Government of Alberta
Information Management & Technology
5-Year Strategic Plan
2016/2017 – 2020/2021

BEHAVIOUR

SERVICE

INFORMATION

FOUNDATION

Culture of Innovation and Collaboration

Citizen and Organization Centric

Digital Government

Government-Wide Approach
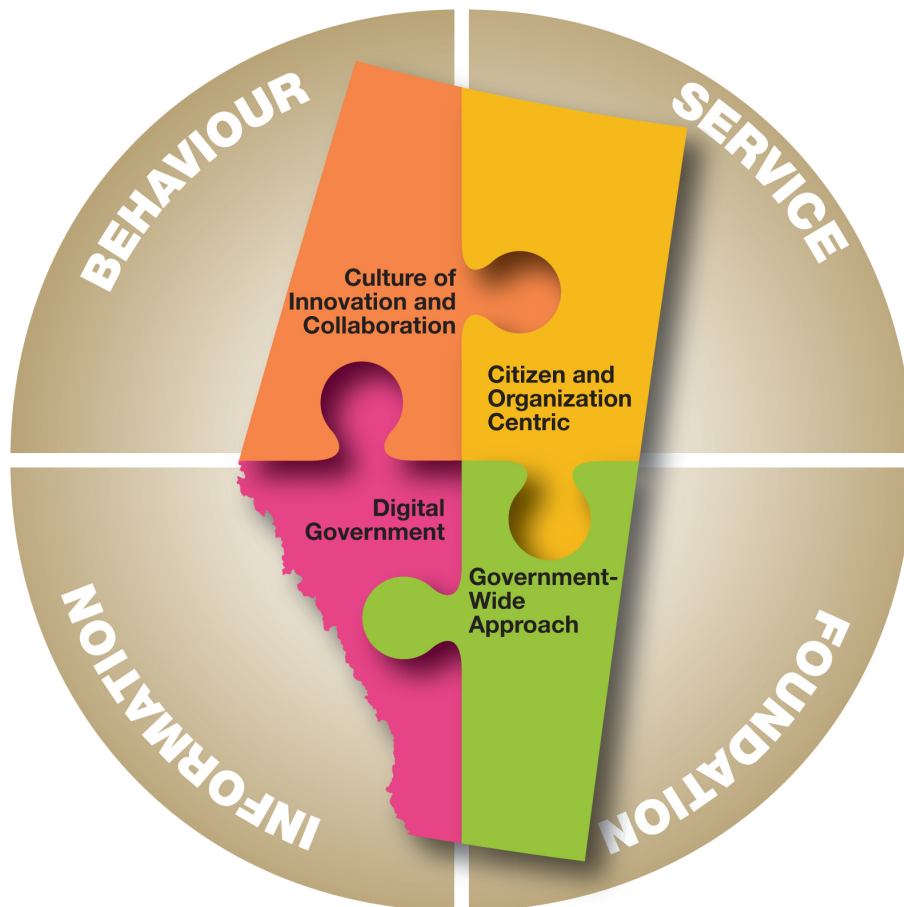
Alberta

Message from the Corporate CIO

It is with pleasure I present you with the new Government of Alberta's (GoA) Information Management and Technology Plan (IMT), which lays out a vision for the next decade, and a Strategic Road Map and Implementation Plan to help us get there.

Success of this IMT Strategic Plan comes from acknowledging the need for cultural change across the government, and embracing change through creative and innovative ways of delivering programs and services. We know to deliver value and support transformational change, we need to think, govern, and act from a government-wide perspective. A government-wide approach is pivotal to success in meeting the GoA's priorities and this IMT Strategic Plan.

We also know that change is inevitable. We will need to continually evolve the ways in which we deliver services, and the ways in which we respond to technological trends, changes in business drivers, and the expectations of Albertans.

We have heard, seen and experienced the impact of the digital world for years. It is an exciting time to be in IMT. This is our opportunity to influence and transform how the GoA delivers programs and services, and how citizens interact digitally with the GoA.

There are many people to thank for being involved in shaping this strategic plan. Over 500 business and IMT staff from across the GoA provided candid and open perspectives, which were used to help build the plan.

Special thanks to the CIO Council and IMT Project Execution Steering Committee for their advice, engagement and counsel as the plan was developed. Thank you to the ADM IMT Steering Committee for their leadership and ambassadorship of the plan. This is truly a plan we have built together.

I look forward to our ongoing collaboration as we continue to move towards an government-wide approach in IMT across the GoA. "It's time for change!"

Mark Brisson
Corporate Chief Information Officer
Government of Alberta

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Introduction

The Government of Alberta (GoA) is a $50 billion a year organization. An estimated 2.5%, over $1 billion, is spent annually on Information Management and Technology (IMT).

Senior leaders are striving to gain a greater level of understanding and confidence that investments in IMT are realizing maximum value and return for the GoA. They are aware of the duplication and challenges that exist and of the tremendous potential IMT offers.

Over the past 20 years, IMT has been applied within the boundaries of individual ministries, a practice until recently, consistent with other public and private sector organizations. Initially, this approach was effective and provided direct value to the programs being delivered. However, over the years IMT has evolved into information and technology silos, creating an impediment to sharing information and optimizing technological investments across the GoA. The results of this are now directly impacting our ability to structure delivery of services around the needs of citizens and businesses. The degree of complexity, duplication, inefficiencies and, more importantly, missed opportunities to enhance services for Albertans, will continue to get worse until this changes and the GoA takes an organization-wide approach to governing IMT.

As with most large organizations, the GoA is driven to:

- *Increase economic growth* - We need to diversify and support Alberta's economy
- *Enhance Citizen experience* - We believe Alberta's citizens and businesses should have access to services in a manner that is both convenient and of high quality
- *Be informed as leaders* – We want to make better decisions based on accurate and reliable information
- *Strengthen our public service* - We need to empower our greatest asset, our people, to become more collaborative and innovative
- *Be more transparent* - We need to find ways to allow citizens and organizations to see and better understand how their government is serving them
- *Be more environmentally responsible* - We are all stewards of the environment and care about reducing our footprint
- *Focus our investments* - We need to be thoughtful and focused on where and how we invest in IMT
- *Become more efficient* – We expect every tax dollar to be well spent

To support achieving these outcomes, a full transformation of how IMT is governed and used across the GoA must take place. Most provincial jurisdictions and many Fortune 500 companies are having, or have dealt with, the same challenges the GoA is facing. All, at one time or another, have used IMT to support independent areas of their organizations, resulting in increasing inefficiencies, higher costs, and a growing sense that funding and use of IMT is out of control. Over the past decade, government and industry leaders have begun the transition to an organization-wide approach for IMT. The outcomes and results are significant. As barriers to sharing information are broken down and investments in IMT are focused and leveraged, workforce productivity increases, processes are streamlined, costs reduced, and understanding and awareness of customer and citizen needs are proactively being addressed and improved upon.

