Microsoft Dynamics 365

Inventory Visibility

DYNUG 09.11.2022

Martin Olavesen
Espen Stensaas

Overview

- Scalable microservice to track near real time on-hand inventory

- Global view of inventory on-hand across multiple systems

- View Inventory on-hand across sites, warehouses and other set of dimensions

- Provide set og restful APIs to view on-hand, adjust on-hand and reserve on-hand

- Power App to configure new data sources for external systems, dimensions, product index hierarchy, measures and calculated measures

- Built on Dataverse and provide extensibility
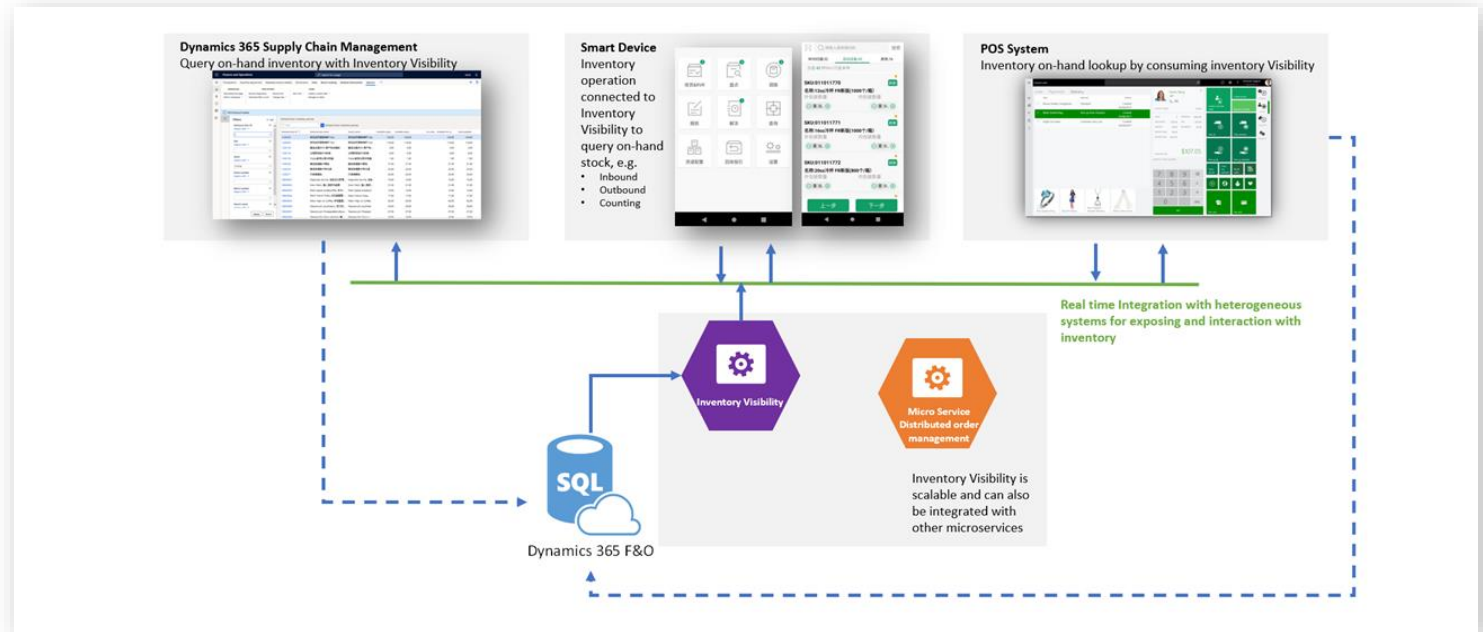
Dynamics 365 Supply Chain Management
Inventory Visibility - Key Outcomes

