



Presented By



Scott Restivo President & CEO Crow Canyon Software

scott.restivo@crowcanyon.com







Helping businesses succeed with Office 365 & SharePoint!







Microsoft's Power Platform



Power Apps

Build apps in hours, not months, that easily connect to data, use Excel-like expressions to add logic, and run on the web, iOS, and Android devices.



Power Automate

Include powerful workflow automation directly in your apps with a no-code approach that connects to hundreds of populuar apps and services.



Power BI

Unify data from many sources to create interactive, immersive dashboards and reports that provide actionable insights and drive business results



Power Virtual Agents

Easily build chatbots to engage conversationally with your customers and employees - no coding required.



Power Apps Portal

Empower people inside or outside your organization to interact with Common Data Service data using portals.



Power Automate RPA

Automate time-consuming manual processes with UI flows, a robotic process automation (RPA) capability of Power Automate.



High-level Overview

|1| Are you on SharePoint 2010, 2013, 2016, or 2019 (that is, an on-premises version of SharePoint)?

If you are using SharePoint on-premises, you cannot use the Power Platform without:

- Subscribing to a Power Apps standalone plan
- Setting up an On-premises Data Gateway



High-level Overview

|2| If you stay within the limited set of features that are included in Office 365, the costs are mainly for development over and above the Office 365 subscription.

If you need the more comprehensive features the Power Platform offers, you need to get standalone plans that include:

- Premium Connectors
- Model-driven Apps
- Use of the Common Data Service
- Power Apps Portals
- Power BI Pro or Premium
- Power Virtual Agents
- Power Automate with RPA (Robotics Process Automation)



Power Apps, Power Automate and Power Virtual Agents Licensing Guide, *February 2020*

- "Customers that need general purpose and full capabilities of the platform should license Power Apps on a standalone basis."
- "Customers that need full-fledged, general purpose workflow/business process automation capabilities, should consider purchasing standalone Power Automate licenses."



High-level Overview

3 Even with standalone plans, there are factors to consider:

- No built-in printing capabilities
- No offline options
- Limits to the number of API calls
- Need multiple subscriptions, complex pricing
- Uncertainties of cost as usage changes
- Development environments can be difficult



Power Apps





Power Apps is a low code/no code application platform for building business applications and customizing existing Office 365 and Dynamics 365 applications.

https://powerapps.microsoft.com



How are Power Apps Licensed?

STANDALONE PLANS

COMES WITH OFFICE 365

	Per user, per app	Per user	Seeded Power Apps
Licensing scheme	Per user, per app	Per user	Through Office 365 and Dynamics 365 user licenses
Description	Allow individual users to run applications ¹ for a specific business scenario based on the full capabilities of Power Apps	Equip users to run unlimited applications based on the full capabilities of Power Apps	Customize and extend Office 365 & Dynamics 365 applications

¹Each license allows end user to run 2 custom apps and access 1 custom portal



"Seeded" - Power Apps in Office 365

Office 365

Qualifying Licenses				
Office 365 Business Essentials	Office 365 A5 for Students			
Office 365 Business Premium	Office 365 Education E3 for Faculty			
Office 365 A1 for Faculty	Office 365 Education E3 for Students			
Office 365 A1 for Students	Office 365 Education for Homeschool for Faculty			
Office 365 A1 Plus for Faculty	Office 365 Education for Homeschool for Students			
Office 365 A1 Plus for Students	Office 365 Enterprise E1			
Office 365 A3 for Faculty	Office 365 Enterprise E2			
Office 365 A3 for Students	Office 365 Enterprise E3			
Office 365 A3 for Student Use Benefit	Office 365 Enterprise E3 Developer			
Office 365 A5 for Student Use Benefit	Office 365 Enterprise E3 without ProPlus			
Office 365 A5	Office 365 Enterprise E5			
Office 365 A5 for Faculty	Office 365 Enterprise F1			



Power Apps use rights included with O365 licenses

Limited Power Apps use rights are included with select Office 365 licenses to allow users to customize & extend Office 365 for productivity scenarios. For a complete list of Office 365 licenses that include Power Apps use rights, please refer to <u>Appendix D.</u>

