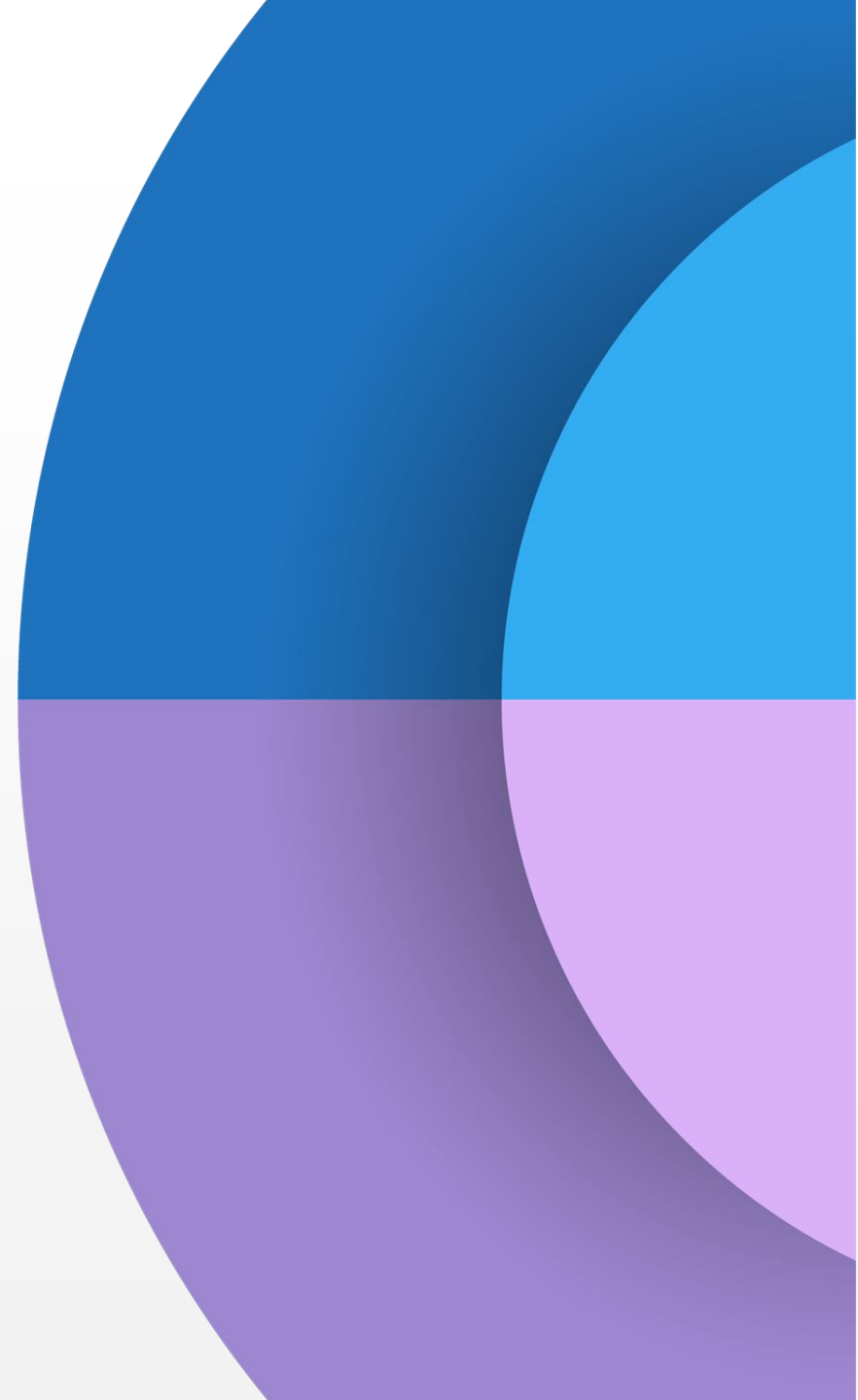
