

CANADA

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Building a Strong Cybersecurity Defense in an Increasingly Connected World



#### Introduction





**Steve Mosley**VP of Sales
steve.mosley@bitlyft.com





Josh Patton
Principal Architect –
Governance and Security
jpatton@charter.ca





#### **Presentation Outline**

- 1. Why Do Manufacturers Need to Prioritize Cybersecurity?
- 2. Why a Layered Approach is Needed
- 3. Why People and Resources are Still Needed for Good Security Posture
- 4. How Much Money Should My Company Spend on Cybersecurity?
- 5. Questions







#### Part 1

# Why Do Manufacturers Need to Prioritize Cybersecurity?







# 4 Reasons a Good Cybersecurity Posture is Critical for Manufacturers

- Industry 4.0/Smart Manufacturing and IoT Connectivity
- External Factors
- Increasing Threats
- Cost of Downtime





# 1.) Industry 4.0/Smart Manufacturing and IoT Connectivity







# 2.) Compliance Requirements

(Government or OEM/Customer Demands)







### 3.) Increasing Threats

(Nation State Actors)

- By 2019, the manufacturing sector reached the Top 10 status as the 8th most targeted industry by cyber attackers.
- The problem exploded in 2020 when many companies were forced to depend almost entirely on remote workers due to pandemic restrictions.
- The manufacturing industry moved from the 8th most targeted industry by cyber attackers to number 2, falling behind only finance and insurance.
- According to the 2021 Global Threat Intelligence Report (GTIR), this represents a 300% increase in a single year.







# **Top Threats Against Manufacturers**

- Phishing/Social Engineering
- Ransomware
- Internal Breaches
- Equipment Sabotage
- IP Theft
- Supply Chain Attacks











# Why Are So Many Manufacturers Underprotected?

- Too many disparate solutions (No one knows where to start and which solutions are best/work together)
- Lack of resources and prioritization
- "It won't happen to me" syndrome







#### Lack of Resources and Prioritization

- At the end of the day, who is responsible for risk management? Board/C-Suite, IT leadership? For smaller businesses who would that be (not always clear and not always a priority)
- Who runs the day to day when you are constrained on resources?
- When do you look at bringing on managed services?





### Part 2:

# Why a Layered Approach is Needed







# Five Things You Should Be Able to Address

- 1. Identify
- 2. Protect
- 3. Detect
- 4. Respond
- 5. Recover







# Top Tools/Solutions for a Layered Approach

Security Information Event Management (SIEM)

Password Vault

Multi-Factor Authentication (MFA)

Endpoint Detection Response (EDR)

Single Sign On

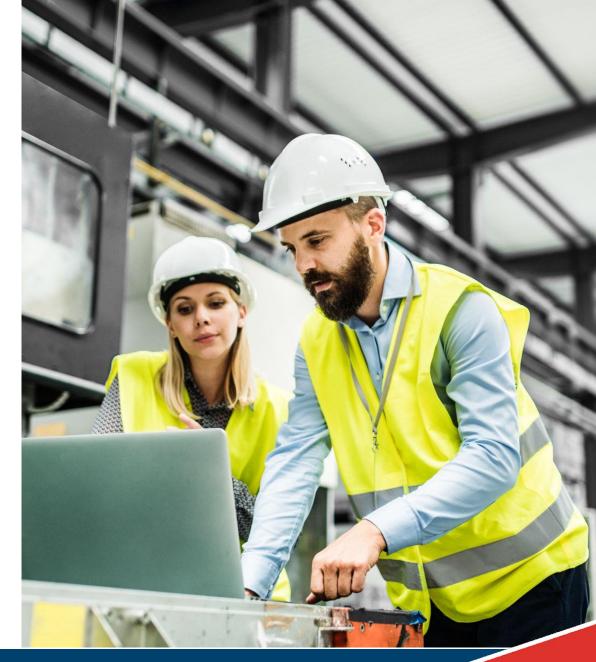




# Security Information Event Management (SIEM)

- Essential for good security posture for orgs of any size/across all verticals
- Essential to a layered approach and guarding against advanced threats
- Provides ability to look across your environment
- Allows you to make evidence based decisions for future cybersecurity spends/hires
- Essential for meeting compliance requirements which is needed for retaining and winning new customers







# **Endpoint Detection Response (EDR)**

 Leverages machine learning to monitor user and system behavior to detect threats and ingest behavior for future threat detection - quarantines endpoint to remediate







#### **Password Vault**

 Best to leverage a password manager with an encrypted vault, audit capabilities and password generation features







# Single Sign-On (SSO)

- Safely controls access to company applications and systems
- Decreases attack surfaces
- Increases employee productivity

