City of Austin

Cybersecurity Briefing

Community Technology & Telecommunications Commission

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Shirley A. Erp
Chief Information Security Officer (CISO)

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City of Austin

About Shirley

Over 20 years Information Security Experience in Health, Education, Banking, Retail, Insurance, Energy, Government (Federal, State, and Local)

Education:

- Master of Science (MS) in Technology Management
- Bachelor of Science (BS) in Computer Science

Certifications:

- Certified Information Systems Security Professional (CISSP)
- Certified Information Systems Auditor (CISA)
- Project Management Professional (PMP)
- Certified Data Privacy Solutions Engineer (CDPSE)
- IT Infrastructure Library (ITIL)

Agenda

- Information Security Office (ISO) Introduction
- FY2021 High-Level Plan
- “BlueLeaks“ Third-Party Data Exposure
- Protecting Residents and the City of Austin

Information Security Office Introduction

CoA Cybersecurity Program

Alignment with:

- Federal - National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF)
- State - State of Texas Laws, Regulations, and Rules
- Cybersecurity Best Practices

Protection of:

- Critical information systems and assets
- Confidential information including personal private information

Collaborative with:

- City departments
- Regional partners
- State and local entities

CoA Information Security Program

Security and Privacy:

The How: Information security is a set of practices intended to keep data secure from unauthorized access or alterations. Here's a broad look at the policies, principles, and people used to protect data

- **Confidentiality** - Protecting confidentiality is dependent on being able to define and enforce certain access levels for information
- **Integrity** - Integrity assures that the data or information system can be trusted
- **Availability** - Authentication mechanisms, access channels, and systems all have to work properly to protect information and ensure it is available when needed

The What: Information privacy pertains to personally identifiable information. At the City, this includes the personal data collected, assembled, maintained, or prepared on behalf of the City of Austin.

City Code

§ 2-11-16 - INFORMATION SECURITY OFFICE

- Leads, directs, and manages the citywide information security program, including:
  - Policy
  - Risk management
  - Security operations
  - Security architecture
  - Incident response
  - Governance
  - Privacy

§ 2-11-17 - DUTIES OF DEPARTMENT DIRECTORS - INFORMATION SECURITY

- Implement security program requirements
- Include resource expenditures for information security and privacy

Overview

What We Want

VISION: Austin is a beacon of sustainability, social equity, and economic opportunity…

Strategic Outcomes

- Economic Opportunity and Affordability
- Mobility
- Safety
- Health and Environment
- Culture and Lifelong Learning
- Government That Works for All

Risks We Face

CHALLENGE: If we do not manage these risks, we have a problem

- Third-Party Risk
- Regulatory & Compliance Risk
- Ad-Hoc Practices
- Complexity of Technology
- Loss of Data / Services
- Being Unaware of Incidents
- Being Unprepared to Respond

How We Mitigate This

How We Do It

In order to implement the solutions, we have adopted the *National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF)*

Objectives

- Manage cybersecurity risk to systems, assets, data, and capabilities
- Implement safeguards to ensure delivery of critical infrastructure services
- Identify the occurrence of a cybersecurity event
- Take action regarding a detected cybersecurity event
- Maintain plans for resilience and restore capabilities or services impaired due to a cybersecurity event

