The public can listen to the meeting by calling 1-650-479-3207, and entering the event number (127 880 8369)

1. **Call to Order and Roll Call**

2. **Adoption of Agenda**

3. **Approval of Minutes**
   
   3.1 Information Services Advisory Board - Advisory Board Meeting - Sep 14, 2020 6:00 PM

4. **Old/New Business**
   
   4.1 **Recognition of New Members**
   
   Speaker: Mehul Shah
   New members will introduce themselves to the board. No advance preparation is required from members.

   4.2 **Appointment of Vice Chair**
   
   Speaker: Mehul Shah
   Members will nominate and vote on the selection of vice chair. No advance preparation is required from members.

   4.3 **Cyber Security Awareness Month**
   
   Speaker: Nicole Raimundo
   The board will share their ideas on what Cary can do to help our citizens stay cyber aware during October.

   4.4 **Annual Work Plan**
   
   Speaker: Nicole Raimundo
   Members will discuss and select topics to include in the board's 2020-2021 work plan. Members are encouraged to be prepared to recommend items for the upcoming year.

5. **Consideration of Watch List Items**
a. Website  
b. Environmental Communications  
c. Social Media  
d. Downtown  
e. Mobile  
f. Innovative Ideas

6. Comments
   a. Council Liaison  
b. Staff  
c. Citizens
      1. Instructions on how to submit comments  
d. Members

7. Coming Up
   a. Next Meeting November 2, 2020 at 6 p.m.

8. Adjournment

Please contact Chief Innovation Officer Nicole Raimundo at nicole.raimundo@townofcary.org or (919) 469-4027 with any questions about this agenda.

The Town of Cary is committed to providing all citizens with the opportunity to participate fully in the public meeting process. Any person with a disability who needs an auxiliary aid or service in order to participate in any meeting may contact the Deputy Town Clerk at least 48 hours prior to the meeting. The email address is Sarah.Scubert@townofcary.org; the phone number is (919) 319-4508; the TDD number is (919) 469-4012.
This meeting was conducted through simultaneous communication pursuant to NCGS 166A-19.24. All votes were taken by roll call vote unless otherwise noted.

Members participated through simultaneous communication via Webex for the entire meeting.

Others present: Staff Liaison Nicole Raimundo, Smart Cities & IT Project Manager Terry Yates, Erik Chapman, IT Security Manager, and Assistant Clerk Sarah Schubert


1. CALL TO ORDER AND ROLL CALL
Shah called the meeting to order at 6:06 p.m.

2. ADOPTION OF AGENDA

RESULT: ADOPTED [UNANIMOUS]
AYES: Cillay, Monney, O’Cain, Kohn-Johnson, Shah, Murray, Cavicchi
ABSENT: Yacone, Rudell

3. APPROVAL OF MINUTES

3.1 Information Services Advisory Board - Advisory Board Meeting - Aug 3, 2020 6:00 PM

RESULT: APPROVED [UNANIMOUS]
AYES: Cillay, Monney, O’Cain, Kohn-Johnson, Shah, Murray, Cavicchi
ABSENT: Yacone, Rudell

4. OLD/NEW BUSINESS

4.1 Stormwater and IoT Technology
Terry Yates, CGCIO, Smart Cities & IT Project Manager and Billy Lee, Stormwater Operations Manager presented “Creating our Smart and Connected Community Stormwater edition” to the board.

Key Takeaways
- One Cary Vision
- Adaptive Approach to Stormwater
- Creating our Connected Community

Yates shared that with the One Cary Vision, Cary strives to create a 360 view of the Town and works to ensure all of our systems connect, which help us make great decisions with our operations and for the citizens. Our internal process intersects with the citizen experience through 311 and 911. We want a 360 view of our Cary citizens, which is achieved through interactions with them so Cary can better understand them and their neighborhoods.

Lee shared with the board about the adaptive approach to stormwater. A few years back, the Downtown Stormwater Working Group was creating with a group of citizen stake
holders with 10 citizens of all professional backgrounds. A structured approach was several committees were formed (Working Group, Ordinances, Maintenance, Open Space, and Basin Models). In 2018-2019 they took a fresh look at storm water and the 360 view.

Downtown was their pilot area; the Walnut Creek Pilot Area. They created a basin model to show areas for improvement. Sensors were placed in the creek (seven total) placed at streets along the Walnut Creek area and rain gauges. Sensors calibrate their model and measure the water level.

Yates and Lee jumped into how our data gathered goes to our regional partners. In addition, Cary partnered with Microsoft and SAS, plus several Town of Cary staff teams to create our connected community and see their vision come to life.

Member asked if the sensors can be manually manipulated; Lee said yes, and it is a way that they check the gauges.

Member asked if there is a camera to monitor the sensors. Yates explained power is an issue to doing this and many are in residential areas, so there are challenges. The sensors are solar powered.

Yates talked about data flow, storage, and integration with the group. Every six minutes data comes in from the water level sensors and rain gauges are every 15 minutes, which is industry standard.

Lee shared a screenshot of Cary’s Esri internal dashboard (Cary Stormwater IoT) and explained the content of the dashboard. Yates brought up the actual dashboard and showed various sensors and walked the group through what they were viewing. Other stream basins will be added in to show a full view of Cary. Lee said their next target is the Swift Creek basin.

Yates also explained how alerts and work order management are received and managed. Salesforce Chatter posts are created for notifications. From the post you can create a 311 case (closing a street, putting up barricades, etc.)

Yates shared the Salesforce Console and the SAS dashboard and explained the content and walked the group through the data they were seeing.

Lee went through a screenshot of FIMAN (Flood Inundation Mapping and Alert Network) and explained the color codes and how it reports gage levels and shared gauges are on this site, which shows all the sensors in North Carolina.

