Elevating Platform Modernisation in **Irish Government**

An Executive Briefing

Digital Government That Works

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OpenSky Data Systems for Digital Government That Works.

As Ireland's Only Gov-Tech digital transformation specialist, we deliver future-proofed citizen access and operational efficiency.
Our Gov-Tech business expertise has transformed over 50 public sector bodies in Ireland & the UK. Within transport, waste, housing & health, our systems impact 2.5m people every day & manage 100m digital transactions every month in Government.

Taking a Customer-Centric approach, we equip government teams with scalable and sustainable citizen platforms, shared digital business process information systems, realtime monitoring and analysis, legacy system modernisation, minimal viable product designs and implementations and data management services.

Our expertise & approach, provides our clients with a path towards increased cost-efficiency, reduced risk of investment and superior citizen services.

Working with the best technologies & MS Gold Certified Partners, we have 15 years of digitising processes, connecting citizens - building a smarter nation.

- *Integrated Taxi Eco-System for NTA manages 40m trips per year & 21,000 drivers*

- *Our systems impact 2.5m people every day in Ireland*

- *Our systems manage 100m digital transactions every month in Government*

- *We have transformed over 50 public sector bodies in Ireland & UK*

- *Nursing home payment system manages €1bn per annum*

- *10% of Annual Turnover invested into Gov-Tech R&D*

- *95% Customer Retention Rate*

- *ISO9001 & ISO27001 Certified*

Building a Smarter Nation
OpenSkydata.com

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INTRODUCTION

by

Michael Cronin, Managing Director, OpenSky Data Systems

During a meeting with a Government agency customer, we discussed the topic of application modernisation with the Head of IT. He had just come from an internal meeting regarding changes within the organisation stemming from new policy requirements from Government, which directed the agency to implement new processes internally and offer new services options to citizens.

Although there was already a comprehensive digital platform in place since 2015 based on a well-known application stack, he was concerned that the new needs of the organisation might not be met with the current application stack and wondered if a move to a brand new application stack would further future proof the organisation. As we discussed this further I asked him the following;

1. *Can your existing system be expanded successfully to cater for the new processes, and can this be done within time for when the new responsibilities come into play?*

2. *Are updates to the system prohibitively expensive or do they often result in down-time / difficulty in going live?*

3. *Is there trust throughout the organisation in the accuracy and performance of the existing system?*

It transpired that this Government agency required neither a legacy migration nor full or part-time platform modernisation since they were able to cater for the new processes on time, within reasonable cost and within a dependable and reliable platform.

There should always be a strong rationale for moving from your existing solution. And yes, there is and will always be something shiny and new, using the latest technologies, however the benefits should be weighted up against the costs and risks. Taking another example of one of our clients, we partnered with a public sector agency in 2018 to embark upon a staged modernisation project for their existing .NET based Regulation platform.

Stage 1 was delivered to eliminate technical debt at the data, application and services layer, improve data quality and introduce a up to date technical stack based on Microservices.

Stage 2 was a migration to Microsoft Azure and containerisation of the application.

Stage 3 involved making core elements of the platform cloud native, moving to .NET core amongst others.

At all stages of modernisation, there should be watertight business cases to support the level of investment in Information Technology – particularly for Government agencies (like most OpenSky clients) with ongoing additions to their responsibilities as regulators.

On reading this guide, I suggest to you to carefully consider if there is a real business need to invest in modernisation. If you identify that the need is there, then I absolutely urge you to not delay.
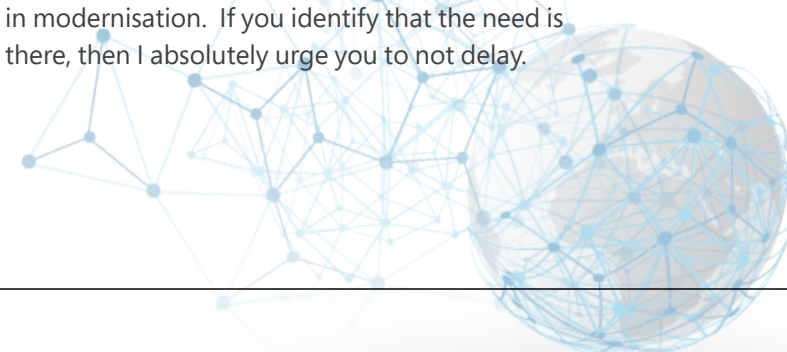
Customer Centricity in Government

We must acknowledge how fantastic it is to see that so many Government services are available online for citizens, e.g. passport applications, vehicle registrations, revenue services etc. So many services which we need frequent & intermittent access to are now available for us to manage online - instantly removing the inconvenience of the historical manual tasks we had become to used to. With that being said, there is still quite a journey to travel before everything is available that's needed.

