Wi-Fi

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Password: Welcome123

DES MOINES AREA MPO METROPOLITAN PLANNING ORGANIZATION

SMART CITY ROUNDTABLE

October 3, 2018

DES MOINES AREA MPO METROPOLITAN PLANNING ORGANIZATION

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.

Presentation

DART TECHNOLOGY ADVANCEMENTS

DES MOINES AREA MPO METROPOLITAN PLANNING ORGANIZATION

Public Transit and the Smart City

October 2018

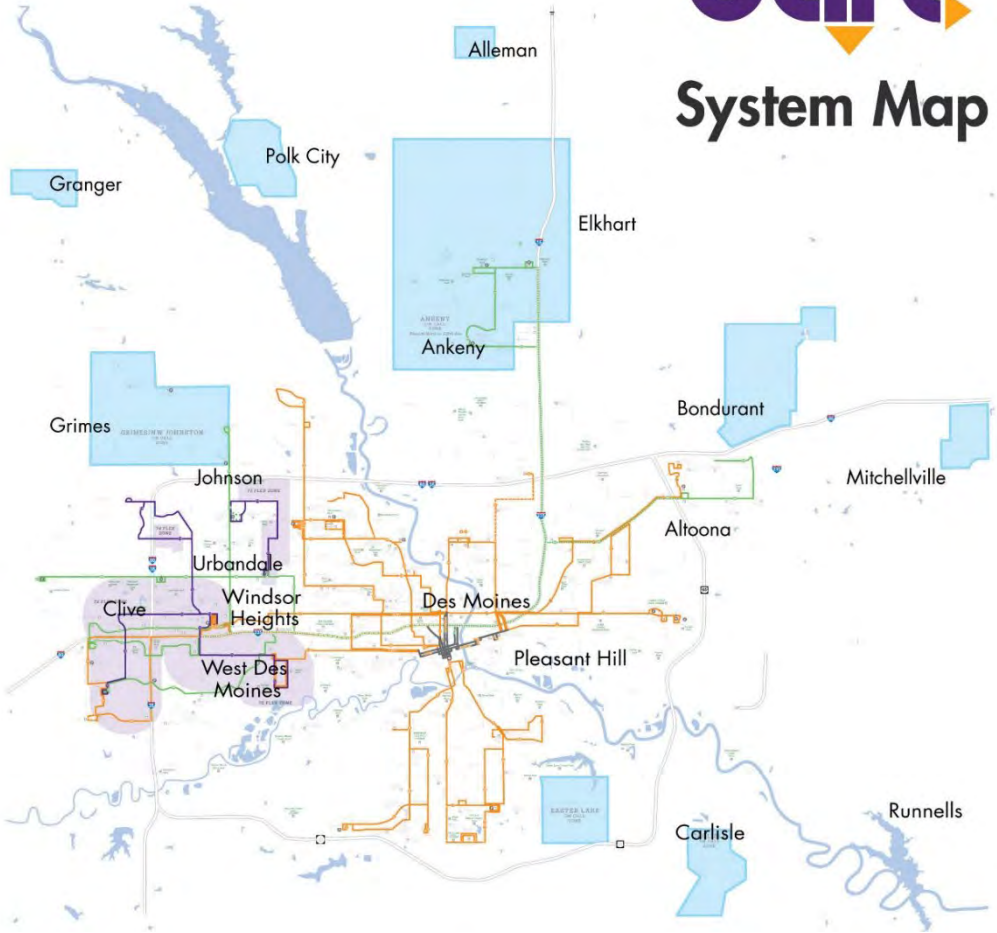
DART Overview

DART Overview

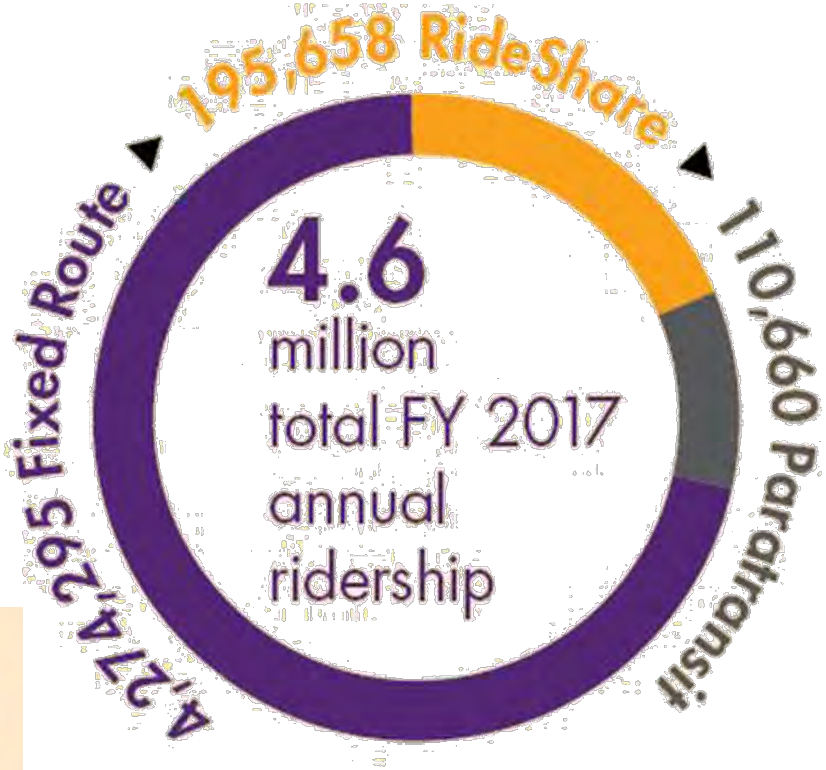
- Fixed Route

- RideShare

- Paratransit Service



Ridership

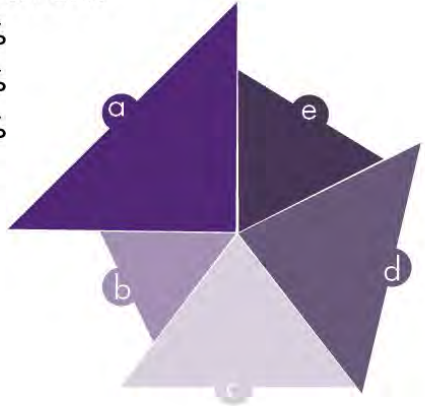


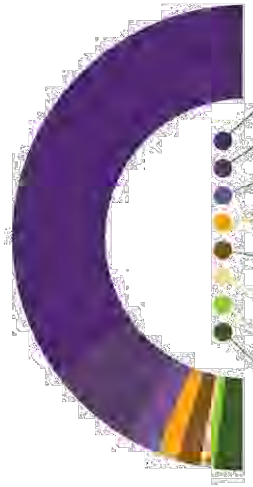
Top 5 Reasons People Ride DART

Customer Demographics

Age

- a 34 and under: **25%**
- b 35-44: **15%**
- c 45-54: **21%**
- d 55-64: **22%**
- e 65+: **17%**





