#TeamsNation

Dataverse meets Teams: Low-code app opportunities for everyone

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Session objectives

Positioning Microsoft Dataverse into the Microsoft Teams application platform story

Showing app examples of what Dataverse for Teams can do

3

2

Helping you evaluate when Dataverse for Teams is a good fit (and when it isn't)



A quick introduction

Jukka Niiranen: who, what, when, why?

- Started working with Microsoft business apps in 2005
- Launched my blog in 2008, Microsoft MVP since 2013
- Switched my focus from Dynamics 365 to Power Platform around 3 years ago
- Working as Power Platform Advisor & Co-founder at Forward Forever
- Citizen developer by heart, zero coding skills
- Working out loud since 2010 (Yammer)
- Excited about the Teams as a Platform story because this could really be the next Microsoft Operating System





FOREVER



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/in/jukkaniiranen/



Agenda

- Dataverse: the big picture
 - Where it came from & why it is the center of MS low-code universe
- Dataverse for Teams in practice
 - 3 demo scenarios of real apps
- When to use / not to use Dataverse for Teams
 - Limitations to keep in mind when architecting your solutions



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Dataverse: the big picture



Dataverse: what is it & why should I care?



- It's not *just* a relational database
 - Offers features for managing security, workflows, integration, audit, app lifecycle etc.
- Mature platform for enterprise scale business applications
 - Available as a MS cloud service since 2011 (just with a different name)
- Caters to both citizen developers and code-first developers
 - Full GUI for building apps with zero code, extensive APIs for building custom apps and integrations with as much code as you need
- Microsoft's preferred choice for you to build Power Apps on
 - While SharePoint may be the most widely used app data source still, MS investments are aiming at making Dataverse work as natively with Power Apps as possible



Types of business apps built on Dataverse





Key benefits of Dataverse for Teams

- Available to every Microsoft Teams user
- Better foundation for app data model than Microsoft Lists (SharePoint)
- Self-service management of Dataverse environment, users are tightly coupled with the team's roles (owner, member, guest – "OMG")
- Simplified feature set aimed at citizen developers (vs. full Dataverse aimed at enterprise solutions and pro devs)
- Can integrate with external systems via Azure API Management (with the help of pro devs...)
- Offers an upgrade path to full Dataverse without needing to re-architect the applications



The quickest way to try Dataverse

Use the sample apps from Microsoft Teams store

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	Easily review, manage, and vote upon team's ideas to increase team engagement and morale. Helps team managers to improve workplace wit	Create customized checklist style inspections for areas and assets. Perform them digitally with the ability to take notes and pictures. Issues identifie	Empower the front line worker to report issues they see on the ground. Easily collect issues submitted in Planner for effective case	Be in the know of all company communications, broadcasts, and announcements in an easy to consume experience in Teams. Customize post
Apps		Desfiles	an burk	
?	Milestones	Profile+	Boards	Perspectives
Help	Plan, track, and prioritize team's work capacity across projects in a central place. See team status and work item updates to become aware of how	Profile+ help you quickly look up colleagues, understand org structure and roles, and learn about open positions. The ability to filter by	You and your team can create boards about anything-interests, initiatives, onboarding, etc. You can also post just about anything to a boar	The Perspectives app is a place to listen and be heard in your organization. A simple search-and- browse experience makes it easy to find

Everyone can be an app maker in Teams

- If you're a team member, you can provision a new Dataverse for Teams environment by creating a new app (or installing a sample app)
 - Unless the Teams admin has explicitly blocked Power Apps + all the MS sample apps
- Each DV4T environment gets 2 GB worth of storage capacity does not affect the tenant level capacity for full Dataverse environments
- Each tenant gets 5 environments + 1 additional environment for every 20 eligible Microsoft 365 user licenses
 - With 1K users you get 55 environments, with 100K you get 5,005 environments
- 1 environment per team, but you can have as many apps there as needed



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Dataverse for Teams in practice



