



How Smart States are Using Innovative Techniques to Enhance Technology Use

NTIA Webinar Series

You must dial in to hear the webinar!

Conference Line: 800-593-7190 Passcode: 984-4951#

April 18, 2018

Helpful Information

Questions

- Please type questions in the Q&A box on the right hand side of the screen. Questions will be taken after the final presenter.

Presentation

- The presentation along with a transcript and recording will be available on the BroadbandUSA website within 7 days of this webinar under Events.
- (<https://broadbandusa.ntia.doc.gov/past-event>)

Audio

- Please dial in to hear the webinar: [800-593-7190](tel:8005937190) Passcode: [984-4951](tel:9844951)#

Participants

Moderator

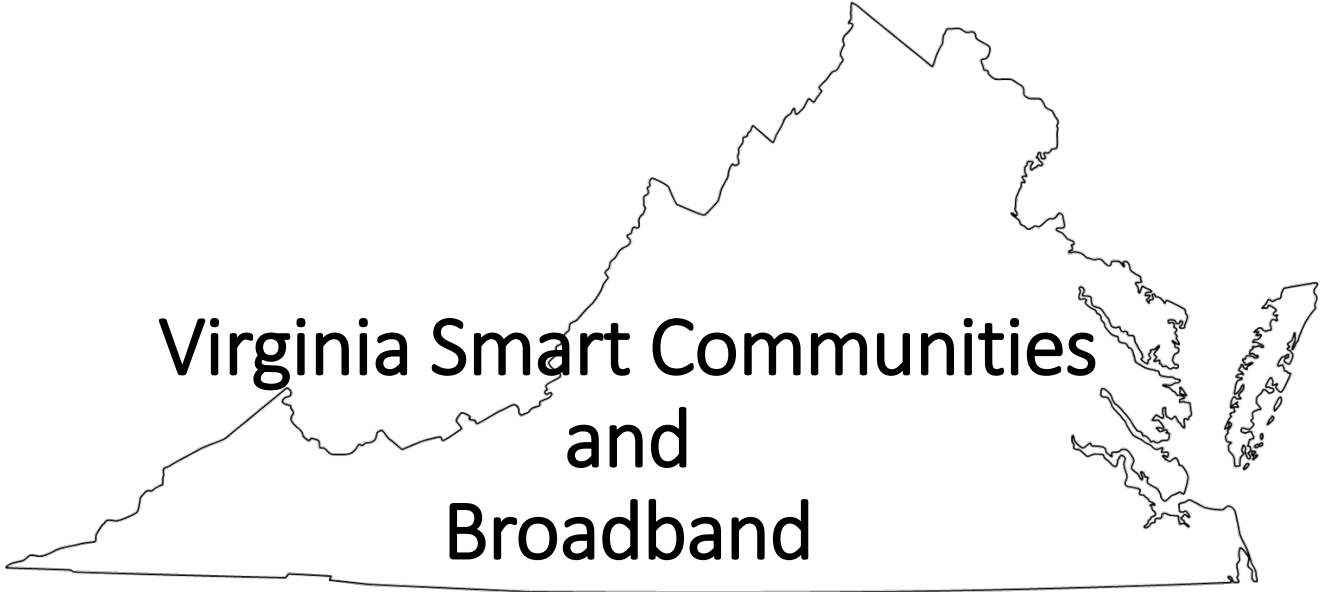
- **David Forscey**, *Policy Analyst, Homeland Security & Public Safety Division, National Governors Association*

Presenters

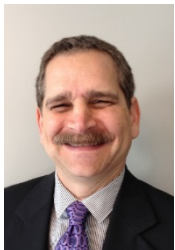
- **David Ihrle**, *CTO, Virginia Center for Innovative Technology*
- **Mahesh Nattanmai**, *Chief Digital Health Strategist, New York State Department of Health*
- **Lisa Ullman**, *Director, Center for Health Care Policy and Resource Development, New York State Department of Health*
- **Essam El-Beik**,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

