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Security Now!!!!

What 10 Themes You Need to Discuss with Your Director or CIO to Secure Your Communications on the Mainframe

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Introduction

- Work for IBM for 17 years
- IBM Consultant for 11 years
- Working with customers in different business meeting their Network and Security needs

2014 was ……..

The Year of the HACK

2014 a Scary Look Back

- Hacking has gone into overdrive
- 2014 have seen an increase in every type of hacking
  - Denial of Service
  - Criminal
  - Hacktivism
  - Terrorism
  - State Sponsored Attacks

Some Highlights

- Major US Retail Outlets
  - Point of Sales terminals Targeted
- US Banks
  - State Sponsored
  - 76 Million US Households effected
- SONY hack
  - Possibly State Sponsored
  - Hackers had months in their network
  - Demands shut down of a movie
    - So not all bad, I mean did you see it

Some you may not have hear of

- Foreign Nuclear Plant
  - Server administrator discovers access to servers on the site
- Government
  - Homeland Security
    - Web Portal Breach exposes US contractors
  - Immigration Services
    - POS terminals have been breached
  - Justices Services
    - DDOS attacks
- MANY MANY MORE
  - http://hackmageddon.com/2014-cyber-attacks-timeline-master-index/

Clarion Call

- The US Government is spending more on Cybersecurity then many small governments (> 100 Billion)
- However more is needed
- We are the ones that stand between these hackers and our customers

The Problem though

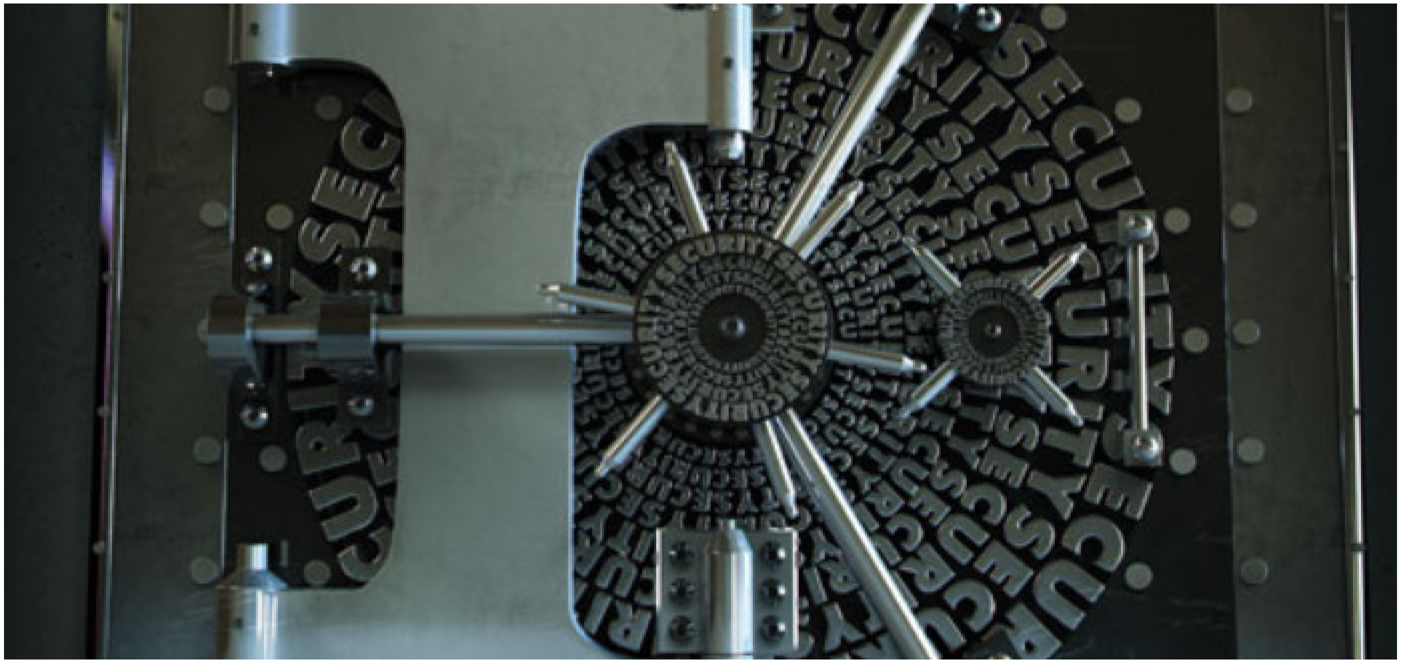
- Your CIO does not take this seriously
- Missing the forest for the trees
- Does not see the mainframe as a priority
- Sounds familiar?

