

The State of the Southeast: Cybersecurity and Your Credit Rating



AGENDA

Geoffrey E. Buswick
November 3, 2017
2:40 to 3:30 p.m.

S&P Global
Ratings

- 1. Internet of Things & Technology Use in USPF**
- 2. How cyber risk ties to US public finance issuers**
- 3. How to talk cyber with obligors in management meetings**

Cybersecurity and Your Credit Rating

Overview

- On March 24, 2017, Treasury Secretary Steven Mnuchin gave a speech in which **he identified cybersecurity as his primary concern regarding the financial sector.**
- On August 16, 2017, Maine Senator Angus King said in Augusta that **“the next Pearl Harbor will be cyber”**
- Emerging risks and criteria

Cybersecurity and Your Credit Rating

Internet of Things (IoT)

A new line of fryers has built-in cameras, Wi-Fi

Smart cooking has come to your back patio with the SmartChef Gas Grill. The grill has built-in Wi-Fi so that you can check internal temperatures of the meat on your phone app

Your fridge can send your phone notifications when the door is left ajar, when the temperature in the refrigerator or freezer compartment reaches above a set temperature, as well as when it's time to replace the water filter

SCADA controls at your water plant that can be controlled by employee remotely, to preclude a midnight call-out

Toyota's Yui, Dragon Drive also learns about the driver's preferences over time by digesting hundreds of data points. For example, if a driver generally visits Starbuck during the week and Tim Hortons on the weekend, the car will recommend the closest Starbuck on a Tuesday and a Tim Hortons on a Saturday

Cybersecurity and Your Credit Rating

Cyber Attacks: What are they and why they occur?

What we see most frequently:

- Phishing
- DDoS
- Ransomware
- Hacktivism



The Cyber Data Triad:

- Confidentiality
- Integrity
- Availability



Recent Examples of Cyberattacks in USPF

Not an exhaustive list – pulled from both news outlets and credit reports

Recent Examples:

- **Standish, ME**
- **Cockrell Hill, TX**
- **Lansing Board of Water and Power, MI**
- **St. Louis, MO**
- **New Hampshire Retirement System**
- **Southern Oregon University**
- **Dallas, TX**

Cyber: We're All in This Together

Multi-State Information Sharing and Analysis Center's 2017 State, Local, Tribal and Territorial Government Outlook

- “Cyber threat actors using a combination of research and social engineering will produce more accurate phishing emails and tailored lures”
- “We expect that financially-motivated cyber threat activity will remain the most prevalent type of activity during 2017”
- “We confidently assess that cyber threat actors are highly likely to continue using unsecured Internet of Things (IoT) device botnets to conduct DDoS attacks”
- “We have high confidence that universities will remain a common target in 2017”

Cybersecurity and Your Credit Rating

How does cyber tie to credit?

- Management
 - **How system hardening and preparing?**
- Liquidity
 - **Spending to prepare or resolve?**
- Performance
 - **Unexpected costs affecting budget?**
- Flexibility
 - **Constituent trust eroded – harder to support revenue increases**
- Debt

Cybersecurity and Your Credit Rating

Select criteria sections – in all cases the entire criteria is applied

U.S. Local Governments General Obligation Ratings: Methodology And Assumptions, *Sept. 12, 2013*

P35 – Structural imbalance in part driven by “unplanned fund balance drawdowns”

P48 - Management -- “A government's ability to implement timely and sound financial and operational decisions in response to economic and fiscal demands is a primary determinant of near-term changes in credit quality.”

P63 – Flexibility – “The criteria separately assess local political support for increases...”

P65 – Performance – Negative qualitative adjustment for “Expected structural deterioration”

Building a Cyber Incident Response Plan

Prepare like you're facing a hurricane

National Institute of Standards and Technology (NIST)

The NIST Framework consists of five concurrent and continuous Functions—*Identify, Protect, Detect, Respond, Recover*.

Tips from various sources:

- Get to know local resources prior to event (FBI, National Guard, etc.)
- Pre-draft important communications
- Evaluate cyber insurance coverage
- Discuss protective measures with third party vendors
- Increase cyber literacy throughout your organization

Cybersecurity and Your Credit Rating

Questions for Issuers

These are meant to start a discussion and help S&P Global gauge management preparedness. Should we find that an event has occurred, follow-up questions will be needed.

- Where do you see your greatest exposure to cyber risks?
 - An open question to get anecdotal info on management preparedness
- What type of planning have you done for cyber mitigation or cyber response?
 - A question to gauge actions taken to date
- What impact has cyber security had on liquidity?
 - A question to see if money has been spent on preparation or on ransom

Thank you

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Ratings

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