Distributing Content using App Workspaces
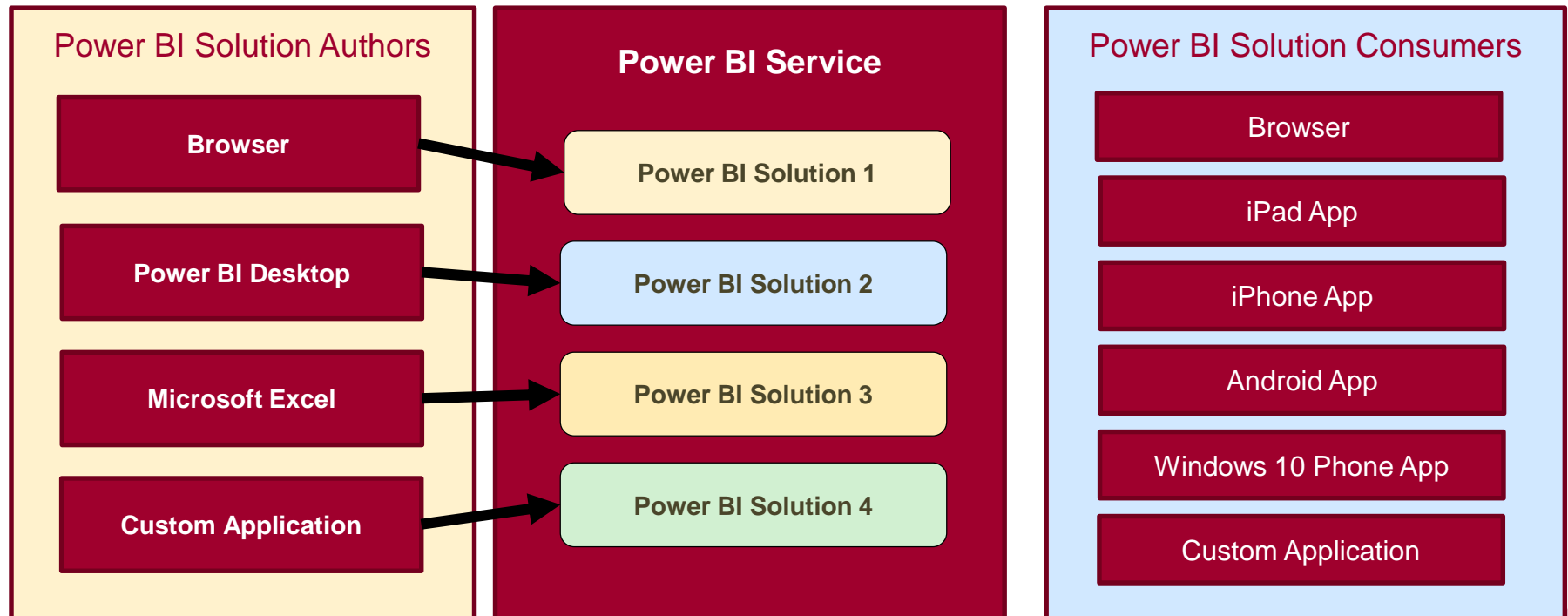
Agenda

➢ Content Distribution in Power BI

- App Workspaces

- Publishing Apps

- Dedicated Capacities

Power BI Authors and Consumers

- ## Power BI support for authors and consumers
  - BI solution authors have a choice in authoring tools
  - BI solutions consumers can use wide range of devices

Power BI Solution Authors

- Browser
- Power BI Desktop
- Microsoft Excel
- Custom Application

Power BI Service

- Power BI Solution 1
- Power BI Solution 2
- Power BI Solution 3
- Power BI Solution 4

