

CREATECH

Township Of King



Process Analysis & Design Phase

Develop a High-level Roadmap to Improve
Municipal Service Delivery and Efficiency

Recommendations Report

February 2021



CREATECH

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Project Context

Township Of King



Township Of King Context

As part of an Ontario government program “**New Municipal Modernization Funding Program**” Township of King initiated a review of their key business processes and technologies.

Following the *Business Discovery Phase* completed in July 2020, Township of King as selected the following processes to scope of the *Process Analysis and Design Phase*:

- Procure to Pay (P2P)
- Manage Revenues and Cost Recovery

Township Of King Context

Township Of King is currently using Microsoft Dynamics GP 2016.

- Microsoft Dynamics GP 2016 R2 Mainstream Support will end on July 13, 2021
 - Payroll and year-end updates will no longer be available from Microsoft
 - Requests to change product design and features will no longer be accepted by Microsoft
- Microsoft Dynamics GP 2016 will then move into Extended Support until July 14, 2026
 - Security updates will remain available from Microsoft

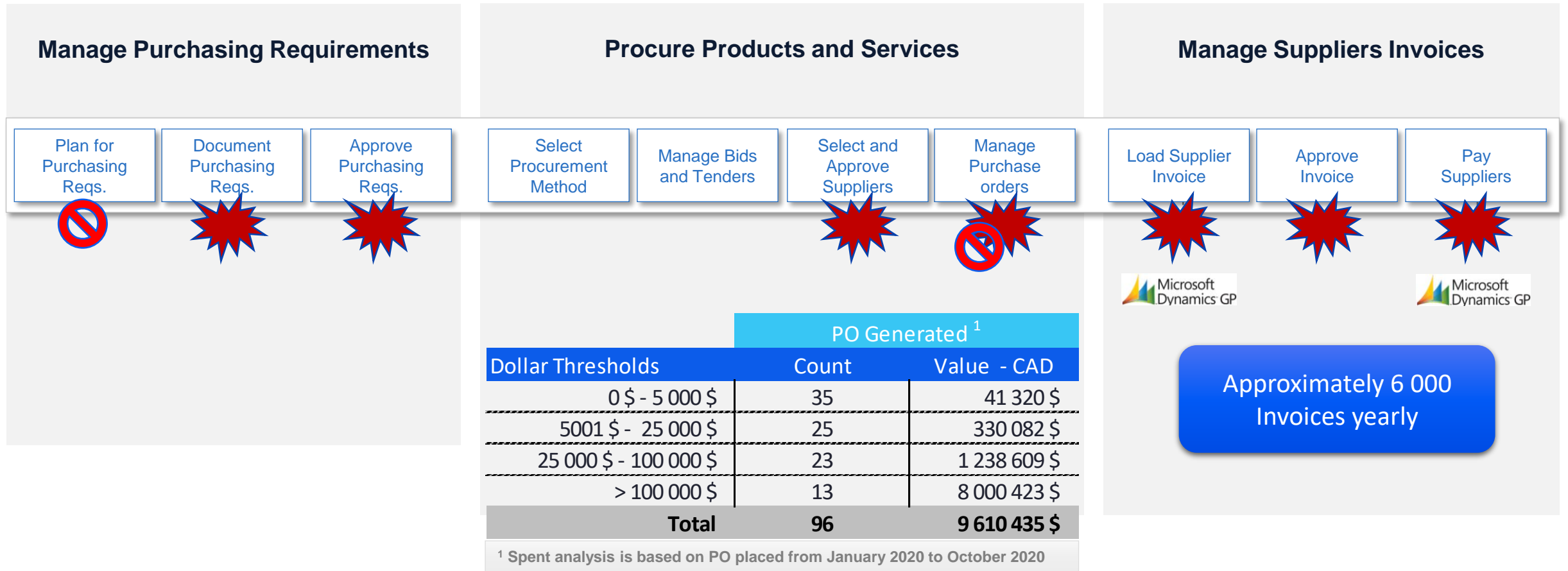
Current Processes Analysis

Township Of King



Procure to Pay

Current process analysis



Approximately 6 000 Invoices yearly



Process inefficiencies



Sub process missing

Procure to Pay

Current process analysis

Manage Purch. Requirements

SITUATION

- Purchasing requisitions are decentralized to requesters departments
- Phone or e-mails communication and transmission to Procurement services
- No or little visibility for Procurement Services on expected requirements from departments

IMPACT

- Non-valued added time to convert purchasing requirements into purchase orders
 - Time spent to manually copy information from received e-mails
 - Back and forth with requesters to complete the missing information
- Very difficulty for Procurement to work proactively
 - Volume contract negotiation
 - Purchase order consolidation

OPPORTUNITIES

- Standardize and automate purchasing requisitions management process
- Introduce formal requirements planning activities to allow purchasing consolidation

Purchase Products and Services

- P.O. & Contracts are generated manually from Excel / Word.
- Contracts could already be awarded once the requisition is communicated to Procurement
- New vendors are created in the ERP after the contracts is awarded (for payment purposes)
- Vendor performance is not currently evaluated
- No visibility on P. Cards purchasing

- Risk of awarding business to underperforming or inappropriate vendors
- Committed spend from purchasing is not visible to Finance within ERP
- Purchasing data analysis is cumbersome and time consuming
- Lost opportunity to drive supplier performance improvements.

- Configure and use ERP to generate Purchase orders
- Review process flow to approve and create vendors prior purchase orders generation
- Introduce supplier evaluation process

Manage Suppliers Invoices

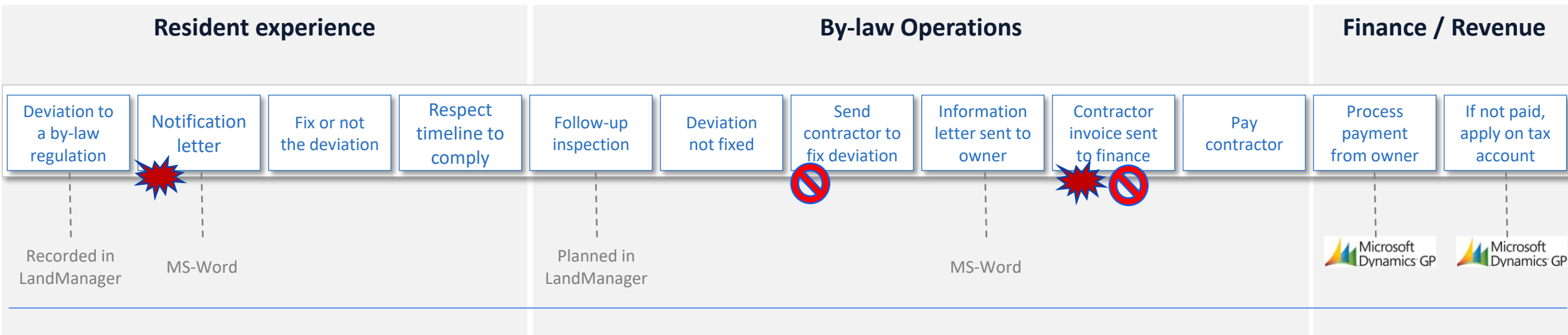
- The invoice entry process in ERP is manual
- Majority of suppliers are paid by check
- Double entry required for EFT
- Invoices are received in Finance and sent back to requesters for approbation (signature)

- The manual invoices entry represents high risk of errors and is labour intensive
- The invoices signature requirement (approbation) is adding delay to the process
- The 3-way match is incomplete. The PO validation is missing
- Checks payments are not cost effective and are adding delays

- Automate the 3-way match with PO generated in the ERP
- Implement an OCR solution to automate invoice data entry
- Integrate the ERP and the EFT platform

By-law Cost Recovery

Current process analysis



Situation

- Manual follow-up of deficiencies
- Multi-system updates
- Limited visibility on spending and revenue
- Mainly manual process
- Manual/email communication between By-law and Finance (AR)
- Decentralize process flow (by-law, finance)

Impact

- Multiple entries in multiple systems
- Need access to multiple system to get all information
- Inadequate financial reporting (incorrect financial picture)
- Time consuming
- No formal hand-off process

Opportunities

- Automate flow
- Centralize information in one system
- Better follow-up, use sales order and PO tracking
- Use CRM to document recovery case



Process inefficiencies



Sub process missing

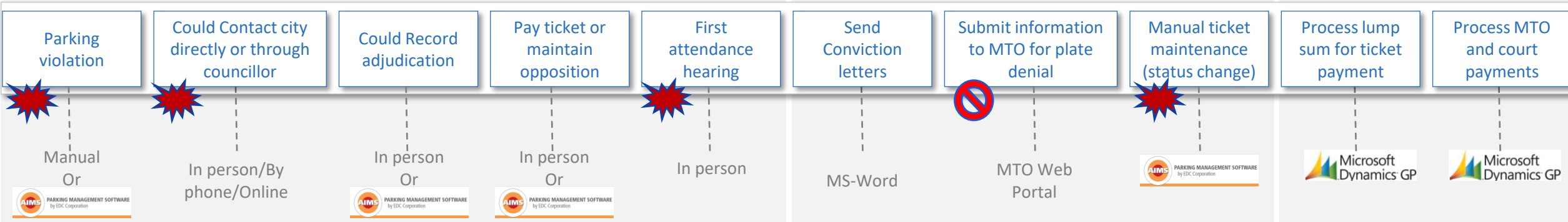
By-law Parking Revenues

Current process analysis

Resident experience

By-law Operations

Finance / Revenue



Situation

- Not all officers can write electronic tickets
- Multiple payment entry point
- No escalation process in place for unpaid ticket
- Limited staff resources to follow up on ticket
- Limited usage/knowledge of AIM Parking capabilities
- Finance has no visibility on outstanding unpaid ticket
- In-person Adjudication process is time consuming
- Reduced regular cash-flow due to MTO quarterly payment
- Ticket complaint through city councillor
- Request for trial must be done in person

