# Cybersecurity for Local Government:
## Minimum Baseline of Cybersecurity for Municipalities

**Stephanie Helm**
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New England States Government Finance Officers Association Workshop

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| *Innovation Economy* | *Advanced Manufacturing* | *Broadband* | *Digital Health and Caregiving* | *Cybersecurity* |

# Municipal Cybersecurity Threats

## *What are they, and how are they changing?*

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# Threats



Security Boulevard
U.S. Healthcare Data Breach Cost $4 Billion in 2019. 2020 Won't Be Any Better
Ransomware will continue to be a plague on healthcare: While ransomware attackers will target any business they believe that they can infect ...

Worcester Telegram
Local communities fight back on cyberattacks
Local communities fight back on cyberattacks ... the police department in this northwestern Worcester County town of about 12,000 is still not ...
Sep 21, 2019

TechRepublic
FBI, Secret Service investigating cyberattack on Florida water treatment plant
Federal law enforcement is now looking into a cyberattack at a water treatment plant in Oldsmar, FL where someone was able to remotely ...
4 weeks ago

Ransomware ravages municipalities nationwide this week
Doug Olenick    Online Editor
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NEWS ANALYSIS
Why local governments are a hot target for cyberattacks
Recent ransomware and other attacks underscore the value attackers see in the data stored in city and regional government systems. Here's why they are vulnerable and what they can do to reduce the threat.
By Cynthia Brumfield

BetaBoston
Hacking attacks plague Massachusetts schools
Hacking attacks plague Massachusetts schools ... disrupted in multiple districts, forcing schools to pay thousands of dollars in cyber-protection.
4 weeks ago

Cyberattack hits Augusta municipal operations; City Center closed
Officials say a nasty, intentionally deployed virus shut down public safety computers and made the city's entire network unusable, but the phone system and public safety radio system were not affected.
BY KEITH EDWARDS KENNEBEC JOURNAL

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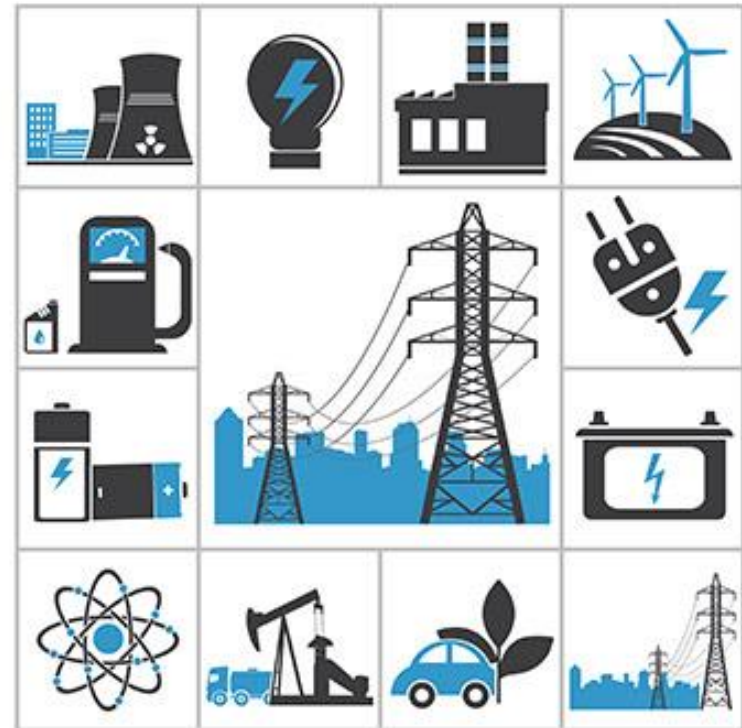
# Ransomware Kill Chain
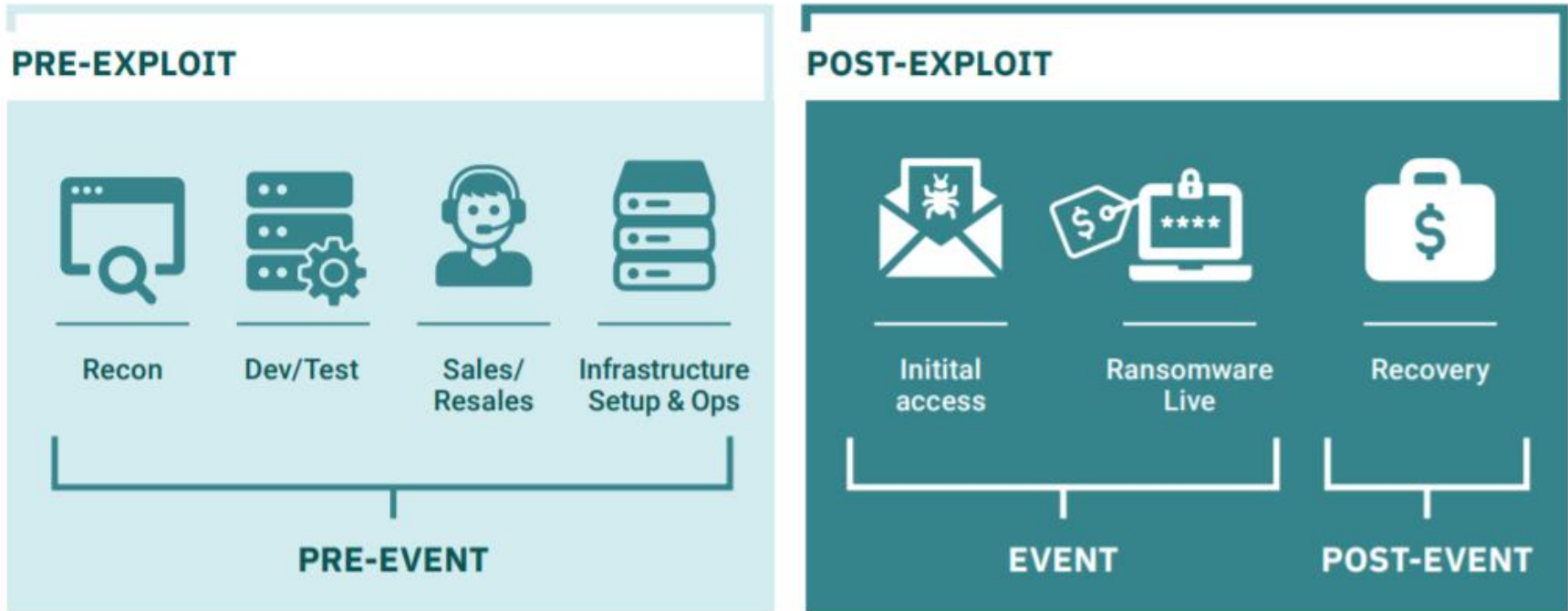


