

# IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide

Description	IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide
Author(s)	Andrew R. Jones (andrewj@us.ibm.com) and Max Weiss (maxwell.g.weiss@ibm.com)
Copyright	Copyright © 2024 IBM - V 2.0

# Table of Contents

## Welcome

- Obtaining the IBM watsonx Assistant for Z Technical Sales Intermediate badge (Level 3)
- Support
- Using the demonstration guide

## Demonstration guidance

- General demonstration guidance
- Specific guidance for IBM watsonx Assistant for Z and the

## IBM Technology Zone environment

- Create a reservation request
- Extend the reservation
- Accessing the demonstration environment
- The demonstration portal page
  - The chat icon
  - The full page virtual assistant
  - Using the virtual assistant

## Demonstration scenarios

### Scenarios

#### Scenario: Authorized Program Facility

- Scenario overview
- Prerequisite steps
- Prompts and Example outputs
- Cleanup steps

#### Scenario: Certificate renewal

- Scenario overview
- Prerequisite steps
- Prompts and Example outputs
- Cleanup steps

#### Scenario: Db2 versioning

- Scenario overview
- Prerequisite steps
- Prompts and Example outputs
- Cleanup steps

#### Scenarios: Initial Program Load

- Scenario overview

- Prerequisite steps
- Prompts and Example outputs
- Cleanup steps

### Scenario: Additional prompts

- Scenario overview
- Prerequisite steps
- Prompts
- Cleanup steps

### Scenarios: Conclusion

### Next steps

- Earn the badge

# Welcome

Welcome to the **IBM watsonx Assistant for Z for Technical Sales Level 3** lab and demonstration guide! The goal of this lab is to provide you with the knowledge and tools to demonstrate **IBM watsonx Assistant for Z**.

This lab is not intended to serve as an in-depth study of IBM watsonx Assistant for Z, watsonx, or IBM Z, rather the focus is on learning how to deliver a client demonstration of IBM watsonx Assistant for Z. More specifically, the focus is on the *end-user* creating queries and using trusted automations through skills that are suggested by IBM watsonx Assistant for Z.

Other aspects of IBM watsonx Assistant for Z including creating and configuring assistants, importing and creating new skills, and ingestion of client documentation are **not** covered in this demonstration guide. To learn more and get hands-on with these additional capabilities, check out the Velocity Pilot information in IBM Technology Zone ([ITZ](#) [here](#)). Watch for a Level 4 course in the future.

## Obtaining the IBM watsonx Assistant for Z Technical Sales Intermediate badge (Level 3)

**Business Partner technical sellers** must pass a short quiz upon completing the course. This quiz consists of multiple-choice questions, with four possible responses (and only one correct answer) for each question. The questions do not test your understanding of IBM watsonx Assistant for Z, rather, they validate your use of the provided demonstration environment.

**IBM technical sellers** must develop and record a Stand and Deliver presentation. This video is intended to simulate your delivery of a “live” demo in front of a client. IBMers have the flexibility to define a hypothetical client, the challenges the client has, and the goals they aspire to achieve. Your recording must be a demonstration that pitches the value of this solution by using the environments and techniques that are described in the demonstration guide. Specific criteria that must be demonstrated as part of the Stand and Deliver recordings are provided within the documentation that accompanies the Level 3 course in Your Learning.



### Keep the demonstration guide and ITZ environment active



Business Partners, keep the demonstration guide and [ITZ](#) environment active while you take the quiz.

IBM technical sellers, keep the demonstration guide and [ITZ](#) environment active until you complete your Stand and Deliver.

## Support

Think something is down? Check the applicable status pages for any known issues like a site or service not available:

- [IBM Technology Zone](#)

For issues with provisioning the ITZ environment for this lab (for example, a failed reservation request due to insufficient quota capacity) open a ticket with ITZ support:

- Web: [IBM Technology Zone](#)
- Email: [techzone.help.ibm.com](mailto:techzone.help.ibm.com)

For issues related to specific steps found in the demonstration guide after the ITZ environment is provisioned, contact the authors:

- Slack: [#watsonx-assistant-z-technical](#) - IBM only
- Email: [andrewj@us.ibm.com](mailto:andrewj@us.ibm.com); [maxwell.g.weiss@ibm.com](mailto:maxwell.g.weiss@ibm.com)

Business Partners should use the IBM Training live Chat Support service or other support methods that are found on the IBM Training portal [here](#).

## Using the demonstration guide

Use these helpful tips to take full advantage of the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide.

### 🖨️ Printing the demonstration guide

**⚠️ Printed or saved copies can be out of date**

The IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide changes regularly to match the IBM watsonx Assistant for Z offering and associated ITZ environment. Printed or saved copies of the demonstration guide can become out-of-date quickly and result in failed steps.

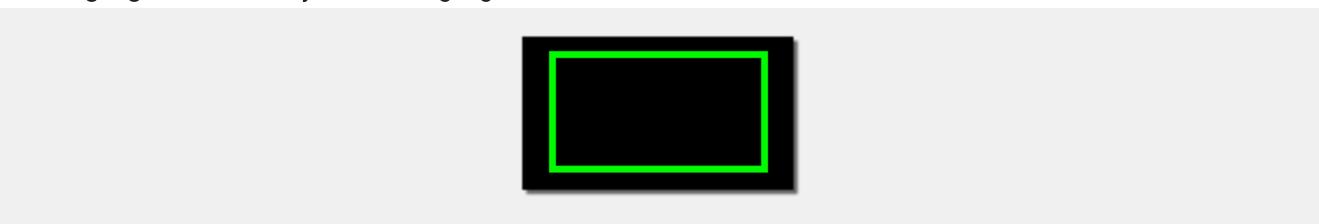
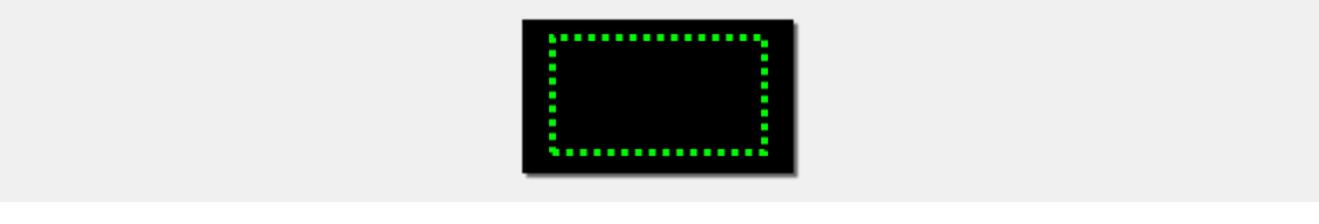
A ready-to-print PDF version of the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide is [here](#).

### 🖼️ Viewing images

Images in the demonstration guide can be enlarged by clicking on the image. Press the **Esc** key or click the X to dismiss the enlarged image.

### 📌 Image highlighting

In some images, the following styles of highlighting are used:

- **Solid highlight box:** This style of box highlights where to click, enter, or select an item.  
A solid black rectangular area is highlighted with a thick green border.
- **Dash highlight box:** This style of box highlights one of two things: the path to follow to get to a specific location in the user interface, or areas to explore on your own.  
A black rectangular area is highlighted with a dashed green border.



## Copying commands and prompts

Copying and pasting commands and prompts from this demonstration guide is easy and can eliminate typographical errors.

Click the highlighted copy icon and then use your operating system's paste function. For example, ^ Ctrl + V, or right-click and select Paste.

### Prompt 1

What is the APF list in z/OS? Provide a detailed explanation.



## Acronyms and terminology

IBM employees, and the tech industry in general, enjoy using acronyms. In the demonstration guide, most acronyms will appear with a dashed underline. Hover over the acronym to learn its meaning. A question mark (?) icon will first appear and after a second the tool tip with the acronym's meaning is displayed. Try it here: LPAR.



### Guidance for delivering a demonstration



Search

IBM Watson Assistant for Z

Welcome

Reserve the IBM Technology Zone environment

[Guidance for delivering a demonstration](#)

Demonstration scenarios >

Next steps

Specific guidance for IBM Watson Assistant for Z and the ITZ environment

Following the scripts provided in the IBM Watson Assistant for Z for Technical Sales Level 3 Demonstration Guide will help guarantee a successful demonstration. Use these tips to help insure success with IBM Watson Assistant for Z and the ITZ environment:

- Follow the scripts in the IBM Watson Assistant for X for Technical Sales Level 3 Demonstration Guide for the automations and skills to execute as expected.