Enhance visibility: Real time cross channel on-hand inventory to mitigate stock-outs and Overstock
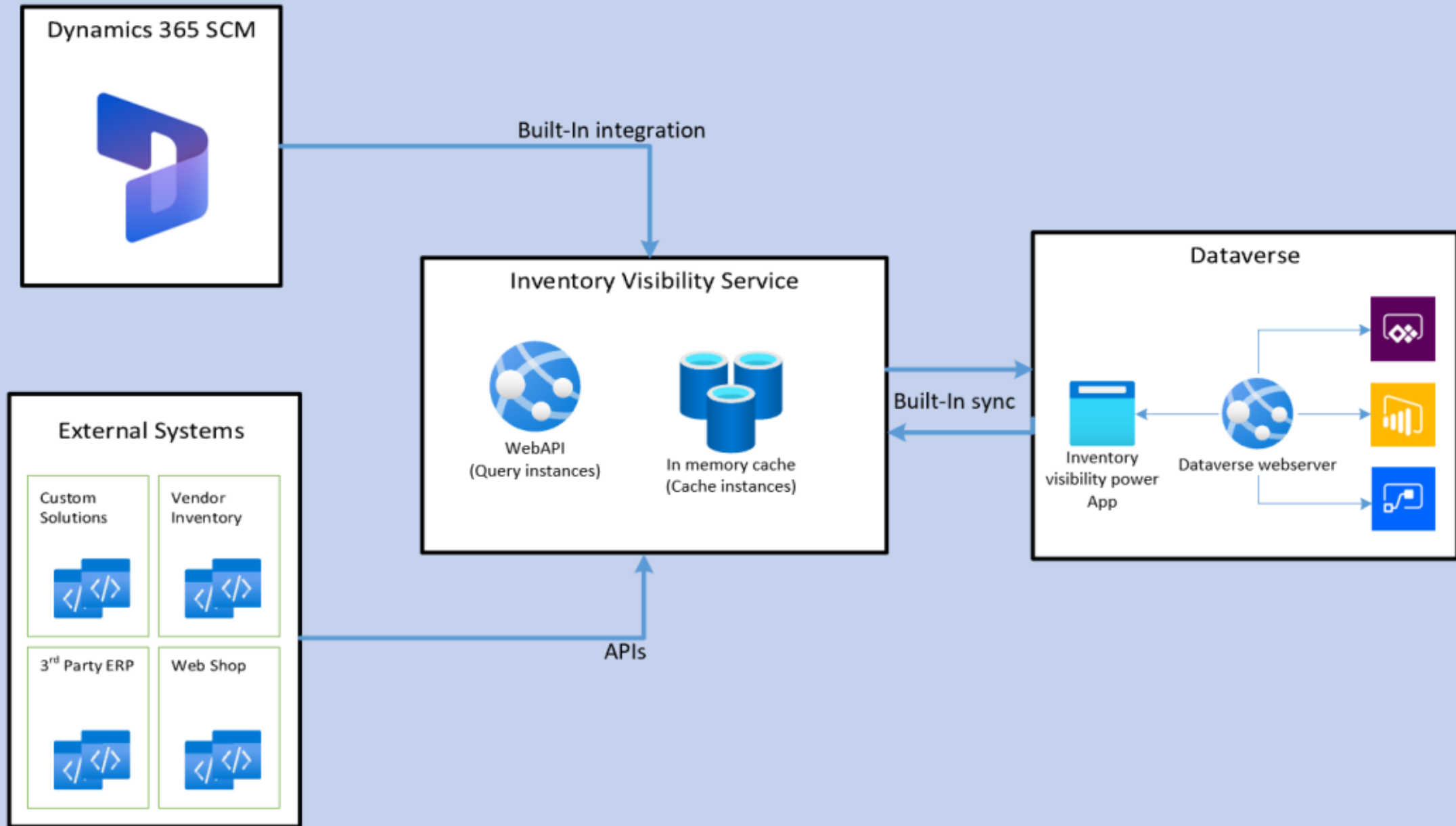
Hyper-scalable: Supports Millions of transactions in a Minute