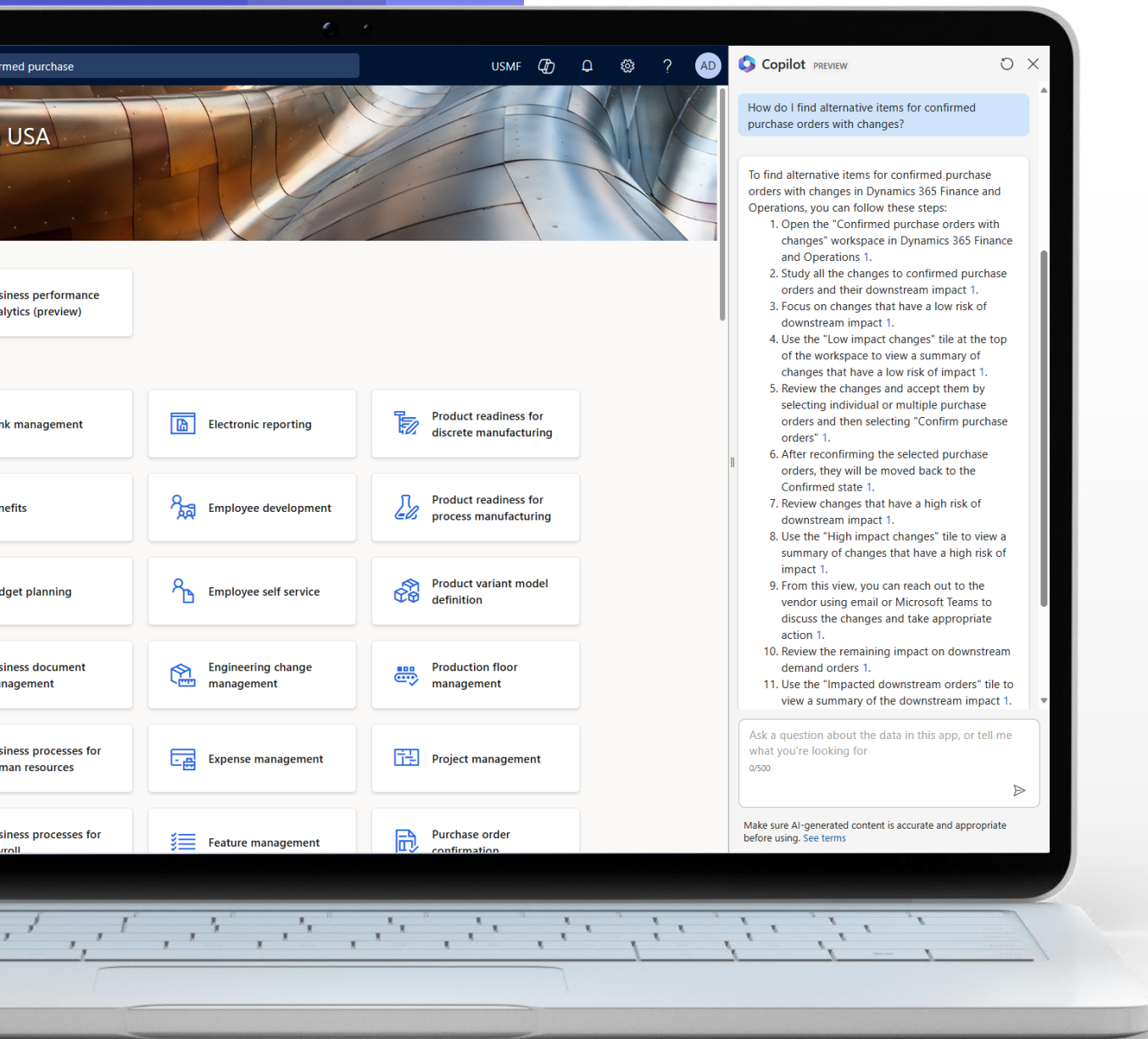




