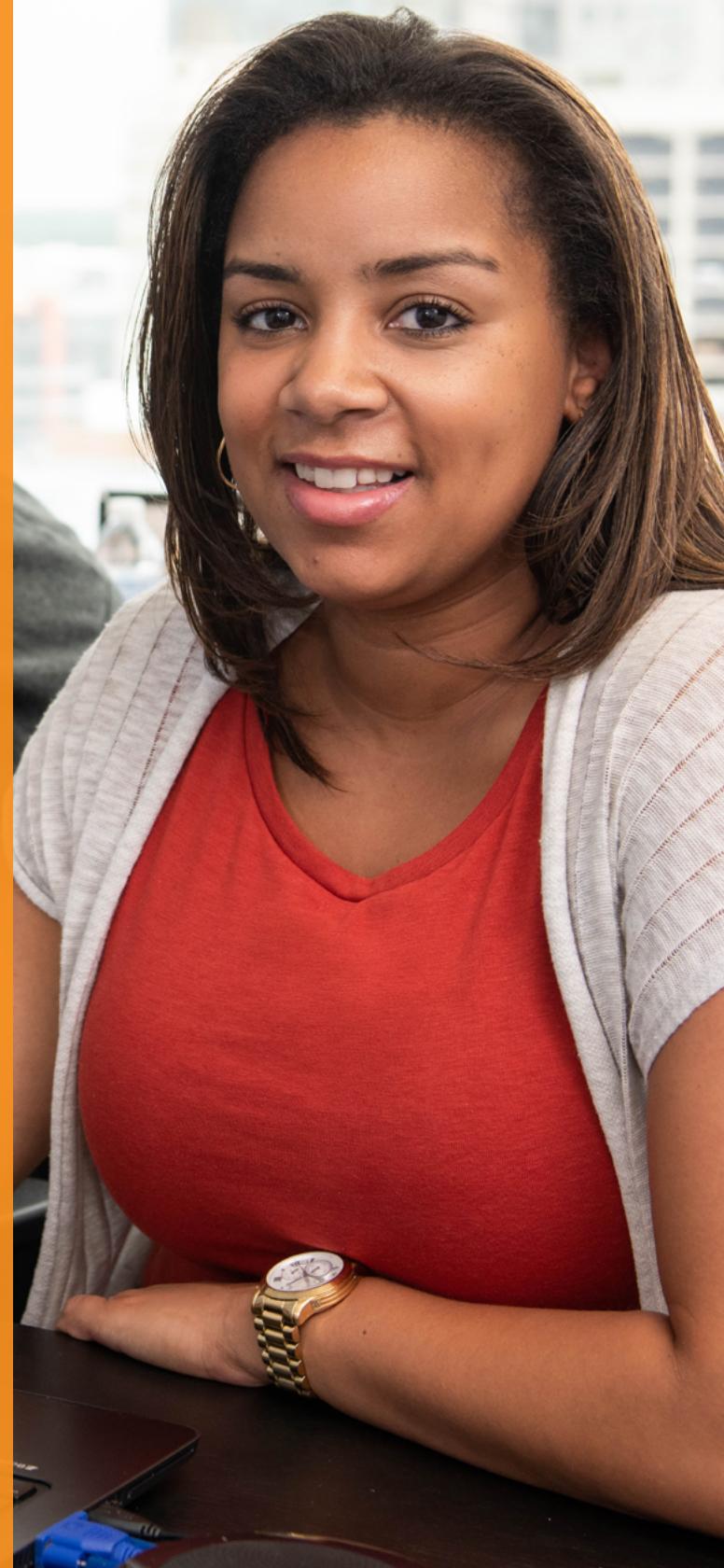




POWER PLATFORM ADOPTION FRAMEWORK

First Edition

The start-to-finish approach to
adopting the Power Platform at scale



INTRODUCTION

More and more organizations are transforming their business in the cloud. They are modernizing legacy enterprise applications with enterprise-grade capabilities such as Microsoft's Common Data Service (CDS), and they are bringing rogue IT and quasi-apps out of the shadows. Organizations are empowering citizen developers to connect siloed data, engage customers, and drive return on investment (ROI) with robust solutions in PowerApps, Power BI, Flow, the CDS, and Dynamics 365.

Citizen Developers are the business users out doing the organization's work — not IT or professional software developers — that use Power Platform to build apps, data visualizations, and automations using no-code / low-code tools. The Power Platform Adoption Framework helps to empower these users to work within the guardrails of sound enterprise management and governance of the platform.

We've seen it. Today, AIS' clients are using the platform to **recruit and onboard talent, create marketing opportunities** for professional athletes, **streamline reporting and planning** across their businesses, **manage complex cost-sharing** across business units, **bring new insurance products to market**, and more.

People around the world are using Power Platform to **improve the passenger experience** at airports, **make government more responsive** to citizens, **micro-target retail customers, streamline their consulting** businesses, **control the cost** of fuel in transportation-focused businesses, **connect their employees** with volunteer opportunities, **keep the trains running on time**, and even **give massages** (in airport lounges).

Mature organizations understand that rigor, discipline, and best practices are required to fully adopt the platform at scale.

The Power Platform Adoption Framework is the start-to-finish approach for adopting the platform at scale.