Take a recent project of ours to enable a new digital way of interacting with Dún Laoghaire Rathdown County Council (DLR) as part of their wider Civic Hub initiative. While DLR already had online methods of interacting with their citizens - this project not only delivers digital channels to the citizen, but it also completes the digital journey throughout the numerous divisions with the Local Authority, in effect joining the Citizen directly to the responsible department, not just to the initial contact desk.

Next step; add the digital tools needed for the Local Authority to efficiently deal with the issue raised by the Citizen. Now the digital solution not only supports the Citizen request straight to the relevant department, but it also underpins the resolution of the request and subsequent update to the original requestor. The end result is that DLR are now able to provide a faster service to the Citizen using less resources, whilst providing 24x7 contact channels. A major step up from filling in an online form which sits on someone's computer screen awaiting action.

Often, Technology is just an enabler for our better safer world. Look at Ireland's response to homelessness and how Technology has aided the solutions offered. The incredibly devoted and inspirational people working in Voluntary & Government agencies, who give out blankets on cold nights, serve food to those in need, counselling, family support, amongst a mulitude of other supports necessary to care for homeless people - are the very people who make a difference to a homeless persons day and life.

The system which we built, enables collaboration of these services so that up to 100 separate agencies can achieve the same goal - to jointly collaborate in the provision of services to those experiencing homelessness. It underpins the availability of emergency accommodation to those in need and crucially, it allows analysis on how to continually improve our policies in response to homelessness.

Our Goal - A Safer Nation

The goal for our Technology, is to support that drive for a better and safer world, which enables all people to actively participate in governance and receive the services they need. The advent of AI driven solutions, brings responsibilities for us to set standards for what it means to realise a responsible digital eco-system that is transparent in the way it makes decisions, and which creates trust with our customers and citizens.

"To me it is clearly our responsibility as Technology Innovators to ensure our AI systems reflect business and societal rules of conduct."

Supporting Efficiency in Government with Emerging Technologies

The Current State of *Digital Government*

The public sector is taking advantage of technologies that have delivered improvements in other industries in order to achieve a higher performance and an exceptional culture. However, the sector faces its own series of unique challenges from regulations, which can add complications to Government making simple improvements. The complexity alone of securing citizens' information from within the vast volume of government agencies and organisational silos between departments is a challenge in itself, which can only be achieved with sophisticated technology and business innovation.

Governments are making great progress in their transition to the digital world. According to the *Public Service ICT Strategy* published by the *Department of Public Expenditure and Reform* in 2015, "the new strategy would deliver better outcomes and efficiency through innovation and excellence in ICT" such as;

• The Public Service will be more agile and deliver more user centric and innovative services for citizens and businesses.

• Innovative use of ICT in the Public Service will deliver better value for taxpayers by creating efficiencies through integration, consolidation and sharing of common infra structure, systems and resources.

• Adoption and facilitation of digital technologies will increase productivity, improve the relationship be tween citizens, businesses and government and will deliver social and economic benefits for Ireland.

• Integrated services and increased data sharing will drive significant efficiencies; will facilitate insight driven decision making; will increase openness and transparency between Government and the public; and will provide a much higher user experience and quality of service for citizens, businesses and public servants.

• Improved ICT governance will ensure alignment, reduce risk and support unification as envisaged under the Public Service Reform Plan and Civil Service Renewal Plan.

• The future needs for ICT skills will be met through professionalisation of ICT streams, targeted recruitment and improved mobility and succession planning across all Public Bodies."

However, four years after the strategy was introduced, some of the greatest challenges still lie ahead for Government. While much progress has been made to enable citizens to access many government digital channels, the true potential of digital government stands unexploited today versus the plans outlined in the strategy in 2015, such as;

- Many end-to-end digital services are still not available.

- Many of the existing digital services are still not optimised for mobile devices.

- Most departments are still struggling to comply with GDPR legislation.

- Customer Service still relies totally or partially on call centres which are not facilitated by an always-on service. We need to meet the demands of current day customer/citizen expectations for a 24-7-365 service.

- The functionality and user experiences of government online services are usually poor compared to commercial organisations who have set the expectation to customers, of a user friendly, efficient & functional platform.