Source: World Economic Forum's Partnership against Cybercrime in collaboration with Accenture

# Threat Targets: Information and Safety



Federal Trade Commission https://www.ftc.gov/tips-advice/business-center/privacy-and-security/data-security



National Institute of Standards and Technology
https://www.nist.gov/news-events/news/2015/12/nist-seeks-comments-cybersecurity-framework-use-potential-updates-and

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# What is Cybersecurity?

- Leadership Talent/employment
    - Training/education
        - Citizens



- Cyber standards and procedures
- Incident response plans/ recovery
- Engagement
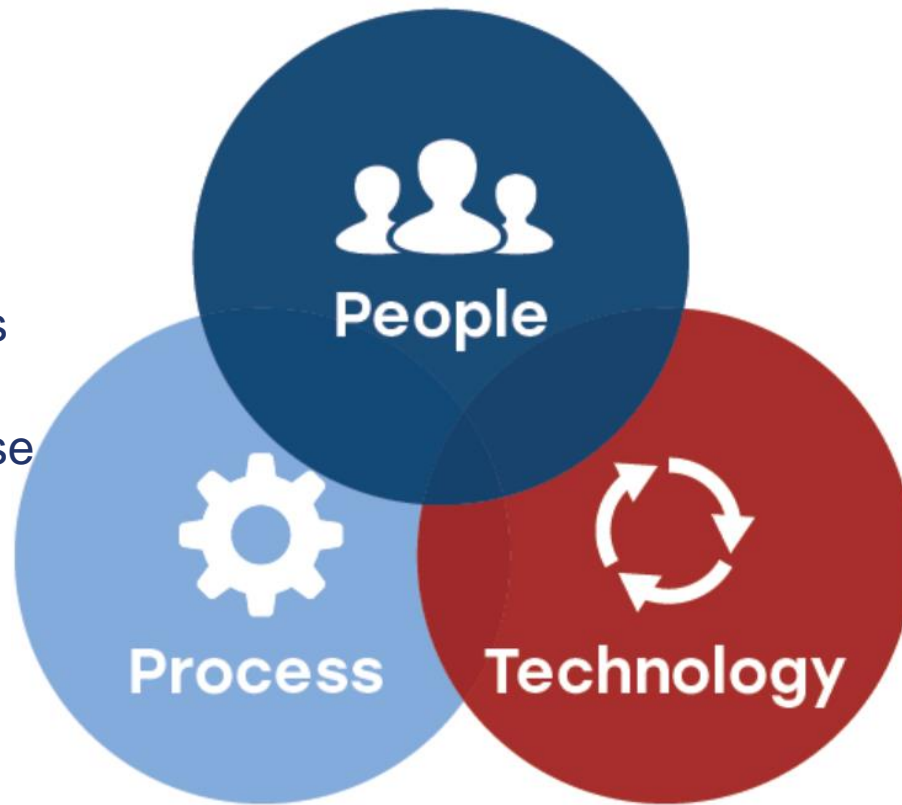
- Sensors
- Decision aids
- Defense tools

