Over the course of two weeks Insight Digital Innovation worked with St. Louis Park to identify, detail and prioritize Smart City initiatives. The following slides provide the results of the participant questionnaire, interactive workshops and resulting key themes that emerged for further consideration by the Technology Advisory Council and St. Louis Park.
Use Case Definition
Use Case Definition

Geographic Information System (GIS)
- Smart city initiatives already in process
- Smart city initiatives planned or in consideration

City Water Monitoring
- Electric cost savings
- Adoption of EVs
- Consumption data - frequency of use
- Turnover
- Impact on power grid

Solar Suitability Assessment Map
- GIS and LiDAR solar suitability
- Rate home to understand cost/payback
- A few years in, adjustments being made

Wireless Water Meters
- Increased reliability
- It saves a lot of labor and effort to monitor and maintain our Public Works systems.
- SCADA system that delivers updated information
- Water quality / Status of pumps
- Proactive alerting of potential issues / out of balance
- Public - Monitoring of water usage for daily/hourly bills
- Identity thefts
- Inconsistencies in usage
- Understanding of trends
- 30 day usage trends, providing data that is readily available (housing)
- Smart - Dimming based on environmental
- City wide goal to replace all
- Installing meters - currently flat rate billing
- Outlets for decorative lighting

3D model of city including buildings and utilities for future planning
- Underground utilities - study ongoing to chart water utilities - water, storm, sewer.
- Statewide Lidar collection - higher density
- Improved detail of 3D building
- Will replace current data set

ChargePoint EV charging network
- Electricity cost savings
- Adoption of EVs
- Consumption data - frequency of use
- Turnover
- Impact on power grid

Solar panel data collection
- Electricity cost savings
- Consumption data - frequency of use
- Impact on power grid
- Emissions - carbon footprint
- Solar data for public
- Collect data for city wide (excel)

LED street lighting replacements
- Smart - Dimming based on environmental
- City wide goal to replace all
- Installing meters - currently flat rate billing
- Outlets for decorative lighting
Use Case Definition

**GIS ArcUrban**
- Adoption of zoning ordinances based on the built form created by ArcUrban and GIS mapping software.
- 3D model of city - using lidar data
- Buildings/Trees - analyze changes
- Underground utilities - future use case - know based on property lines
- Surveys of properties - minimize impact with data available, minimize number of surveys required

**Zoning Agreements**
- Broadband Connections

**My SLP Mapping**
- Resident can use to identify issues throughout city - Publicsoft
- Input from residents lead to response
- Mobile app - customer response management
- Both resident and staff use
- Usage from call center to input requests

**Westwood Hills Nature Center**
- Recently opened with goal of being net zero facility
- Solar
- Geo Thermal
- Learnings on return/impact
- Digging use
- Could be used as a case study
- Kiosk inside center to display solar consumption/usage data

**Transportation Options for Community**
- Sensors and electricity in street to power buses, taxis, etc - can it be a revenue center?
- EVs could be impacted
- Climate impact - cut out greenhouse gas
- Bus scheduling, on-time arrivals (bus stop #s can be incorporated)
- Handicap access - not currently incorporated
- Rideshare?

**Integrations between enterprise systems**
- AVL, Permits, Property Data, Asset Management

**Smart Light Poles**
- Cell phone - 5G added to light pole - study ongoing
- LED smart lighting - impact on environmental conditions
- Environmental sensors
- Poles connected to other poles
- EV charging

**Fire Shot Detection**
- Awareness
- Response

**Snow Plowing Technologies**
- Citizen involvement with city operations.
- Trails - paved (section - trial to understand impact)
- Streets need to be plowed multiple times
- Main streets prioritized
- Dating storm
- Define what it means for a street to be cleared
- Vehicle location - Telematics
- Flow
- Sat/Stand
- Trails now, streets future
- Sidewalks - future use case

**Use Case Definition**

- Smart city initiatives already in process
- Smart city initiatives planned or in consideration
Use Case Definition

Understanding and addressing city demographics
- Use of GIS overlays for poverty concentration
- Utilization of public data from the American Community Survey

