Cyber-Threat Intelligence Sharing –

Speeding up Incident Response



X-Congress Bogotá, Colombia – Oct. 2016

Financial Services ISAC

A Brief Overview

- Nonprofit private sector initiative since 1999
- Designed/developed/owned by financial services industry
- Sharing information globally (members in ~40 countries w/ a user base in >70 countries)
- Risk reduction through sharing cyber-threat intelligence

Ca. 7,000 members worldwide

Enabling security information sharing and collaboration at all levels

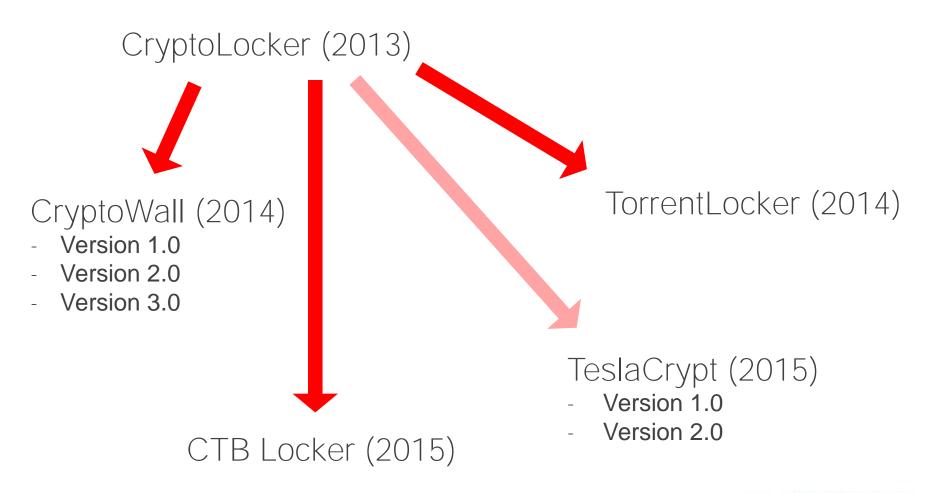


Threats Spread Globally

E.g. Retefe Banking Trojan



Threats Evolve over Time





Timeline of Security Information

Types of Relevant Information

Tactical

How & What

/ Hours

MD5 hashes,

Operational

When, Where, How

Tactics,

Strategic

Who & / Months Why

Intent, goals

Time Criticality

Weeks

CERT & SOC

Network Defense, Configurations, Tools

Vulnerability Management

Risk Matrix, Vulnerability Assessment

Senior Stakeholders

Risk Matrix & Risk Registry



The Need for Info Sharing is Increasing

No Financial Firm is Capable of Facing all Threats Alone

TLP Green

Increasing Attack Volume, Complexity

Rising **Breach** Costs

Growing Regulatory **Pressures**

Exploding Threat Indicator "Noise"

Cost of a data breach: 58 cents per record, says Verizon

Summary: The financial hit due to cyberatizatio appears to be wildly exercisted. Instead of Easts per record, actual insurance claims show a cost more like 58 cents per record, according to Verlant's latest Data Breach Investigations Report.

By Larry Digital for Between the Same | April 16, 2015 - 54-01 GHT (21:01 HDT) Die Per/Differ alles Street Kleen (darfer 12) versallerter beseit

The cost per record of a data breach is about \$8 cents per record, well below the widely accepted previous estimate of about \$20; per record, according to triercon's 2015 Data Breach Investigation

Verbor's calculation was done in conjunction with NetDilgenos, which appropries data from cyber insurance carriers. The data from Verson and NetDrigence reflect actual cyber hability claims. The Data Sreach Investigations Report (DSR), released arrivally based on data provided by Verticon, its customers and partners, examined DMI insurance claims related to less of payment cards, personal

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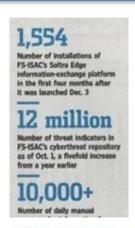


bersecurity costs doubling

ar on computer security, was recently hacked.



FACT SHEET: Executive Order Promoting Private Sector Cybersecurity Information Sharing





The Incident Response Process

Before -> During -> After

...so much better with friends

- What processes / practices do you follow?
- Collaborative staff training & exchange
- Preparing collective tools

- What is this thing?
- We are seeing a thing, this is what we think it is
- What are you doing about this?
- This is what we are doing about this
- Who did this?

- How can we improve our response speed?
- Whom should we have spoken to?
- How can we get these guys / stop this happening again?

Preparation

Detection & Analysis

Containment, Eradication, & Recovery (Respond)

Post-Incident Activity

Follow-Up

Learn

Wash, rinse, repeat



So Why Share?