Impact

- Double entry (manual plus in system)
- Tracking of revenue not done
- Longer revenue recovery through MTO
- Underutilized system capacity (reports)
- Inadequate financial reporting (incorrect financial picture)
- Increase of deferred revenue
- Time consuming for ServiceKING employees
- ServiceKING employee's time not optimized

Opportunities

- Provide electronic devices to all parking agents
- Review and limit parking payment entry points
- Do first/second attempt to recover payment of ticket
- Use system capability to put in place/follow up Parking metrics/KPI/forecasting
- Limit adjudication to online process
- Regulate cash flow input from ticket payments
- City councillor to request adjudication number when receiving complaint from a resident.
- Allow trial request directly in AIM portal (upload signed ticket in AIM) or by mail back ticket.
- Automate first offense adjudication resolution



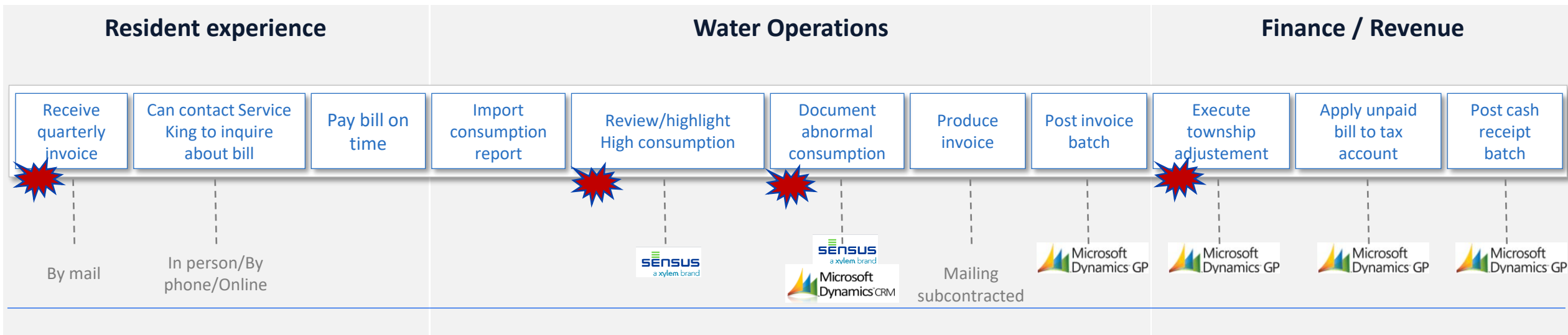
Process inefficiencies



Sub process missing

Water Revenues

Current process analysis



Situation

- Quarterly process
- A lot of archiving (multiple reports saved in multiple format)
- A lot of manual verification routine
- Document every account that has abnormal consumption
- Service King personnel not trained on Sensus
- Resident call to inquire about water bill
- Multiple reports need to be extracted/downloaded to do the water billing. Verification of rates/due date done in GP.

Impact

- Manual verification of 400 accounts is time consuming and inefficient
- Documentation of abnormal consumption in CRM in case citizen calls to inquire
- Service King personnel answer based on what's in CRM
- Depending on size of report (seasonal) not always revised, could lead to missing some leaks
- Risk of error, lot of verification/validation done before posting in GP

Opportunities

- Verification and parameters of billing cycle could be done directly in Sensus before exporting data to GP (as one file)
- Rationalize / eliminate need to archive (Information available in Sensus for consultation and extraction if required)
- Automate the revision to identify what need to be verified
- Document only when needed / give access and train Service King personnel on Sensus so they can answer basic question.
- Open CRM case to document properly
- Offer the acces to Sensus customer portal
- Suscribe to leak management report on Sensus



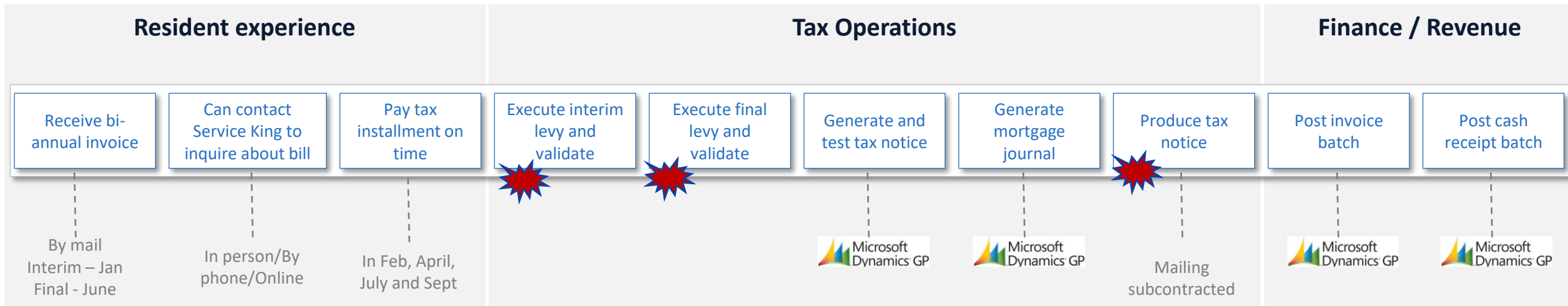
Process inefficiencies



Sub process missing

Tax Revenues

Current process analysis



Situation

- 2 taxation invoice cycle (interim and final)
- Current process workbook includes redundant testing and validation of raw data and imported data .
- More than 10000 invoices to print, fold, insert, stamp and mail twice a year
- Since the arrival of Dan Elliot, a process review has been started to streamline from Alice workbook

Impact

- Each tax cycle process can take up to 15 days
- Multiple and redundant testing and validation steps are time consuming
- 2 taxation cycle results in double work
- About 3 days of work for mailing

Opportunities

- Calculate interim Levy while producing June tax invoice.
- Propose 4 installments
 - 2 based on current year tax rate July and Sept current year
 - 2 based on 50 % of current year Feb and April following year
- Automate required testing and trust the system
- Outsource mailing (or invest in proper equipment)
- Produce electronic tax invoice and enroll citizen in electronic invoicing



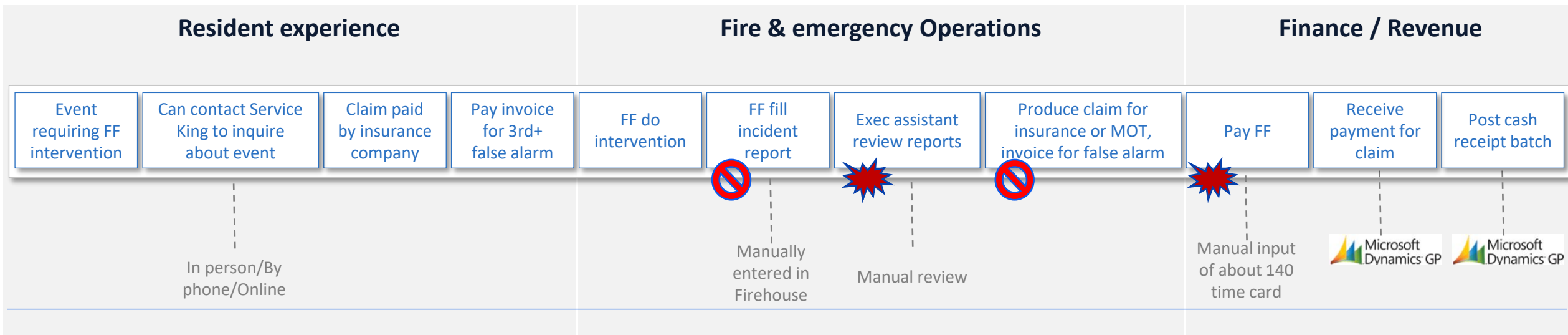
Process inefficiencies



Sub process missing

Fire & Emergency Cost Recovery

Current process analysis



Situation

- Firefighters produce manual reports for incident
- Reports manually reviewed and sorted by executive assistant to Fire chief
- Manual input (140 FF) of payroll information into GP by payroll clerk
- Firehouse is not up to date
- Invoicing 2 other municipalities quarterly
- Manual process to recover and track outstanding amounts in Excel
- Some F&E services are invoiceable directly to business and resident

Impact

- Delays in production and inaccuracy in incident report
- Manual entry of incidents in Firehouse (clerical, no added value, risk of error)
- Not leveraging all available functionalities
- Replacement cost, new system to learn and deploy
- Inadequate financial reporting (incorrect financial picture)
- Delay in possible cost recovery, inaccurate report could be difficult to correct (or confirm)
- Inadequate financial reporting (incorrect financial picture)
- Manual process, not integrated with GP

Opportunities

- Deploy electronic incident report form to improve accuracy of report to minimize cost recovery delay
- Follow through each incident report quicker. Automate part of validation (only revise non-compliant report)
- Automate transfer of payroll info from Firehouse to GP payroll, minimize data entry error
- Benchmark functionality of current FH vs potential replacement software (ICO tech)
- Provide Monthly reports of invoiceable incidents to finance (record accrual monthly)
- Use Sales orders to reflect outstanding claims (cost to recover)
- Create sales order to record demand and properly invoice through GP when services is rendered, or product is delivered



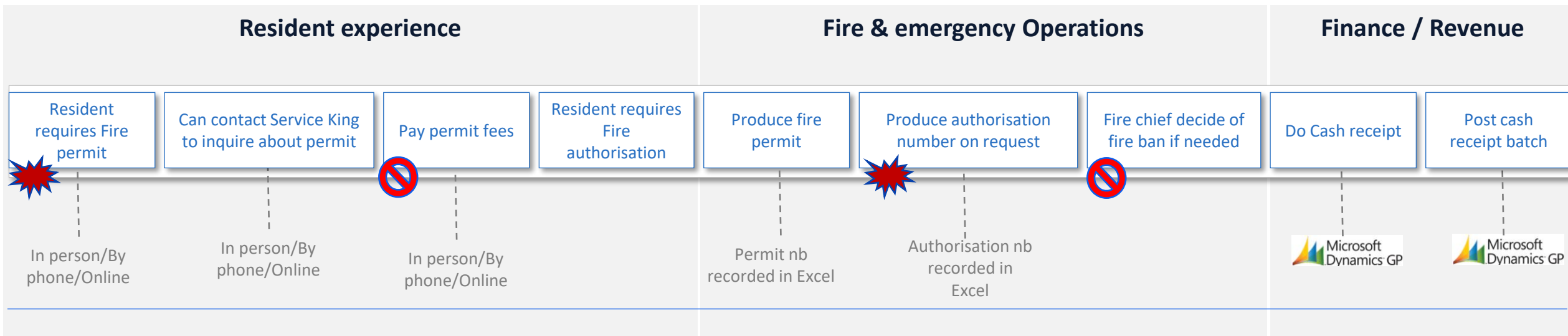
Process inefficiencies



Sub process missing

Fire & Emergency Permit Revenues

Current process analysis



Situation

- In person time consuming process
- Authorization to burn provided over the phone
- Reenforcing fire ban situation