TODAY   TOMORROW
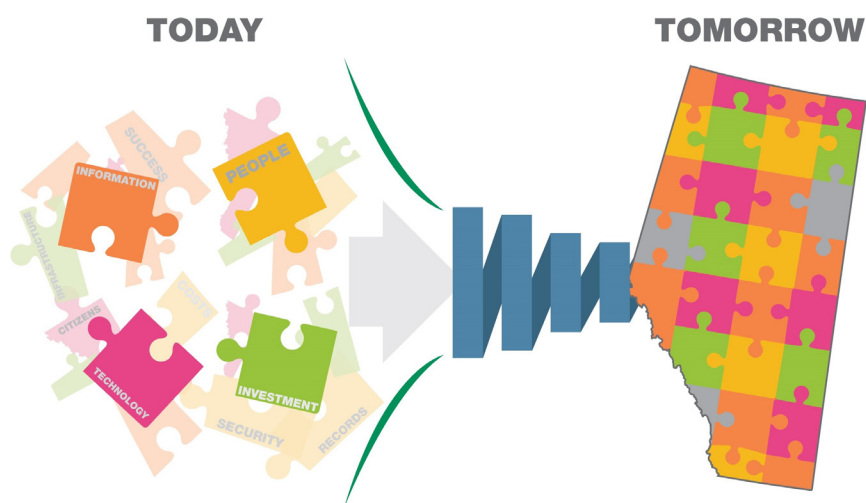
There are tremendous benefits to be realized by citizens and organizations when, human talent and existing IMT assets are used and leveraged as a single organization. This plan presents a ten-year vision and five-year implementation approach that will ultimately transform how IMT is, governed, funded, managed, and thought of strategically. The transition will take years and needs to start immediately.

The strategic plan is also a direct result of input from hundreds of GoA staff across every ministry and function. All public service employees will directly or indirectly be affected by the strategies and outcomes laid out in this plan.

This plan sets the strategic direction for IMT within government departments excluding Alberta Health. Public agencies and boards will continue to function as arms-length organizations, making strategic IMT decisions and managing IMT funding to support their mandates. Public agencies may choose to work through their Minister to leverage the vision, innovation, ideas and practices set under this plan's direction at their discretion. In addition, Departments may identify public agency and board exceptions where alignment to this plan is not appropriate and may request that the Corporate CIO exclude a specific program or service.

Success of this plan will depend directly on the leadership of executive, commitment of IMT staff, patience and understanding of program staff, and a fundamental belief by everyone that this change is an opportunity that will benefit citizens, organizations and GoA staff.

Current Business Environment

TODAY

TOMORROW

Alberta is undergoing significant change and its fiscal realities are the most challenging the province has had to face in decades. In 2015, we experienced our first change in government in over forty years. Low oil prices and demographic changes are forcing the government to shift focus towards economic diversification while demonstrating leadership in care for the environment, and ensuring no portion of the population is underserved. Government programs continue to evolve and develop to the meet the needs of all Albertans, now and into the future.

Albertans look to their government to improve wait times in the judicial and social support systems, address inconvenient operating hours, remove geographical barriers, accommodate special needs, and support diverse delivery channels. GoA staff provide service to all who ask for or require assistance, and want to leave no vulnerable person or Albertan with complex needs behind.

Program areas are overwhelmed by the volume of data and question the relevance of legacy business applications, as well as many information management practices. They are calling for advice and practical help on new ways of doing things in times of financial constraint, while coping with outdated systems and practices.

The GoA's IMT community is comprised of approximately 1,600 staff and contractors, who support service delivery to over 4.2 million Albertans and support the service delivery of over 27,000 Alberta Public Service (APS) employees.

Despite the current economic downturn, our population is expected to continue to grow. Shifting demographics and the current economic climate will put pressure on the IMT community in the following ways:

- Increasing segments of the population who have grown accustomed to using technology will expect integrated information and services that can be accessed digitally from the GoA, is easy to use, and personalized;

- Efforts to attract and retain employees in rural Alberta will increase demand for remote services like telemedicine and real-time editable data at the fingertips of mobile workers;

- Expectations to leverage digital technology and information to enable Albertans to access information and services from their homes, their office, wherever and whenever it is convenient for them;

- As the number of Albertans to be supported per worker is expected to increase significantly over the next 25 years, there is increasing demand on information technology to improve the effectiveness and efficiency of GoA staff to meet these changes;

- Growing volumes of unstructured information will need to be effectively managed, stored, and transformed into information easily used in business analytics and informed decision making; and

- Reducing the GoA's environmental footprint while meeting the demands of citizens and organizations, and evolving the services and programs offered.

Over time, IMT has moved beyond automating manual processes and paper forms and is now expected to be an agent of change. Program areas recognize and appreciate the value and potential of IMT and are excited to collaborate on solutions to meet the challenges on the road ahead.

The GoA IMT community is on the frontline of identifying new information and technology trends to better service the needs of Albertans. The best ideas for using IMT come from business areas and IMT working together. By collaborating, our collective talent, resourcefulness, and knowledge will help us find the tools to innovate, improve productivity, and overcome resource scarcity.

The Vision and Plan

Destiny is not a matter of chance, but a choice. Not something to wish for, but to attain.

William Jennings Bryan

To transition from where we are today to strategically leveraging and using IMT in a cohesive and coordinated approach for all of the GoA, we need to envision a future we can achieve.

Ten Year GoA IMT Vision

The year is 2026…

Online interaction is the primary and preferred method Albertans choose to view and update their personal information, track service requests, and be informed by their government of upcoming key dates and events. Access is through a single, online digital identity. Information and updates are only collected once and flow throughout the entire GoA, (securely and with appropriate privacy restrictions), so GoA staff are always working with the most up-to-date information, constantly assessing how they can better support and provide value to Albertans.

Citizens and organizations are more personally engaged with their government. Citizens are using mobile applications to receive notifications and information, reminding them that the campsite they stayed at last May is now open for booking, or informing them of the upcoming date for their child's immunization appointment. New devices used by citizens, such as wearable equipment and clothing (e.g. health trackers, watches), further enrich information on their personal health record by automatically connecting and triggering emergency services if an individual needs urgent care.

Citizens, organizations, GoA staff, and service partners view, access and update information and services at the office, from home, or from wherever is the most convenient and effective for them. Information and technology is the enabler for business transformation and collaboration, creating opportunities throughout the GoA for problem solving and innovation.

GoA focuses on ensuring citizens and organizations are properly supported across all programs and services in a coordinated and integrated manner, using information to analyze and determine the value of such services. Key decision makers use this up to date predictive analysis information to make informed decisions in response to, and in anticipation of, the needs of Albertans.

