Region of Peel

Water Billing Resident Portal Integration

How might we integrate the water billing service into the Resident Portal, with the intent of evolving the Resident Portal as a “one stop” location to access Region of Peel digital services?

EY DESIGN STUDIO

January 2023

This project is funded through the Province of Ontario Audit and Accountability Fund (AAF), which supports initiatives that focus on increasing digital services, modernization, streamlining and service integration.

The views expressed in this report are the views of the consulting team based on data review and observations during the project and do not necessarily reflect the views of the Province.

The project initiative

ROP Water billing portal integration

The Context

The Region of Peel currently provides access to a selection of digital services through its Resident Portal (R-P), but also has separate web portals for specific services, resulting in multiple points of access for residents to engage with regional services. One of these services is the Region's Water Billing (W-B) Portal, which provides residents the online ability to pay their water bill as well as view water consumption and configure notification preferences.

As the Region is committed to providing a consistent, integrated and simplified resident experience, there is an opportunity to apply best practices in human-centered design to provide a single point of access to the water billing service through the Resident Portal and a more seamless experience aligned to resident needs. As the W-B service will be accessed through the Resident Portal, a review of the Portal strategy was also performed to help setup the W-B service and R-P for success.

Our project objective

The purpose of this project is to determine the integration approach for the water billing service into the Resident Portal, with the intent of evolving the Resident Portal as a "one stop" location to access Region of Peel digital services.

Five years ago, the heroes were technologists.

Today, the heroes are designers building out a user experience. You can have the most amazing technology in the world, but if it's not put in a form that's useful and desirable, you won't be successful.

- Robert Brunner

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SECTION 1

Executive summary

The Region of Peel is committed to providing a consistent, integrated and simplified resident experience via the Resident Portal. The 'Water Billing Resident Portal Integration' project aim to determine the integration approach for the water billing service into the Resident Portal, with the intent of evolving the Resident Portal as a "one stop" location to access Region of Peel digital services.

Through this project, it was determined that API will be used to integrate the existing Kubra water billing platform directly within the Resident Portal. Assessment that led to this recommendation, along with the anticipated benefits of this integration approach are included in this Executive Summary.

Project Overview

Project context and objective

Context: As the Region is committed to providing a consistent, integrated and simplified resident experience, there is an opportunity to apply best practices in human-centered design to provide a single point of access to the water billing service through the Resident Portal.

Objective: The purpose of this project is to determine the integration approach for the water billing service into the Resident Portal, with the intent of evolving the Resident Portal as a "one stop" location to access Region of Peel digital services and a more seamless experience aligned to resident needs.

Desired benefits

- Provide residents with a personalized, online experience with a single sign-on, online portal that provides residents easy access to the water billing service.
- Deliver a consistent online user experience across the water billing.
- Provides residents with added value and utility to drive greater adoption.

Approach

JUN – AUG 2022

Phase 1.0, "Scan"

Scope:

Current state alignment & identification of technical integration solution options

AUG - SEPT 2022

Phase 2.0, "Focus"

Scope:

User testing, options evaluation, and solution recommendation

OCT – NOV 2022

Phase 3.0, "Act"

Scope:

Implementation planning and Resident Portal Strategy review

Engagement approach

Phase 1.0, “Scan”

STAGE 1 & 2

Onboarding, Discovery & Project Planning

ACTIVITIES

- Project kickoff meeting
- Documentation review
- Project and stakeholder engagement planning
- Project charter and workplan development

STAGE 3

Current State Assessment

ACTIVITIES

- Current state alignment around findings from SteerCo stakeholder insights and existing understanding of resident needs
- Co-define evaluation criteria
- Proto-persona development
- Future state resident journey mapping
- Current state technical assessment and delivery of Technical Gap Analysis

Phase 2.0, “Focus”

STAGE 4

Future State

ACTIVITIES

- Cost and effort estimates for proposed technical solution options
- User flow and wireframe development, testing with residents
- Iterate wireframes and document feedback and design findings
- Evaluate options against criteria and alignment to desired benefits
- Select and present recommendation for sign-off from SteerCo
- Develop operating model considerations for the selected recommendation, including roles and responsibilities and continuous improvement process

Phase 3.0, “Act”

STAGE 5 & 6

Implementation, Final Report & Presentation

ACTIVITIES

- Implementation planning
- Final report development and presentation to ELT SteerCo
- Submit final report to Province and post publicly

STAGE 7

R-P Strategy Review & Closeout

ACTIVITIES

- Resident Portal Strategy Review
- Project and deliverable final handover and closeout

Three options were identified

Constraints and capabilities of the current technical environment and associated policy helped to identify three plausible integration options.

The current state technical review helped to determine viable options for integration. For the current state technical review, the consultant reviewed technical documentation and technical environments associated with the existing Resident Portal and Water Billing Portal.

From this review, three technical integration options were identified and shared with the Project Steering Committee prior to detailed assessment and evaluation.

OPTION 1

Single Sign-On (SSO)

The single sign-on option provides a simple integration method between the R-P and Kubra W-B service. Data does not flow between the two platforms; rather, the user is redirected via SSO from the R-P to the W-B portal.

OPTION 2

API Integration (with Kubra)

This option supports a single authentication and sign on experience and maintains the user flow and experience within the R-P. This experience is enabled through back-end API integration with Kubra, where data is pulled from and stored back to the Kubra platform. To configure the front-end water billing service dashboard and features, data is called through the API and displayed in the desired presentation layer using business logic.

OPTION 3

API Integration (with CC&BCS and New Payment Gateway)

Option 3 offers the same benefits to user experience as Option 2. Due to the Region's current relationship and contract with Kubra, Option 3 is not viable in the near-term. It is, however, permissible in the long-term. The R-P would integration directly with the Customer Care and Billing Cloud Service (CC&BCS) in addition to a new payment gateway using APIs. W-B features and functionality would be developed directly within the R-P.

User testing highlighted three key needs for Peel residents:

1 Make the 'Why' Obvious

- Why do I need to have a Resident Portal account to sign-up for Water Billing; how does this benefit me?
- Why is this service better than my bank?
- Why is this the information you've asked for?

2 Make the process intuitive

- Is it clear what I need to do next and is it intuitive to use?
- Does it ask for the right information at the right time?
- Is this system designed with me and my information in mind?

3 Make the experience seamless

- Is the information I'm looking for easy to find and understand?
- Is this a seamless and consistent end to end experience?
- Can I expect to have the same experience (flow, look, and feel) with other Peel Region services?

Two wireframe prototypes were tested and iterated with residents

Prototype A: SSO Integration

Aligns with technical integration Option 1

Sentiment: Neutral to accepting ¯_(ツ)_/¯

Resident Feedback

In the SSO experience, users were able to complete the same tasks as the participants who were introduced to the API integration prototype; however, in SSO, users did notice differences in the experience, requiring them to reorient themselves to the Kubra interface – sometimes introducing confusion from the user. Time spent navigating the site to achieve an objective increased an average of 8 seconds. When considering the overarching user experience, this option provides minimal additional benefit to the user. Overarching sentiments from residents was neutral to accepting.

Prototype B: API Integration

Aligns with technical integration Options 2 & 3

Sentiment: Positive and Trusting 

Resident Feedback

The API integration experience of the Water Billing portal was positively received due to its conformity to the Resident Portal design patterns and experience. This resulted in users completing tasks with increased speed and accuracy. The intuitive and familiar user interface (achieved through iteration in the wireframe from user feedback) helped to create a more tailored and seamless navigation experience. While trustworthiness was mentioned as a factor when sharing personal data and financial information online, users expressed feeling secure when interacting with the platform due to the consistency achieved in the experience.

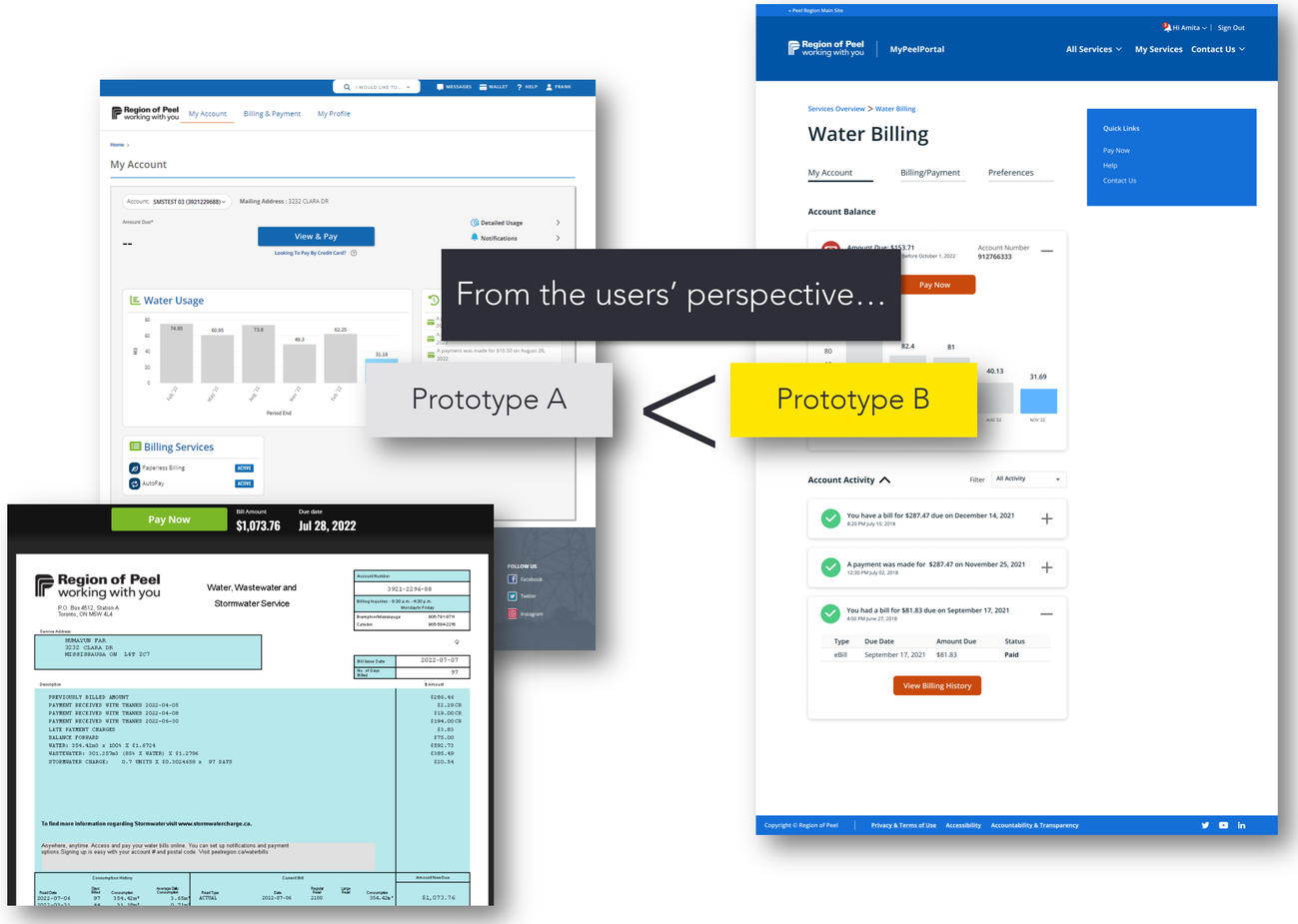
EXECUTIVE SUMMARY

Resident feedback highlighted a preference for Prototype B

Users preferred the API integration (prototype B) prototype due to the consistent user interface and seamless experience.

Resident feedback helped to iterate wireframes, amending the prototypes such that they better met user needs.

From an experience perspective, the main difference between prototypes is the Region's ability to own the experience post integration. For prototype A, the resident experience would be outside the purview of the Region; the integration setup would not allow for continuous improvement on the water billing experience.



