How Smart States are Using Innovative Techniques to Enhance Technology Use

NTIA Webinar Series

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April 18, 2018
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Audio

• Please dial in to hear the webinar: 800-593-7190 Passcode: 984-4951#
Participants

Moderator

• **David Forscey**, *Policy Analyst, Homeland Security & Public Safety Division, National Governors Association*

Presenters

• **David Ihrie**, *CTO, Virginia Center for Innovative Technology*
• **Mahesh Nattanmai**, *Chief Digital Health Strategist, New York State Department of Health*
• **Lisa Ullman**, *Director, Center for Health Care Policy and Resource Development, New York State Department of Health*
• **Essam El-Beik**, *Consultant, Illinois Century Network, Illinois Department of Innovation & Technology*
Presentations

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• Mahesh Nattanmai, Chief Digital Health Strategist, New York State Department of Health

• Lisa Ullman, Director, Center for Health Care Policy and Resource Development, New York State Department of Health

• Essam El-Beik, Consultant, Illinois Century Network, Illinois Department of Innovation and Technology
Virginia Smart Communities and Broadband

David Ihrie, CTO
Center for Innovative Technology
David.Ihrie@CIT.Org

Follow us on twitter: @CITOrg or @dihrie

NTIA Webinar
18 April, 2018
A Unique Entity Supporting the Commonwealth of Virginia

Leadership For State Initiatives

Smart Communities Working Group

Business Accelerators

Investment Programs
Many Smart Community Projects Under Way in Virginia

Bringing Internet 2 to K-12 Schools
Challenges

Improving Government Services

Data Sharing and Governance
- Privacy and Cybersecurity
- Data ownership and Liability
- Legal Authorities and Structures
- Public/Private/Protected Data

The Digital Divide
- Making the Benefits Accessible to *every* Citizen in the Commonwealth
What Are We Doing?
Recommendations for Virginia (Draft)
- Lower the Barriers to Entry for Communities
- Unified Solution for Privacy and Cybersecurity
- Pre-approved Data Sharing Framework
- Legal, Regulatory authorities
- Governance Board/CDO

Leadership in Implementation
- Support Initial Builds; State Leads the Way
- Help Communities Identify and implement their priorities (Broadband Path as model)
CIT Broadband Path & Smart Communities

*CIT Broadband Path is helping 17 Virginia Communities Get Connected*

**Phase 1: CIT Performs Assessment, with Local Assistance**
- Broadband needs
- Assets
- County connections
- Policies, fees or process
- Community programs

**Phase 2: Locality Makes Decisions**
- Role
- Goals
- Policies
- Investment

**Phase 3: CIT Provides RFP**
- Requirements
- Draft Conceptual Phase RFP
- Funding Opportunities

First, Get Connected
Then, Think Local Smart Community Goals
CIT Helps Leverage State/Private Resources
Presentations

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- Essam El-Beik, Consultant, Illinois Century Network, Illinois Department of Innovation and Technology
Enhancing Care through Telehealth

Mahesh Nattanmai – Chief Digital Health Strategist
Mahesh.Nattanmai@health.ny.gov

Lisa Ullman - Director of the Center for Health Care Policy and Resource Development, Office of Primary Care and Health Systems Management
lisa.ullman@health.ny.gov
• What is Telehealth?
• What’s driving the Demand?
• Perceived Barriers
• Steps taken by NY to improve Telehealth Adoption
What is Telehealth?

A collection of means or methods for enhancing health care, public health, and health education delivery and support using telecommunications technologies
What’s driving the Demand?

- Improve quality
- Enhance patient experience
- Lower costs

Value Based Care
Provider Maldistribution

Primary Care Health Professional Shortage Areas (HPSAs): Percent of Need Met, as of December 31, 2016

Percentage of Need Met

<table>
<thead>
<tr>
<th>Location</th>
<th>of Need Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>56.77%</td>
</tr>
<tr>
<td>California</td>
<td>61.99%</td>
</tr>
<tr>
<td>Connecticut</td>
<td>12.50%</td>
</tr>
<tr>
<td>Florida</td>
<td>41.25%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>34.02%</td>
</tr>
<tr>
<td>New York</td>
<td>52.11%</td>
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<tr>
<td>Texas</td>
<td>66.40%</td>
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SOURCE: Kaiser Family Foundation’s State Health Facts.
Healthcare Consumerization