# Extending Copilot in Dynamics 365 finance and operations apps

January 2024





# The world is changing.

# Dynamics 365 Copilot

AI-powered assistance that helps business professionals

- Generate ideas and content faster
- Perform and automate task faster
- Get insights and next best actions

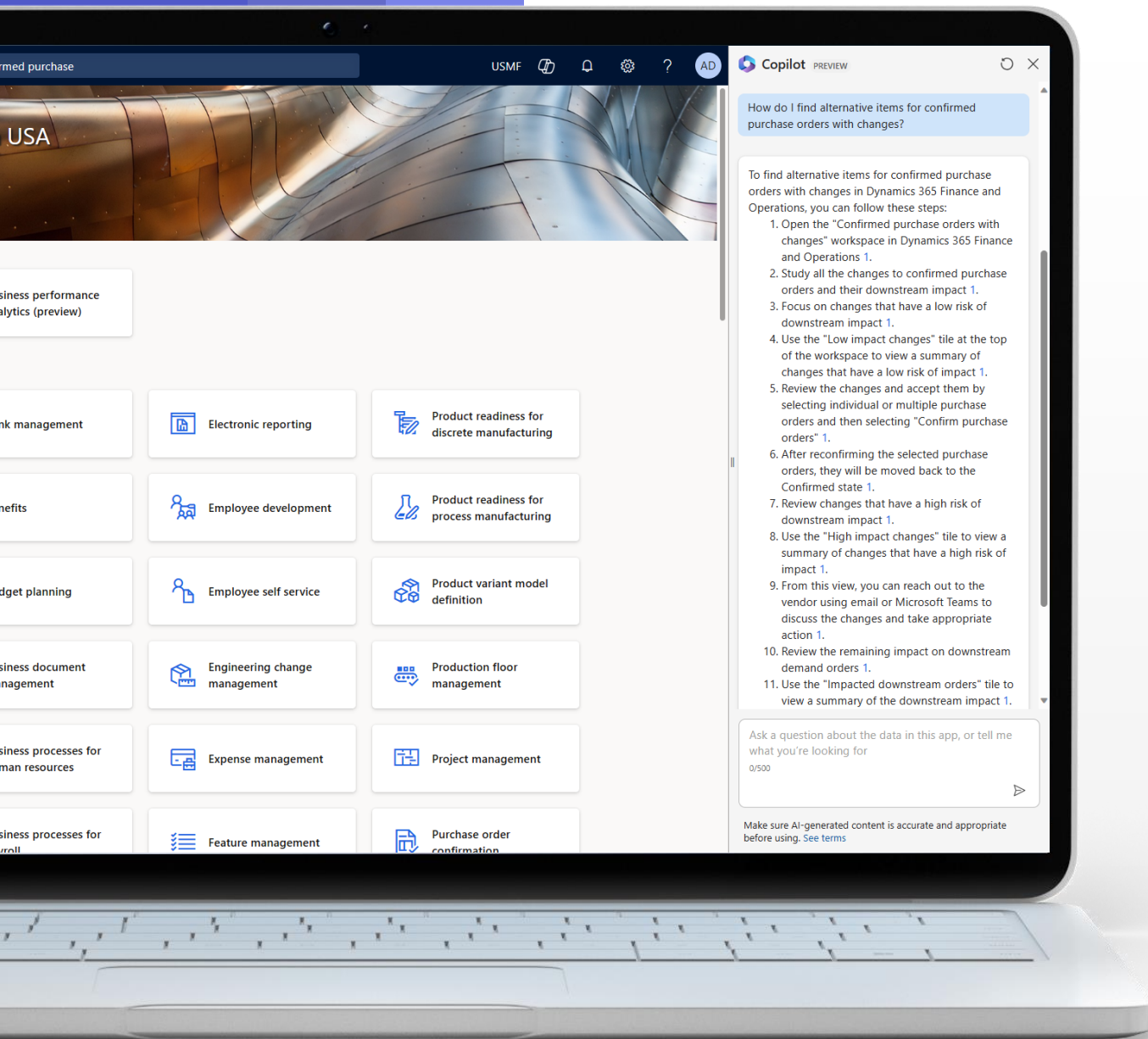
All using natural language

---

## Key differentiation:

- GPT-powered Copilot for every job role
- Copilot features natively built in Dynamics 365
- Powered by Azure OpenAI Service
- Empowering impactful responsible AI practices
- Secure enterprise data – your data is your data