The Need to Modernise

In today's digital era, keeping up with shifting consumer expectations and providing them with the low-friction and straightforward experiences they crave is a massive challenge that most public and private organisations face. Often, the problem lies in the fact that due to platform constraints, many companies are slow or even incapable, of deploying the digital technologies that consumers already expect and have adopted in their day-to-day lives.

Many citizen transactions are still supported by old systems and platforms that lack the flexibility, scalability, extendibility and interoperability to deliver the digital channels needed for 24/7 citizen access as well as ensuring that customer interactions are not only more efficient, but also have a strong focus on delivering exceptional experiences.

Therefore, in order to meet the increasing demands and expectations of more experienced digital users, Public Service departments need to go beyond digitising processes and services and leverage the power of digital technologies and data to improve efficiency and transform their business models.
OpenSky specialise in enabling Government to get the benefits of a true digital transformation – providing efficiencies by lowering operational costs and improving quality of service, resulting in more satisfied citizens.

Platform Modernisation with **MS Dynamics 365**

Microsoft Dynamics 365 can digitally transform the public sector by eliminating reliance on legacy systems, databases and paper-based services. It provides the platform and tools that equip organisations in deploying seamless, end-to-end, multi-device, multi-channel digital case management systems - that allows users to transact their business while online, without having to resort to printing forms or calling a service centre.

The key advantages of Microsoft Dynamics 365 are its; scalability, extendibility, flexibility, maintainability and interoperability as well as its seamless integration with other applications and services on the Microsoft Cloud (including SharePoint, Yammer, OneDrive, Skype for Business, Microsoft Flow amongst others).

Microsoft Dynamics® 365

Key Benefits to the Public Sector:

1. Improved process efficiency
Digitising and streamlining in person and/or paper-based processes, making services more available and convenient for citizens and cutting down the administrative overhead for government agencies.

2. Increased productivity
Automating back-office operations, reducing bottlenecks, ensuring processes are always followed and reducing end-user training needs. PowerApps and Microsoft Flow can also be used to extend process automation with no-code solutions.

3. Improved reporting and analytics
Agencies can interrogate data with highly flexible, customisable reporting and turn data into insights. Dynamics 365 Artificial Intelligence for Customer Service can help agencies to optimize their operations and create better customer service experiences.

4. Improved flexibility and maintainability
Dynamics 365 provides tools to empower organisations to configure/customise the way they do business without the need of a developer and eliminates potential impact of customisations on platform upgrades.

5. Improved interoperability
Microsoft Flow and Logic Apps can be used to build no-code integrations with other internal and external systems and the Common Data Service can be leveraged for integrating Dynamics 365 with other business apps seamlessly.
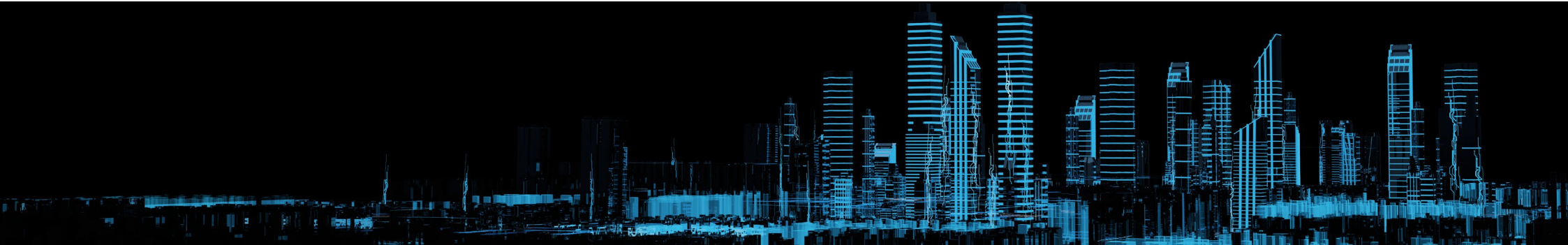
Automating Information Classification and Regulatory Compliance

Traditionally, implementing a successful enterprise search has always been a challenge. Search relies on consistent classification and relying on a manual classification process managed by end users, has never worked and never will.

In today's digital world, consuming information has crossed application and service boundaries to the extent that it has an impact on security, enterprise content management, migration, text analytics, collaboration, compliance and information governance. Most agencies are still unprepared to address data protection, security breaches and data leaks as well as complying with the requirements of GDPR. And most, focus primarily on perimeter security even though a high percentage of data breaches are caused by internal stakeholders.

