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SOLVING CHALLENGES IN MANUFACTURING AND DISTRIBUTION USING THE MICROSOFT POWER PLATFORM

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Today’s presenters

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Agenda

- Understanding Power Platform components
- Low-code vs pro-code (fusion development)
- Power Platform licensing
- Real-world solutions

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Today

- Business environment is increasingly volatile, uncertain, complex, and unpredictable.
- Businesses need agile, flexible, and quick solutions to adapt to the changing landscapes and resolve their issues promptly.
- Organizations need to scale their operations while staying lean, ensuring that they continue to lead in their respective industries.
- The need is to enable businesses to quickly pivot and adapt to new market conditions, ensuring sustained growth and competitiveness is essential in today’s economy.

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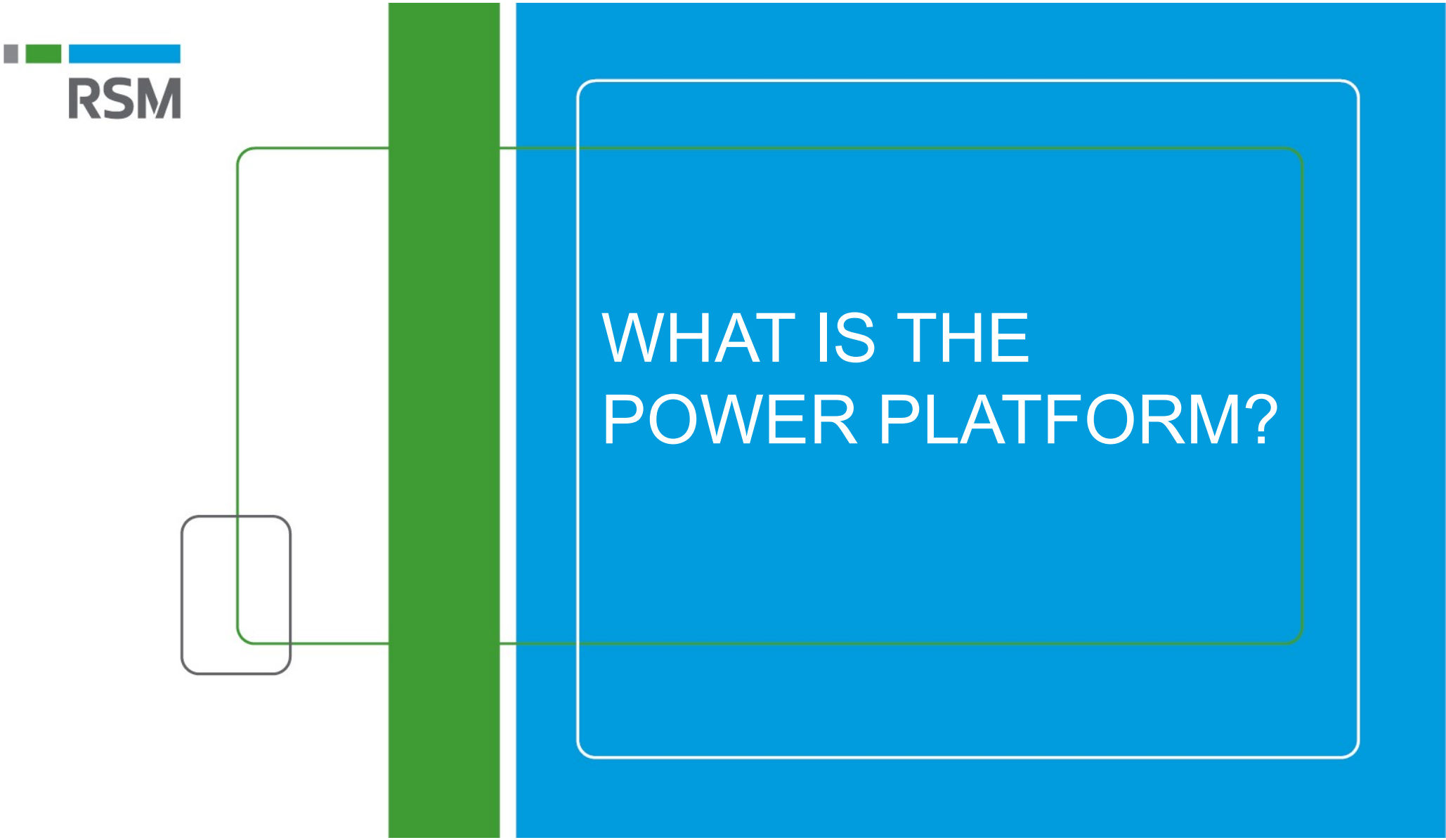
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WHAT IS THE
POWER PLATFORM?

Low-code

Enables organizations to swiftly develop and deploy applications with minimal hand-coding and quick setup and deployment, thereby radically reducing the time and expertise required to release new applications.