Table of contents

General demonstration guidance

[Specific guidance for IBM Watson Assistant for Z and the ITZ environment](#)



## The Demonstration Guide table of contents

This **Demonstration Guide** uses a responsive browser-based interface to ensure a pages are usable on various devices with different screen sizes. The Demonstration Guide table of contents may be displayed as highlighted in the green dashed box in this image:

**IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide**

Search

**Welcome**

Welcome to the **IBM watsonx Assistant for Z for Technical Sales Level 3** course and demonstration guide! The goal of this course is to provide IBM and Business Partner technical sellers the knowledge and tools to demonstrate **IBM watsonx Assistant for Z**.

This course is not intended to serve as an in-depth study of IBM watsonx Assistant for Z, watsonx, or IBM Z; rather the focus is on learning how to deliver a client demonstration of IBM watsonx Assistant for Z. More specifically, the focus is on the *end-user* creating queries and by using trusted automations through skills that are suggested by IBM watsonx Assistant for Z.

Other aspects of IBM watsonx Assistant for Z including creating and configuring assistants, importing and creating new skills, and ingestion of client documentation are **not** covered in this demonstration guide. To learn more and get hands-on with these additional capabilities, check out the Velocity Pilot information in IBM Technology Zone (ITZ) [here](#).

Obtaining the IBM watsonx Assistant for Z Technical Sales Intermediate badge

**IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide**

Search

**Welcome**

Welcome to the **IBM watsonx Assistant for Z for Technical Sales Level 3** course and demonstration guide! The goal of this course is to provide IBM and Business Partner technical sellers the knowledge and tools to demonstrate **IBM watsonx Assistant for Z**.

However, if the browser window is sized smaller, the table of contents can be accessed by clicking the main menu icon (≡):

**IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration...**

Search

**Welcome**

Welcome to the **IBM watsonx Assistant for Z for Technical Sales Level 3** course and demonstration guide! The goal of this course is to provide IBM and Business Partner technical sellers the knowledge and tools to demonstrate **IBM watsonx Assistant for Z**.

Click the main menu icon (≡) to expand the table of contents.

# Demonstration guidance

Whether for a client, a session at a conference, or performing your Stand and Deliver, preparation for a demonstration is critical. Included are both general demonstration guidance and helpful tips for using IBM watsonx Assistant for Z and the IBM Technology Zone (ITZ) environment that is associated with the IBM watsonx Assistant for Z for Technical Sales Level 3 learning plan.

## General demonstration guidance

Knowing the audience that you are presenting to is critical. Having a basic understanding of a client's business and their challenges enables you to customize the conversation, so it resonates with the audience. It is also important to understand the roles of the individuals in your audience to know at what level of technical detail to present.

In addition, it is always a good idea to:

- Know how much time is allotted for your demonstration.
- Anticipate what questions your audience will ask.
- Anticipate what objections your audience may raise.
- Have a backup plan (like a video recording of the demonstration) in case of unforeseen events like network failures and unexpected errors.
- If your demonstration is to be delivered virtually, make sure everything works using the e-meeting technology.
- Do not deviate from this demonstration script. Straying from the planned script can lead to unexpected results and failure.
- If possible, and time permits, make your demonstration interactive with your audience. If that isn't possible, be sure to leave time for questions.
- Always conclude with a **call to action** (for example, next steps, follow-on activities, and so on).

And, most importantly, practice, practice, and practice.

## Specific guidance for IBM watsonx Assistant for Z and the ITZ environment

Following the scripts that are provided in the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide helps assure a successful demonstration. Use these tips to help assure success with IBM watsonx Assistant for Z and the ITZ environment:

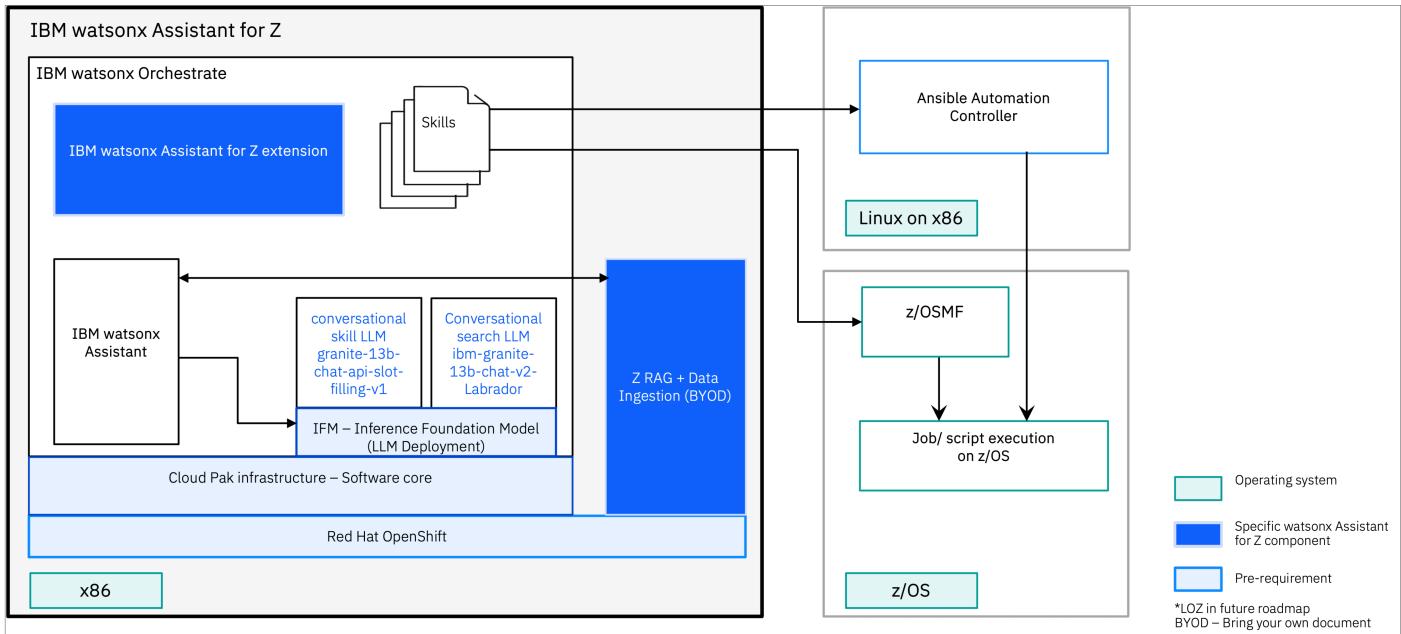
- While running many of the automated skills of IBM watsonx Assistant for Z, there will be times when the responses take 30 to 45 seconds to complete. You should be prepared to fill these wait times with some type of commentary. During these wait periods consider explaining in more detail what is being performed in the background, values of the automation, general values of the offering, or answering questions the client may have.
- **Google Chrome is the recommended browser for this environment.** Some users have experienced intermittent errors with running some of the skills when using other browsers.
- Run all prerequisites steps before starting the demonstration. Prerequisite steps are described with each scenario.
- Anticipate different responses from the scripted queries. The ITZ environment is a live and changing demonstration environment. Responses are subject to change as updates are made to the large language model (LLM) and retrieval augmented generation (RAG) used by IBM watsonx Assistant for Z.
- Follow the scripts in the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide for the automations and skills to run as expected.
- When issuing other prompts:
  - Procedural questions provide better structure to responses. For example, in a query it is better to use "Explain how to estimate space requirements for Db2 table spaces without using Db2 admin tool. Provide a step-by-step answer." versus "How to estimate space requirements for table spaces?"
  - When asking a generic question, responses are more accurate when possessive adjectives are avoided. For instance, "How do I check the Db2 for z/OS version on a logical partition (LPAR)?" versus "How do I check my Db2 for z/OS version on my LPAR?"
  - Compound questions perform better. As an example, "Categorize the various zparms available." versus "What is zparm?"
  - Question styles like pros and cons and A versus B work better. For instance, "What are the pros and cons for setting GMTRAN to EXIT? Provide a detailed answer."

If you know your client and their environment well, client-specific questions will add value to your demonstration. However, it is critical to validate the accuracy of the responses before attempting in a live demonstration.

Next, explore the scripted demonstrations that are created by IBM watsonx Assistant for Z experts.

# IBM Technology Zone environment

To enable sellers to demonstrate IBM watsonx Assistant for Z, an environment was created in IBM Technology Zone (ITZ). This environment mimics a typical client deployment of IBM watsonx Assistant for Z, similar to this deployment architecture.



Follow the instructions in this section to create a new reservation request, extend the reservation, and access the ITZ demonstration environment.

## Create a reservation request

Follow these steps to create a reservation in ITZ.

1. Click the following link to open a browser to the reservation page of the **IBM watsonx Assistant for Z**.



**You may be asked to authenticate to IBM Technology Zone**

The steps to authenticate to ITZ are not detailed here as they may vary between users.

### IBM watsonx Assistant for Z - reservation page

2. Click **Reserve now**.

The **Reserve now** option creates a reservation for immediate use. Optionally, schedule the reservation for a later date, like when you will be at your client's office.