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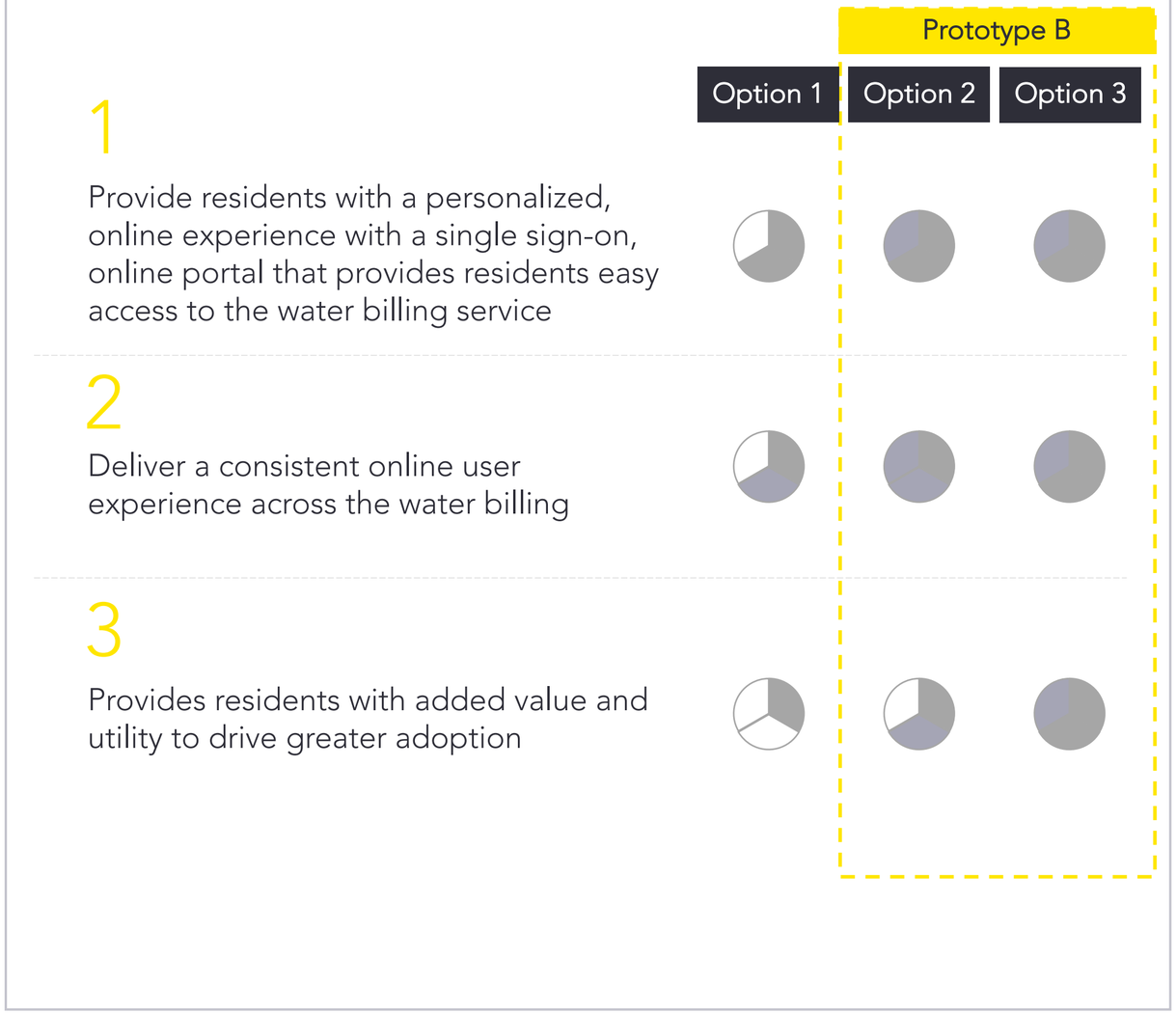
Prototype B drives desired benefits

Prototype B (API integration) effectively drives desired benefits of a single-sign on, consistent value-add experience for the resident.

When mapped back to the desired benefits, user feedback highlighted is a clear correlation of preference with Prototype B, or the API Integration approach (which aligns with the user experience enabled by options 2 and 3). While prototype 1 (SSO) was accepted by users, sentiment from prototype 2 (API integration) was positive and trusting. Why this reaction? The integrated experience was smooth and effortless to users since the UI remained consistent with all screens that proceeded it in the journey. Minor feedback to the interface was quickly applied, further aligning the experience to the user's needs.

Options 2 and 3 have greatest alignment with the Region's desired benefits



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Evaluation of cost and effort

*Effort to migrate users determined as high medium low by the following descriptions:

- **High** – Complex design of data that requires more effort to transform from one service/portal to other. No direct import/export feature is available.
- **Medium** – Import/export service is available but needs to transform data into required form.
- **Low** – Data is available in required form and import/export task can accomplish the migration

To support the evaluation of options, a cost and effort analysis was performed to estimate the anticipated cost to the Region and effort required to implement and sustain each option under consideration.

	Option 1 **Single Sign-On Integration**	Option 2 **API Integration with Kubra**	Option 3 **API Integration with CC&BCS**
COST ✓ All in cost for implementation ✓ All in cost for Year 1 ✓ All in cost for Year 2+	Implementation: $390,798-$469,488 **Year 1** sustainment: $138,811 **Year 2+** sustainment: $37,440 *Plus Kubra implementation fees	Implementation: $826,110 - $935,446 **Year 1** sustainment: $252,672 **Year 2+** sustainment: $151,291 *Plus Kubra implementation fees	Implementation: $1,160,056 - $1,321,852 **Year 1** sustainment: $366,528 **Year 2+** sustainment: $163,771 *Plus payment gateway vendor fees
EFFORT ✓ Effort (resources and time) required for implementation	Average **2.73 vendor FTEs** (Total of 6 roles) Average 2.0 ROP FTEs Timeline: **9-12 weeks** Level of effort to migrate users: **Medium**	Average **2.72 FTEs** (Total of 6 roles) Average 2.0 ROP FTEs Timeline: **22-26 weeks** Level of effort to migrate users: **Medium**	Average **2.67 FTEs** (Total of 6 roles) Average 2.0 ROP FTEs Timeline: **32-38 weeks** Level of effort to migrate users: **High**

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EXECUTIVE SUMMARY

Evaluation of Integration options

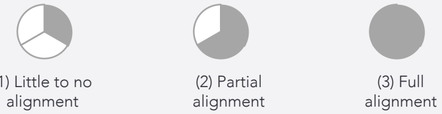
Co-created evaluation criteria developed by the RoP working team guided assessment of integration options.

To guide discussion and selection of the recommended integration option, each option was vetted against Evaluation Criteria co-created with the RoP working group at the onset of the project. Three categories of criteria focused on creating an optimal resident experience (in line with desired benefits), alignment to technical standards, and feasibility for the Region to support.

While Option 1 (SSO) fully aligns with the second and third categories due to its simplistic technical approach, it ranks lowest on user experience. For Options 2 and 3, introduction of the API increases technical complexity, and therefore cost, though firmly places ownership of the experience – including the ability to pursue continuous improvement of the experience – in the hands of the Region.

LEGEND:

- Creates an optimal resident experience
- Alignment to technical standards
- Feasible for the Region to support



		Option 1	Option 2	Option 3
1	Integration option yields a seamless experience			
2	Integration option includes access to desired features, including single authentication			
3	Task completion rates are fastest when compared with other options			
4	Few to no technical Customizations are required for integration			
5	Option is compatible with existing technical decisions/constraints, or without disruptive deviation (e.g., maintains use of Kubra)			
6	Where necessary, option uses API-based services to enable the digital service			
7	Option establishes a standard technical integration pattern			
8	Option supports security and privacy by design			
9	Cost to implement the integration option is viable for the business			
10	FTE resources required to sustain the integration option are within reason and feasible for the Region to attract the necessary skillset			
11	Integration approach and Operating model have potential to be leveraged for future service integrations			

Recommended integration, Option 2 (1/2)

Option 2 was ultimately identified as the recommended integration solution, due to the Region-owned experience and resident preference and alignment to desired benefits. This option was presented to and approved by the Project Executive Steering Committee.

OPTION 1

Single Sign-On (SSO) integration with Kubra

Option 1 offers a Kubra-owned experience.

Description

The single sign-on option provides a simple integration method between the R-P and Kubra W-B service. Data does not flow between the two platforms; rather, the user is redirected via SSO from the R-P to the W-B portal.

Rationale

Option 1 requires low cost and effort to connect the W-B service to the R-P. Configuration of SSO has low technical complexity and requires minimal ongoing effort to sustain. Sustainment of the W-B service platform and experience would remain solely with Kubra.

OPTION 2

Recommended Solution

API Integration with Kubra

Option 2 offers a Region-owned experience.

Description

This option supports a single authentication and sign on experience and maintains the user flow and experience within the R-P. This experience is enabled through back-end API integration with Kubra, where data is pulled from and stored back to the Kubra platform. To configure the front-end water billing service dashboard and features, data is called through the API and displayed in the desired presentation layer using business logic.

Rationale

Option 2 allows for the Region to maintain its contractual relationship with Kubra while also having full control over the resident experience. While more complex to setup and maintain, this technical pattern and corresponding operating model can be leveraged to support other service integrations with the R-P.

OPTION 3

API Integration with CC&BCS and a new payment gateway

Option 2 offers a Region-owned experience.

Description

Option 3 offers the same benefits to user experience as Option 2. Due to the Region's current relationship and contract with Kubra, Option 3 is not viable in the near-term. It is, however, permissible in the long-term. The R-P would integration directly with the Customer Care and Billing Cloud Service (CC&BCS) in addition to a new payment gateway using APIs. W-B features and functionality would be developed directly within the R-P.

Rationale

Option 3 creates the technical foundations to build services directly within the R-P with full control over the resident experience. While comparatively the most complex to develop and maintain, this option removes licensing fees with outside vendors and gives greater control to the Region for continuous improvement.

Recommended integration, Option 2 (2/2)

The pros and cons of each option, for the resident, from a technical perspective, and for the region are included below. A full review of the evaluation and assessment for all options was included in the solution recommendation presentation to the Project Executive Steering Committee.

OPTION 1

Single Sign-On (SSO) integration with Kubra

PROS

- 👍 For the resident, this option provides a more (though not fully) seamless experience accessing the water billing (W-B) service from the Resident Portal today.
- 👍 From a technical perspective, the back-end integration approach is simplest (when compared with other options) and easiest to implement
- 👍 For the Region, the cost and effort to implement this solution is least expensive, time, and resource intensive

CONS

- 👎 For the resident, the experience is not consistent throughout; the resident experiences a change in information architecture and interface design once redirected to the Kubra portal, and continuous improvement effort on the part of the Region are limited to aspects of the journey only within the Resident Portal
- 👎 For the resident, while SSO provides an improvement from the current state (web hyperlink), minimal added value is created in this option that might drive adoption.
- 👎 For the Region, this option provides minimal opportunity to manage or influence the resident experience beyond the "sign-up for service" stage of the user journey and flow

OPTION 2

Recommended Solution

API Integration with Kubra

PROS

- 👍 For the resident, this option enables a fully seamless and consistent experience, end-to-end
- 👍 For the resident, desired features are included, with key information presented at the right time, in the right way to increase trust and adoption of the service
- 👍 From a technical perspective, this technical pattern can be leveraged to integrate other digital services in such a way that supports the seamless and consistent experience
- 👍 For the Region, the Region can reasonably expect downstream cost savings from reduced call volumes associated with the W-B service due to increased levels of understanding and access to support enabled through this experience

CONS

- 👎 From a technical perspective, this option requires some customization to stand-up the API integration and build the logic to be applied to organize display the data being called through the API, such that it is presented in the desired manner.
- 👎 For the Region, cost and effort to implement this option are greater than that of SSO, but should allow for cost savings due to the improved experience in the future

OPTION 3

API Integration with CC&BCS and a new payment gateway

PROS

- 👍 All pros (benefits) from Option 2 are also applicable for this solution approach
- 👍 From a technical perspective, the technical pattern created for Option 3 would allows for greater centralization and control of resident services, both via the experience and by leveraging a common Customer Care and Billing solution and Payment Gateway

CONS

- 👎 All cons (drawbacks) from Option 2 are also applicable for this solution approach
- 👎 From a technical and business perspective, pursuance of Option 3 would require additional time and effort to build and implement; it would also incur significant cost for the Region

Benefits for Option 2

Option 2, API integration with Kubra, hosts the following benefits for the region:

1

Strong alignment with desired benefits…

outlined by the region for this engagement and the preferred experience highlighted by residents.

2

The technical pattern can be leveraged to guide future service integrations…

while ensuring the integrity of the user experience through Region-owned continuous improvement practices.

3

Supports the Region's 20 year strategic plan and values of living, thriving, leading…

By creating greater opportunity to find, access, and use digital services in a way that works for them and makes their Peel living experience more connected and catered to their needs.

4

Efficiencies and cost savings associated with downstream impacts of an optimized resident experience…

Examples might include:

- ✓ Cost savings resulting from the decrease in printing for education, marketing, operations associated with digitized services, including but not limited to the Water Billing Service.
- ✓ Time savings for call centre staff (for resident questions or fulfill administrative tasks such as changing resident account information such as address, contact, etc. and overall reduction in support-related questions)

Efficiencies and cost savings

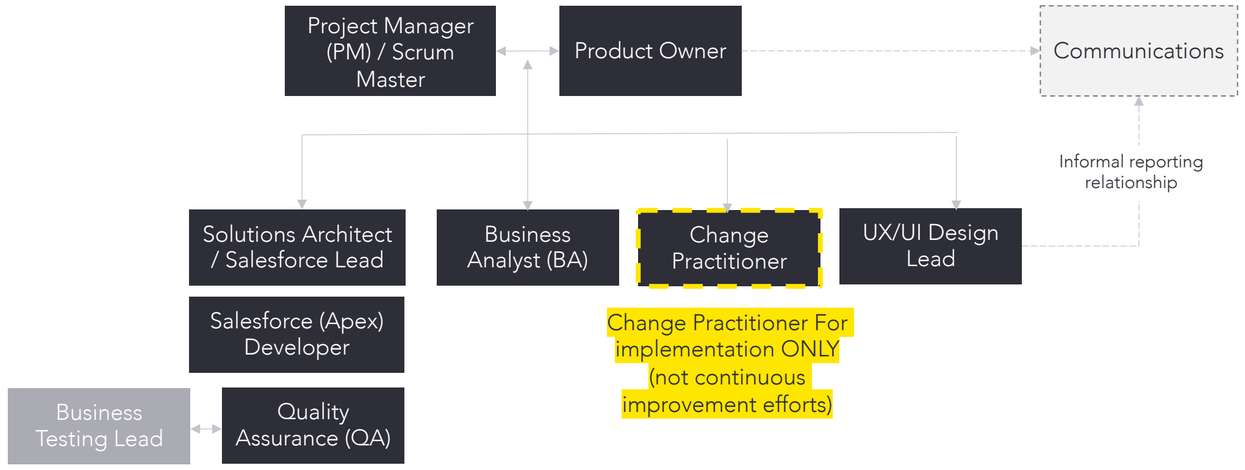
This engagement's focus was to realize desired benefits pertaining to an optimized resident experience. While no efficiencies or cost savings were initially cited for this work, below highlighted are the indicative cost savings and efficiencies associated with implementing the solution integration option 2 and applying the technical and design templates developed for Water Billing.