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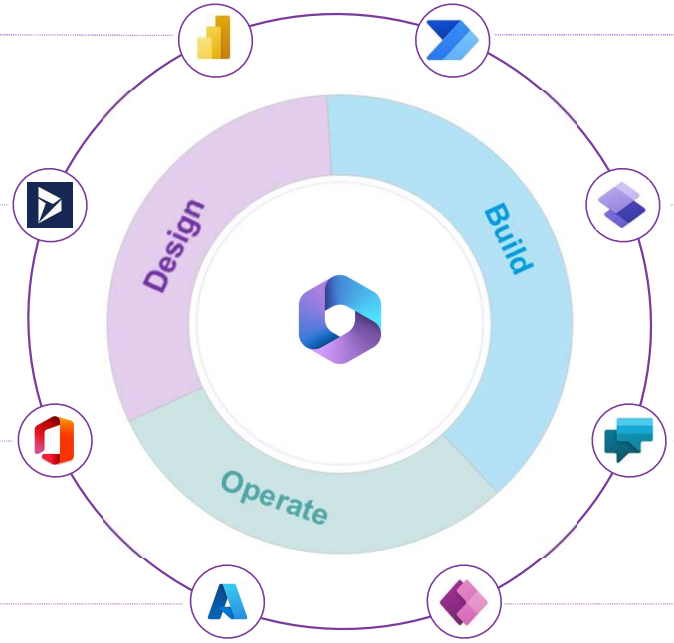
Microsoft Power Platform

Power BI
for data exploration, analytics, and reporting

Dynamics 365
designed to help businesses manage their operations, financials, customer interactions, and sales

Office 365
For enhancing productivity, collaboration, and communication in both individual and business contexts

Azure Cloud
For cloud-based solutions for a variety of computing needs



Power Automate
for process or workflow automation

Power Pages
for building secure, data-centric business websites

Co-Pilot Studio
for chatbots and conversational agents

Power Applications
for web and mobile application development

Data connectors

AI Builder

Microsoft Dataverse

Power Fx

Managed Environments

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Low-code pros & cons

PROS

Rapid development
Low-code platforms allow for quicker application development since they provide pre-built components and visual interfaces, reducing the need for manual coding

Reduced skill barrier
Developers with limited coding experience can still create functional applications, democratizing the development process within organizations

Faster iterations
Changes and updates can be made more rapidly due to the visual nature of low-code development, facilitating agile development practices

Cost-efficient
Low-code development can be more cost-effective, as it requires fewer resources and less time compared to traditional coding

Easier maintenance
Applications built using low-code platforms might have simplified maintenance, as updates and modifications can be made visually

CONS

Limited customization
Low-code platforms may not accommodate highly specialized or complex requirements, limiting customization options.

Scalability concerns
As applications become more complex, low-code platforms might struggle to handle scalability and performance requirements.

Lack of open standards
Users might become reliant on the specific low-code platform and face difficulties migrating to other solutions.

Less control
Developers might have less control over the underlying code, making it harder to implement certain advanced functionalities.

Security and compliance
Some low-code platforms could raise security and compliance concerns, especially for sensitive data or industries with strict regulations.

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CHOOSING THE RIGHT TOOLS WITH FUSION DEVELOPMENT

Strategic investments and implications of low-code vs code-first and their diffusion over time. Promotion, demotion and obsolescence strategies.

Fusion development cycle

Provides the following capabilities…

Making the right engineering choices between low code and code first and business apps.

Building complex solutions and platforms using the most efficient proportion of the tools and approaches, delivering best in class solutions at scale.

Bridging the gap between siloed service organizations that inherently focused on either low code, code first or first party app as their only tool.

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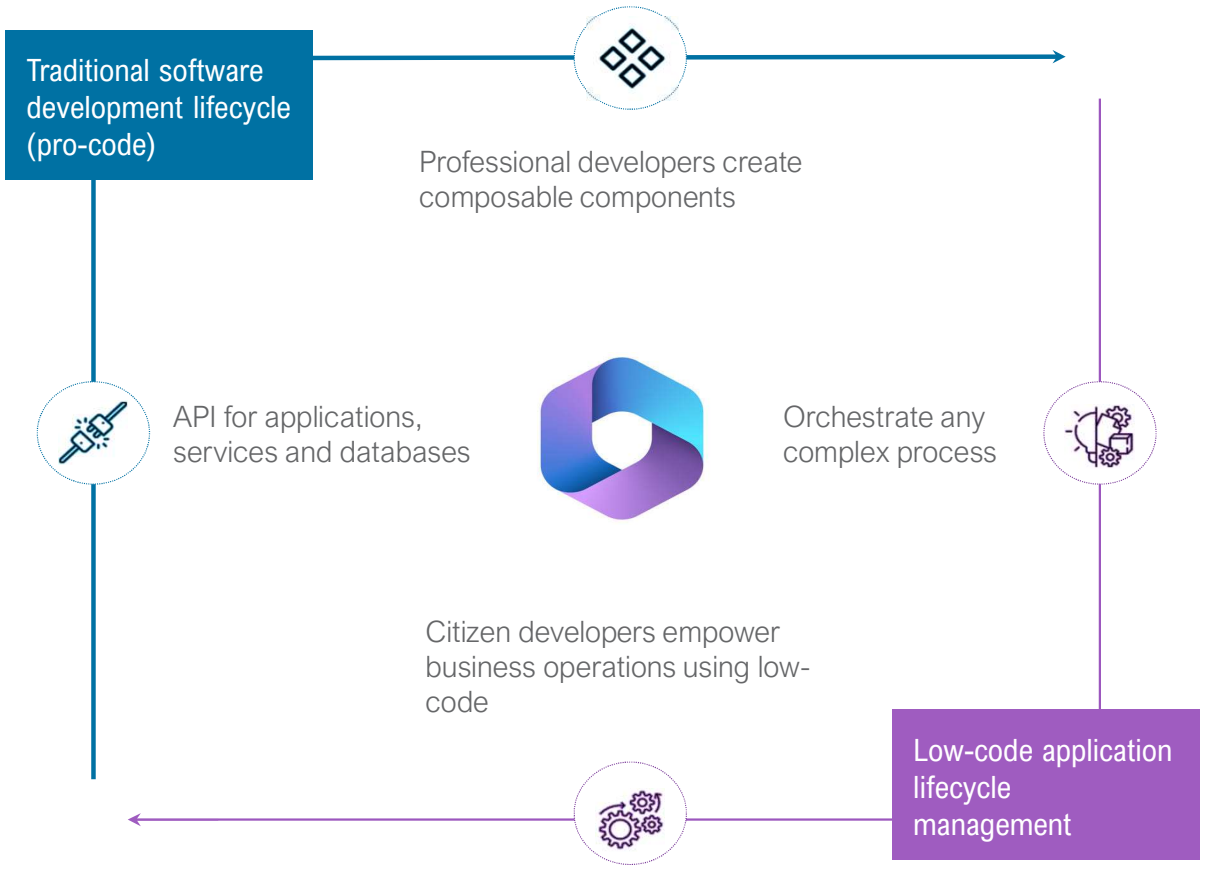
Composability principles

