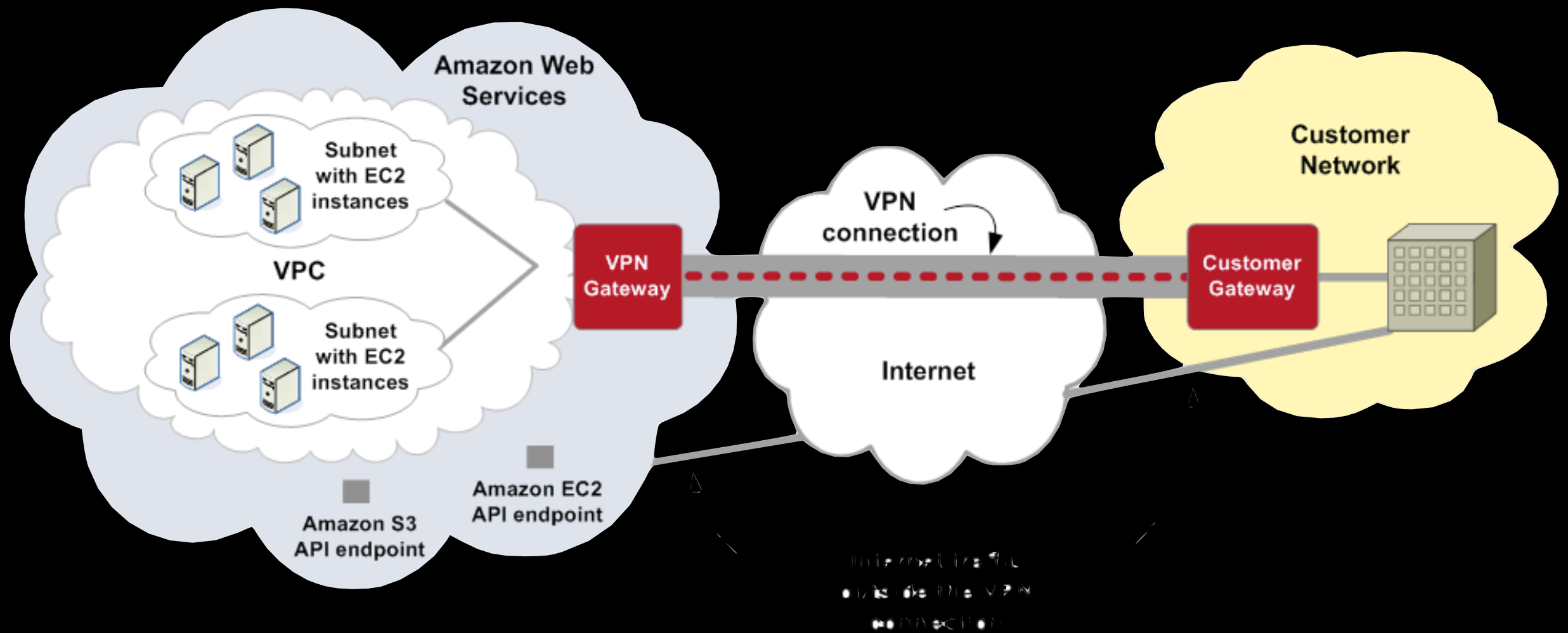


Use cases

Overlay Networks

An overlay network is a computer network which is built on top of another network. Nodes in the overlay can be thought of as being connected by virtual or logical links, each of which corresponds to a path, perhaps through many physical links, in the underlying network