Identify

Protect

Detect

Respond

Recover

Connecting Strategy and NIST CSF

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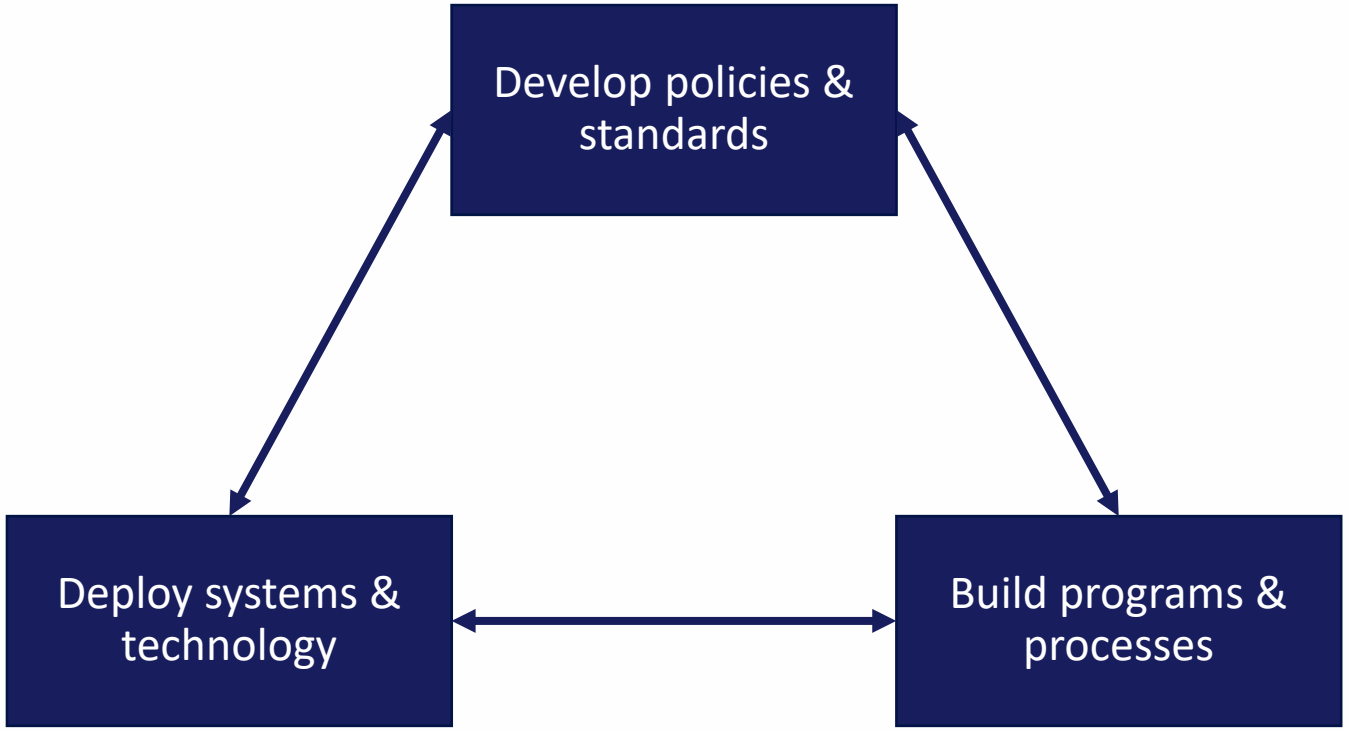
Function	Categories
Identify	Asset Management • Business Environment • Governance • Risk Assessment • Risk Management Strategy • Supply Chain Risk Management
Protect	Identity Management, Authentication, and Access Control • Awareness & Training • Data Security • Info. Protection Processes and Procedures • Protective Technology
Detect	Anomalies and Events • Security Continuous Monitoring • Detection Processes
Respond	Response Planning • Communications • Analysis • Mitigation • Improvements
Recover	Recovery Planning • Improvements • Communications

FY2021 High-Level Plan

ISO General Strategy



CoA Cybersecurity Projects

Continue to Mature:

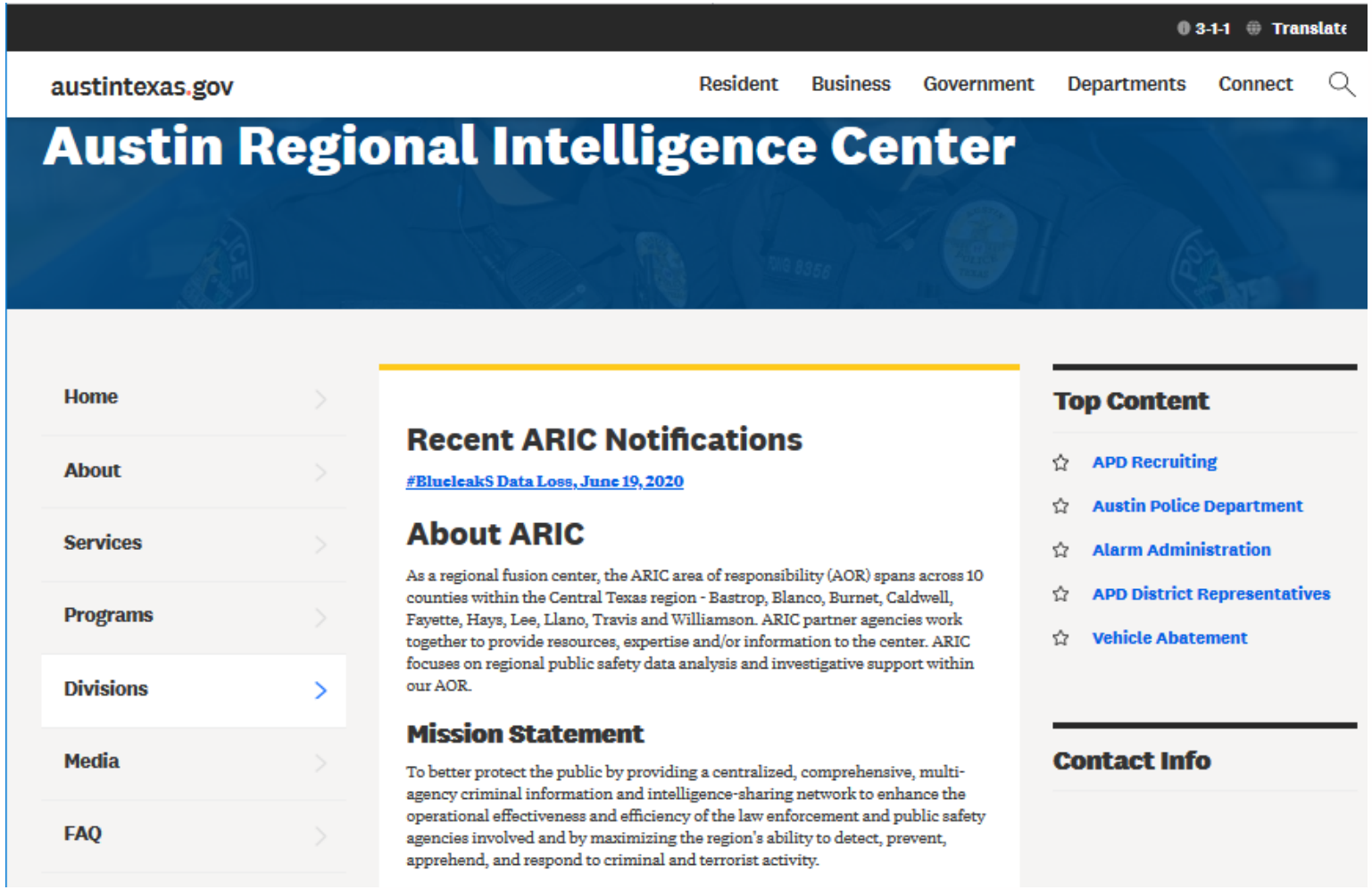
- Policy and standards
- Multi-factor authentication (MFA)
- Identity and Access Management (IAM)
- Defense-in-depth technologies
- Cybersecurity monitoring

