



POWERAPPS - EMPOWERING CITIZEN DEVELOPERS

Abstract

Employees in today's digital workplace use different devices like phones, tablets laptops and pretty much work happens on the go, in travel or at meetings. There is an increasing demand for IT to develop enterprise scale, multi form factor apps in short time frame for niche business transactions and to improve adoption and employee productivity. The mobile revolution along with cloud capabilities, has changed our experience in using commercial apps, but the enterprise apps we use to perform niche business transactions have been slow to keep pace with the employee demand. Though organizations are moving to cloud, the business applications still remain predominantly on-premises, and the enterprise apps are not optimized for mobile, are not easily extendable for integration with other applications upstream or downstream, and not accessible where people need them most – and in the device of choice

The purpose of this point of view is to introduce to you, Microsoft PowerApps, - the low code enterprise app platform from Microsoft, the salient features of PowerApps platform, look at some of the differences of PowerApps with Microsoft Access & facilitate you with all essentials to get started with PowerApps to unleash new business agility.



Our Key Observations in the Enterprise Business Applications Space

While companies are increasingly moving towards cloud based solutions, the enterprise app category continues to lag behind consumer app in terms of the ease of use, richness, connectivity to back end applications. Working together with our customers, we have identified the following gaps in enterprise app building

- SaaS applications can solve problems, but there is a limit, purpose built applications are needed by business
- Business data is stored across many systems, and it is becoming difficult to connect to and consume related data from within an app, and is time-consuming to build these services to connect to the applications
- Mobile app distribution happens through app stores, or through mobile device management, governed by IT. To get the apps onto employee phones involves several approval hurdles
- There simply aren't enough skilled developers to keep up with demand for business app scenarios
- There are use cases "unique" to an organization that no pre-built app can solve. Customizing everything into the enterprise applications is not the solution nor a recommendation
- Including a wide role of users across the board is a key aspect. Productivity improvement happens through inclusivity and at fringes of business transactions. Having an app Platform that can cut across organization structure boundaries to include a wide range of user roles is an Important factor
- Experience is paramount to build and realize the benefits of the niche business apps

An Introduction to PowerApps, Flow and Common Data Model

To address the gap in the Business application space, Microsoft has introduced PowerApps - a low code based, software-as-a-service (SaaS) platform for building business applications. Citizen developers/ power users can now start building an app with one of several pre-configured templates by simply connecting to data on cloud /on premise or from scratch and can

share the apps with the users internal to the organization, by giving users or groups permissions to the app.

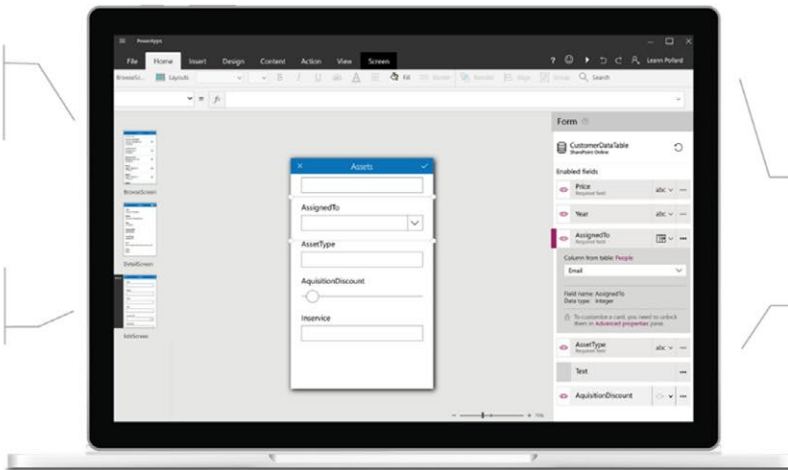
PowerApps ships with an intuitive visual designer that evokes PowerPoint and Excel experiences, a power user can build an application using simple drag -and-drop features, leverage pre-built app templates and screens. PowerApps is natively integrated with a number of pre-configured connections (connectors) to Office 365 including SharePoint Online, Excel on

PowerApp is a “Low Code” App Building Platform that helps users build enterprise apps with drag &Drop simplicity

OneDrive, Salesforce, Dropbox, Google Drive, Dynamics CRM Online, and Twitter, Bing, on-premises SharePoint, SQL Server, Oracle databases, salesforce.com and SAP. It also comes with gateways for on premise application connection thus reducing the time required for integration services to commonly used apps.