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# Cybersecurity Toolkit for Municipalities

**https://masscybercenter.org/municipal-toolkit**

# Minimum Baseline of Cybersecurity for Municipalities

A framework for helping Massachusetts municipalities improve their cybersecurity posture and protect their municipality from cyberattacks using people, process, and technology.

## Four goals:

Trained and Cyber-Secure Employees

Improved Threat Sharing

Cyber Incident Response Planning

Secure Technology Environment and Best Practices

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# Minimum Baseline Learning Modules

## Introduction to the framework and goals

Using a notional cyberattack occurring in the fictional town of Massboro, the first module introduces the Minimum Baseline, and the other four modules explain each of the four goals.

Go to [MassCyberCenter.org](MassCyberCenter.org) and look under Resiliency to experience the learning modules and learn more.

# Third-Party Risk – Review and Manage Contracts

**Third-Party Risk can be defined as the potential risk that arises from an organization relying on outside parties to perform business services or activities on their behalf.**

- **Review Contracts Carefully**
  - When does the vendor have a requirement to communicate an incident to you?
    **SUSPECTED vs. KNOWN Malicious Activity**
  - What are your contractual obligations?
  - What are the vendor's contractual obligations?

- **Best Practices**
  - Service Levels – Contractually defined
  - Contractual Obligations – language mandating specific behavior and/or action by vendor
  - Governance - Defined periodic meetings with service provider reviewing performance
  - Special Termination Rights – ID in MSA or supporting SOWs

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# Commonwealth Resources for Municipalities

**MassCyberCenter**
**Municipal Cybersecurity**

Provides tools and educates municipalities statewide on best cybersecurity practices and threats. *masscybercenter.org/municipalities*

**Executive Office of Public Safety & Security (EOPSS)**
**Office of Grants & Research**
**Homeland Security Grant Program**

Advocates and helps with preparedness and planning for the event of a national, state, or local emergency. *mass.gov/service-details/homeland-security-grants*

**Operational Services Division (OSD)**
**ITS78: Statewide Contract for Data, Cybersecurity, and Related Audit, Compliance, and Incident Responses Services**

Provides a list of approved vendors that offer a range of tools for municipal organizations to protect their IT infrastructure and data, including baseline assessments, remediation strategies and implementations, and cyberattack recovery solutions. *mass.gov/doc/its78/download*

**Community Compact Cabinet**
**Community Compact Program**

Champions municipal interests across all executive secretariats and agencies, and to develop, in consultation with cities and towns, mutual standards and best practices for both the state and municipalities. *mass.gov/best-practices-program*

**Executive Office of Technology Services and Security (EOTSS)**
**Municipal Cybersecurity Awareness Grant Program**

Offers cybersecurity end-user training, evaluation, and threat simulation to municipal governments and school districts with the goal of improving the overall cybersecurity posture. *mass.gov/how-to/apply-for-the-cybersecurity-awareness-program*

**Office of Municipal and School Technology**
**IT & Cybersecurity Health Check Programs**

Provides opportunities for local government to access basic cybersecurity services at no cost. *mass.gov/orgs/office-of-municipal-and-school-technology*

# SAVE-THE-DATE

Massachusetts Municipal
**Cybersecurity Summit**
6 October 2022

## We hope to see you there!

*For last year's Summit, check out the recordings at*
*http://masscybercenter.org/events/massachusetts-municipal-cybersecurity-summit*

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# Mass**Cyber**Center Team!