In order to increase productivity and decision making while reducing costs and so importantly, ensuring compliance is maintained across the Public Sector, have all content (structured, semi-structured and unstructured) auto-classified and available in a single search index is paramount.

- Invest in a platform that automatically generates metadata and makes it available to search engines, enterprise content management systems and a line of business applications

- Invest in a platform that leverages Intelligent Metadata Enabled Solutions for Data Privacy, Protection of Confidential Information and eDiscovery

The Result – The Public Sector would be Empowered to:

✓ Eliminate end user tagging, reducing errors, rework, and time

✓ Create a virtual centralisation through the ability to link disparate on-premises and off-premises content repositories, improving decision making via the retrieval of all relevant information in a single interface

✓ Enable concept-based searching for information

✓ Ensure all privacy data vulnerabilities are identified across diverse repositories such as scanned documents and e-mails

✓ Notify data exposures in real time

✓ Automatically protect content that contains a potential data breach

✓ Enable quick implementation to address regulatory changes while avoiding fines and audits

✓ Minimise end user training
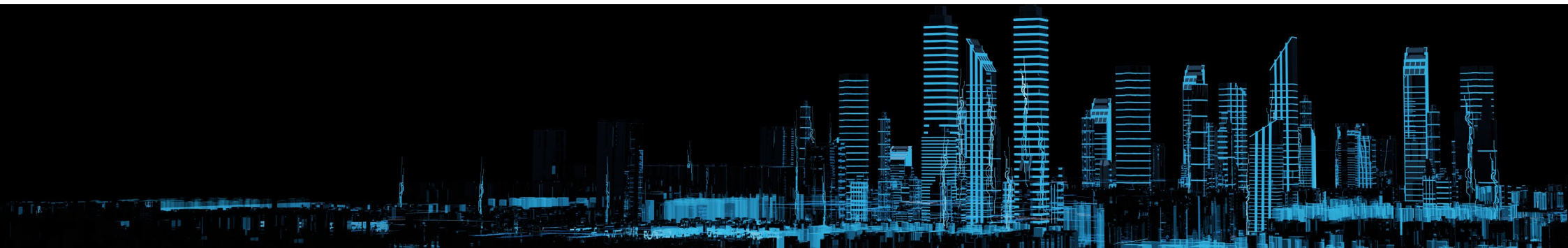
Preparing for 2020 and Beyond

USING AUTOMATION TO BRING *EFFICIENCY INTO THE DIGITAL AGE*

While Process automation platforms have been around since the beginning of this century, there has been a more recent increase in general adoption across industries with the emergence of Robotic Process Automation. But what exactly is Robotic Process Automation and how can it be used to increase efficiency?

"Robotic Process Automation (RPA) is the technology that allows anyone today to configure computer software, or a "robot" to emulate and integrate the actions of a human interacting within digital systems to execute a business process. RPA robots utilise the user interface to capture data and manipulate applications just like humans do. They interpret, trigger responses and communicate with other systems in order to perform on a vast variety of repetitive tasks. Only substantially better: an RPA software robot never sleeps, makes zero mistakes and costs a lot less than an employee." **UiPath - OpenSky RPA Partners**

A great example of how RPA can be use to increase efficiency can be found in customer contact centres since they rely on a number of different systems and applications to process a high volume of repetitive tasks – making them an ideal match for RPA.

Customer representatives need to understand a customer's intent and carry out a series of actions that involve switching between systems and apps to find the required information and in turn, inform/ direct the customer. This process has some disadvantages, including the long waiting times for the customer while the customer representative is busy dealing with data followed by the representative asking the customer for the same information more than once. The result, an increase in the duration of the interaction that wastes resources while creating customer dissatisfaction.

By identifying frequent customer queries and analysing the tasks that the representative needs to perform in response, an RPA solution can be built to facilitate those actions by totally or partially automating those tasks. For instance, for an interaction in which entering customer data in one or several systems is required, a robot can be built so when it is launched by a customer representative, IT performs most/all the actions in seconds.

This scenario can be taken a step even further by combining a virtual agent and a robot. The virtual agent interacts with the customer to gather the necessary data and triggers the robot to perform the actions. This only requires intervention of a human when; (i) a negative sentiment in the conversation is detected, (ii) when dealing with a person is explicitly requested by the customer or (iii) when part of the process relies on the abilities that only humans possess.