The carbon footprint associated with IMT is reduced as the use of paper is minimized: printers, data centres, servers, and all forms of energy-driven technologies are streamlined and more energy efficient technology and processes are constantly implemented. Travel is reduced when citizens and staff engage and work from home or the office digitally in a collaborative environment across the province.

Citizens and organizations use and find new ways of leveraging the vast amount of information their government is making available for all to see and use. The open information environment is enabling citizens and businesses to engage with their government more directly and create new value-added business ventures to further economic diversification.

Achieving the Vision

The plan to realize this vision is organized into four high level goals referred to as Strategic Pillars. The pillars do not stand in isolation of each other; rather, they collectively define our vision.

- *Citizen and Organization Centric* - Citizens and organizations are seen and treated as the primary client and partner of the GoA
- *Culture of Innovation and Collaboration* - GoA program and IMT staff work together with joint accountability towards shared outcomes
- *Digital Government* - GoA programs and services are enabled through integrated information and technology
- *Government-wide Approach* - A single, unified, integrated, and governed GoA IMT environment

Achieving this vision requires a new IMT governance model with clearly established roles, responsibilities, accountabilities, and authoritative bodies. Leadership is required to enforce strategic decisions, maximize the value derived from IMT resources, harness IMT capital and operating dollars, and provide oversight and management of how information and technology are used across the GoA.

The four Strategic Pillars are graphically presented in the **IMT Roadmap** on the following page and represents the key elements of the IMT Strategic Plan.

GoA IMT Strategic Road Map   2016/2017 – 2020/2021

GoA Strategic Priorities	A Diversified Economy that Creates Jobs and Opportunities for All Albertans	Education and Training to Enable Albertans to Succeed in the Global Economy	Safe and Inclusive Communities that Embrace Fairness and Equality of Opportunity	Demonstrated Leadership on Climate Change	Sustainable and Accessible Health Care Services and Social Supports

IMT Business Drivers: Economic Development and Growth · Enhanced Citizen Experience · Informed Leadership · Strengthened Public Service · Transparent Processes · Environmental Stewardship · Focused Investments · Organizational Efficiency

IMT Strategic Pillars	**CITIZEN AND ORGANIZATION CENTRIC** Citizens and organizations are seen and treated as the primary client and partner of the GoA	**CULTURE OF INNOVATION AND COLLABORATION** GoA program and IMT staff work together with joint accountability towards shared outcomes	**DIGITAL GOVERNMENT** GoA programs and services are enabled through integrated information and technology	**GOVERNMENT-WIDE APPROACH** A single, unified, integrated and governed GoA IMT environment
IMT Strategies	• Establish a scalable digital identity to support citizens and organizations interacting with the GoA electronically, and securely accessing their private information • Implement an Open Government Action Plan • Establish an approach and processes to regularly and consistently consult with citizens and organizations on their online needs and expectations • Establish business intelligence and analytics practices to proactively identify, promote and provide information and services to citizens and organizations	• Implement a cross GoA policy for sharing information • Implement service improvement teams comprised of program and IMT staff to jointly take accountability for addressing program needs, and maximizing the value of IMT assets and knowledge • Establish GoA (cross-ministry) communities of practice • Implement IMT tools and support systems to enable GoA workforce mobility	• Adopt the digital record as the official government record • Establish a single set of easy to understand information management and technology policies and standards for the GoA • Adopt an online delivery approach for applications to enable digital services on any device • Implement an IMT *Green* Policy on environmentally friendly practices and activities	• Implement a GoA IMT Governance Model to execute the IMT Strategic Plan • Implement central management and stewardship for investments • Establish one IMT operating policy framework and environment for the GoA
Outcomes/ Benefits	• Citizens and organizations are accessing GoA information and services online in a secure and safe manner • Citizens and organizations have greater trust in the GoA managing information on their behalf • When accessing GoA services, citizens and organizations will only have had to provide their personal information once • Citizens and organizations' needs are being anticipated and addressed where possible	• New and improved services provided to citizens and organizations • Greater sharing of information between programs and ministries resulting in improved services to citizens and organizations • Increased innovation and leveraging of GoA assets to improve service efficiencies and reduce duplication • Increased staff engagement and job satisfaction • Increased employee productivity at home, in the field, and at the office	• Every aspect of managing information, from entry to storage, is simplified and less costly • Information collected once • Modern information management processes consistently followed across the GoA, reducing expenses, duplication, and increasing use and value of information • Consistent applied IMT policy and standards across the GoA, reducing turnaround times responding to citizen and organization's evolving needs and expectations • GoA staff, citizens and organizations have greater access to information on any device – anywhere, anytime • Reduced GoA environmental footprint	• GoA IMT Strategic Plan strategies successfully completed and benefits realized • Increased return on IMT investment and reduced duplication • Increased GoA IMT environment operational efficiency and reduced complexity • Reduced operational costs resulting in freeing up funds to re-invest in IMT priority areas
GoA IMT Principles	THINK CITIZEN FIRST	COLLABORATE AND INNOVATE	EVERYTHING DIGITAL AND SHARED	TAKE A GOVERNMENT-WIDE PERSPECTIVE
		BE ENVIRONMENTALLY RESPONSIBLE		

Aligning IMT with GoA Priorities

The top row of the Road Map illustrates how the IMT Strategic Plan aligns to the Strategic Priorities identified by the GoA in April 2016. Eight areas are identified (IMT Business Drivers) where IMT can have a significant impact in supporting achievement of the strategic priorities. The IMT Business Drivers were used to influence the strategic pillars and strategies.


Making it Happen Together

The main body of the Roadmap shows the four IMT Strategic Pillars (Goals), the IMT Strategies supporting the pillars, and the key Outcomes and Benefits to be achieved. The Strategic Pillars are described below.

Citizen and Organization Centric Pillar

Today … IMT is used to support services for citizens and organizations based on needs and expectations from individual program perspectives. Decisions are made and systems put in place with the belief that citizens and organizations will receive value and benefit from the availability of the service or information provided online.

Tomorrow … Citizens and organizations are engaged proactively to determine their needs and expectations across a range of government programs. IMT is used to proactively support information and services in an integrated manner to the benefit of citizens and organization. Engaging citizens and organizations in the process of government has opened up new ways for Albertans to work with their government and their government with them.
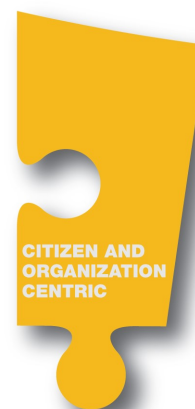
Staff will seek to understand what the needs and expectations are of citizens and organizations first before expending effort and resources on providing services and information to them online. Services developed will provide a more personalized experience aligned to citizen expectations. New and exciting ways for citizens to interact with their government will be jointly explored. A more transparent environment will allow citizens and organizations to see how their government operates and serves them.