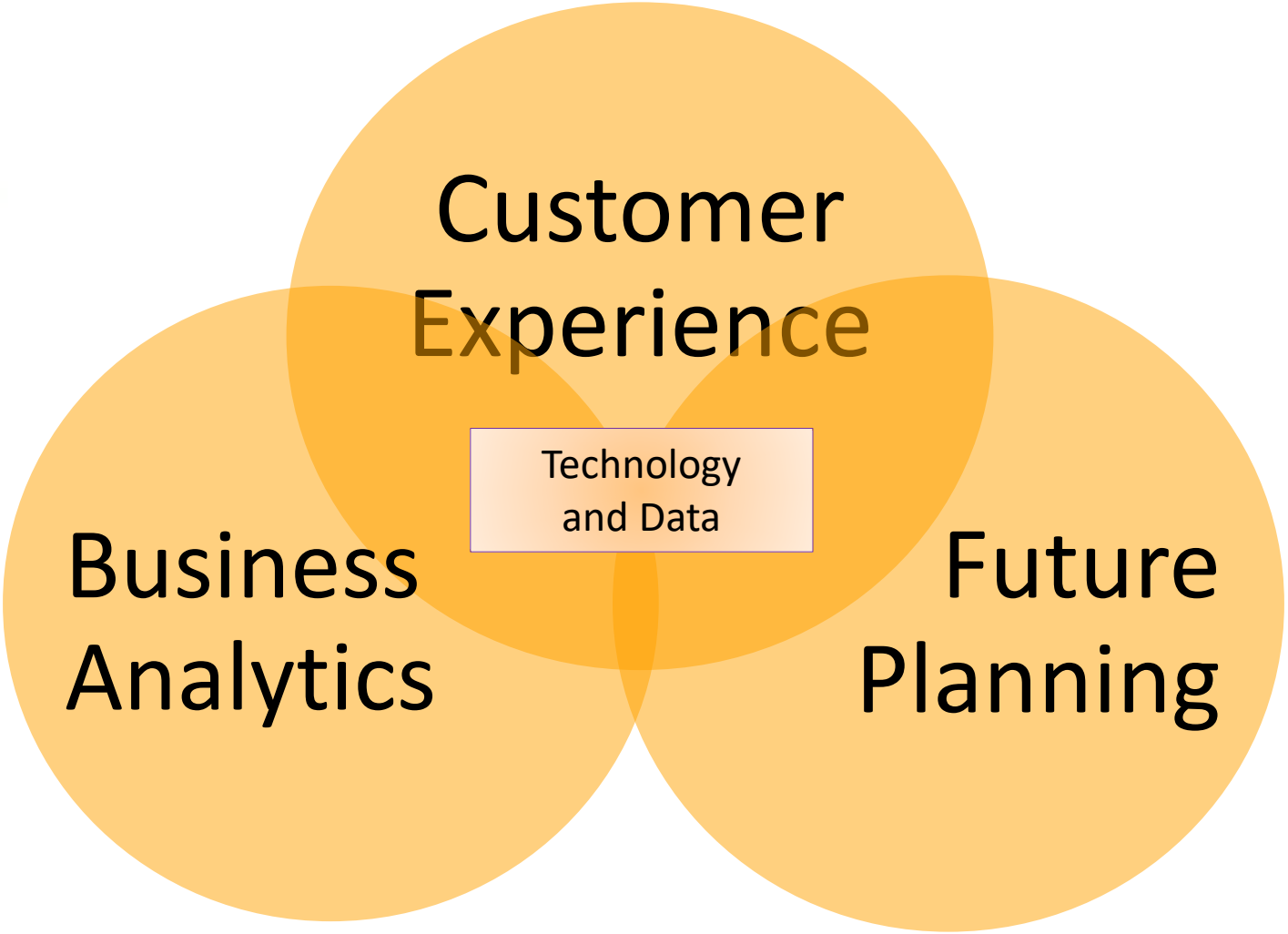
Ethnicity

- 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%**

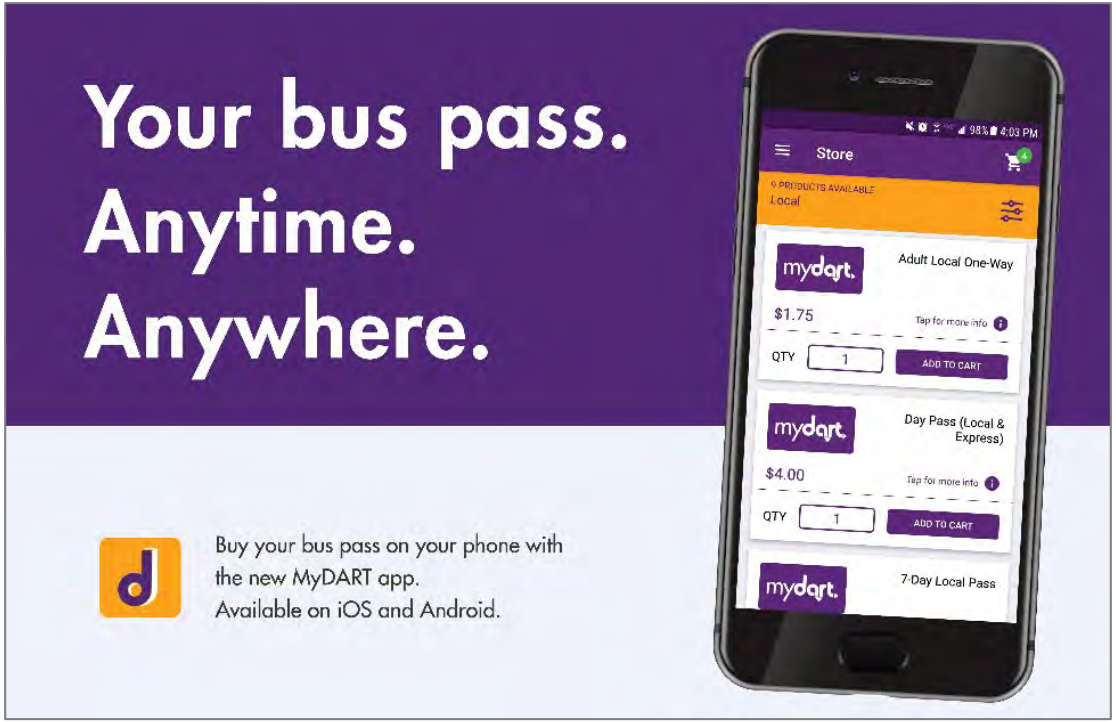
Total household income*

*Excluding RideShare

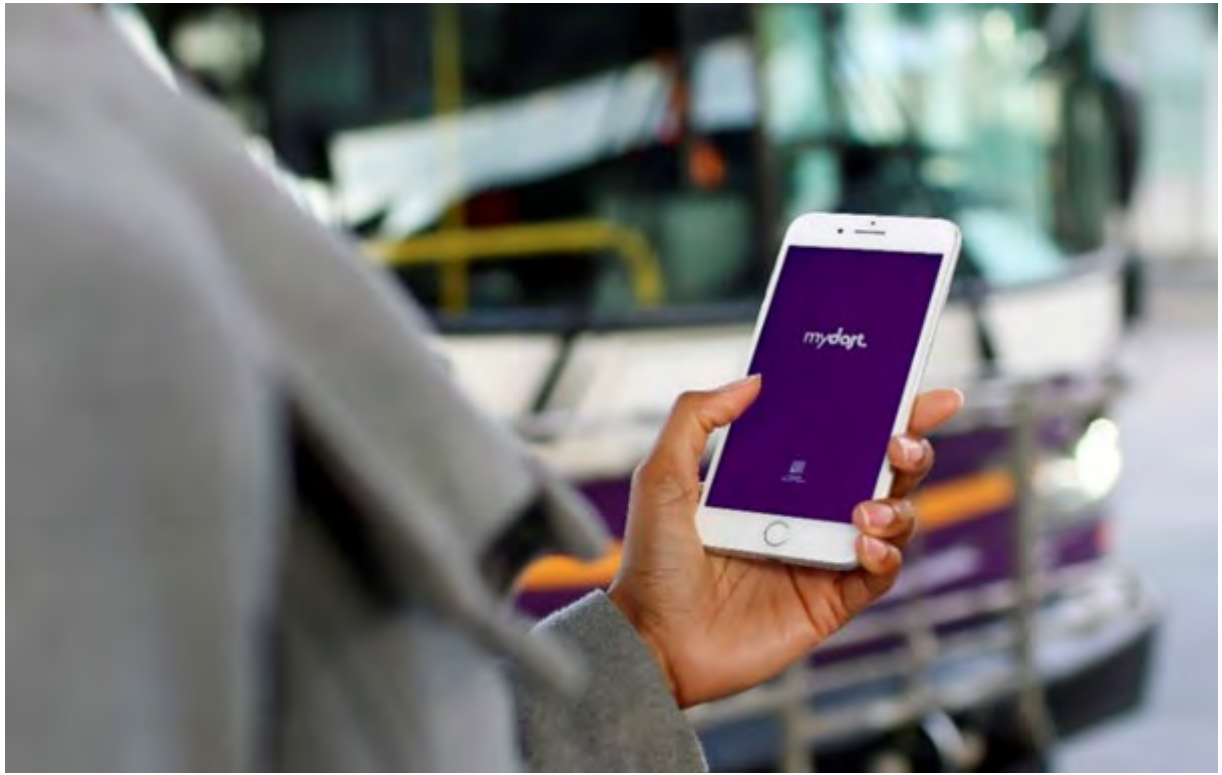
Current Technology and Data


Customer Experience