Composable: Allow customers to connect with custom / 3rd party solutions

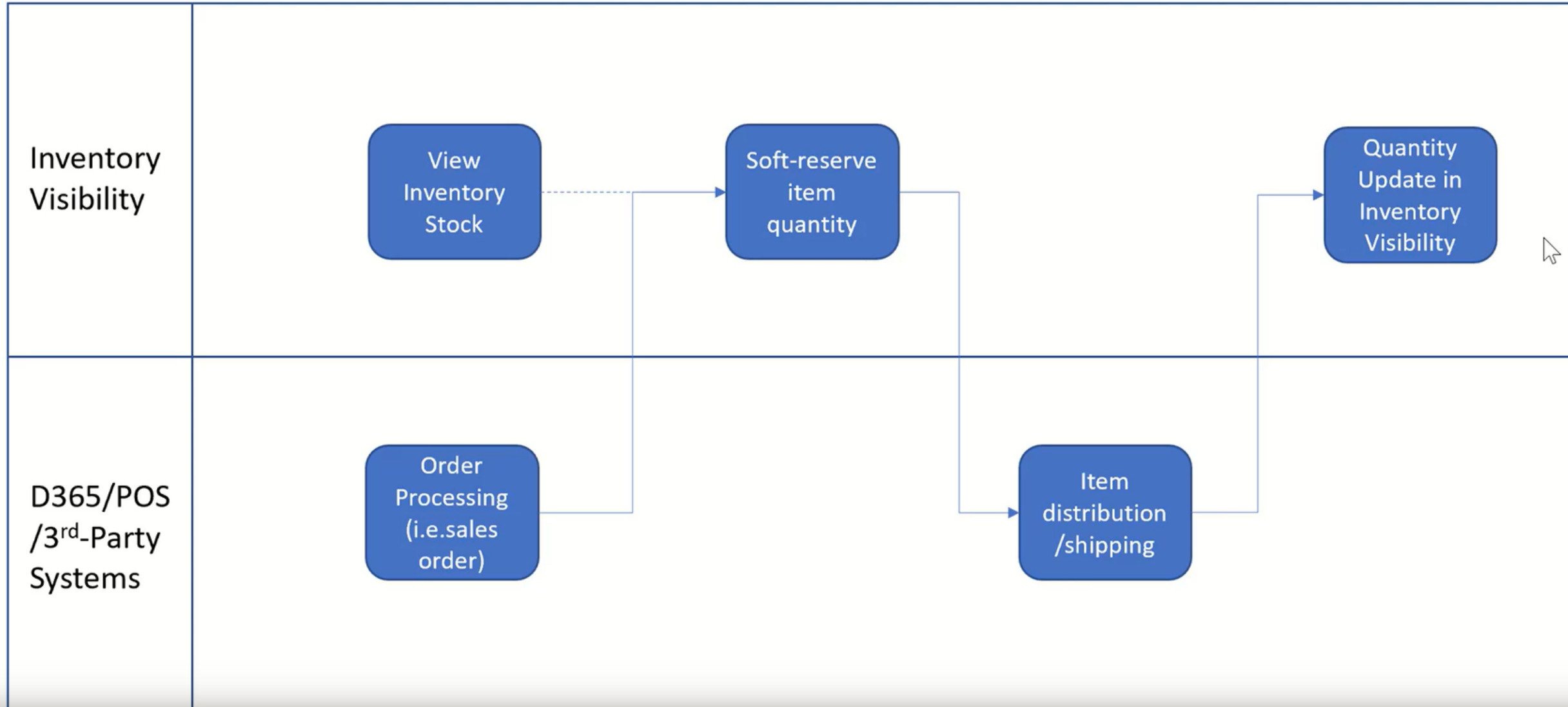**Delightful customer experience:** Eliminates allocation of already used inventory