Description of benefit	Efficiencies	Cost savings
Cost savings resulting from the decrease in printing (For education, marketing, operations associated with digitized services, including but not limited to the Water Billing Service) • **Calculation**: (Cost savings for printing, $0.73) x (4 billing cycles) x (Anticipated number of customers registered with Kubra = [335,000 total customers multiplied by anticipated adoption rates of 24% in 2023, 32% in 2024, and 40% in 2025])		✓ Cost savings (printing): • $234,768 in 2023 • $313,024 in 2024 • $391,280 in 2025 ($978,200 yearly *if* at 100% adoption)
Time savings due to reduction in calls for call centre staff (re: Resident questions or fulfill administrative tasks such as changing resident account information such as address, contact, etc. and overall reduction in support-related questions) • Efficiency Calculation: (Anticipated total call time per year for W-B) x (20% reduction in Tier 1 and 2 calls) • Cost Calculation: (Anticipated total minutes saved for Tier 1) x (Tier 1 avg. cost per min, @2.41) and (Anticipated total Tier 2 calls saved) x (Tier 2 avg. cost per call, $26.71) • **Anticipated call reduction time for first 12 months following implementation of the R-P W-B integration and UI design	✓ Time savings: • 786 hours in year 1 for Tier 1 (or 24.5 weeks for a 32 hour work week) • 1,322 hours in year 1 for Tier 2 (or 41 weeks for a 32 hour work week)	✓ Cost savings equivalent: • $113,688 in year 1 for for Tier 1 • $186,684 in year 1 for Tier 2

Operating model considerations

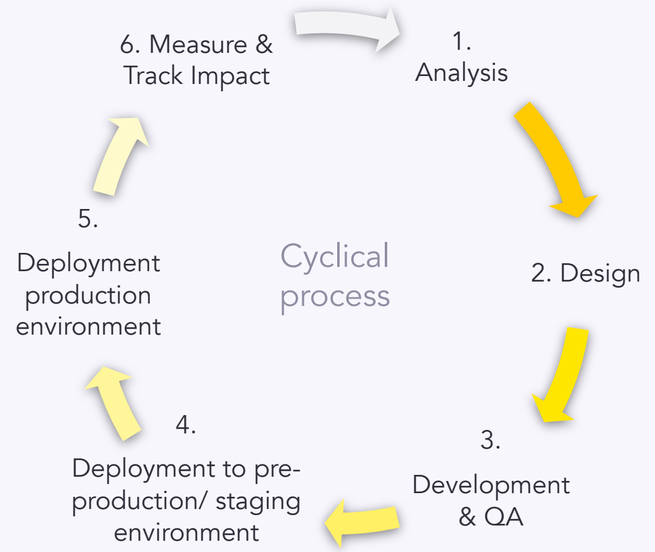
To the support the implementation and ongoing sustainment of the recommended option, the following agile core team should support. Continuous improvement efforts will be facilitated through the below outlined continuous improvement process, the details of which can be found in deliverable D3.5 Operating Model Considerations.

Agile Core Team to support implementation and sustainment



Business Testing Lead(s) are external to the Agile Core Team, but must work closely and in partnership with the Core Team to administer appropriate QA for business requirements

Continuous improvement and maintenance process



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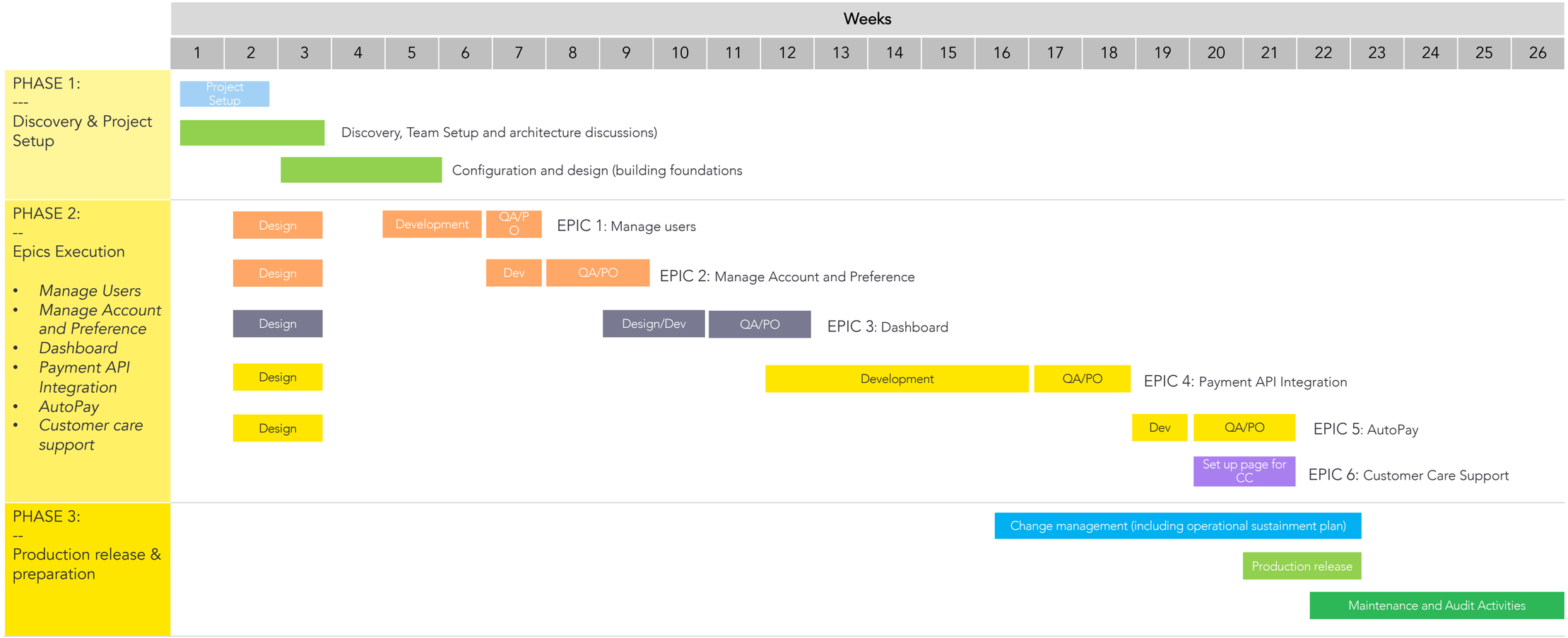
High-level implementation plan

To support the implementation of the recommended option (API integration with Kubra) a detailed implementation plan was developed. Below is a high-level view of that detailed plan, details of which can be found in the deliverable D3.1 Implementation Plan.



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R-P STRATEGY REVIEW

A framework for the R-P strategy

We mapped what already exists for the Resident Portal's strategy, and selected the yellow-highlighted components to review and iterate for the review.

- Reviewed & Refined Components (included in this document)
- Existing Components; no change
- TBD; Next Steps (Dependent on RoP Needs)

FOUNDATION	INSIGHT	DESIGN	EXECUTION
Integrated Portal Vision	Resident Intelligence ✓	Resident Services User Journeys ✓	Governance Model
Portal Objectives	Market Insights & Best Practices	UX/UI Design Principles ✓	Roles & Responsibilities
Portal Benefits & Value Proposition		UX Design Patterns ✓	Tactical Approach to Implementation
Portal User Segmentation ✓			
Portal KPIs			

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SECTION 2

Project overview

Section 2 includes the following:

- Project context and objectives
- Desired outcomes of the project
- Desired benefits of the project and overarching incorporation of experience design practices
- Engagement approach

PROJECT OVERVIEW

ROP Water billing portal integration

Project context

The Region of Peel currently provides access to a selection of digital services through its Resident Portal, but also has separate web portals for specific services, resulting in multiple points of access for residents to engage with regional services. One of these services is the Region's Water Billing Portal, which will provide residents the online ability to pay their water bill as well as view water consumption and configure notification preferences.

As the Region is committed to providing a consistent, integrated and simplified resident experience, there is an opportunity to apply best practices in human-centered design to provide a single point of access to the water billing service through the Resident Portal and a more seamless experience aligned to resident needs.

Project objective

The purpose of this project is to determine the integration approach for the water billing service into the Resident Portal, with the intent of evolving the Resident Portal as a "one stop" location to access Region of Peel digital services.

Overarching desired outcomes and benefits of this work

Desired outcomes

1. Technical recommendation for integration of the water billing (W-B) service into the resident portal, with consideration for experience impact to the resident and feasibility for the region to support.
2. Documented insights of resident needs, feedback, and preference as it relates to the W-B service integration.
3. Documented implementation plan to guide both implementation and continuous improvement sustainment of the recommended integration solution.

Desired benefits

1. Provide residents with a personalized, online experience with a single sign-on, online portal that provides residents easy access to the water billing service.
2. Deliver a consistent online user experience across the water billing.
3. Provides residents with added value and utility to drive greater adoption.

Desired outcomes by phase

Phase 1.0

Now – August 2022

-

Desired outcomes

- ✓Technology: Documented clarification on the current state technical architecture highlighting options for integration (to be vetted in phase 2)
- ✓Experience Design: Shared understanding of the RoP resident personas and a view of the anticipated future state experience journeys against integrations options
- ✓Strategy: Clear understanding of the project approach, evaluation criteria for potential integration options, RoP stakeholder engagement, and RoP executive expectations

Phase 2.0

August – September 2022

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Desired outcomes

- ✓Technology: Assessment of cost estimates and solution to support each option and proposed recommendation for technical integration of the W-B service
- ✓Experience Design: Shared understanding of the users preferences regarding the proposed integration solution options
- ✓Strategy: Understanding of the roles and responsibilities required to maintain the proposed solution and evolve it through continuously user feedback and upgrades (operating model considerations)

Phase 3.0

September – November 2022

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Desired outcomes

- ✓Strategy: Actionable implementation plan to design, build, test, and stand-up the proposed integration option; clear, concise reporting on the outcomes of this engagement and next steps

Engagement approach

Phase 1.0

STAGE 1 & 2

Onboarding, Discovery & Project Planning

ACTIVITIES

- Project kickoff meeting
- Documentation review
- Project and stakeholder engagement planning
- Project charter and workplan development

STAGE 3

Current State Assessment

ACTIVITIES

- Current state alignment around findings from SteerCo stakeholder insights and existing understanding of resident needs
- Co-define evaluation criteria
- Proto-persona development
- Future state resident journey mapping
- Current state technical assessment and delivery of Technical Gap Analysis

Phase 2.0

STAGE 4

Future State

ACTIVITIES

- Cost and effort estimates for proposed technical solution options
- User flow and wireframe development, testing with residents
- Iterate wireframes and document feedback and design findings
- Evaluate options against criteria and alignment to desired benefits
- Select and present recommendation for sign-off from SteerCo
- Develop operating model considerations for the selected recommendation, including roles and responsibilities and continuous improvement process

Phase 3.0

STAGE 5 & 6

Implementation, Final Report & Presentation

ACTIVITIES

- Implementation planning
- Final report development and presentation to SteerCo
- Submit final report and post publicly

STAGE 7

Lessons Learned & Project Close

ACTIVITIES

- Lessons learned feedback and reflection
- Project and deliverable final handover and closeout

SECTION 3

Current state alignment

Section 3 includes the following:

- Desired outcomes for the project
- Co-defined criteria to evaluate options
- Existing perceptions of the RoP working group regarding Peel Resident (proto-personas)
- Current state technical review
- Identified integration options

CURRENT STATE ALIGNMENT

Aligning project expectations

It was agreed – this work is about aligning to resident needs and setting the foundations for a digital-forward resident experience.

Speaking with the Region's Project Steering Committee (SteerCo), the messaging was clear – the time for digital modernization is now, and the Region is committed to putting residents first by delivering value as an emerging leader in digitization of municipal services. Expectations and visions of success (along with what needs to be true to get there) helped to a create a shared understanding across the project team of what is important and how to deliver successfully on expectations for this initiative.

1

The value we bring must always connect back to our residents

In digitizing our services, we must not lose sight of the users in our business decisions

2

We're aligned on improving the resident experience

We agree we need to level up—to continue improving the way we provide residents with services in a digital age

3

Knowing our residents—really knowing them—is part of our challenge

Needs and expectations from Peel residents must be at the helm of decision-making; without it, we're blind

4

To be successful, we need to agree on what criteria should drive decision-making

As a business, it's about striking a balance across evaluation criteria—before we can evaluate options, we must align on what that criteria is for us

CURRENT STATE ALIGNMENT

Criteria defined to evaluate options

The client project team helped to co-define 11 evaluation criteria across 3 key categories.

To instill rigour into the process, 11 evaluation criteria across three categories were identified to measure alignment with desired benefits to residents as materialized through the recommended integration, as well as with technology and business constraints. Discussion around evaluation criteria helped to bring front and centre the project team's collective expectations around what the integration approach should look like and the value it should deliver to the Region and its residents.