Power BI Solution Consumers

- Browser
- iPad App
- iPhone App
- Android App
- Windows 10 Phone App
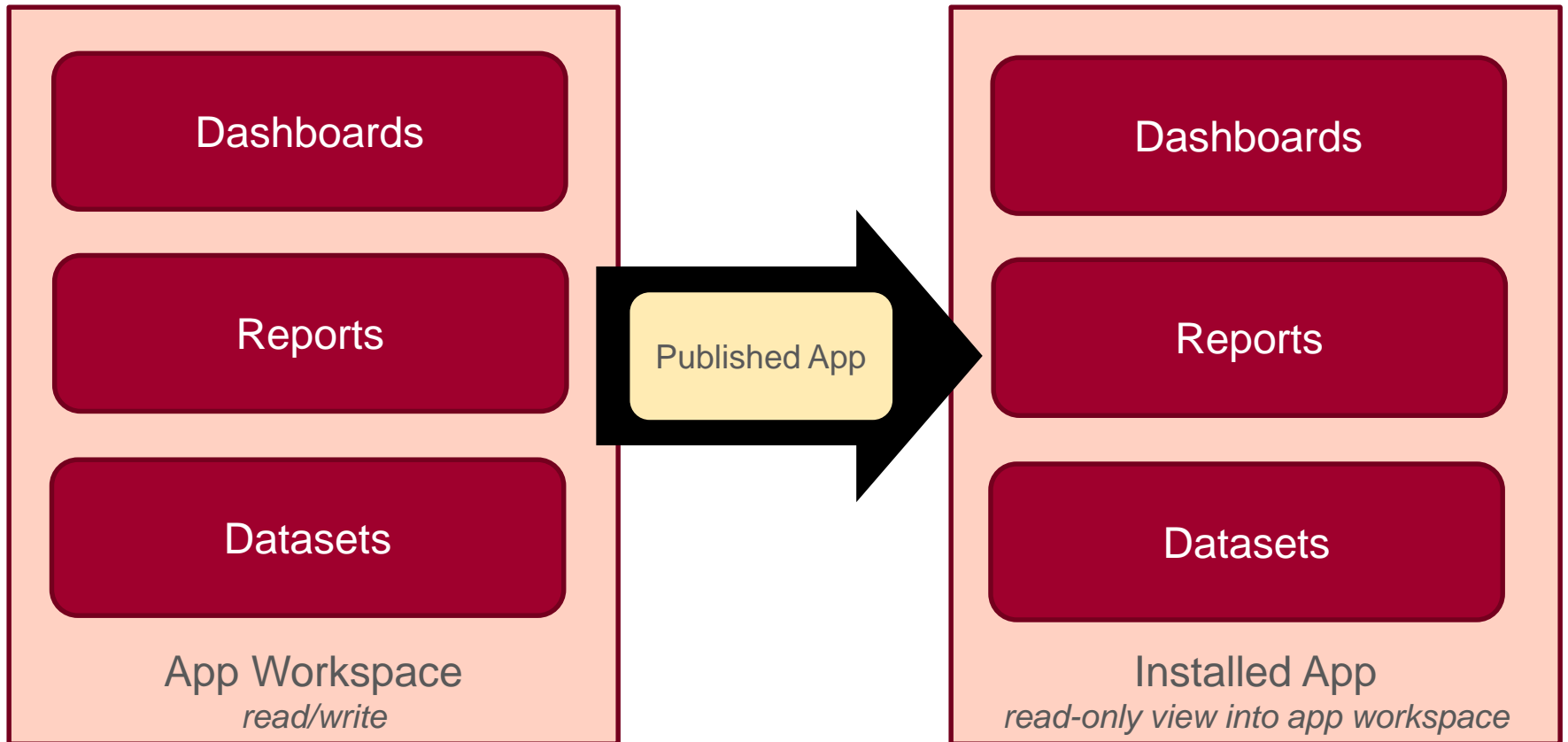- Custom Application

Distributing a Custom Solution

- Strategies for sharing reports and dashboards
    - Dashboard sharing and report sharing
    - Read-only App Workspaces
    - Organization Content Packs (supports staged updates)
    - Power BI Apps (supports staged updates)