Easier planning of commuting and increased adoption of mass transit
- Implementation of traffic monitoring and alerting systems
- Integration of public transit apps

Increased security and reduction in crime
- Utilization of city data portals for public access
- Facilitation of inter-departmental data sharing and analysis
  - Possibility of new services and analysis for developers, students, and community partners
  - Enhanced accessibility to city data for public use

Required broadband access to all multifamily buildings
- Availability of services and connectivity
- Conversations ongoing with school districts
- City does not own buses, need cooperation with bus companies

Nature center has canoes for rent
- Scheduling and payments for city rentals and resources
- The nature center has canoes for rent, see availability, rent, and pay. Scheduling park structure or rental, view availability through the website to compare options without having to call separate facilities.

Race and Equity
- Smart city initiatives already in process
- Smart city initiatives planned or in consideration

School bus apps
- When did child get on/off bus, route tracking, accident report
- Minneapolis school currently in use
Prioritization Exercise
City Strategic Priorities

• Being a leader in racial equity and inclusion
• Continuing to lead in environmental stewardship
• Providing a broad range of housing and neighborhood-oriented development
• Providing a variety of options for people to make their way around the city comfortably, safely and reliably
• Creating opportunities to build social capital through community engagement
High Measurable Benefit – Value Creation

High City Values of Importance – Aligned to City Goals

Top Right Quadrant – Themes

- Connected Community
  - Internet access
  - Required broadband access to all multifamily buildings
- GIS
  - Geographic Information System (GIS)
  - Integrations between enterprise systems - AVL, Permits, Property Data, Asset Management
- Citizen Safety
  - Surveillance Camera Community Connect
  - Snow ploing technologies
- Citizen Awareness
  - My SLP Mapping
  - EV charging related equipment in the city rights of way - not private
  - GIS ArcUrban
- Environmental
  - ChargePoint EV charging network
  - 3D model of city including buildings and utilities for future planning
  - Complete 3D model of the city to higher level of detail - neighborhood oriented development
  - Traffic Management
  - City Water Monitoring
  - Smart light poles
  - Zoning Agreements - Broadband Connections
Key Themes, Smart City
Key Themes

GIS
Geographic data is the building block for smart city digital infrastructure allowing robust integrations to various platforms. It becomes essential to daily workflows, minimizes downtime for staff, and provides insights to city departments.

Supported Use Cases:
Geographic Information Systems (GIS), Multiple system integrations, GIS Urban, 3D model of city including buildings and utilities for planning.

Connected Community
Provide internet access to the community allowing all citizens equal ability to access the internet without barriers.

Supported Use Cases:
Internet access, Required broadband to multifamily buildings, Public wi-fi network (5G, fiber, etc), Zoning Agreements - Broadband Connections.

Environmental
Deliver sustainable assets to the public providing trusted resources and reducing the reliance on traditional power sources and legacy infrastructure.

Supported Use Cases:
City water monitoring, ChargePoint EV network, Non-private EV charging system in public right of way, LED streetlight replacements, Westwood Hills Nature Center.

Citizen Awareness
Connecting city resources to provide visibility into city operations and deliver data that supports more informed city and communities.

Supported Use Cases:
Snow plowing technologies, City water monitoring, City data portal for public access, Local connection platforms, My SLP mapping, Mass transit monitoring, Bus routing options/scheduling, Online scheduling and payments for city rentals and resources.

Citizen Safety
Upgrade city infrastructure to provide a safer environment and secure open spaces for citizens while providing intelligence to public services. Create opportunities for public to opt-in to share data from private sources to enhance public safety.

Supported Use Cases:
Surveillance camera community connect, Smart light poles, gun shot detection, security and surveillance.
Digital Whiteboard

If you would like to view the whiteboard from the virtual workshops visit the link below.

Click on ‘Continue as Guest’ in the top right of the webpage.

You will be asked to enter your email address. Once entered you will have access to the whiteboard of the SLP Smart City Workshop.

https://insight.invisionapp.com/freehand/document/ut0JIMiMJ
Thank you

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