# Enriching application contextual experiences

Guidance on app features and functionality

Answer questions about your data

Recommend and perform client actions

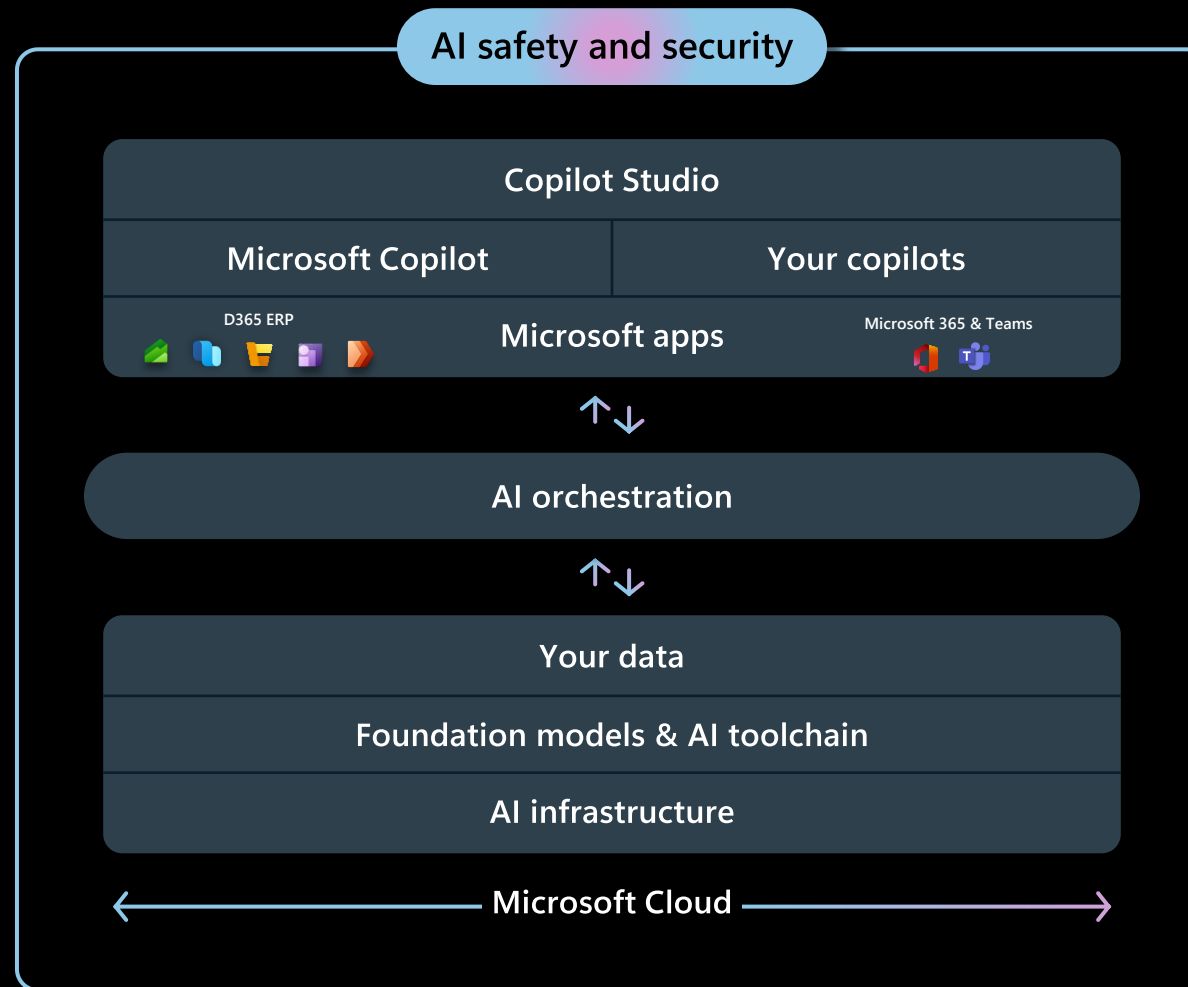