Craft forms and screens in a visual designer that helps you see exactly what you'll get

Take advantage of device capabilities like cameras, GPS, and pen controls



Build business logic into your apps with an Excel-inspired expression language

Extend the capabilities of connected data sources, or focus just on the bits you need

Figure 1 : Power Apps Studio(Drag and drop Experience)

PowerApp, coupled with Microsoft Flow, which is an interapp connectivity workflow with predefined templates and configurable workflow steps, citizen developers get the flexibility to build alerts, workflows and triggers that work seamlessly across organizational boundaries.

Common Data Service is a Microsoft Azure-based business application platform that

enables you to easily build and extend applications with their business data.

For example, data from an ERP system like product master or pricelist, opportunities from Dynamics 365 can be stored in the common data service model, and in turn can be displayed in Power apps. The common data service provides per defined field mapping for commonly used apps

PowerApp also provides additional features like offline access capabilities, GPS access helping the user to identify the current latitude and longitudinal coordinates (largely used in field service, trip planning etc.), and provides pen input controls that facilitate using the PowerApp for digital signatures through tablets or phones.

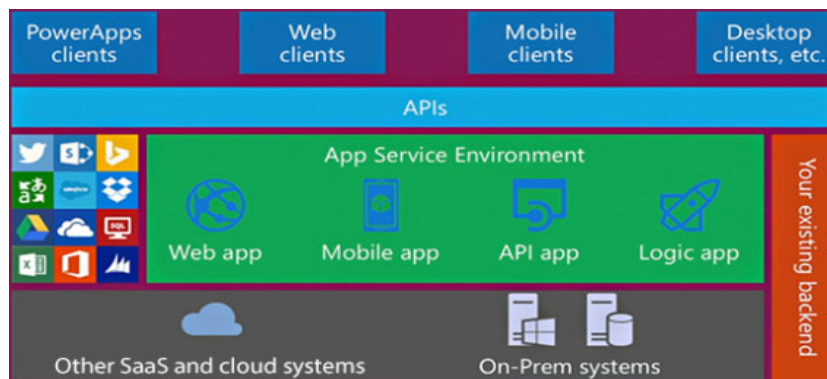


Figure 2: Power Apps Architecture

PowerApps along with Flow and CDS are redefining the future with unlimited possibilities

- With the increase Bring Your Own Device, Internal app stores like PowerApps for Mobile, will enable enterprises to efficiently manage the growing number of mobile OS platforms, and Form Factors
- IT budget Constraints along with End-user demand for simplicity, is encouraging IT to expose APIs, Micro services enabling simple apps to deliver intended results

quickly and efficiently. PowerApps with its natively built connections minimizes the time and effort for these integrations

- IT Can focus more on core competencies giving power to users to build their own apps with simple drag and drop capabilities and pre-built integrations
- automating workflows across apps and services using Microsoft flow (example, notifications, sync files, approval automation), cuts across organization boundaries
- Reducing Time to Market for innovative Business app solutions with hundreds of

templates and ever-growing ecosystem

- PowerApps can be instantly published and shared with users internal to an organization and without the complexity, these apps can easily be distributed via internal stores, whose interfaces can resemble those found in the consumer world.
- We have been working with several of our customers to address their needs on business agility using Powers Apps, Flow and CDS. There have been some very intuitive apps that have been built on PowerApps like