App Distribution Model

Agenda

- ✓ Content Distribution in Power BI
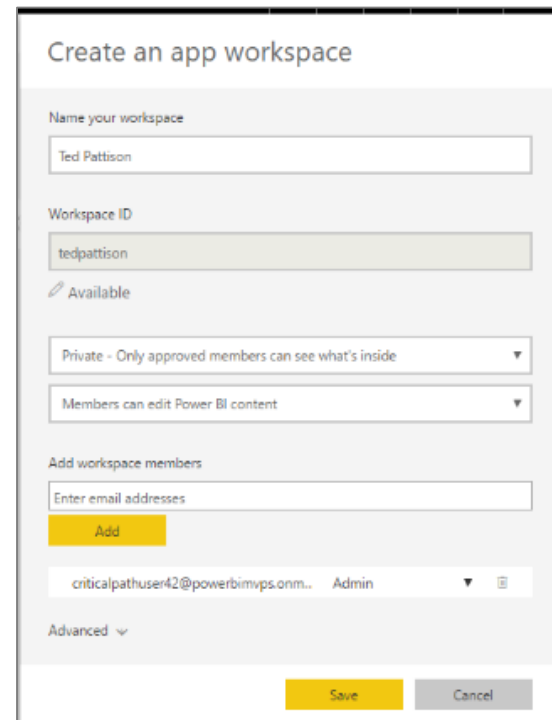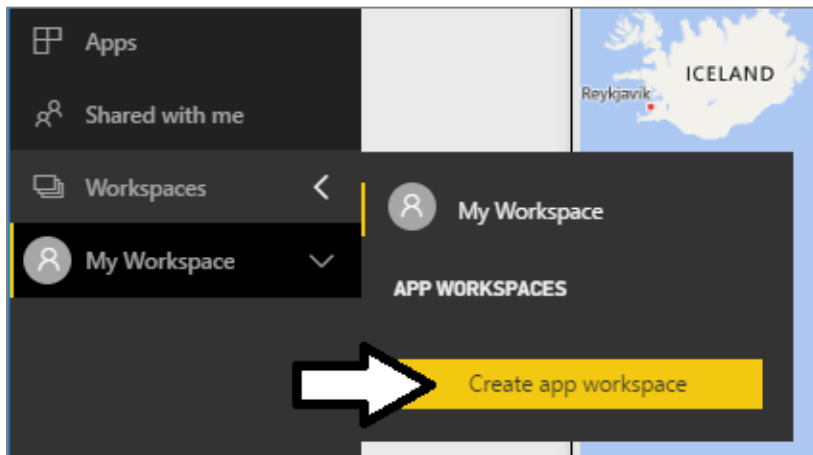- ➤ App Workspaces
- • Publishing Apps
- • Dedicated Capacities

What Exactly is an App Workspace?

- App Workspace is Power BI resource container
  - Provides storage for datasets, reports and dashboards

- App Workspace created as Office 365 Group
  - Acts as both a security group and distribution list
  - Requires provisioning SharePoint team site

- Light App Workspaces are on MSFT Roadmap
  - Lightweight workspaces should be here by end of 2018
  - Lightweight workspaces will not have SharePoint site

Solution Deployment using App Workspaces

- App workspaces used to deploy custom solutions
  - App workspaces required for team-based development
  - App workspace can be secured using private membership
  - App workspace used to publish apps for licensed users

App Workspace v1 with Office 365 Group

- Office 365 group provisions SharePoint team site
  - Accessible to workspace members users through Outlook Online
    - Provides conversations, files, calendar, OneNote Notebook, etc.

