

Attachment 2: Digital Action Plan Objectives and Corresponding Actions

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Enhancing citizen experiences by using digital and connected technologies			
Action	Description	Status	Projected Completion
Digital ID	<p>Run a small proof of concept to gain knowledge on use of the Government of Alberta's digital ID for citizens of Alberta. The concept will attempt to prove that the provincial ID can be leveraged to authenticate and manage citizen digital identities for further use within the CoE. If successful, this technology could be used in the automation of citizen subsidy applications or other digital projects requiring a citizen login.</p> <p>The provincial digital ID is integrated with the federal My Service Canada Account (MSCA). As such Albertans can use their verified MyAlberta Digital ID to access federal services offered through MSCA.</p>	The project is in the planning stage with the CoE. In January 2021, Open City and Technology's Business Solutions team will present project timelines back to the GoA to determine if they are able to accommodate.	Q2 2021
Online Payments	Conversion of in-person payment solutions for transit, zoo, fines, Muttart plant sales, and attractions to online credit and debit card solutions to reduce in-person services and costs.	Completed majority of activities in 2020; bylaw fines via Credit and Debit will complete Q1 2021	Q2 2021

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Taxation, Assessment and Collection System (TACS)	The MyProperty website went into production on January 2, 2018. Additional functionality and information has been added to the website in phases since 2018 improving citizens' online access to assessment and taxation information. TACS will continue to increase their online offerings to give property owners more access to their assessment and taxation information electronically.	To date, functionality has been added to the website that allows citizens to sign-up to receive electronic notifications for property assessments, property taxes (including Local Improvement Payout Option), and monthly payment plan updates. Additionally, enhanced security for Owner Verification was added to the website. Planning for future website additions is currently in progress.	Q4 2022
Waste Services Digital Strategy	A project to implement technology-enabled two-way communication between Waste Services customers and the City that will maintain and enhance the customer experience amidst transformational service changes initiated by Edmonton's 25-Year Waste Strategy. Includes the redevelopment of edmonton.ca/waste as a self-service portal; the launch of an automated, 24-hour digital assistant; and the development and/or extension of web applications for use by Waste staff in the field.	The project is in the execution stage with several project deliverables launching in January, 2021 to coincide with the public launch of the Edmonton Cart Rollout. The project will transition to a support stage in Q1 2021 to troubleshoot and refine new digital services including a chat, text and voice-enabled 24-hour digital assistant.	Q2 2021
Open City Wi-Fi	Continue to grow the City of Edmonton's network of 1,100+ Open City Wi-Fi hot spots and expand service to new locations.	The Open City Wi-Fi service has extended to eight new locations in the past year. OCT continues to look at new ways to expand this service to provide free wi-fi in public spaces.	Open City Wi-Fi

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COVID Data & Dashboard	Administration collects data from various AHS sources to create a historical record from the AHS point-in-time data. This historical data is then published to the open data catalogue, where it is accessed by citizens directly and drives a Tableau dashboard which as of December 2, 2020 has 140,270 views.	The creation of the Dashboard is complete and data is updated in real time.	Complete
Transit App Ridership Numbers	ETS is working with TransitApp to provide real-time crowd-sourced bus load information. The tool will show how full a bus is, either in real-time or an estimate based on the past 2 weeks of ridership data.	Crowd-sourced bus capacity feature was live in Q4 2020. Historical ridership used to provide estimates (in the absence of real-time data) will be live in Q1 2021.	Q1 2021
TransitWatch SMS (Safety Text system)	Enabling SMS capability to the existing TransitWatch telephone number. This will allow customers to discreetly report any complaints on a 24/7 monitored line.	System is live as of Q4 2020.	Q4 2020
Text & Ride upgrade	Text & Ride is used by customers to show the next few scheduled bus arrivals to the specific stop. ETS has completed an upgrade recently to enable real-time bus arrival information.	Upgrade completed as of Q4 2020	Q4 2020