Digital components infused with AI



- Modularity
- Autonomy
- Orchestration
- Discovery

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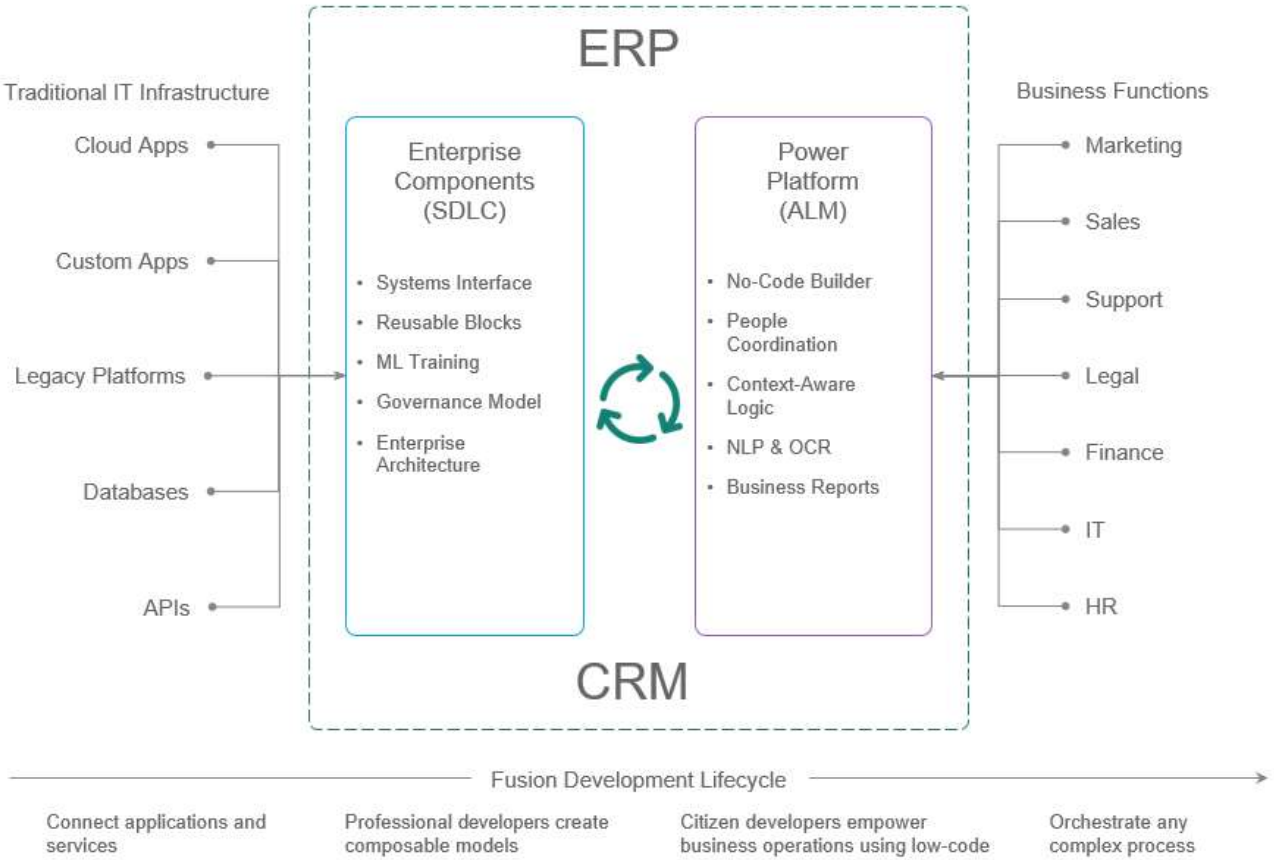
Citizen development



Establishing citizen development practices within the organization begins with the identification of individuals who have long possessed the desire to be technologically creative but have remained dependent on developers and IT teams to solve their technical problems for them.