Presentations

- **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 and Technology



Virginia Smart Communities and Broadband

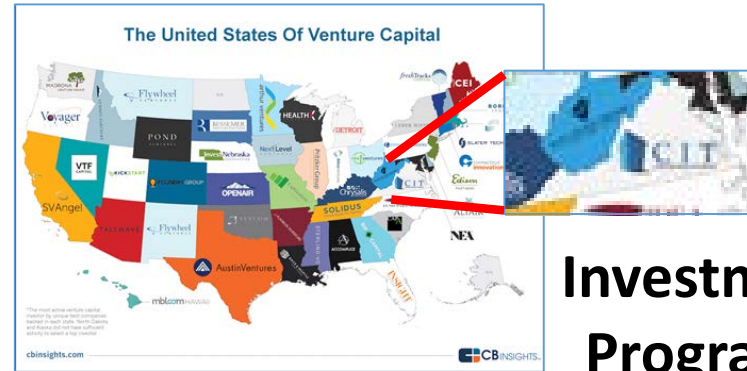


David Ihrie, CTO
Center for Innovative Technology
David.Ihrie@CIT.Org

Follow us on twitter:
[@CITOrg](https://twitter.com/CITOrg) or [@dihrie](https://twitter.com/dihrie)

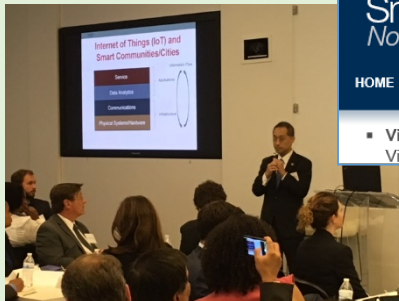
NTIA Webinar
18 April, 2018

A Unique Entity Supporting the Commonwealth of Virginia



Investment Programs

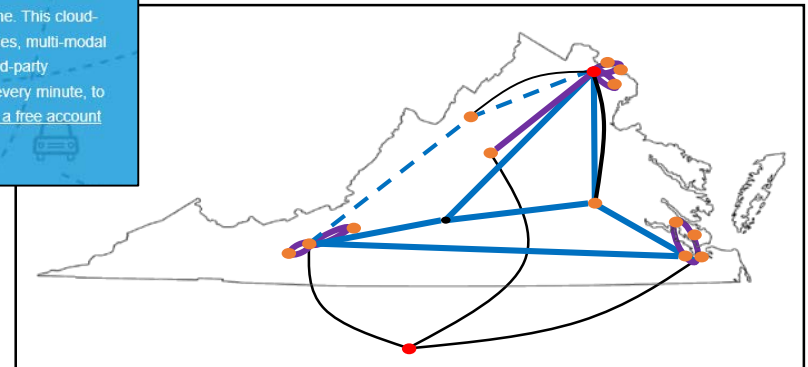
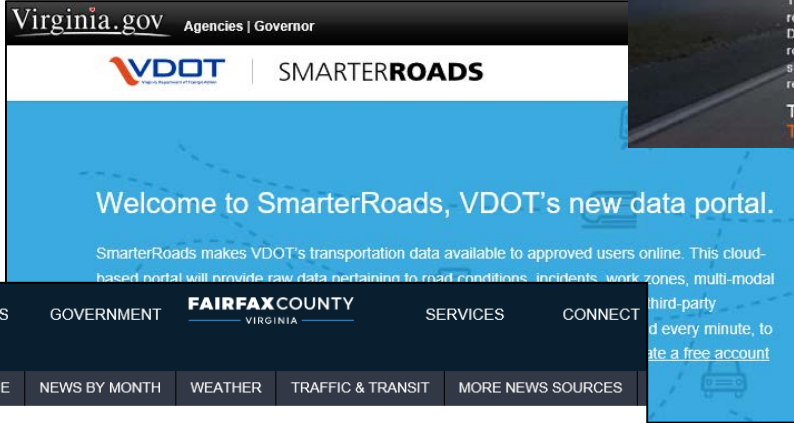
Leadership For State Initiatives