Power Apps use rights with Office 365 licenses

Capabilities		Office 365
	Run custom apps (canvas apps)	Unlimited
Run custom apps/portals	Run custom apps (model driven apps)	
	Access custom portals	
	Standard connectors (see Appendix B)	•
Connect to your data	Premium connectors	-
Connect to your data	On premise data gateway	-
	Custom connectors	-
Stave and manage data	Utilize Common Data Service	-
Store and manage data	Create and access custom entities (includes complex entities)	
Execute workflows Power Automate use rights (See Power Automate with Office 365 section)		•
Per license capacity ²	Common Data Service Database Capacity ¹	-
(shared capacity across all Power	Common Data Service File Capacity ¹	-
Apps and Power Automate usage)	Daily API request limit ²	2,000

¹Common Data Service database and file capacity entitlements are pooled at the tenant level

² Reference http://aka.ms/platformlimits for more details on usage limits; "Power Apps and Power Automate capacity add-on" can be purchased to increase daily service limits.



Canvas Apps vs Model-driven Apps

COMES WITH OFFICE 365



Canvas apps start with user experience, with pixel-perfect control to build highly customized task- and role-based apps that mash up data from more than 200 sources

DOES NOT COME WITH OFFICE 365



Model-driven apps leverage your data model, relationships, and business processes to automatically generate immersive, responsive applications



COMES WITH OFFICE 365

 Standard Connector: Data sources within the Microsoft 365 ecosystem. Examples: Excel, Outlook, SharePoint, LinkedIn.

DOES NOT COME WITH OFFICE 365

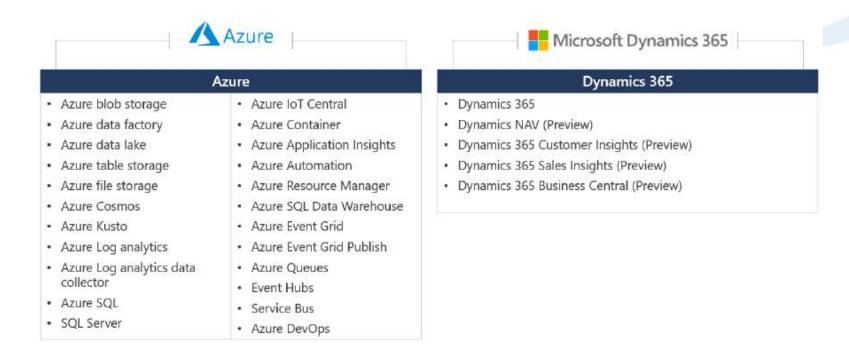
- Premium Connector: Business systems beyond Microsoft 365. Examples: DocuSign, Zendesk, Jira Software.
- Custom Connector: To support more tailored scenarios, you can build custom connectors with their
 own triggers and actions. These connectors are function-based data is returned based on calling
 specific functions in the underlying service. Example: Services that are not available as prebuilt
 connectors.
- On-premises Connector: Access on-premises data using a gateway. Example: Microsoft SQL Server.

https://flow.microsoft.com/en-us/connectors/



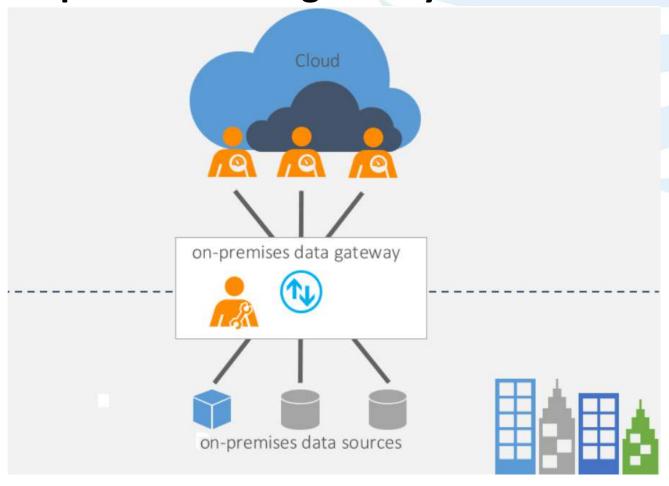
Appendix B: Standard Connectors moved to premium category

Power Apps and Power Automate rely on a common set of pre-built connectors to provide access to business data. These pre-built connectors are divided into two categories (Standard and Premium) which align to the use rights across the various service editions. For a complete list of the available data connectors click here.