Criteria to evaluate integration solution options

1 Creates an optimal resident experience

- ❑ Integration option yields a seamless experience for residents
- ❑ Integration option includes access to desired features, including single authentication
- ❑ Task completion rates are fastest when compared with other options

2 Alignment to technical standards

- ❑ Few to no technical Customizations are required for integration
- ❑ Option is compatible with existing technical decisions/ constraints, or without disruptive deviation
- ❑ Where necessary, option uses API-based services to enable the digital service
- ❑ Option establishes a standard technical integration pattern
- ❑ Option supports security and privacy by design

3 Feasible for the Region to support

- ❑ Cost to implement the integration option is viable for the business
- ❑ FTE resources required to sustain the integration option are within reason and feasible for the Region to attract the necessary skillset
- ❑ Integration approach and Operating model have potential to be leveraged for future service integrations

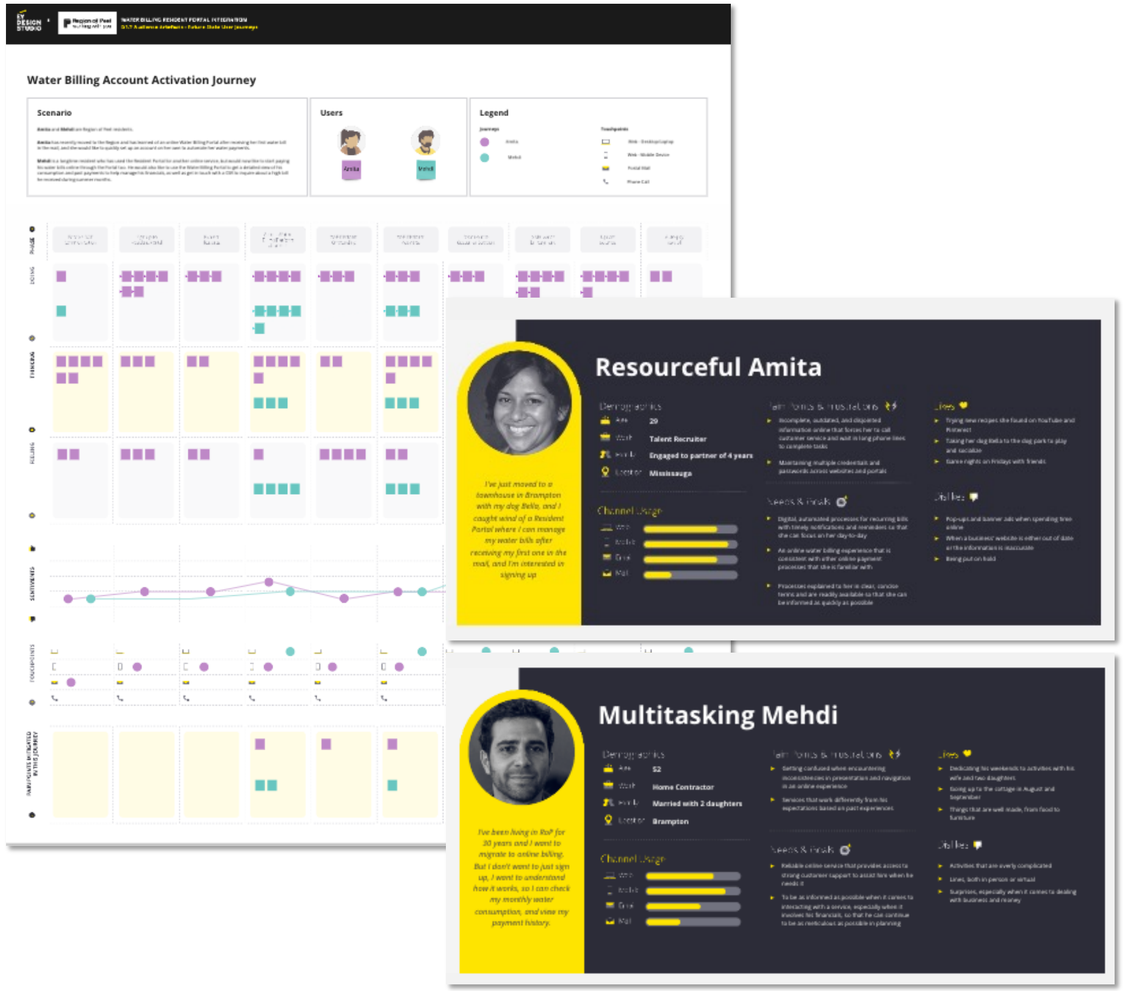
CURRENT STATE ALIGNMENT

Foundations for experience design

Prior to speaking with residents, proto-personas were developed to represent the team's initial view of an ideal W-B user experience.

Desired benefits from digital integration are to enhance the resident experience. The experience design workstream kicked off by learning about resident needs and challenges from call centre reps and sharing expectations amongst the RoP working group regarding what the desired future experience should achieve and look like. This shared foundation (with biases and assumptions acknowledged) set the foundation to deliver on next steps in experience design, including prototyping with wireframes and testing with Peel residents the ideal state integration experience associated with the technical integration options.

Resident Proto Personas & Future State Journey Maps



Current state Technical review

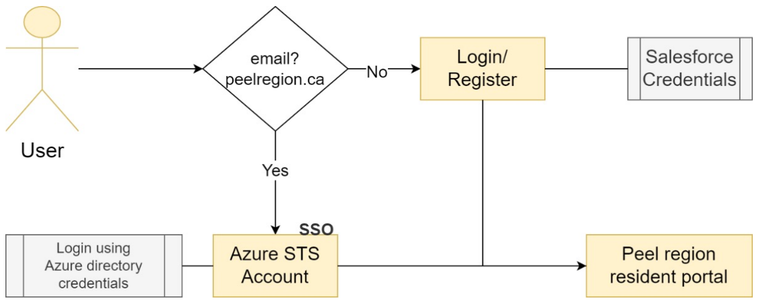
Technical assessment of the R-P salesforce and W-B Kubra platforms highlighted capabilities and constraints for integration.

Prior to identifying integration options, a thorough assessment of the current state architecture was performed to identify capabilities and constraints for integration. This assessment included meetings with RoP and Kubra technical teams as well as review of technical documentation and demo environments, including:

Salesforce Resident Portal sandbox environment, Kubra Water Billing portal demo environment, Salesforce and Kubra SAML (Security Assertion Markup Language) documentation, Platform Benefit Case Taxonomy, Platform SR Case Taxonomy, Kubra documentation, Technical Standards, Digital Standards, IT Product Standards, IT Standards, and Salesforce.com at RoP.

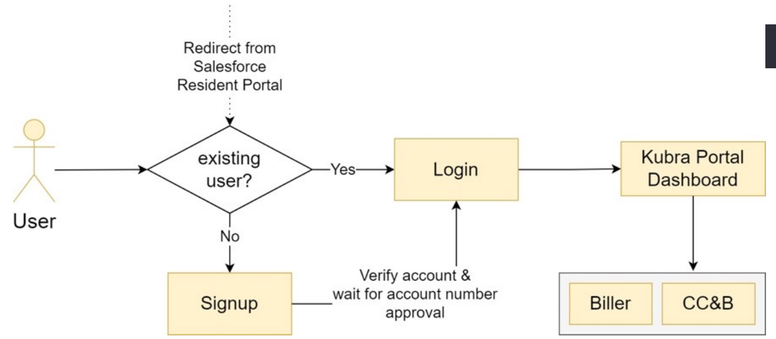
Technical assessment of Salesforce R-P and Kubra W-B Portals

Salesforce R-P



The Resident Portal is hosted by Salesforce, the Region's pre-existing platform of choice. Azure STS (Security Token Services) is leveraged for Region of Peel employee login, whereas residents may login directly. The W-B service is currently accessed through a hyperlink on the W-B informational page in the R-P, which leads to the Kubra landing page. Residents are required to login separately to the Kubra W-B service.

Kubra W-B



The Water Billing Portal is hosted on Kubra and retrieves information regarding water billing accounts from CC&B (Customer Care and Billing), an IT system for telecommunications and utilities. While water billing information is retrieved from CC&B, Kubra manages the billing, simplifying the payment flow for the end user. CC&B is scheduled to be replaced by CC&BCS (Customer Care and Billing Cloud Service) in 2023.

CURRENT STATE ALIGNMENT

3 identified integration options

As a result of the current state analysis and technical review, three integration solutions were identified as options for consideration. Each option is listed below, along with a description and rationale.

OPTION 1

Single Sign-On (SSO) integration with Kubra

Option 1 offers a Kubra-owned experience.

Description

The single sign-on option provides a simple integration method between the R-P and Kubra W-B service. Data does not flow between the two platforms; rather, the user is redirected via SSO from the R-P to the W-B portal.

Rationale

Option 1 requires low cost and effort to connect the W-B service to the R-P. Configuration of SSO has low technical complexity and requires minimal ongoing effort to sustain. Sustainment of the W-B service platform and experience would remain solely with Kubra.

OPTION 2

API Integration with Kubra

Option 2 offers a Region-owned experience.

Description

This option supports a single authentication and sign on experience and maintains the user flow and experience within the R-P. This experience is enabled through back-end API integration with Kubra, where data is pulled from and stored back to the Kubra platform. To configure the front-end water billing service dashboard and features, data is called through the API and displayed in the desired presentation layer using business logic.

Rationale

Option 2 allows for the Region to maintain its contractual relationship with Kubra while also having full control over the resident experience. While more complex to setup and maintain, this technical pattern and corresponding operating model can be leveraged to support other service integrations with the R-P.

OPTION 3

API Integration with CC&BCS and a new payment gateway

Option 2 offers a Region-owned experience.

Description

Option 3 offers the same benefits to user experience as Option 2. Due to the Region's current relationship and contract with Kubra, Option 3 is not viable in the near-term. It is, however, permissible in the long-term. The R-P would integration directly with the Customer Care and Billing Cloud Service (CC&BCS) in addition to a new payment gateway using APIs. W-B features and functionality would be developed directly within the R-P.

Rationale

Option 3 creates the technical foundations to build services directly within the R-P with full control over the resident experience. While comparatively the most complex to develop and maintain, this option removes licensing fees with outside vendors and gives greater control to the Region for continuous improvement.

SECTION 4

Evaluation of integration options

Section 4 includes the following:

- Resident testing and feedback of proposed experience by option
- Cost and effort analysis by option
- Assessment of options against evaluation criteria
- Evaluation of options against desired benefits of the project

Two wireframe prototypes were tested and iterated with residents

Prototype A: SSO Integration

Aligns with technical integration Option 1

Sentiment: Neutral to accepting ¯_(ツ)_/¯

Resident Feedback

In the SSO experience, users were able to complete the same tasks as the participants who were introduced to the API integration prototype; however, in SSO, users did notice differences in the experience, requiring them to reorient themselves to the Kubra interface – sometimes introducing confusion from the user. Time spent navigating the site to achieve an objective increased an average of 8 seconds. When considering the overarching user experience, this option provides minimal additional benefit to the user. Overarching sentiments from residents was neutral to accepting.

Prototype B: API Integration

Aligns with technical integration Options 2 & 3

Sentiment: Positive and Trusting 

Resident Feedback

The API integration experience of the Water Billing portal was positively received due to its conformity to the Resident Portal design patterns and experience. This resulted in users completing tasks with increased speed and accuracy. The intuitive and familiar user interface (achieved through iteration in the wireframe from user feedback) helped to create a more tailored and seamless navigation experience. While trustworthiness was mentioned as a factor when sharing personal data and financial information online, users expressed feeling secure when interacting with the platform due to the consistency achieved in the experience.

User testing highlighted three key needs for Peel residents:

1 Make the 'Why' Obvious

- Why do I need to have a Resident Portal account to sign-up for Water Billing; how does this benefit me?
- Why is this service better than my bank?
- Why is this the information you've asked for?

2 Make the process intuitive

- Is it clear what I need to do next and is it intuitive to use?
- Does it ask for the right information at the right time?
- Is this system designed with me and my information in mind?

3 Make the experience seamless

- Is the information I'm looking for easy to find and understand?
- Is this a seamless and consistent end to end experience?
- Can I expect to have the same experience (flow, look, and feel) with other Peel Region services?