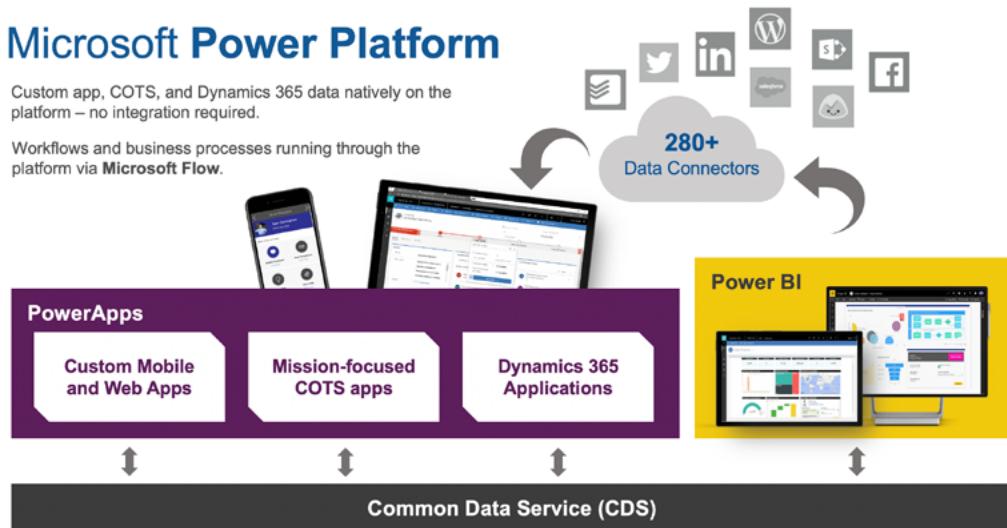
It helps enterprise organizations:

- Get to value quickly
- Educate, train, and grow their community of citizen developers and power users
- Create durable partnerships between business, IT, and the user group community
- Continuously improve ROI on the platform by identifying and migrating new workloads
- Blend agile app development with rigorous enterprise management and governance

At AIS, we've studied and learned from our friends, partners, and colleagues around the world. We've built a long history with Power Platform's predecessor technologies and we've transformed our clients' businesses in the cloud. **We're sharing our Power Platform Adoption Framework so everyone can use it as we believe it will help foster an already vibrant and thriving community of users around this technology.** We'll continue to invest in, update, and share the framework as best practices evolve. We hope you'll join us, build with us, learn from us, and teach us better ways to do things.

How we think about Power Platform

We can't truly embrace what we don't understand. Having a *common* understanding is critical to determine *common* best practices for adoption and beyond. Power Platform is a vastly capable technology, so many still struggle to put all of its pieces together in their mind. We'll take a moment to change that here.



Let's start with the "app". We find that's what many people think of when they think of this technology, so we'll begin there. These are PowerApps! Find them peeking out of the purple box in the diagram above. Professional and citizen developers alike use PowerApps to build applications that run natively in mobile, web, and desktop environments across any popular combination of devices and operating systems.

There are three flavors of PowerApps:

- **Custom mobile and web apps** are built specifically for your business by some combination of in-house professional developers, citizen developers or power users of an organization, or Microsoft partners such as AIS.
- **Mission-focused COTS apps** (Commercial Off The Shelf), also known as “ISV Apps”, are built by Microsoft partners to meet specific yet common use cases. They run on the platform and are often made available in AppSource (think the app store for Power Platform).
- **Dynamics 365** (D365) is Microsoft’s suite of large business applications that meet common requirements such as customer relationship management (CRM), marketing, talent management, and more. You can think of D365 as a suite of big PowerApps.

Each of these apps sits atop the CDS. If you’re familiar with XRM, or the underlying database in recent versions of Dynamics 365, then you already know CDS. Otherwise, what’s important to know here is that all of the data from all of the apps installed in an environment lives in CDS.

Put another way, CDS is the single source of truth for the data you use in your apps. Take geographic locations, for example. We often have a need to reference a physical place across many of our apps. But creating a different dataset of physical places living inside of a single app means that we often create different ways of representing or naming the same place. The United Kingdom or UK? West Virginia or WV? Or W.Va.? Kiev or Kyiv? With CDS, we create the data set once, and then make that data available across apps. Repeat the same trick with your employees, customers, products, and more. We create a single source of truth by separating the data source (CDS) and then building the transactional layer with which users interact (PowerApps) on top. Then we can secure it and automate its powerful built-in tools resident inside of CDS.

It's all about the data. While PowerApps, Power BI, and Flow all integrate well with Microsoft technologies such as SharePoint and Azure data storage options, the Common Data Service is Power Platform’s native data source. While there are use cases that make it appropriate to store data outside of CDS, it’s best to think of Power Platform as the best choice for relational data and business process automation.



Then we point Power BI at it. Power Platform's answer to rich, visually compelling data visualization and business intelligence, Power BI consume all of the data stored in CDS and then integrates with data found across hundreds of third-party services via out of the box (or custom, if you need) connectors. The result is charts, dashboards, and other visualizations that are as aesthetically stunning as they are rich in content.

Those data connectors plug seamlessly back into PowerApps. This means we can easily and quickly mash up third-party data found anywhere from Facebook to Salesforce and beyond in both our visualization layer (Power BI) and our transactional layer (PowerApps).

Finally, Microsoft Flow serves as the connective thread that automates and drives business process throughout the platform and in integration with Office 365 and those hundreds of other data connectors.



Scalability Matters

The Power Platform Adoption Framework is built on the idea of scale; in other words, implementing the platform across large organizations to solve a range of business problems, small and large. Scale matters on Power Platform for three reasons.

Network Effect. The magic of the Common Data Service is in its ability to establish a single source of truth for the data stored within it, and then for app experiences to be built atop that data to address specific use cases. The more apps running on CDS, the more valuable that single source of truth becomes. The more users interacting with those apps and storing data in CDS, the richer that data source becomes.