The Reason Why You came here

- I am going to giving you the top 10 reasons I have heard from directors why security is not an issue
- And what I have told them to change their stance and join the fight

Excuse 1

- The Mainframe is already the most secure piece of the environment



So the Truth

- The Mainframe is the most secur**able** piece of environment
- There is a big difference between secure and securable
- While z/OS meets the highest standards in security if you do not enable those securities it does not do you any good.
  - The equivalent of locking your door but leaving all your windows open with only the screen to protect it

Excuse 2

- Security is handled by
  - The security team
  - By our Third Party Vendor

So the Truth

- First lets take the Third Party part of this first.
  - Lawsuit involving Target Breach
    - For a long time there has been a legal question of Liability where it comes to these types of breaches
    - Target attempted to get the lawsuit thrown out against them since Target's lawyer claimed that a third-party firm handles all credit and debit card payments and therefore the company had no obligation to the banks.
    - The judge threw out that argument stating that Target had enough warnings which warrant the case to continue
      - "Plaintiffs have plausibly alleged that Target's actions and inactions - disabling certain security features and failing to heed the warning signs as the hackers' attack began - caused foreseeable harm to plaintiffs," Magnuson wrote in his order.
    - Even if Target is not held liable, this was a land mark decision in addressing companies responsibility

So the Truth

- This leads me into my next point about internal teams
- Security is spread across the entire z/OS product
  - RACF
  - Communication Server
  - Subsystems: DB2, IMS, CICS, WMQ
  - ETC
- Impossible for any one group to know
- Security now more then ever is:

EVERYONES REPONSIBILTY

Excuse 3

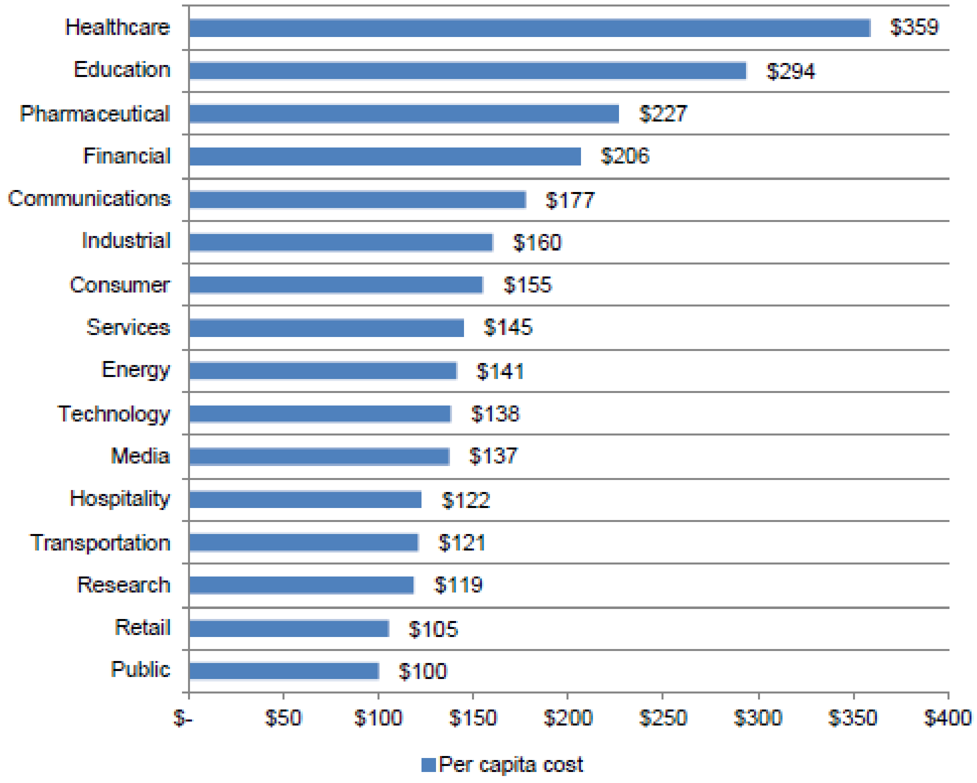
- Security Costs Money

So the truth

- The costs of not securing your business are so much bigger.
  - These costs are rising exponentially
  - Legal liability expanding (see excuse 2)
  - Regulations are starting to catch up with what is going on

So the truth

- Costs per Industry
  - http://www-935.ibm.com/services/us/en/it-services/security-services/cost-of-data-breach/



Excuse 4

- We don’t have the time to do security

So The Truth

- We are all driven by deadlines granted, but if you put something out that lacks security you will be hacked
- Nothing is worse then putting a product or website up and have it full of Security Issues from a visibility standard
  - This can lead in a lack of trust
  - Can also lead to falling stock prices
  - Regulations violations can be a massive liability

Excuse 5

- Everyone on the team can be trusted

So The Truth

- The first rule of security
  - Don’t Trust Anyone
- Criminal enterprises have been known to infiltrate technical teams
- Anyone can be compromised
- Even if you trust everyone now situations changes
  - Disgruntled employees
  - Layoffs occur
  - Healthcare Bills
  - etc

Excuse 6

- Who would want to attack us??