Technology and Data
Business Analytics
Future Planning

MyDART App


Your bus pass.
Anytime.
Anywhere.
Buy your bus pass on your phone with
the new MyDART app.
Available on iOS and Android.
Store
9 PRODUCTS AVAILABLE
Local
mydart.
Adult Local One-Way
$1.75
Tap for more info
QTY
1
ADD TO CART
mydart.
Day Pass (Local & Express)
$4.00
Tap for more info
QTY
1
ADD TO CART
mydart.
7-Day Local Pass

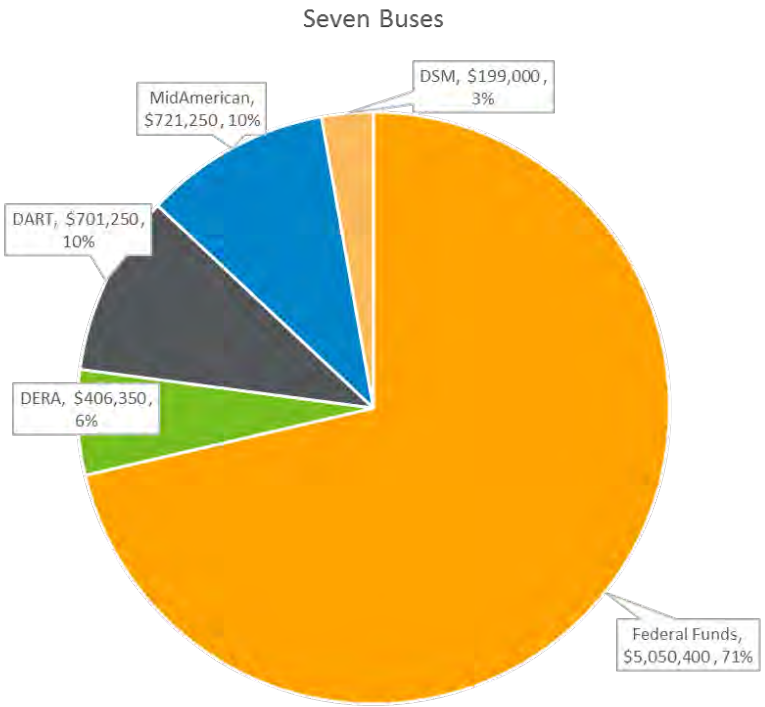
Rider Communications Tools



WiFi on Buses

New Fareboxes

Electric bus pilot



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

[redacted]

