

# ROBERT A. KALKA METROPOLITAN SKYPORT EXECUTIVE BRIEFING

PRESENTED BY FINALS-XX



Robert A. Kalka

Metropolitan Skyport

# AGENDA

# **AGENDA**

- 1. INTRODUCTIONS**
- 2. REASSESSMENT SUMMARY**
- 3. COMPLIANCE**
- 4. RECOMMENDATIONS**
- 5. CONCLUSION**

# INTRODUCTIONS

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Manager

Senior Consultant

Senior Consultant

Consultant

Consultant

Consultant

# **REASSESSMENT SUMMARY**

## **RESULTS**

# REASSESSMENT SUMMARY RESULTS



Robert A. Kalka

Metropolitan Skyport

**33**

total vulnerabilities  
discovered

**20**

new vulnerabilities  
discovered

**Critical**

risk of compromise

**130+**

regulation violations

**100+**

employees potentially  
had exposed data

# REASSESSMENT SUMMARY

## OBJECTIVES



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# REASSESSMENT SUMMARY

## OBJECTIVES

### Security

Assess adherence to general security best practices and defense against specialized threats



### Safety

Ensure all testing was performed strategically and safely with explicit approval



### Social Engineering

Test the awareness of staff against social engineering tactics



### Compliance

Verify compliance with compliance frameworks TSA and FAA.



# REASSESSMENT SUMMARY

## OBJECTIVES



# REASSESSMENT SUMMARY

## OBJECTIVES

### SCOPE

Corporate Network  
Tram Network  
Guest Network  
User Network  
Cloud Infrastructure (AWS)

# REASSESSMENT SUMMARY

## RISK MATRIX

# REASSESSMENT SUMMARY

## RISK MATRIX

		Impact			
Likelihood		LOW	MEDIUM	HIGH	CRITICAL
	LOW	Low	Low	Medium	Medium
	MEDIUM	Low	Medium	High	High
	HIGH	Low	Medium	High	Critical
	CRITICAL	Low	Medium	Critical	Critical

Team XX uses a custom heuristic framework for measuring impact, likelihood and overall criticality of technical findings together with the **Common Vulnerability Scoring System 3.1** to gain full coverage of both technical and business risk.