A typical portrait of a beginner citizen developer includes:

- An analytical background and a general ability to write a formula.
- Deep knowledge of tools as a user; someone who knows how to write a VBScript in Excel won't encounter difficulties in using Power Applications.
- Desire and passion to automate their everyday routines.
- Basic understanding of business workflow notations, such as BPMN.

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How to get started

Identify the workflows that could benefit from low-code integration	Identify people who will be the first wave of citizen developers	Organize the environments and prepare the integration architecture	Establish governance model and toolchain, Microsoft CoE Starter Kit	Educate first wave of citizen developers, introduce standards and practices	Begin the development process in a sandbox environment and integration process under experienced supervision	Scale the capability and drive adoption and enterprise architecture adjustments

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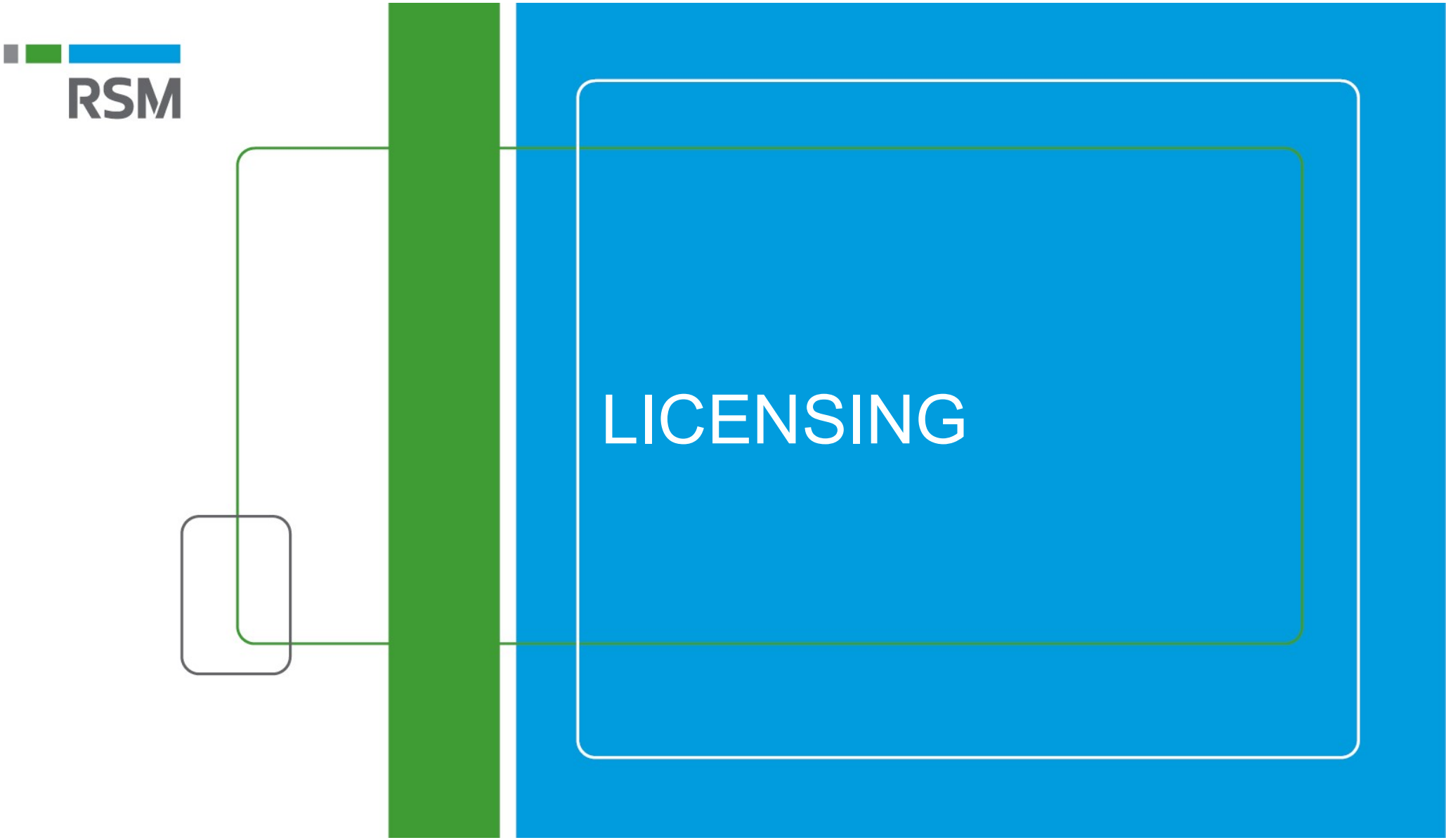
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LICENSING