On-premises data gateway

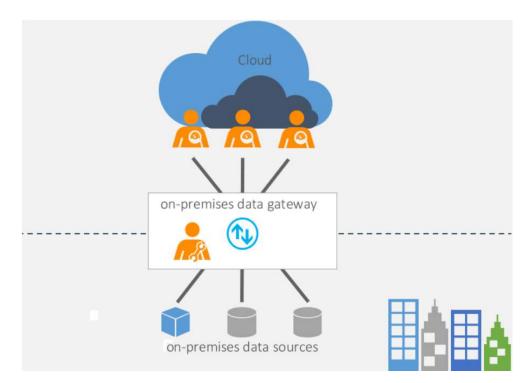


From: https://docs.microsoft.com/en-us/powerapps/maker/canvas-apps/gateway-reference



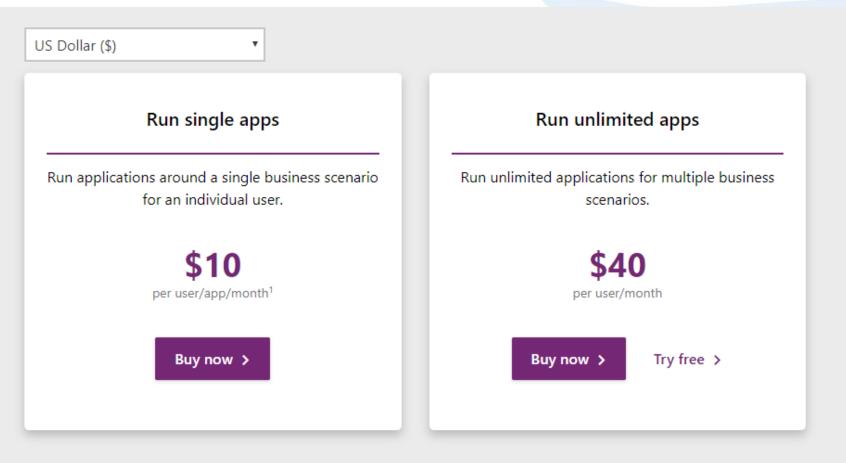
If you are using SharePoint on-premises (2013, 2016, 2019), you cannot use the Power Platform without:

- Subscribing to a Power Apps standalone plan
- Setting up an On-premises Data Gateway





Power Apps – *Pricing, standalone plans*



	Per app plan \$10 user/app/month ¹	Per user plan \$40 user/month
Run custom apps		
Build and run custom apps	2 apps and 1 portal	Unlimited ²
What's included		
Connect to your data	Use pre-built and custom connectors	
Connect to your data	Use on-premises connectors and gateway	
Store and manage data	Create and access custom entities	
Use Common Data Service	50 MB database capacity ³	250 MB database capacity ³
OSC COMMON DATA SCIVICE	400 MB file capacity ³	2 GB file capacity ³
Execute workflows	Power Automate use rights (including premium connectors) ⁴	
Execute Workhows	Asynchronous and custom real-time workflows	



Entitlement Summary for Power Apps per user license

Plans and capabilities	Power Apps per user plan	
Run custom apps /	Run custom apps (both canvas and model driven)	Unlimited
portals	Access custom portals	Unlimited
	Standard connectors	•
Connect to very date	Premium connectors	•
Connect to your data	On premise data gateway	•
	Custom connectors	•
	Utilize Common Data Service	•
Store and manage data	Create and access custom entities (includes complex entities)	•
	Dynamics 365 restricted entities access ¹	Read only
	Power Automate use rights	Within app context
Execute workflows	Classic Common Data Service non real-time and real-time workflows	•
	Common Data Service Database Capacity ³	250 MB
Per license capacity ²	Common Data Service File Capacity ³	2 GB
	Daily API request limit ²	5,000
Infuse Al	AI Builder capacity add-on	\$