**Visit our website to connect with us and learn more:**

**[MassCyberCenter.org](MassCyberCenter.org)**

# ADDITIONAL INFORMATION

# Minimum Baseline of Cybersecurity Goals

**Trained and Cyber-secure Employees**

**Benefits**
- Reduce risk of cybersecurity incidents by improving the training and awareness of system users.

**How**
- Annual individual employee cybersecurity awareness training.
- Make it easy and put incentives in place to get it done.

**Improved Threat Sharing**

**Benefits**
- Respond faster to threats and improve regional awareness and resilience by sharing cyber threat information.

**How**
- Sign up for threat sharing alerts through MS-ISAC or CISA; get to know neighboring towns; join a regional IT group.

**Cyber Incident Response Planning**

**Benefits**
- Strengthen defenses and minimize cyber incident impacts by creating an effective strategy for handling cyber incidents.

**How**
- Use tools and resources to create a cyber incident response plan to protect against and respond to cyberattacks.  Go to MassCyberCenter.org for more information.

**Secure Technology Environment and Best Practices**

**Benefits**
- Reduce the threat of cybersecurity incidents and minimize incident impacts by implementing best practices to make your technology environment more secure.

**How**
- Some basic best practices for getting started include backing up critical data and systems, requiring strong passwords, and updating and patching systems regularly..

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# Minimum Baseline of Cybersecurity
# Goal 1

**Trained and Cyber-secure Employees**
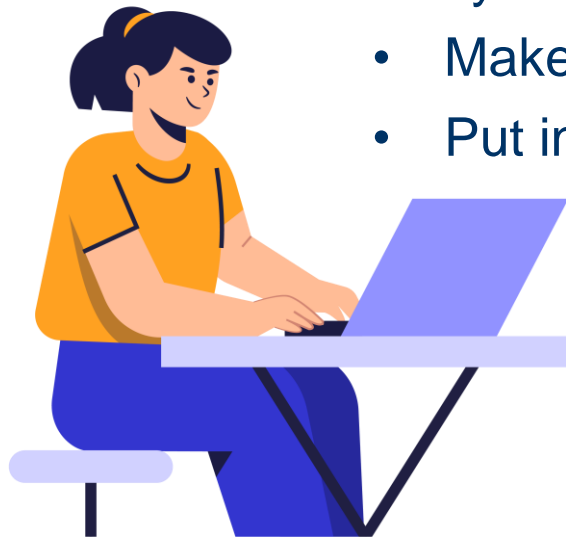
**Benefits**:

- Reduce the risk of cybersecurity incidents by improving the training and awareness of system users.

**How to Achieve**:

- Implement annual individual employee cybersecurity awareness training.

- Make it easy to do the training.

- Put incentives in place to get it done.

**Guidance and a list of resources to get started…**

**MassCyberCenter** at MassTech

# Minimum Baseline of Cybersecurity Goal 2

## Benefits:

- Respond faster to threats and improve regional awareness and resilience by sharing cyber threat information.

## How to Achieve:

- Sign up for threat-sharing alerts from MS-ISAC (it's FREE).

- Get to know your neighboring cities and towns.

- Join a regional IT group through the EOTSS Office of Municipal and School Technology.

**Guidance and a list of resources to get started…**

Improved Threat Sharing

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# Minimum Baseline of Cybersecurity
# Goal 3

Cyber Incident Response Planning

## Benefits:

- Strengthen municipal defenses and minimize cyber incident impacts by creating an effective strategy for handling cyber incidents.

## How to Achieve:

- Use the tools and resources at MassCyberCenter.org to create a cyber incident response plan to protect against and respond to a cyberattack.

**Guidance and a list of resources to get started…**

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at MassTech

# Minimum Baseline of Cybersecurity
# Goal 4

## Benefits:

- Reduce the threat of cybersecurity incidents and minimize incident impacts by implementing some basic best practices to make your technology environment more secure.

## How to Achieve:

- There are many best practices listed in the resources. Here are a few to get started:
  - Require strong passwords
  - Backup critical data and systems
  - Update and patch systems regularly
  - Do annual vulnerability assessments

**Guidance and a list of resources to get started…**

Secure Technology Environment and Best Practices

BEST PRACTICES

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