IBM Technology Zone | My TechZone | Help

## Create a reservation

IBM watsonx Assistant for Z

Select a environment/infrastructure    Select a reservation type    Fill out your reservation    Complete

Select your reservation type. Do you need this now or later?

Single environment reservation options:

- Reserve now
- Schedule for later

[View collection](#)

3. Complete the reservation request and click **Submit**.

- a. Optionally, change the **Name** field for the reservation.
- b. Select the **Education** purpose tile.
- c. Enter a **Purpose description**.
- d. Select any geography in the **Preferred Geography** drop-down.
- e. The **End date and time** will be set to 2 days after the current date and time.
- f. Accept the IBM Technology Zone's terms and conditions and security policies.
- g. When satisfied with the parameters, click **Submit**.

IBM Technology Zone | My TechZone | Help

## Create a reservation

IBM watsonx Assistant for Z

Select a environment/infrastructure    Select a reservation type    Fill out your reservation    Complete

Name a  
Demo Access - watsonx Assistant for Z  
Name this reservation. This will help identify it in your reservations list.

Purpose

**Demo**  
Deliver a client specific demonstration based on discovery with the client and aligns to the identified architecture. Automatically captures a Technical Sales Activity in IBM Sales Cloud on the Opportunity code provided.

**Pilot**  
Rapid co-creation build that proves IBM technologies can deliver business value to clients' end users. Serves as a foundation to build a production solution. Automatically captures a Technical Sales Activity in IBM Sales Cloud on the Opportunity code provided.

**Education**  
gaining experience with specific technology, product, or solution. b

**Test**  
Need to test a specific function, configuration, or customization.

Please ensure to select the correct purpose as this can **NOT** be updated or changed after this reservation has been created. Review the [Reservation Duration Policy](#) to understand default durations allowed for specific infrastructures based on purpose.

Sales Opportunity number

Enter an opportunity number  
Providing an [IBM Sales Cloud Opportunity number](#), [Gainsight Relationship ID](#), or a [Project Work ID](#) will allow you to extend your reservation date. c

Purpose description  
Level 3 training

What are you doing? Why did you need this? What are you trying to accomplish? d

Preferred Geography  
any - AMERICAS - any region - any datacenter

End date and time e  
Select a date: 09/27/2024   Select a time: 12:29 PM   America/Chicago

Notes  
Enter any notes you would like to attach to this reservation

I agree to IBM Technology Zone's [Terms & Conditions](#) and [End User Security Policies](#) f

**Submit** g

## Extend the reservation

The ITZ provisioning process takes approximately 15 minutes. Multiple emails are sent to you from ITZ as the provisioning process runs. One email states the reservation is provisioning and the other email states that the environment is **Ready**.

In rare cases, the provisioning process may fail. If you receive an email stating the reservation failed, try again by repeating Steps 1-3.

When the reservation is in the **Ready** state, you can extend your reservation to a total of 6 days. Remember, IBM sellers need the environment to record their Stand and Deliver and Business Partners need an environment to answer quiz questions.

4. In the IBM Technology Zone portal, expand **My TechZone** at the top and select **My Reservations**.

Welcome to Technology Zone, Andrew

Certified Base Images

Best starting point to build

These images are 'TechZone Certified' and represent the best starting point for building new content, showing clients how easy it is to deploy IBM Technology from scratch, or testing custom configurations.

5. Click the overflow icon (≡) on the reservation tile and select **Extend**.

Status - Ready

Demo Access

Education

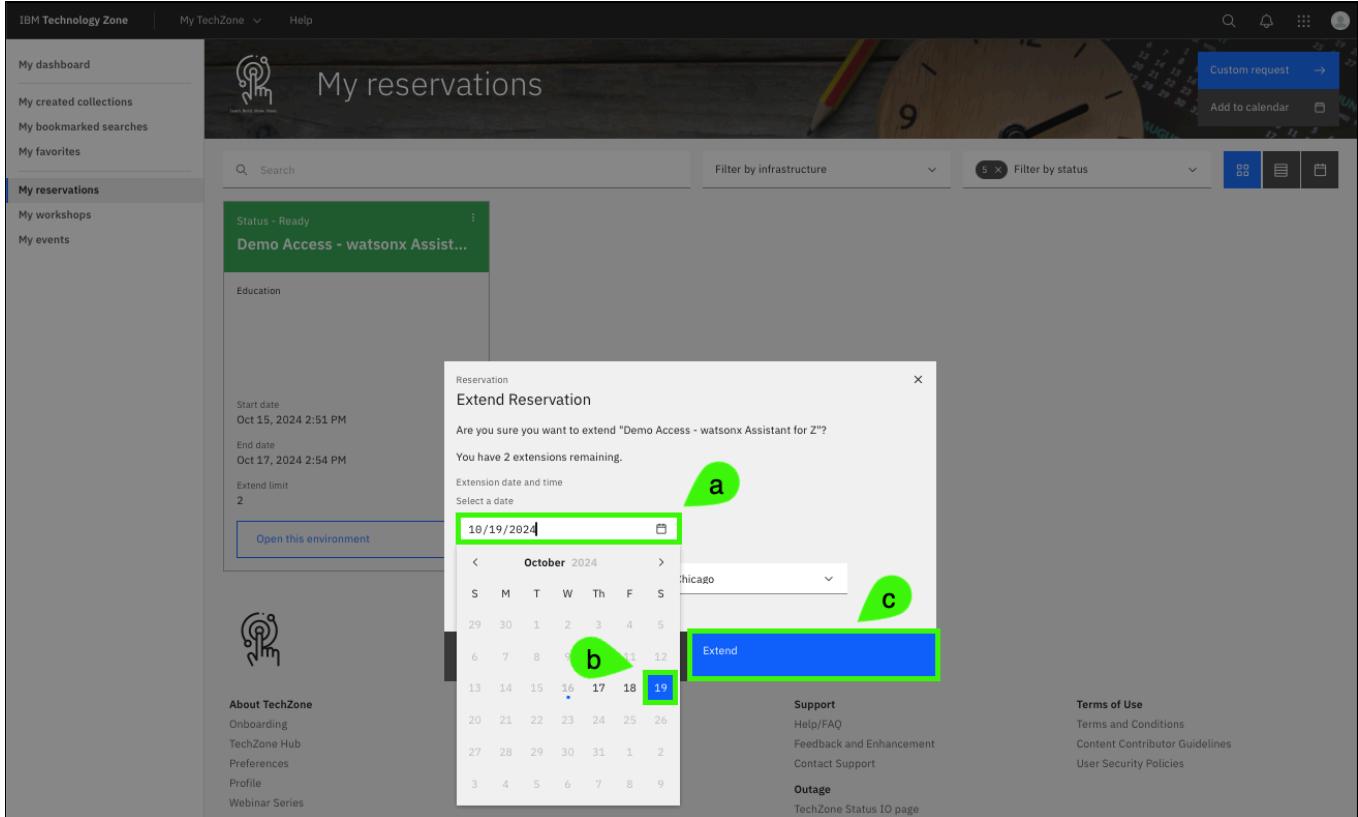
Start date: Oct 7, 2024 2:16

End date: Oct 11, 2024 2:20

Extend limit: 1

Open this environment

6. Click the **Select a date** option, specify the date to extend to, and then click **Extend**.



If you anticipate needing more time, repeat Steps 5 and 6 to extend the reservation to the maximum of 6 days.

## Accessing the demonstration environment

Access to the IBM watsonx Assistant for Z demonstration environment is provided through a web interface to a fictitious company's intranet website.

- Click on reservation tile in the **ITZ My reservations** page.

- Click **Open your IBM Cloud environment**.



**For best results, use the Google Chrome browser.**

Issues may be encountered with some browsers when accessing the demo environment. If the page does not load, try loading the page in the Google Chrome browser.

**You may be prompted to authenticate**

In some instances, you may be prompted to authenticate when attempting to access the [Open our IBM Cloud environment](#) link. Use the same IBM ID and password used to reserve the ITZ environment.