Impact

- Manual / simple / in-person
- Time consuming, fire burn right is almost never refused
- Multiple phone calls to answer, not an added value since just communicating if a fire ban is in effect numerous time

Opportunities

- Promote a full online request process
- Automate burn confirmation authorisation (online form)
- Publish fire ban situation on web site and by email



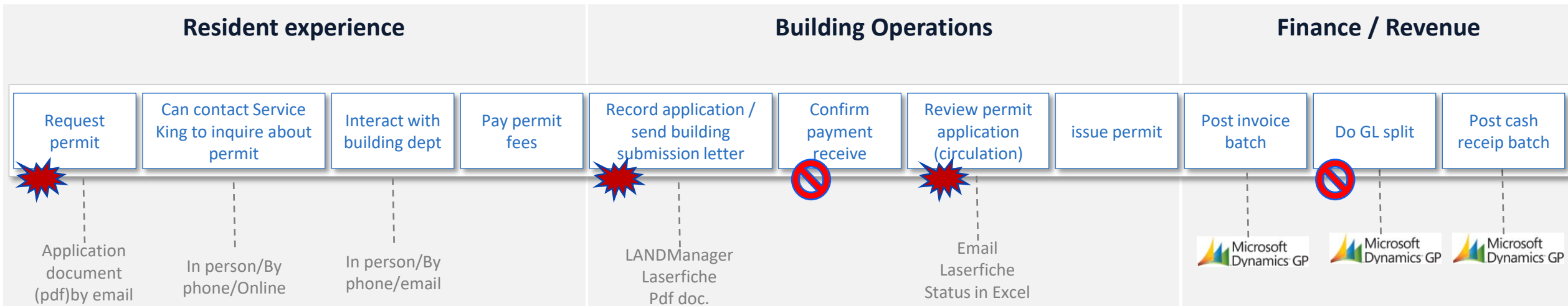
Process inefficiencies



Sub process missing

Building Permit Revenues

Current process analysis



Situation

- Permit request not fully done online
- Permit status followed up in an excel worksheet
- Circulation of application by email with link to document on LaserFish
- LANDmanager used for planning
- LANDManager is outdated

Impact

- Use of a fillable pdf sent by email
- No visibility for permit applicant (must call to do follow-up)
- Performance issues, limited functionality, support not readily available

Opportunities

- Use an online forms
- Define proper workflow
- Deploy e-permitting platform to centralize communication with applicant
- Benchmark functionality of current LandManager vs potential replacement software (Cityview)



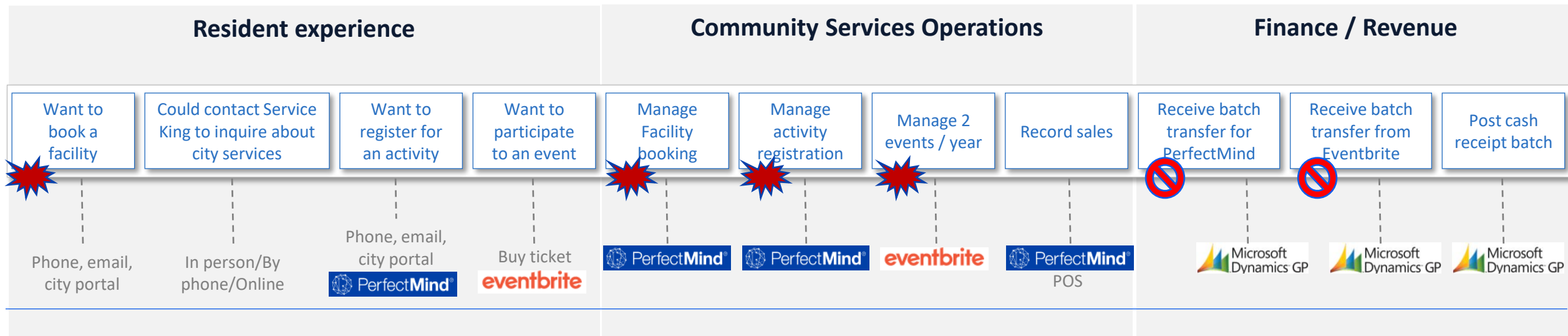
Process inefficiencies



Sub process missing

Community Services Revenues

Current process analysis



Situation
<ul style="list-style-type: none"> • PerfectMind not integrated with GP • Information transferred monthly from PM to GP • A lot of transaction are not properly confirmed or are duplicated in PM • Simple vs complex facility booking • Complex facility booking by email • Facility booking can be accessed through king.ca/facilities or through online services which goes to townshipofking.perfectmind.com

Impact
<ul style="list-style-type: none"> • Manual process, require validation of data • Inadequate financial reporting (incorrect financial picture) • Time consuming, reporting, data fix by PM • 85 % of coordinator times used for complex booking (phone / emails) • Request must be sent by email, no instruction on web site... • Email will not arrive with all the information through PerfectMind

Opportunities
<ul style="list-style-type: none"> • Integration of financial part from PM to GP is possible (Accounting module) • Integrate financial part from PM to GP • Fully automate simple booking • Put in place a form that capture the requested info needed to book the facility • Put proper forms and workflow to manage complex booking. Get all the info before revising the booking by the coordinator. • Do all the bookings online (Simple and complex)



Process inefficiencies



Sub process missing

Community Services Revenues

Current process analysis - Eventbrite specificities



Situation

- EventBrite is only used for 2 annual events (PerfectMind has no ticketing module currently)
- Inadequate Ticket control at the door
- Manual, cash only, selling of ticket at the door
- No integration with GP

Impact

- Managing another system for 2 events per year
- Manual ticketing control
- Higher risks and no visibility on cash revenue form ticket sale
- Inadequate financial reporting (incorrect financial picture)

Opportunities

- PerfectMind is advertising that the platform can be used to sell ticket,
- Investigate Ticket sales possibilities on PerfectMind
- Use of QR reader to record ticket at the door
- Use of POS at the door on the day of events (sell ticket then control ticket at the door)
- Automate batch transfer from EB to GP

 **Process inefficiencies**
 **Sub process missing**

Technology key findings

Payments

Situation

- Numerous processes in place depending on department
- Multiple online payment platforms based on services used or requested

Impact

- Lack of visibility for Finance, lot of verification/validation required to properly apply received money to proper GL
- Lack of integration, lot manual input in Great Plains

Opportunities

- Streamline and harmonize the payments processes through the different city department
- Use only 1 online payment platform (Paymentus)

IT Architecture and City Website

Situation

- City departments uses different systems that are not integrated.
- Multiple platforms to offer/manage all the city services
- Multiple entry point from web site to King online services

Impact

- No integration, communication problem, difficult to have the full picture of a resident profile in one place
- Duplicated information, need for resident to register on different platforms to access services
- Multiple entry points from web site lead to different results

Opportunities

- Select and integrate all services with one provider
- Explore solution such as :
<https://www.pg solutions.com/fr/>
<https://www.municipalsoftware.com/en/solutions/>
- LANDManager and AIM Parking replacement would help with By-law/Code enforcement and planning,

Future State Recommendations

Township Of King



Recommendations Guiding Principles

1

- **Accessibility to Information**

- Integrated visibility
- Traceability of information
- Information flow optimization

2

- **Operational Efficiency (↘ costs)**

- Increased productivity
- Substantial increase in efficiency
- Reduction of manual operations

3

- **Business Processes Integration**

- Inspired by best practices
- Aligned with current / future IT applications
- Integrity of information

4

- **Customer / Resident Services**

- Quality of services and programs
- Aim for a single point of service and payments
- Modern Customer Web Portal

Procure to Pay Initiatives

Improve Purchasing Requirements visibility and control

- Standardize Purchasing Requirements documentation
 - Configure and use P. Reqs functionalities within ERP (preferred option)
 - Use electronic form with workflows (second option)

Improve Purchasing Process flow and control

- Use ERP to generate Purchase Orders
 - For all non P. Card purchases over 5 000\$
 - Suppliers approbation and creation prior PO generation
 - Goods receipts registered in the ERP by the recipients

Improve Invoicing management process

- Use an OCR application to load supplier invoices in the ERP
- Automate 3-way match (PO / Receipt / Invoice)
- Integrate the EFT batch file to the bank platform

Revenues and Cost Recovery Initiatives

Optimize current processes and eliminate non value added steps

- Review and look for validation and testing steps that are not required in the Tax and Water invoicing process
- Document abnormal water consumptions for residents that have been contacted by phone or by mail for issues with water consumption
- Automate partially incident reports validation
 - Only revise non-compliant report

Transition to electronic forms

- Deploy electronic incident report form for the first responders
- Create an electronic form for all facility booking (Including complex booking)
- Use electronic forms for building permit request

Increase the use of mobile devices

- Provide electronic devices to all parking agents
- Use QR reader to register events ticket at the door for Township paying events
- Use a POS at the door on the day of events (sell ticket then control ticket at the door)

Revenues and Cost Recovery Initiatives

Enforce the use of online platforms for community services

- Deploy e-permitting platform (centralize communication with applicant)
- Look for options for online platforms for fire permits (ie. E-Solutions) with automated burn confirmation authorization capabilities
- Automate burn confirmation authorization
- Add more Web communications on fire bans
- Limit parking adjudication to online process
- Produce electronic tax invoice and enroll citizen in electronic invoicing