Information is analyzed to identify specific services that could be reduced or stopped and new potential services that might provide even greater value and benefit.   Albertans use their digital identity to engage in a dialogue with their government using various social media channels.   Feedback and ideas from citizens and organizations are used to shape the services made available digitally.

Strategies

- Establish a digital identity to support citizens and organizations interacting with the GoA electronically to securely access their private information

- Implement an Open Government Action Plan

- Establish an approach and process to regularly and consistently consult with citizens and organizations on their online service and information needs and expectations

- Establish business intelligence and analytics practices to proactively identify, promote and provide information and services to citizens and organizations

Culture of Innovation and Collaboration Pillar

Today … staff from program areas work at arm's length with staff from IMT, each with their own area of responsibility and accountability, each doing their best to understand and support the other – often times, not working together efficiently and missing opportunities.

Tomorrow … program and IMT staff are indistinguishable. Responsibilities and accountabilities are blended focusing on jointly meeting the expectations of clients and organizations. New ways of working together are evolving and generating innovative ideas.

Citizens ask for the option to connect their wearable devices to their personal record. A cross-ministry team reviews how the Ministry of Transportation recently set up a system to accept GPS data provided by Albertans on traffic flow and road usage that was used to improve road maintenance schedules and future roadway planning. The cross-ministry team uses Transportation's ideas and application as a starting point and quickly pilots a solution to link wearable devices to their person record, including a feature to provide citizens the option to trigger delivery of Alberta Emergency Alerts to devices based on location.

Staff from different areas across the GoA will work together to creatively use IMT to respond to citizen and organization needs. By working together across disciplines GoA staff will harness their collective knowledge, skills and experience to solve problems and come up with innovative new ideas. Staff will feel more engaged and challenged in their jobs resulting in a higher level of job satisfaction. Working from home, at the office or across the province staff will find ways of working together that will reduce duplication, be more efficient and creative, and reduce the carbon footprint from unnecessary travel.

Strategies

- Implement a cross-GoA policy for sharing information where permitted by legislation
- Implement service improvement teams comprised of program and IMT staff to jointly take accountability for addressing program needs, and maximizing the value of IMT assets and knowledge
- Establish GoA (cross-ministry) communities of practice
- Implement IMT tools and support systems to enable GoA workforce mobility

Digital Government Pillar

Today … Information provided to the government by citizens and organizations is in paper form, fax, email or online and is being printed, scanned, stored in databases and filing cabinets, more often than not multiple times by each individual ministry or program. Citizens and organizations are asked for the same or similar information by each program, which is stored independently from every other program making it difficult if not impossible for citizens, organizations, and GoA staff to easily access needed information.

Tomorrow … Information is entered once and made available across the GoA in a manner that protects the privacy of the citizen or organization. Information is stored, organized, protected and used in a digital form only. Citizens and organizations are able to interact with the GoA electronically providing information only once.

After an Albertan books a campsite, an email is sent confirming the reservation and payment and a calendar request is sent to block off the time in their calendar. As the date approaches, reminders are sent with projected travel time based on traffic patterns and expected weather conditions for the area. All of this information is collected and managed electronically, allowing the GoA to anonymize and aggregate it, to target upgrades to highways, maintenance to parks, wildlife and conservation efforts, and seasonal staffing needs.

The transition to a digital environment will allow staff to better manage and protect the growing volume of information used by government. Citizens will only have to provide their information once and have confidence the government is storing their data securely and using it in a manner that protects privacy while ensuring information is used to the benefit of all Albertans. The reduction in paper use alone will significantly reduce duplication, streamline processes, and reduce the IMT carbon footprint on the environment.

Strategies

- Adopt the digital record as the official government record
- Establish and implement a single set of easy to understand information management and technology policies and standards for the GoA
- Adopt an online delivery approach for applications for interoperability and openness, and to enable digital services on any device
- Implement an IMT Green Policy on environmentally friendly practices and activities

The Government of Alberta is a trusted steward on information held on behalf of Albertans. "Information is Collected Once; Managed Digitally in an Open and Secure environment; Accessible; and, Used to its Fullest Potential"

Government-wide Approach Pillar

Today … IMT is used to support ministry programs with little consideration to a government-wide perspective – resulting in multiple: data centres, firewalls, email systems, copies of the same information, and business applications addressing similar or identical business needs in multiple ministries.

Tomorrow … IMT is being used to support the GoA to the benefit of ministry programs – resulting in rationalized data centres, single secure firewall, single email system, information stored once, and business applications built once and being used in multiple ministries.

As Alberta's economy diversifies and revenues grow, senior leaders in the GoA quickly identify strategic IMT investments to provide the strongest fiscal return, and enhance services for Albertans across the province. Decisions are made confidently and quickly based on strong evidential information. Service improvement teams comprised of leaders and staff across the GoA are quickly assigned and deployed to begin work on the new initiatives days after the announcement.

By operating under a government-wide approach, the complexity and duplication of using IMT will be significantly reduced. A consistent application framework will support "building once and leveraging innovation" across the GoA. The cost savings can be used to reinvest in other key areas identified in the Plan more directly benefiting citizens and organizations. The ability to focus on high priority areas within the GoA will allow staff to redeploy energies and assets to those activities more strategically important or needing immediate attention.

Strategies

- Implement a GoA IMT Governance Model with clearly established roles, responsibilities, accountabilities and authoritative bodies
- Implement central management of all IMT capital funds (Alberta Health / public agency / board exclusions noted) and central stewardship and reporting of all IMT operating funds to the Corporate CIO and the Government Controller. These central accountabilities will specifically include:
    o Reviewing, prioritizing and approving all proposed GoA IMT capital projects and spending
    o Reviewing and reporting all IMT operating costs in the GoA IMT Operational Spending Plan
    o Reporting on the full IMT capital and operating spend and benefits achieved
Ministries will be accountable for:
    o Submitting capital projects for business solutions for consideration in the GoA IMT Investment Plan
    o Reporting all operational spending plans for inclusion in the GoA IMT Operational Spending Plan

- o Budgeting for and managing IMT Operating funds as outlined in the GoA IMT Operational Spending Plan
- o Managing delivery of approved capital projects and benefits
- Establish one IMT operating policy framework and environment for the GoA, the scope of which will include areas such as:

Security Framework	Service Desks
Networks	Telephony
Data Centre Strategy	Device Management
Digital Archiving	Vendor Management
Enterprise Architecture	Procurement
Cloud Services	Ministry Applications - hosting
Information Management	Government-wide Applications –
Research and Analytics	hosting, maintenance, and
Enterprise Resource Planning	development

Guiding the Decisions

The last row of the Road Map highlights the Principles used to influence the thinking throughout the development of the IMT Strategic Plan. These principles will be carried forward as a guide for all major IMT decisions during implementation of the Strategic Plan.