Automate operations

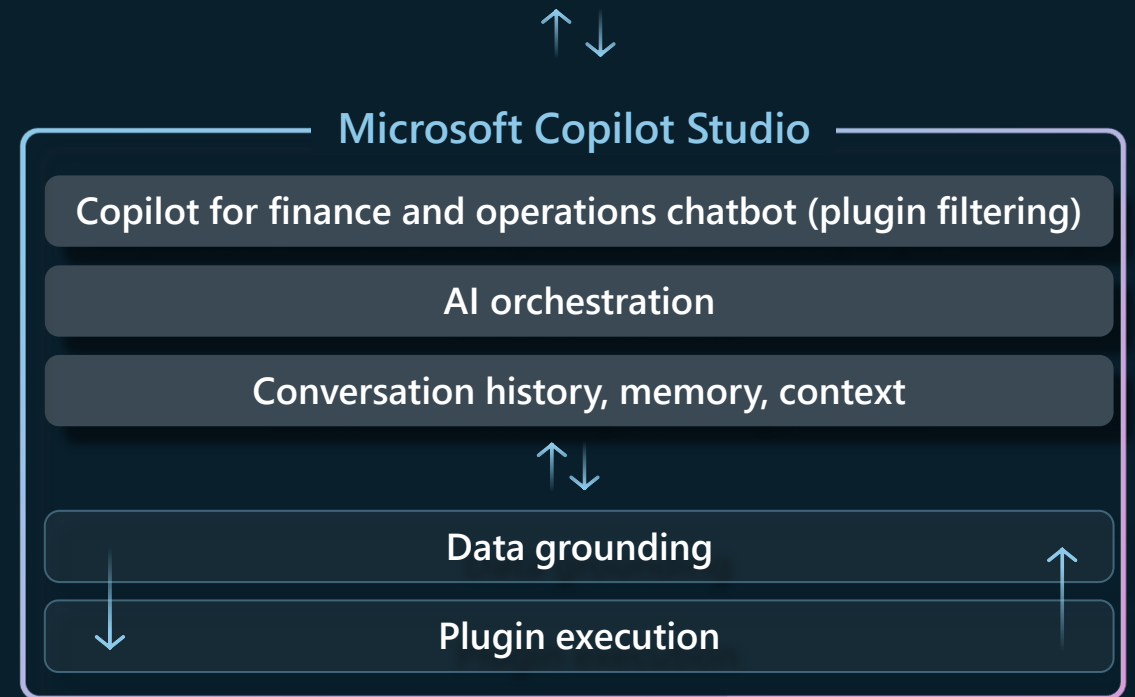
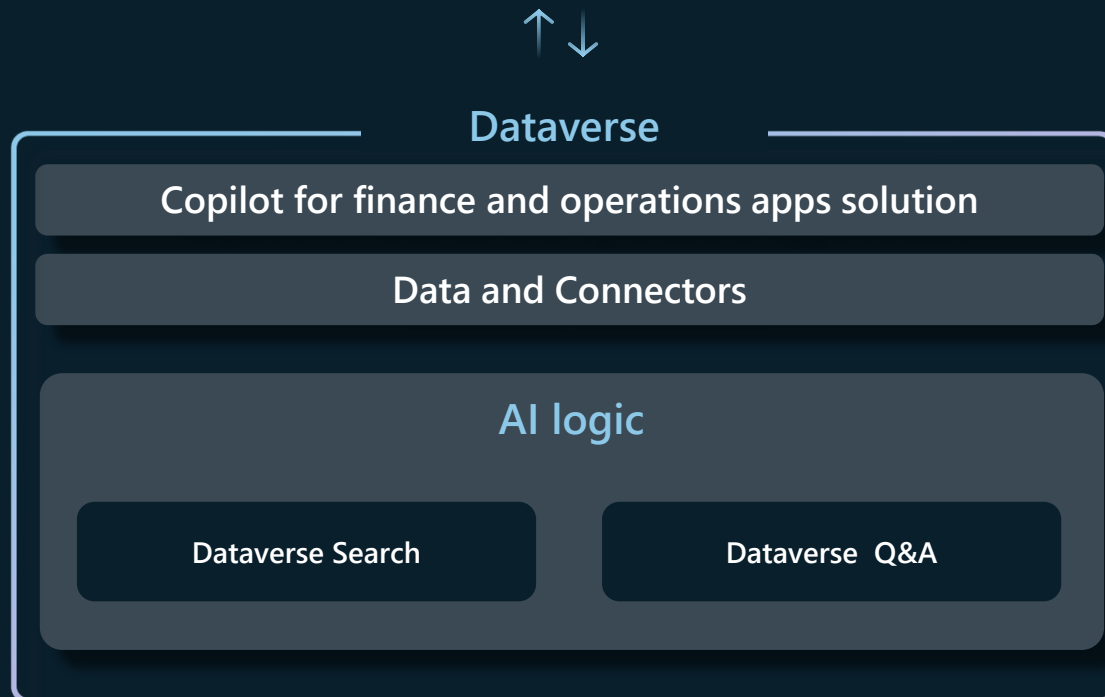
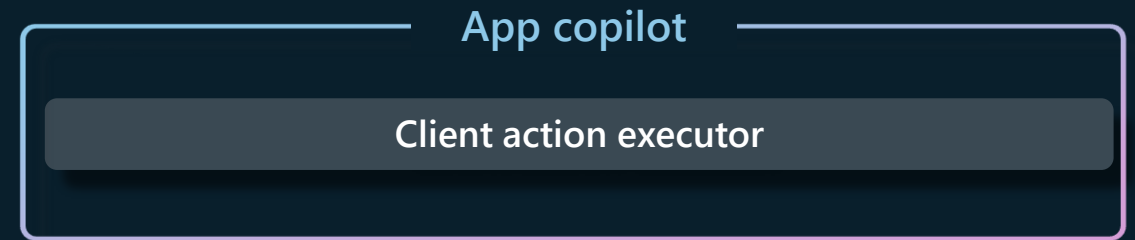
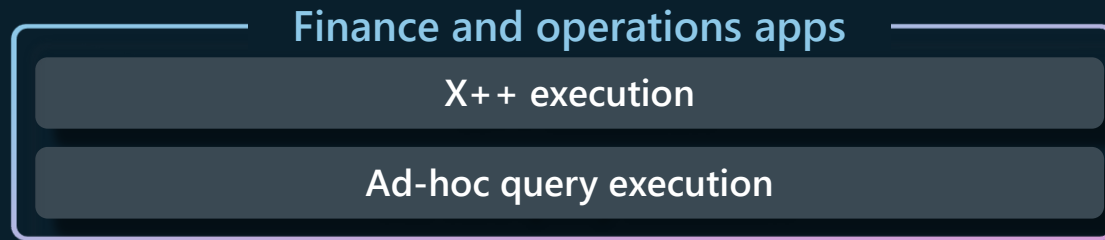
# Copilot architecture



