Wi-Fi
Network: MPO Guest
Password: Welcome123
INTRODUCTIONS
Purpose

• Prepare and guide local governments and stakeholders on smart technology investments
• Exchange ideas among public, private, and non-profit sectors about how technology could impact community development
• Identify technologies that should be pursued to achieve regional goals
• Reduce socio-economic disparities in the community
• Leverage technology to maximize efficient use of tax dollars
Tasks

• Create regional policies and guidelines to fully leverage the opportunity for technological advancement and sustained vitality of the region.

• Research best practices and policies that help identify how technology can assist in implementing regional goals from efforts such as Capital Crossroads, The Tomorrow Plan, United Way OpportUNITY Plan, etc.

• Create a shared vision for the region that can be of assistance for future grant proposals and technical assistance opportunities.
Structure

• **Roundtable**: Large group that meets quarterly to exchange ideas and best practices. Represents public, private, and non-profit sectors.

• **Task Force**: Small group that meets as needed to provide direction to roundtable. Primarily city management staff and regional partners. Goal is to identify issues, desired deliverables, and timeline for roundtable/subcommittees.

• **Subcommittees**: Topic-based roundtable subcommittees assembled to work on best practices, policy development, and/or deliverables identified by the task force.
DART TECHNOLOGY ADVANCEMENTS
Public Transit and the Smart City
DART Overview
DART Overview

- Fixed Route
- RideShare
- Paratransit Service
Top 5 Reasons People Ride DART

- Work: 43%
- Health/Medical: 16%
- Shopping: 13%
- Social/Recreation: 9%
- School: 7%

4.6 million total FY 2017 annual ridership

195,658 RideShare

110,660 Paratransit

4,274.295 Fixed Route
Customer Demographics

Age
- 34 and under: 25%
- 35-44: 15%
- 45-54: 21%
- 55-64: 22%
- 65+: 17%

Ethnicity
- Caucasian/White: 70%
- African American/Black: 13%
- Hispanic/Latino: 4%
- Native American: 3%
- Asian/Pacific Islander: 3%
- Middle Eastern/North African: 1%
- Other: 2%
- Not provided: 4%

Total household income*
- Less than $24,999
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 and up

*Excluding RideShare
Current Technology and Data
Customer Experience

Business Analytics

Future Planning

Technology and Data
MyDART App


Buy your bus pass on your phone with the new MyDART app. Available on iOS and Android.
Rider Communications Tools
WiFi on Buses
New Fareboxes
Electric bus pilot

Seven Buses

- MidAmerican, $721,250, 19%
- DSM, $199,000, 3%
- DART, $701,250, 10%
- DERA, $406,350, 6%
- Federal Funds, $5,050,400, 71%

Environmental
- Zero Emissions
- 22 MPGe
- 25% less noise

Financial
- 78% Reduction in Fuel Costs
- 18% TCO Reduction
- Less volatility in energy cost
The Future of Public Transit and Mobility
Draft vision statement

Vision: Facilitate convenient and seamless access to transportation options that enhance mobility for all and drive economic growth and prosperity for Greater Des Moines.

How will we do this?

• Connecting people to jobs, education, community activities and essential services to drive economic development
• Leveraging data, technology and collaborative partnerships
• Ensuring innovative and regional mobility solutions are in the right place at the right time
Future of Mobility
Mobility Management

Shared Mobility Principles for Livable Cities

1. Plan cities and mobility together
2. Focus on moving people, not cars
3. Engage stakeholders in decision making
4. Design for equitable access
5. Transition towards zero emissions
6. Automated vehicles must be shared
7. Deliver public benefits via open data
8. Seek fair user fees
9. Promote integration and seamless connectivity
10. Encourage efficient use of space and assets

**1. Plan cities and mobility together**

**2. Focus on moving people, not cars**

**3. Engage stakeholders in decision making**

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**7. Deliver public benefits via open data**

**8. Seek fair user fees**

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*Shared vehicles include all those used for how to transport people (mass transit, private shuttles, buses, taxis, zero-emissions, car and bike sharing, and others).*
Payment Integration

Tap into lyft in the TriMet Tickets app
Autonomous vehicles
Questions?

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Recap of survey and Task Force direction

COMMUNITY CHALLENGE FOCUS AREAS
Challenge Areas Identified

- Challenge areas identified:
  - Education
  - Transportation
  - Homelessness/housing
  - Food insecurity
  - System efficiency
  - Technology preparedness
Prioritization Survey

**Roundtable**
- Transportation
- Technology preparedness
- Education
- System efficiency
- Homelessness/housing
- Food insecurity

**City Management**
- Transportation
- Technology preparedness
- Education
- Homelessness/housing
- System efficiency
- Food insecurity
Smart City Task Force

- Consists of city management staff, ISU, United Way, DART, Capital Crossroads, and MPO
- Purpose is to help set direction for roundtable
- Met in July to review surveys and identify topics to pursue
- Topics
  - Transportation / School transportation
  - Baseline smart city preparedness
School Transportation