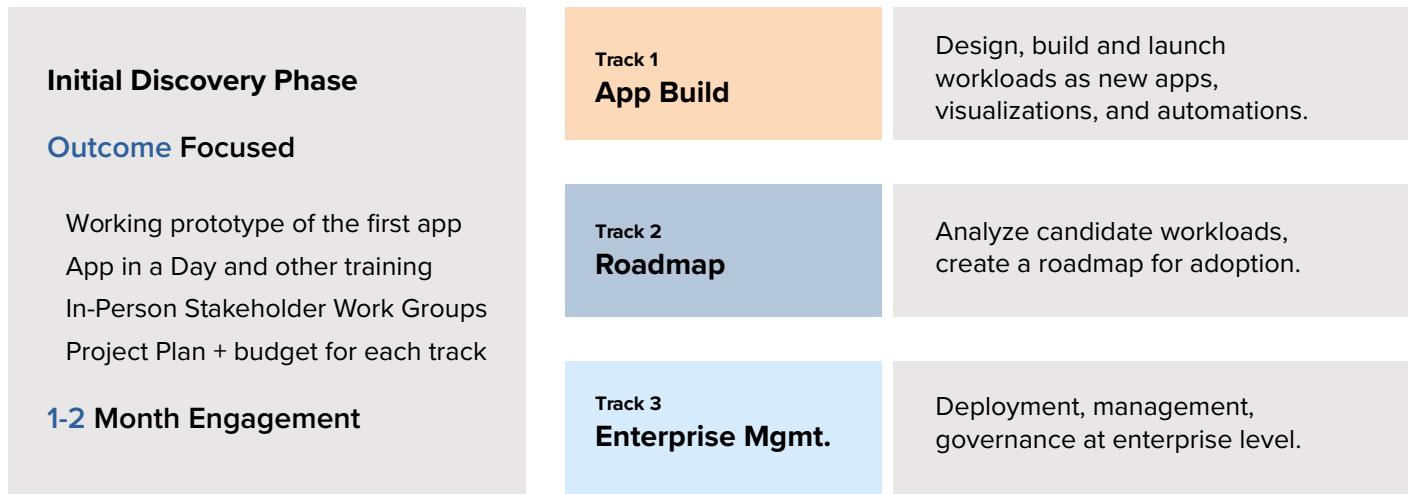
Standardization. Once upon a time, organizations embraced the applications inside of Microsoft Office because they worked similarly and played well together. It was easier to train and support on a single platform. The same principle applies to Power Platform. Rather than leave our users' everyday app interactions to a hodgepodge of spreadsheets, one-off databases, and third-party tools, IT organizations use Power Platform to establish a single sandbox in which dozens, hundreds, or even thousands of workloads can live, work, and be secured.

Return on Investment. This is about the math of license costs. Workloads running on separate platforms or applications incur separate license costs. If your organization pays X amount for a PowerApps license and runs one app, the cost to license that app is X. Adding a second workload reduces that cost to $X / 2$. Four workloads are $X / 4$. By the time we've migrated our twentieth workload to Power Platform, we've reduced the license cost per app by a factor of twenty. This is important because in the world of Azure, or other similar cloud infrastructure services, we pay for consumption. In other words, our costs rise the more we consume. On Power Platform, we're incentivized to consume more so we can increase the ROI of our license investment. Migrating workloads onto the platform also allows us to retire them (and their license and support costs) elsewhere.

THE FRAMEWORK FOR ADOPTION AT SCALE

The Power Platform Adoption Framework provides a start-to-finish approach for adopting the platform at scale, so organizations realize the advantages to scale, discussed above. It is an alternative to a haphazard implementation, where implementing capabilities based on the need of the moment, results in a barrage of half-baked environments and poorly conceived enterprise governance. It takes us from thinking in terms of a single app that's needed *right now*, to thinking in terms of a platform with all of its accordant network effects, standardization, and return on investment.

Power Platform Adoption Framework



Great Discovery

We begin the road to adoption with the Discovery Phase. Think of discovery as a quick start on the platform, where the goal is to get to value and plan for a time-boxed period of about one to two months. Any longer and we're dragging our users into busyness with limited results and possibly risking our credibility and trying their patience. Power Platform promises to get the capability into users' hands quickly, and as experts in the platform, it's our job to make good on that promise. Discovery has four primary outcomes or deliverables.

Prototype of the first App (or Power BI Dashboard). This is about *getting to value quickly*. Here we're selecting a high-priority workload, co-designing alongside business users and gleaning their expertise in how the app should work, and then building it out as a prototype. Consider:

- Choose a workload that is important in its meaning and impact to the organization, but not so mission critical that users and business leadership are terrified of migrating it onto a new platform. The idea here is to demonstrate real value to the organization in a short period. A workload that only matters to a handful of users is a poor choice for that task.
- Don't expect perfection in the prototype. We time-box its development explicitly to avoid feature creep. This definition of *prototype* here is *whatever we can get working on the platform in about six weeks*. There will be time after the discovery to get it to full operating capability.

Training. The task is to get prospective citizen developers and power users proficient in using the platform to build useful things. Microsoft’s App in a Day and Dashboard in a Day workshops are useful here, as might more in-depth courses (e.g., the week-long Power Platform Boot Camp developed by AIS) be. However, the objective is to get the most enthusiastic and promising users up to speed quickly. Don’t expect expertise at this stage.

Stakeholder Work Groups. While we’re learning about what Power Platform should look like in the organization through all pieces of the Discovery Phase, the stakeholder work groups are where those ideas come together. These are facilitated sessions that explore the current and needed state of IT infrastructure to support the platform, technical governance, and organizational change required to make the technology successful across the enterprise. We will review the status of related technologies used within the organization (e.g., legacy Dynamics CRM, InfoPath, or even third-party services, such as Salesforce), and other hot topics uncovered through discovery. These work groups are most productive when facilitated by technologists with expertise in Power Platform and group facilitation in business. Consider working with a Microsoft partner for these facilitated sessions to realize value expeditiously.

Plan and Budget for each Track. We’ve learned a lot through discovery. The prototype has helped us get a feel for the business use cases we’ll be migrating to the platform; training exposed us to the skill level and enthusiasm of our prospective citizen developers, and the stakeholder work groups have given us the chance to paint the picture of platform adoption. Lastly, we will create a project plan, timeline, and budget for executing the adoption along three parallel tracks. Here, it’s best to think about a year into the future. In other words, what do we need to do to build apps and dashboards, roadmap future workloads, and mature our enterprise management and governance of the platform over the next twelve months?



On Track

Three big buckets of work follow the Discovery Phase. We prefer to think of them as tracks as they should happen in parallel to one another as a coherent journey, for as long as the organization uses Power Platform.

Track 1: App Build. The first track of work focuses on designing, building, and launching new workloads onto the platform as PowerApps or Power BI components (dashboards, data visualizations, etc.).