¹An entity within Common Data Service becomes restricted only if the Dynamics 365 application is installed on a given environment ²Service limits are published at http://aka.ms/platformlimits – Power Apps and Power Automate capacity add-on can be purchased to increase daily service limits

³Common Data Service database and file capacity entitlements are pooled at the tenant level



Power Apps – Pricing, per user plans

100 users, \$40/user/month \$4,000/month \$48,000/year

500 users, \$40/user/month \$20,000/month \$240,000/year

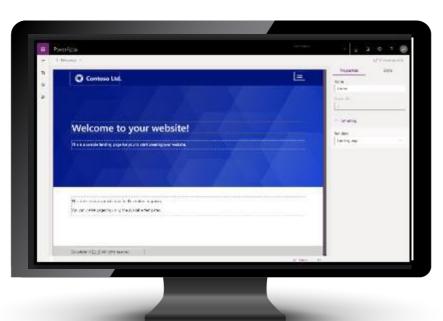
1,000 users, \$40/user/month \$40,000/month \$480,000/year



Power Apps Portal



Power Apps Portals



Power Apps Portals deliver the capability to build standalone, external-facing portals over the Common Data Service.

The Portals allow anyone – whether inside or outside your organization – to interact with Common Data Service data.

https://powerapps.microsoft.com/en-us/powerapps-portals/



Usage of a Power Apps Portals instance

Each end user that accesses a Power Apps Portals instance needs to be licensed appropriately. The table below outlines the end user types.

End user type	Description	Use case examples	
(authenticated)	utilizing authentication mechanisms such as Azure AD B2C, LinkedIn, Okta, etc.	 B2B - Partner management (Dealer, Supplier, Franchise etc.) B2C - Account management etc. 	
Anonymous user	Access publicly viewable web pages powered by the portal	Knowledge management sites	
Internal user	A user licensed with Power Apps or Dynamics 365	Employee self-serve	

The licensing scheme varies based on end user type.

End user type	Licensing model	Description
External user (authenticated)	Per login	A login provides the authenticated user with access to a single portal for up to 24 hours . Multiple logins during the 24-hour period count as 1 billable login Think of a login as a day pass to a single Power Apps Portal
Anonymous user	Per page view	
Internal user	 License fee pays for access to Power Apps Portals No additional monetization 	Custom portal use rights are aligned with custom app use rights



For internal users i.e. users licensed with Power Apps or Dynamics 365 licenses, the use rights for Power Apps Portals which are essentially custom portals aligns with use rights to custom Power Apps.

License	Custom Power Apps Portals use rights	
Dynamics 365 Team Members	None	
Dynamics 365 Operations - Activity	None	
Dynamics 365 Professional license ¹	None	
Dynamics 365 Enterprise license ²	 Power Apps Portals that map to licensed Dynamics 365 application context Power Apps Portals that map to the same environment as the licensed Dynamics 365 application 	
Power Apps per app	1 Power Apps portal	
Power Apps per user	Unlimited Power Apps portals	
Office 365	None	



Power Apps Portals

License	Cost Model	How much?	Key Points	
Seeded License	Per User	Included in O365/D365	Standard functionality only	
Per User License	Per User	\$40 per user/month	Full Capability of PowerApps (previously Plan 1 and Plan 2)	
Per App License	Per User	\$10 per user/app/month	2 x Apps (canvas/model) + 1 Portal Full Capability of PowerApps	
Portal – Authenticated	Per Login	\$200 for 100 logins \$1000 for 1000 logins \$3500 for 5000 logins	No up front costs	
Portal - Unauthenticated	Per Page View	\$100 for 100,000 page views		
Portal – Internal User	Per User	Included with Per App, Per User or Dynamics 365 Enterprise license		