• Issue: communities and schools face issues related to transportation of students
  – Congestion during pick up/drop off
  – Parent safety concerns with children walking, biking, or riding bus
• Direction: work with school districts to understand issues and identify solutions to mitigate these problems and concerns
• Efforts thus far:
  – Spoke with WDM school district transportation director
  – Outreach to Des Moines school district transportation director
  – Outreach to established group of metro transportation directors
Other Transportation Efforts – MPO Long-Range Plan

- **Issue:** MPO long-range transportation plan (2050) due in Oct. 2019; desire to have plan include smart city vision and projects
- **Direction:** work with a subcommittee of roundtable members to develop a vision for smart transportation in metro and identify initiatives to pursue and/or process for evaluating projects proposed for MPO funding
- **Efforts thus far:**
  - MPO funding target established for ‘system optimization’ projects that include smart city solutions (at least $1.8 million annually)
  - Subcommittee leadership identified and recruitment underway
Foundational Smart City Preparedness

• Issue: Stakeholders need foundation in smart city issues before area can dive deep into identifying solutions to problems
• Direction: Identify and develop foundational elements to smart city efforts; share resources and information among the roundtable
• Efforts thus far:
  – Researched smart city checklist
  – Developed resource page for smart city information
What are elements of a smart city?  Where are we?

SMART CITY CHECKLIST
Smart City Checklist

• Agenda item purpose:
  – Discuss the foundational items that constitute a smart city
  – Identify where the Des Moines region is on the spectrum
  – Identify opportunities to move forward
Components of Smart Cities

- Broadband
- Sustainability - Resiliency
- Governance
- Applications - Data
- Equity

## Built Environment Targets

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<th>Enabler</th>
<th>Built Environment Targets</th>
<th>Implementation Progress</th>
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<tr>
<td></td>
<td>How smart cities deploy and use ICT to enhance their built environment</td>
<td>None  Partial Over 50%  Complete</td>
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<tr>
<td>Instrumentation &amp; Control</td>
<td>Implement optimal instrumentation</td>
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<td>Connectivity</td>
<td>Connect devices with citywide, multi-service communications</td>
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<td>Interoperability</td>
<td>Adhere to open standards</td>
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<td></td>
<td>Use open integration architectures and loosely coupled interfaces</td>
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<td></td>
<td>Prioritize use of legacy investments</td>
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<td>Security &amp; Privacy</td>
<td>Publish privacy rules</td>
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<td>Create a security framework</td>
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<td>Implement cybersecurity</td>
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<td>Data Management</td>
<td>Create a citywide data management, transparency and sharing policy</td>
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<td>Computing Resources</td>
<td>Consider a cloud computing framework</td>
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<td>Use an open innovation platform</td>
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<td>Have access to a central GIS</td>
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<td>Have access to comprehensive device management</td>
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<td>Analytics</td>
<td>Achieve full situational awareness</td>
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<td>Achieve operational optimization</td>
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<td>Achieve asset optimization</td>
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<td></td>
<td>Pursue predictive analytics</td>
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Source: Smart City Readiness Guide, Smart Cities Council
Smart City Checklist: 10 Steps to Smart City Readiness

1. Strong public/private partnerships
2. Data openness and third party collaborations
3. User-first information resources for public services
4. Free, city-wide connected internet
5. Smart kiosks
6. Smart public transportation
7. Smart public safety
8. Green, sustainable solutions
9. Digital voting systems
10. Prepare for autonomous vehicles and the sharing economy

Source: KNect365 TMT; delivered at the Smart Cities Summit
STEP 01: STRONG PUBLIC-PRIVATE PARTNERSHIPS

PRIVATE SECTOR BUY-IN IS CRITICAL TO ANY CITY WITH “SMART” ASPIRATIONS. PRIVATE COMPANIES OFTEN POSSESS SUPERIOR SKILLSSETS AND TECHNOLOGICAL CAPABILITIES, AND ARE BETTER PLACED TO GET SMART CITY PROJECTS OFF THE GROUND.

The end goals of these projects, like improved infrastructure and widespread connectivity, benefit companies in the city as much as the residents, giving the private sector plenty of motivation to buy in and help out.

“Private sector organizations have a big role to play; in no modern country is government the exclusive provider of every service. There’s a healthy interplay where the private sector can be faster and nimble, but we’ve got to make sure that equity, fairness and all our big social goals are represented, and that we make progress on those things.”

Jascha Franklin-Hodge, CIO, Boston, Smart Cities Summit 2016 speaker

ATLANTA’S PUBLIC-PRIVATE PARTNERING

Atlanta is a fledgling smart city but has already earned a positive reputation for its strategy and governance models. The city is pursuing partnerships with private sector companies to develop vehicle-to-infrastructure technology, optical fiber infrastructure, citywide wireless connectivity and funding for additional projects to better connect the city.
Best practices from other regions

VERIZON SMART COMMUNITIES
NEXT STEPS