- *Think Citizen first* – think from outside of government first. As a citizen, ask whether this will enhance the experience and/or provide additional value and benefit

- *Collaborate and innovate* – proactively look for ways to work with others in program areas across the GoA, thinking beyond the norm, and innovate

- *Everything digital and shared* – accessible information is collected once across the GoA in a digital form, managed as a resource, and shared to the benefit of citizens and organizations

- *Take a government-wide perspective* – view the GoA as a "single" organization and leverage all of its assets and advantages wherever possible

- *Be environmentally responsible* – be conscious of the impact IMT actions can have on the environment, both negatively and positively

Alignment to Key Strategies and Plans

The GoA IMT Strategic Plan aligns with the strategic plans developed and published by the GoA and its ministries.

The GoA IMT Strategic Plan directly supports the April GoA 2016-19 Strategic Plan and embodies a government-wide approach to IMT. It sets the IMT vision and direction for the entire GoA, while providing context for ministries to create their own IMT plans in support of ministry business plans. All specialized cross-government IMT strategies and initiatives will be aligned to the GoA IMT Strategic Plan.

Alignment to the GoA 2016-2019 Strategic Plan

The 2016-2019 Strategic Plan identified five strategic priorities for the government. This IMT Strategic Plan directly helps the government address these five priorities through innovative use of IMT, enabling departments to collaborate on common initiatives and optimizing IMT investments by taking a government-wide perspective. The following section provides insight into how this plan will directly help achieve the government's five strategic priorities.

A Diversified Economy that Creates Jobs and Opportunities for All Albertans

Albertans and businesses have expectations to access government services through online and mobile channels, to minimize the number of times they provide the government with the same information for multiple requests delivered by multiple departments, to be part of open public engagement on important policy issues and experience no interruption of critical government services in the event of a disaster. The government can meet these expectations – we are at a point when many information technology business solutions are nearing the end of their life and there are opportunities to consolidate similar business solutions to simplify the experience of interacting with government for Albertans and reduce the number and complexity of business solutions spread across many different Ministries. The investments that the GoA makes in these transformational activities will provide Alberta businesses and individuals opportunities for jobs and put money back in the Alberta economy.

As program areas and government support functions examine their processes and applications, they will look to the cloud to accelerate transformation. The GoA can create opportunities for Alberta's Information, Communications and Technology community by opening its doors to small local vendors in the Cloud services market.

Broadband speed and price are essential to making Alberta a more attractive place for start-ups and investment. SuperNet enables equitable access to broadband services across the province and levels the playing field, by opening Alberta up to a global market and providing opportunities and growth to unserved rural Alberta households and businesses.

Interoperability will position Alberta to realise productive gains through automation sooner rather than later. Job creation resulting from the installation and maintenance of Internet of Things systems like cameras, sensors, and transponders connecting Alberta's highways and Smart Cities require a robust and integrated IMT environment.

Education and Training to Enable Albertans to Succeed in the Global Economy

Students and educators, like all Albertans, have expectations to access and deliver government services through innovative online and mobile channels that they experience from other organizations. The multiple organizations focused on primary and post-secondary education, curriculum development and research will have the tools to collaborate and share information to strengthen education policies and delivery of education and training programs and reduce the achievement gap between First Nations students and other students in Alberta. Services will be transformed to be more responsive to students' needs such as implementing online delivery of services such as Learning Assessments or Diploma Examinations. Rural Albertans will have an equal opportunity for education and training programs by having access to government services and the Internet through the Alberta SuperNet strategy. Through the use of a common government-wide analytics platform, the GoA can gain insights into labour market trends and develop focused training and education programs to prepare Alberta's workforce for the future.

Safe and Inclusive Communities that Embrace Fairness and Equality of Opportunity

The government will make better or more timely decisions in law enforcement, prosecution services or identifying Albertans who need specialized social services by transitioning to fully digital information and implementing information sharing policies and tools across the GoA and with partner organizations. A transition to fully digital records will help automate processes in the criminal justice system such as electronic evidence disclosure, providing the accused with more timely access to a trial. Improved information between provincial corrections and social support services will help individuals get support they need such as housing, identity credentials and access to job opportunities as they exit the corrections system and reduce the likelihood of re-entering the corrections system.

SuperNet allows the GoA to inter-connect between services and support citizens with services. The availability of government services in rural areas will play a significant part in retaining and developing skills necessary to preserve the richness of Alberta's rural communities.

A single IMT operating policy framework and environment for the GoA will improve cyber security, while strengthening the collaborative relationship with federal, provincial, and territorial counterparts.

Demonstrated Leadership on Climate Change

The government has a meaningful opportunity to demonstrate leadership on climate change by being innovative in how business solutions are delivered through IMT. Many services that the government provides to Albertans and businesses can be offered with online and mobile channels being the preferred means. This convenience to Albertans will reduce travel time and vehicle emissions by enabling Albertans to receive

services from the location of their choice. Paper application forms, receipts and mail-outs will be replaced with all digital services reducing the use of paper and the environmental impact of transportation. It is not just Albertans that benefit, but the government will provide more mobile workforce options for public service employees so they can deliver services to Albertans from locations where the services can be effectively delivered. Employees will have access to the same tools and information from their mobile device as they do at their office and services can be delivered at the client's site or in some instances the government will offer work-from-home options reducing travel time. The government will reduce the environmental footprint by consolidating its 20 data centres into 3-5 facilities supplemented by cloud service providers where electrical use is optimized and reduced.

Cross-device interactions and passive citizen engagement using accelerometers, mobile phones and GPS potentially could allow drivers to elect to receive notifications about anticipated traffic conditions and electric car charge points, while notifying government about road and current travel conditions. Drivers would benefit from re-timed traffic signals, reduced accidents, idling and gas consumption, while the GoA demonstrates leadership on climate change through emission reduction. Job creation through enhanced collaboration between the Alberta government, municipalities and the federal government could enable development of on-demand mobile transit apps supporting rail, automated cars, bike and car-sharing opportunities.

*Sustainable and Accessible Health Care Services and Social Supports*

The government will optimize its investments in IMT by consolidating multiple IT environments, data centres and duplicate business applications (e.g. multiple grants management applications, multiple client relationship management systems) so that the total operational spend for IMT remains the same as today or is reduced so that operational funds can be re-directed to core government programs. The government will build common IT services once and use them to support multiple programs and services across government. This will result in secure, resilient business solutions that will ensure critical services are accessible to Albertans in the event of a disaster.