Power Apps licensing summary

Summary of Power Apps

		Power Apps Subscriptions	Power Apps subscriptions	Power Apps per app pay-as-you-go	Power Apps use rights included with:	
		RECOMMENDED MOTION **Power Apps Premium** $20 per user/month (or $12 per user/month with 2,000 + new per user licenses)	**Power Apps per app** $5 per user/month	**Power Apps per app meter**[1] $10 per active user/app/month	**Select D365 Pro & Enterprise licenses**[2]	**Select Microsoft 365 and Office 365 licenses**
Plans	**Capabilities**					
Power Apps	Run custom apps	Unlimited apps	1 app **or** 1 website	1 app	Within same envir. as licensed D365 application(s)	Unlimited
	Run custom websites	Unlimited websites				
	Run workflows within the custom app[3]	●[4]	●[4]	●[4]	●[4]	●
AI Builder	Service credits[5]	500 credits	250 credits			
Power Platform connectors	Standard connectors	●	●	●	●	●
	Premium and custom connectors	●	●	●	●	
	On premises and cloud services data transfer	●	●	●	●	
Dataverse	Full Dataverse access	●	●	●	●	Dataverse for Teams only
	Create and access custom tables[6,7]	●	●	●	Pro limited to 15 per app	
	Dataverse Database capacity (Accrued)	250 MB[8]	50 MB[8]			
	Dataverse File capacity (Accrued)	2 GB[8]	400 MB[8]			
Managed Environments	Admin and governance at scale[9]	●	●		●[4,10]	

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Appendix B: Dynamics 365, Microsoft/Office 365 and Windows licenses that include Power Platform capabilities

Dynamics 365

Qualifying License	Limited Use Rights Included with Qualifying License		
	Power Apps	Power Automate	Power Pages
Dynamics 365 Sales Premium	○	○	○
Dynamics 365 Sales Enterprise	○	○	○
Dynamics 365 Sales Professional		○	
Dynamics 365 Customer Service Enterprise	○	○	○
Dynamics 365 Customer Service Professional		○	
Dynamics 365 Field Service	○	○	○
Dynamics 365 Project Operations	○	○	○
Dynamics 365 Team Members		○	
Dynamics 365 Finance	○	○	○
Dynamics 365 Supply Chain Management	○	○	○
Dynamics 365 Commerce	○	○	○
Dynamics 365 Human Resources	○	○	○
Dynamics 365 Operations – Activity		○	
Dynamics 365 Business Central	○	○	○
Dynamics 365 Business Central Team Members		○	
Dynamics 365 Intelligent Order Management	○	○	○

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Microsoft 365*, Office 365, and Windows

Qualifying License	Limited Use Rights Included with Qualifying License				
	Power Apps	Power Automate		Microsoft Copilot Studio for Teams	Dataverse for Teams
		Cloud flows	Desktop flows		
Office 365 E1	○	○		○	○
Office 365 E3	○	○		○	○
Office 365 E5	○	○		○	○
Office 365 F3	○	○		○	○
M365 Business Basic	○	○		○	○
M365 Business Standard	○	○		○	○
M365 Business Premium	○	○	○	○	○
Microsoft 365 F1					
Microsoft 365 F3	○	○	○	○	○
Microsoft 365 E3	○	○	○	○	○
Microsoft 365 E5	○	○	○	○	○
Windows 10 Pro			○		
Windows Enterprise E3			○		
Windows Enterprise E5			○		
Office 365 A1	○	○			
Office 365 A3[1]	○	○		○	○
Office 365 A5[1]	○	○		○	○
Microsoft 365 A1[2]	○	○			
Microsoft 365 A3[1]	○	○	○	○	○
Microsoft 365 A5[1]	○	○	○	○	○
Windows Education A3[1]			○		
Windows Education A5[1]			○		

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EXAMPLES FROM THE FIELD

Inspections and quality

- Manufacturing sites performing inspections on paper
  - No easy way to store inspections from all sites in one repository
  - No easy way to associate pictures with checklist steps
  - No alerts in case of inspection failures

- Third party software
  - Integration to reconcile inspection data with D365 for field service
  - Separate licensing

- Utilized Power Apps and Power Automate

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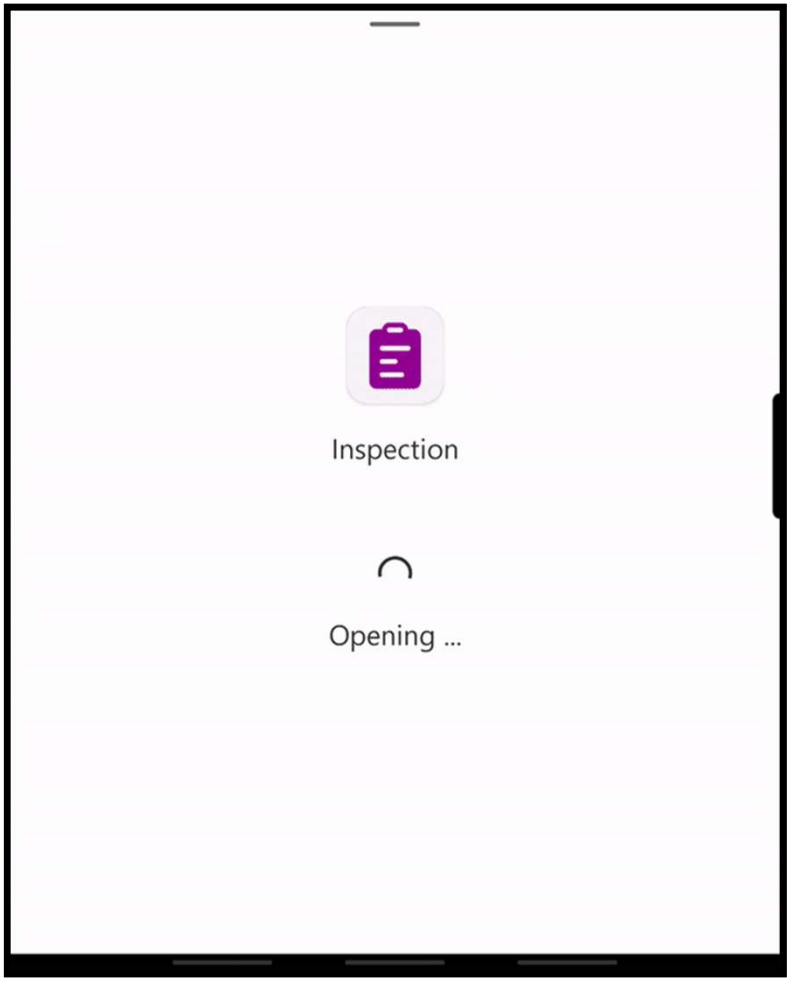
Inspections and quality (cont.)