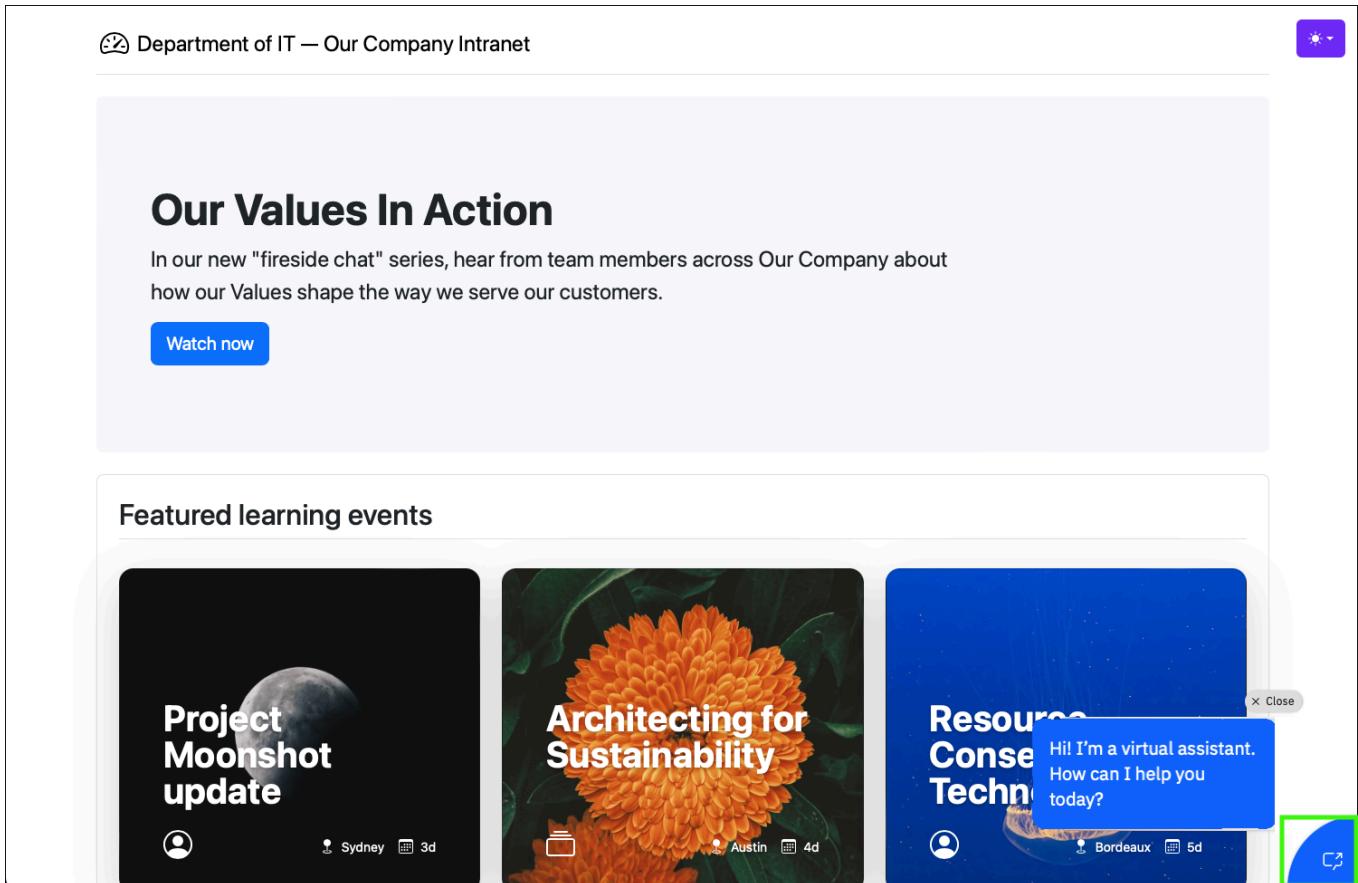
## The demonstration portal page

The demonstration portal page provides two ways of accessing the IBM watsonx Assistant for Z virtual assistant.

### The chat icon

The first method is to use the assistant chat icon that appears at the lower right of the page. The **Hi! I'm a virtual assistant. How can I help you today?** dialog appears after a few seconds as the page loads.

9. Click the **Virtual Assistant chat icon**.



This action opens the virtual assistant in the current browser page as a pop-up dialog. This approach provides an integrated view of the web page and the virtual assistant dialog; however, the dialog could be considered small for giving a live demonstration if the audience is expected to read the output.

10. Close the **Virtual Assistant** dialog.

The screenshot shows a company intranet page titled "Department of IT — Our Company Intranet". The main content features a section titled "Our Values In Action" with a sub-section about a "fireside chat" series. A blue button labeled "Watch now" is visible. Below this, there's a "Featured learning events" section with three cards: "Project Moonshot update" (black background, white text), "Architecting for Sustainability" (orange flower image), and "Res Cor Tec" (blue background, white text). On the right side, a "Z Assistant" chat window is open, displaying the message "Hi! I'm a virtual assistant. How can I help you today?". The input field says "Type something..." and the status bar at the bottom indicates "Powered by IBM watsonx". A green box highlights the close button in the top right corner of the chat window.

## The full page virtual assistant

The second user interface available for the virtual assistant is a full browser page experience.

11. Scroll to the bottom of the page and click **Techbot (in a new tab)** under **Technology**.

**Technology updates**

Enabling our business to achieve and grow through providing the best in technology. Learn about some of the exciting programmes being delivered in coming months!

[Learn more](#)

**CEO Roadshow**

The CEO of Our Company is visiting your area! Get updates on the schedule, and register your questions in advance of the Town Hall session at your location.

[Check the schedule](#)

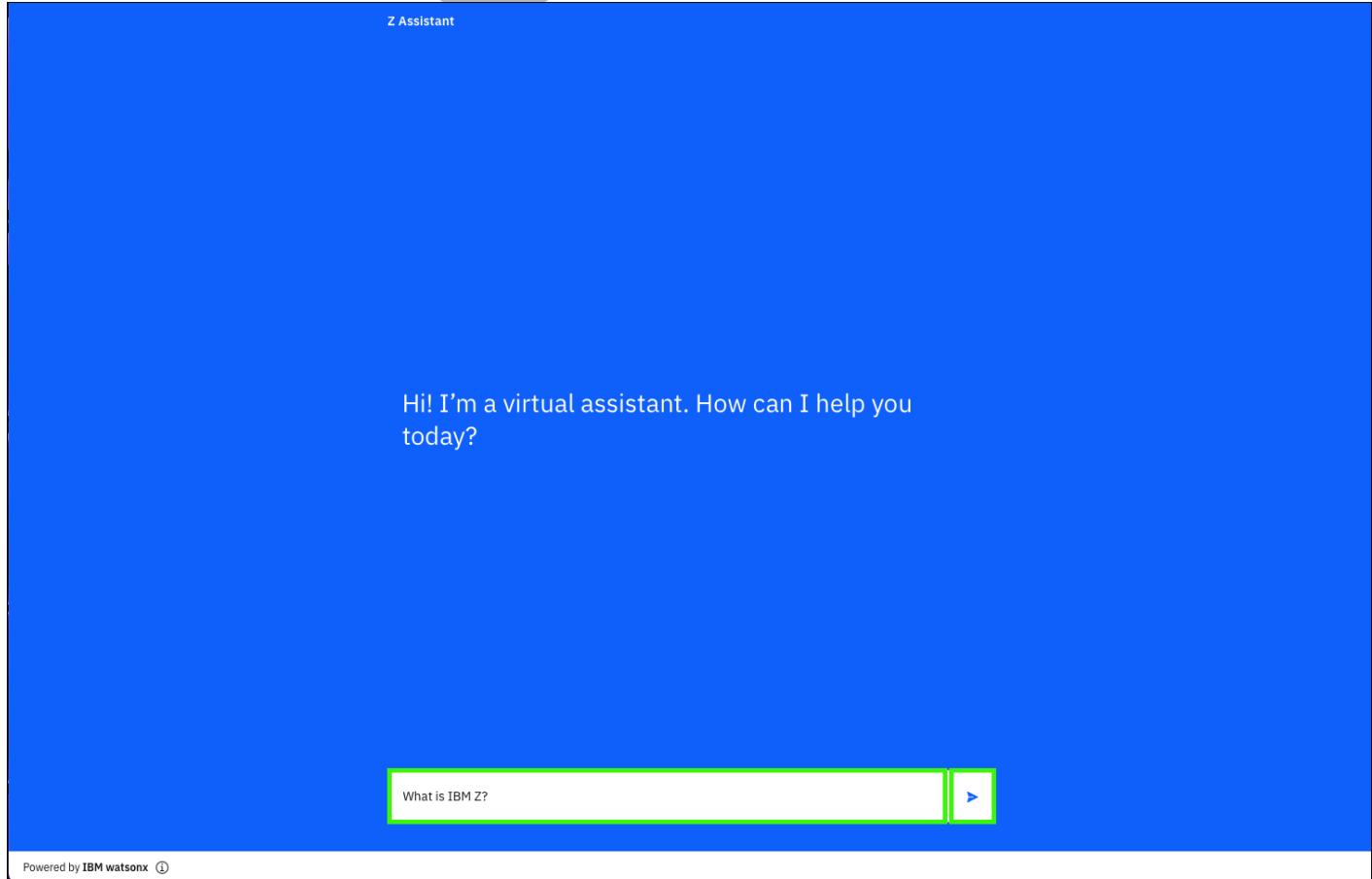
 © Our Company 2024

<b>Technology</b> <a href="#">About</a> <a href="#">Platforms</a> <a href="#">TechPortal</a> <a href="#">TechBot (pop-out)</a> <b>TechBot (in a new tab)</b> <span style="border: 1px solid green; padding: 2px;"> </span> <a href="#">Service Delivery</a>	<b>Sales</b> <a href="#">Products</a> <a href="#">Trials and Demos</a> <a href="#">Case studies</a> <a href="#">FAQs</a> <a href="#">Financing</a>	<b>Corporate</b> <a href="#">History</a> <a href="#">Careers</a> <a href="#">Newsroom</a> <a href="#">Corporate Responsibility</a> <a href="#">Investor Relations</a>
--	--	---

The full-page virtual assistant interface opens in a new browser window or tab (this is dependant on your browser preferences). The full-page virtual assistant interface is used for all screen captures in later chapters.