The government will simplify how Albertans interact with government leveraging the MyAlberta electronic identity program. This can provide Albertans and businesses with a common identity credential to access government services online, provide an electronic health card, driver's license, certificate of completion in an apprenticeship program or other government-issued credentials. Services will be accessed the same way, through the same online or mobile portal no matter which department is responsible for delivering the service. A single government electronic identity can help make social assistance payments more efficient or identify eligibility and process payments for unique disaster services support payments such as the Fort McMurray fire or southern Alberta floods.   While transitioning services online, the government will transform how the government delivers programs and services across common sectors (Social Services, Land Use, Government Administration, Justice) to combine delivery of similar services to Albertans. This will reduce the number of interactions and the number of times Albertans are asked to provide the same information to receive services from multiple departments. Albertans and businesses will be the central focus of service, not the department delivering the service.

There is massive potential in data merging, integrated service delivery, and information sharing. Integration and sharing will enable a longitudinal view of Albertans, support a holistic approach to policy issues and greatly enhance our ability to identify and provide service to vulnerable Albertans, as well as identification of positive outcomes to be emulated. Cross-device interaction and integrated information systems and technology play an essential role in strengthening service delivery and supports for those who experience mental illness and addictions and for those who have complex needs.

The diagram illustrates how the GoA IMT Strategic Plan links with other key strategies and plans within the GoA; however, it does not represent an exhaustive list of GoA and ministry strategies.
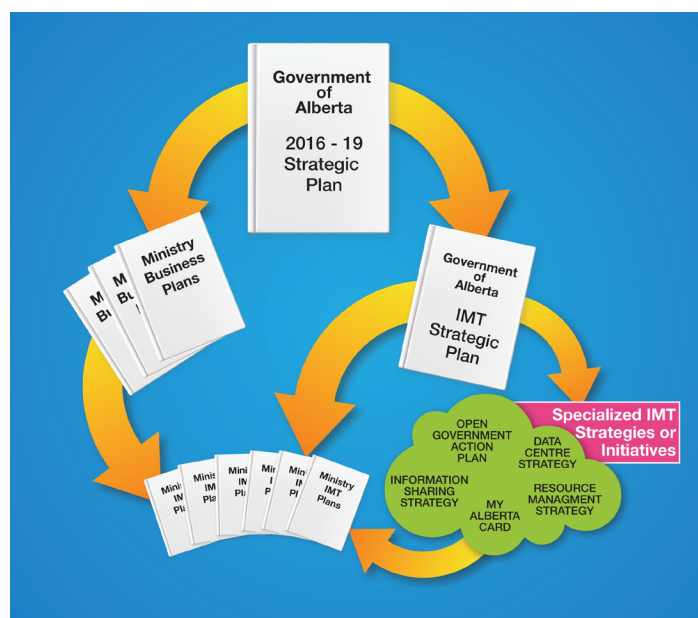
References

- [Government of Alberta 2016-19 Strategic Plan](#)
- [Ministry Business Plans](#)
- [Information Sharing Strategy](#)
- [Information Management Strategy](#)
- [Open Government Action Plan](#)

Measuring Success

Successful implementation of the GoA IMT Strategic Plan will not only be determined by the completion of the strategies and initiatives, more importantly, the degree to which the outcomes and benefits are realized in support of the strategic drivers.

The strategies within each pillar contribute to the achievement of the IMT business drivers such that collectively all of the business drivers are affected from various perspectives. The table in Appendix A demonstrates which strategies directly support individual IMT business drivers.

Individually and collectively the strategies are intended to achieve definitive outcomes and benefits. Assessing the degree to which the outcomes and benefits are being realized will be accomplished by:

1. Defining the instruments (tools) to be used to measure the outcome or benefit

2. Establishing a baseline or starting point for each outcome/benefit from which change can be measured

3. Setting realistic targets for each outcome/benefit to be realized within specific periods of time

4. Scheduling and conducting regular assessments

5. Reporting on the assessment findings and using the results to refine, replace, or confirm the effectiveness of the strategies

A table providing potential instruments (tools) to be considered for measuring each set of pillars and strategies can be found in Appendix A.

Investment Approach

The investment required to execute the strategies identified in the IMT Strategic Plan will be significant both in terms of funding and resource capacity. To manage within a net zero (inclusive of inflation) impact to the overall spend on IMT within the GoA, the following approach will be required:

- Initially, additional investment in IMT strategies will be required; IMT will need to be viewed as an equal GoA priority so that a larger portion of existing capital dollars will be allocated

- As savings are realized from strategy implementations, they will be reinvested in IMT, reducing or mitigating the need for additional capital investment

- When IMT strategies are fully implemented it is anticipated the overall IMT spend will result in a net percentage savings for the GoA

$INVESTMENT

REINVEST

INVESTMENT APPROACH

CREATES VALUE

DELIVER VALUE

Upon approval of this Strategic Plan, an IMT Investment Plan will be created projecting the Capital and Operating spend over the next 5 years, including the additional capital investment required to support implementation of the plan.

The Office of the Corporate Chief Information Officer will prepare a report annually showing the IMT spend, both capital and operating, for the entire GoA. The report will detail the percentage and trending of funds allocated to the IMT Strategic Plan strategies.

Implementation Approach

Implementation of this strategic plan will be realized through execution of the strategies and supporting initiatives. The outcomes and benefits to be achieved will require: changing our IMT governance model; establishing an environment for change; using a focused and staged approach; and continuously monitoring and refining the plan.

Governance

A new IMT governance structure will be implemented that clearly defines the authority, roles, responsibilities, and accountabilities in a framework supporting the leadership and decision making required to implement the changes identified in this plan. This new IMT governance structure will be determined through the Implementation Plan through consultation with departments.

Environment for Change

Establishing an environment to execute the strategies and promote change will be directly impacted by the final decision on the new governance model and could include such activities as:

- Putting in place a secretariat office with sufficient resourcing to organize, manage, monitor, report on and support the implementation of the plan. The secretariat would report to the appropriate decision making body identified in the new IMT governance model. Secretariat resources would be seconded from across the GoA. The secretariat personnel would also take on the role as change agents within their home ministries
- ADMs assigned as executive co-leads (champions) with the Corporate CIO for each strategy. Selection of ADMs for each strategy could be based on the level of interest and passion individual ADMs have for the changes and outcomes to be achieved. The executive co-lead would be responsible for execution of the strategy initiatives and realization of the stated outcomes and benefits
- The executive co-leads would develop a charter for the strategy they are responsible for outlining specific tasks, resource requirements, timelines, and outcomes for each initiative
- Strategy initiatives would be prioritized and scheduled by the executive co-leads and the appropriate body in the new IMT governance model. The prioritization process would be managed and reported on by the secretariat
- Coalition teams to work on prioritized strategy initiatives could be seconded from across the GoA, reporting to the executive co-lead
- Each executive co-lead would prepare quarterly reports on the progress and achievements of the outcomes, to be presented to the appropriate body within the new IMT governance model and other appropriate key stakeholders