Smart Communities Working Group

Business Accelerators

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

- 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 and Technology



**Department
of Health**

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**

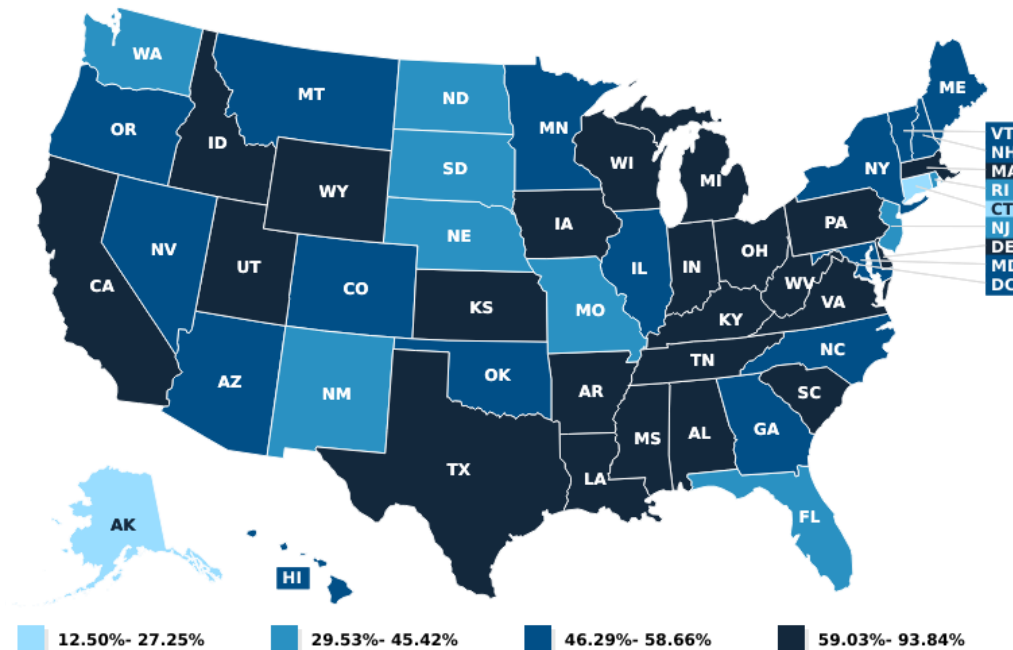


Lower costs

Value Based Care

Provider Maldistribution

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



SOURCE: Kaiser Family Foundation's State Health Facts.

Percentage of Need Met

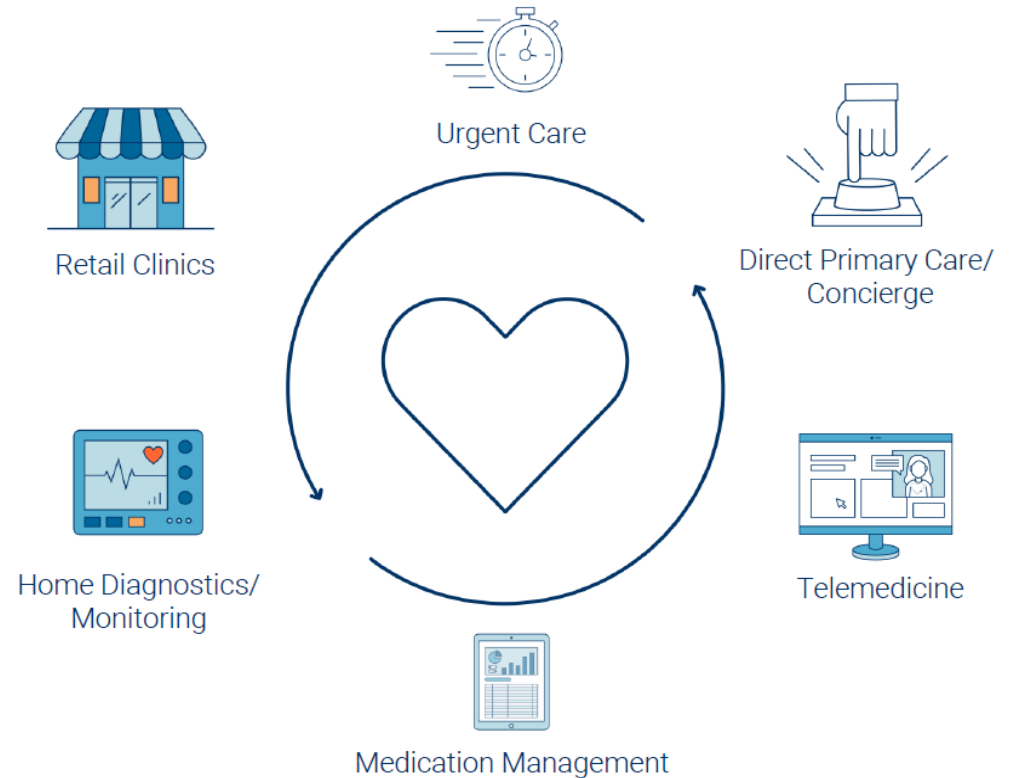
| Location | of Need Met |
|----------------------------|-------------|
| United States ¹ | 56.77% |
| California | 61.99% |
| Connecticut | 12.50% |
| Florida | 41.25% |
| New Jersey | 34.02% |
| New York | 52.11% |
| Texas | 66.40% |