Optimize the use of current applications

- Use ERP functionalities such as sales orders to track and reflect outstanding amounts to be invoiced
- Use the CRM to document open cases with residents (By-law and water complaints)
- Use Aim's system capability to introduce reports, metrics KPI and forecasting

Revenues and Cost Recovery Initiatives

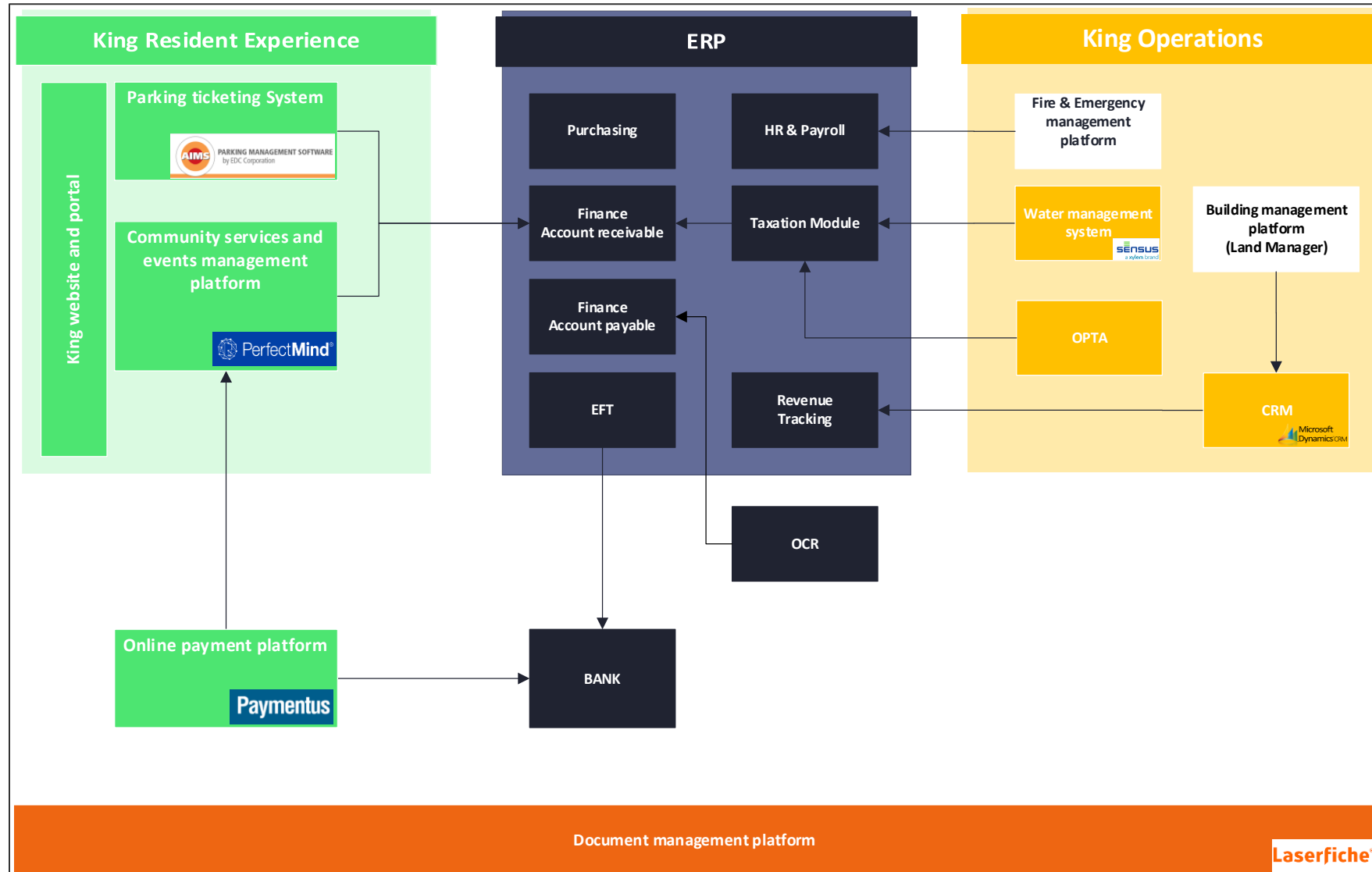
Integrate data flow between current applications

- Automate batch transfer from Eventbrite to ERP
- Improve payroll data transfer flow from Firehouse to ERP payroll module
- Automate validation / categorization of incident reports
- Integrate financial information from PerfectMind with ERP

Explore different applications to replace current outdated IT applications

- Explore different applications to replace FireHouse functionalities, including time and attendance management
- Explore different applications to replace and improve LandManager functionalities
- Evaluate the possibility of using PerfectMind for event ticket sales
- Explore different options to replace Microsoft Dynamics GP and Diamond

Future State Supporting IT Architecture

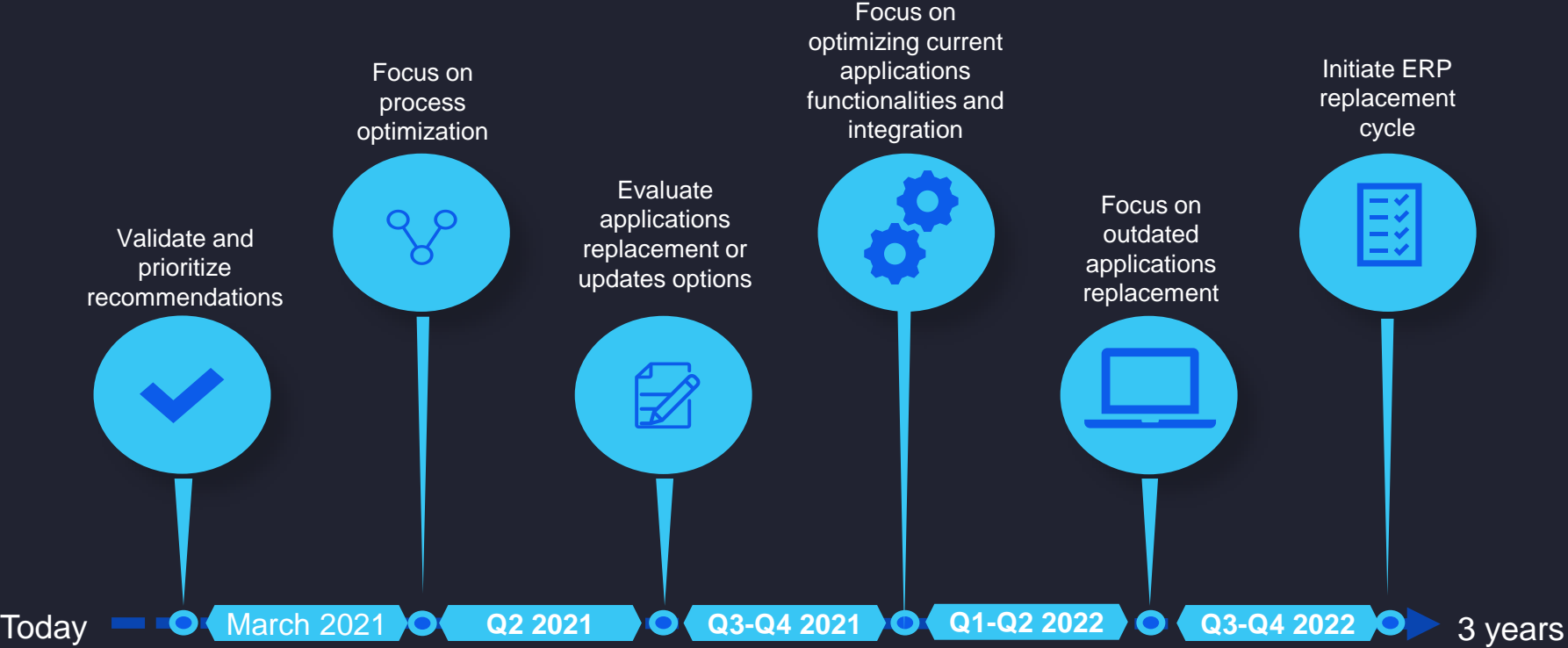


Implementation Road Map

Township Of King



High Level View



Pending review of staffing resources, budgets and timelines with King Senior Leadership Team and the Extended Leadership Team

Proposed Roadmap

Departmental View



Modernization Streams

- Improve Processes Flow
- Enhance Technology usage
- Enhance Technology integration
- Replace or Upgrade Technology

	2021			2022				2023			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Tax & Water	Invoicing Process		Water Consumption Documentation	Electronic Tax Invoices							
Fire and Emergency Services	Fire ban Website Publication			Incident Reports E-Form			Incident Reports Validation process			Online Fire Permits	
	Replace FireHouse			Payroll information integration to ERP		Burn Confirmation automation		Incident Reports Validation			

Proposed Roadmap

Departmental View



Modernization Streams

- Improve Processes Flow
- Enhance Technology usage
- Enhance Technology integration
- Replace or Upgrade Technology

	2021			2022				2023				
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
By-law		<div data-bbox="484 671 1223 913" style="border: 2px dashed red; padding: 5px;"> <div data-bbox="496 742 700 878" style="border: 1px solid green; border-radius: 10px; padding: 5px; margin-bottom: 5px;">Introduce KPI, forecasting & reporting with Aim's</div> <div data-bbox="700 685 993 778" style="border: 1px solid green; border-radius: 10px; padding: 5px; margin-bottom: 5px;">Manage open cases with CRM</div> <div data-bbox="700 813 904 892" style="border: 1px solid green; border-radius: 10px; padding: 5px; margin-bottom: 5px;">Online Parking Adjudication</div> <div data-bbox="1070 799 1210 892" style="border: 1px solid green; border-radius: 10px; padding: 5px;">Parking Electronic Devices</div> </div>										
Community	<div data-bbox="305 942 522 1063" style="border: 2px dashed green; border-radius: 10px; padding: 5px; margin-bottom: 5px;">Facility booking E-Form</div> <div data-bbox="305 1063 496 1206" style="border: 2px dashed purple; border-radius: 10px; padding: 5px;">Confirm Transition from EB to PM</div>	<div data-bbox="522 942 828 1063" style="border: 2px dashed blue; border-radius: 10px; padding: 5px; margin-bottom: 5px;">PerfectMind Financial info integration to ERP</div> <div data-bbox="522 1063 828 1206" style="border: 2px dashed blue; border-radius: 10px; padding: 5px;">Automate batch transfer from EB to ERP (as applicable)</div>	<div data-bbox="828 1063 1057 1206" style="border: 2px dashed purple; border-radius: 10px; padding: 5px;">Transition to PerfectMind to sell tickets</div>	<div data-bbox="1057 942 1286 1063" style="border: 2px dashed red; border-radius: 10px; padding: 5px; margin-bottom: 5px;">Mobile POS for ticket sales</div> <div data-bbox="1057 1063 1286 1206" style="border: 2px dashed red; border-radius: 10px; padding: 5px;">Mobile QR readers for tickets control</div>								