## Using the virtual assistant

Enter a query into the field and press **Enter ↵** or click the **Send** icon ().



The screenshot shows the IBM Watson Assistant for Z interface. At the top, it says "Z Assistant". In the center, there is a message from the virtual assistant: "Hi! I'm a virtual assistant. How can I help you today?". Below this, there is a text input field containing the query "What is IBM Z?" and a green "Send" button to its right. The entire interface is set against a blue background.

Proceed to the next section to run through different IBM watsonx Assistant for Z client scenarios detailed in this demonstration guide.

## Demonstration scenarios

# Scenarios

This section includes expert-created a set of scenarios that illustrate the domain-specific knowledge of IBM watsonx Assistant for Z. Each scenario includes step-by-step guidance based on actual client interactions and workflows with IBM Z. Each scenario provides:

- A brief overview of the scenario.
- Any prerequisite or setup steps necessary for the scenario to work in the demonstration environment.
- A list of queries and Example output that illustrate the scenario.
- Any cleanup steps that must be run after the scenario.



## Responses from the virtual assistant are likely to change

Responses generated by IBM watsonx Assistant for Z are likely to change over time. The responses you see when you run through the scenarios may differ from the screen images captured in this guide. Using the exact queries specified will help assure a successful demonstration.

Each scenario overview is written as if they are being presented to a client versus the typical prose of the demonstration guide. The **Speaker's script** illustrates the style and how to start a client demonstration.

## Speaker's script

Hello [insert customer name]. Welcome to this demonstration of IBM watsonx Assistant for Z. Today, many early tenure IBM Z administrators spend hours looking for current information, accurate information, and performing time-consuming manual tasks. And they are very dependent on the Subject Matter Experts to complete their tasks.

IBM watsonx Assistant for Z is a new generative AI assistant that melds automation with conversational AI to help transform how system programmers, operators, and developers of all experience levels engage with and manage their IBM Z. IBM watsonx Assistant for Z understands over 200 IBM Z products and is designed to enable clients to:

- Expedite the onboarding process, quickly enhancing platform expertise of early tenure professionals with a side-by-side AI assistant, accelerating their journey to productivity with confidence.
- Improve productivity, autonomy, and confidence across *all* skill levels, by offering a central place to find answers and running automation to perform common and complex tasks.
- And you can also leverage the platform to ingest your own documentation further benefiting from this solution. I won't be covering this capability today, but as we move forward we can show how easy this is done, along with adding other skills using your own automation through Ansible, REXX, and JCL.

In this demo, we will run through a couple of scenarios that highlight the value IBM watsonx Assistant for Z can provide to various roles in your organization regardless of skill level. These scenarios also leverage skills using Ansible Automation to provide great flexibility when it comes to automating Z-specific tasks as part of your enterprise automation strategy.

Let's get started.

Other Speaker's scripts are included in some scenarios for some prompts. This [sample client demonstration video](#) also provides additional talking points for the Db2 and certificate renewal scenarios.

When you plan your demonstration, choose the scenarios that best fit your client's requirements.

# Scenario: Authorized Program Facility

## Scenario overview

### Speaker's script

Imagine you are an early-tenure systems programmer ([sysprog](#)) that is tasked with updating the Authorized Program Facility ([APF](#)) authorized list on an logical partition ([LPAR](#)) and would like to quickly find guidance on doing this without having to read a bunch of manuals. In [z/OS](#), the [APF](#) list includes information about libraries that contain [APF](#)-authorized programs. You would also like to take advantage of some simple automation to complete this task if possible.

As you will see, in the last prompt, IBM watsonx Assistant for Z will respond with the command to run to add the library to the [APF](#) authorized list, followed by prompting you to run a skill (issuing a [z/OS](#) console command) on your behalf which will perform the task.

### Responses from the virtual assistant are likely to change

Responses generated by IBM watsonx Assistant for Z are likely to change over time. The responses you see when you run the queries in this section may differ from the screen images captured in the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide. Using the exact queries specified will help assure a successful demonstration. Also, as updates to the environment are made, some confirmation dialogs may no longer be displayed as illustrated in the Example outputs.

## Prerequisite steps

None.

## Prompts and Example outputs

### Copy and paste the prompt

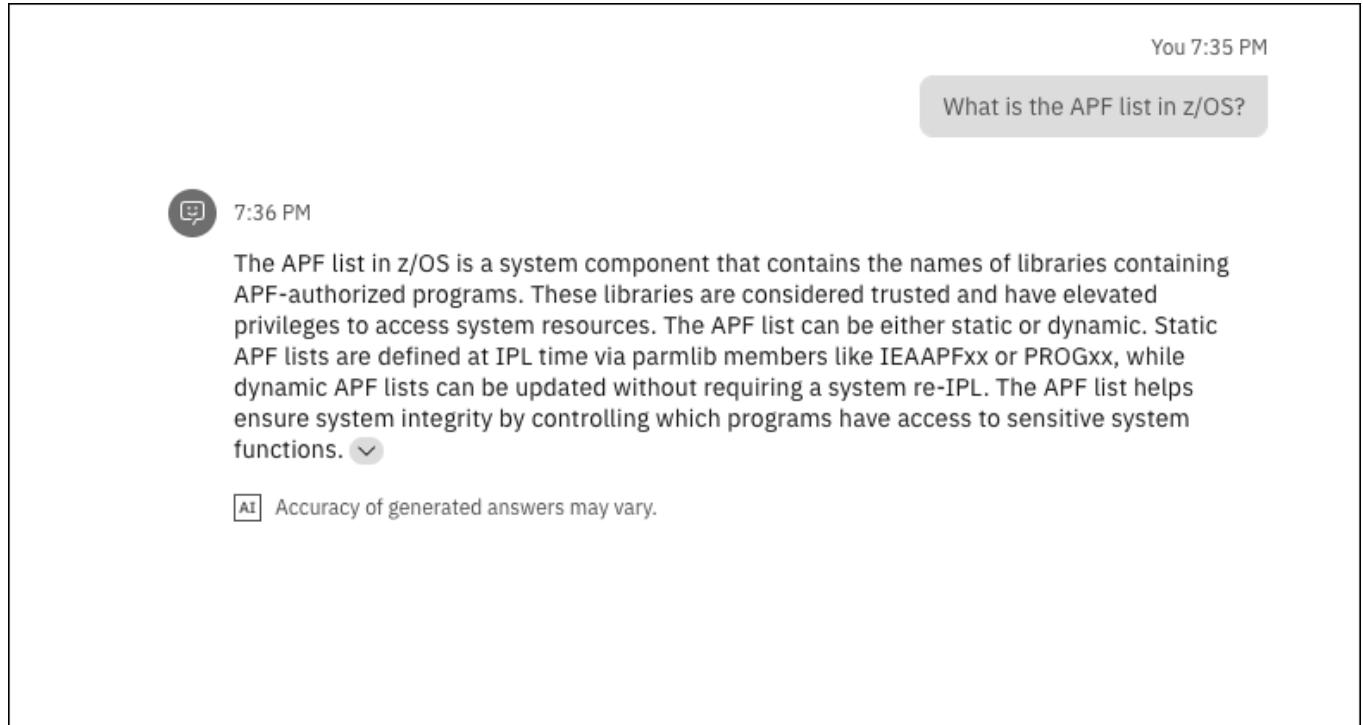
Use the copy icon () to copy prompts from this demonstration guide and then paste the prompt using  +  or right click and select Paste.

1. Ask the assistant what the APF list is.

#### **Prompt:**

What is the APF list in z/OS?