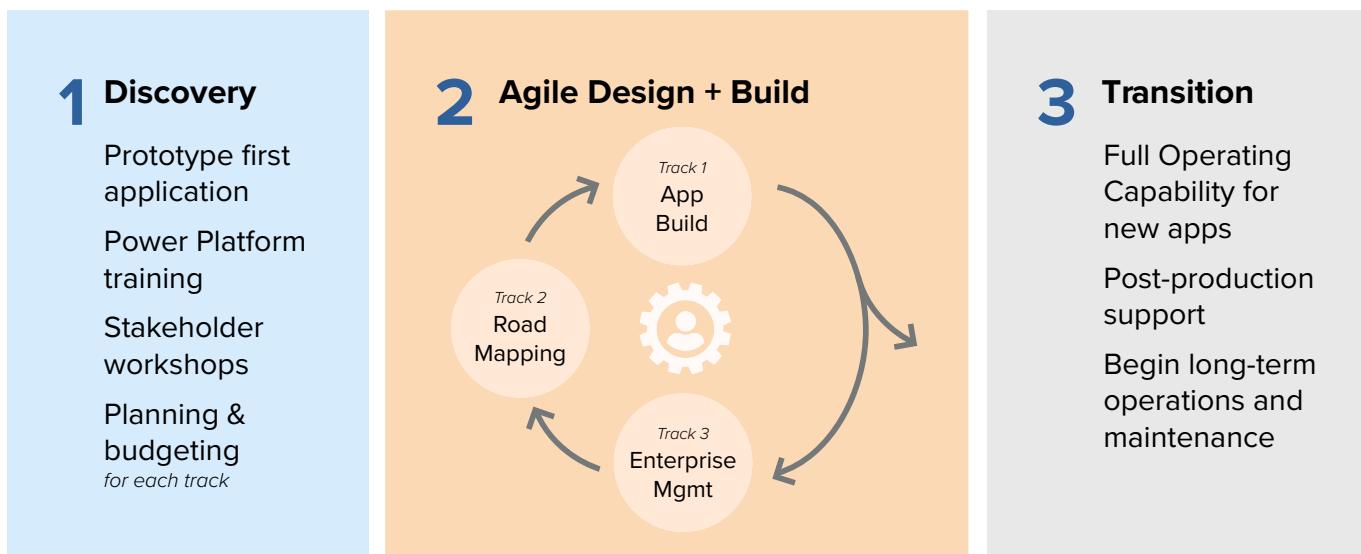
Track 2: Roadmap. The second track feeds the first. Power Platform is well suited for many types of workloads — large and small, simple and complex, enterprise-focused and small scale. The Power Platform enables the modernization of legacy technologies, ranging from do-it-yourself spreadsheets and Access databases to tangled enterprise deployments of InfoPath and SharePoint apps and enterprise-grade systems such as CRM and ERP. Therefore, it's critical that we directly work with business owners, and users alike, to identify and analyze candidate workloads and to create a roadmap for adoption. These candidate workloads should be prioritized and re-prioritized on an on-going basis so that our Track 1 activities remain focused on the most important next steps.

Track 3: Enterprise Management. Our third and final track is the foundation for the other two. Enterprise Management, which we will discuss in greater depth, is about the deployment, management, and governance of the platform at an enterprise level. It can be tempting to ask "why do we need enterprise management around no-code/low-code technology?" The answer is enterprise management establishes guard rails for the platform within the enterprise so professional and citizen developers can build beautiful and useful things with the confidence that what was built will be managed, secured, and otherwise looked after in a compliant way, following best practices. Enterprise Management is about creating the environment — both technically and culturally speaking — in which your users can thrive.



Going through a Phase

It's useful to think about the timeline and the lifecycle for Power Platform adoption as a series of three phases.



Discovery. We covered the Discovery Phase in more depth in a previous section, but suffice it to say, discovery is a quick start on the platform, where the goal is to get to value and plan for the future in a time-boxed period of about one to two months. The Power Platform Adoption Framework begins here.

Agile Design-Build. Work on the three tracks takes place in an agile fashion, which makes the Agile Design-Build phase different from Discovery as it is ongoing throughout the life of the platform inside the organization. We consistently build new capabilities in the form of PowerApps, Power BI visualizations, and automation in Flow (Track 1). We are always laying out the roadmap for candidate workloads for build out and automation on the platform (Track 2). We continue to build and nurture the management of the platform at an enterprise level (Track 3), either in terms of incorporating advances in the technology or in nurturing the user community and citizen developers within the organization.

Transition. When an app, visualization, or automation component is ready for deployment to production and general use within the organization, it's important to *transition* that workload out of its *design-build* development and into its long-term home. Many IT organizations refer to this as "Operations and Maintenance" (O&M), regardless the naming, the idea is that apps transition from a mode where they are actively built to a mode where they are actively supported for end users. This includes what we traditionally think of as "GoLive" or "cutover", but also includes post-GoLive support, tuning and optimization, and — importantly — the answer to the ever-persistent question in software: "Who does the user call if this thing breaks in the middle of the night?"

ENTERPRISE MANAGEMENT OF POWER PLATFORM

Let's spend some time thinking about enterprise management, our Track 3 in the Power Platform Adoption Framework.

Earlier we said that enterprise management is about establishing guard rails for the platform within the enterprise so professional and citizen developers can build beautiful and useful things with confidence that what they build will be managed, secured, and otherwise looked after in a compliant way following best practices.

So, what are those guard rails? Our framework proposes five big categories of items that need to be accounted for when implementing and maintaining enterprise management of the Power Platform.

Program Management. How do we organize to use and expand the platform across the enterprise effectively? Here we're talking about organizational relationships (i.e., who "owns" the platform at an enterprise level, how the platform is funded, where that responsibility/accountability/authority lives within the organization) as well as staple concepts in business and IT such as project management and backlog management.

Enterprise Architecture. How do we set up our tenants and environments? What does our deployment pipeline look like? Are we leveraging DevOps and CI/CD practices and tools? How do we license and authenticate users? Here we're primarily concerned with how the platform fits within the larger IT picture, from both a technical and governance perspective.