Proposed Roadmap

Departmental View



Modernization Streams

- Improve Processes Flow
- Enhance Technology usage
- Enhance Technology integration
- Replace or Upgrade Technology

	2021			2022				2023				
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Building												
Finance												
Procurement Services												



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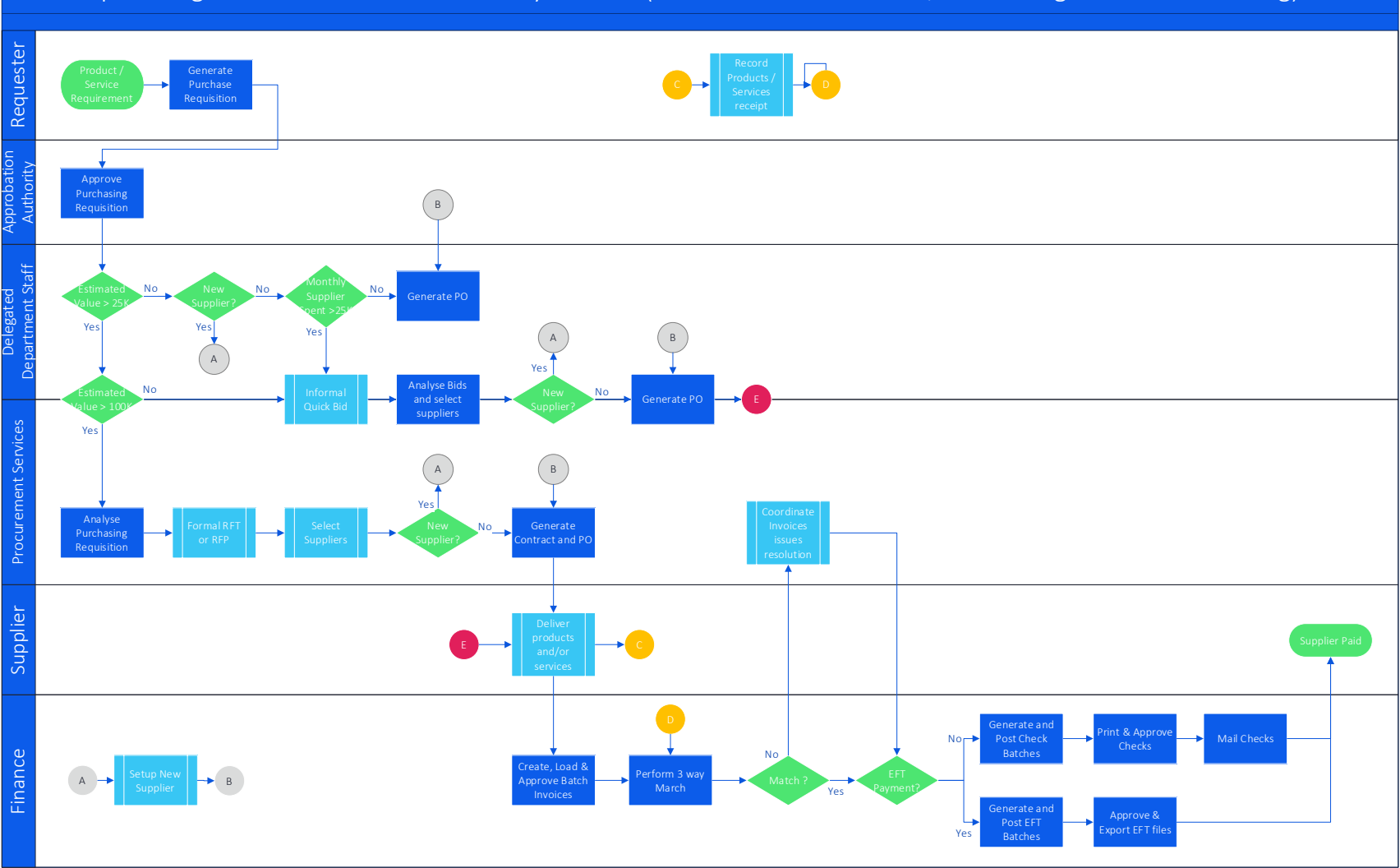
Raise Your
Potential