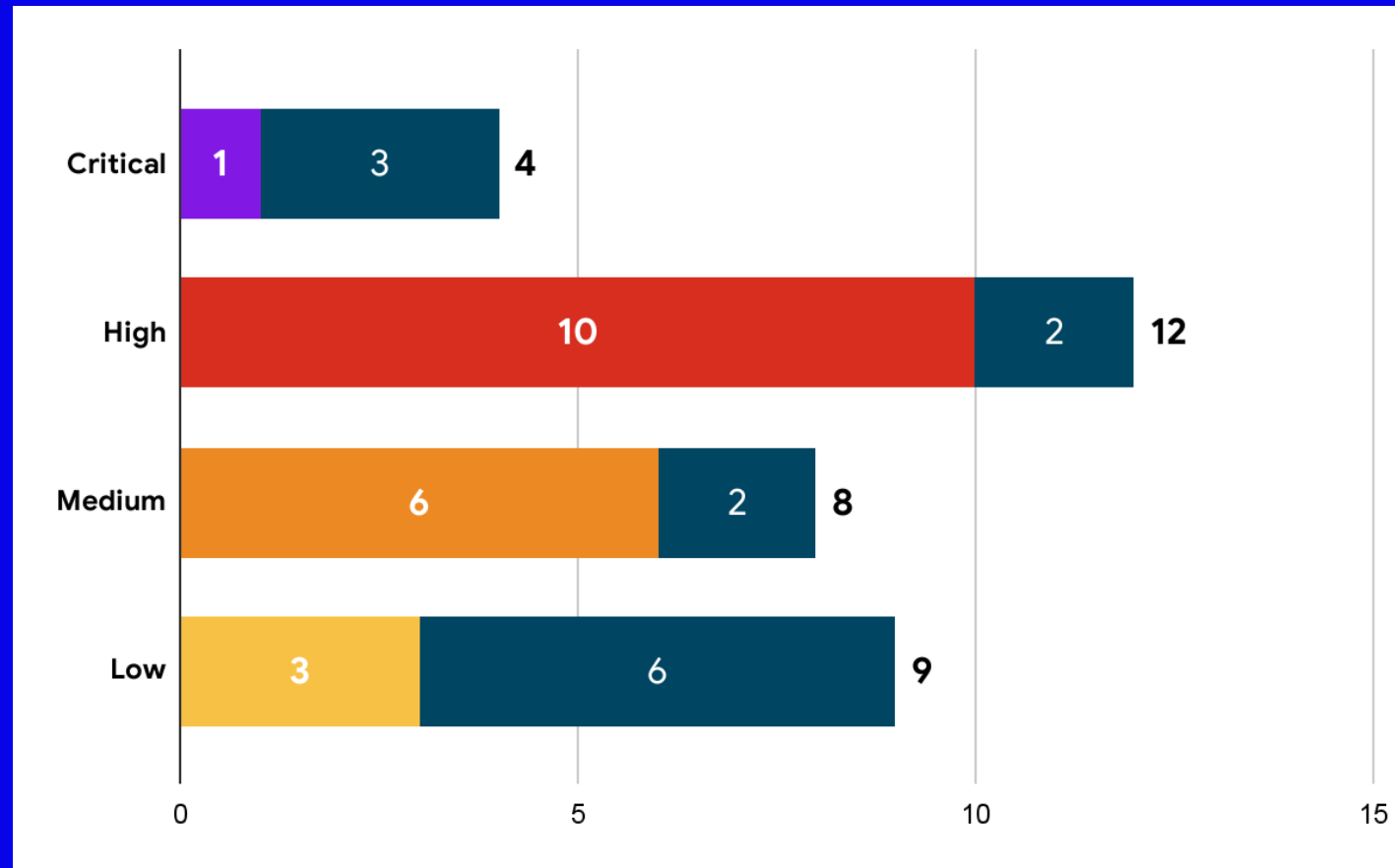
# REASSESSMENT SUMMARY

## RISK TRENDS

# REASSESSMENT SUMMARY

## RISK TRENDS

### CURRENT VULNERABILITIES



**NEW  
VULNERABILITY**