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<p>Utilizing Data to Improve Edmontonain’s shared experiences.</p>	<p>Under the overarching principle of turning "Analytics to Action", Administration’s data scientists have worked with key stakeholders to develop analytic tools that improve the quality of life in Edmonton and address emergent and dynamic issues. These tools include:</p> <ul style="list-style-type: none"> ● COVID Shelter Relocation <ul style="list-style-type: none"> ○ Data driven insights aimed at supporting the most vulnerable and increasing community safety ● ETS Needle Complaint Dashboard <ul style="list-style-type: none"> ○ Needle box deployment ○ Targeted outreach ○ Enhanced custodial efforts ○ Employee application ● ETS Resource Deployment Dashboard <ul style="list-style-type: none"> ○ Efficient and effective transit safety deployment prioritization across the system ● ETS Incident Explorer <ul style="list-style-type: none"> ○ Common operating picture ○ Integrated approach ○ Enhanced collaboration ● Community Standards Odour Assessment <ul style="list-style-type: none"> ○ Solidified the case and a new data-driven tool to pinpoint offending properties 	<p>The City of Edmonton’s Analytic Centre of Excellence (ACE) continues to work with stakeholders to identify opportunities to leverage data and build tools to improve the lives of Edmontonians.</p> <p>Examples of future projects include:</p> <ul style="list-style-type: none"> ● Edmonton Fire Rescue Service inspections ● Building permit assessment ● Blatchford sales microtargeting ● Corporate Security alarm prediction ● 24/7 Shelters Community Planning Dashboard 	<p>Ongoing</p>

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	<ul style="list-style-type: none">● COVID School Outbreak Response Tool<ul style="list-style-type: none">○ An interactive tool providing decision makers with critical insights at a moment's notice● Wildlife Images Explorer<ul style="list-style-type: none">○ A computer vision solution that identifies and detects urban wildlife		
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Working with regional partners to improve access to broadband and wireless networks for residents of the region			
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Permit and Licensing Service Improvement Initiative	<p>In addition to supporting economic activities and investment during the pandemic (that otherwise would have bottlenecked or gone to different jurisdictions), the Permit and Licensing Service Improvement Initiative has streamlined processes and policies to attract businesses, academia and investors to the Edmonton region by:</p> <ul style="list-style-type: none"> ● implementing digital services for permit and licence applications and payments ● reducing permit and licence processing time ● setting of performance targets ● customer satisfaction survey ● automation of tasks (manual data inputs have been reduced) <p>The introduction of these digital services enabled uninterrupted submission, payment, review and approval of permits and licences to the satisfaction of the City's customers.</p>	Ongoing	Q4 2021

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Formal Collaboration Agreement with University of Alberta / MetroLab Network Membership	<p>To strengthen the City's strategic collaborations with the University of Alberta, the City and the University entered into a formal memorandum of understanding, while joining the MetroLab Network in September 2019. As Network members, the City and the University are able to access the knowledge and expertise of an international cohort of peer collaborators to build stronger partnerships.</p> <p>With a goal of establishing stronger collaboration practices and tools, this partnership and MOU are focused on co-creating a collaboration framework to engage the technology-leading and research-based expertise of academic experts to guide policy and program developments. This initiative was co-led by the City's Finance and Corporate Services and Communications and Engagement departments. Guided by the Smart Cities Internal Advisory Committee, the collaboration framework and supporting research partnership tools will be informed by current and past collaborations.</p>	Ongoing	Q4, 2021

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Increasing connectivity at Edmonton Public Library (EPL)	<p>Edmonton libraries currently provide 500 free public computers and the lowest printing costs in Canada to ensure demographics that are underserved and at-risk gain connectivity to the digitizing economy, social services and civic administrative activities.</p> <p>The City of Edmonton has moved new EPL locations, as well as those in City facilities, onto the City fibre optic network to ensure Edmonton's libraries have access to bandwidth and public access to the internet in the most cost effective and secure way.</p>	Currently five out of 21 EPL locations are on the City Fibre Network. The long-term goal is to migrate all EPL locations onto City Fibre as part of the EPL technology roadmap.	Ongoing
LRT Underground Cellular Connectivity	A project with Rogers Wireless to enable cellular connectivity in the downtown and university underground portions of the LRT line. This will allow citizens to use cellular service (from all major carriers) without interruption while riding on the LRT system.	The project is in the planning phase. Architectural drawings have been provided to Rogers. Rogers will be performing RF site scans in Q1 2021. Once initial site scans are completed, an agreement will be signed with Rogers and work will commence on system implementation.	(Estimated Q1 2022)