Appendix

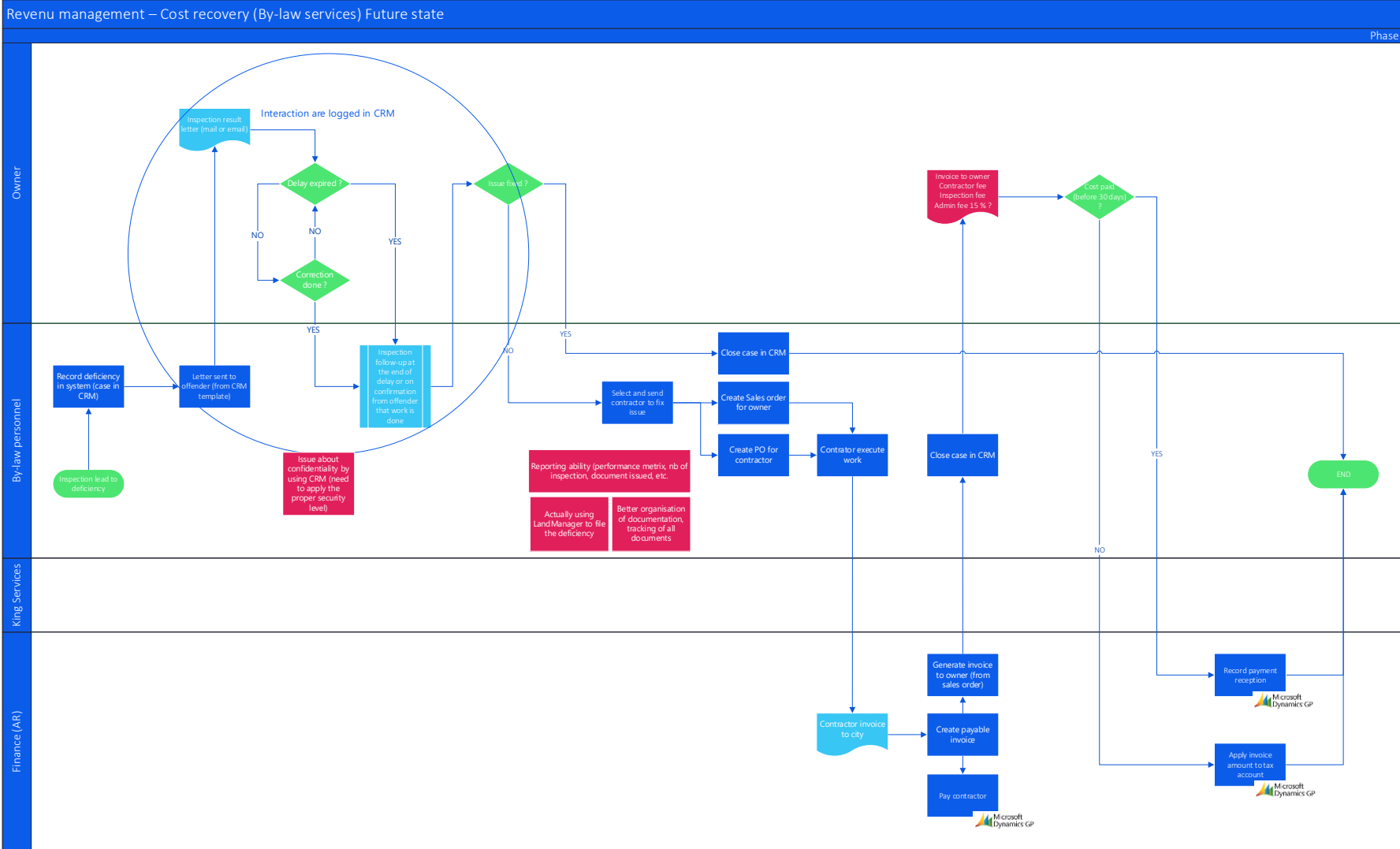
Processes Flow

Procure to pay

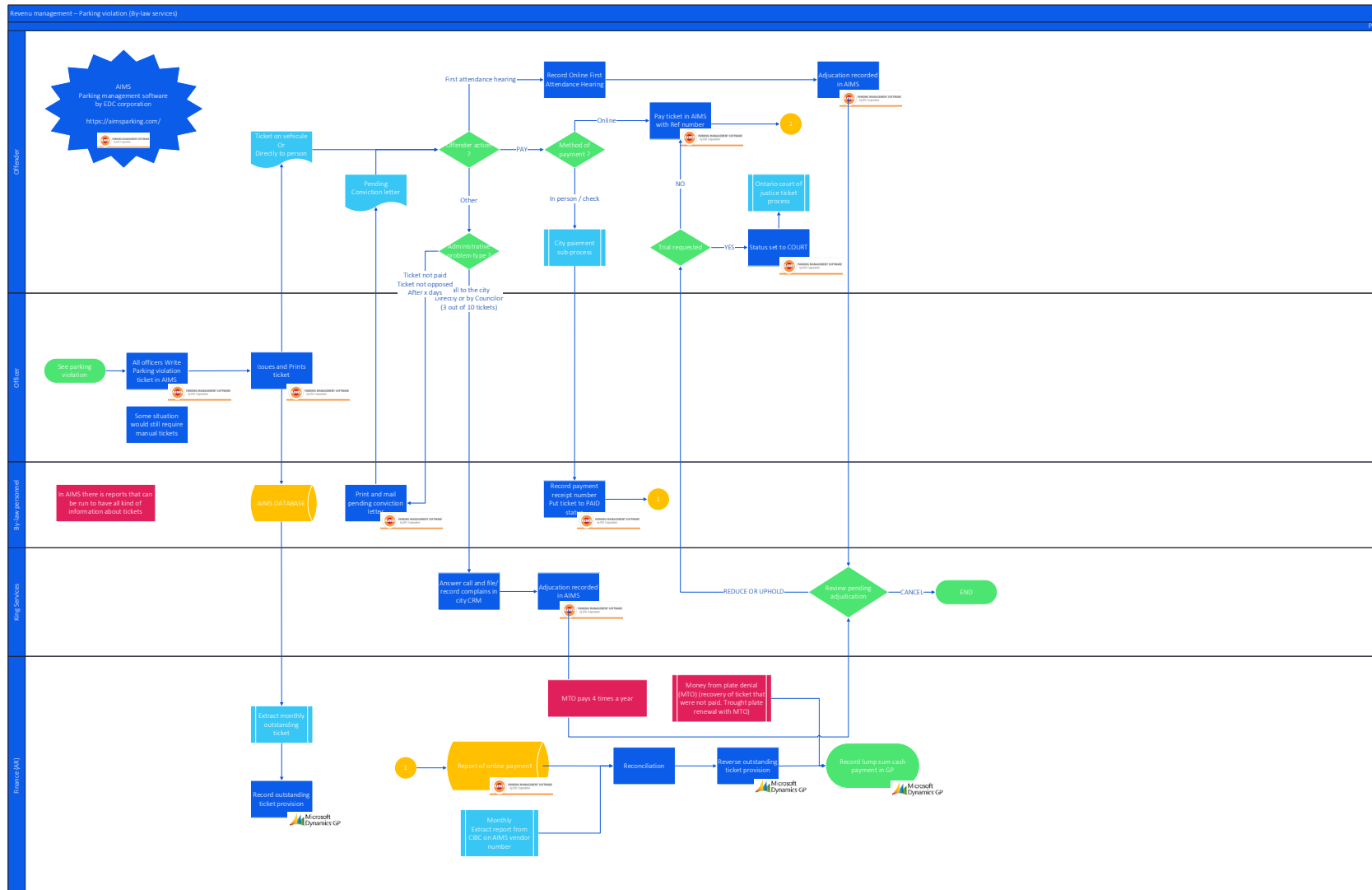
Township Of King – Future State Procure to Pay Process (All Purchases over 5000\$ - Excluding P-Cards Purchasing)