Application Lifecycle Management. How do we staff for the development of new workloads on the platform, i.e., citizen developers, in-house IT staff, or partner/contract support? Which development best practices do we employ? What does our configuration management look like? How do we manage our enterprise-level data model to ensure consistency and integrity of our data? Here we're concerned with the actual nuts-and-bolts of building apps, visualizations, and automations.

Mature Security Model. Are there information assurance measures to which we must adhere? In the early days of platform adoption, we must take care to begin the work of adhering to these measures early enough in the process so that administrative matters don't delay the deployment of our first workloads. How do we employ platform security within apps? Across apps? In the Common Data Service? What does our data loss prevention look like? How are we configuring policies within the tenant to actualize our security model? Here we're concerned with securing our data, apps, and users from a technical and a policy/administrative perspective.

User Support Measures. Beyond help desk services for end users, how do we provide on-boarding and community management to our power users, citizen developers, and business owners? How do we grow and enable a vibrant user group community within the organization? Here we're concerned with empowering users to achieve their best work, so they can take advantage of the no-code/low-code tools the platform offers.

Nurturing the Community

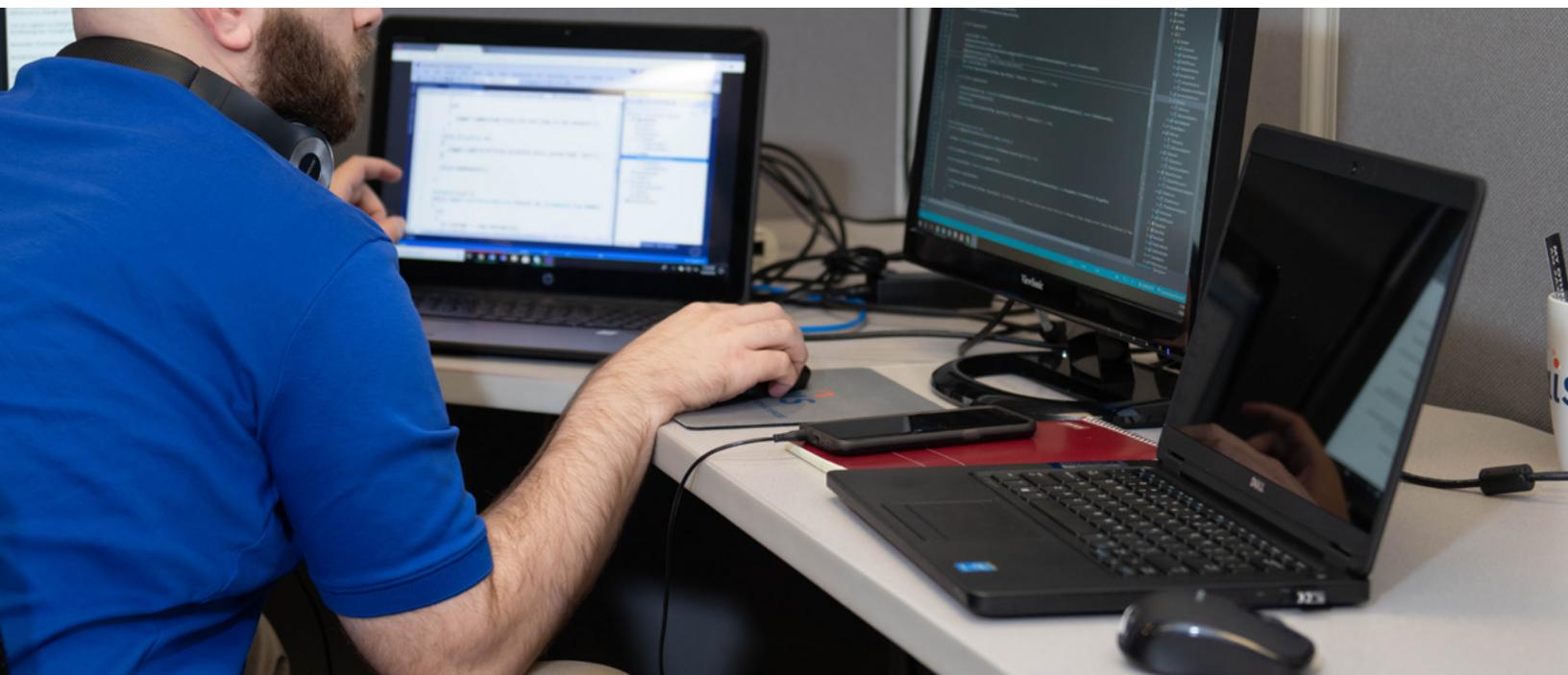
Let's consider the community for a moment as it is the user group community — particularly of citizen developers and power users — within an organization that makes Power Platform so compelling.

Who Owns This?