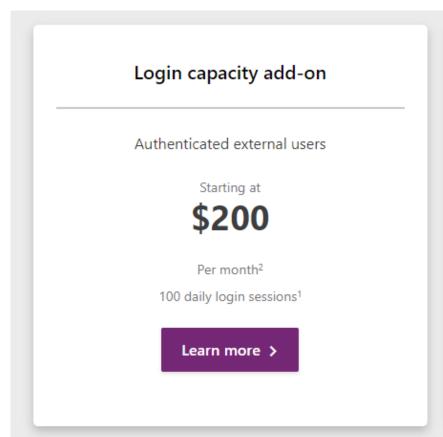


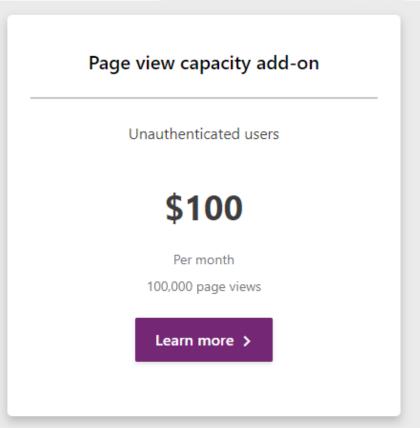
PowerApps Licensing as of 1st October 2019



Power Apps Portals - Pricing

Enable external users to access custom portals







Power Apps in Office 365

- 1) Does not include Premium Connectors.
- 2) Does not include on-premises connectivity.
- 3) Does not include Power Apps Portal licenses.
- 4) Subscription only allows "canvas apps", not "model-driven apps".
- 5) There is a daily API request limit of 2,000.

According to Microsoft:

To use all the Power Apps capabilities, an organization would need to go with either the \$10/user/month for 2 apps + 1 portal or the \$40/user/month for unlimited apps and portals.



Limitations of Power Apps

No Printing Capabilities

No built-in printing capabilities.

See: https://www.crowcanyon.com/blogs/no-printing-in-power-apps-use-nitro-studios/

No Use of Rich XML Files

If you have business processes built around the structured XML files generated by InfoPath, then PowerApps will not meet your needs.

No Anonymous or External Users without Power Apps Portal

If you need to share forms and data sources with customers, vendors, partners and other people outside your organization, you need to implement Power Apps Portals.

No Offline Use

PowerApps assumes a constant connection and provides no built-in ability to work offline. Mobile users cannot open a form while offline, nor submit data to be synced later when online. Data queried online is not cached for use offline.

Not Always a No-Code Solution

It can get very complicated for power users. Power Apps is oriented to writing code, using APIs, outputting JSON, and making REST calls.

https://collabshow.com/2019/08/07/infopath-migration-has-changed-check-out-these-updates/



DON'T HOLD YOUR BREATH!

You might be waiting forever for PowerApps to support these legacy features of InfoPath:



- Print-ready forms
- Rich XML files
- Complex HTML and Javascript forms
- Anonymous external user access
- Simple client form editing tool
- · Offline client filler

Stop holding your breath! Join the webinar on August 27th and read the blog at Collabshow.com

Sponsored by: Crow Canyon Software 925-478-3110 sales@crowcanyon.com www.crowcanyon.com "PowerApps doesn't seek feature parity with InfoPath" - Microsoft, Ignite 2016



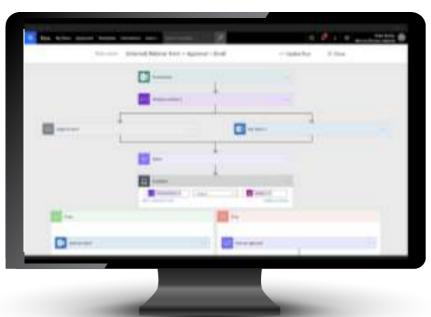
Author: Joel Oleson Collabshow.com Community Evangelist MVP & Regional Director



Power Automate



Power Automate (formerly Flow)



Power Automate allows enterprises to implement automated workflows and business processes and achieve operational efficiencies.

https://flow.microsoft.com



How is Power Automate licensed?