Example scenarios



2) Desktop + mobile apps, including data visualization

3) Responsive app
UI + integration + broad distribution



Onboarding app

Scenario

- Organization's need:
 - Ensure a smooth experience for handling all necessary tasks when a new employee joins the organization - for both the new employee and those who are responsible for helping in completing the tasks
- Starting point:
 - OneNote based template list of onboarding tasks
 - New copy created to serve as a checklist for each new employee
- Solution on Dataverse for Teams:
 - Dataverse tables for storing onboarding tasks and employees
 - Business logic to copy tasks from a template when new employees are added
 - Power Apps UI to show tasks per responsible person and track task completion



Creating the tables

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Custom card UI for the employee list

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Final app published to a team's channel

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Scenario

- Organization's need:
 - Manage the availability of hospital staff required for different categories of visits and activities associated with them
 - Create demand estimates through extensive calculation formulas, track actual number of visits + duration of activities
- Starting point:
 - Common Excel workbook that contained all the planning calculations as well as actual visit and activity duration data
 - Infrequent and inaccurate entry of data by the hospital personnel, due to having to open the Excel workbook on a PC at the end of the shift
- Solution on Dataverse for Teams:
 - Capacity elements modelled into Dataverse tables, with required calculation logic
 - Dedicated UIs for capacity planning, actual data entry and results analysis



1) Capacity planning app for Teams desktop client

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2) Capacity tracking app for mobile devices

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3) Power BI report for tracking planned vs. actual capacity

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IT Self-service app

Scenario

- Organization's need:
 - Allow employees to request services from IT, such as local admin rights to PC, installation of additional software, access to specific cloud services
- Starting point:
 - No formal intranet instructions page or forms for submitting requests, process handled via email, no central visibility to requests/approvals/delivery
- Solution on Dataverse for Teams:
 - Dataverse tables + IT Admin app developed into a team accessible by IT only
 - Employee facing IT Requests app published from that same team to the whole organization, pinned as a tab in common Teams channels
 - Request approval process managed via native MS Approvals app inside Teams, triggered and monitored via Power Automate cloud flows



IT Self-service app: employee

1) Employee browses the service catalog and selects a service





IT Self-service app: employee

2) Employee fills the service request form with justification details & accepts the terms





IT Self-service app: approval team member

3) Members of the approval team for the service get the employee's request for review





IT Self-service app: service delivery

4) Approved request results in either Azure AD group membership or email ticket to helpdesk





IT Self-service app: IT admin

5) Admin app provides overview and details of all request by status, service, user





IT Self-service app: team architecture

Data hosted in one Dataverse for Teams environment, shared to other teams for employee access



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When to use / not to use Dataverse for Teams





The "free" version can't do everything



- Building apps for your team to replace Excels or MS Lists used in an encapsulated, independent process is a great fit for Dataverse for Teams
- Trying to develop an organization wide app or manage a critical business process with DV4T requires detailed understanding of what the technical limitations are
- These limitations are intentional we aren't likely to see Microsoft significantly enhance the DV4T feature set in the near future
- While you can always upgrade the environment from Teams to full Dataverse later, you should analyze the requirements upfront to avoid nasty surprises



Dataverse for Teams features



Clients Integration Security + compliance Data Microsoft Teams Relational Encryption at rest Power automate O356 and Microsoft Dataverse for Basic data types Encryption in transit Teams included, premium with Common data modeling Business unit (1 per team) license (coming soon) Admin roles Data flows (import only) Custom tables User roles File + Image Find, filter, sort **Environment lifecycle** App lifecycle **Business rules and** Reporting workflows One environment per team Unmanaged solution (1 per team) Data visualization Managed solution (gallery) Power automate Promote to common data Power BI service/D365 N/A Managed solution (classic Backup import/export) Pont-in-time restore **Disaster recovery**

Dataverse full feature set

Clients

Web Mobile (power Apps/D365 Player) Desktop Microsoft Outlook Microsoft Excel Microsoft Teams