Using AI To Drive Citizen Engagement

A no-code, AI driven virtual agent can handle most citizen interactions to improve productivity, reduce workloads and create positive experiences by guiding citizens to the right solution every time.

Benefits of AI driven virtual agents

Connectivity – connect to different APIs, business applications and escalate seamlessly to human agents. Virtual agents can create great citizen experiences that evolves and learns with context.

Deflection – free up human agents to work on high-value interactions by deflecting routine queries to a lower cost channel like chat.

Dialog – provide quicker response times with guided users interaction.

Intelligence – handle complex service interactions quickly and effectively through rich conversations driven by AI which provides them the ability to understand voice, language, intent, sentiment, image.

Interoperability – trigger back-end process automation workflows and automation robots

"Chatbots will be responsible for cost savings of over $8 billion annually by 2022, up from $20 million in 2017" **Juniper**

"Chatbots will power 85% of all customer service interactions by the year 2020" **Gartner**

The Process to Upgrading Digital Platforms

Step 1: *Exploring the* **Options**

Option 1. Do Nothing – What are the Risks?

Doing nothing may be tempting to CxOs in some scenarios where legacy systems in use can still provide most of the required functionality as this option doesn't require an investment in new systems. However, the cost of keeping legacy systems "alive" may outweigh that of platform modernisation while carrying a much higher risk. Sooner rather than later, a misalignment with business requirements will be identified and the risk of legacy systems not being able to provide the required functionality to adapt to new requirements will more often than not, be very high.

When carrying out a TCO analysis, CxOs should take every single aspect of a system into consideration, including the cost of keeping the system "alive". **As much as 80% of public organisations internal IT resources are dedicated to maintaining legacy applications, working in firefighting mode and being unable to take on higher value tasks that add value to the business.**

Relying on IT resources that have become experts on legacy systems is not something a CxO should be happy about. Particularly when those resources are paid very high salaries – not because of the value they bring to the business, but because they are the only ones in the organisation, capable of keeping that "30 year old mainframe" up and running.

Another major risks with legacy systems is the inability to provide the necessary functionality to comply with new regulations (i.e. GDPR).

Other risks associated with a "do nothing" approach are:

- *Difficult or not possible to provide secure self-service web-based channels for customers to complete their transactions online – no reduction in cost and reliance on customer service*

- *Higher infrastructure and maintenance costs*

- *Higher security risks as legacy systems don't have the security mechanisms needed to protect against cyberattacks*

- *Risk of not being able to scale the systems to cope with increase demand*

- *Incompatibility and/or lack of interoperability with other systems/platforms – no agility and flexibility – Not possible to integrate systems with other government agencies' systems*

While there is generally a high risk and high cost involved with the "Do Nothing" approach, sometimes the best option is to maintain a legacy system as part of a platform and focus on reducing maintenance costs and infrastructure associated risks (Containerisation) – being a sensible first steps towards entire Platform Modernisation.

Option 2. A Big Bang Approach

Stefan van der Zijden, research director at Gartner, says: *"If you're faced with a legacy challenge, the best approach depends on the problem you're trying to solve. Replacement isn't the only option. The key is to understand if your problem is caused by technology, architecture or functionality of the application, and how each modernization approach improves those aspects"*.

An approach with broadly scoped projects where the goal is to deliver functionality several years after the project starts. This approach is often too long, ineffective, and incompatible with the rapid evolution of IT and carries a lot of **risks**, for example:

- *Highly likely to rebuild/renew deprecated or redundant functionality*

- *Modernising/Replacing all the systems users use to perform their daily activities would most likely be overwhelming and lead to very poor end user adoption*

- *Modernising/Replacing all the systems required to carry out a business - not being able to continue business as usual for an extended, unpredictable length of time*

- *Risk of losing project sponsors due to lack of business value realisation*

A big bang approach requires a big investment up-front and most often than not ends up with only a small percentage of the systems being successfully modernised while other systems' modernisation fail or require additional investment and an extended effort to get completed.

Option 3. Phased Platform Modernisation

An incremental approach aligned with the Business Vision where the driver in progressing with each phase of the project is dictated by the business strategy and the business value that the phase will deliver.

Organisations should start by inventorying all their existing systems/applications (no exceptions, regardless how insignificant an application/system can appear to be) and identifying the business function that each of them serves. With a complete inventory, business can then assess which ones are still needed, which could be merged into a single system and which are not needed any more (i.e., they were built to serve a purpose that is no longer present).