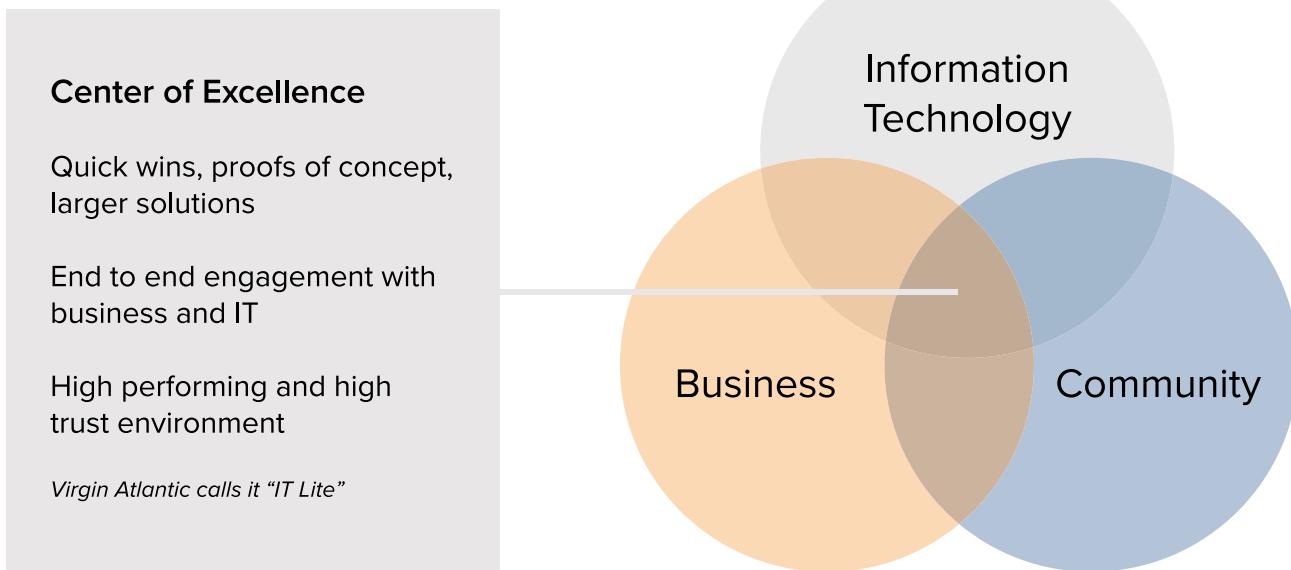
This is one of the most important questions that an organization must answer at or near the start of its platform adoption journey. Though IT organizations have traditionally “owned” new technology adoptions and long-term sustainment, Power Platform’s no-code/low-code tools make it appealing to those working in operational or functional roles within the organization (i.e., “business users” rather than “IT”). This shift in thinking presents the question of ownership, specifically who in the organization should be responsible for driving the adoption and managing the platform long-term.

There are no indisputably correct answers here, though many early adopter enterprise-grade organizations have embraced the idea of building a Power Platform “Center of Excellence” (COE). The airline Virgin Atlantic, a noted and successful Power Platform early adopter, has named their COE “IT Lite”. Whatever you call it, this core group of platform “owners” must possess several key characteristics.

- Be capable of developing quick wins, proofs of concept, and larger solutions for “customers” around the business.
- Build *durable partnerships* through end-to-end engagement with business owners and the IT organization.
- Create a high-performing, high-trust culture; the COE will touch many areas of the organization and must be a trusted actor to drive adoption of new technology.



Who owns this?



Where this group lives on the organizational chart is a soft matter best left to the cultural characteristics of the larger organization itself. Some may find it fits naturally within an existing IT culture, while others may prefer to house the COE somewhere within the “business” (e.g., inside of an early-adopter operating unit, or a business transformation/innovation/strategic initiatives group). In any case, this decision should be made early in the adoption, and the COE must be empowered with authority to act on the platform’s behalf and a budget to support the adoption.

Durable Partnerships

When we talk about *durable partnerships*, we’re distinguishing between many traditional software development projects that often treated partnerships between business units in a purely transactional way, versus the importance of creating partnerships around Power Platform that transcend a single app development effort.

In other words, a big part of the COE’s job is to build and nurture partnerships between business, IT, and the citizen developer user community on an ongoing basis rather than an ad hoc single-app-focused basis.

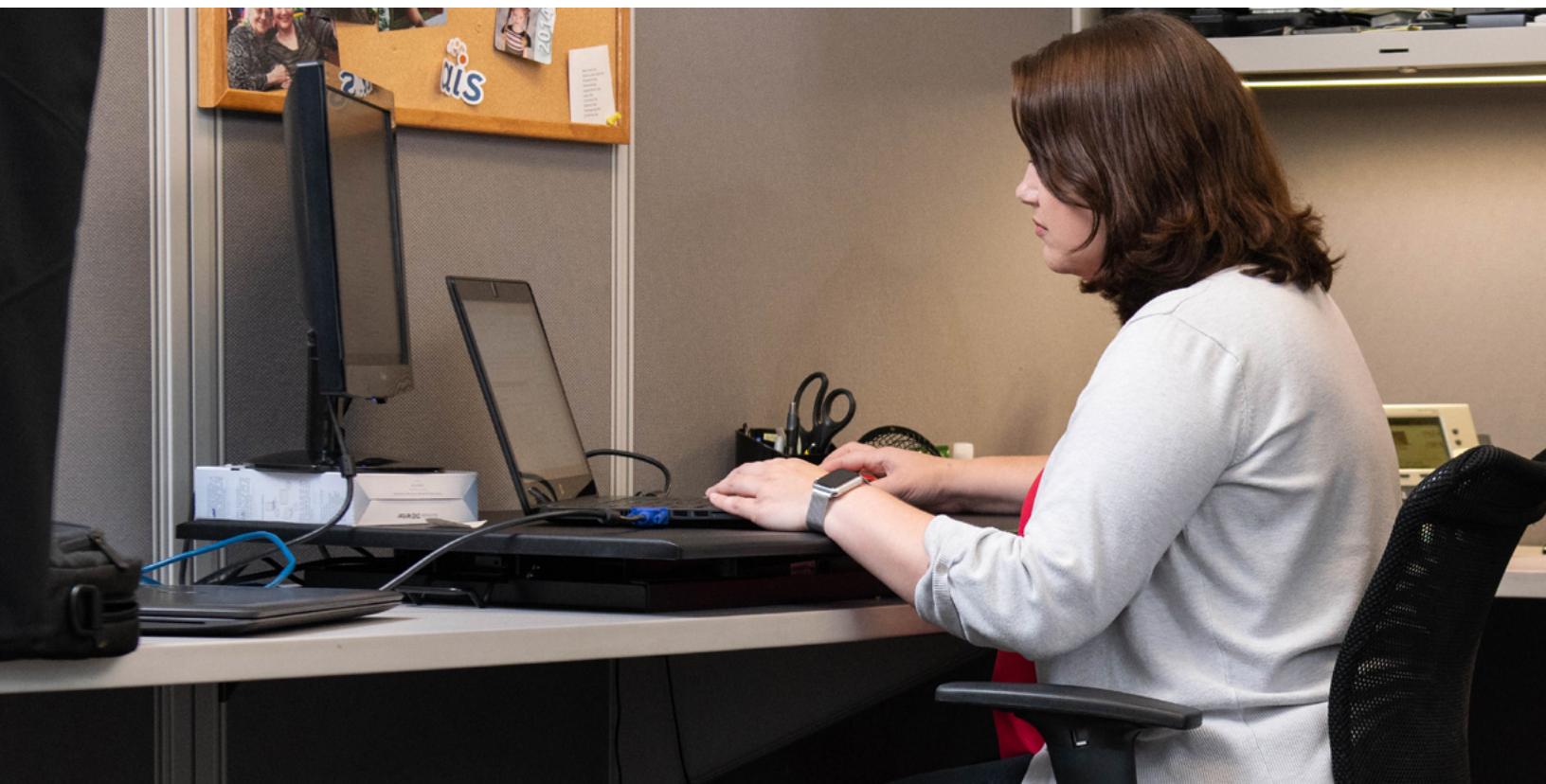
Best practices have emerged as to specific actions that may be undertaken to nurture these durable partnerships, and we expect that the global community around the platform will continue to grow and refine these in the future.