STANDALONE PLANS

COMES WITH OFFICE 365

Power Automate	Per user	Per flow	Seeded Flow
Licensing scheme	Per user	Per flow Minimum purchase of 5 flows	Through Office 365, Dynamics 365, and Power Apps
Description	Allow individual users to create unlimited flows based on their unique needs.	capacity that serve unlimited users	Automate business processes and workflows for Office 365, Dynamics 365, and Power Apps



Summary of Power Automate use rights with Office 365 licenses

Plans and capabilities		Power Automate use rights within Office 365 licenses	
Execute flows ¹	Workflows	Unlimited ¹	
Execute nows	Business process flows	-	
	Standard connectors	•	
Connect to your data	Premium connectors	-	
Connect to your data	On-premises data gateway	-	
	Custom connectors	-	
Store and manage data Common data service use rights		-	
Per license capacity	Daily API Requests ¹	2,000	

¹Usage capacity is across both Power Apps and Power Automate; "Power Apps and Power Automate capacity add-on" can be purchased to increase daily service limits. More details at http://aka.ms/platformlimits



Power Automate – use with Office 365

Power Automate use within Office 365 is limited to the context of the embedding Office 365 application.

For both triggers and actions, flows included within the Office 365 application can connect to:

- Any data source within the use rights of the Office 365 application
- Directly with the Office 365 application (via built in trigger/action)

If the embedded flow is not within the context of the Office 365 application or if the embedded flow needs to connect to a premium on-premises or custom data source, standalone Power Automate licenses will need to be purchased.



Power Automate - Pricing

Per user plan Allow individual users to create unlimited flows based on their unique needs. \$15 user/month Buy now > Try free >

Per flow plan Implement flows with reserved capacity that serve unlimited users across an organization. Starting at \$500 for five flows per month 1 Buy now >

^{\$500} per month includes five flows. Additional flows may be purchased for \$100 per flow/month. Purchasing and assigning Power Automate per flow plan licenses requires access to the Microsoft 365 admin center with either the global administrator or billing administrator roles.



Power Automate - Pricing

License by user

Per user plan

Allow individual users to create unlimited flows based on their unique needs.

\$15

per user/month

Buy now >

Try free >

Per user plan with attended RPA

Allow individual users to create unlimited flows, plus automate legacy applications through robotic process automation (RPA) and Al.

Available soon

\$40

per user/month

Learn more >

License by flow

Per flow plan

Implement flows with reserved capacity that serve unlimited users across an organization.

Starting at

\$500

for five flows per month 1

Buy now >



Power Automate per user plan

Power Automate per user plan equips **individual users** to create and run **unlimited workflows** and business processes based on their unique needs. The per user plan is intended to support the broad adoption of an automation culture in an organization.

Should the entire organization be licensed with the Power Automate per user plan, admins will have minimal overhead with tracking how many flows are being activated/used within the organization.



Power Automate per business process (per flow) plan

Power Automate per business process plan is **licensed by flow** and allows customers to implement critical business processes with capacity that serves teams, departments, or the entire organization without individually licensing each end user that triggers the licensed flow.

Power Automate per business process plan is great for departmental scenarios where typically, one power user sets up a flow and shares the same with the broader group. This plan alleviates the need to license each end user that knowingly/unknowingly triggers execution of the licensed flow.

Minimum purchase: 5 flows

	Per user plan \$15 user/month	Per user plan with attended RPA \$40 user/month	Per flow plan Starting at \$500 per month		
Run flows					
Active flows per user	Unlimited ²	Unlimited ²	N/A		
Active attended RPA bots		1 bot ³			
Active unattended RPA bots		\$ per bot	\$ per bot		
Al Builder service credits ⁴	\$	5,000/month	\$		
What's included					
Connect to your data		Use pre-built connectors			
Connect to your data		Use custom and on-premises connectors			
Store and manage data		Create and access custom entities			
He Common Data Coming	50 MB database capacity ⁵				
Use Common Data Service		200 MB file capacity ⁵			

Usage subject to service limits. Please review https://aka.ms/platformlimits for more details.
 Ul flow authoring, and bot orchestration and management are included.
 Al Builder service credit capacity is pooled at the tenant level. Purchase additional capacity per 1M service credits for \$500/month.
 Common Data Service database and file capacity entitlements are pooled at the tenant level.

