Agenda Overview

• US Ignite
  • Background
  • Related Programs
  • Smart Gigabit Communities program

Utah Ignite
• Participants
• Activities
is a **nonprofit**
accelerating the **smart community movement**
and creating **value** for an entire **ecosystem**
by **guiding communities** into the **connected future**,
creating a path for **private sector growth**, 
and **advancing technology research**
that’s at the heart of **smart community development**.
Strategy: Building the foundation for smart and connected communities

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SMART COMMUNITY FOUNDATION
$100M Platforms for Advanced Wireless Research

Industry Consortium
Cash, equipment & services, engineering, marketing, & R&D support

NSF and Research Community
Grants, experimental spectrum licenses, research agenda

PAWR Project Office
PAWR Industry Consortium Members

Powder (the Platform for Open Wireless Data-driven Experimental Research) is a facility for experimenting on the future of wireless networking in a city-scale “living laboratory.”

Powder is run by the University of Utah in partnership with Salt Lake City and the Utah Education and Telehealth Network. In addition to state-of-the-art off-the-shelf equipment, Powder will deploy cutting-edge radio hardware and software being developed by the RENEW team lead by Rice University.

Powder-RENEW is part of the National Science Foundation’s PAWR program and is funded in part by NSF award CNS-1827940 and the PAWR Industry Consortium.
US Ignite Forum

BACKGROUND

System shocks and unexpected setbacks have always been a part of the governing process, but communities are facing new challenges today that threaten their ability to bounce back from negative events. In particular, climate change is intensifying and increasing the frequency of high-impact storms, and the continued digitization of government systems is putting municipalities at greater risk of a cyberattack.

To help communities strategize on ways to improve their capacity for resilience, US Ignite hosted a Smart City Resiliency workshop focused on the specific difficulties posed by climate change and the vulnerability of municipal information systems. The day’s presentations and discussions highlighted how communities can create frameworks to address priority issues, as well as what technology and policy levers can be applied to ensure cities are as prepared as possible for both natural and man-made disasters.

On the topic of flood management and storm impacts, the workshop covered lessons learned in previous natural disasters, the use of data combined with spatial mapping representations to improve development strategy, the importance of community building and outreach, and the use of cities as innovation labs for creating technology-driven solutions.

On the topic of cyber resilience, speakers outlined the anatomy of a variety of network attacks, emphasized the importance of disaster training, highlighted potential weaknesses in data backup strategies, and pointed to available counterattack measures.

The US Ignite workshop on Smart City Resiliency took place on October 7, 2019 in National Harbor, Maryland, just outside of Washington, D.C. Along with representatives from the District of Columbia, the workshop featured community leaders from St. Petersburg, Florida; Norfolk, Virginia; and Pearland, Texas – plus experts from Deloitte and Mitre Corporation, and additional university, industry, and non-profit partners.

This playbook shares their experiences and conclusions.

- Convene small, curated workshops enabling communities to share information
- Focus on smart city challenges, lessons learned, and best practices
- Identify funding sources for community projects
- Develop and release topic-specific playbooks
Smart Cities Connect and US Ignite Application Summit
November 17-19, 2020

fall.smartcitiesconnect.org

2019 Results
• April 9-11, 2019
• 1700+ Attendees (200 Cities)
• ~30 software demos and 100+ exhibitors
Communications and Outreach

Monthly Newsletter and Videos
○ Delivered to more than 6,000 subscribers

Blog & Social Media
○ >3,000 followers on Twitter, ~1,000 on Facebook, ~600 on LinkedIn

Website
○ More than 20K pageviews in first 2 months of 2020, 96 videos

Events (14K participants)
○ Annual conference
○ Reverse pitches
○ Speaking engagements
Communications & Outreach: Videos

96 YouTube videos engage and unite science, industry, and community-based stakeholders

- Building the SGC Network
  - https://www.youtube.com/watch?v=Xt2Mj6FltbQ

- Poultry Patrol
  - https://www.youtube.com/watch?v=SWrXuvH2mtI

- Bridging the Gap Between Rural Schools and STEM Professionals
  - https://www.youtube.com/watch?v=9RWA5L6olgU

- Smarter Maps (Dryver underground utilities AR + LocaleIQ)
  - https://www.youtube.com/watch?v=4OL177p7q

- Air Quality and U
  - https://www.youtube.com/watch?v=mAfGIojF0k8

- Smart and Connected Energy (Karava)
  - https://www.youtube.com/watch?v=sci6E2J1sEM

- San Diego SGC Launch
  - https://www.youtube.com/watch?v=KQEXakzwcw

- Connected Autonomous Vehicles (Sartipi)
  - https://www.youtube.com/watch?v=cHoB-FYAm0&t=5s