Once systems that are still needed have been identified, organisations should carefully analyse what the best modernisation strategy for each of them would be:

- **Encapsulate.** *Leverage and extend an application's functionality encapsulating data and functions in the application and making them available as services via an API.*

- **Rehost.** *Redeploy an application component to another physical, virtual or cloud infrastructure without modifying the application code, features or functions.*

- **Replatform.** *Migrate an application component to a new runtime platform. Modify the code slightly to adapt it to the new platform, but don't change the code structure or the functionality it provides.*

- **Refactor.** *Restructure and optimize existing code without changing its external behaviour to remove technical debt and to improve the component's features and structure.*

- **Rearchitect.** *Modify the application code so you can deploy it to a new application architecture and fully leverage new and better capabilities of the new platform.*

- **Rebuild.** *Rebuild or rewrite the application component from scratch while preserving its scope and specifications.*

- **Replace.**
- *Eliminate the legacy application component altogether and replace it, taking new requirements and needs into account.*
- *Build PoCs to assess if the selected strategy delivers the expected result.*
- *Create a roadmap for all of them that:*
- *Delivers value in increments.*
- *Prioritizes the ones that have a better balance between delivering value and risk.*
- *Considers training requirements and aligns delivery with them to ensure end user adoption (not overwhelming the end-user with a lot of changes at once).*
- *Maintain simple design and good technical hygiene.*
- *Automate testing and integrate that into your development process.*

Step 2: *Creating the Business Case*

Introduction

On assessing the current state of the legacy system, uncovering both current and potential issues, and additionally considering future business plans and growth opportunities, organisations should be in a position to select the modernisation approach which best fits it's needs.

A Business Case for an IT investment outlines the business problem, examining the potential benefits, costs and risks. It details potential approaches to addressing the problem and will determine the impact a new system will have on a company's profitability, and also the financial changes that may happen after the system is implemented.

The business case not only outlines the problem statement (& reasons) but will additionally describe opportunities that the business case is solving. It further describes the impact of the problem and the timeframe for resolution.

1. Description of the Business Problem:

There are many factors which can lead an organisation to consider platform modernisation, such as:

- *For Government bodies, the introduction of new legislation and the requirement for systems to accommodate these requirements can be a driver for change.*

- *Published accounts are key for monitoring performance and demonstrating accountability. Many legacy systems lack the required reporting capabilities and adequate access to system data.*

- *The public sector is also curator for large volumes of data which is in many cases sensitive and the security of this data is paramount. The adoption of cloud-based IT systems can reduce security risks with strong security safeguards and encryption.*

- *There is a higher level of expectation from the Public sector in relation to how transactions including a seamless service such as online transactions and portal access to their information, negating the need for paper forms, automating data entry and generally providing the customer with a more satisfying experience.*

- *Skills shortages for legacy system which may require specific IT skills. Legacy systems often incorporate extensive customisation with dependencies existing on certain employees. This is not sustainable in the long term.*

- *Legacy systems can be costly to maintain due to the heavy amount of customisation. The high levels of customisation can act as a barrier to additional functionality required for changing business needs.*

2. Expected Benefits

Potential benefits that should be considered:

- *Business Growth: improved infrastructures that support system extensions, support of emerging technologies, leveraging application functionality and making available as an API*

- *Reducing costs through removing manual process, driving towards portal usage*

- *Improved decision making and efficiency: Business Intelligence and reporting, ease of customisation, minimised downtime*

- *Better Collaboration: Increased Customer Satisfaction and engagement through provision of easy to use systems*

- *Enhanced Security to protect data*

- *Compliance with legislation and regulations*

Step 2: *Creating the **Business Case** Cont.*

3. Cost Estimates:

To determine if a project is cost-effective and worth proceeding with, there is a requirement to have a cost estimate.

Typical project costs to consider:

- *Acquisition*

- *Cost of expanding the solution*

- *Implementation costs*

- *Customisation and configuration costs*

- *Support and administration costs (include training)*

- *System requirements costs*

4. Risks and Issues

Risk assessment is an ongoing process that can be developed and expanded through time. It can help bring together different stakeholders and, because risk management is understood by senior management it can also help to make the case for investment. When the organisation is assessing which modernisation approach to take, the risks need to be determined and assessed across the following risk groupings:

- *Operational risks. This group includes risks around low user adoption and low reliability of operations. Additional operational risks can arise from poor implementation, process problems around procurement, delays in decision making etc.*

- *IT risks. A general set of risks includes short shelf life, lack of operational functionality, and incompliance with technology requirements. Mitigate these risks with a system that combines comprehensive functionality and is configurable and adaptable to changing requirements.*

- *Financial risks. The major financial risk is the expensiveness and incompliance of a selected IT solution with initial budget. Additionally, the solution may require expensive modules, extensions or customisations.*

Once these have been determined and assessed for each of the possible approaches, a comparison matrix will expose the contrasts and provide for a visualisation of the findings.