# Comprehensive AI/Copilot technology stack

Our customers always stay at the forefront of AI technology







# Microsoft Copilot Studio

Customize Copilot in finance and operations apps or build your own copilot experiences



## Plugins

Reusable piece of code that can perform a specific task or functionality for Copilot. For example:

- Answer a natural language query
- Execute a workflow
- Connect to data
- Provide guidance



A group of four business professionals are seated around a white conference table in a modern office. A woman on the left is writing in a notebook. A man in the center is looking towards the right. Two other people are on the right side of the frame, looking at a laptop. The office has large windows in the background showing a city and mountains. The image has a blue overlay with a circular graphic on the right side.

# Demo

Low-code plugins for F&O

“Give me a summary of this course description”

### Topics

Get course description



Summarize course description

### Plugins with dynamic chaining

Get course description



Summarize text

Translate text

“Translate this course description into Spanish”

### Topics

Get course description



Translate course description

### Plugins with dynamic chaining

Get course description

Summarize text



Translate text

“Give me a summary of this course description translated into Spanish”

### Topics

Get course description



Summarize course description



Translate summary of the course description

### Plugins with dynamic chaining

Get course description



Summarize text



Translate text

# Customize generative help and guidance with Copilot



# Extending generative help

Add custom documentation sources for customized generative help

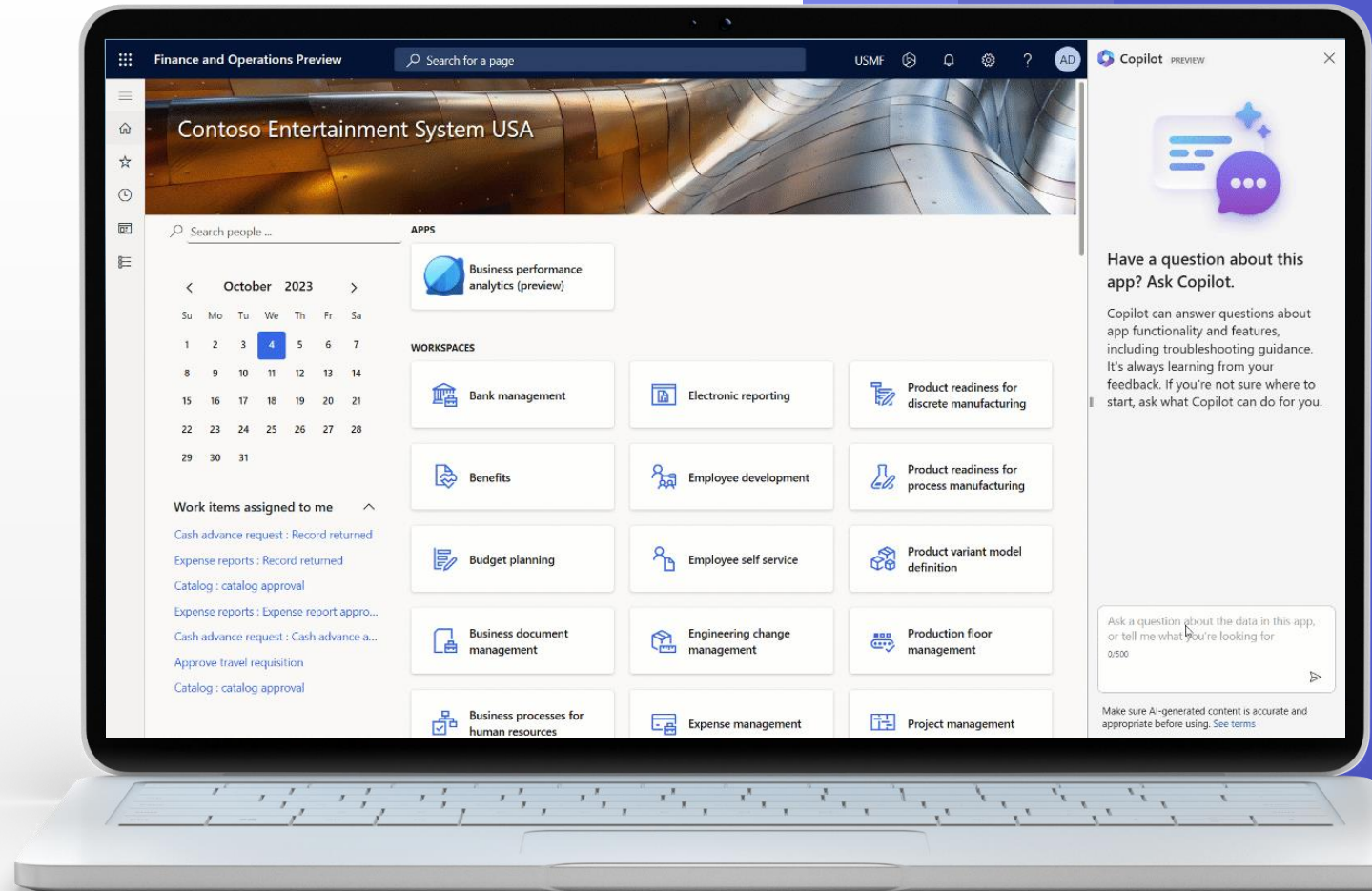
## Experience today

- Customize the Bot in Copilot Studio (not existing the topics)
- Upload a file to Generative UI
- Add a new topic
- Use generative answers action in your topic to bring in custom document locations

## Coming soon

- Global variable available in the bot for custom documentation sources
- Possibly document source customization from within FnO

# Client actions for Copilot





Finance and Operations Preview

Search for a page

USMF

AD

Contoso Entertainment System USA

Search people ...

<October 2023>

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Work items assigned to me

Cash advance request : Record returned

Expense reports : Record returned

Catalog : catalog approval

Expense reports : Expense report appro...

Cash advance request : Cash advance a...

Approve travel requisition

Catalog : catalog approval

APPS

Business performance analytics (preview)

WORKSPACES

Bank management

Electronic reporting

Product readiness for discrete manufacturing

Benefits

Employee development

Product readiness for process manufacturing

Budget planning

Employee self service

Product variant model definition

Business document management

Engineering change management