“BlueLeaks” Third-Party Data Exposure

Public Information About BlueLeaks

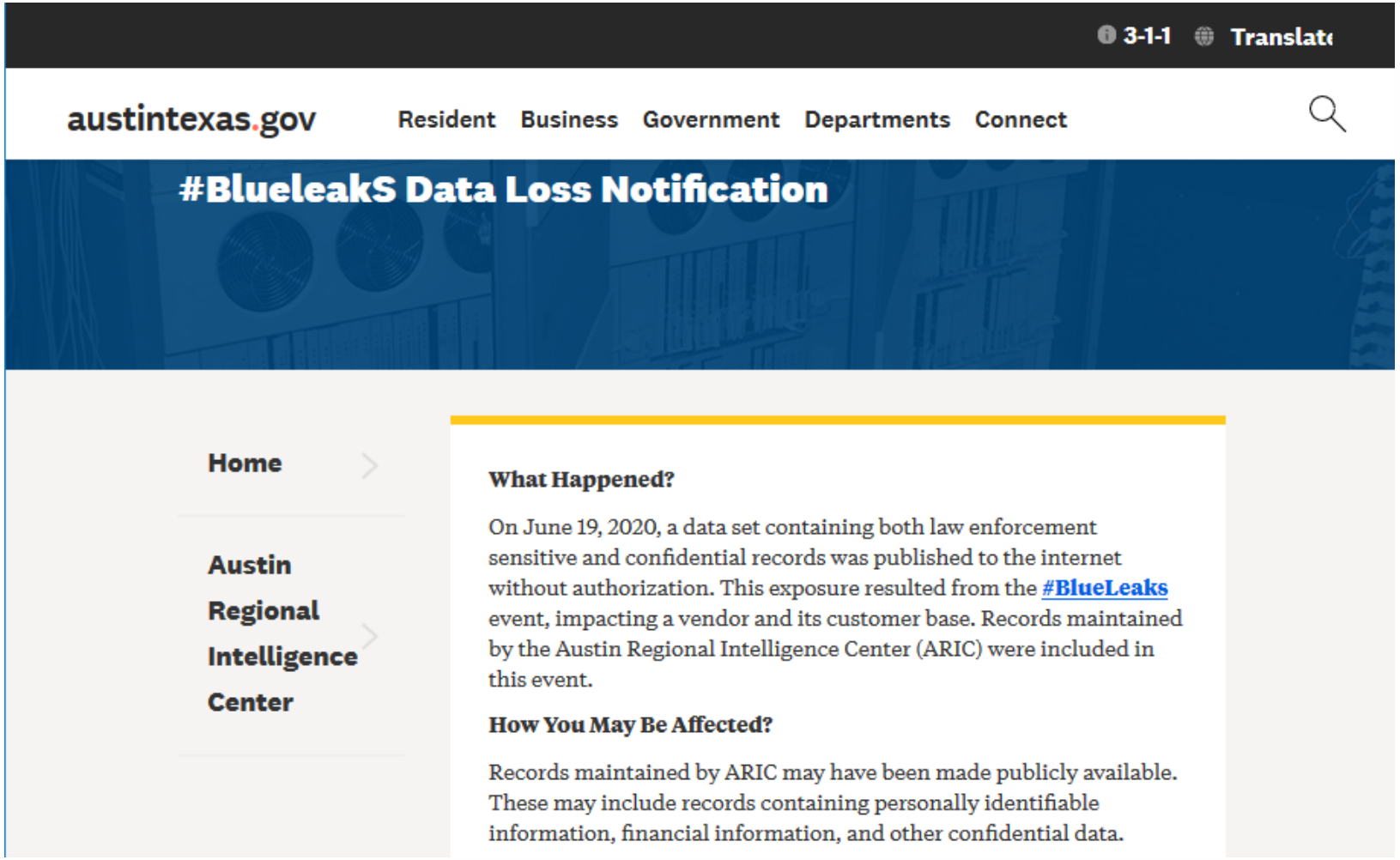
- Third-party vendor was compromised impacting over 200 nationwide law enforcement agencies
- June 19, 2020 –269 gigabytes of internal U.S. law enforcement data was exposed
- Exposure included personal data of 700,000 police officers
- Austin Regional intelligence Center (ARIC) is one of the 200 agencies
- ARIC responsibility spans 10 counties and various agencies, including the City of Austin

ARIC Notification



https://www.austintexas.gov/department/austin-regional-intelligence-center

ARIC Notification



https://www.austintexas.gov/page/blueleaks-data-loss-notification

Protecting Residents and the City of Austin

Technology & Cybersecurity Considerations

- Attack Surfaces - are the different points where an unauthorized user can attack a system, such as:
  - Physical
  - Network
  - Software
  - People
- Attack Vectors - are the methods cybercriminals use to gain unauthorized access to a system, such as:
  - Compromised credentials
  - Misconfiguration
  - Vulnerabilities
  - Missing or weak encryption

How CTTC Can Help

- Include security and privacy requirements in recommendations:
  - Architecture
  - NIST Controls
  - Security awareness
  - Contract agreements
  - Separation of resident services from City business infrastructure
  - Physical protections
  - Budget for Security