Amazon VPC



Amazon recently opened up their Virtual Private Cloud, currently beta

This is a cloud provider specific network overlay

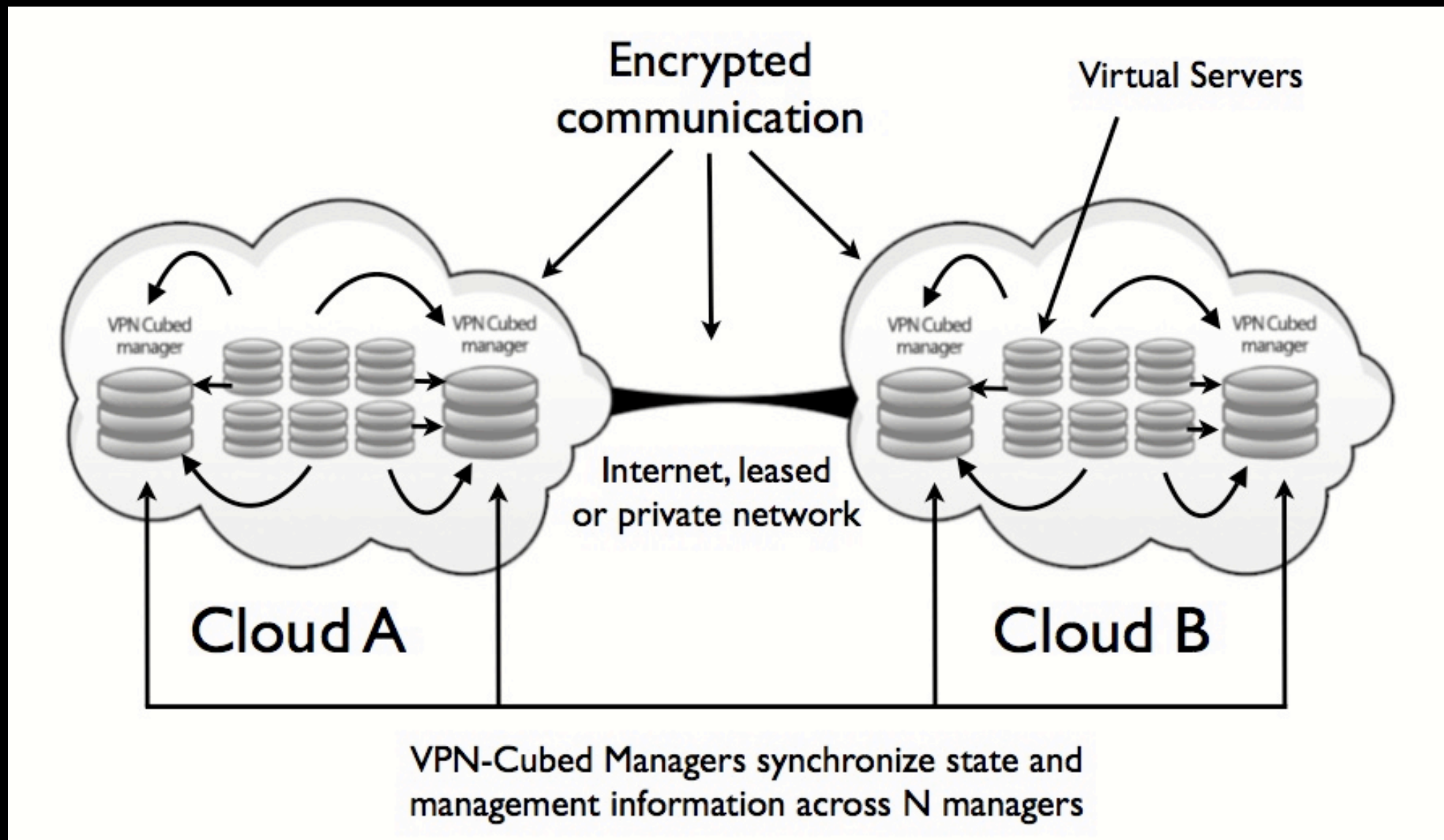
Hook up your existing network. Software VPN on your side, Hardware on their side.

All traffic traverses the customer gateway – no Internet access from within VPC

Can use existing AMIs and Elastic Block Storage

Amazon rapidly innovating – keep up with release details!

VPNCubed



The first overlay network service for the cloud market.

Based on OpenVPN, uses CohesiveFT created VMs as cloud VPN endpoints

Supports multicast.

Cross connect clouds, extend your home/business network

Supports Amazon EC2 and gogrid

Gen I Requirements

Cheap!

x86 Only

Scriptable

On-demand

Pay As You Go

Simulate 2 Subnets

Fast startup/shutdown

Use existing public & paid AMIs

Connect from anywhere (Securely!)



The Practical Bit



(wakey, wakey)


DEMO


Futures

Beyond x86
Multi-provider
Documentation
VMware Support
Enhanced routing
Explore ecosystem
Improved Automation
Define more Use Cases
More Security Related AMIs

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Written on September 21, 2009 by [Craig Balding](#)

Slides from my BruCon Talk: "The Belgian Beer Lovers Guide to Cloud Security"

I've received some requests for the slides I presented at [BruCON](#), so here they are. As the slides are mostly devoid of text, I've included the speaker notes. The notes are not polished, hence treat accordingly ;-). To view in "Full Screen" mode click on the icon at the bottom right of the slideshare embed below and click "Fit to Height" to see the notes.

P.S If you weren't at BruCON, you missed an excellent security conference - strong content, excellent organisation and facilities, friendly crowd. Thanks to Benny & crew for being excellent hosts!