Power BI App Workspaces - V2

- Power BI transitioning between workspace models
  - V2 app workspaces are currently in preview
  - Microsoft will soon force the migration from V1 to V2

- V1 workspaces built on top of Office 365 groups
  - Largely managed in Office 365 admin not Power BI

- V2 workspaces independent of Office 365 groups
  - Fully managed within Power BI admin portal
  - Provides more flexibility in assigning members

Central Power BI Concepts

Workspaces ›	
WS **Wingtip Sales Analysis** ^	
DASHBOARDS Sales Performance Dashboard	
REPORTS Wingtip Sales Analysis	
WORKBOOKS *You have no workbooks*	
DATASETS Wingtip Sales Analysis	
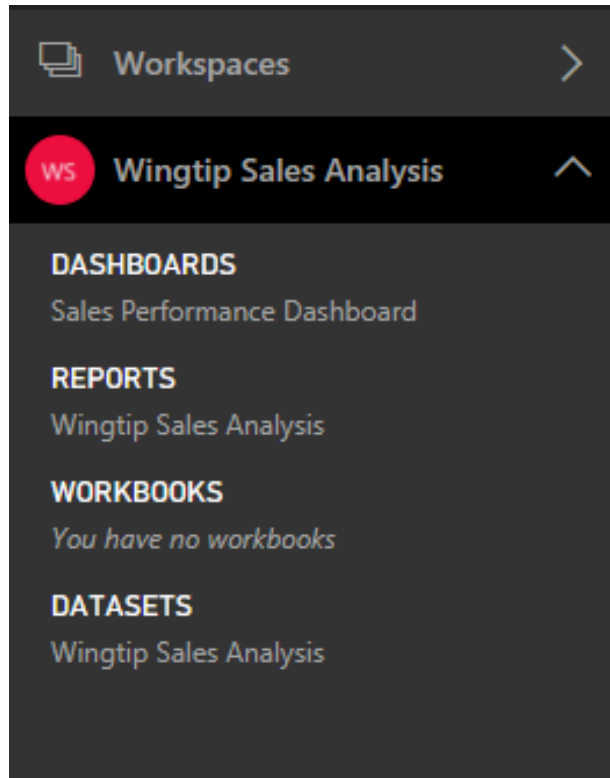
- Workspace
  - Provides user context and asset container
  - Every user has personal workspace
  - Team development requires app workspaces

- Dashboard
  - Consolidated view into reports and datasets
  - Custom solution entry point for mobile users

- Report
  - Collection of pages with tables & visualizations
  - Provides interactive control of filtering

- Dataset
  - Data model containing one or more tables
  - Can be very simple or very complex

Agenda

- ✓ Content Distribution in Power BI
- ✓ App Workspaces
- ➢ Publishing Apps
- • Power BI Premium

DEMO

Publishing an App Workspace and Installing a Power BI App

Agenda

- ✓ Content Distribution in Power BI
- ✓ App Workspaces
- ✓ Publishing Apps
- ➢ Power BI Premium

Dedicated Capacities

- Power BI workspaces run in two possible environments
    - Shared Capacities
    - Dedicated Capacities *(also known as premium capacities)*

- Dedicated capacity usually acts as dedicated resource
    - Premium capacity only used by single organization
    - PBIX file uploads not limited to 1GB
    - Data refresh frequency can exceed 8 times per day
    - Each premium capacity defines its own set of admins
    - *Dedicated capacity required to share with users w/o pro license*

Power BI Licensing

- ## User-based licensing

- ## Capacity-based Licensing

Premium Capacity Nodes

- ## Power BI Premium Purchased using Nodes
  - Node type defines v-core and RAM capabilities
  - P nodes used for embedded or service deployments
  - EM nodes used only for embedded deployments

Capacity Node	Total cores	Backend Cores	Frontend Cores	Direct Query Limits	Page renders/hour
EM1	1 v-cores	.5 cores, 3GB RAM	.5 cores		1-300
EM2	2 v-cores	1 core, 5GB RAM	1 core		301-600
EM3	4 v-cores	2 cores, 10GB RAM	2 cores		601-1,200
P1	8 v-cores	4 cores, 25GB RAM	4 cores	30 per second	1,201-2,400
P2	16 v-cores	8 cores, 50GB RAM	8 cores	60 per second	2,401-4,800
P3	32 v-cores	16 cores, 100GB RAM	16 cores	120 per second	4,801-9600

