

Are You Prepared to Be Shut Down Indefinitely?

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Are You Prepared to be Shut Down Indefinitely?

Keith Buelta, Director of IT, A-1 Roof Truss

Scott Love, Special Agent, FBI

Mike Ruede, EVP & COO, A-1 Roof Truss

Summary

- Company infrastructure
- What happened
- Company response
- Company changes
- Costs

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A-1 Roof Truss

- Opened in 1977 in West Palm Beach, Florida
- Mission
 - Champion an environment of teamwork dedicated to our customers with exceptional workmanship, service and integrity. We are committed to being the premier truss supplier in southeastern United States.
- Vision
 - To be the preferred trade partner for all builders in the southeastern United States.

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Company Infrastructure

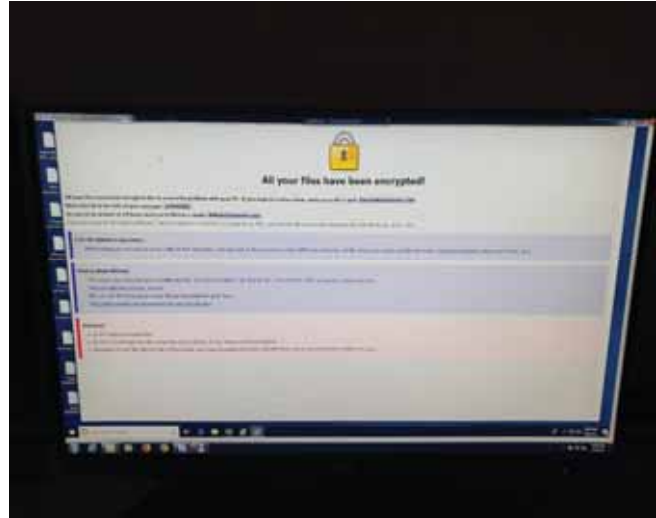
- Firewall with global IP blocking
- Anti-virus on servers and workstations
- Terminal server: port 3389 open
- Local backup: external hard drive swapped out bi-weekly
- Local exchange server



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What Happened

- Owner was out of country needed access to email
- Firewalls global IP blocking disabled to give access to email
- Tuesday 3:00 am attack occurred
- Criminals gained access using open port 3389 and delivered the “payload”



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What Happened

- Over 5 million files encrypted
- Virus ran for 4 hours uninterrupted
- 5 servers and 19 workstations were destroyed
- All local backups were deleted
- 6:00 am - first contact with virus

.ind.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 4:54 AM	ARROW File	2 KB
ADR_ColdStart.txt.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 4:54 AM	ARROW File	1 KB
eula.1033.txt.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 5:11 AM	ARROW File	4 KB
eula.1033.txt.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 5:11 AM	ARROW File	16 KB
eula.1036.txt.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 5:11 AM	ARROW File	13 KB
eula.1040.txt.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 5:11 AM	ARROW File	14 KB
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eula.3082.txt.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 5:11 AM	ARROW File	13 KB
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install.exe.1028.dll.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 4:56 AM	ARROW File	75 KB
install.exe.1031.dll.id-46EA3684 [bitochok@tutanota.com].arrow	8/22/18 4:56 AM	ARROW File	95 KB



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What We Did

- Identified the “payload” as the virus and shut it down
- Closed all open ports to network from outside
- Unplugged switches to ensure virus was not spreading
- Outsourced a company and began decrypting files after identifying that backups no longer existed
- Manually updated the registry of every device that was on the network to prevent the virus from spreading (over 150)



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What We Did

- Upgraded and ran virus scans on all network devices before putting them back on the network
- Migrated email to Office 365 and began the restore process from old profiles
- Initiated full company backup after decryption to ensure we had a solid backup before going back online
- Started cutting and building trusses on Monday at 10:00 am



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What Has Changed - Software

- Anti-virus
- Local admin removal
- Changed backup software
- Changed backup schedule: every 3 hours, local, and offsite
- End user training: KnowB4
- Monthly phishing testing



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What Has Changed - Software

- Quarterly archiving of old files
- Updated password policies
- Moved website offsite
- Cloud-based ticketing system
- Established encrypted remote access connections for remote users



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What Has Changed - Hardware

- Firewall
- Segment network
- Virtualize servers: VMware
- Imaged production computers
- Changed backup location: offsite
- Moved cameras offsite



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Line Item Costs to the Company

- Down for 6 days
- Foregone gross profit on lost revenue: \$800,000
- Wages lost: \$202,000
- Cost of repairing and rebuilding: \$177,000
- Cost of new firewall: \$8,000
- Firewall and attack monitoring service: \$106,800
- New backup software: \$5,000
- Costs to update remote access software: \$2,000

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Total Cost to the Company

\$1,300,800

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Final Thoughts

- You are a target
- User training is key
- Be prepared (have a plan)
- Continually test the plan

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Questions?

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- Mike Ruede
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SBCA Resources

- For more resources on this topic, visit www.sbcindustry.com and search for the below titles:
 - [Cybersecurity Topical Library](#)
 - [Learning from the Sometimes Painful Experiences of Others](#)
 - [Cybersecurity & Disaster Recovery Worksheet](#)
 - [A Potential \(but Preventable\) Risk](#)
 - [Who's Handling Your Technology in an Increasingly Information-driven Industry?](#)

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Learning Labs

Thursday

- 12 pm – Knowing Your People to Keep Your People
- 1:30 pm – Safety
- 3 pm – Cybersecurity

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Please Fill Out Your Session Evaluation

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Cybersecurity & Disaster Recovery Planning

Work through these questions with your IT team to ensure you're ready to face anything that threatens your ability to keep your business running.



Business Continuity & Disaster Recovery

Is the Business Continuity/Disaster Recovery plan documented and regularly tested?

Does this plan account for disruptions related to natural disasters (earthquake, hurricane, snowstorm), power outages (both temporary and prolonged), cybersecurity threats, and software/equipment failure?

What is the Recovery Time Objective (RTO)?

RTO is the time goal to restore service after a disruption.

What is the Recovery Point Objective (RPO)?

RPO is the acceptable time threshold of data loss.



Backups

What servers, desktops, and core business data are backed up?

How often are they backed up? Are those backups tested on a regular schedule?

What levels of redundancy are in place?

If a server or other portion of your infrastructure fails, will it be automatically moved to different hardware without disruption?

Are there spare, pre-configured computers available to put into critical infrastructure?

Does this include critical office and shop computers? What is the expected timeframe to replace a machine? If a pre-configured PC isn't available, what is the SLA from the 3rd party hardware supplier?



Digital Safety

What layers are in place to prevent a cybersecurity incident?

Is anti-virus software in place and up to date? Are firewall policies audited regularly to ensure only required ports are open? Is there a monitoring/on-call policy to react to alerts quickly? Are there blocks in place to prevent connections to countries that are not required for business?

Which users have local rights to install software (or viruses)?

Why? What software or process requires this? Do any IT (or other) users operate with domain admin rights on their day-to-day accounts?

Is web traffic monitored and filtered?

Are spam and threat protection enabled on the mail server?

Are all end users regularly trained and tested on cybersecurity?

Can they identify aspects of ransomware, phishing, forged emails or websites?

Is the Wi-Fi secured and monitored with “guest access” policies (if necessary)?



Next Steps

Schedule meeting for follow-up on: _____



For more on this topic, visit sbcindustry.com/cybersecurity.

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How **BCMC** Contributes to Your Business Success



Best practices are shared by industry experts in every educational session.

Conversations with peers lead to ideas that transform individual businesses.

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