Latest

[Introducing the Skylab Community Project](#)

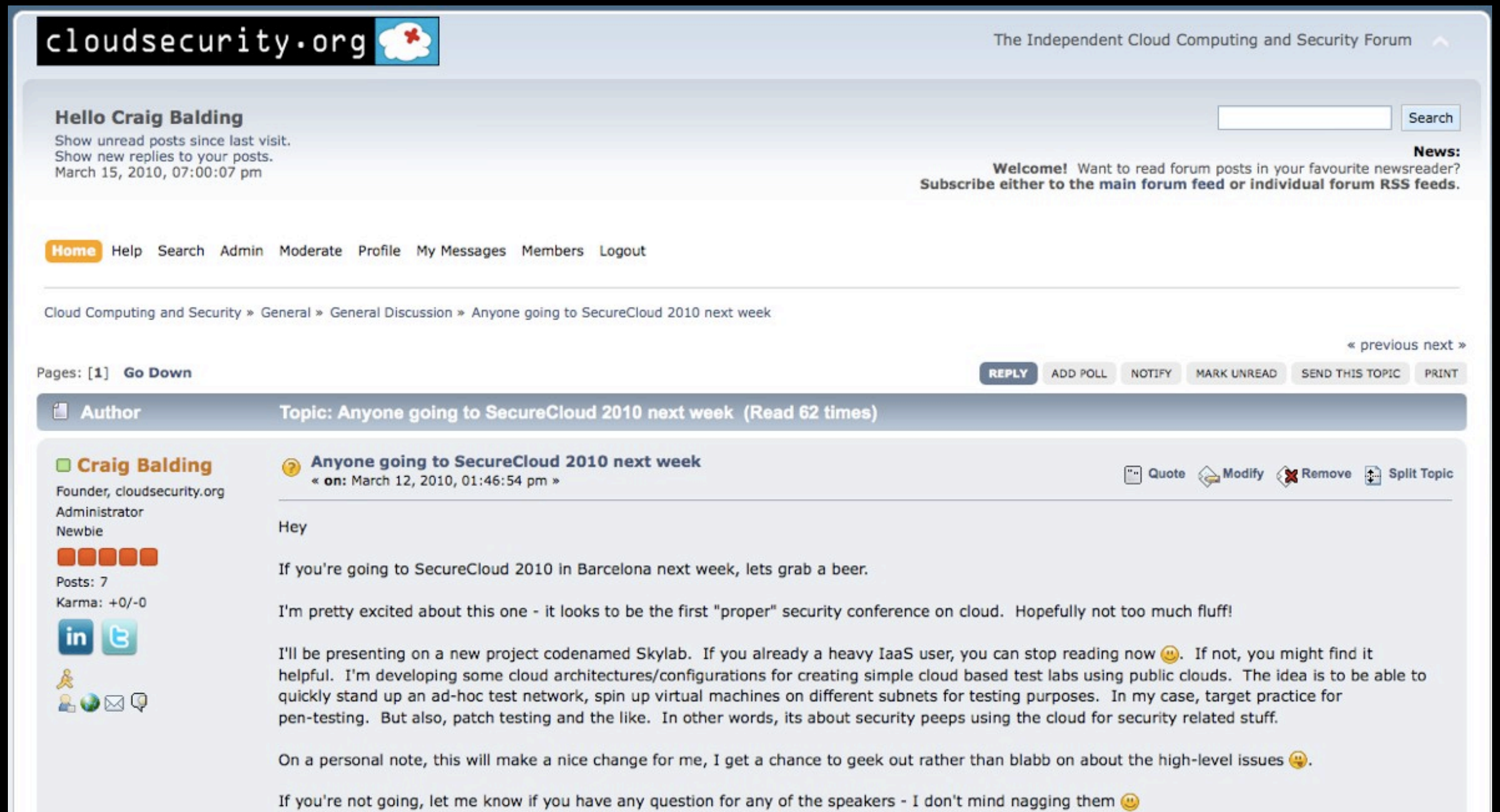
[Cloud Computing and Security Conference: SecureCloud 2010](#)

[Cloud Security Threats Survey](#)

[The Global Security Challenge: Money and Mentorship for Radical Cloud Security Ideas](#)

[Are You Trying to Pin the Tail on the Cloud Donkey?](#)

Project Updates



Recently created the cloud security forum – an independent hang out for IT and IT security people to discuss cloud security issues

Topic areas out as per CSA security domains

There's a dedicated forum for Skylab which I'll be posting to with progress updates.

If you have suggestions for Skylab, please share with me there.

Credits

Questions?

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