Production floor management

Business processes for human resources

Expense management

Project management

Have a question about this app? Ask Copilot.

Copilot can answer questions about app functionality and features, including troubleshooting guidance. It's always learning from your feedback. If you're not sure where to start, ask what Copilot can do for you.

Ask a question about the data in this app, or tell me what you're looking for

0/500

Make sure AI-generated content is accurate and appropriate before using. [See terms](#)

# Client actions

Create global Copilot actions for the finance and operations client

## Microsoft Copilot Studio

- Add a topic/plugin to the Copilot in Finance and Operations
- The plugin understands the user's natural language prompt and orchestrates the response
- MCS sends an event to the F&O client, invoking client-side code

## In X++

- Add an X++ class that is called when the event occurs, running the client operations
- This is the client code that runs based on the user's prompt.
- The class extends the **SysCopilotChatAction** class

# Client actions

## Microsoft Copilot Studio

The screenshot shows the Microsoft Copilot Studio interface with two activities connected by a flow line. The first activity is an "Event activity" with a name field containing "MS.ServerForm.CopilotExample.ClientT..." and a value field containing a variable "ColorSelectionInt" of type "number". The second activity is a "Message" activity with a text field containing the message "I've updated your color theme to" followed by a variable "ColorSelection" of type "choice".

## In X++

```
/// <summary>
/// Provides a client-side action for copilot that changes the user's client theme.
/// </summary>
[SysCopilotChatGlobalAction]
internal final class SysCopilotChatClientThemeAction extends SysCopilotChatAction
{
    internal str parmActionName()
    {
        return 'MS.ServerForm.CopilotExample.ClientTheme';
    }

    internal str execute(str _actionPayload)
    {
        //Get the user info with client theme of the current user
        SysUserInfo sysUserInfo;
        sysUserInfo = SysUserInfo::find(curuserid(),true);

        if (sysUserInfo)
        {
            ttsBegin;
            //Set the theme enum value to the value received as the action payload from PVA
            int myColorSelection = str2Int(_actionPayload);

            // Update the theme for the current user
            sysUserInfo.Theme = myColorSelection;
            sysUserInfo.update();
            appl.setTheme(myColorSelection);

            ttsCommit;
        }
        else
        {
            error("User record not found.");
        }

        return '';
    }
}
```

# JaredsForm

Jared's favorite color

Submit




## Have a question about this app? Ask Copilot.

Copilot can answer questions about app functionality and features, including troubleshooting guidance. It's always learning from your feedback. If you're not sure where to start, ask what Copilot can do for you.