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Improving digital literacy and digital rights for citizens			
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Join the Cities Coalition for Digital Rights	Cities Coalition for Digital Rights is a coordinated collective of municipal governments from around the world who share best practices, learn from each other's challenges and successes, and coordinate common initiatives and actions in order to protect and promote digital rights of citizens worldwide.	The Data Governance Office and Data Ethics Officer is working with the Cities Coalition for Digital Rights to meet the criteria for membership.	Q1 2021
Telus' Connecting Canadian's in Need	Discussions between Administration and Telus are exploring how the City of Edmonton's efforts with marginalised communities and at-risk individuals could be a conduit towards Telus programs aimed at addressing the various barriers to access technology and communications.	These conversations are at the exploratory phase and cover both establishing connectivity to individuals, households and communities, as well as increasing the quality of those connections.	TBD

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Establishing new GBA+ data collection standard requirements for the Corporation	To ensure that GBA+ data is collected and treated in a manner that supports both data driven decision-making and the City's duty to protect personal information, Administration is exploring new GBA+ data collection standard requirements, and reviewing the Corporate Privacy Directive and Corporate Privacy Procedure.	Project Planning Stage	Q2 2021
Data Sharing Trust Framework across Canadian Jurisdictions.	<p>The City of Edmonton is chairing discussions between Vancouver, Calgary, Toronto, Ottawa and Montreal (with input from Winnipeg and Halifax) on the development of a A data-sharing trust framework between different government levels (federal, municipal, provincial) that encompasses:</p> <p>Operating Models to define data ownership and accountability; Policies and standards to bring consistency and trust in data; processes and workflows to standardize data management; Master data processes to automate master data management; Metadata management to provide data traceability to users; and, Metrics and KPIs to measure and monitor improvement.</p>	<p>Meetings between municipal partners are held monthly to develop a municipal-level pilot project to identify common principles as the first step in iteratively developing a framework. This project identification and design stage, projected to be completed by the end of Q2 2021, will determine the resources required to achieve the table's broader goals.</p> <p>The work of this "Data Table" feeds into broader conversation on inter-jurisdictional collaboration to advance national, regional and local economies.</p>	<p>Pilot Planning: Q2, 2021</p> <p>Implementat ion: TBD</p>
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Data Literacy curriculum at the City Hall School	The Open City and Technology's ACE team provides in-person presentations and tutorials to school-aged children at the City Hall School, fostering an early interest in what data can do, how it helps explain the world and how it can be used.	Ongoing.	N/A
Thought leadership in next generation wireless technology and smart city deployments			
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Telus Living Lab	At the October 28, 2019 Executive Council meeting, Telus presented the idea of creating a 'Living Lab' based on establishing a 5G infrastructure. Committee's discussion supported Administration's work with Telus to explore the idea.	A facilitated session between Telus and City staff was held on March 10, 2019 about "Living Lab" applicability. Follow up sessions were planned, but conversations were put on hold due to the pandemic. Telus returned to the City in late August 2020 and provided a proposal with three scenarios. Administration reviewed the proposal and informed Telus that it would be interested in exploring more following the Fall 2020 budget process. Administration is planning further discussion with Telus in January 2021 to create a 5G pilot idea.	TBD with a commitment to return to Council with a progress report by Q4 2021
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<p>LoRaWAN Network to Power the Internet of Things (IoT)</p>	<p>The City of Edmonton’s LoRaWAN network is a Long Range, Wide Area Network that Administration has rolled across the City to power the Internet of Things (IoT), specifically a low-cost network of thousands of sensors. While LoRaWAN has been rolled out, use cases have only just begun to be explored in terms of the opportunities to use live data sets to inform decisions, increase efficiency and reduce costs.</p>	<p>The LoRaWAN network positions the City in a strategically advantaged way to both attract investment and leverage 5G technologies once they are available. The LoRaWAN network, up to this point, has not been made available to external stakeholders to explore joint opportunities. Now that the development of the network is complete, this is an area that can provide the foundation for technology development and data collection that will positively position Edmonton for 5G roll-out. In addition, LoRaWAN may be an area that the City of Edmonton begins to harness in the area of investment attraction. By filling the gap between the 4G reality in Canada and the 5G future the LoRaWAN network, positioning the City in a strategically advantaged way to both attract investment and leverage 5G technologies once they are available.</p>	<p>Ongoing</p>