Step 2: *Creating the* **Business Case** *Cont.*

5. Outline of Alternatives considered alongside the Preferred Solution

Taking the potential benefits, costs and associated risks of each solution across the modernisation approaches, the organisation can determine in which direction to proceed. The original business problem will be the determining factor in this.

• *For example, the case of an outdated legacy system with dwindling availability of applicable skill sets, it should be determined if that 'tipping point' is imminent. If not, the organisation may elect to postpone resolving the business problem and Do Nothing at this point, accepting the associated risks.*

• *However, it may be determined after assessment that the best option for the organisation facing this problem is to eliminate the former application component altogether and replace it, taking new requirements and needs into account. (Big Bang)*

• *As total platform modernisation is not the only option and smaller scale modernisation my work as a possible interim solution. A rehost to cloud infrastructure, for example, may address such issues as weak security (Phased Platform modernisation).*

6. Calculate Return on Investment:

As a final step in the business case development, it is important to measure the ROI of the investment project. Return on Investment measures the gain (or loss) generated on an investment relative to the amount invested. It is a key indicator of the profitability of the proposed solution.
The commonly used formula is:

ROI = [(Payback – Investment)/Investment)]*100

Payback includes time and cost savings and increased revenues. In determining the success factors, consideration should also be given to other factors such as improved customer engagement, retention and satisfaction.

Step 3: *Setting Internal* **Requirements**

Before going to the market for a solution provider, if you want to control costs, it makes sense to set out your needs to a reasonable level of detail.

Simple is best:

Always, look for the simple approach and ensure you separate what you need to have from what you would like to have. Often, once you have gone live with your project, what you thought you needed can be a little different to what you actually need so why spend time and money on the nice to have now when these will most certainly change later.

Involving the right people:

You might think it's a good idea to involve the most negative person on the team in gathering requirements as it is a way to try and get them on-board with change, however putting them in the key role of defining requirements is not wise as it will result in the requirements reflecting the current situation rather than the change you need. Instead, keep these people informed but not playing a key input role to the design of the change. Look for people who not only understand the current business model in detail, but who also are enthusiastic and driven to engage with change. Above all ensure these people are given the time away from their day jobs to concentrate on this all important task which runs right through the implementation as they become key subject matter experts.

Internal Champions:

Believe me when I say the project will not be the success you want without setting internal champions. It is very difficult for external service providers to fill this role, they simply don't have the buy-in that your own staff have. Choose people who have great communication and team skills to act as internal champions – a very necessary role in the business change process.

Gathering Requirements:

An experienced Business Analyst (BA) will give structure to your team, and if required, can be co-located with your Subject Matter Experts (SME's). Bear in mind that our BA's cannot replace the function of your own SME's. Rather, our BA's will ensure an industry standard structure to the Gathering Requirements process, ensuring that the documentation output adheres to best practice, and that it will be easily understandable by your own team as well as other third parties.

Step 4: *Define the* **Implementation Approach**

Following on from selection and approval of the preferred solution, the focus shifts to an approach to implementing the solution in the business environment. This will provide sponsors and partners with confidence that the project has been properly thought through by highlighting the benefits and key steps.

Factors to consider:

- *Skills, expertise and knowledge required for delivering the solution*

- *The cost-effectiveness of the solution and how the organisation will benefit from it*

- *An implementation approach that is in line with company standards (or where applicable setting and improving these standards)*

- *A critical path for all the implementation steps that must occur*

- *Implementation process, milestones, and deliverables of the project*

Step 5: *Choosing a* **Vendor**

When considering investing in platform modernisation, choosing the right partner with deep technical expertise, industry understanding, tools and methodologies is essential for the success of the development project. Furthermore, choosing a partner with business expertise is equally (if not more) important, to equip you with the multitude of scenarios and eventualities that lie ahead of such undertaking such an extensive project.