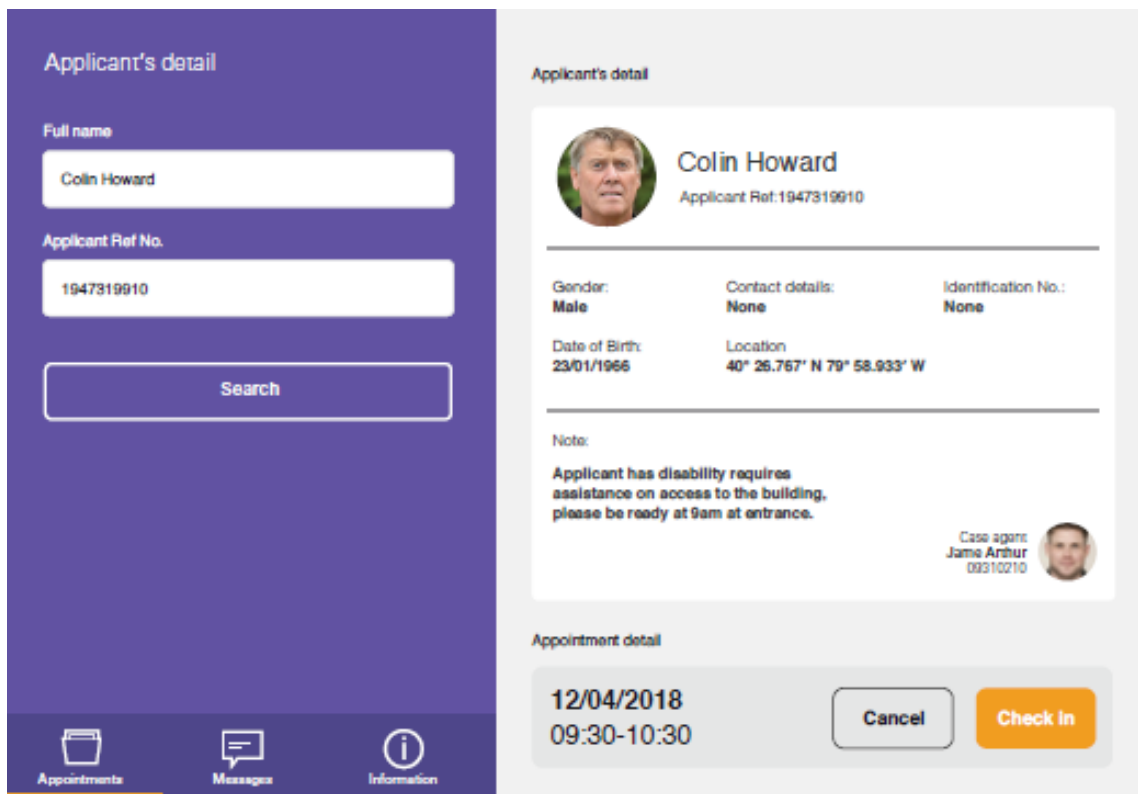


Figure 3: Model Relationship Manager checkin App

Some fringe business transactions where we are working with our customers to build intuitive PowerApps

- Retail In-store order management using tablets, with real time feed on stock, price list update feeds and the ability for the consumer to compare products
- Boutique shops using PowerApps to

manage booking and appointments

- Field service companies using PowerApps connected to the Dynamics 365 solution to fetch the field ticket details, present the key elements in a mobile enabled simple UI, allow offline access and edit capabilities, e-signature using mobile controls/capabilities, and send feedback

with any updates to the field ticket back to dynamics 365

- Publication agencies managing approval workflows, and content using PowerApps and Microsoft Flow
- Relationship Managers of banks using the PowerApps for collaborative selling, pipeline tracking and forecasting

Some of the other areas where we are applying PowerApps

Rich UX Experience and Branding

Guidelines : Instances where the user is looking for a rich user experience similar to a portal, with branding guidelines specific to an organization where out of the box CRM apps may not fit the bill is one of the areas where we can look at applying powerapps

Niche Business Transactions/ Purpose Built Apps : If there are requirements very specific

to a process or business where productivity improvement can be brought about is a typical business case for PowerApps. Example a claims surveyor app for making notes of the site and inspection, and taking pictures, a timesheet app for users in projects are examples