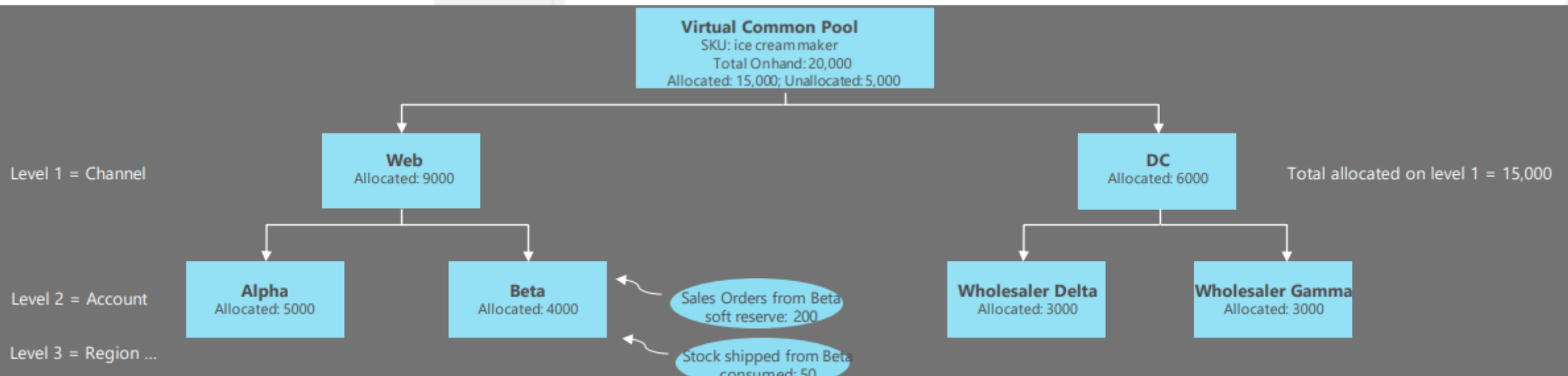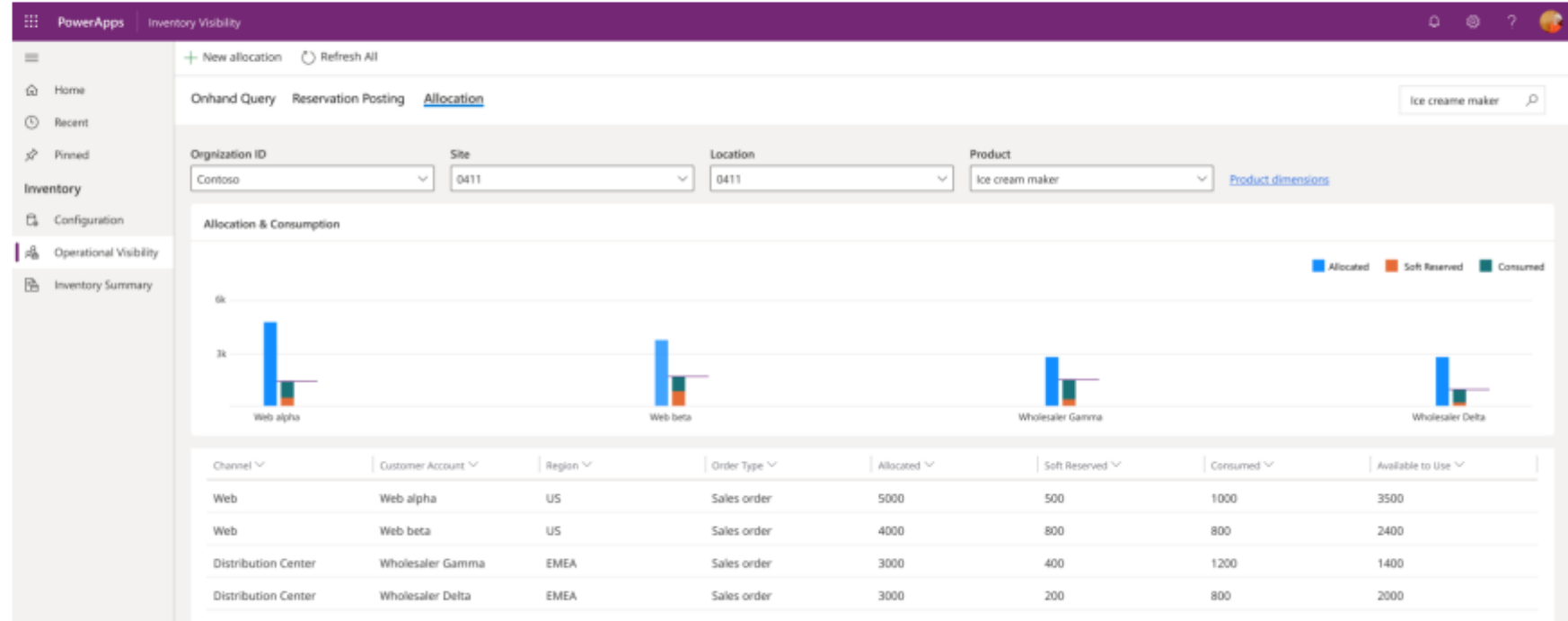# Architecture

Feature highlights

Soft Reservation based on Order

Inventory Allocation

Highlights

✓ Optimize your valuable stock to the right level and the right group

✓ 8 levels of configurable **Allocation hierarchy** e.g. Channel, Region, Customer.

✓ Unallocated virtual pool provides a **buffer for contingency**.

✓ **Real-time tracking** of soft reservation and physical consumption for in-time remediation of overstock & understock

✓ **Cross channel and datasource** allocation

PowerApps	Inventory Visibility							

+ New allocation   ↻ Refresh All

Onhand Query   Reservation Posting   **Allocation**   🔍 Ice creame maker

Orgnization ID	Site	Location	Product	
Contoso	0411	0411	Ice cream maker	Product dimensions