Power Automate - Pricing

Plan and Capabilities		Power Automate per user plan	Power Automate per flow plan
Basics	Minimum purchase	NA	5 units
	User license required?	Yes	-
Execute flows	Workflows	•	•
	Business process flows	•	•
Connect to your data	Standard connectors	•	•
	Premium connectors	•	•
	On premises data gateway	•	•
	Custom connectors	•	•
Store and manage data	Common data service use rights	•	•
Per license capacity	Common Data Service Database Capacity ¹	50MB	50MB
	Common Data Service File Capacity ¹	200MB	200MB
	Daily API request limit ²	5,000	15,000

¹Reference http://aka.ms/platformlimits for more details on usage limits; "Power Apps and Power Automate capacity add-on" can be purchased to increase daily service limits.

²Additional Common Data Service Database/File/Log capacity can be purchased in increments of 1GB. Common Data Service Database and File capacity are pooled tenant wide.



Power Automate – use with Power Apps

Power Apps licenses (both "Power Apps per app plan" and "Power Apps per user plan") include Power Automate use rights for the purpose of automating workflows associated with the Power Apps application(s).

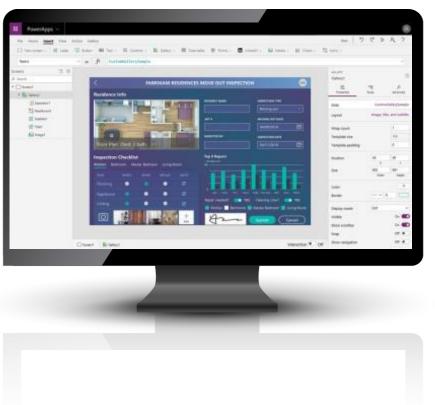
Power Automate use within Power Apps is limited to the context of the Power Apps application. What this means is that for both triggers and actions, flows included within a Power Apps application can connect to:

- Any data source within the use rights of the Power Apps application
- Directly with the Power Apps application (via built in trigger/action)

If the flow is isolated and has nothing to do with the Power Apps application, then standalone Power Automate licenses will need to be purchased.







Power BI is a cloud-based suite of business analytics tools that lets anyone connect to, visualize, and analyze data with greater speed, efficiency, and understanding.

https://powerbi.microsoft.com/en-us/

- Power BI Free version included with Office 365 E3
- Power BI Pro included with Office 365 E5
- Power BI Premium available for extra cost



Power BI - Free

Power BI Free enables you to connect to 70+ data sources, publish to the web, and export to excel. The same visualizations that are available in Power BI Free.

There are some limitations to the free version: you can't do peer-to-peer sharing and you can't create App workspaces.



Power BI - Pro

With Pro you can share your data, reports, and dashboards with users who also have a Power BI Pro license. You can also create App workspaces. Both Power BI Free and Pro have a 10 GB per Pro user data storage limit.



Power BI – Per-user license type comparison

Here is a list of features supported by per-user license type.

	Free	Pro
Connect to 70+ data sources	~	~
Publish to Web	~	✓
Export to PowerPoint, Excel, CSV	~	~
Enterprise distribution		
Apps	×	~
Email subscriptions	×	~
Embed APIs and controls	×	~
Collaboration		
Peer-to-peer sharing	×	~
App workspaces	×	/
Analyze in Excel, analyze in Power BI Desktop	×	~



Power BI – Premium

Power BI Premium provides dedicated and enhanced resources to run the Power BI service for your organization.

For example:

- Greater scale and performance
- Flexibility to license by capacity
- Unify self-service and enterprise BI
- Extend on-premises BI with Power BI Report Server
- Support for data residency by region (Multi-Geo)
- Share data with anyone without purchasing a per-user license



Do you need self-service BI?