#### **Example output:**



The screenshot shows a messaging interface. A user message at 7:35 PM asks "What is the APF list in z/OS?". An AI response at 7:36 PM provides a detailed explanation: "The APF list in z/OS is a system component that contains the names of libraries containing APF-authorized programs. These libraries are considered trusted and have elevated privileges to access system resources. The APF list can be either static or dynamic. Static APF lists are defined at IPL time via parmlib members like IEAAPFx or PROGxx, while dynamic APF lists can be updated without requiring a system re-IPL. The APF list helps ensure system integrity by controlling which programs have access to sensitive system functions." Below the response, there is a note: "AI Accuracy of generated answers may vary."

### Speaker's script

Notice the detailed level of the response, and more importantly, notice the expandable section at the bottom of the response.

2. Expand the results.

You 7:35 PMWhat is the APF list in z/OS?

7:36 PM

The APF list in z/OS is a system component that contains the names of libraries containing APF-authorized programs. These libraries are considered trusted and have elevated privileges to access system resources. The APF list can be either static or dynamic. Static APF lists are defined at IPL time via parmlib members like IEAAPFx or PROGxx, while dynamic APF lists can be updated without requiring a system re-IPL. The APF list helps ensure system integrity by controlling which programs have access to sensitive system functions. ▼

AI Accuracy of generated answers may vary.

**Example output:**

You 7:35 PM

What is the APF list in z/OS?



7:36 PM

The APF list in z/OS is a system component that contains the names of libraries containing APF-authorized programs. These libraries are considered trusted and have elevated privileges to access system resources. The APF list can be either static or dynamic. Static APF lists are defined at IPL time via parmlib members like IEAAPFx or PROGxx, while dynamic APF lists can be updated without requiring a system re-IPL. The APF list helps ensure system integrity by controlling which programs have access to sensitive system functions.



#### Specifying the APF list

You can use either member, but IBM® suggests using PROGxx, which offers the following advantages over IEAAPFx: You can specify multiple PROGxx parmlib members using the...

[View source](#)

#### Description

Note that programs that are marked as coming from an authorized library could have come from one of these libraries or from the link pack area.  
`,DSNAME=libname` Specifies a field (o...

[View source](#)

#### Troubleshooting DFHKE0104 inc...

Alternatively, if you have the required authorization, you can use the DFHCSVCU utility program to install the CICS Type 3 SVC dynamically, without the need to perform an IPL of the z/O...

[View source](#)

AI Accuracy of generated answers may vary.

#### Speaker's script

You expand this section and can see the referenced sources that were used to build the answer. This illustrates just part of the explainable AI capabilities of watsonx. Click on any of the document tiles to display the source document.

3. Ask the assistant how to update the APF list.

**Prompt:**

How do you update the APF list in z/OS?

**Example output:**

How do you update the APF list in z/OS?

10:53 AM

To update the APF list in z/OS, you can use the SETPROG APF command with the appropriate parameters. The SETPROG APF command allows you to change the format of the APF list from static to dynamic, add or delete libraries from a dynamic APF list, and update the contents of the APF list during normal processing. The command requires system (AUTH(SYS)) or higher authority and UPDATE authority to the RACF FACILITY resource class entity CSVAPF.libname or CSVAPF.MVS.SETPROG.FORMAT.DYNAMIC, depending on the task. You can also use the SET PROG=xx command to update the APF list using parameters specified in the PROGxx parmlib member. 

4. Ask the assistant what the parmlib member to update the APF list.

**Prompt:**

What is the parmlib member to update the APF list in z/OS?

**Example output:**

You 7:40 PM

What is the parmlib member to update the APF list in z/OS?

7:40 PM

The PROGxx and IEAAPFxx parmlib members are used to update the APF list in z/OS. However, IBM recommends using PROGxx due to its advantages such as specifying multiple PROGxx parmlib members, choosing between dynamic or static APF list formats, and allowing an unlimited number of libraries in the APF list. 

 Accuracy of generated answers may vary.

5. Ask the assistant what is the command to add loadlib for a volume in the APF list.

**Prompt:**

What is the command to add PROD1.LOADLIB on volume PRD001 to the APF list?

**Example output:**

You 7:44 PM

What is the command to add PROD1.LOADLIB on volume PRD001 to the APF list?

7:44 PM

To add PROD1.LOADLIB on volume PRD001 to the APF list, you would use the command:

SETPROG APF,ADD,DSNAME=PROD1.LOADLIB,VOLUME=PRD001

AI Accuracy of generated answers may vary.

Would you like me to run this SETPROG command to add to the APF list?

6. Click **Yes** to run the command.

You 7:44 PM

What is the command to add PROD1.LOADLIB on volume PRD001 to the APF list?

7:44 PM

To add PROD1.LOADLIB on volume PRD001 to the APF list, you would use the command:

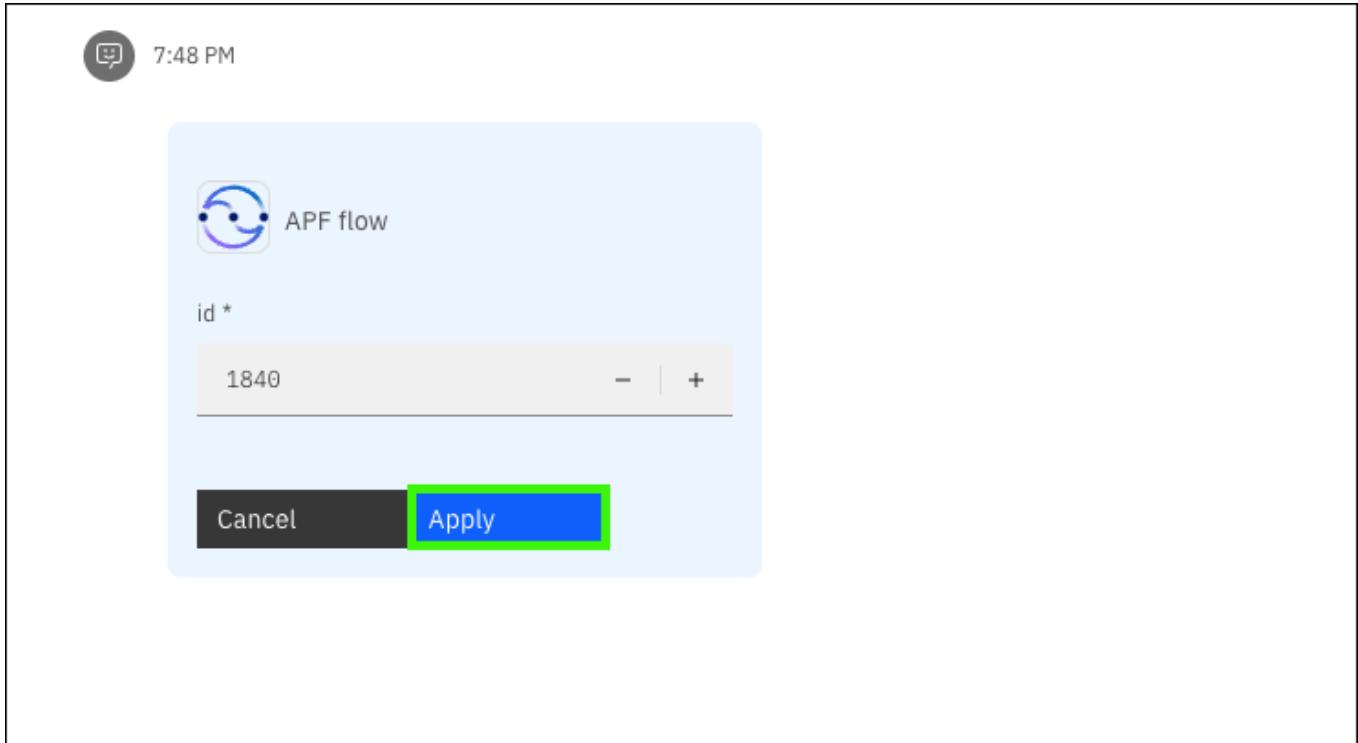
SETPROG APF,ADD,DSNAME=PROD1.LOADLIB,VOLUME=PRD001

AI Accuracy of generated answers may vary.

Would you like me to run this SETPROG command to add to the APF list?

7. Wait approximately 10 seconds and then click **Apply**

**Note:** there are no additional parameters required in this form, this is why you see the “**Form is empty**” message.



**Example output:**



## APP flow

content

```
Identity added: /runner/artifacts/1840/ssh_key_data (/runner/artifacts/1840/s  
[1;35m[WARNING]: Collection ibm.ibm_zos_core does not support Ansible ver
```

```
PLAY [zos_host] ****
```

```
TASK [Submit z/OS operator command.] ****  
[0;33mchanged: [zos_host] [0m
```

```
TASK [Response from operator command.] ****  
[0;32mok: [zos_host] => { [0m  
[0;32m "msg": [ [0m  
[0;32m "VS01 2025020 21:48:56.00      ISF031I CONSOLE IBMUOC  
[0;32m "VS01 2025020 21:48:56.00      -  
SETPROG APF,ADD,DSNAME=PROD1.LOADLIB,VOLUME=PRD001 ", [0m  
[0;32m "VS01 2025020 21:48:56.00      CSV410I DATA SET PROD1  
[0;32m ] [0m  
[0;32m} [0m
```

```
PLAY RECAP ****  
[0;33mzos_host [0m : [0;32mok=2 [0m [0;33mchanged=1 [0m
```

### Speaker's script

Notice the Assistant's response for this command informs you that LOADLIB was added to the APF list.