User Inclusivity Across the Board : Not all PowerApp users need to be Dynamics 365 licensed users. The app can be extended to users of office 365 as well, which essentially means inclusivity of users across a process who may involve in approvals etc., but may

not login to a CRM application

Data Consolidation across applications and minimize data duplication : In Most cases apps connecting to a CRM platform that requires data from multiple platform will require integration services to the CRM application on top of which the app resides. With Powerapp users have the flexibility of Common data model – which acts as a data store for data across applications, to render data to the app, which also avoids data duplication across applications

How are we at Infosys helping our Customers enhance Business Agility through PowerApps



Ideate on Apps, Unleash data on premise to SaaS, CBA Analysis & Define Interapp Connectivity & Data Flow Model



Leverage API expertise to build custom connections to customer applications



Leverage cross vertical expertise by working across industries to build model app that can be replicated for the customer



Data Transformation services for data from external/legacy applications before feed to staging/ Operational data stores



Leverage analytical service expertise using PowerBI to build data intelligence through data available in operational stores



Define data models and CRUD operations/security definition based on business understanding

Figure 4 : Infosys Services for Customers on PowerApps/Flow& CDS Platform

The Road Ahead

The PowerApps Roadmap as we know it for H1 2017

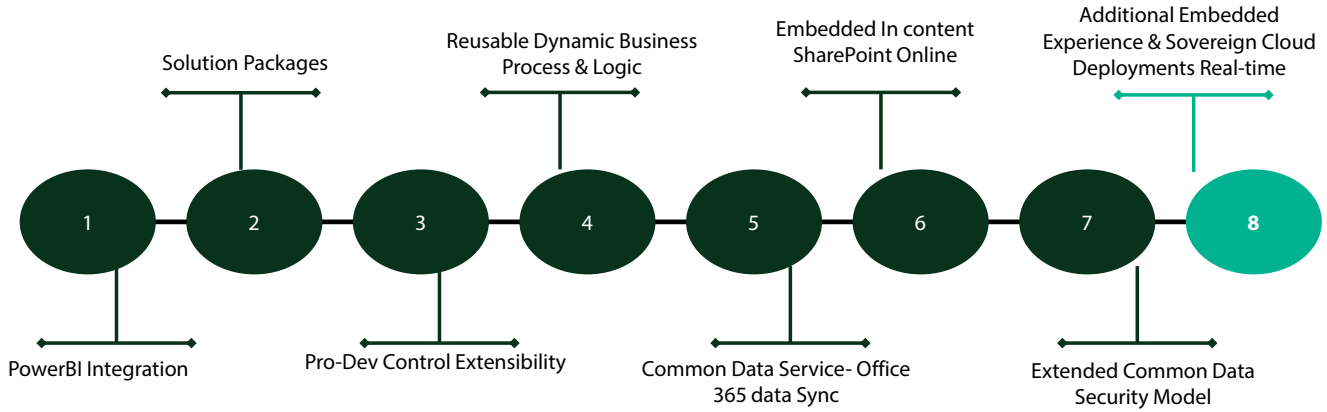


Figure 5: PowerApps Roadmap for H1 2017



Conclusion

PowerApps will change the way business apps are built, reducing time to market, improving license utilization and ROI, drive adoption. With the addition of artificial intelligence like Crotona, GPS support, Power BI integration, the platform will transform the way business apps have been built traditionally.

Are you ready for the paradigm shift yet?.



About the author

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Sushil Radhakrishnan, has over 13+ years of experience in CRM domain, and has worked across implementing various CRM platforms. He has worked in several end to end CRM engagements and global rollouts for enterprise scale customers and is leading the PowerApp and flow Practice at Infosys. Having worked through Dynamics CRM version 1.2 through Dynamics 365, the author tries to bring about the paradigm shift with Microsoft cloud ecosystem, with a focus on PowerApps which is helping drive user adoption.

Reference

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