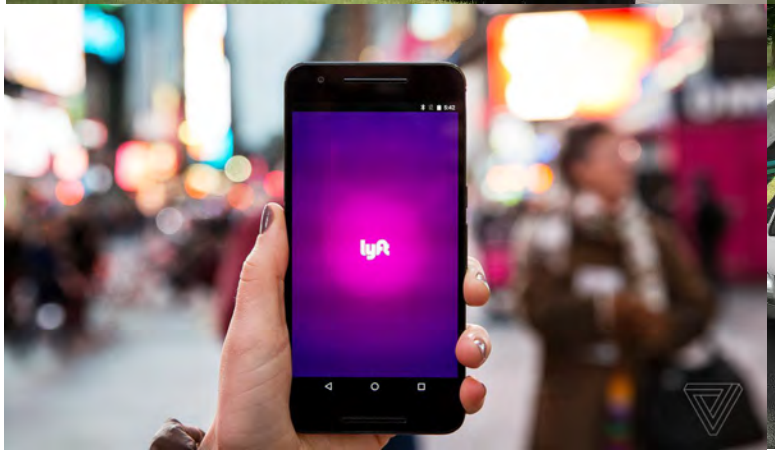
Draft vision statement

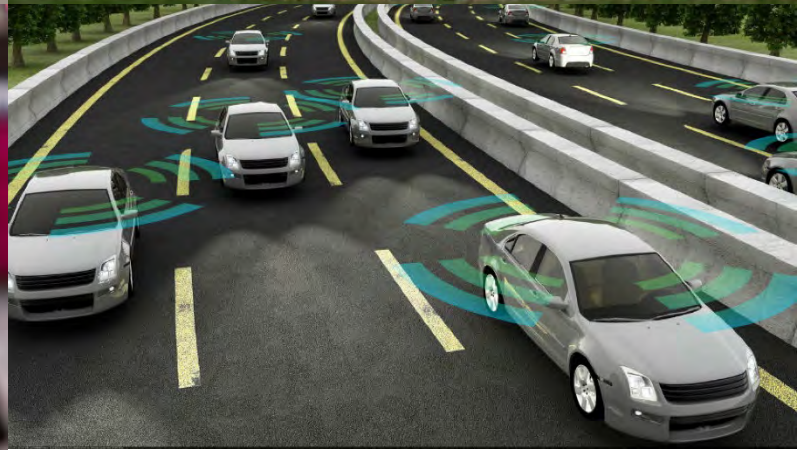
Vision: Facilitate convenient and seamless access to transportation options that enhance mobility for all and drive economic growth and prosperity for Greater Des Moines.

How will we do this?

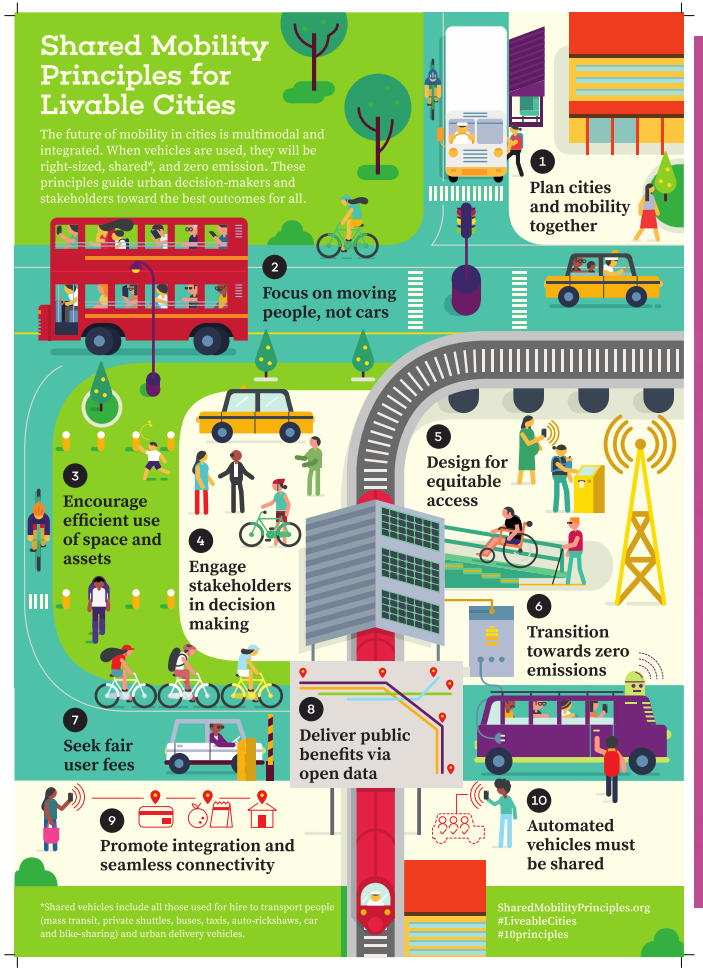
- Connecting people to jobs, education, community activities and essential services to drive economic development
- Leveraging data, technology and collaborative partnerships
- Ensuring innovative and regional mobility solutions are in the right place at the right time