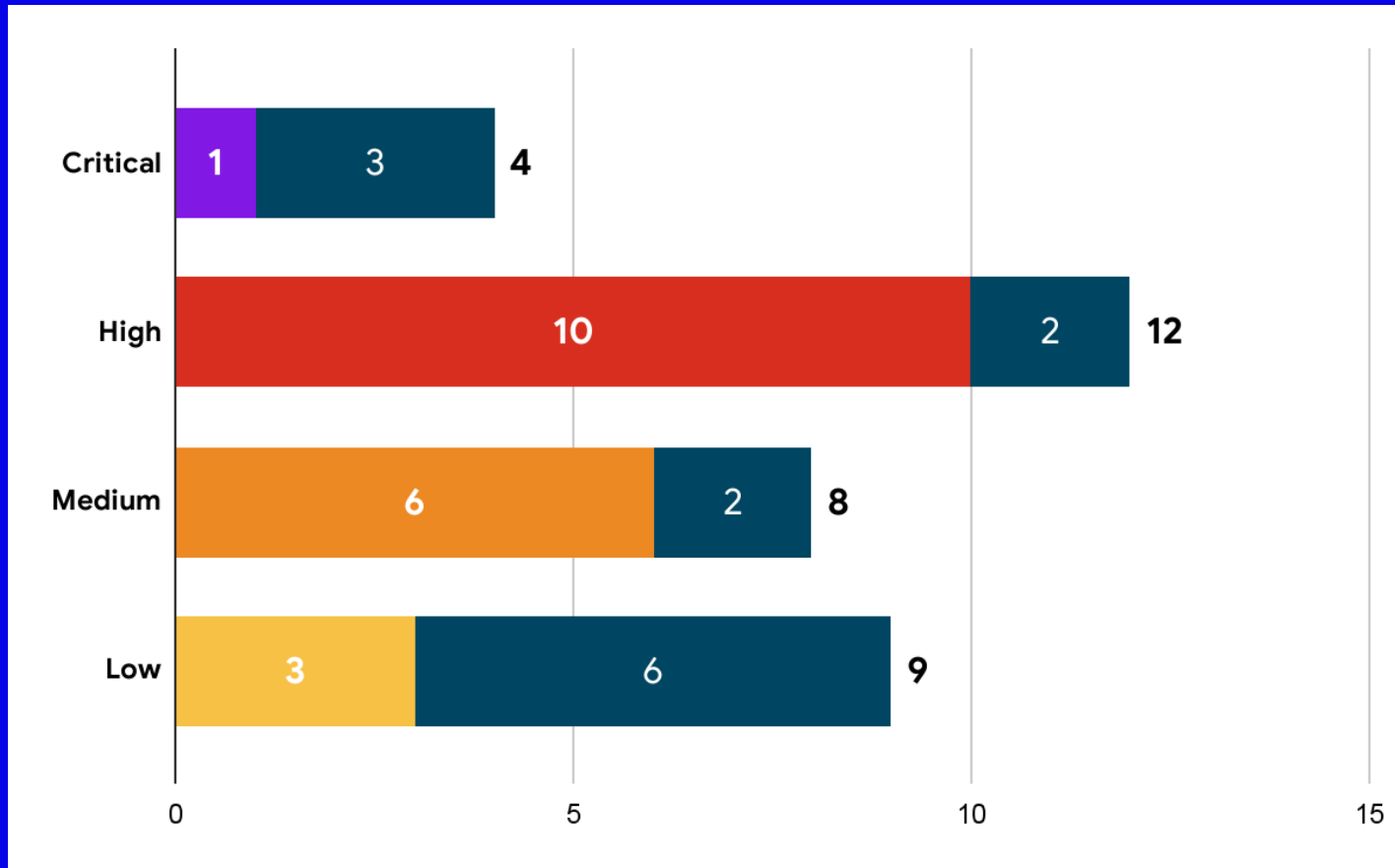
**REDISCOVERED  
VULNERABILITY**



# REASSESSMENT SUMMARY

## RISK TRENDS

### CURRENT VULNERABILITIES

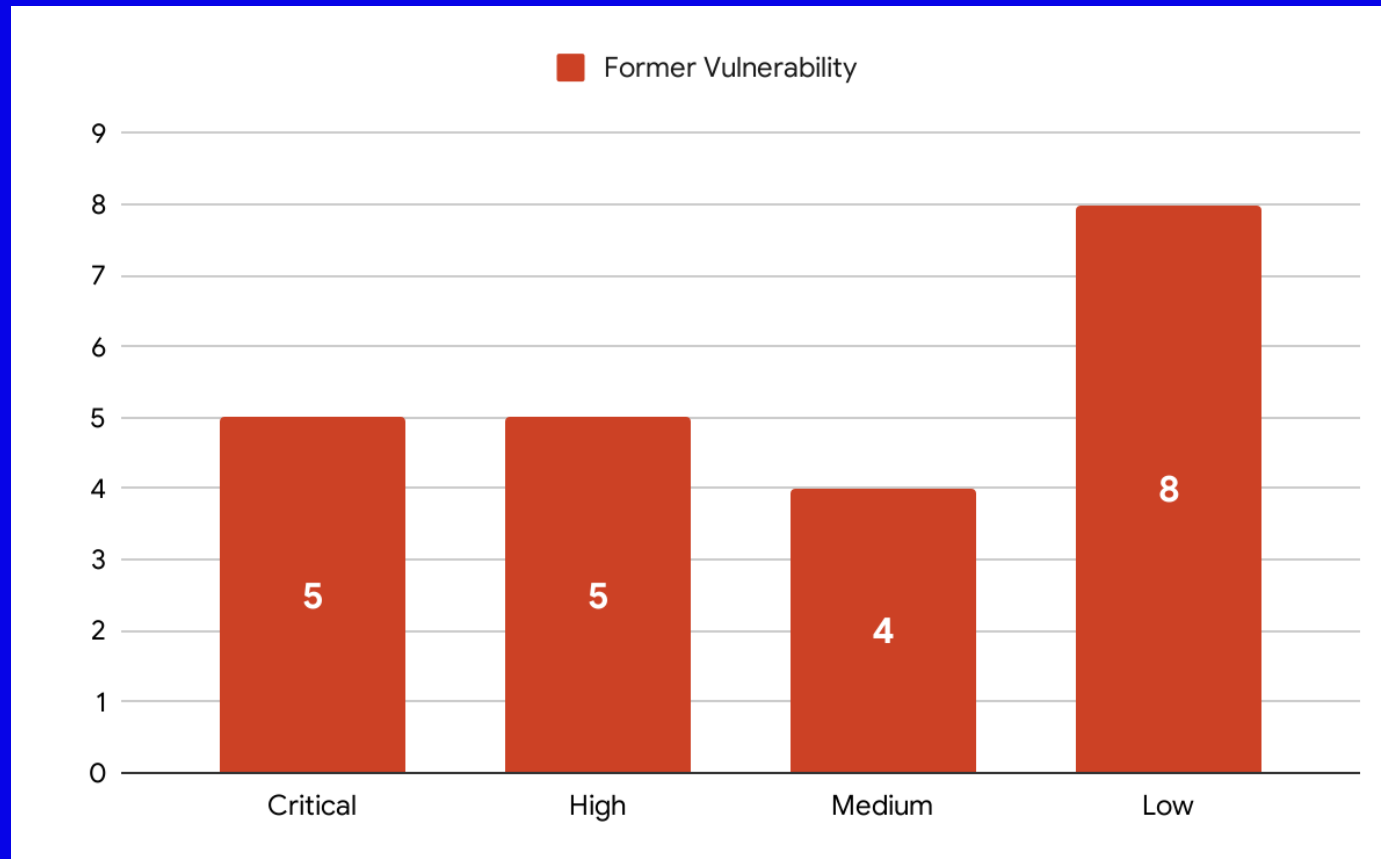


### KEY TRENDS IN VULNS

- Incompletely patched systems (4)
- Access control misconfigurations (8)
- Publicly facing beta internal tools (3)
- Lacking baked-in security processes