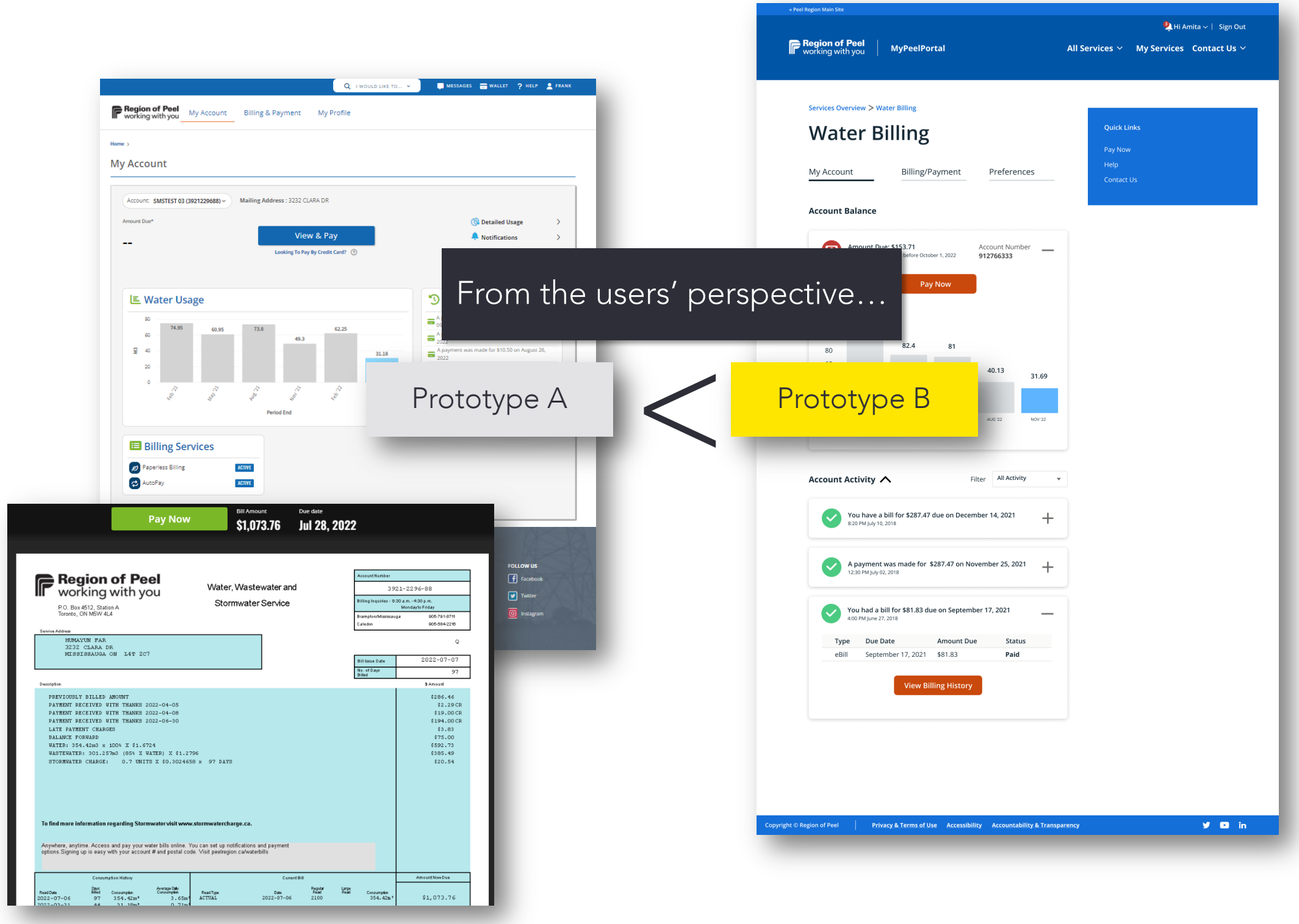
USER TESTING & FEEDBACK

Resident feedback highlighted a preference for Prototype B

Users preferred the API integration (prototype B) prototype due to the consistent user interface and seamless experience.

Resident feedback helped to iterate wireframes, amending the prototypes such that they better met user needs.

From an experience perspective, the main difference between prototypes is the Region's ability to own the experience post integration. For prototype A, the resident experience would be outside the purview of the Region; the integration setup would not allow for continuous improvement on the water billing experience.



Prototype A (Option 1)

Single Sign-On (SSO) Integration

CONS

Testers were consumed by change of call-to-action button and had to adjust to the new treatment.

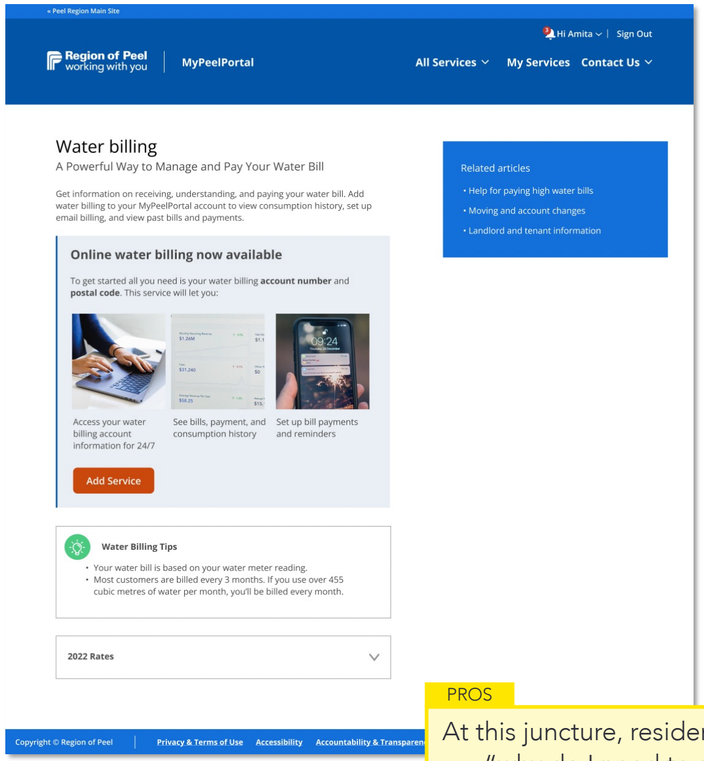
CONS

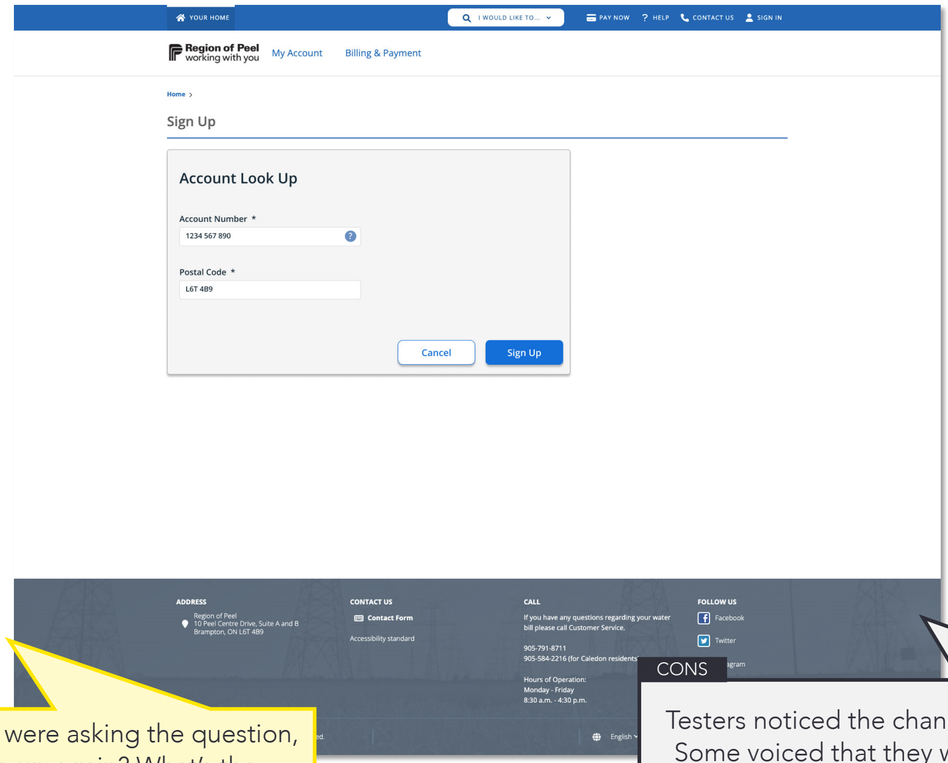
Testers required more time to learn how to navigate the Kubra W-B platform.

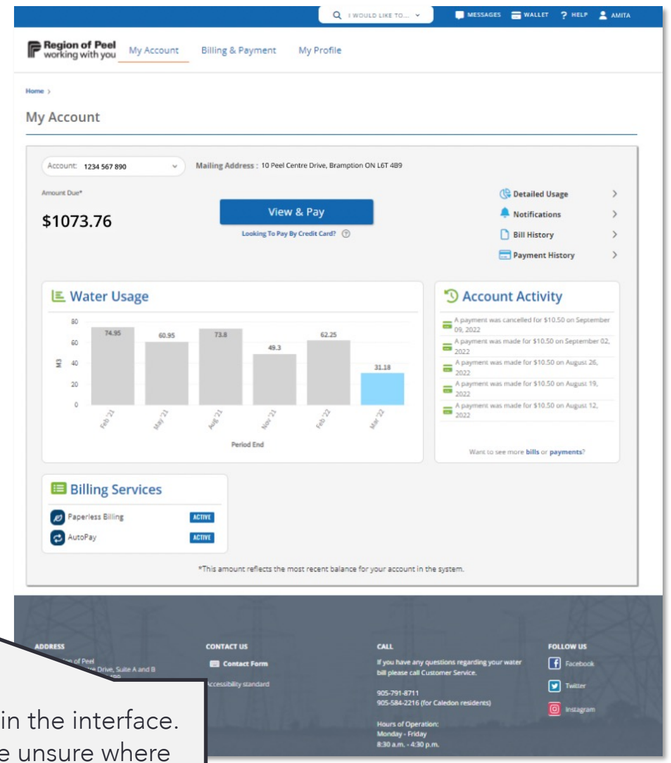
Resident Portal - Service Details – Water Billing (Authenticated)

Resident Portal - Service Details – Service Request (Authenticated)

Kubra Portal – WB Dashboard







PROS

At this juncture, residents were asking the question, "why do I need to sign-up again? What's the benefit?". Reframing the sign-up to "Add Service", while including more information on the value for the resident, helped to minimize confusion and increase clarity and trust.

CONS

Testers noticed the change in the interface. Some voiced that they were unsure where they were. No changes were made based on this feedback, however, due to the experience being owned by Kubra.

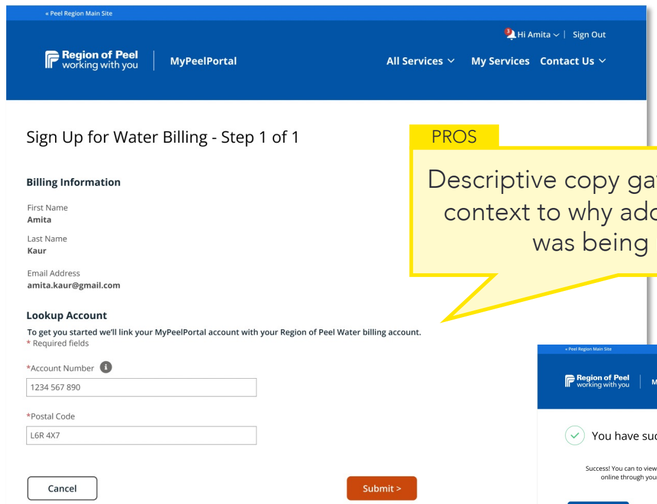
Prototype B (Option 2 & 3)

API Integration

PROS

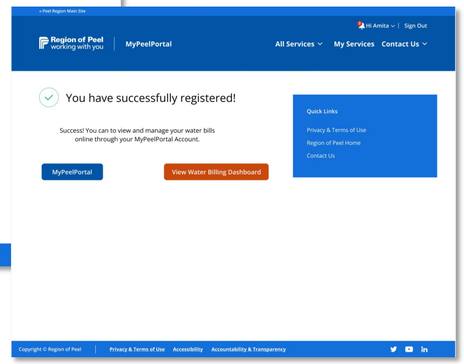
The integrated solution allowed us to provide information at the right time in the right way, making the user feel more comfortable and confident

Resident Portal – W-B Account Lookup Completed → Resident Portal – W-B Registration Successful → Resident Portal – W-B Dashboard → Resident Portal – W-B Billing/Payment



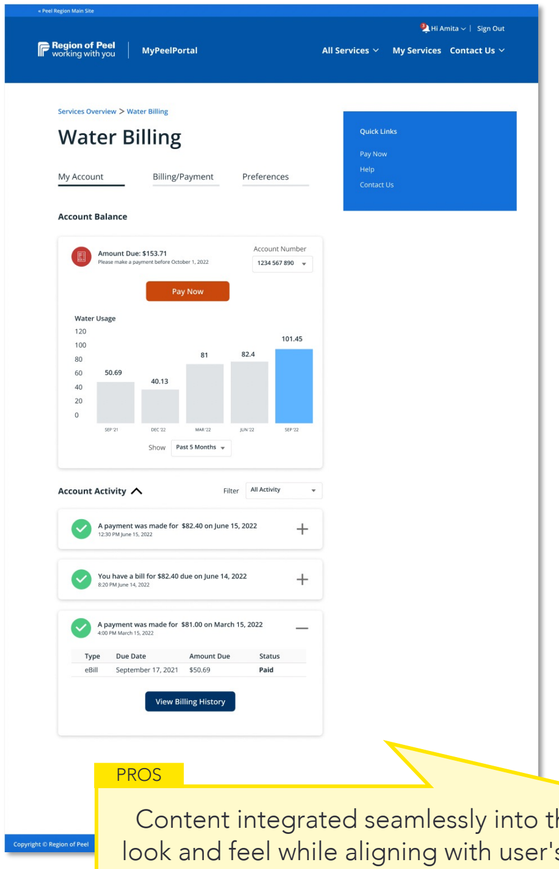
PROS

Descriptive copy gave participants more context to why additional information was being requested.