More Better Information, Faster



My first incident response team

- More effective use of limited resources
- New ideas
- Error checking
- Tying into existing initiatives / countermeasures
- Learning from others and vice versa
- Operational support when needed



A Few Thoughts on Preparation

Improve Readiness Through Collaboration

- War gaming / simulations / collective red teaming
- Developing trust networks
- Common policy framework development
- Collective approach to external stakeholders (law enforcement, CERT, etc.)
- Common standards adoption e.g. STIX/TAXII
- Common platforms and channels portals, mailing lists, etc.
- Clearly defined communications flows
- After-action reports and briefings
- Collective sell to senior management

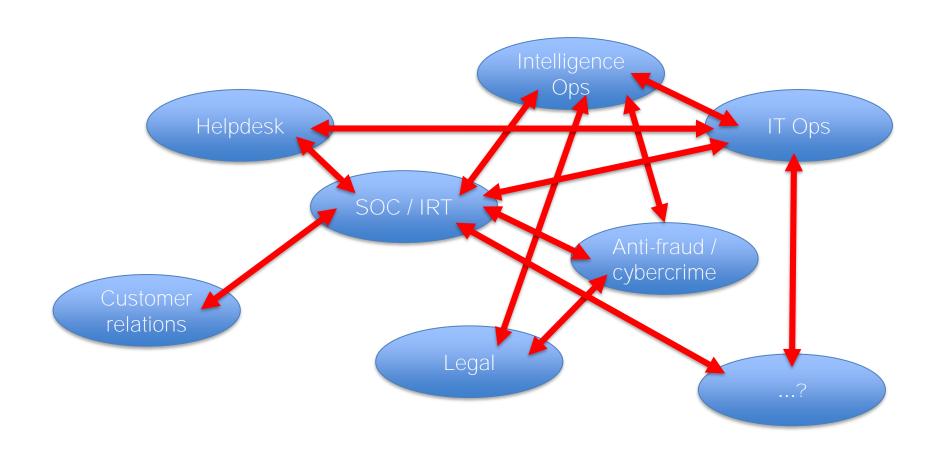


The intel team at work



Where Does Everyone Fit?

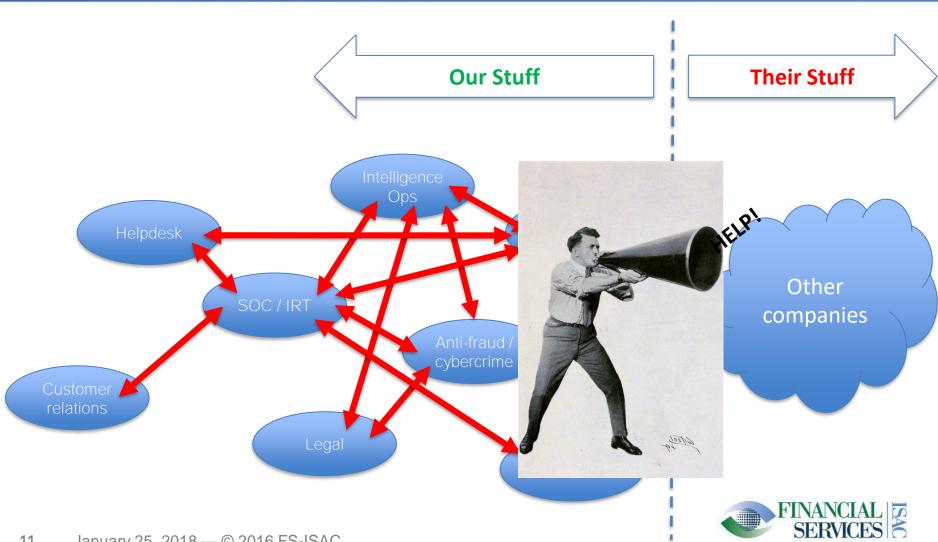
Incident Response as a Capability, not just a Team





...Globally?

It's Not Just You



Collaboration Still is Difficult

Everybody Wants it, but...

Most cooperation takes place at preparation and post-incident levels.

During-incident cooperation mainly via informal channels / small circles of trust.

That's just fine.

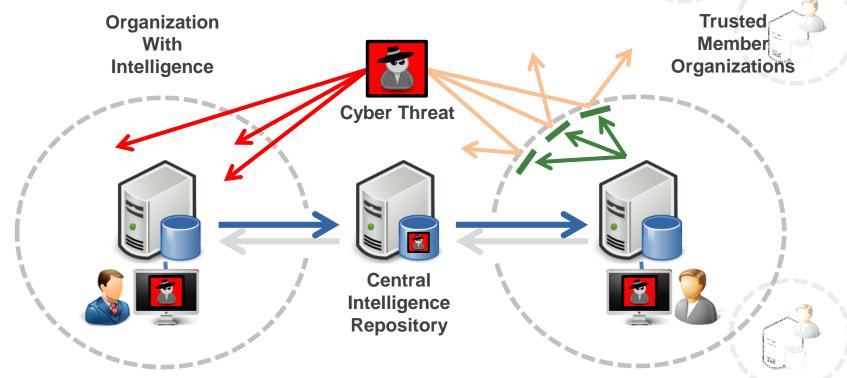


Automation and Intel / IR

Maturing An Intelligence Ecosystem

One Firm's Intelligence becomes an Entire Community's Defense







Some Concerns?

Legal and Regulatory issues

- Can we be sued?
- Data protection rules
- Anti-competition rules

Effectiveness Issues

How to ensure we don't step on each other's toes?

Trust Challenges

- Can we rely on counterparts?
- Is our data safe with them?
- Data quality
- Confidentiality

Business Issues

How do we not look stupid while it's happening?



Thoughts on Improvement?

...?



Thank You!

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