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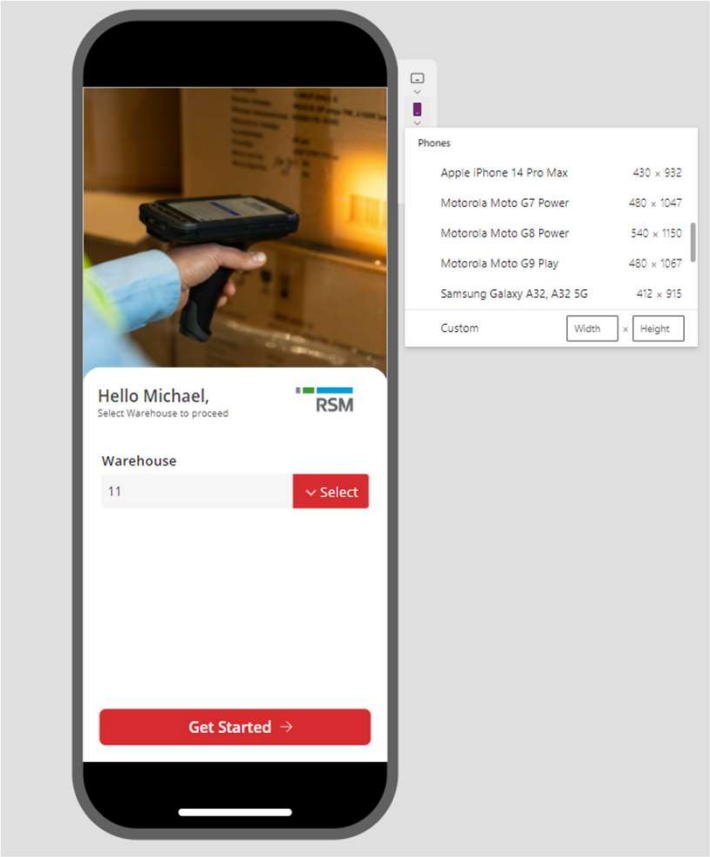
Simple Warehouse Transaction Mobile App

Warehouse facilities didn’t have the capabilities to utilize ERP advanced warehouse features:

- Scan
- Receive
- Count
- Transfer

- Evaluated third party software which required heavy integrations and costly
- Utilized Power Apps and Power Automate



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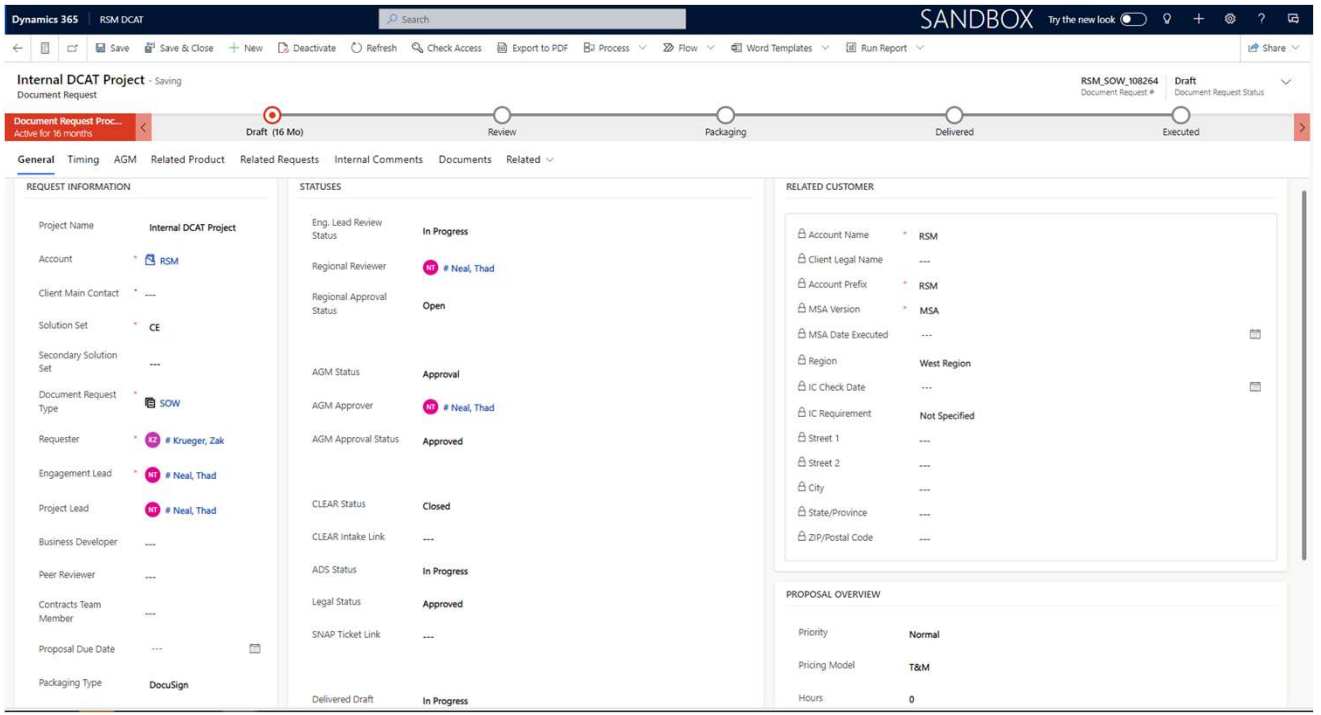
DCAT – Contract Lifecycle Management