- Smart Future
  - https://www.youtube.com/watch?v=UQsJqQ8RUhQ&t=12s
St Petersburg / Innovation District

1. Smart city initiatives:
   Selected smart streetlights and immersive education as key projects

2. Smart city communications infrastructure:
   Facilitated sessions w/ academic, private, civic & industry leaders

3. Broad-based community involvement in innovation ecosystem:
   St. Pete Business Partnership, seeking NOAA and NSF $

4. Strong potential innovation leadership:
   Selected St Pete Innovation District as a robust, well-connected facilitator

5. Strong likelihood of City-Spectrum partnering to drive sales:
   MSO donated product and services for 4 Smart LED poles, scale-up and purchase likely to follow

Installation of artificial reef with marine sensors in Clam Bayou
SGC Testimonials of Economic Impact

- "US Ignite’s partnership provided our small west coast city added credibility and visibility. Subsequently we were able to recruit new tech companies here, creating hundreds of new high-paying jobs that are nearly double the region's median wage. In 2016 there were 418 tech companies here, today there are over 500.”
  - Matt Sayre, Managing Director, Onward Eugene

- "EPB’s fiber optic network generated $1.3 billion of community benefits and 5,200 extra jobs in its first five years."
  - Bento Lobo, University of Tennessee at Chattanooga.

- “In Red Wing, we've been able to assemble a local angel fund of approximately $500,000, a Startup School partnership with a prominent venture capital group featuring a $600,000 fund for rural innovators, and a new partnership with the Center on Rural Innovation's Opportunity Zone Fund of $5,000,000.”
  - Adam Gettings, Executive Director, Red Wing Ignite
SGC: Matching city needs to partner strategies

**Smart Security**
- Surveillance
- Simulation modelling & crime prediction

**Smart Buildings**
- Automation
- HVAC
- Lighting

**Smart Infrastructure**
- Digital Water and Waste Management
- Ubiquitous connectivity
- Smart Lighting
- Smart Trash

**Smart Transport**
- Traffic management / road pricing
- Parking
- Public transit tracking

**Smart Energy**
- Smart Grids
- Smart Meters
- Intelligent Energy Storage

**Smart Governance / Education**
- e-Government
- e-Education
- Disaster Management Solutions

**Smart Healthcare**
- Telemedicine
- eRecords
- Connected devices
- Stay-at-home care

**Primary Use Case Benefit**
- Increased Revenue
- Decreased Costs
- Government Efficiency
- Citizen Experience / Safety

Note: sub-categories / use cases not exhaustive; Source: Frost & Sullivan; Gartner; Cox Communications.
Typical SGC city benefits

- National visibility
- Economic development opportunities
- Incentives to build next-gen apps/services
- National partners and grant funding sources
- Smart community best practices and tool kits
- Smart city playbook
- Driving innovation ecosystem to create new services, jobs, startups, and investments
Interconnect local digital economy and leverage advanced cyberinfrastructure at the edge: Digital Town Square

Local, settlement-free digital economy interconnection point and edge computing location

Participating industry partners in DTS
Juniper Networks, AWS, Google Fiber, Chattanooga Electric Power Board, Everstream

Universities and nonprofit partners in DTS
University of Utah, University of South Australia, UVM, UT-Chattanooga, UL-Lafayette, Duke/North Carolina State University, UT-Dallas, University of Illinois Champaign-Urbana; Utah Education Network, BTV Ignite, The Enterprise Center, MCNC/NCNGN, CMI Hub

Example Advanced Smart and Connected Community Cyberinfrastructures
- AERPAW in NC (autonomous drones)
- POWDER in Utah
- 2500 smart instrument packages in streetlights (San Diego)
- Support from The Quilt for Digital Town Square and Cyberinfrastructures
- KVASIR (augmented reality training) in Lafayette, LA
- STEM 360 (augmented learning tools) in North Carolina
- 60 GHz radio to the unconnected (Cleveland)
- 10 Gbps fiber to the home (Chattanooga)
- Autonomous shuttles (Columbus, Las Vegas, Colorado Springs)
Smart City Apps, Projects and Services Commercialized and Deployed