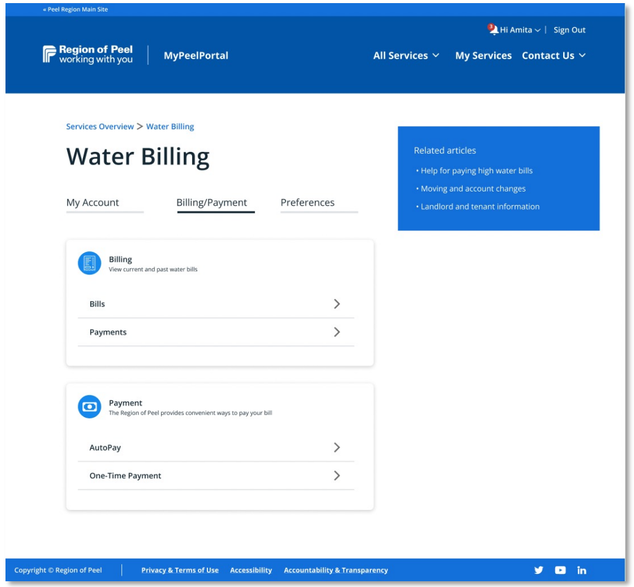
PROS

Changing the primary call-to-action button label from 'Sign Up' to 'Submit' put users at ease and minimized confusion related to linking their account.



PROS

Content integrated seamlessly into the R-P look and feel while aligning with user's needs and expectations around key features



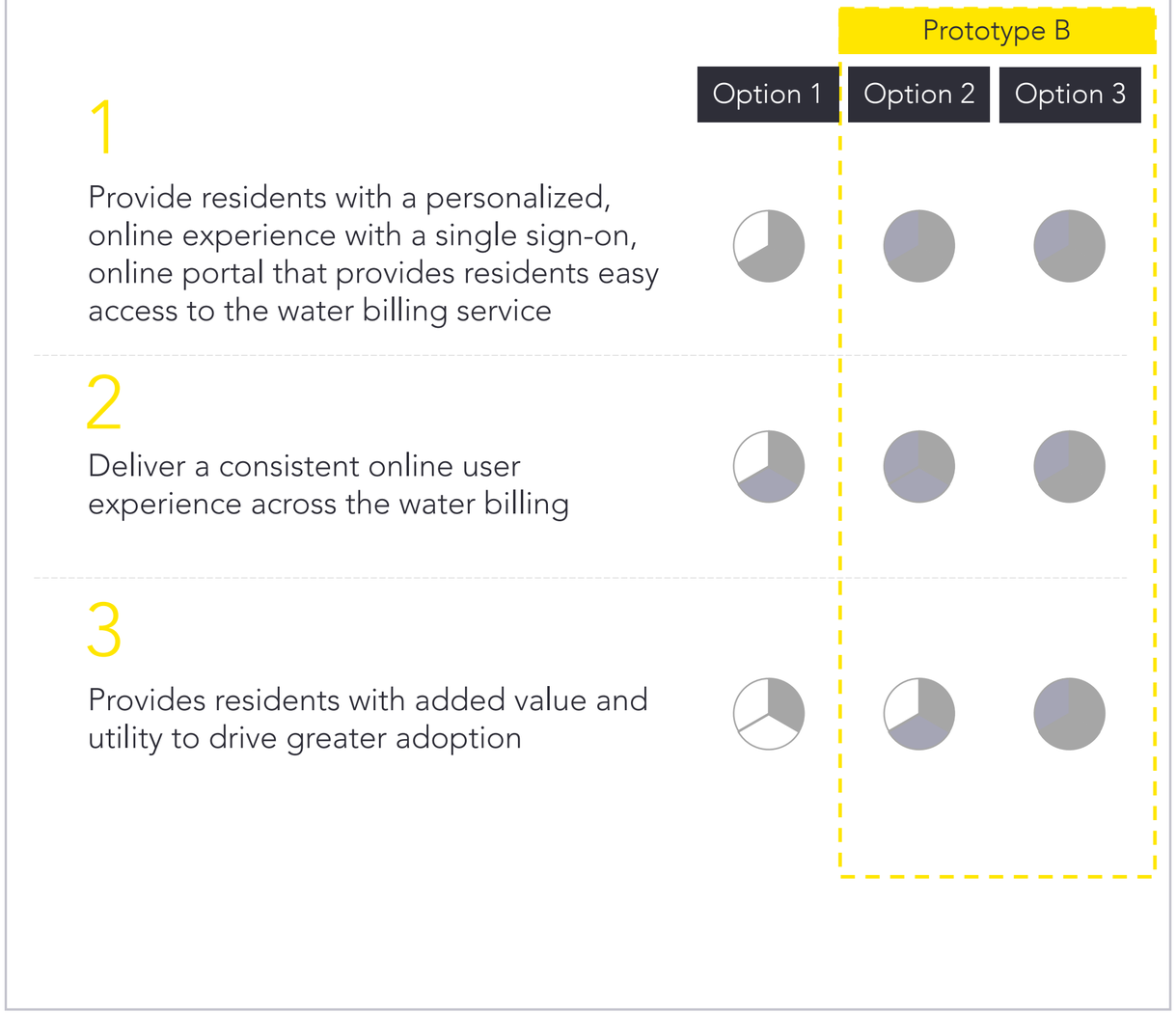
* Further testing in next steps (following the MVP of before) will clarify which features offered by Kubra are considered priority by users, and thus should be included in the W-B service via the Resident Portal W-B dashboard

Prototype B drives desired benefits

Prototype B (API integration) effectively drives desired benefits of a single-sign on, consistent value-add experience for the resident.

When mapped back to the desired benefits, user feedback highlighted is a clear correlation of preference with Prototype B, or the API Integration approach (which aligns with the user experience enabled by options 2 and 3). While prototype 1 (SSO) was accepted by users, sentiment from prototype 2 (API integration) was positive and trusting. Why this reaction? The integrated experience was smooth and effortless to users since the UI remained consistent with all screens that proceeded it in the journey. Minor feedback to the interface was quickly applied, further aligning the experience to the user's needs.

Options 2 and 3 have greatest alignment with the Region's desired benefits



EY DESIGN STUDIO

Evaluation of cost and effort

*Effort to migrate users determined as high medium low by the following descriptions:

- High – Complex design of data that requires more effort to transform from one service/portal to other. No direct import/export feature is available.
- Medium – Import/export service is available but needs to transform data into required form.
- Low – Data is available in required form and import/export task can accomplish the migration

To support the evaluation of options, a cost and effort analysis was performed to estimate the anticipated cost to the Region and effort required to implement and sustain each option under consideration.

	Option 1 Single Sign-On Integration	Option 2 API Integration with Kubra	Option 3 API Integration with CC&BCS
COST ✓ All in cost for implementation ✓ All in cost for Year 1 ✓ All in cost for Year 2+	Implementation: $390,798-$469,488 **Year 1** sustainment: $138,811 **Year 2+** sustainment: $37,440 *Plus Kubra implementation fees	Implementation: $826,110 - $935,446 **Year 1** sustainment: $252,672 **Year 2+** sustainment: $151,291 *Plus Kubra implementation fees	Implementation: $1,160,056 - $1,321,852 **Year 1** sustainment: $366,528 **Year 2+** sustainment: $163,771 *Plus payment gateway vendor fees
EFFORT ✓ Effort (resources and time) required for implementation	Average **2.73 vendor FTEs** (Total of 6 roles) Average 2.0 ROP FTEs Timeline: **9-12 weeks** Level of effort to migrate users: **Medium**	Average **2.72 FTEs** (Total of 6 roles) Average 2.0 ROP FTEs Timeline: **22-26 weeks** Level of effort to migrate users: **Medium**	Average **2.67 FTEs** (Total of 6 roles) Average 2.0 ROP FTEs Timeline: **32-38 weeks** Level of effort to migrate users: **High**

EY DESIGN STUDIO

Evaluation of Integration options

LEGEND:

- Creates an optimal resident experience
- Alignment to technical standards
- Feasible for the Region to support

		Option 1	Option 2	Option 3
1	Integration option yields a seamless experience			
2	Integration option includes access to desired features, including single authentication			
3	Task completion rates are fastest when compared with other options			
4	Few to no technical Customizations are required for integration			
5	Option is compatible with existing technical decisions/constraints, or without disruptive deviation (e.g., maintains use of Kubra)			
6	Where necessary, option uses API-based services to enable the digital service			
7	Option establishes a standard technical integration pattern			
8	Option supports security and privacy by design			
9	Cost to implement the integration option is viable for the business			
10	FTE resources required to sustain the integration option are within reason and feasible for the Region to attract the necessary skillset			
11	Integration approach and Operating model have potential to be leveraged for future service integrations			

Co-created evaluation criteria developed by the RoP working team in phase 1 guided assessment of integration options in phase 2.

To guide discussion and selection of the recommended integration option, each option was vetted against Evaluation Criteria co-created by the RoP working group at the onset of the project. Three categories of criteria focused on creating an optimal resident experience (in line with desired benefits), alignment to technical standards, and feasibility for the Region to support.

While Option 1 (SSO) fully aligns with the second and third categories due to its simplistic technical approach, it ranks lowest on user experience. For Options 2 and 3, introduction of the API increases technical complexity, and therefore cost, though firmly places ownership of the experience – including the ability to pursue continuous improvement of the experience – in the hands of the Region.

EY DESIGN STUDIO

SECTION 5

Integration recommendation

Section 5 includes the following:

- Recommended option for integrating the Water Billing service with the Resident Portal, as presented to and approved by the Project Executive Steering Committee

INTEGRATION RECOMMENDATION

Recommended integration, Option 2 (1/2)

Option 2 was ultimately identified as the recommended integration solution, due to the Region-owned experience and resident preference and alignment to desired benefits. This option was presented to and approved by the Project Executive Steering Committee.

OPTION 1

Single Sign-On (SSO) integration with Kubra

Option 1 offers a Kubra-owned experience.

Description

The single sign-on option provides a simple integration method between the R-P and Kubra W-B service. Data does not flow between the two platforms; rather, the user is redirected via SSO from the R-P to the W-B portal.

Rationale

Option 1 requires low cost and effort to connect the W-B service to the R-P. Configuration of SSO has low technical complexity and requires minimal ongoing effort to sustain. Sustainment of the W-B service platform and experience would remain solely with Kubra.

OPTION 2

Recommended Solution

API Integration with Kubra

Option 2 offers a Region-owned experience.

Description

This option supports a single authentication and sign on experience and maintains the user flow and experience within the R-P. This experience is enabled through back-end API integration with Kubra, where data is pulled from and stored back to the Kubra platform. To configure the front-end water billing service dashboard and features, data is called through the API and displayed in the desired presentation layer using business logic.

Rationale

Option 2 allows for the Region to maintain its contractual relationship with Kubra while also having full control over the resident experience. While more complex to setup and maintain, this technical pattern and corresponding operating model can be leveraged to support other service integrations with the R-P.

OPTION 3

API Integration with CC&BCS and a new payment gateway

Option 2 offers a Region-owned experience.

Description

Option 3 offers the same benefits to user experience as Option 2. Due to the Region's current relationship and contract with Kubra, Option 3 is not viable in the near-term. It is, however, permissible in the long-term. The R-P would integration directly with the Customer Care and Billing Cloud Service (CC&BCS) in addition to a new payment gateway using APIs. W-B features and functionality would be developed directly within the R-P.

Rationale

Option 3 creates the technical foundations to build services directly within the R-P with full control over the resident experience. While comparatively the most complex to develop and maintain, this option removes licensing fees with outside vendors and gives greater control to the Region for continuous improvement.

INTEGRATION RECOMMENDATION

Recommended integration, Option 2 (2/2)

The pros and cons of each option, for the resident, from a technical perspective, and for the region are included below. A full review of the evaluation and assessment for all options was included in the solution recommendation presentation to the Project Executive Steering Committee.

OPTION 1

Single Sign-On (SSO) integration with Kubra

PROS

- 👍 For the resident, this option provides a more (though not fully) seamless experience accessing the water billing (W-B) service from the Resident Portal today.
- 👍 From a technical perspective, the back-end integration approach is simplest (when compared with other options) and easiest to implement
- 👍 For the Region, the cost and effort to implement this solution is least expensive, time, and resource intensive

CONS

- 👎 For the resident, the experience is not consistent throughout; the resident experiences a change in information architecture and interface design once redirected to the Kubra portal, and continuous improvement effort on the part of the Region are limited to aspects of the journey only within the Resident Portal
- 👎 For the resident, while SSO provides an improvement from the current state (web hyperlink), minimal added value is created in this option that might drive adoption.
- 👎 For the Region, this option provides minimal opportunity to manage or influence the resident experience beyond the "sign-up for service" stage of the user journey and flow

OPTION 2

Recommended Solution

API Integration with Kubra

PROS

- 👍 For the resident, this option enables a fully seamless and consistent experience, end-to-end
- 👍 For the resident, desired features are included, with key information presented at the right time, in the right way to increase trust and adoption of the service
- 👍 From a technical perspective, this technical pattern can be leveraged to integrate other digital services in such a way that supports the seamless and consistent experience
- 👍 For the Region, the Region can reasonably expect downstream cost savings from reduced call volumes associated with the W-B service due to increased levels of understanding and access to support enabled through this experience

CONS

- 👎 From a technical perspective, this option requires some customization to stand-up the API integration and build the logic to be applied to organize display the data being called through the API, such that it is presented in the desired manner.
- 👎 For the Region, cost and effort to implement this option are greater than that of SSO, but should allow for cost savings due to the improved experience in the future

OPTION 3

API Integration with CC&BCS and a new payment gateway

PROS

- 👍 All pros (benefits) from Option 2 are also applicable for this solution approach
- 👍 From a technical perspective, the technical pattern created for Option 3 would allows for greater centralization and control of resident services, both via the experience and by leveraging a common Customer Care and Billing solution and Payment Gateway

CONS

- 👎 All cons (drawbacks) from Option 2 are also applicable for this solution approach
- 👎 From a technical and business perspective, pursuance of Option 3 would require additional time and effort to build and implement; it would also incur significant cost for the Region

INTEGRATION RECOMMENDATION

Benefits for Option 2

Option 2, API integration with Kubra, hosts the following benefits for the region:

1

Strong alignment with desired benefits…

outlined by the region for this engagement and the preferred experience highlighted by residents.