Supporting IT

- Use administrator dashboards, flows, and platform administrative data connectors to automate platform management and provide insights into platform usage
- Establish single archive (e.g., SharePoint) for technical white papers, development standards, transition/hand over documents, and other administrative material
- Keep abreast of technology advances, sharing updates and new features
- Host learning lunches and show and tell sessions to evangelize solutions within the organization
- Provide technical expertise to support Tier 3 help desk requests that cannot be solved via lower tiers of the IT help desk

Supporting Business Units

- Host drop-in hours to talk about business problems and technical challenges; these need not begin with Power Platform as the solution
- Facilitate road mapping (identification, analysis, and prioritization, i.e., “Track 2”) of candidate workloads for migration to the platform
- Lead co-design sessions wherein technical and business subject matter experts design PowerApps, Power BI, and Flow solutions to business-driven use cases
- Organize hackathons to solve business use cases in short, focused periods
- Keep abreast of technology advances, sharing updates and new features
- Host learning lunches and show and tell sessions to evangelize solutions within the organization



Supporting the Community

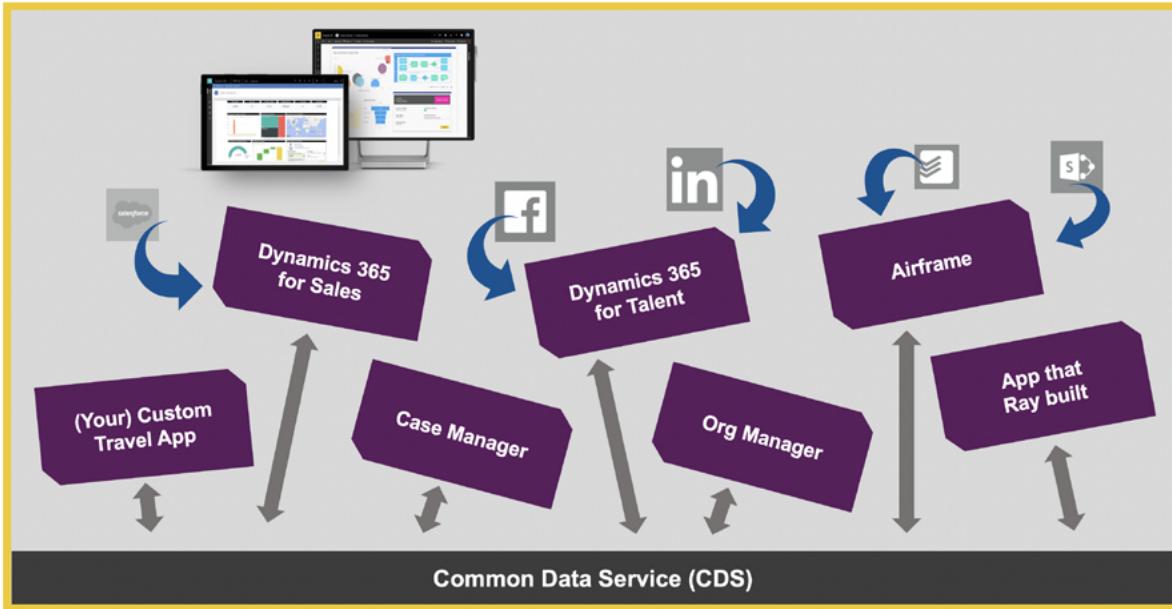
- Offer structured citizen developer onboarding training that provides newcomers with the baseline knowledge they need to be successful creators of no-code solutions within the organization; this may take the form of Microsoft’s App in a Day/Dashboard in a Day/Flow in a Day classes
- Develop re-usable components and templates that save time for citizen developers, and create technical and/or stylistic consistency throughout the organization
- Automate routine project management tasks, for example, if there are a series of things that every citizen developer must do before deploying a new app, automate the creation of those tasks in the new app creator’s Outlook task list
- Curate success stories of successful citizen creations, and encourage community growth and collaboration by sharing these throughout the organization
- Use Microsoft Teams to create a single communication, collaboration, and knowledge sharing hub for citizen developers across business units
- Establish learning paths for specific topics and disciplines through which citizen developers can further develop their skills

Perhaps most importantly, establish mentoring and coaching relationships amongst technical experts in the COE and the subject matter experts and citizen developers out in the business units. Citizen developers will be most successful (and their work will pose less risk being deployed to production) when they are mentored by technical experts when they are constantly able to reach back to solution architects and platform specialists to help them through thornier issues such as data modeling. Do not expect citizen developers to be technology experts; they are doing dabbling with the technology in service of their “day jobs”, not the other way around.

