

Paris, France

LE BONBON CROISSANT

CPTC 2021

# Le BonBon Croissant Penetration Test Briefing

FINALS-XX

// Confidential - For LBC<sub>LLC</sub> Authorized Personnel Only //

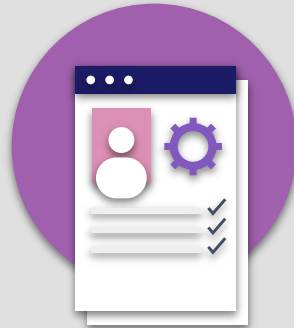
# Team Introduction

- XXXX XXXXX
- XXXX XXXXX
- XXXX XXXXX
- XXXX XXXXX
- XXXX XXXXX
- XXXX XXXXX

# AGENDA



**Risk  
Assessment**



**Regulatory  
Compliance  
Standards &  
Guidelines**

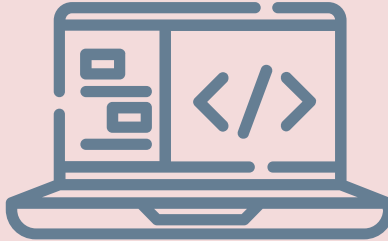


**Mitigation and  
Response**

# RISK ASSESSMENT



**Scoring  
Methodology**



**Hands-On  
Engagement**



**Findings**

# OUR SCORING METHODOLOGY

- 0.0 - 10.0 Scale

- Scoring Severity

- Overall, Impact, Exploitability

## CVSS v3.0 Ratings

|          |          |
|----------|----------|
| Low      | 0.1-3.9  |
| Medium   | 4.0-6.9  |
| High     | 7.0-8.9  |
| Critical | 9.0-10.0 |

# SUMMARY OF VULNERABILITIES

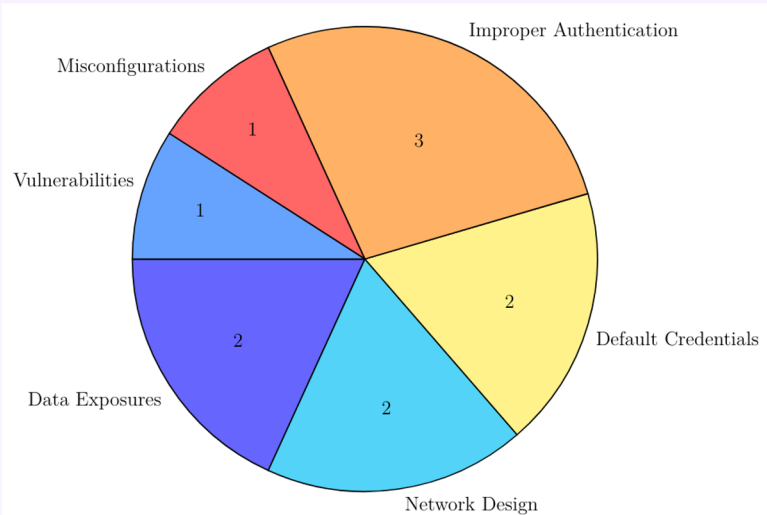


Figure 1: Summary of Issues within the Network

- 3 Improper Authentication
- 2 Default Credentials
- 2 Network Design
- 2 Data Exposures
- 1 Vulnerability
- 1 Misconfiguration

# KEY FINDINGS

## Default Credentials (SCADA)

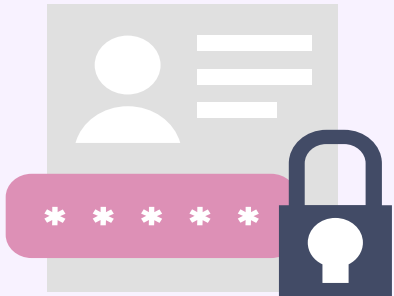
- Allow access to critical ICS infrastructure

## Lack of Authentication

- Access to sensitive information including credit card data and passwords
- Enables remote code execution

## Lack of Network Segmentation

- Industrial systems can be tampered with
- Potential loss of life or revenue



# HIGH FINDINGS

## Lack of PLC Authentication

- Set ICS values to dangerous levels or deny service

## Lack of MariaDB Authentication

- Access to Marketplace user passwords



## PostgreSQL Database Remote Code Execution

- Full access of all databases on machine
- Full control (modification, deletion, etc.) of data stored within the host





# MEDIUM FINDINGS

## Payment Transaction Enumeration

- Extract user transactions
- View revenue

# COMPLIANCE

# REGULATORY COMPLIANCE & PENALTIES

PCI DSS



Analyze



Review



Report



# REGULATORY COMPLIANCE & PENALTIES

**Data Protection  
and Privacy Act  
(DPA)**

**Law No. 2016/1321**

**Application  
Decree 2005-1309**

**Privacy and  
Electronics  
Communications  
Regulations (PECR)**

**Application  
Decree 2019-341**

**PCI-DSS v3**



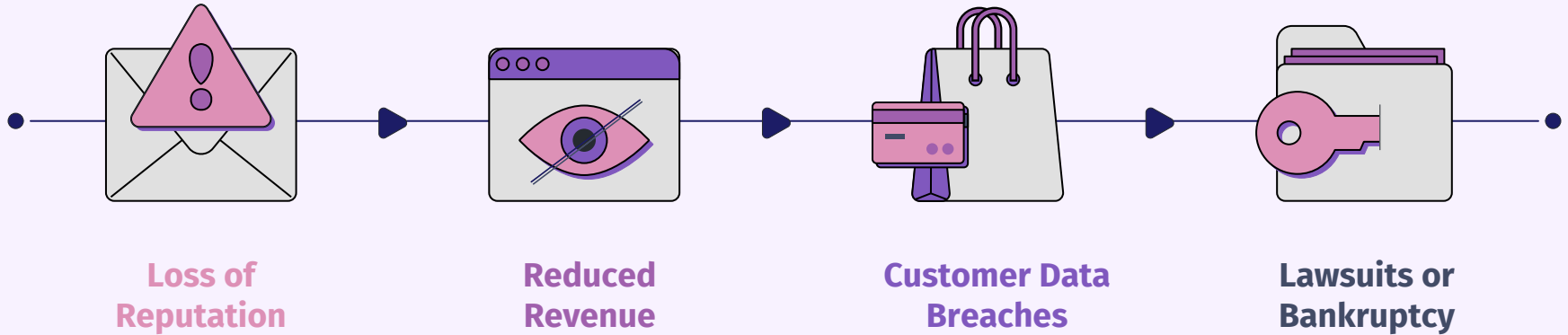


# PCI-DSS COMPLIANCE

LBC was found to have  
over 40 PCI-DSS violations

# **MITIGATION AND RESPONSE**

# ORGANIZATIONAL IMPACT



# REMEDIATION



# Suggestions



01

## Least Privileges

Accounts should only access what they need



02

## Implement Firewalls

To reduce potential vulnerabilities



03

## SCADA Access Controls

To protect LBC's business operations



04

## Password Policies

To improve protection of customer accounts

# QUESTIONS?

Thank you for your time.