Managing Premium Capacities

Managing Capacities and App Workspaces

- App Workspace in Premium Capacity has diamond icon

APP WORKSPACES

App Workspace 1 — Inside Shared Capacity

App Workspace 2 ◆ — Inside Premium Capacity
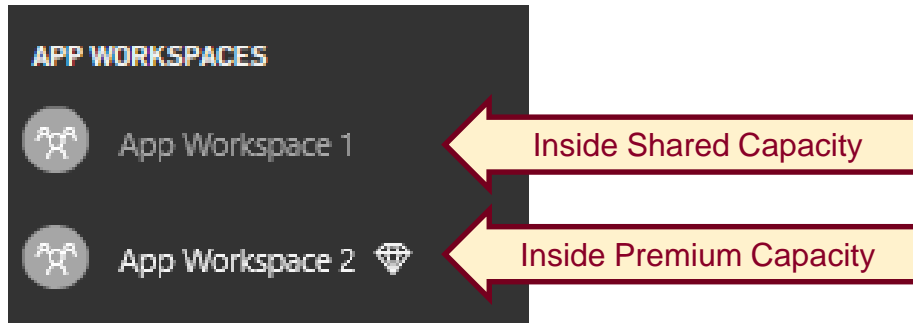
- App workspace moved into Premium capacity in Advanced settings

Edit workspace

Name
Daily Reporter Pro

Privacy
Private – Only approved members can see what's inside

Members can edit Power BI content

Workspace members
Enter email addresses
Add

chass@powerbimvps.onmicrosoft.com — Admin
criticalpathuser123@powerbimvps.on... — Admin
tedp@powerbimvps.onmicrosoft.com — Admin

Advanced ∧
Premium ⓘ
On
Choose an available dedicated capacity for this workspace
Capacity P1 #1 8GB model
Learn more about Premium capacity

Advanced ∧

Premium ⓘ
On

Choose an available dedicated capacity for this workspace

Capacity P1 #1 8GB model

Learn more about Premium capacity

P SKUs (P is for Premium)

- All-in version which allows greatest flexibility
  - Used to provide free users with access to apps and content
  - Used to support 1st party and 3rd party embedding
  - The more you pay per month, the more resources you get

Name	Virtual cores	Memory (GB)	Peak renders/hr	Cost
P1	8	25	1-300	$4,995/mo
P2	16	50	301-600	$9,995/mo
P3	32	100	601-1,200	$19,995/mo

Managing Power BI Premium Capacities

Associating Workspaces with Capacities

EM SKUs (EM is for Embedded)

- SKUs for embedding into SaaS Applications
  - SaaS applications include SharePoint and Teams
  - Supports 1st party and 3rd party embedding
  - Does not provide user with access to PowerBI.com

Name	Virtual cores	Memory (GB)	Peak renders/hr	Cost
EM1	1	3	1-300	$625/mo
EM2	2	5	301-600	$1,245/mo
EM3	4	10	601-1,200	$2,495/mo

A SKUs (A is for Azure)

- A SKU is a Platform-as-a-Service
  - Used by ISVs as the data visualization layer
  - Allows for PBI Embedding into Custom Applications
  - Only supports 3rd party embedding (i.e. App-Owns-Data model)

Name	Virtual cores	Memory (GB)	Peak renders/hour	Cost/hour
A1	1	3	300	~$1
A2	2	5	600	~$2
A3	4	10	1,200	~$4
A4	8	25	2,400	~$8
A5	16	50	4,800	~$16
A6	32	100	9,600	~$32

Summary

- ✓ Content Distribution in Power BI
- ✓ App Workspaces
- ✓ Organizational Content Packs
- ✓ Publishing Apps
- ✓ Power BI Premium