Data

Advanced Data Types Activities/Activity Feeds Common Data Model Managed Lake Mobile Offline Non-Relational Log Relevance Search Virtual Entities Relational Basic Datatypes Common Data Model Custom Tables File + Image, Find, Filter, Sort

Integration

API Access Event to Event Hub Events to Service Bus Export to Lake Plugins Server-Side Sync Web Hooks Power Automate O365 and Microsoft Dataverse for Teams included, Premium with license Data Flows (Import only)

Security + compliance

Admin Roles User Roles Business unites (multiple) Customer Managed Keys Hierarchical Security Field Level Security Sharing WS Trust/Legacy AuthN Activity Logging Auditing Encryption at Rest Encryption in Transit Business units

Environment lifecycle

Unlimited environments Reset Copy Promote to Dataverse/D365 Backup Point-in-time Restore Disaster Recovery App lifecycle

Unmanaged solutions (unlimited) Managed solutions (unlimited)

Business rules and workflows Business Rules

Business Rules Business Process Flows **Reporting** Paginated reports (SSRS) Data Visualization Power BI

Can your app live <u>only</u> within Teams?

?

- For processes that are already discussed and manually managed within Teams, having your apps there makes perfect sense
- However, if you need to provide access to users who perform a bulk of their tasks elsewhere, this may become a real barrier for adoption
- Mobile use cases are especially cumbersome, since users can't pin their Power Apps onto phone start screens the way full Dataverse apps would be supported
- Opening a DV4T app in a browser tab is supported but only if you have a premium Power Apps license



Find the right platform for experimentation



- Sometimes you need a way to have real users interact with your app "in preview", before committing to developing the final production solution
- Dataverse for Teams is a great option for this, with no extra license purchases required beyond Microsoft 365
- If you know you'll eventually need more than DV4T can support, though, consider an alternative to use full Dataverse right from the start
- Pay-as-you-go licensing model for Power Apps could be a solution
 - No upfront commitment on number of licensed users, pay only for users who've launched the app during the month
 - Create dev/test/prod environments on-demand, pay for the storage capacity consumed
 - Billed via Azure subscriptions, consumption can be monitored via Azure Cost Management



Environment sprawl is very real

- Anyone can create a Dataverse for Teams environment if they are a team member
- Environments will get created accidentally, or intentionally without full understanding of the implications
- Establish a governance policy early on to determine the allowed usage and ownership concept for environments
- Leverage the templates available in Power Platform Center of Excellence (CoE) Starter Kit for managing Dataverse for Teams environments: [link]

Power Automate 14/10/21 11:06

Your Teams environment:

...

Your power platform environment might get deleted if the business justification is rejected or if you do not provide a business justification.

Microsoft Dataverse for Teams is an exciting new capability that integrates Teams with the Power Platform. Using Dataverse for Teams, anyone can make and deploy apps, flows, and chatbots directly within Teams. Note: As this is a limited capability, please be mindful of others. Create just the environments that you need to support your business process

If the environment you just created is for a production use case, please provide a business justification.

Business Justification

FF Admin notification. Learn more Submit	used Power Automate to send this
Power Automate 26/10/21 08:10	
Your Microsoft Teams e	nvironment:

Your Microsoft Teams Power Platform environment has been deleted, as you did not provide a business justification or your provided justification has been rejected by the reviewer.

FF Admin notification. Learn more used Power Automate to send this



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Closing thoughts



Embrace DV4T with these things in mind

- Dataverse for Teams plays a critical role in the "Teams OS" story, while full Dataverse puts the "platform" in Power Platform
- Expect to find some quirks in the DV4T app maker experience, especially if you come from the full Dataverse / Dynamics 365 side
- Despite of the intentional limitations in Dataverse for Teams, there are plenty of scenarios where the licensing model strongly favors designing your app within these boundaries
- Don't bet your low-code strategy only on the Microsoft 365 feature set prepare to also consume premium Power Apps/Automate licenses where it makes sense
 - Admin/governance capabilities, more complex apps, connecting to external data











Any questions in mind?



Rate my session & Calls to Action