- The secretariat would develop a Change and Transition Tool Kit (tools, techniques, templates and methods), based on best practices for use by all executive co-leads and teams to support consistency of the change process across all initiatives
- The secretariat would schedule and coordinate, with executive co-leads, joint strategy team workshops and networking opportunities to further reinforce a culture of collaboration across the GoA
- A communication strategy and plan would be developed for use by all governance bodies, executive co-leads, initiative teams and other engaged stakeholders. The communication plan would provide a common set of messages and speak to the "why, what, when, how, and relevance" of the strategic plan and activities occurring
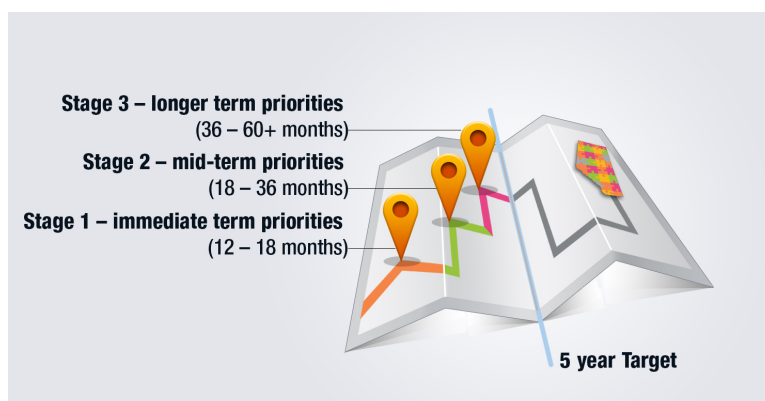
Staged Approach

The degree of change and expectations identified in this plan are significant. Regardless of the funding requirements, there is finite capacity of appropriately skilled resources (business and IMT) to complete the work. There is also limited capacity to absorb the expected changes to business processes, program services and tools, especially as ministries across the GoA are not at equal levels of maturity on how they currently use IMT. As such, not all the proposed initiatives will be approved in the short term. There will be a focus on what is realistic and can be successfully achieved. Existing IMT initiatives will continue to proceed and will be rationalized and integrated into Stage 1 initiatives as they are being implemented.

The implementation approach is a staged, rolling five-year plan. The initial stage is focused on those initiatives and activities that will have an immediate impact, signaling the importance and commitment to execution of the strategic plan and will include such strategies as:

- Implementing the new IMT Governance Model
- Establishing a single funding authority and supporting processes
- Establishing one IMT operating policy framework and environment for the GoA
- Determining the legislative and policy changes required to establish the digital record as the official government record
- Implementing a cross GoA policy for sharing information

There is a compendium document to this IMT Strategic Plan: IMT Implementation Plan. The Implementation Plan details the initiatives within each strategy, the timeline for each, and identifies who leads the initiative. The Implementation Plan is organized into three stages (indicated in the visual on the right):

Stage 3 – longer term priorities (36 – 60+ months)

Stage 2 – mid-term priorities (18 – 36 months)

Stage 1 – immediate term priorities (12 – 18 months)

5 year Target

Monitoring the Plan

The GoA IMT Strategic Plan will be revised every three years, reflecting new developments and changes within the province.

The Implementation Plan will be maintained and managed by the secretariat on behalf of the OCCIO. The Implementation Plan will be revised annually, assessing the effectiveness of the strategies against the outcomes determining if new strategies are needed or existing strategies should be removed or revised.

On a quarterly basis, the CCIO will report on the progress and results being realized. The appropriate decision making body in the new governance model will review, re-evaluate and prioritize to ensure progress is being achieved.

Critical Success Factors

The extent to which the following eleven critical elements are in place will directly impact the success of implementing the GoA IMT Strategic Plan:

Effective Governance – Decision making processes are clear and effective. Roles, responsibilities, accountabilities, and authorities are clearly documented, communicated, understood, and embraced

Visible and Committed Leadership – Involvement and engagement from leaders across the GoA, (both program and IMT staff), to support, champion and ensure implementation of GoA IMT Strategic Plan as a priority

Culture and Behavior – GoA staff and leadership are actively collaborating across the organization. There is a culture of focusing on citizens and organizations from a government-wide perspective

Risk Tolerance and Innovation – IMT leaders are keeping pace with trends and adopt-new concepts and technologies to improve the experience citizens and organizations have with the GoA. GoA executives and management are open to innovation within manageable risks

Sufficient Funding – Sufficient resources and funding are secured and invested on the implementation of the strategies identified in the GoA IMT Strategic Plan

Active Change and Transition Management – Resources and activities are dedicated throughout implementation to provide support systems, address concerns, manage resistance, and ensure leaders remain visibly engaged to support the widespread adoption of the IMT Strategic Plan

Constant and Open Communication – There is open, consistent and up-to-date communication across all levels of the GoA throughout the implementation of the GoA IMT Strategic Plan

GoA-wide Participation – Every program area understands and accepts their participation and contribution to the achievement of the GoA IMT vision and implementation of the GoA IMT Strategic Plan

Resource Competencies – GoA leadership, staff and resources with the required skills and competencies are assigned to implement IMT Strategic Plan strategies, and opportunities are provided for any staff lacking in needed competencies to grow their skills and gain experience

Outcome Focused – There is clear focus on the outcomes to be realized as IMT Strategic Plan strategies are implemented. Processes are in place to adjust and refine strategies to achieve the outcomes

Defined Benchmarks – Clear measures and baselines are defined and used to track, assess and inform the performance, support, and quality of the implementation progress of the GoA IMT Strategic Plan

Mitigating Risks

At a time when we are facing fiscal challenges and competing priorities for limited resources, a transformational plan of this nature will face multiple obstacles and risks. Anticipating and mitigating those risks before they occur, or proactively reacting to them, will have a significant impact on the success of the plan. Key risks will be monitored and managed using the GoA Enterprise Risk Framework. The following table describes risks with the highest probability of occurring and highest degree of impact and mitigation strategies for each.