2

The technical pattern can be leveraged to guide future service integrations…

while ensuring the integrity of the user experience through Region-owned continuous improvement practices.

3

Supports the Region's 20 year strategic plan and values of living, thriving, leading…

By creating greater opportunity to find, access, and use digital services in a way that works for them and makes their Peel living experience more connected and catered to their needs.

4

Efficiencies and cost savings associated with downstream impacts of an optimized resident experience…

Examples might include:

- ✓ Cost savings resulting from the decrease in printing for education, marketing, operations associated with digitized services, including but not limited to the Water Billing Service.
- ✓ Time savings for call centre staff (for resident questions or fulfill administrative tasks such as changing resident account information such as address, contact, etc. and overall reduction in support-related questions)

INTEGRATION RECOMMENDATION

Efficiencies and cost savings

This engagement's focus was to realize desired benefits pertaining to an optimized resident experience. While no efficiencies or cost savings were initially cited for this work, below highlighted are the indicative cost savings and efficiencies associated with implementing the solution integration option 2 and applying the technical and design templates developed for Water Billing.

Description of benefit	Efficiencies	Cost savings
Cost savings resulting from the decrease in printing (For education, marketing, operations associated with digitized services, including but not limited to the Water Billing Service) • **Calculation**: (Cost savings for printing, $0.73) x (4 billing cycles) x (Anticipated number of customers registered with Kubra = [335,000 total customers multiplied by anticipated adoption rates of 24% in 2023, 32% in 2024, and 40% in 2025])		✓ Cost savings (printing): • $234,768 in 2023 • $313,024 in 2024 • $391,280 in 2025 ($978,200 yearly *if* at 100% adoption)
Time savings due to reduction in calls for call centre staff (re: Resident questions or fulfill administrative tasks such as changing resident account information such as address, contact, etc. and overall reduction in support-related questions) • Efficiency Calculation: (Anticipated total call time per year for W-B) x (20% reduction in Tier 1 and 2 calls) • Cost Calculation: (Anticipated total minutes saved for Tier 1) x (Tier 1 avg. cost per min, @2.41) and (Anticipated total Tier 2 calls saved) x (Tier 2 avg. cost per call, $26.71) • **Anticipated call reduction time for first 12 months following implementation of the R-P W-B integration and UI design	✓ Time savings: • 786 hours in year 1 for Tier 1 (or 24.5 weeks for a 32 hour work week) • 1,322 hours in year 1 for Tier 2 (or 41 weeks for a 32 hour work week)	✓ Cost savings equivalent: • $113,688 in year 1 for for Tier 1 • $186,684 in year 1 for Tier 2

EY DESIGN STUDIO

SECTION 6

Implementation and sustainment plan

Section 6 includes the following:

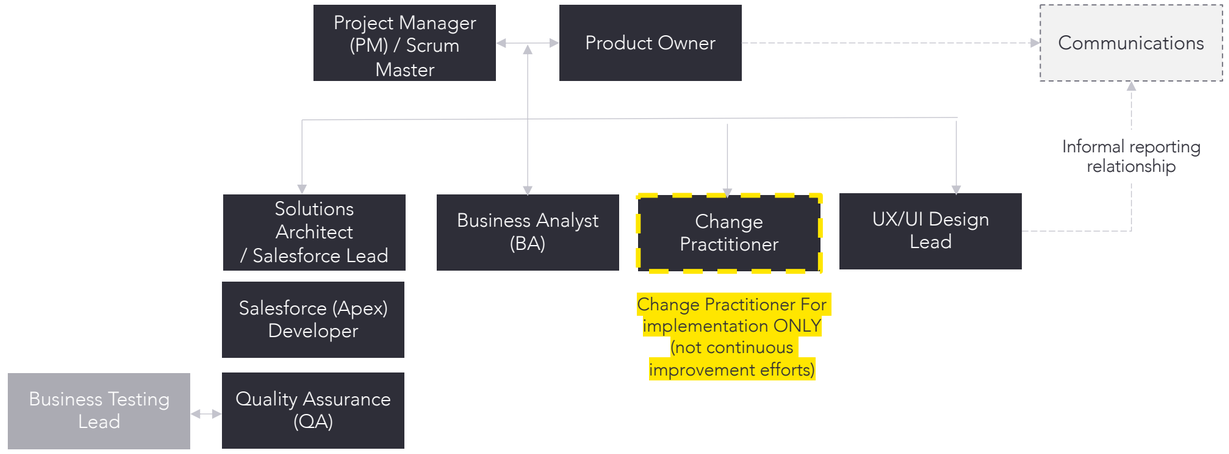
- Implementation plan overview for the recommended option
- Operating model considerations for the recommended option, including roles and responsibilities for sustainment and the continuous improvement process to support the gathering of resident feedback and iteration to the resident portal experience based on evolving resident needs

IMPLEMENTATION & SUSTAINMENT

Operating model considerations

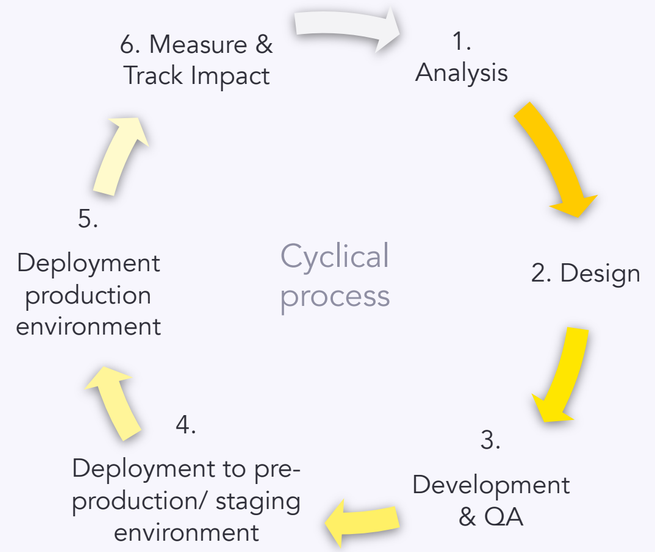
To the support the implementation and ongoing sustainment of the recommended option, the following agile core team should support. Continuous improvement efforts will be facilitated through the below outlined continuous improvement process, the details of which can be found in deliverable D3.5 Operating Model Considerations.

Agile Core Team to support implementation and sustainment



Business Testing Lead(s) are external to the Agile Core Team, but must work closely and in partnership with the Core Team to administer appropriate QA for business requirements

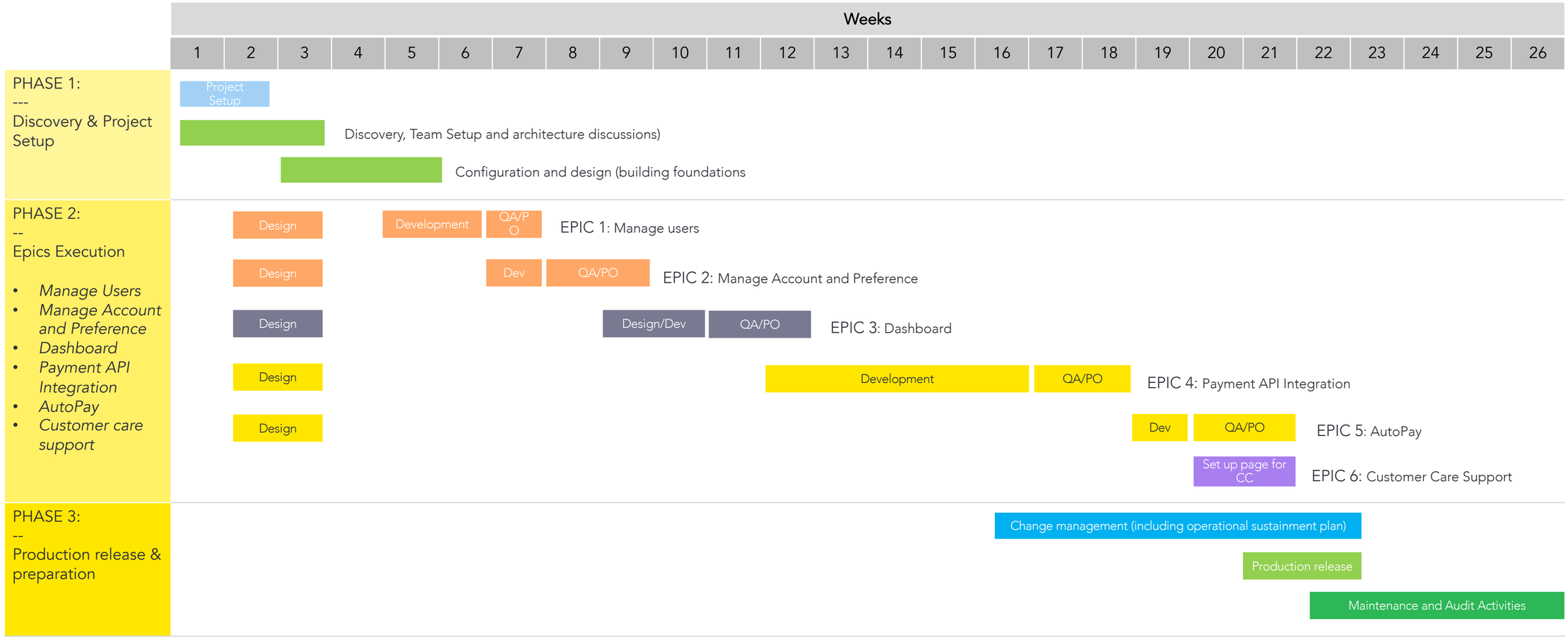
Continuous improvement and maintenance process



EY DESIGN STUDIO

High-level implementation plan

To support the implementation of the recommended option (API integration with Kubra) a detailed implementation plan was developed. Below is a high-level view of that detailed plan, details of which can be found in the deliverable D3.1 Implementation Plan.



EY DESIGN STUDIO

SECTION 7

Resident portal strategy review

Section 7 includes the following:

- Resident portal strategy framework
- Refreshed ‘foundations’ of the portal strategy
- Newly defined ‘market insights’ to evaluate current benchmarking for the portal
- Governance for the portal strategy

There is no digital strategy, just strategy in a digital world…

- Bud Cadell

Founder, NOBL

Resident portal strategy review

Recognizing that the Water Billing service will be one among many services that will live within the Resident Portal, final work in this project scope including the review, consolidation, and refresh of the Resident Portal Strategy.

This final piece of work is all about answering the question: **What is the portal strategy and vision?** It's about tying together all the work the Region has already done, filling in the missing pieces, and defining how industry best practices can inform the future of the Resident Portal.

Objective 1 of the Review

Resident Portal Strategy Review

Objective 2 of the Review

Market Insights

The Approach

Review & Research

What we did

- Portal document review
- Performed primary and secondary research to gather market insights (best practices, benchmarking, etc.) to inform the Portal strategy review

Co-creation

What we did

- Collaborative working sessions to align on what exists for the Resident Portal Strategy today and co-create solutions for where there are gaps

Validation

What we did

- Validate Portal strategy and vision with Steering Committee, and align on next steps

R-P STRATEGY REVIEW

A framework for the R-P strategy

We mapped what already exists for the Resident Portal's strategy, and selected the yellow-highlighted components to review and iterate for the review. All portal strategy material now exists within a singular 'strategy packet' with mapping to all existing and previous work that supports the strategy.

Reviewed & Refined Components (included in this document)

Existing Components; no change

TBD; Next Steps (Dependent on RoP Needs)

FOUNDATION	INSIGHT	DESIGN	EXECUTION
Integrated Portal Vision	Resident Intelligence ✓	Resident Services User Journeys ✓	Governance Model
Portal Objectives	Market Insights & Best Practices	UX/UI Design Principles ✓	Roles & Responsibilities
Portal Benefits & Value Proposition		UX Design Patterns ✓	Tactical Approach to Implementation
Portal User Segmentation ✓			
Portal KPIs			

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R-P STRATEGY REVIEW

Portal vision

The Region of Peel Resident Portal is a key component of ADSD's mission and mandate to modernize programs and effectively digitalize services that will have the most impact on residents and businesses.

The vision for the portal should clearly ladder up to ADSD's, and therefore RoP's digital vision.

- The **'ROP Digital Vision'** outlines the big picture. This vision sets the foundation for the secondary layers of Digital Services, and ultimately the Resident portal.
- The **'Advancing Digital Services'** vision is the vehicle that drives RoP's digital initiatives forward.