Allocation & Consumption

■ Allocated ■ Soft Reserved ■ Consumed

Channel ⌄	Customer Account ⌄	Region ⌄	Order Type ⌄	Allocated ⌄	Soft Reserved ⌄	Consumed ⌄	Available to Use ⌄
Web	Web alpha	US	Sales order	5000	500	1000	3500
Web	Web beta	US	Sales order	4000	800	800	2400
Distribution Center	Wholesaler Gamma	EMEA	Sales order	3000	400	1200	1400
Distribution Center	Wholesaler Delta	EMEA	Sales order	3000	200	800	2000

Virtual Common Pool
SKU: ice cream maker
Total Onhand: 20,000
Allocated: 15,000; Unallocated: 5,000

Level 1 = Channel

Web
Allocated: 9000

DC
Allocated: 6000

Total allocated on level 1 = 15,000

Level 2 = Account

Alpha
Allocated: 5000

Beta
Allocated: 4000

Sales Orders from Beta soft reserve: 200

Wholesaler Delta
Allocated: 3000

Wholesaler Gamma
Allocated: 3000

Level 3 = Region ...

Stock shipped from Beta consumed: 50

Available to Promise

Time Fence
Support query/view and calculate up to 7 days (*roadmap planned: up to 3 months) quantities with various physical measures, calculated measures, and ATP
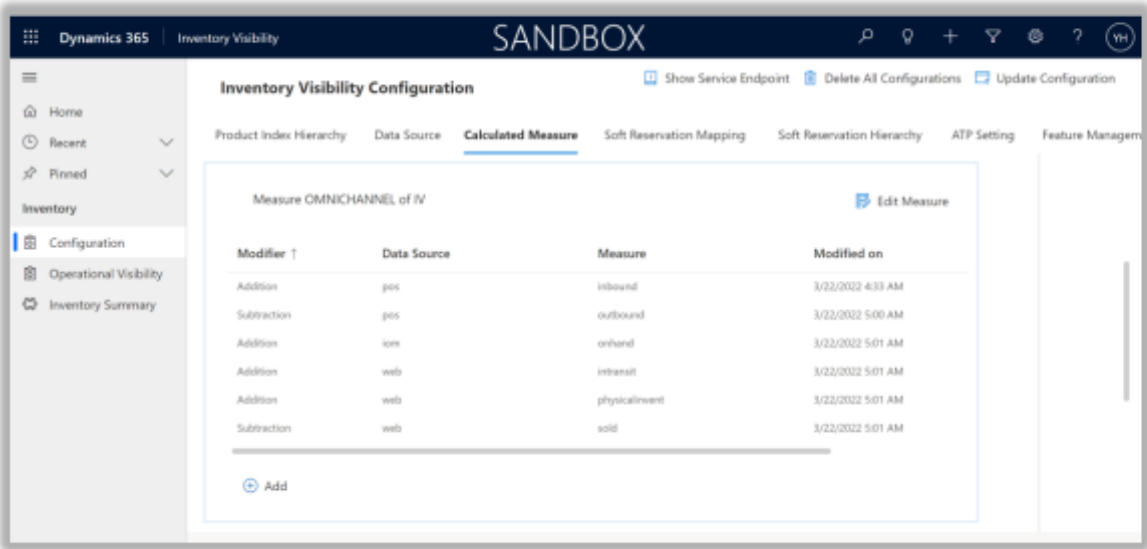
Omnichannel Calculation
Allow customer to set up **several ATP Formulas** across a few or all the channel data sources to support all aspects of business needs

Real-time Update
Since Inventory Visibility Service ATP is calculated considering real-time onhand change and soft reservation postings, you can have the **ATP results prior to inventory changes being synced to ERP**

Next Available Date(s)
Immediate response to **high frequency calls** and return all ATP results within set time fence which allows user to easily identify next available dates for individual orders or split orders

*Roadmap items are subject to change, please refer to official what's new release announcement