Risk	Mitigation Strategy
Implementation of a new IMT governance model is delayed or does not happen	• Clarify, document, and communicate the roles, responsibilities, accountability and authority within the existing governance model • Identify and engage senior leaders as champions to support the implementation of the plan
Executive leadership is not fully committed and supportive of the IMT Strategic Plan's intent and outcomes	• Secure awareness, understanding, and support from executive leaders and governance bodies • The Corporate CIO for the province regularly engages with DMs and provides quarterly updates to the DM Committee on the progress of the IMT Strategic Plan • Put in place specific and enduring policy or legislative instruments clarifying previous commitments to newly appointed Deputy Ministers
Insufficient funding available to support work required in the Strategy's priorities	• Leverage support from the DM Committee to establish a higher priority on capital funds required for the approved IMT Strategic Plan implementation priorities • Savings realized from changes resulting from the implementation of the Plan are reinvested in ongoing Plan initiatives
Processes introduced to provide cross-GoA oversight of IMT result in delays and inefficiencies in decision making	• Assess the potential impact to existing decision making processes when implementing oversight strategies and adjust new processes as required • IMT senior leaders actively engage in the planning and monitoring of processes to identify opportunities for streamlining

The required resources with the appropriate competencies and skills to implement and sustain the changes of the IMT Strategic Plan are not available	• Key roles identified in the new IMT Governance Model are classified appropriately and qualified resources are hired to support the implementation of the priorities • External resources are drawn upon to support and mentor internal GoA staff in the required skills and competencies as defined in the Alberta Public Service Competency Model
Operational priorities and demands divert resources from focusing on the strategies and initiatives in the IMT Strategic Plan	• Clearly communicate the prioritization of Plan activities within the context of operational responsibilities • Commit staff full time to strategic initiatives and engage external support as needed • Identify contingency plans to increase resourcing flexibility and agility
Lack of willingness and capacity of management and operational GoA staff (IMT and business) to accept and support changes resulting from implementation of the IMT Strategic Plan	• Draw upon executive support (DMs and ADMs) to reinforce the importance, value and inevitability of the changes • Utilize cross-ministry coalition teams to champion the changes being made by reinforcing that we are all accountable for: moving to a digital government, delivering services focused on what citizens need, showing integrity with IM practices, and developing a respectful environment of collaboration

Appendix – Measuring Success Tables

The following table illustrates which strategies directly support specific IMT business drivers.

IMT Business Drivers

IMT Strategies	Economic Development	Citizen Experience	Informed Leadership	Strengthened Public Service	Transparent Processes	Environmental Stewardship	Focused Investments	Organizational Efficiency
Establish a scalable digital identity	yellow	yellow				yellow		yellow
Implement an Open Government Action Plan	yellow	yellow			yellow			
Establish an approach to consult with citizens	yellow	yellow	yellow		yellow		yellow	
Establish business intelligence and analytics	yellow	yellow	yellow				yellow	
Implement a GoA policy for sharing information		orange		orange	orange			orange
Implement service improvement teams		orange		orange				orange
Establish GoA communities of practice				orange				orange
Enable GoA workforce mobility				orange		orange		orange
Adopt the digital record as the official government record			magenta	magenta		magenta		magenta
Implement a single set of IMT policies		magenta	magenta	magenta	magenta			magenta
Adopt digital services development approach		magenta		magenta		magenta	magenta	
Implement an IMT Green policy	magenta					magenta		
Implement an IMT Governance Model	green	green	green	green	green	green	green	green
Implement central management and stewardship for investments	green		green	green	green		green	green
Establish one IMT policy and environment				green	green	green	green	green

The following table provides a set of potential instruments (tools) that could be used to assess how effective the strategies are at achieving the intended outcomes and benefits.

Pillars and Strategies	Outcomes and Benefits	Success Instruments (tools)
Citizen and Organization Centric • Establish a scalable digital identity to support citizens and organizations interacting with the GoA electronically, and securely accessing their private information • Implement an Open Government Action Plan • Establish an approach and process to regularly and consistently consult with citizens and organizations about their online needs and expectations • Establish business intelligence and analytics practices to proactively identify, promote and provide information and services to citizens and organizations	• Citizens and organizations are accessing GoA information and services online in a secure and safe manner • Citizens and organizations have greater trust in the GoA managing information on their behalf • When accessing GoA services, citizens and organizations will only have had to provide their personal information once • Citizens and organizations' needs are being anticipated and addressed where possible	Understanding citizen needs and opinions • Number of citizen complaints • Customer satisfaction survey score Focus on citizen needs • % of employee objectives linked to citizen outcome measures • % of citizen services accessed digitally • # of new services proactively identified and provided to citizens
Culture of Innovation and Collaboration • Implement a cross GoA policy for sharing information • Implement service improvement teams comprised of program and IMT staff to jointly take accountability for addressing program needs, and maximizing the value of IMT assets and knowledge • Establish GoA (cross-ministry) communities of practice • Implement IMT tools and support systems to enable GoA workforce mobility	• New, improved and consistent services provided to citizens and organizations • Greater sharing of information between programs and ministries resulting in improved services to citizens and organizations • Increased innovation and leveraging of GoA assets to improve service efficiencies and reduce duplication • Increased staff engagement and job satisfaction • Increased employee productivity at home, in the field, and at the office	Culture of engagement • Employee survey on culture to include citizen focus, continuous improvement and knowledge sharing • Turnover of key personnel • % of employee process improvement suggestions implemented Leadership for collaboration, improvement and innovation • Defined service levels achieved by channel • Number of ideas for quality and process improvement shared across multiple organizational units • % of strategic priorities for IMT determined through integrated planning process • Number of suggestions for product and service enhancements from customers (ministries or citizen groups) • Number of new products or services or concepts presented for development

Pillars and Strategies	Outcomes and Benefits	Success Instruments (tools)
Digital Government • Adopt the digital record as the official government record • Establish and implement a single set of easy to understand information management and technology policies and standards for the GoA • Adopt an online delivery approach for applications to enable digital services on any device • Implement an IMT Green Policy on environmentally friendly practices and activities	• Every aspect of managing information, from entry and storage to disposal, is simplified and less costly • Information is only collected once across the GoA • Modern information management processes consistently being followed across the GoA reducing expenses and duplication, and increasing the use and value of information • Consistently applied IMT policy and standards across the GoA reducing turnaround times in responding to citizens' and organizations' evolving needs and expectations • GoA staff, citizens and organizations have greater access to information on any device - anywhere, anytime • Reduced GoA environmental footprint	Standards, simplification, efficiency • Infrastructure cost versus benchmarked costs • Technology ranking of products and processes compared to benchmarks • # of physical file storage facilities • # of duplicate data entry points • % of GoA applications with online access • % of GoA applications that are device agnostic Building the vision for digital government in everyone's minds ahead of the infrastructure • Survey score on familiarity with meaning of key digital concepts (citizens, GoA and IMT employees) • % of digital record concepts with easy to understand published operational definitions
Government-wide Approach • Implement a GoA IMT Governance Model to execute the IMT Strategic Plan • Implement central management of all IMT capital funds (Alberta Health / public agency / board exclusions noted) and central stewardship and reporting of all IMT operating funds to the Corporate CIO and the Government Controller. • Establish one IMT operating policy framework and environment for the GoA	• GoA IMT Strategic Plan strategies successfully completed and benefits realized • Increased return on IMT investment and reduced duplication • Increased GoA IMT environment operational efficiency and reduced complexity • Reduced operational costs freeing up of funds to re-invest in IMT priority areas	• Index of product and service offerings measuring % of ministry needs covered • Initiatives and strategies success rating • IMT Return on Investment % • IMT service duplication % • IMT operating costs • # of IMT operating policies • # of IMT duplicated infrastructure components (data centres, servers, etc.)