ROP DIGITAL VISION

Provide engaging & seamless resident & employee services experiences through sustainable & integrated business & technology modernization

ADVANCING DIGITAL SERVICES VISION

Be a strategic partner in accelerating business value delivery through digital services in alignment with the RoP digital vision

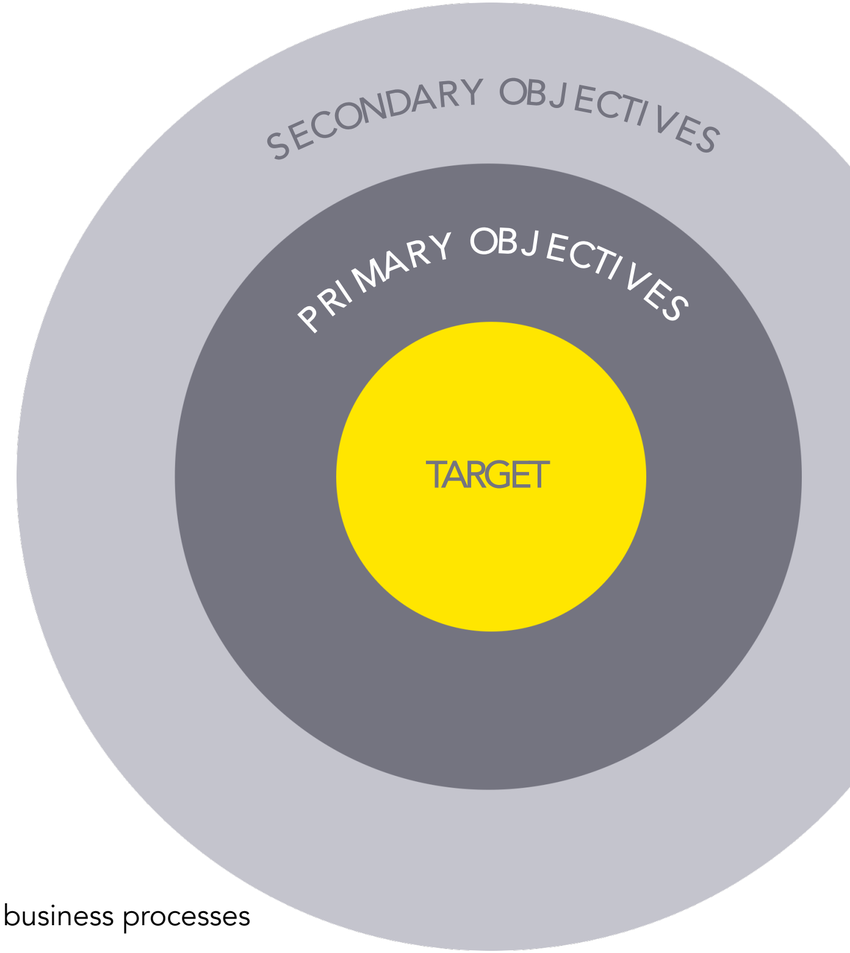
RESIDENT PORTAL VISION

For all Region of Peel Residents & Businesses, the Resident Portal is a **digital access hub that provides a singular, reliable and secure** experience that is a joy to use. It equips its users to **easily locate and carry out transactions for core services** that are informed by timely and relevant information.

Unlike today's email, call, or in-person options, the Resident Portal is a **seamlessly integrated, sustainable, and accessible web tool** that lets users access services that are most important to them, all through **a single login**.

R-P STRATEGY REVIEW

Target & objectives



Our pass/fail measure

The target

100% of viable[1] services are digitized and accessible through the Resident Portal, which offers a singular entry point for residents to initiate, progress, or check-in on a service request.

[1]Viable to be determined on a yearly basis by the Portal Product Owner.

The portal vision won't succeed without…

Primary objectives

1. Single login and streamlined, secure authentication
2. Robust portal adoption reporting, including user satisfaction, usage data, and compliance
3. Connectivity & consistency with Peel brand & peelregion.ca
4. Access anytime, anywhere through a responsive website
5. Internal sustainment model and change management structure

The portal is at it's best if we achieve…

Secondary objectives

1. Integration with existing RoP business processes
2. Optimized site performance
3. Software/Platform optimization
4. Internal adoption & usage

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Benefits

As the Advancing Digital Service Delivery (ADSD) program defined, benefits of digitization improve the ability of the Region to service residents at their convenience, improve operating efficiencies and, when implemented effectively, promote improved customer experience, while also improving the experience for internal employees.

Benefits for

RoP internal / employees

Benefits for

Residents and Peel businesses

A shared 'end to end' process for similar services...

Portal Website

- Use and manage common processes for several services housed in the Resident Portal (fewer processes to know!)

Portal Website

- Presented with a consistent experience across services, making it easier for residents to use new services once familiar/comfortable with one service

The ability to track and report on customer interactions...

Portal Website

- From a data collection perspective, ability to track interactions (clicks on page) and interaction history so that we can make decisions or changes based on how Residents are interacting with on the site (i.e., user data)

Portal

- Report on service delivery (using user data) against defined KPIs or metrics, and again make data-driven decisions around how to improve services

Portal

- Ability to report on the types of services requested and identify trends

Portal Website

- Greater likelihood that the Region focuses efforts on improving service delivery for services that matter most to residents / businesses
- Be served with personalized information tailored to each resident

Benefits

Continued:

Benefits for

RoP internal / employees

Benefits for

Residents and RoP businesses

The ability to action or initiate requests, complaints, or feedback online

Website	Portal	• Reduce repetitive calls to Region staff / call centre
	Portal	• Ability to mange requests, such as event requests, using technology like workflow
	Portal	• Ability to automate customer confirmations and reminders
	Portal	• Ability to manage submissions as an interaction, including the ability to report on status, completion, and service level performance
	Portal	• Ability to manage customer interaction history with 360 view of activity
	Portal	• Ability to receive feedback for continuous improvement, manage and report on the status of the interaction electronically
	Portal	• More easily leverage templates for consistent communications

Portal	• Access to fully unassisted self-service options for residents
Portal	• Ability to manage my requests and submissions for service needs in one place

The ability to leverage electronic signatures

Portal	• Remove requirement for forms to be printed, signed, and delivery via mail or in person

Portal	• Ability to digitally sign applications, requests and documents; eliminate cumbersome task of printing forms

R-P STRATEGY REVIEW

Portal KPIs

Key performance indicators have been identified across 5 key categories that resonate specifically with the Region of Peel's core objectives. These KPIs are a reference point that can be used to create a list of metrics, or benchmarks, that the team will track against to understand the relative success of the initiative.

Core Functions	Adoption	Site Performance	Efficiencies	Customer Satisfaction
1 # of services fully digitized	1 % of resident sign-up or account creation	1 Avg. portal load time	1 Cost reduction from call-ins	1 Qualitative CX resident feedback
2 X% of uassisted transactions completed	2 % Avg. repeat visits, assessed per service	2 Website to Portal connectivity uptime	2 Cost reduction from email	2 Post-transaction resident feedback
	3 # Avg. unique transactions per resident	3 Avg. error rates	3 Cost reduction from printing savings	3 L2R (Likelihood to recommend)
		4 Avg. throughput		
		5 # of log-in failures, including password resets		

R-P STRATEGY REVIEW

Market Insights

A features and capabilities assessment was conducted for the Region of Peel portal against some of the winning portals found in local, international, and adjacent industries:

CRITERIA	REGION OF PEEL SCORE	LEVEL-UP OPPORTUNITIES
Dynamic Landing Page/Dashboard	0/5 *Not customizable, multiple entry points, no clear dashboard view*	• Clean, compartmentalized resident dashboard with dedicated “cards” for each service • Ability to personalize top services by preference and interest
Service Availability	1/5 *Only select niche/low-usage services available*	• Receive notifications for new info or due dates • Pay tax and utility bills • Owned property details • Community program registration • Permit application requests • Council meeting recaps and minutes
Authentication	1/5 *Multiple login pages, accounts and credentials to access services*	• Single account for tax and utility management • Multiple electronic ID options as authentication (SMS + PIN, bank ID, smart cards) • Single sign-on OR social media integration
Navigation & UX	1/5 *Services are not easily searchable, no step-by-step demo for users, look and feel is not consistent with brand and front-end*	• AODA accessibility standards • Robust global nav (search bar) • Users are sent to a single point of authentication; third party services are integrated for a seamless experience • Users are able to view payment history, statuses, etc. • Website translate options for multi-language demographics
Support Channels	2/5 *Users are provided with call-in, email or in-person channels but services are not positioned as digital-first*	• 24-hour emergency hotlines and services via chat (digital-first support) • FAQs & how-to demonstrative features per service

R-P STRATEGY REVIEW

Portal governance

OPTION 1

Business department-led model
(the "program office")

+

OPTION 2

Product-led model
(the traditional cross-functional Agile team)

=

OPTION 3

Recommended Model

Hub & spoke model

(integrated portal management within ADSD)

Strategy & vision:

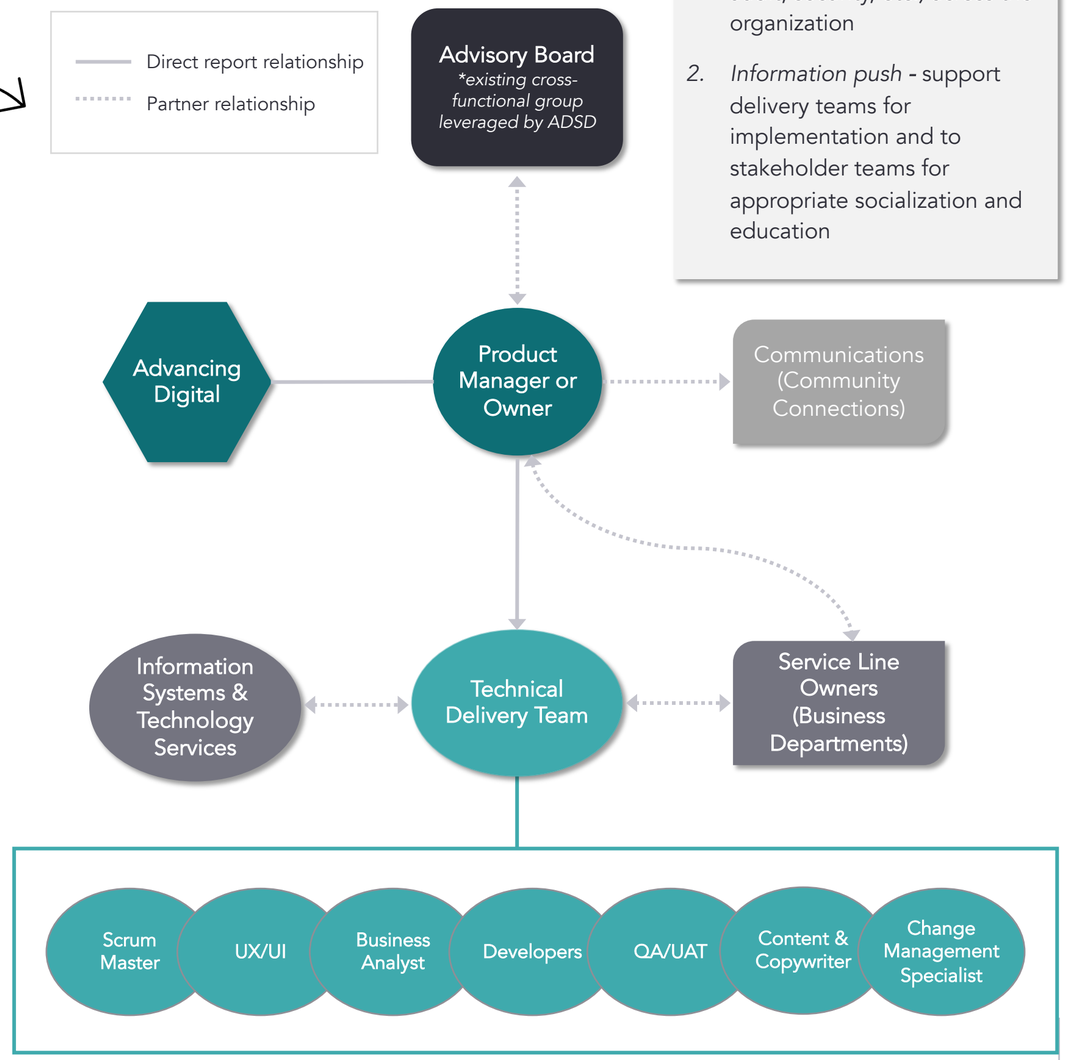
- Recommendations and decision-making for vision, mission, roadmap, prioritization and user experience is owned by *a single cross-skilled product manager/owner within ADSD organization*
- This function sits at the center of governance model – oversees all elements of strategic direction of the resident portal with support and assistance of partners/stakeholders across other functions

Advisory board/steerco:

- Cross-functional, multi-sponsor advisory board with representation from communications, technology, and corporate is *responsible for aligning on matrixed decisions about the mandates of the resident portal* brought forward by the product manager/owner
- Direct line of communication and access between this advisory board and the product manager/owner, vice versa

Technical execution:

- *Cross-functional, technical delivery team (Agile) led and informed by product manager/owner*
- Direct line of communication and access between delivery team and service line owners for immediate feedback and input throughout solutioning



This **product manager/owner** sits at the center of the governance model and operates in two fashions:

1. *Information pull* – from partners and stakeholders (service line owners, finance, audit, security, etc.) across the organization
2. *Information push* - support delivery teams for implementation and to stakeholder teams for appropriate socialization and education

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THANKS.

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