- Packetized Energy (Burlington, VT) [Energy]
- WeCounsel (Chattanooga, TN) [Healthcare]
- PlanIT Impact (Kansas City, KS & MO) [Education]
- SightDeck (Kansas City, KS & MO) [Education]
- Immersive VR for Medical and Anatomical Education (KC, MO) [Education]
- Medelight (NC Ignite) [Healthcare]
- CAP Science Labs (NC Ignite) [Public Safety]
- Smart Pavement System (Kansas City, KS & MO) [Transportation]
- Bloxmob (Austin, TX) [Big Data]
- The Path to Python (Austin, TX) [Education]
- Just-In-Time-VR (Austin, TX) [Public Safety]
- Docity (Chattanooga, TN) [Healthcare]
- iNotify (Richardson, TX) [Public Safety]
- SaasCharge (NC Ignite) [Transportation]
- Hydroid Meter (Austin, TX) [Water]
- LocaleIQ (San Francisco, CA) [Transportation]
- Blockchain to Protect the Vote (Phoenix, AZ) [Other]
- Live VR for STEM Education (NC Ignite) [Education]
- Drone Supported Emergency Management (NC Ignite) [Public Safety]
- STEM Workforce Development with AR (Madison, WI) [Education]
- Enpira (NC Ignite) [Energy]
- All The Farms (Eugene, OR) [Ag Tech]
- DeepWalk Research (Urbana-Champaign, IL) [Transportation]
- Archethought (Colorado Springs, CO) [Sound sensing]
- Coaster (Richardson, TX) [Transportation]
- Helix Health (Kansas City, KS & MO) [Healthcare]
- How’s My Driving (Washington, D.C.) [Transportation]
- MVP Studio (Eugene, OR) [Urban planning]
- Noble Smart, LLC (Washington, D.C.) [Ag Tech]
- Particle Space (Kansas City, KS & MO) [Urban planning]
- Snowbird R.I.D.E. (Salt Lake City, UT) [Transportation]
- Road Reader (San Diego, CA) [Transportation]
- Cipher (Adelaide, Australia) [Education]
- Underground Infrastructure (Burlington, VT) [e-Government]
- 4k Microscope (Chattanooga, TN) [Education]
- 60GHz wireless (Cleveland, OH) [Education]
- Fort Carson AV shuttle (Colorado Springs, CO) [Transportation]
- EUGNet (Eugene/Springfield) [Economic Development]
- Stop and Freeze (Flint, MI) [Public Safety]
- 4K microscope (Jackson, TN) [Education]
- Disaster Resilient Smart Grid (Joplin, MO) [Public Safety]
- Gigabots (Kansas City, MO & KS) [Education]
- LEaRN (Lafayette, LA) [Education]
- Regional govt data DTS (Las Vegas, NV) [Transportation]
- GonioSense (Madison, WI) [Health Care]
- Hathority (Phoenix, AZ) [e-Government]
- Poultry Patrol (Red Wing Ignite, MN) [Ag Tech]
- Emotive Virtual Patient (Richardson, TX) [Health Care]
- Transit Visual Information System (San Francisco, CA) [Transportation]
- “Guardians of the Gulf” (project with Boys & Girls Club) (St Petersburg, FL) [Education]
- City Data Visualization (Gigabit Girls) (Urbana Champaign, IL) [Education]
- Air Quality and U (Utah Ignite) [Health Care]
- Urban Planning (Vaughan, Ontario) [e-Government]
- PA 2040 (Washington, DC) [e-Government]
Covid-19 Response

Connecting the Unconnected
Drew Clark: Utah Ignite exists to find new light bulbs for the Internet age

By Drew Clark | May 17, 2015, 3:56pm MDT
Utah's Technology Response to COVID-19

By Mike Hussey, State of Utah CIO

Register Via Zoom
Utah Smart Cities Directory

This directory includes any companies that have been involved in Utah internet of Things, Gigabit, or Smart Cities Meetups, Conference, or other programs.

Displaying listings from all locations.

- Accelerators/Make Spaces/Incubators
- Broadband
- Components
- Cybersecurity
- Emergency
- Engineering
- Grants
- Hosting
- Internet of Things
- Manufacturing
- Operating Systems/IoT Platforms/Big Data/Artificial
- Agricultural/Environmental IoT
- Communications
- Computing
- Drones
- Energy
- Government/Universities
- Health Tracking and Wearables
- Industrial IoT
- IoT
- Media
- Sensors

Recent Posts
- Drum roll, please: presenting the 2020 Smart 50 Awards recipients
- Demo at the 2020 US Ignite Application Summit
- Utah December Smart Cities Luncheon with Lt. Governor Spencer Cox
- Start up at the 7th Annual Smart Cities Startup Challenge!
- City Innovate

Recent Comments
- A WordPress Commenter on Utah Ignite exists to find new light bulbs for the Internet age

Archives
- February 2020
- December 2019
- November 2019
- October 2019
- September 2019
- May 2019
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