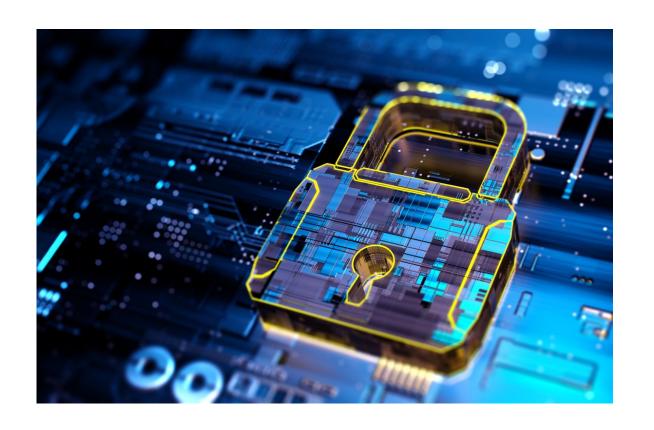






# **Multi-Factor Authentication (MFA-2FA)**

- Requires an extra layer of security to access company systems and apps
  - Something you know
  - Something you are
  - Something you have







# People and Resources are Still Needed for Good Security Posture

Five Questions You Should be Able to Answer		
<ul> <li>Do you have security policies and procedures in place?</li> </ul>	<ul> <li>Do you have a security awareness training program for staff?</li> </ul>	
Do you consistently audit configurations?	<ul> <li>Are you removing local admin rights from endpoints and servers?</li> </ul>	
<ul> <li>Are you monitoring security logs for the past 365 days?</li> </ul>		





### What's the Difference?

Managed Detection Response (MDR)	Security Operations Center (SOC)	Security Operations Center as a Service (SoCaaS)
<ul> <li>EDR</li> <li>SIEM</li> <li>Network traffic analysis</li> <li>User and Entity Behavior Analytics (UEBA)</li> <li>Asset discovery</li> <li>Vulnerability management</li> <li>Intrusion detection</li> <li>Cloud vulnerability</li> </ul>	<ul> <li>Internal hub of cybersecurity operations for your company</li> <li>Organization maintains fulls control</li> </ul>	<ul> <li>External company manages your internal security</li> <li>Partners with existing IT staff to learn about your company's technology fingerprint</li> <li>Manages a variety of security products and services</li> <li>More cost effective than managing your own SOC</li> <li>24/7 Monitoring</li> </ul>





# Top 10 Questions You Need to Ask Any Service Provider

- What are your software requirements?
- How many people will be assigned to our organization?
- What happens when our contract is up for renewal?
- Do you have experience in our industry?
- How many clients are your analysts overseeing?

- How often and what does communication look like?
- How will you make a difference that we couldn't do on our own?
- Are you proactive or reactive?
- How will we know you are successful?
- Is your cybersecurity plan designed specifically for our organization?

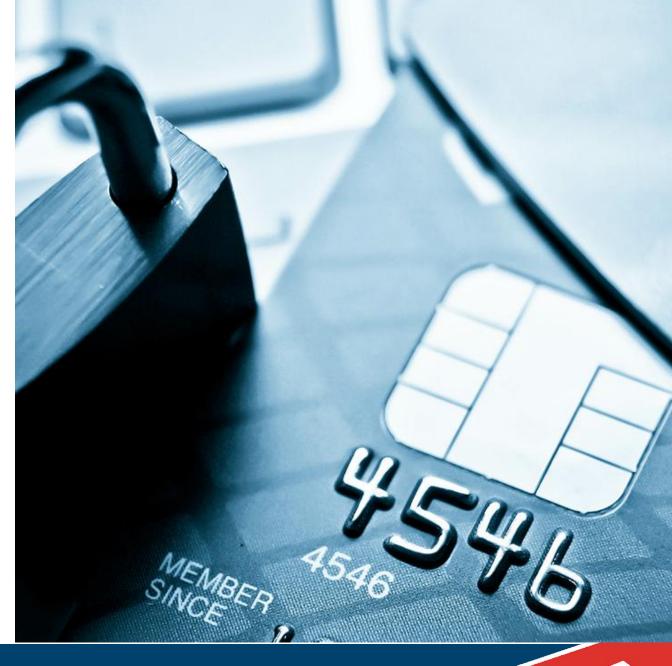




#### Part 5

How Much Money Should
My Company Spend on
Cybersecurity?







#### The Cost of Cybersecurity

- The cost to do nothing should be considered an essential business expense
- Automation and security AI saved companies up to \$3.81 million
- A zero-trust approach reduced costs related to a data breach by up to \$1.76 million



# CYBERSECURITY BY THE NUMBERS

BitLyft



**BUDGET** 

7-10%

Percentage of IT budget that should be spent on security



# **Budget Recommendation Example**

#### **ACME ORGANIZATION**

Gross Revenue	\$250M
IT Budget	\$12.5M (5% of gross)
Cybersecurity Budget (% of IT)	\$625,000 (5% of IT)

#### Industry Benchmarks: % of IT budget spent on cybersecurity:\*

- Software, Publishing & Internet Services: 9.5%\*
- Retail & Wholesale: 5.3%\*
- Higher Education: 3.6% (Times Higher Education)





<sup>\*</sup>Source: Cybersecuritydive.com/Gartner

### **Closing Considerations**

- Start with the most critical tools and build from there
- Automation and people is the future of security
- Know when you need to get outside help



At the end of the day, it's IT's job to enhance the business, so we can spend our time making the business more profitable instead of worrying about if we're compromised or if there is a breach somewhere we don't know about.

**Systems Analyst** 

Manufacturing







# **Questions?**