# REASSESSMENT SUMMARY

## RISK TRENDS

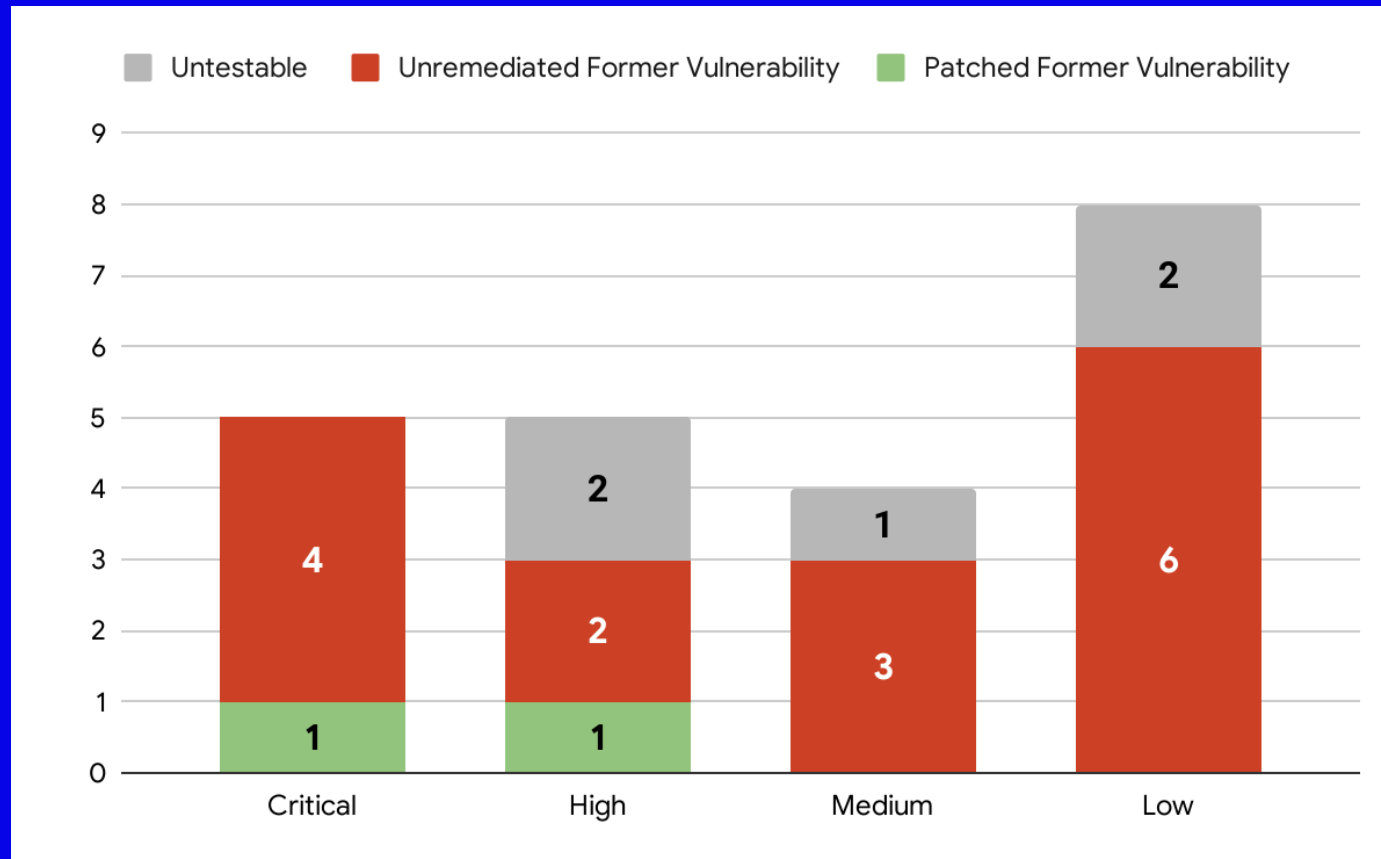


### RESIDUAL RISK: BEFORE

- Vulnerable corporate network
- Exposed internal beta tools on public cloud infrastructure
- Insecurely designed tram network

# REASSESSMENT SUMMARY

## RISK TRENDS



### RESIDUAL RISK: AFTER

- Vulnerable corporate network
- Exposed internal beta tools on public cloud infrastructure

# REASSESSMENT SUMMARY

## SPECIALIZED THREATS

# REASSESSMENT SUMMARY

## SPECIALIZED THREATS



### RF ATTACKS

**2**

Investigations of RF signals

**1**

benign signal found

**1**

unidentifiable signal found

# REASSESSMENT SUMMARY

## SPECIALIZED THREATS



**RF ATTACKS**



**SOCIAL ENGINEERING**

**1**

**vishing assessment**

**1**

**phishing assessment**

**0**

**employees caught**

**COMPLIANCE**

# COMPLIANCE



## **FAA AIP**

A FAA funded grant provided to improve airport infrastructure. Airport projects vying for the grant must comply with the cybersecurity requirements.