## Cleanup steps

None.

# Scenario: Certificate renewal

## Scenario overview

### Speaker's script

Now, change your role to that of a security administrator. You have just been informed that one of your SSL certificates signed by a Certificate Authority is expiring soon. Secure Sockets Layer (SSL) certificates, sometimes called digital certificates, are used to establish an encrypted connection between communicating parties over a network. Certificate management is crucial for maintaining the security of our company's z/OS environment, but it has been a while since you have performed this action. You recall there are many steps required on z/OS and various RACF commands that need to be run to renew a certificate. Rather than going to your senior security administrator for assistance, you leverage watsonx Assistant for Z to help automate the certificate renewal process. By automating these processes with Ansible, you ensure critical certificates are always up to date and reduce the risk of expired certificates disrupting your services.



### Responses from the virtual assistant are likely to change

Responses generated by IBM watsonx Assistant for Z are likely to change over time. The responses you see when you run the queries in this section may differ from the screen images captured in the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide. Using the exact queries specified will help assure a successful demonstration. Also, as updates to the environment are made, some confirmation dialogs may no longer be displayed as illustrated in the Example outputs.

## Prerequisite steps

To run this scenario, a certificate must first be created.



### Copy and paste the prompt



Use the copy icon (📋) to copy prompts from this demonstration guide and then paste the prompt using [^ Ctrl + V] or right click and select Paste.

Using the virtual assistant:

1. Create a certificate.

**Prompt:**

```
create a certificate
```

**Example output:**

You 8:18 AM

create cert

8:18 AM

 z/OS Certs - Create Cert

Certificate Label \*

TESTSITE

CERT TYPE \*

SITE

Expiration date \*

2030-01-01

Common name \*

test.com

SIGN WITH \*

Self

SIGN LABEL \*

TESTCA

[Show all fields](#)

Cancel Apply

2. Complete the form for the (a-f) z/OS Certs - Create Cert skill and click (g) **Apply**.

**Input values:**

- (a) **Certificate Label:** <Enter a unique label of your choice, for example "yourNameCert". Record the label as it is needed later.>
- (b) **CERT TYPE:** SITE
- (c) **Expiration date:** <Enter an expiration date within the next 30 days in the format YYYY-MM-DD>
- (d) **Common name:** <Enter a unique label of your choice, for example "company.com". Record the name as it is needed later. Do NOT use test.com\*\*>
- (e) **SIGN WITH:** CERTAUTH
- (f) **SIGN LABEL:** TESTCA

Z Assistant

YOU 8:20 AM

create a certificate

8:20 AM

z/OS Certs - Create Cert

Certificate Label \*

a myCert1

CERT TYPE \*

b SITE

Expiration date \*

c 2025-01-30

Common name \*

d company.com

SIGN WITH \*

e CERTAUTH

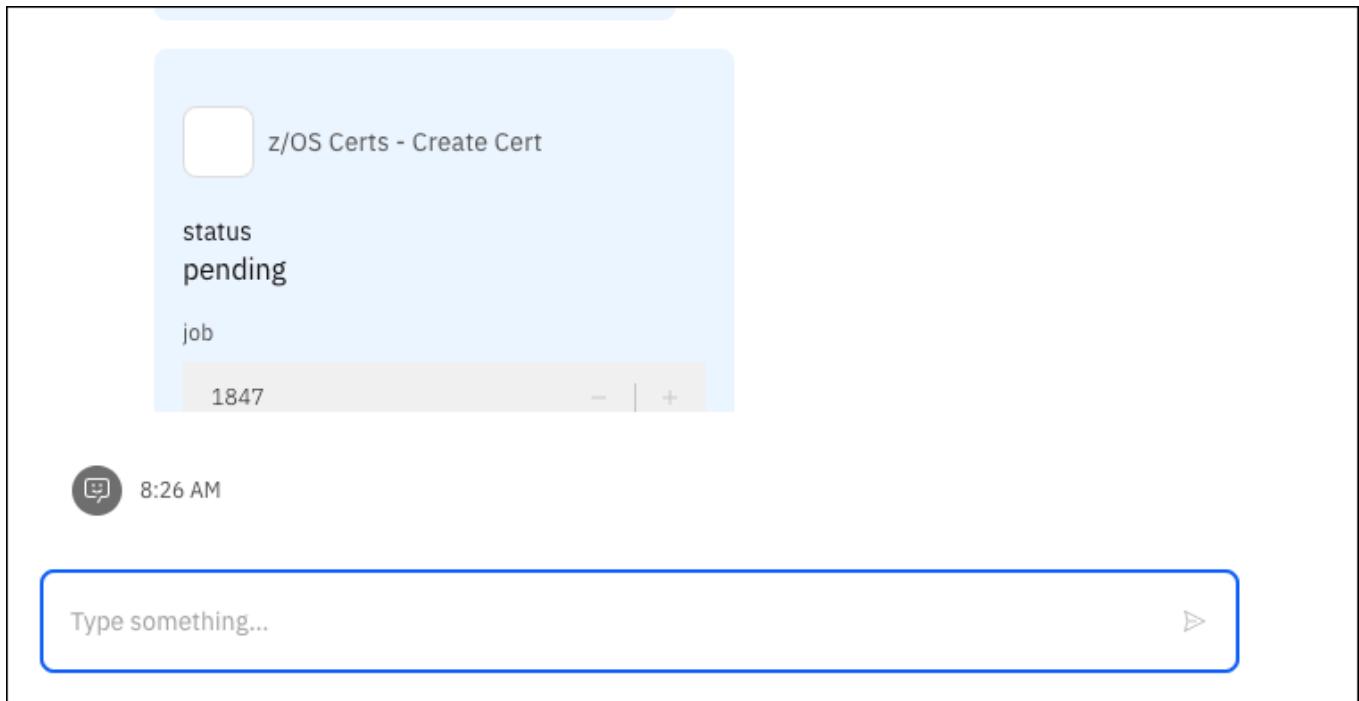
SIGN LABEL \*

f TESTCA

Show all fields

Cancel Apply g

Example output:



The new certificate is created (despite the last message status of **pending**).

## Prompts and Example outputs

1. Ask the assistant how to check on an expiring certificate and then click **Yes** to retrieve the certificate details.

### Prompt:

I have a SSL certificate on z/OS expiring soon. How do I check when my certificate is going to expire?

### Example output:

You 7:57 PM

I have a SSL certificate on z/OS expiring soon. How do I check when my certificate is going to expire?

7:57 PM

To retrieve the expiration date of your z/OS certificate, you can use the RACDCERT LIST command followed by the certificate label. For instance, if your certificate label is 'cdpDSCert', you would run the command:

RACDCERT ID(HBOLGF) LIST(LABEL('cdpDSCert'))

This will display detailed information about the certificate, including its expiration date.

Alternatively, you can use the RACF\_CERTIFICATE\_EXPIRATION check, which extracts each certificate from the RACF database and lists those whose ending date is equal to or less than the warning date. The warning date is the current date adjusted by the warning period specified by the installation.

Please note that you should have appropriate permissions to execute these commands.

AI Accuracy of generated answers may vary.

Would you like to run the skill to retrieve your certificate's expiration date?

3. Enter the certificate label of the certificate created earlier.

9:23 AM  
What is your certificate label?

You 9:24 AM  
myCert1

9:24 AM

 Retrieve certificate expiration

id \*

1848 - +

Cancel Apply

4. Wait approximately 10 seconds and then click **Apply**.

9:23 AM What is your certificate label?

You 9:24 AM myCert1

9:24 AM

Retrieve certificate expiration

id \*

1848

Cancel Apply

5. Review the certificate information and then click **Yes** to renew the certificate.



9:24 AM

Retrieve certificate expiration

id \*

1848 - +



9:37 AM

***Below is your certificate's expiration date:***  
{"certificate expiration date": "2025/01/30 23:59:59"}

Would you like to renew your certificate?

Yes No

Type something... ▶

6. Enter a new date for the certificate in the form of **YYYY-MM-DD**.

9:39 AM  
What date would you like to set the renewed certificate's expiration date to? **Please enter in the form of YYYY-MM-DD.**

You 9:40 AM  
2025-06-30

9:40 AM  
Renewing your certificate using Ansible automation....this could take up to a minute. **Please wait one minute before selecting an option below.**

Would you like to verify the new expiration date for your certificate?