- Lack of visibility and consistency managing vendor onboarding and contracting process
- Built contract lifecycle management (CLM) application
- RSM has multiple systems, processes and legal requirements. We currently use DCAT to manage our contracting processes internally today.



Contract creation workflow

Contract templates

Approval workflow

E-signature integration

Contract search

Alerts and reminders

Access restrictions

Reporting

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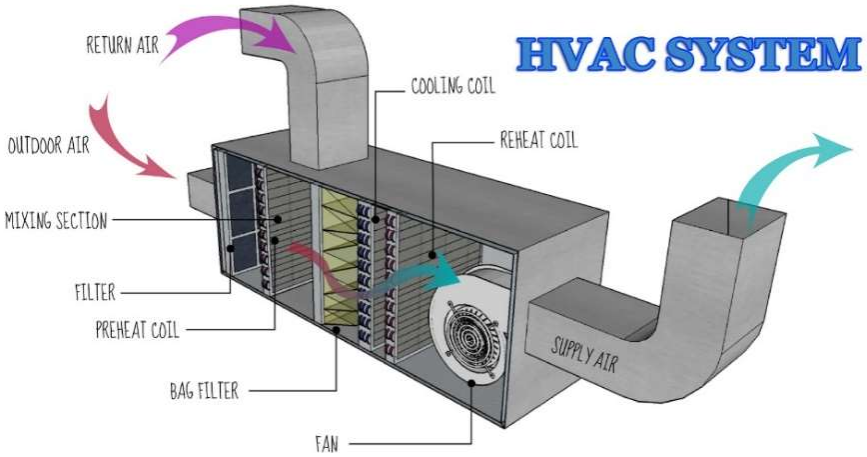
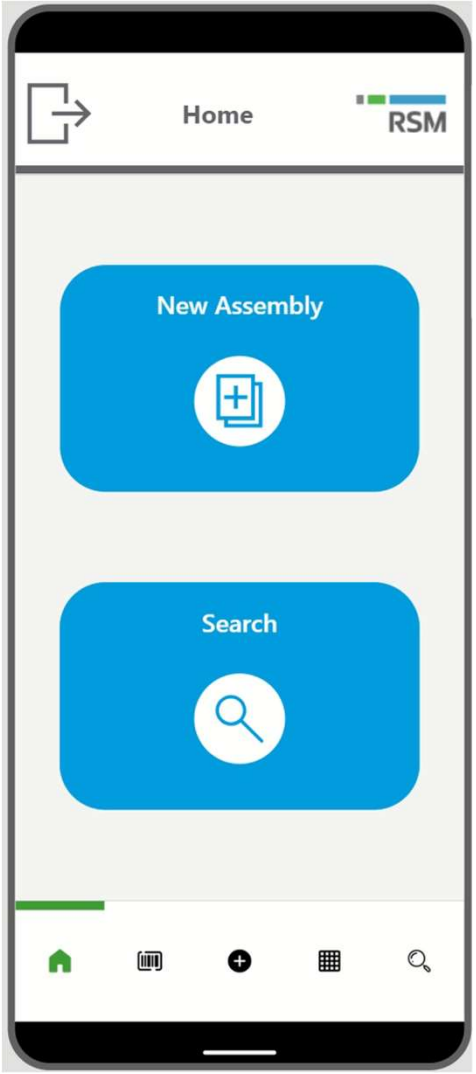
Serial in a serial

- HVAC manufacturers needed the ability to track serialized inventory within their finished good products to streamline servicing and tracing operations.
- Utilized Power App's to store and visualize this information. This accelerates the product creation and maintenance process by allowing manufacturing workers to instantly update product information.





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WRAP UP

Power Factory offerings

Architecture Advisory

RSM applies its Enterprise Digital Value Analysis methodology to identify the current state of the enterprise architecture comprised of systems, processes and data.

Based on current enterprise architecture state and architecture decisions RSM will develop a future vision of the architecture based on its foundation composable architecture or completely from scratch if that is the preference.