Yates explained that Cary is using all our own platforms which is unique because other agencies use vendor solutions. Our model platforms can talk to each other.

### 4.2 Cyber Security

Chapman, IT Security Manager, presented an overview of Cary’s cyber security program.

Chapman explained the ransomware is the major threat they are looking out for and preventing. This is primarily open source tools and embedded Windows tools repackaged by threat actors.

Chapman walked the group through the anatomy of an attack. Email is the initial way the compromise occurs with the established foothold being an item that needs to be
downloaded. They then escalate privileges to steal password hashes, do internal reconnaissance to scan the environment for possible targets. They complete their mission by extracting sensitive data, encrypt, and cover tracks. 91% target attacks start with email.

Chapman shared what recent security improvements Cary has made to prevent and/or contain ransomware attacks, which include the following: security assessment, penetration test, next generation firewalls and antivirus protection, email security test, gold image (base line configurations), database security, security operations center, incident response plans, and testing backups.

Chapman explained the takeaway for a small organization like the Town of Cary, is that the tools are only as good as the people behind them. Staff need to continue learning to stay on top of current trends, tools, and threats.

5. **CONSIDERATION OF WATCH LIST ITEMS**

a. **Website**
   
   None

b. **Environmental Communications**
   
   None

c. **Social Media**
   
   None

d. **Downtown**
   
   None

e. **Mobile**
   
   None

f. **Innovative Ideas**
   
   None

6. **COMMENTS**

a. **Council Liaison**
   
   None

b. **Staff**
   
   None

c. **Citizens**
   
   No comments were received.

d. **Members**
   
   Member asked about BUD not being received by those who do not receive a water bill, such as those in apartment complexes. Board recommended adding this as an idea to discuss in the new year.
Member asked about the Alexa Skills. Raimundo said it is live, but Cary has not marketed it yet to citizens.

O'Cain's term is expiring and he expressed his thanks to the board for the last six years.

7. COMING UP
   a. Next Meeting: October 5, 2020, 6 p.m.

8. ADJOURNMENT
   The meeting adjourned at 7:38 p.m.
Creating our Smart and Connected Community
Stormwater Edition

Terry Yates, CGCIO, Smart Cities & IT Project Manager
Billy Lee, Stormwater Operations Manager

Town of Cary
Key Takeaways

01  One Cary Vision

02  Adaptive Approach to Stormwater

03  Creating our Connected Community
360 Degree View of the Town
(Internal Operations)

311/911
Where internal process intersects with citizen experience

360 Degree View of the Citizen
(Citizen Interaction)
Adaptive Approach to Stormwater
Downtown Stormwater Working Group
Citizen Stake Holders
Approach

1. **Program and Policy**  
   Ordinance, Condition Assessment, & Maintenance

2. **Walnut Creek Pilot Area**  
   Model, Imagine Cary, & Open Space

3. **Citizen Engagement**
Partnerships

Microsoft

SAS

Town of Cary
North Carolina
Sensor & Rain Gage Locations
Greenstream Sensors & Rain Gages
Data Flow, Storage and Integrations

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**Return Documents**

- **Start**: Data Passesthrough
- **Storm Sensor Routing Child**: Data Process
- **Payload**: Call SFDC Endpoint 2
- **Call to SFDC ToStormFlow 2**: send JSON to SFDC update 2

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**Microsoft**

**Dell**

**Boomi**

**Minutes Acceptance: Minutes of Sep 14, 2020 6:00 PM (Approval of Minutes)**
Visualization and Situational Awareness

Esri Dashboard
Alerts and Work Order Management

Salesforce Console
Long Term and Predictive Analytics

SAS Dashboard

TOWN OF CARY
Regional Efforts

FIMAN

Town of Cary
Thank You
Town of Cary Security

• Erik Chapman | IT Security Manager
Agenda

• Major Threats
• Anatomy of an Attack
• Current Threat Landscape
• Cybersecurity Best Practices
• Security Improvements
• Key Takeaways
Major Threats

- Ransomware affecting all industries but primarily focused on government, manufacturing, and education.
- Primarily open source tools and embedded Windows tools repackaged by threat actors
- 3 out of 4 companies suffer outages of 2 days or longer
- 30% of ransomware attacks last longer than 5 days
- Ransomware attacks costs small businesses an average of $713,000 per incident (downtime, rebuild, loss to reputation, civil damages)
Anatomy of an Attack

- **Initial Compromise - Email**

- **Establish Foothold – Downloaded “Invoice” file**

- **Escalate Privilege – Steal password hashes**

- **Internal Reconnaissance – Scan environment for targets**

- **Complete Mission – Extract sensitive data, encrypt, and cover tracks**
Threat Landscape

- Easy
- Effective
- Most often used threat vector
Recent Security Improvements to Prevent/Contain Ransomware Attacks

- Security Assessment
- Penetration Test (including external and internal websites)
- Next Generation Firewalls and Antivirus Protection
- Email Security Test
- Gold Image
- Database Security
- Security Operations Center
- Incident response plan for ransomware, data breach, and DDOS attack.
- Test Backups
(...just to name a few!)
Key Takeaways for Small Orgs

1. People
2. Consolidation
3. Defense-in-Depth
4. Multifactor Authentication and Trusted Managed Device
Instructions for submitting comments to the Information Services Advisory Board’s Comment Period:

The public may submit written comments for the Public Comment agenda item. Comments should be sent to isab.clerk@townofcary.org and have Public Comments for October 5 Meeting in the subject line. Comments received by noon on October 5 will be summarized at the meeting and a full copy of the comments will be provided to members prior to the meeting. Comments received after noon but prior to the start of the meeting will be provided to members the following day. All comments will be an exhibit to the minutes.