# COMPLIANCE



FAA AIP



TSA

A set of United States security directives managing airport cybersecurity to ensure national, economic, and public security. All United States airports **must follow the directives.**

# COMPLIANCE



FAA AIP

**14**

violations

**\$10,000-\$500,000**  
in estimated losses



TSA

**120**

violations

**\$1,742,500-\$4,485,240**  
in estimated fines

# **RECOMMENDATIONS**

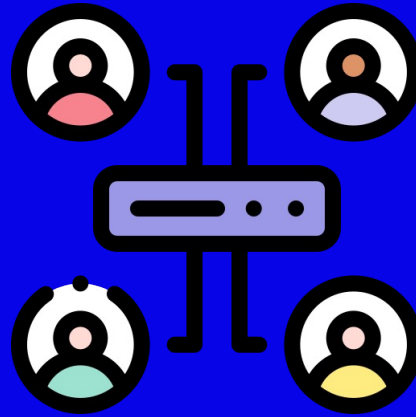
**KEY STRENGTHS**

# RECOMMENDATIONS

## KEY STRENGTHS



**Social Engineering  
Awareness**



**Network Segmentation**



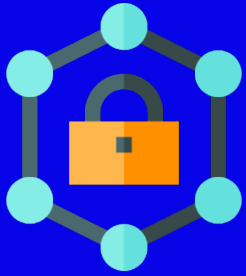
**Logging and Monitoring**

# RECOMMENDATIONS

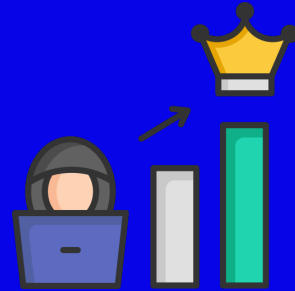
## AREAS OF IMPROVEMENT

# RECOMMENDATIONS

## AREAS OF IMPROVEMENT



**ACCESS  
CONTROLS**



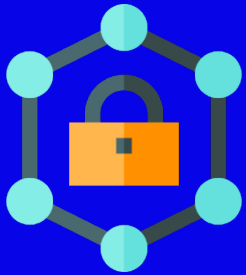
**EXCESSIVE  
PRIVILEGES**



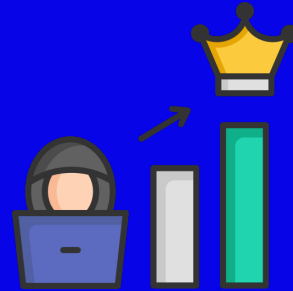
**FULLY UPDATE  
SYSTEMS**

# RECOMMENDATIONS

## AREAS OF IMPROVEMENT



**ACCESS  
CONTROLS**



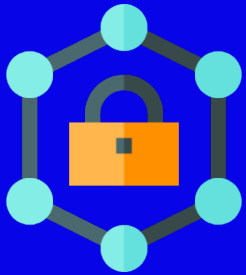
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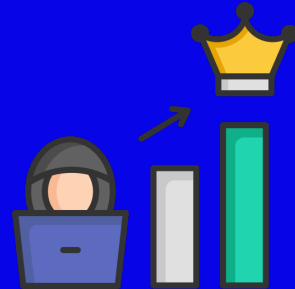
**FULLY UPDATE  
SYSTEMS**

# RECOMMENDATIONS

## AREAS OF IMPROVEMENT



**ACCESS  
CONTROLS**



**EXCESSIVE  
PRIVILEGES**



**FULLY UPDATE  
SYSTEMS**



**CONCLUSION**

# CONCLUSION

- 1. GOOD PROGRESS**
- 2. CONTINUED PROGRESS**
- 3. SOCIAL ENGINEERING  
AWARENESS**
- 4. BAKED-IN SECURITY**



Robert A. Kalka

Metropolitan Skyport

**THANK YOU FOR YOUR TIME**  
**QUESTIONS?**

**finals-xx@cptc.team**



**Robert A. Kalka**

Metropolitan Skyport