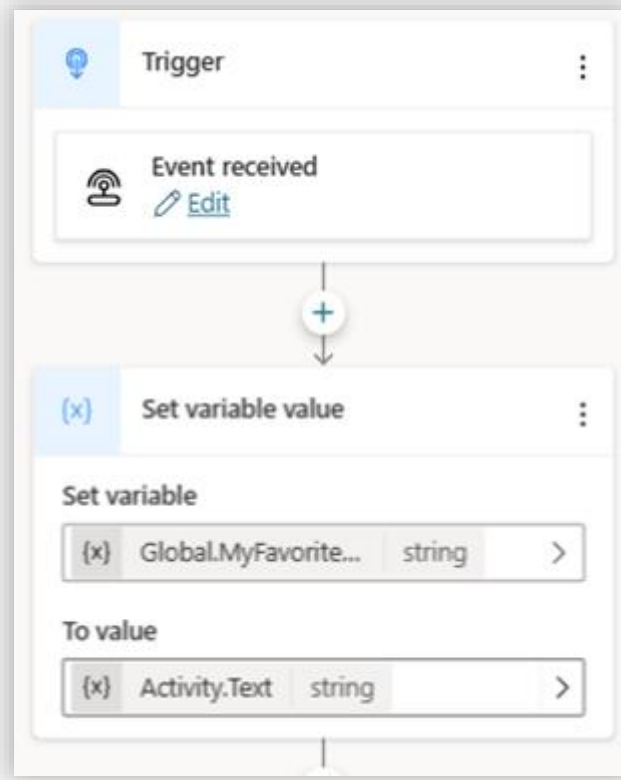
Ask a question about the data in this app, or tell me what you're looking for

0/500



# Setting client context

## Microsoft Copilot Studio



## In X++

```
[Form]
public class MyFavoriteColor extends FormRun
{
    [Control("Button")]
    class SetFavoriteColor
    {
        /// <summary>
        /// Sets your favorite color and sends the activity to PVA to set the global variable
        /// </summary>

        public void clicked()
        {
            super();
            SysCopilotChatController sysCopilotChatController;
            MyFavoriteColorContract contract = new MyFavoriteColorContract();

            str myFavoriteColor = MyFavoriteColor.text();

            contract.parmFavoriteColor(myFavoriteColor);
            Info(strFmt("Your favorite color is %1", myFavoriteColor));

            sysCopilotChatController::getInstance().sendEventActivityToPVA('MyFavoriteColor', contract);
        }
    }
}
```



A photograph of four business professionals in a modern office setting. A woman with blonde hair is on the left, looking towards a man in a dark suit. The man is smiling and looking at her. In the foreground, there is a desk with a laptop, a notebook, and a white mug. To the right, another woman and a man are partially visible, looking towards the same direction. The background features a large window with a view of a city and mountains. The image has a blue overlay and a large blue circle on the right side.

Coming soon

# Coming soon: Runtime skills

Add custom documentation  
sources for customized  
generative help

Three primary ways to control  
action availability



## Global actions

- Always available while the Copilot chat panel is open
- Decorated with the **SysCopilotChatGlobalAction** attribute



## Form actions

- Passed the instance of the current FormRun
- Decorated with **SysCopilotChatAction**
- Decorated with one or more **SysCopilotTestActionForm**



## Runtime actions

- Available whenever the developer added them
- Passed the object specified at registration time
- Added to list of available actions by calling **SysCopilotChatAction::addToCopilotRuntimeActions**



# Coming soon:

## App context

Context from the user's current session passed to Copilot

### Current record:

Copilot knows the record user is currently viewing

### User role:

Enabling role-based plugins

### Session information:

The user's current form, visible fields, available actions

# Coming soon: X++ headless actions

Extending X++ beyond the  
F&O Copilot

Any Copilot, like [M365 Copilot](#)  
can understand and invoke [X++  
plugins](#) in a user-security aware  
way