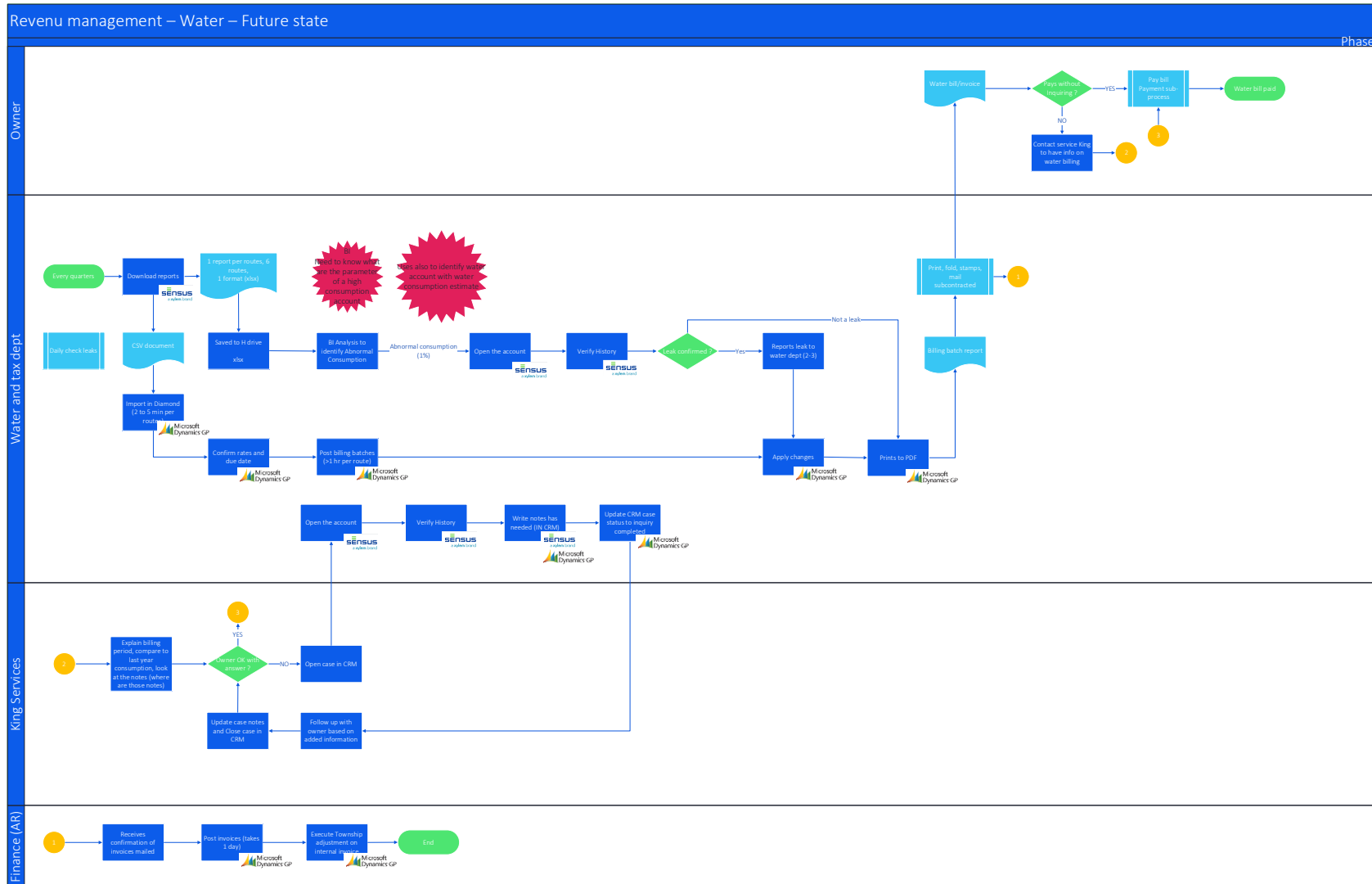
By-law – Cost recovery



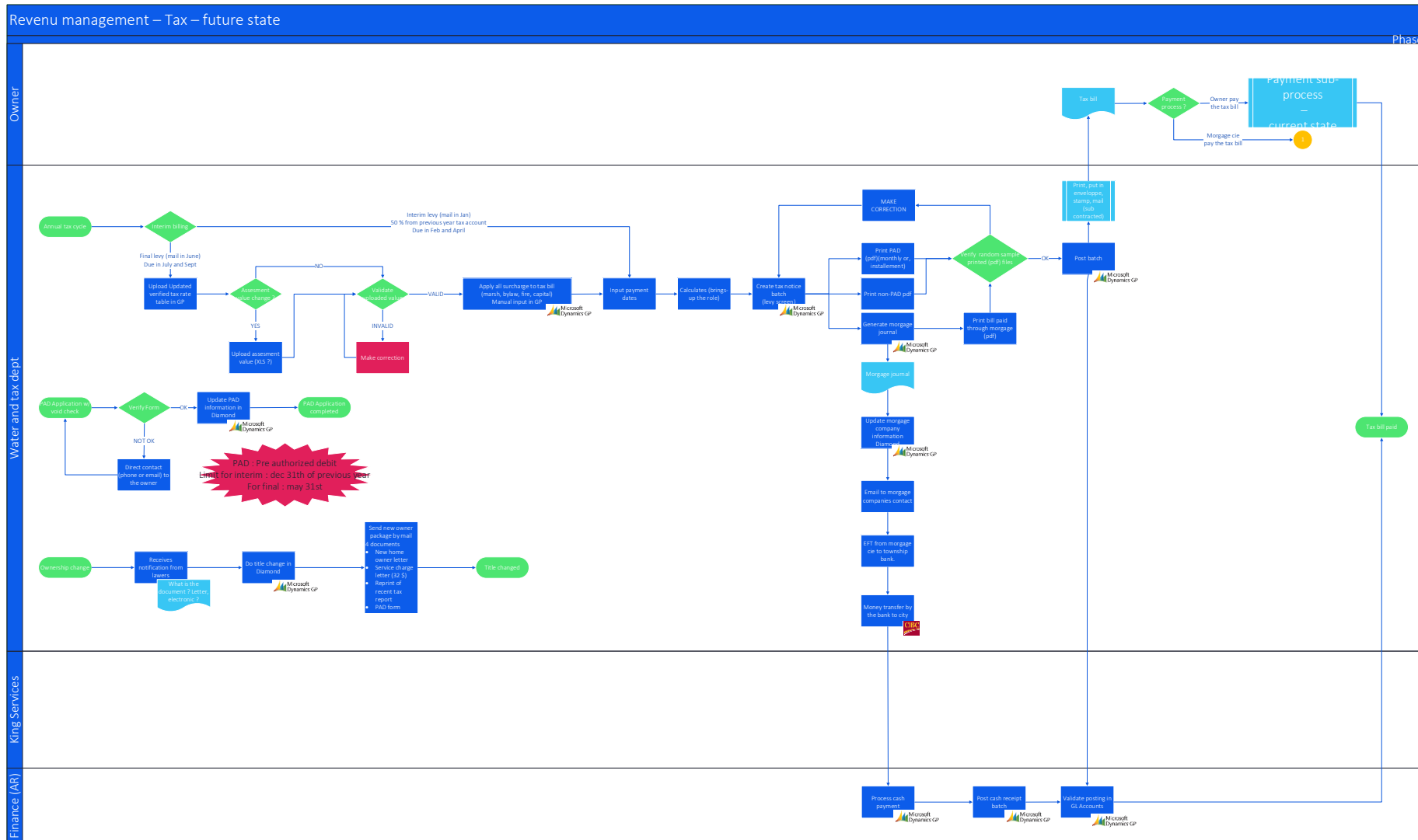
By-law – Parking



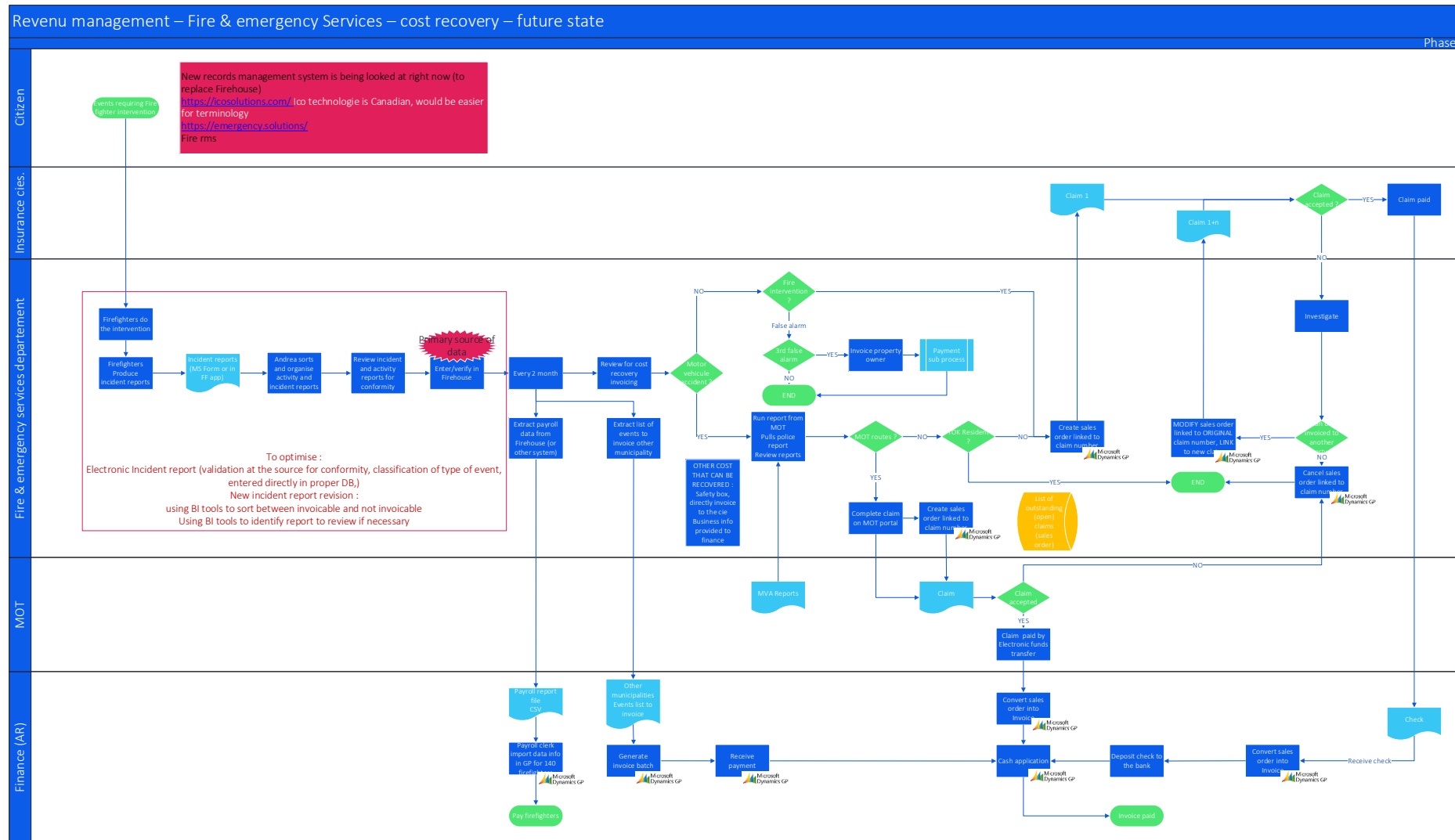
Water



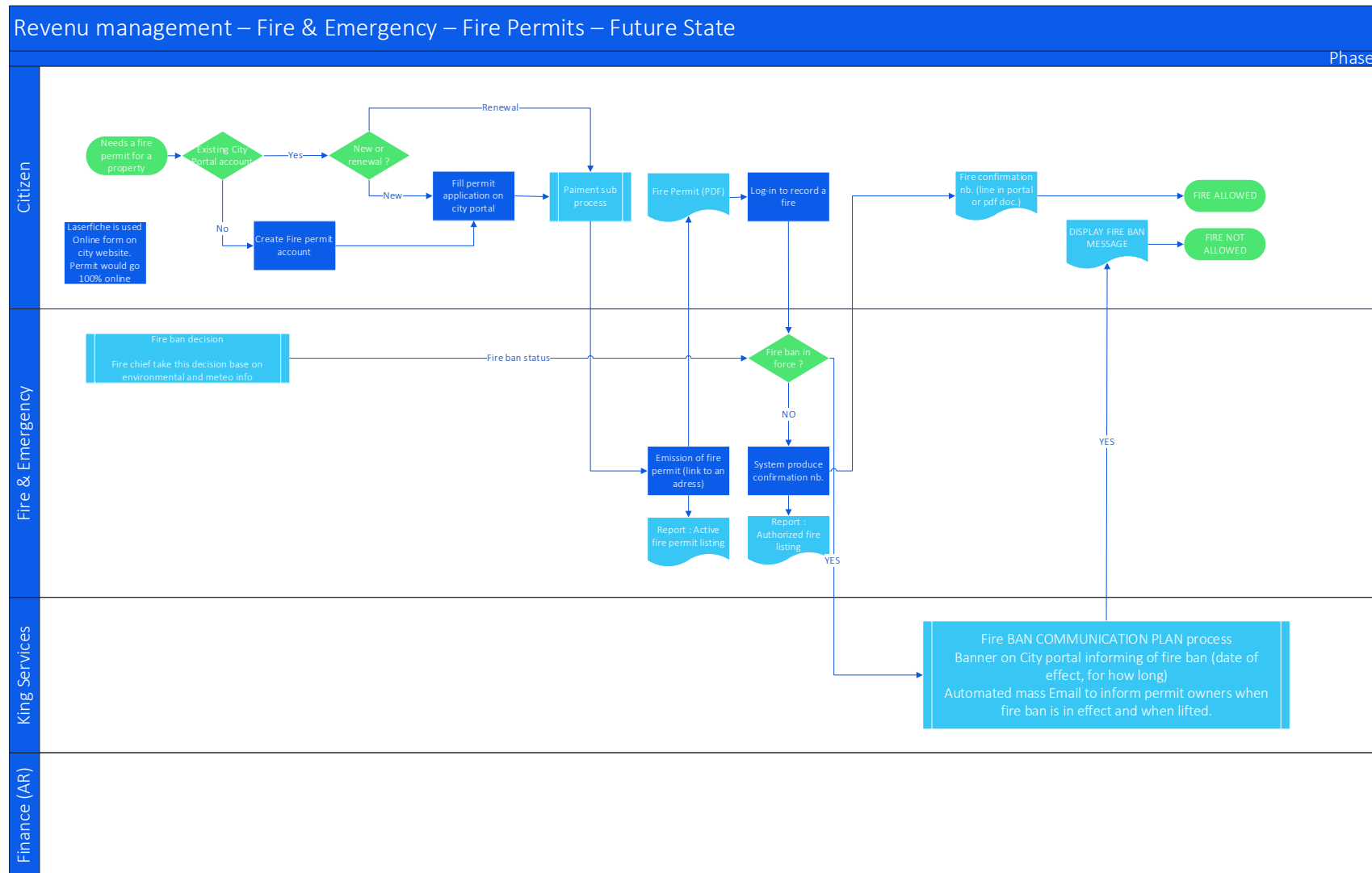
Tax



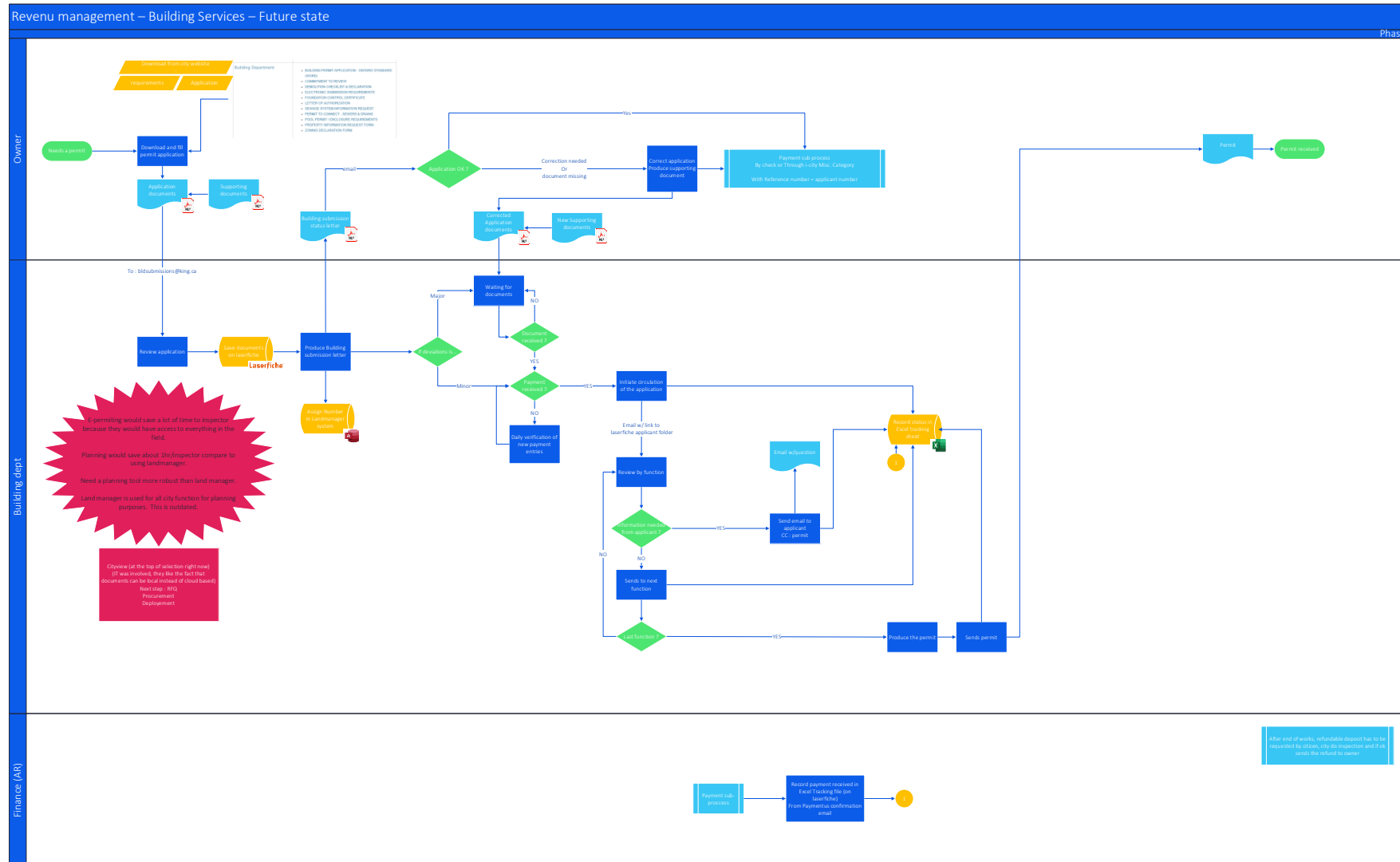
Fire & Emergency services – Cost recovery