Choose Power BI Pro

- · Self-service and modern BI in the cloud
- Collaboration, publishing, sharing, and ad hoc analysis
- Fully managed by Microsoft

Power BI Pro

\$9.99

Monthly price per user with annual subscription

Buy now>

Try free >

Do you need advanced analytics, big data support, and onpremises and cloud reporting?

Add Power BI Premium

- Enterprise BI, big data analytics, cloud and on-premises reporting
- Advanced administration and deployment controls
- Dedicated cloud compute and storage resources
- Allow any user to consume Power BI content

Power BI Premium

\$4,995

Monthly price per dedicated cloud compute and storage resource with annual subscription

Request a consultation >



Power Virtual Agents



Power Virtual Agents



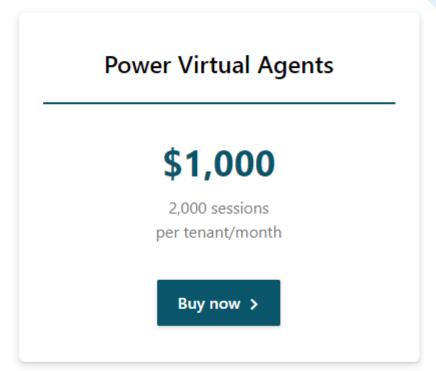
Power Virtual Agents empowers teams to create bots using a guided, no-code graphical interface.

It integrates bots with hundreds of apps and services using prebuilt connectors and allows custom workflows with Power Automate, enabling bots to take action on behalf of customers.

https://powervirtualagents.microsoft.com



Power Virtual Agents - Pricing



From: https://powervirtualagents.microsoft.com/en-us/

In Conclusion...



Power Apps

Build apps in hours, not months, that easily connect to data, use Excel-like expressions to add logic, and run on the web, iOS, and Android devices.



Power Automate

Include powerful workflow automation directly in your apps with a no-code approach that connects to hundreds of populuar apps and services.



Power BI

Unify data from many sources to create interactive, immersive dashboards and reports that provide actionable insights and drive business results.



Power Virtual Agents

Easily build chatbots to engage conversationally with your customers and employees - no coding required.



Power Apps Portal

Empower people inside or outside your organization to interact with Common Data Service data using portals.



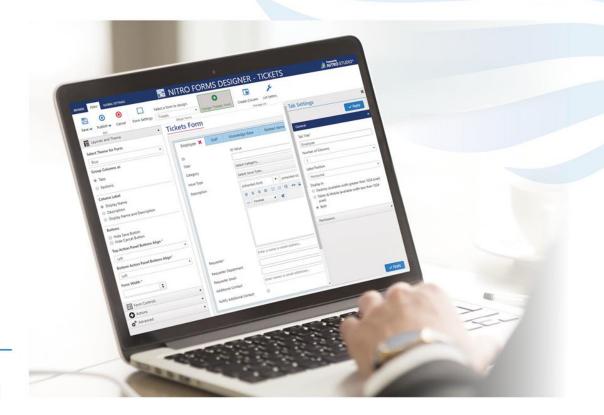
Power Automate RPA

Automate time-consuming manual processes with UI flows, a robotic process automation (RPA) capability of Power Automate.





- Forms
- Workflows
- Reporting
- Portals
- Modern UI
- Chatbots
- Database Integration



Runs in Office 365 & SharePoint 2013, 2016, 2019

eBook: "Moving from InfoPath to NITRO Studio"



This guide covers topics like:

Best practices for an InfoPath replacement project
What NITRO Studio forms and workflows offer
Guidelines for transition from InfoPath to a new solution

This is a great opportunity to learn what is needed to move off InfoPath!

Crow Canyon Software



BUSINESS APPLICATIONS

- IT Help Desk
- Asset Management
- Customer Service
- Facilities Requests
- Work Orders
- Equipment Tracking

- Security Access Requests
- Onboarding
- Contract Renewals
- Document Management
- HR Requests
- Purchasing Requests

THANK YOU for attending!





with Ryan Stefani
March 26, 2020 | 11:00AM -12:00PM

www.crowcanyon.com/webinars