Future of Mobility

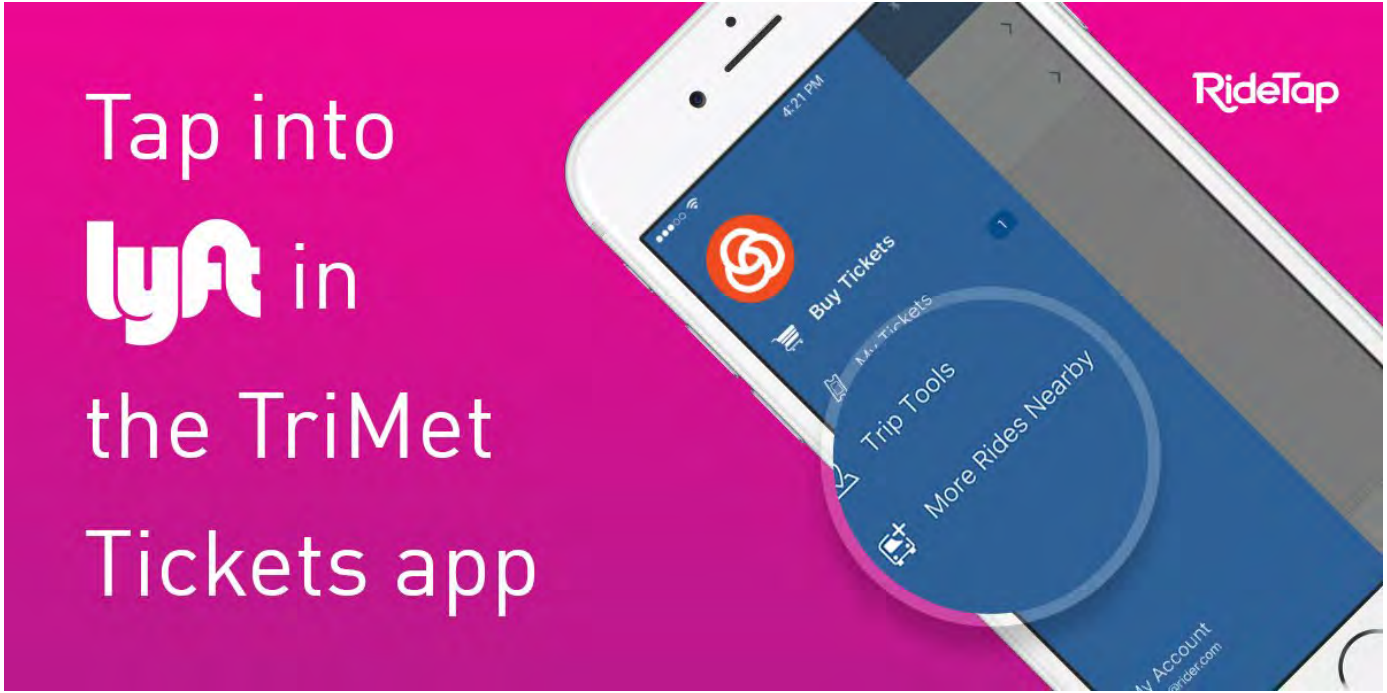




Mobility Management



Payment Integration



Autonomous vehicles


98 DMACC ANKENY
dart
We'll Take You There!

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

HUNGER FREE POLK COUNTY within reach

Opportunity CREATING PROSPERITY FOR ALL

Prioritization Survey

High priority

Low priority

Roundtable	City Management
Transportation	Transportation
Technology preparedness	Technology preparedness
Education	Education
System efficiency	Homelessness/housing
Homelessness/housing	System efficiency
Food insecurity	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