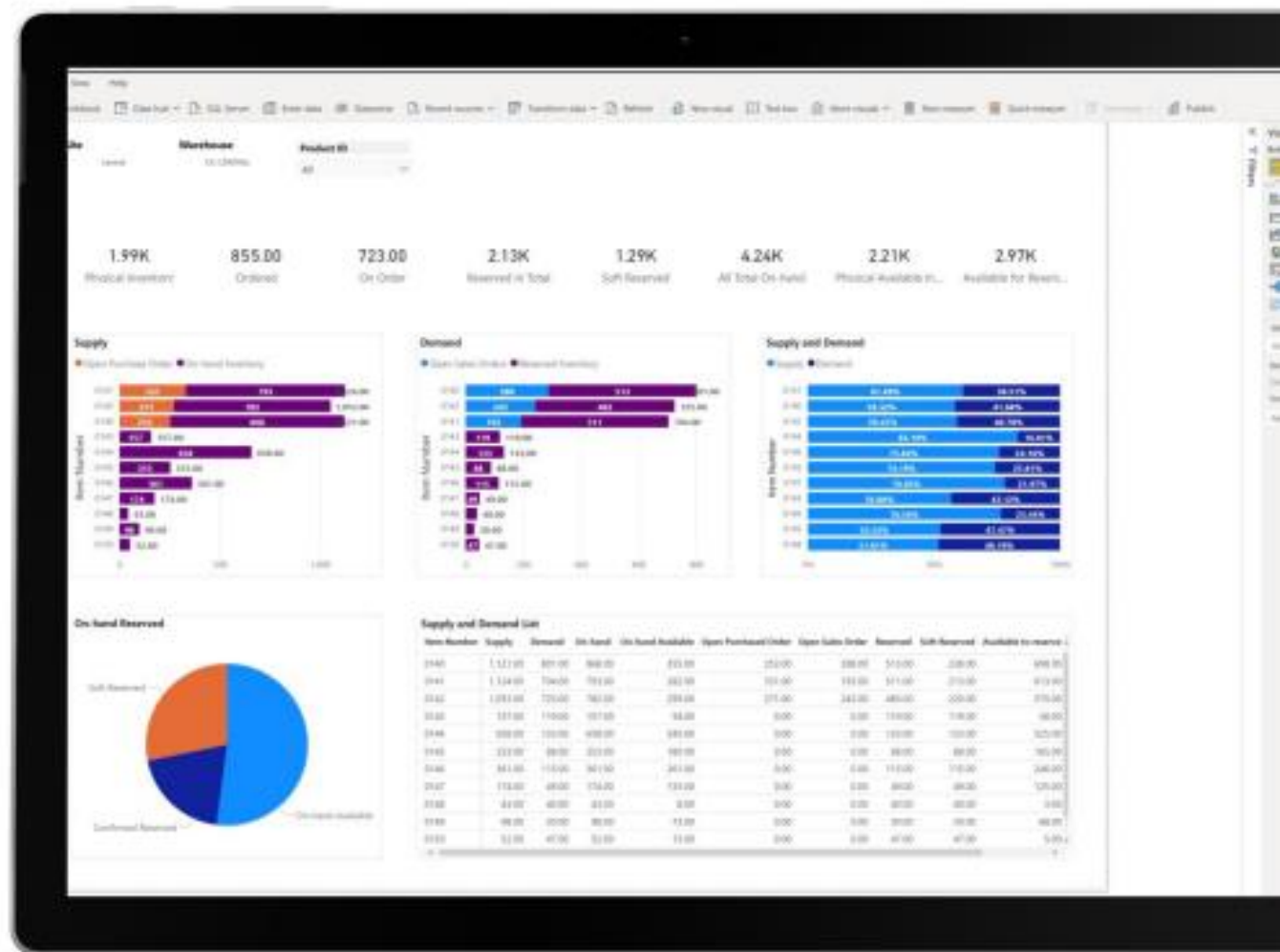| Date	On-hand	Scheduled supply	Scheduled demand	Projected on-hand	ATP
2022-02-01	20		3	17	12
2022-02-02	20			17	12
2022-02-03	20	10		27	12
2022-02-04	20		15	12	12
2022-02-05	20	1		13	13
2022-02-06	20	3		16	16
2022-02-07	20			16	16

Reading Preloaded on-hand Entities

Inventory Visibility facilitates querying on-hand data from external sources (Power Apps / Restful API call)

Exploring on-hand Data with Power BI

Power BI report with different visualization gives key insights to sales / purchase manager and help them make faster decisions.

Demo

Dynamics 365 | Inventory Visibility

Inventory Visibility Configuration

Product Index Hierarchy | Data Source | Calculated Measure | Soft Reservation | ATP Setting | Allocation | Feature Management & Settings

Set Product Index Hierarchy

Partition	Dimension	Hierarchy ↑
	SiteId	1
	LocationId	2

Set Number	Dimension	Hierarchy ↑	⚙		
1	ColorId	1		Edit	Delete
1	SizeId	2		Edit	Delete
1	StyleId	3		Edit	Delete

⊕ Add

Navigation

- Home
- Recent
- Pinned

Inventory
- Configuration
- Operational Visibility
- Inventory Summary
- Preload the Inventor...