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Community Safety Deployment Model	A predictive model that consolidates City of Edmonton, Edmonton Police Service and 24/7 Crisis Diversion data, resulting in a common operating picture and proactive resource deployment in accordance with shared insight.	Operational as of Sept 2020	2020
Smart Signal	Starting October 1, 2019, through to January 31, 2020, Administration conducted an accelerated pilot study of Adaptive Traffic Signal Control (ATSC) technology within an isolated corridor, at nine intersections along 101 Street between 103A Avenue and 111 Avenue. The pilot provided the City an opportunity to assess how automated traffic signal technology can improve mobility and accessibility for Edmontonians.	Findings from the pilot indicated that the hardware to achieve Smart Signal project objectives were not mature enough to fully implement. Lessons learned from this project are informing other Smart City deployments, including the Living Lab discussions with Telus.	Complete
Collaborating with regional partners to promote economic development in the Edmonton region to attract new investments			
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<p>Edmonton Global 5G Report: “A Regional Approach to 5G deployment in the Edmonton Metropolitan Region”</p>	<p>The City of Edmonton provided input into the Edmonton Global 5G Report that creates a vision for regional 5G connectivity, innovation and investment attraction. Other stakeholders involved in the drafting of the document included:</p> <ul style="list-style-type: none"> ● Post Secondary Institutions: <ul style="list-style-type: none"> ○ Athabasca University; Concordia University; MacEwan University; NAIT; NorQuest College; University of Alberta ● Innovation Institutions: <ul style="list-style-type: none"> ○ Alberta Machine Intelligence Institute (Amii); Food Development Processing Centre ● Economic Development Institutions: <ul style="list-style-type: none"> ○ Edmonton Global; Edmonton Health City; Edmonton Screen Industries Office; Edmonton International Airport ● Municipal governments: <ul style="list-style-type: none"> ○ City of St. Albert; City of Beaumont; Strathcona County; Sturgeon County 	<p>This report has been presented to the Government of Alberta, with meetings occurring between Edmonton Global and the Province.</p> <p>The Report made 5 broad recommendations to the Governments of Alberta and Canada, in partnership with Industry, academia and non-profit organizations, to:</p> <ol style="list-style-type: none"> 1. Develop an Early Adopter Strategy 2. Invest in Infrastructure for Innovation 3. Remove Regulatory Barriers 4. Train a 5G-Ready Workforce 	<p>The work of the report is ongoing and aligns with the goals and objectives of Edmonton’s Digital Action Plan</p>
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Establishment of Innovate Edmonton	The purpose of the Edmonton Innovation Entity is to support innovation activities aligned with the City of Edmonton’s strategic goals and priorities including, without limitation, to recommend the innovation policy and strategy for the City of Edmonton, execute strategy as determined by the Corporation, attract and retain investors, and conduct a broad range of development initiatives in collaboration with City of Edmonton Administration, Post-Secondary Institutions, start-up and scale-ups, and other ecosystem partners.	On May 11, 2020, Council approved \$5,000,000 to fund an innovation entity. An 8 member board has been approved, including the chair Naseem Bashir. The CEO, Catherine Warren was introduced on December 1, 2020.	Ongoing
Restart Metro Edmonton Open Data Group	To increase collaboration with regional economic groups and communities, the Metro Edmonton Open Data Group (MEODG) was formed, offering a way for regional partners to share data, process improvements and identify opportunities and issues.	Meetings are being held at regular intervals.	Ongoing
Removing municipal barriers pertaining to wireless network deployments			
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Working with Major Carriers to streamline 5G infrastructure investment	The Cellular Vendor Application Process, updated as of 2019, sought to understand and improve the process for cellular service providers to expand or modify service coverage. Mapping the current processes (6 options, with different stakeholders and steps for each) is the first step towards removing municipal regulatory barriers related to wireless network deployments.	Discussions between the City of Edmonton and the major telecommunications carriers are ongoing to find efficiencies in the permit application process with commitment to continue analyse and implementation of improvements before the federal auction of 5G spectrum.	Q4 2021