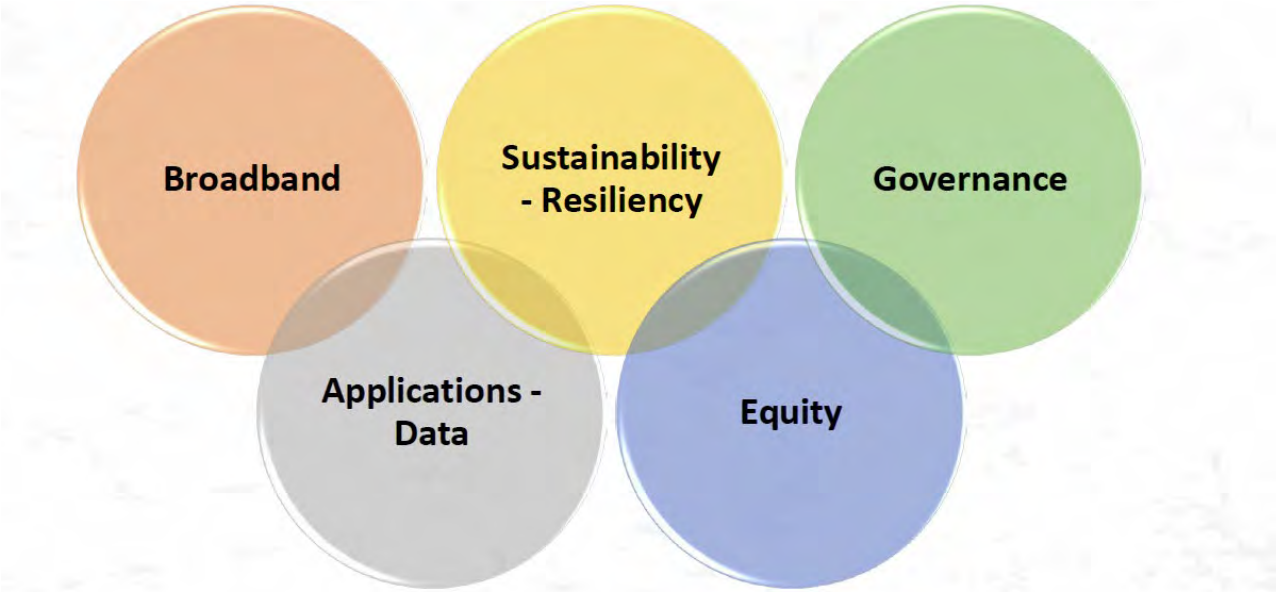
What are elements of a smart city? Where are we?

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



Source: American Planning Association, www.planning.org/leadership/agendas/2015/spr/pdfSmartCitiesSustainabilityFinal.pdf

DES MOINES AREA MPO METROPOLITAN PLANNING ORGANIZATION

BUILT ENVIRONMENT TARGETS

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

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 SKILLSETS 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 nimbler, 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