According to several studies conducted by Microsoft, 49% of businesses state that new technology has been a key factor in allowing them to grow and modernise their legacy software systems, reducing their business operational costs by 13%. Case management system upgrade, although challenging, has the potential to deliver great value to any organisation.

An effective upgrade does not end with a single migration project - continuous evolution should be the goal of any organisation in maintaining their system for process automation. It is essential to keep software systems up to date to enhance organisational performance and drive productivity. Up to date software ensures that critical and sensitive business information remains secure, decreasing risks of security breaches and reputation damage.

Step 6: *Achieving* **Benefits**

We would advise that benefits are always measured once the platform is stable and your teams are now used to using it as part of their daily routines.

Expected Benefits

1 **Business Growth:** *improved infrastructures that support system extensions, support of emerging technologies, leveraging application functionality and making available as an API*

2 **Reduced Costs:** *through removing manual process, driving towards portal usage, measure this 6 months after live.*

3 **Business Intelligence:** *improved decision making, efficiency, reporting, ease of customisation, minimised downtime – measuring all of this once the project is stable.*

4 **Better Collaboration:** *increased Customer Satisfaction and engagement through provision of easy to use systems*

5 **Enhanced Security:** *to protect data*

6 **Compliance:** *with legislation and regulations*

Technologies to Support Modernisation

The Challenge of a **Modern Government**

Modern Government faces a lot of challenges, many of which are not new. One that is increasingly difficult to manage, is the unique pace of industrial and societal change. How to modernise the business of Government including how to modernise regulation is a constant battle when the areas you are regulating are changing so rapidly.

Industry for example is rapidly changing the way it delivers its services and products via technology disruptors such as AirBnB, Lyft, Uber and many more. In some cases, existing regulations are stifling innovation which can bring improvements to citizen wellbeing and these same technology platforms can bring solutions to Governments struggling to adapt to change.

Technologies Supporting Platform Modernisation

The Microsoft Suite

	Dynamics 365 CRM Online	Core data & workflow platform which manages back-office processing & structured data.
	Portal Connector	The digital channel for external parties to open and manage interactions with Government. Easy configuration and integration.
	Sharepoint Online	Provides the store for documents and associated unstructured data.
	Azure Logic Apps & Functions	Used for Integrations, orchestration and functionality. Enables a serverless workload.
	OCR	Providing permissions replication between system components and OCR (Optical Character Recognition) meta tagging for image documents.
	Azure SQL Server	Provides data management & data consolidation services.
	Power BI	Used for In-depth self service analytics, dash-boarding and data modelling.

FLEXIBILITY & the Core Back-office Platform

OpenSky recommends Microsoft Dynamics 365 CRM Online as the modern platform of choice for our Government customers wishing to modernise their technology.

Microsoft Dynamics CRM is a complete relationship management solution that helps improve collaboration, communication, operational insight and overall efficiencies. Built on and accessed through familiar Microsoft technologies,

it provides a flexible and affordable platform that gives government organisations a 360-degree view of citizens' information and needs, in order to quickly and easily resolve inquiries. Microsoft Dynamics CRM automates and streamlines key tasks associated with citizen services, field inspections, case management, grants management, licensing and permitting and much more, thus empowering government organizations to meet their unique requirements and improve service delivery across all departments and functional areas.

One of the key aspects of modernising by using a platform such as Dynamics 365 CRM is the flexibility it offers to allow for future changing business needs. Many of our customers require the ongoing flexibility to manage changing Government policy, new legislation and related new powers being handed to Government Agencies.

SCALABILITY & Azure

From all available Microsoft Technologies, Dynamics 365 CRM (SaaS) is the only technology that can quickly provide for the requirements of this solution and guarantee the continual availability of services during core working hours, providing access to on-line services via the web portal front-end on a 24/7 basis, and offer data protection and security assurance. Scalability and performance are both backed up by Microsoft's underlying infrastructure in Azure.

INFORMATION MANAGEMENT & Sharepoint Online

D365 space is expensive and often clients want alternatives to D365 storage for storing documents, images as these take up most of the space. Provisioning SharePoint Online for this document storage facility reduces the financial impact and leverages Enterprise Content Management feature rich functionalities of SharePoint early. OpenSky has had the opportunity to dig deep into Dynamics 365/SharePoint integration and have developed custom functionality to automate document classification to map Dynamics 365 entity attributes to SharePoint metadata. Automated document classification enforces consistency, guarantees a successful Document and Records Management strategy, enrich search results and removes the burden from the system user.

Digital Government That Works

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