### Project Skylab: Helping You Get Your Cloud On

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### Disclaimer

The views and opinions expressed here are those of Craig Balding only and in no way represent the views, positions or opinions expressed or implied - of my employer or anyone else.

### # 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 Case: Assurance Testing

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

# Public Cloud Cloud Networking 101

- Black Box
- One NIC PerVM
- Limited Routing
- Basic Firewalls
- Think Different



### 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)



### Futures

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

### cloudsecurity.org



### 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 Securty Ideas

Are You Trying to Pin the Tail on the Cloud Donkey?

### Project Updates

loudsecuri	ty.org 🥂	The Independent Cloud Computing and Security Forum
Hello Craig Balding Show unread posts since last Show new replies to your post March 15, 2010, 07:00:07 pt	sts.	Search New: Welcome! Want to read forum posts in your favourite newsreade cribe either to the main forum feed or individual forum RSS feed
Home Help Search Adm	in Moderate Profile My Messages Members Logout	
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Author	Topic: Anyone going to SecureCloud 2010 next week (Read 62 times)	
Craig Balding Founder, cloudsecurity.org Administrator Newbie	Anyone going to SecureCloud 2010 next week « on: March 12, 2010, 01:46:54 pm »	🛅 Quote 🍙 Modify 🏾 🎘 Remove 💽 Split Top
	Неу	
Posts: 7	If you're going to SecureCloud 2010 in Barcelona next week, lets grab a beer.	
Karma: +0/-0	I'm pretty excited about this one - it looks to be the first "proper" security conference on cloud. Hopefully not too much fluff!	
	I'll be presenting on a new project codenamed Skylab. If you already a heavy IaaS user, you can stop reading now . If not, you might find it helpful. I'm developing some cloud architectures/configurations for creating simple cloud based test labs using public clouds. The idea is to be able to quickly stand up an ad-hoc test network, spin up virtual machines on different subnets for testing purposes. In my case, target practice for pen-testing. But also, patch testing and the like. In other words, its about security peeps using the cloud for security related stuff.	
	On a personal note, this will make a nice change for me, I get a chance to geek out rather than blabb on about the high-level issues 🤑.	
	If you're not going, let me know if you have any question for any of the speakers - I don't	

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



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