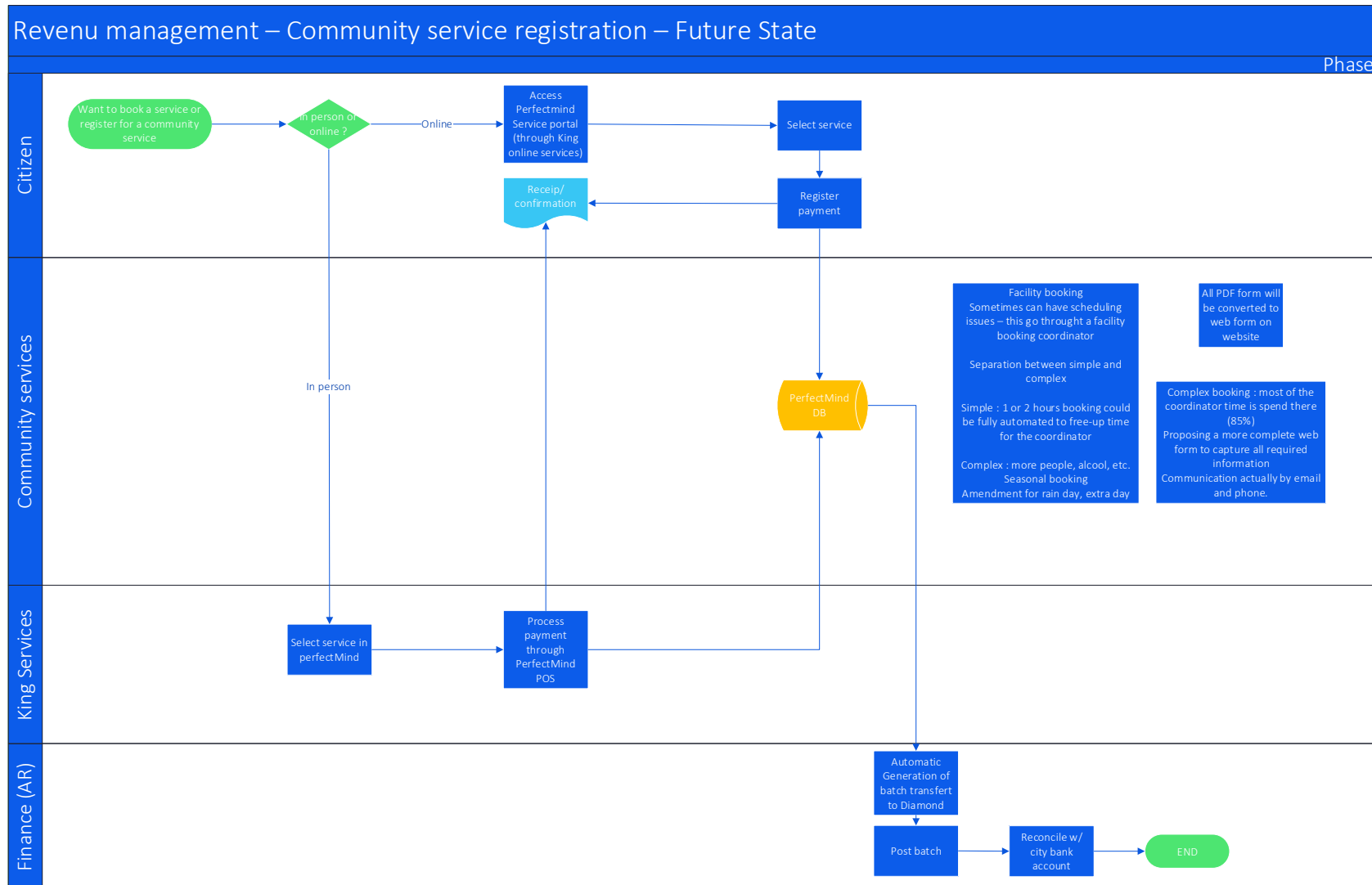
Fire & Emergency services – Fire permit



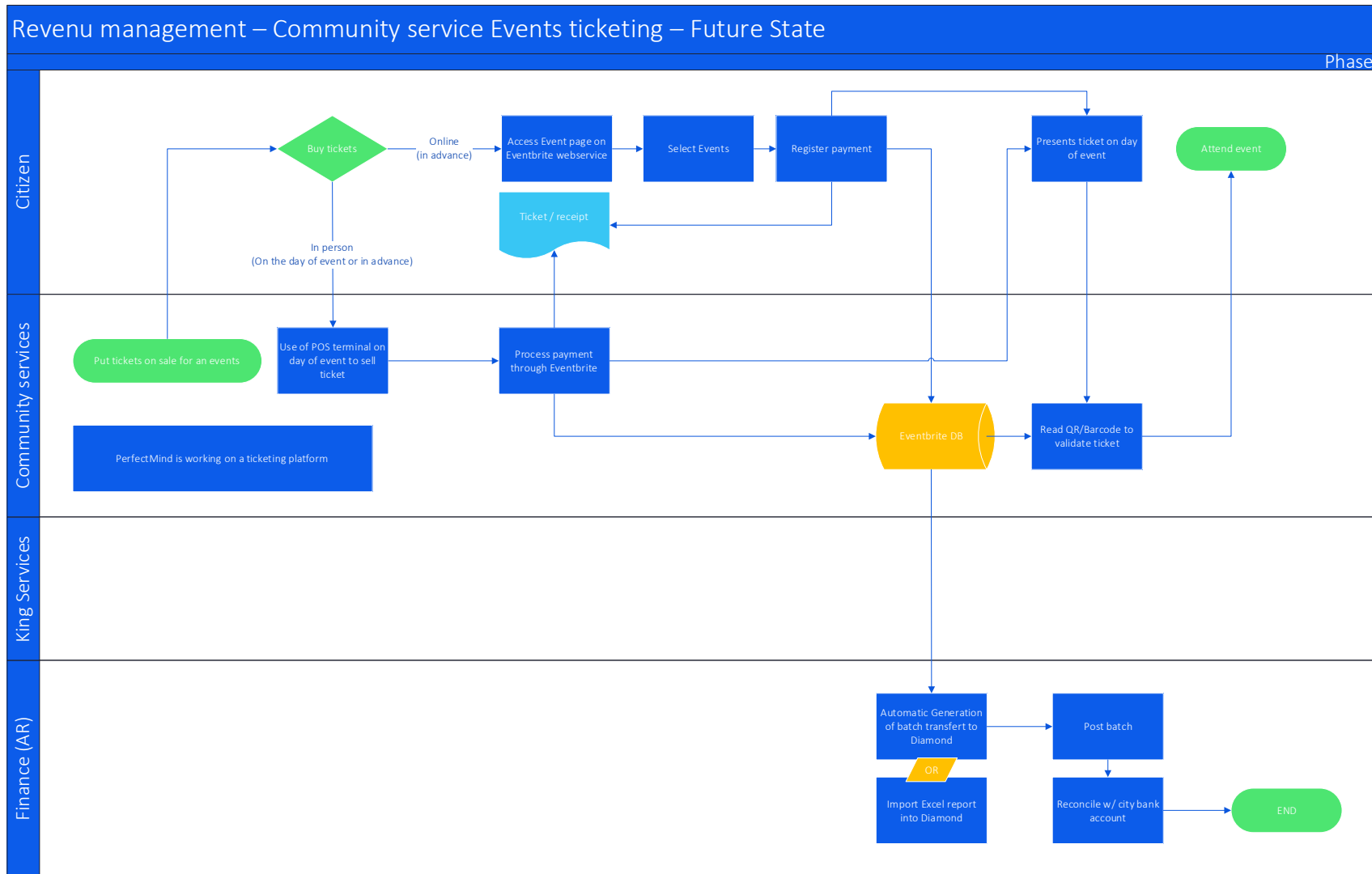
Building services – permit



Community services – Facility/activity registration



Community services – Events ticket sale



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