- Patients demanding retail experience like convenience, comfort, availability, flexibility and brand loyalty in healthcare

- High deductibles forcing patients to do comparison shopping and evaluate all options for care
Primary care’s functions are being unbundled
Perceived Barriers

1. Reimbursement & Payment Models
2. Licensure & Regulations
3. Broadband
4. Technology
5. Building a sustainable business case
6. Interoperability
7. Longitudinal Patient Health Record
8. Data Privacy / Confidentiality
9. Patient Engagement
Reimbursement and Regulatory Changes

• Existing law required insurers and the Medicaid program to provide reimbursement for services delivered via telehealth if those services would have been covered if delivered in person

• The Department of Health (DOH) convened a advisory group of insurers, health care providers and consumers to highlight challenges in implementing the law and identify potential changes

• Based on their input, the 2018-19 State budget expanded the law to:
  
  • Permit the patient to be located anywhere
  • Add alcoholism and substance use disorder counselors and early intervention practitioners as telehealth providers
  • Clarify that “Remote Patient Monitoring” includes additional interactive requests for information in response to previous transmissions
  • Require DOH and other state agencies to coordinate on guidance to facilitate the appropriate use of telehealth in addressing barriers to care
100% Broadband in 2018

The NYS Broadband Program Office

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Smart Street Lighting

Essam El-Beik
Essam.El-Beik@Illinois.gov
214 792 9866

April 18, 2018
• Request for Proposal (RFP) issued January 2017 for Smart Street Lighting

• Resulting in State Master Contract to facilitate municipal upgrade of street lights

• December 2017 – 3 vendors awarded
Smart Street Light Architecture

Central Management System

Backhaul Communications Network

Luminaires and Controllers

Controller Field Device

LED Luminaire

Adaptive Controls = Central Management System + Backhaul Communications Network + Field Devices
Luminaires

Cobra head

Decorative
Benefits of Upgrade

- Significant Energy Savings
- Less Maintenance
- Higher quality light
- Light can be controlled and monitored
- Additional energy savings with adaptive controls
- Maintenance alerts via adaptive controls
- Value add services

The significant cost savings are driving municipal upgrades
Impact of LED Lighting

Before

After
A Foundation for a Smart City

- Structure (light pole) and power to enable other devices – sensors and actuators
- Communications network available
- Central management system
- Wide geographic coverage of street lights
Street Light Intelligent Controls

• Operational monitoring and control including on, off, dimming and the ability to monitor power usage and the status of fixtures – automatic maintenance alerts

• Asset management including location and type (all operating characteristics)

• Time-of-use metering and associated control such as turning lights on during the day in a storm

• Automatic Luminaire registration and commissioning enabled with integrated GPS technology

• Emergency Response
Value Add Services

- Gunshot detection and triangulation for public safety using acoustical sensors and software
- Video monitoring for security and other analytics
- Chemical and radiation detection for public safety
- Environmental/air quality monitoring
- Smart Parking
- Smart Waste Management
- Public Messaging/Digital Signage
- Wireless broadband network
Steps to Upgrade

- Inventory Audit
- Photometric Design
- Energy Savings Analysis
- Procure
- Install
- Operate and maintain
Thank you

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Questions and Comments

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Thank you for attending.
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Infrastructure Week Special:
Successful Models and Best Practices for Rural Broadband Deployment
May 16, 2018
2:00 pm EST

Registration is required for each webinar:
https://broadbandusa.ntia.doc.gov/event
BroadbandUSA is available to help communities with their broadband access and digital inclusion efforts

BBUSA Resources:

- **Implementing a Broadband Network Vision: A Toolkit for Local and Tribal Governments**
- **Community Broadband Roadmap Toolkit**
- **Guide to Federal Funding of Broadband Projects**
- **Using Partnerships to Power Smart Cities**

For General Information:

- 202-482-2048
- broadbandusa@ntia.doc.gov
- https://broadbandusa.ntia.doc.gov/resources

To Request Technical Assistance (TA):

- Broadband TA Request Form
  - https://broadbandusa.ntia.doc.gov/ntia-common-content/how-we-can-help