So The Truth

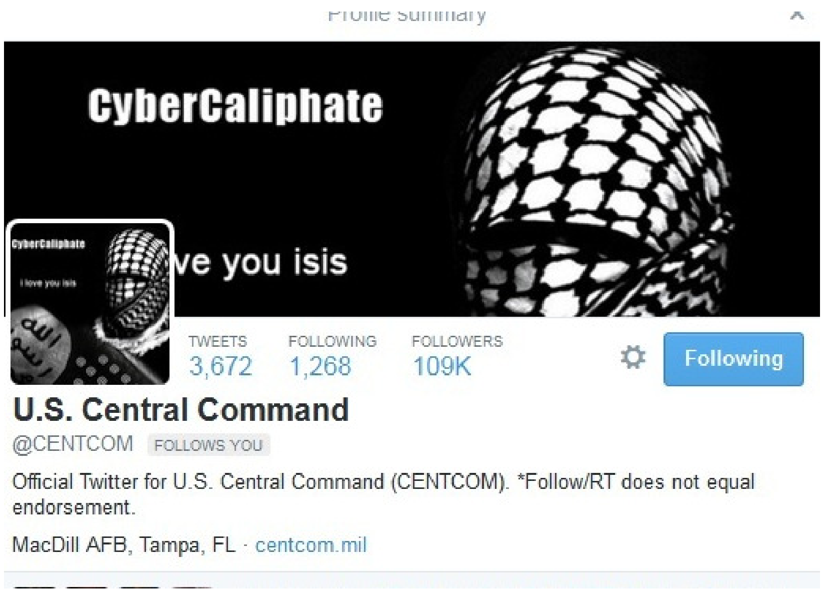
- If you have anything of value you will be attacked
- Everyone has value even if its only storage space
- Hacktivists look to create Anarchy
  - Denial of Service attacks
  - Attempt to breakdown civil services
  - Take down social media services
- US Weather Systems were hacked into

Excuse 7

- Hackers are nothing but those snot nosed little millennials in their parents basement.

So the Truth

- Hackers today are way more sophisticated then what their public persona shows
  - State Sponsored Hackers
  - Criminal Organizations
  - Hactivist Organizations
  - Terrorists
- These groups have real financing and are putting it all into getting through networks like the one you have



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MacDill AFB, Tampa, FL · centcom.mil

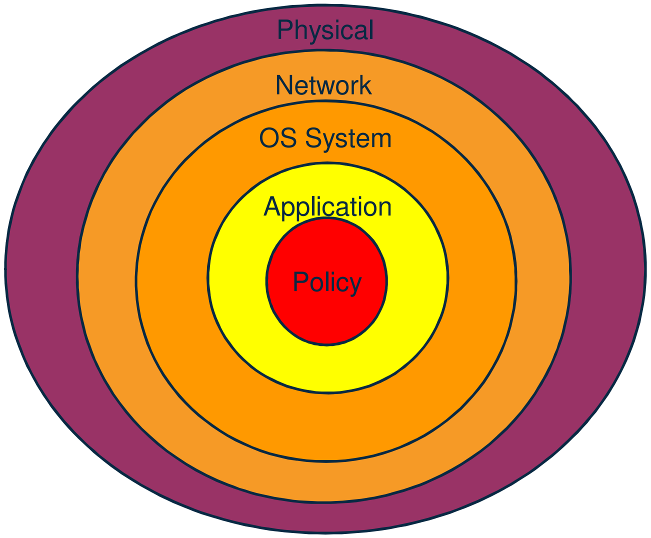
Excuse 8

- We never worried about designing security in the past

IBM
DS43
UNIVERSITY OF BRITISH COLUMBIA COMPUTING CENTRE - DEVICE: DS43 TASK: 245
MTS
WHEN PEOPLE ARE WAITING PLEASE KEEP SESSIONS AS SHORT AS POSSIBLE.
714

So the Truth

- The world has changed
- 40 years ago we could depend on physical security however now more needs to be done.



Excuse 9

- We don't need to encrypt data internally

So the Truth

- 70% of all breaches have an internal component
- Things being transferred in the clear across your networks can see everything
  - User ID
  - Passwords
  - PI info
- Example Sony Hack
  - While there was an external component there are too many systems affected that point to some type of insider

Excuse 10

- WHATEVER ELSE HE/SHE MIGHT COME UP WITH

So the Truth

- We are under siege!!!!

The Security Perimeter is now at the End Point

So What Should be Done

- Once you have convinced your boss of the need here are some of the things you can do
  - Review Your RACF Profiles
  - Go through your Subsystems
  - Look at your network setup
  - z/OS Health Checker
  - Is your organization registered with the Security Portal
    - http://www-03.ibm.com/systems/z/solutions/security_subintegrity.html

What can be done to help

- Get a manager for your RACF database
  - zSecure
  - Other Third party products
- Bring in qualified external resources to review
  - RACF Database
  - z/OS UNIX
  - Storage
  - Network Security Design
  - Subsystem Setup
  - etc
- Make sure they review any necessary regulations that pertain to your industry

For more information

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