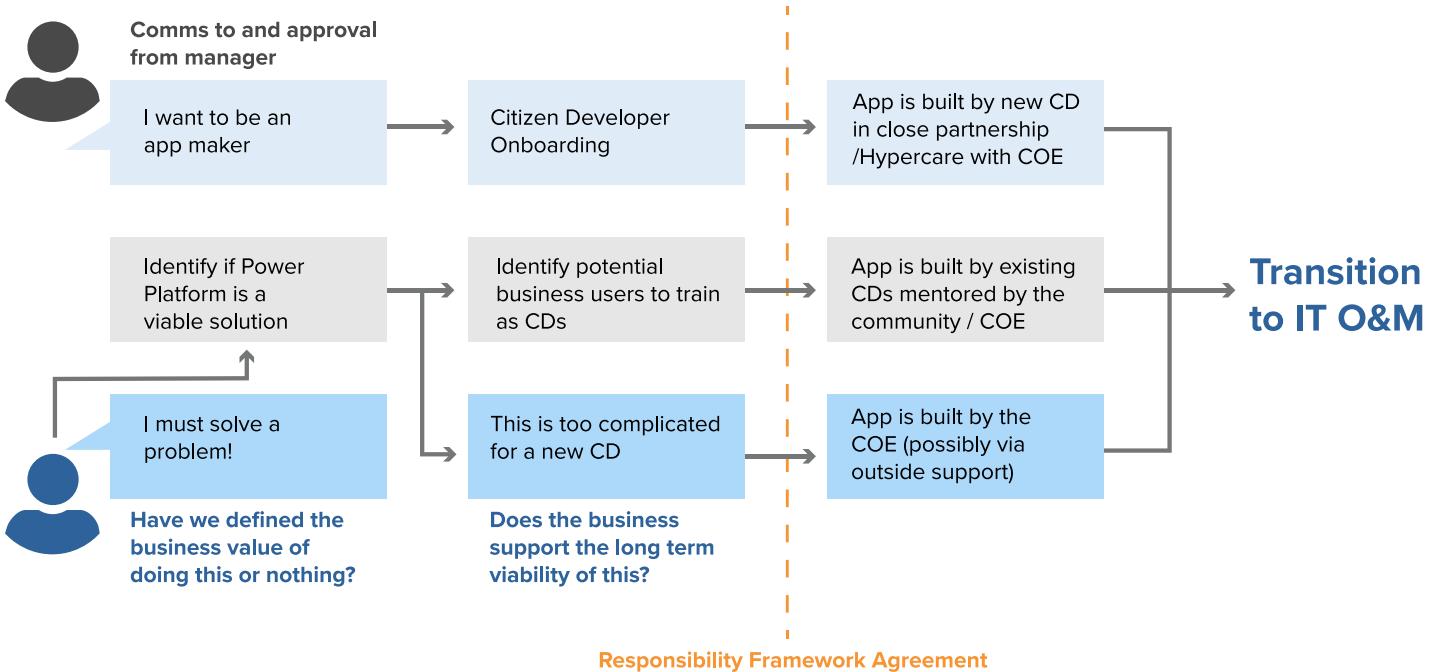
THE BIG IDEA

So let's knit all of this together.

The Power Platform Adoption Framework offers a best practice-driven approach to adopting Power Platform at scale. Scale is valuable because of the network effects, standardization, and return on investment it offers.



Ultimately we're employing the framework to build and sustain a vision of Power Platform that looks something like the diagram above: A single source of truth for our data in the Common Data Service and apps and flows that automate and facilitate a myriad of different workloads. These workloads are built atop that single source of truth, connected to third-party services where necessary, and wrapped in Power BI. They are built to surface data through richly interactive data visualizations and managed at an enterprise scale to reduce risk and enable citizen developers to do as much of this work as possible.



When all of the pieces are working as intended, we've created a repeatable methodology for turning the enthusiasm of citizen developers and the challenges found in our business into working apps, visualizations, and automation.

Sometimes the impetus for **something new comes from a business user** who raises his or her hand and says “I wanna’ be a citizen developer!” Mature organizations have the wherewithal to onboard those folks as citizen developers and channel their enthusiasm in the right direction.

Sometimes the impetus for **something new comes from a business owner** with a problem to solve. Mature organizations possess the discipline to determine if Power Platform is the viable solution to solve that challenge, either with help from citizen developers or with seasoned pros.

In either case, the organization’s purposeful adoption of Power Platform, the definition of responsibilities, and a rigorous approach to enterprise management have positioned it to meet the business need in one of three ways:

- App is **built by a new citizen developer** in close partnership (“hypercare”) with the COE
- App is **built by existing citizen developers** mentored by the community/COE
- App is **built by the COE**, possibly via outside contract support

Ultimately we transition whatever we build to its long-term home — IT O&M, or however the organization has decided to sustain these workloads into the future.

ABOUT APPLIED INFORMATION SCIENCES (AIS)

AIS has worked with Microsoft on the Power Platform since its inception and has built a core team of talent with experience creating solutions in PowerApps, Power BI, Flow, and Dynamics 365. Our team consists of seven locations, including an office in India, giving us the ability to work globally, 24/7, and at much lower costs. We maintain a close relationship with many stakeholders at Microsoft through our 25+ year partnership and involvement in numerous programs including MVP, Regional Director, and Partner & Customer Advisory programs. As a leader in taking our clients to the cloud with Azure, we're able to extend the Power Platform across the entirety of Azure technologies.

We base our Business Applications & Automation work on four core tenets:

- Using the **Power Platform** to solve business problems in the commercial and public sector
- Rapidly implementing flexible **no-code/low-code** solutions at scale
- Extending our deep experience in **Azure, DevOps, User Experience, and emerging technologies** to solve challenges that no-code/low-code can't
- Supporting **enterprise management** of the platform through best practices, development, modernization, governance, change management, and managed services

Most importantly, we've developed the Power Platform Adoption Framework and our accompanying *playbook* as the start-to-finish approach for adopting Power Platform at scale.

With over 37 years of history, dedication, and deep understanding of Microsoft technologies, AIS brings experience and expertise in delivering business application platforms and solutions to the enterprise. We've spent decades helping commercial and government organizations use technology to transform the way they do business — from SharePoint to Office 365 to Azure, and now the Microsoft Power Platform.

Learn More at www.appliedis.com



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