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

https://nysbroadband.ny.gov/sites/default/files/finall_introducing_phase_3.pdf

Presentations

- David Ihrle, 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 and Technology**



Smart Street Lighting

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

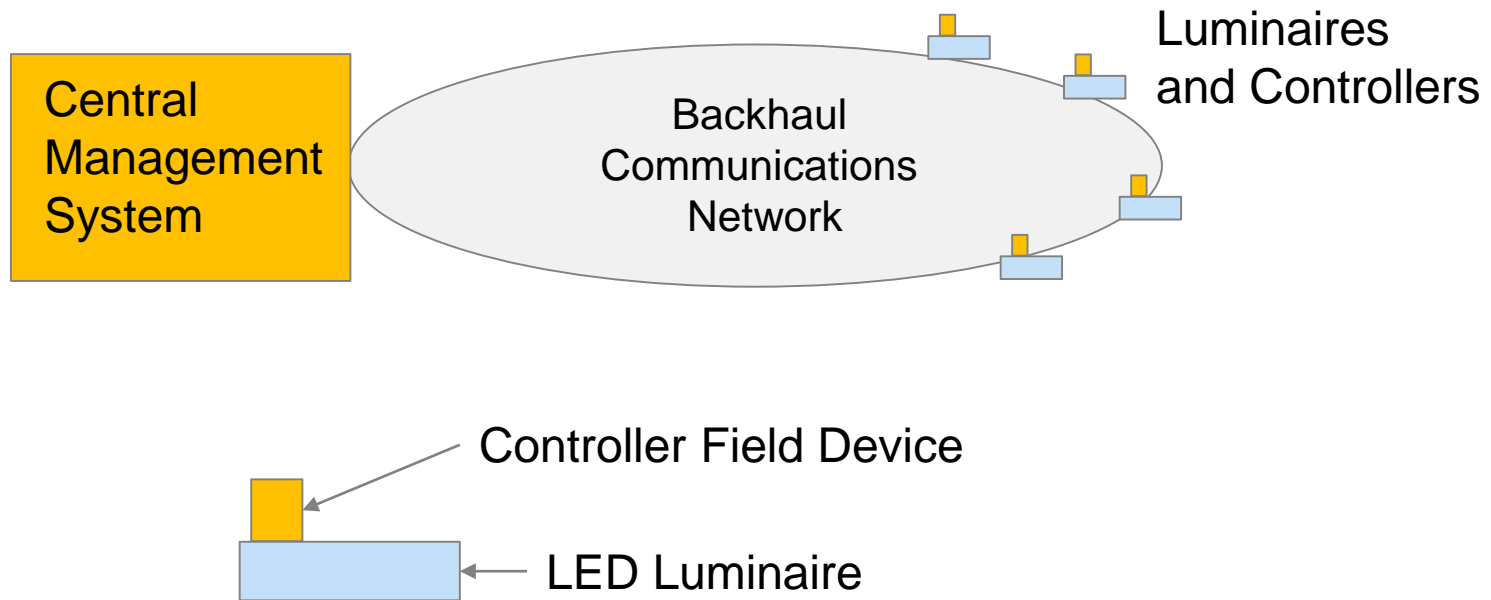
April 18, 2018



Smart Street Lighting RFP

- 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



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

Luminaires



Cobra head



Decorative

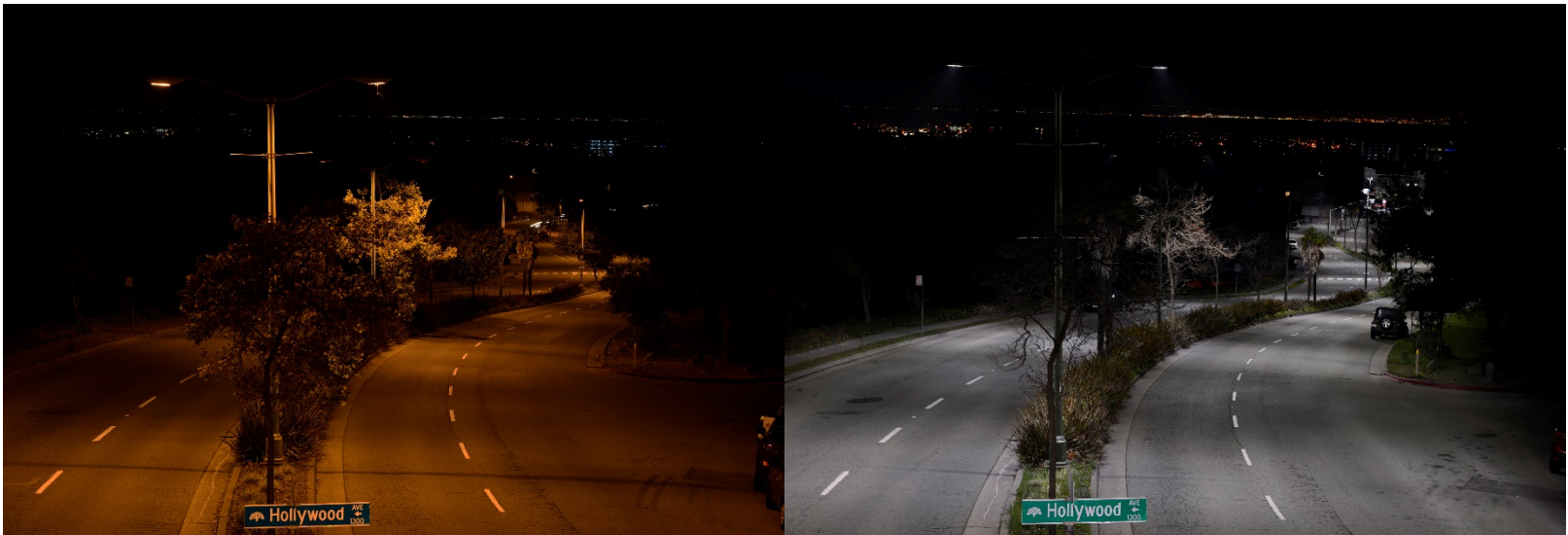


Benefits of Upgrade

- 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

Essam El-Beik

Essam.El-Beik@Illinois.gov

214 792 9866

How Smart States are Using Innovative Techniques to Enhance Technology Use

Questions and Comments

- Please type your questions in the chat or Q&A box.
- Slides and transcript will be posted on the BroadbandUSA website within 7 days after the webinar.

<https://broadbandusa.ntia.doc.gov/past-event>

Broadband USA

Thank you for attending.

Tune in for the next Practical Conversations Webinar

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>