Based on current and future state of enterprise architecture RSM develops migration roadmap and transition architecture to support it. Transition architecture development if a necessary step to ensure safe and stable IT operations during the migration period and adoption process.

Time – 8 weeks

Deliverables - Architecture Description documents for Identified EA, Future Vision EA and Transition Architecture and Roadmap

DevOps Advisory

RSM deploys consultative services provided by experts who guide organizations in adopting DevOps principles and practices.

The advisors' role is to assess, recommend, and implement strategies that enhance the collaboration between software development and operations teams, aiming to streamline the entire software development lifecycle.

Aimed to help organizations achieve more efficient and effective software delivery, leading to quicker time-to-market, improved product quality, higher customer satisfaction, and better alignment between IT operations and business goals.

Time – 8 weeks

Deliverables - Architecture Description documents for developed DevOps approach, including standards, guidelines and migration/integration roadmap

Center of Excellence integration pilot

RSM develops a pilot integration project that serves as a controlled and smaller-scale experiment to understand how the Microsoft CoE Starter Kit can be adapted to the organization's unique context and how it can support the governance, processes, and collaboration necessary to harness the full value of Microsoft solutions and services.

The purpose of this pilot is to establish a base for the organization's center of excellence, which is a centralized function within a business that leads innovation, best practices, and knowledge sharing around Microsoft technologies.

Time – 8 weeks

Deliverables - Integrated CoE Starter Kit environment alongside with comprehensive set of the documentation with guidelines, practices and production roadmap

DevOps integration pilot

Based on the developed architecture and selected toolchain RSM builds an environment to test and demonstrate the feasibility of the developed approach. RSM conducts a trial run on as a proof of concept in which DevOps practices are implemented within an organization on a small scale before a full-scale rollout.

The purpose of this pilot is to demonstrate the benefits of DevOps in a controlled environment, with the following objectives:

Time – 8 weeks

Deliverables - Established environment with integrated DevOps tools, processes and practices alongside with the documentation required to operate it.

Application Development

RSM engages into the collaboration with the key stakeholders to identify and prioritize the development features and define MVP scope.

RSM deployment its engineering capabilities to organize the development effort and produce all necessary components and integrations that are part of the identified MVP.

RSM delivers identified MVP scope in agile manner for rapid feedback cycles making sure that nothing important is missing or require rebuild or redesign based on user feedback. In the end of the project RSM delivers the created solution by deploying on the appointed environment alongside with all technical and user related documentation.

Time – 12-16 weeks

Deliverables - Integrated application development prototype (MVP) alongside with all the technical and user documentation

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QUESTIONS AND ANSWERS

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THANK YOU FOR YOUR TIME AND ATTENTION

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[1] Minimum purchase of 5 Power Automate per flow licenses
[2] Cannot be pooled
($) is a paid option

Power Platform licensing overview*

	Power Apps/ Power Aut. for O365	Power Apps per App Plan	Power Apps per User Plan	Power Automate per User Plan	Power Automate + RPA	Power Automate per Flow[1]	Power Apps for D365 Apps	Power Apps for D365 Ent	PowerBI PRO	PowerBI Premium P1
Create, share and use canvas apps	Unlimited	2 apps and 1 portal in same use case	Unlimited	-	-	-	-	Within D365	n/a	n/a
Crate, share and use model driven apps	-		Unlimited	-	-	-	-	Within D365	n/a	n/a
Create, share and use Power Portals	-		Unlimited	-	-	-	-	Within D365	n/a	n/a
Create and run Virtual Agents	$	$	$	$	$	$	$	$	n/a	n/a
Create and run Virtual Agents for Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams
Connect to data in Project Oakdale	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams	Within Teams
Create, share and use Power Automate Flows	Within O365	Within app	Within app	•	•	•	Within app	Within app	n/a	n/a
Create, share and use Business Processes Flows	-	Within app	Within app	•	•	•	Within app	Within app	n/a	n/a
Create, train and use AI Builder	$	$	$	$	5,000 credits	$	$	$	n/a	n/a
Dynamics 365 CDS restricted entities	-	Read only	Read only	Read only	Read only	Read only	•	•	Read only	Read only
Connect to CDS custom entities	-	•	•	•	•	•	15 per app	•	Read only	Read only
Additional database storage capacity per license	n/a	50 MB	250 MB	50 MB	50 MB	50 MB	n/a	250 MB	n/a	n/a
Additional file storage capacity per license	n/a	400 MB	2 GB	200 MB	200 MB	200 MB	n/a	2 GB	n/a	n/a
Daily API Calls Limit per license[2]	2 000	1 000	5 000	5 000	5 000	15 000	10 000	20 000	n/a	n/a
Create and use of connectors and gateway	Standard Only	•	•	•	•	•	•	•	Gateway Only	Gateway Only
Create and Share PowerBI Dashboards	Content Packs	Content Packs	Content Packs	-	-	-	Content Packs	Content Packs	•	•
Maximum Individual Dataset	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1 GB	10 GB
Maximum PowerBI Storage	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10 GB	100 TB
Maximum Daily Refresh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	48
Compute Processing Environment	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Shared	Dedicated
On-Premise Reporting PowerBI Server	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	•

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