Type something... ➤

7. Wait approximately 1 minute and then click **Yes**.

9:39 AM  
What date would you like to set the renewed certificate's expiration date to? **Please enter in the form of YYYY-MM-DD.**

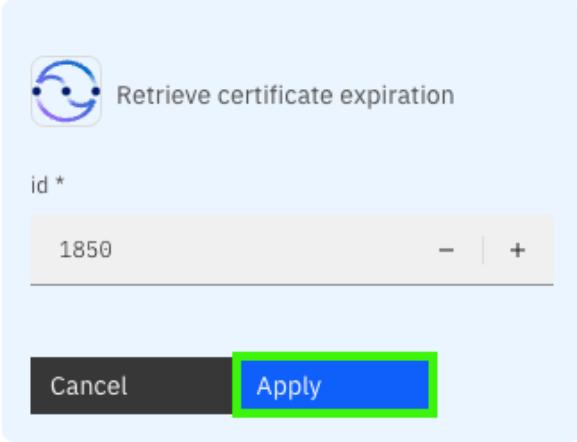
You 9:40 AM  
2025-06-30

9:40 AM  
Renewing your certificate using Ansible automation....this could take up to a minute. **Please wait one minute before selecting an option below.**

Would you like to verify the new expiration date for your certificate?

Type something... ➤

8. Wait approximately 30 seconds and then click **Apply**.



9:52 AM

Retrieve certificate expiration

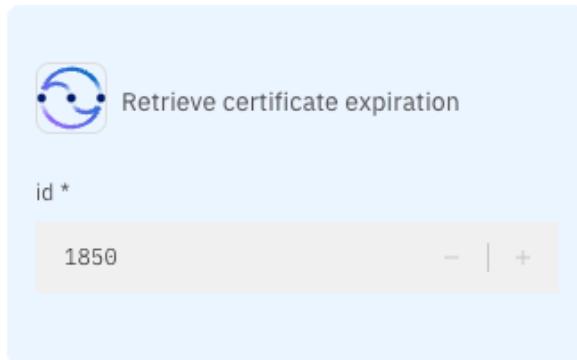
id \*

1850

- +

Cancel Apply

9. Verify the certificate expiration date has changed to the value specified in step 6.



9:52 AM

Retrieve certificate expiration

id \*

1850

- +

9:53 AM

***Below is the new expiration date of your renewed certificate:***  
***{"certificate expiration date": "2025/06/30 23:59:59"}***

## Cleanup steps

Following the demo, cleanup the system by deleting the original certificate created.

Using the virtual assistant:

1. Delete the certificate.

**Prompt:**

```
delete cert
```

**Example output:**

You 10:01 AM

delete cert

10:01 AM

z/OS Certs - Delete Cert

CERT TYPE \*

myCert1

CERT LABEL \*

SITE

Show all fields

Cancel      Apply

2. Complete the form and click **Apply**.

**Input values:**

- **CERT LABEL:** <Enter the original certificate label that you created.>
- **CERT TYPE:** SITE

The screenshot shows a mobile application interface for deleting a certificate. At the top right, there is a timestamp "You 10:01 AM" and a button labeled "delete cert". On the left, there is a timestamp "10:01 AM" next to a message icon. The main content area has a light blue background and contains the following fields:

- A placeholder icon for a certificate image followed by the text "z/OS Certs - Delete Cert".
- A label "CERT TYPE \*" followed by a text input field containing "myCert1", which is highlighted with a green border.
- A label "CERT LABEL \*" followed by a text input field containing "SITE".
- A link "Show all fields" in blue text.
- At the bottom, there are two buttons: "Cancel" and "Apply", with "Apply" being highlighted with a blue border.

# Scenario: Db2 versioning

## Scenario overview

### Speaker's script

You are now a new database administrator (DBA) and need to quickly familiarize yourself with the Db2 subsystem in your company's IBM Z environment. You would like to understand more about Db2 on z/OS versus other platforms, the latest supported version of Db2, and the process for migrating to a newer version. Most early-tenure DBAs don't have this experience. You leverage the virtual assistant that is customized with pre-existing automation your team has in place. And by leveraging the retrieval augmented generation (RAG) grounded on IBM Z-specific knowledge, you have confidence that the responses generated from the questions are accurate. You like the fact that you can go to one place to get answers to any question, on-demand, and can help automate some of the tasks, which in turn reduces your learning curve and increases your efficiency.



### Responses from the virtual assistant are likely to change

Responses generated by IBM watsonx Assistant for Z are likely to change over time. The responses you see when you run the queries in this section may differ from the screen images captured in the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide. Using the exact queries specified will help assure a successful demonstration. Also, as updates to the environment are made, some confirmation dialogs may no longer be displayed as illustrated in the Example outputs.

## Prerequisite steps

None.

## Prompts and Example outputs

### Copy and paste the prompt ▼

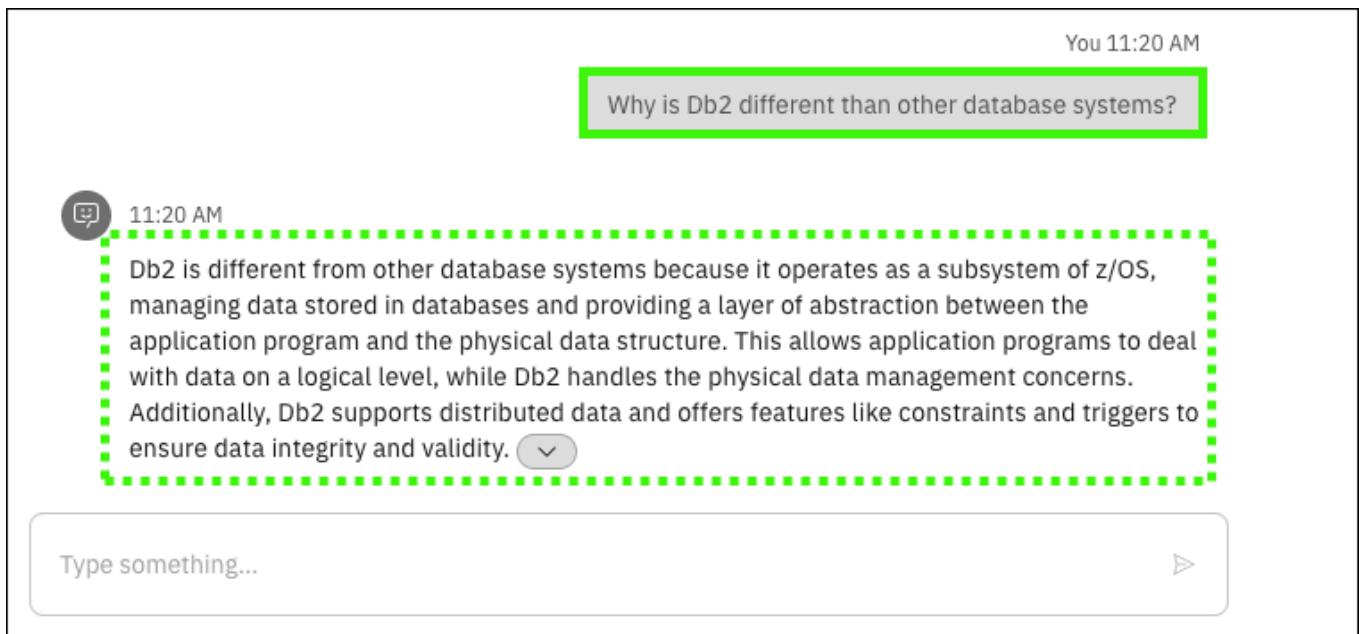
Use the copy icon () to copy prompts from this demonstration guide and then paste the prompt using  +  or right click and select Paste.

1. Ask the assistant what is different about Db2.

#### **Prompt:**

Why is Db2 different than other database systems?

#### **Example output:**



The screenshot shows a messaging interface. A user message at the top asks "Why is Db2 different than other database systems?". Below it, a response from "You" explains that Db2 is different because it operates as a subsystem of z/OS, managing data stored in databases and providing a layer of abstraction between the application program and the physical data structure. It also mentions that Db2 supports distributed data and offers features like constraints and triggers to ensure data integrity and validity. The response is highlighted with a green dashed border. At the bottom, there's a text input field with "Type something..." placeholder text and a send button.

### Speaker's script

Notice the detailed level of the response, and more importantly, notice the expandable section at the bottom of the response.

2. Ask the assistant how Db2 differs on the z/OS platform and distributed platforms.

#### **Prompt:**

What is the difference between Db2 for z/OS and Db2 on distributed?

#### **Example output:**

You 11:22 AM

What is the difference between Db2 for z/OS and Db2 on distributed?

11:22 AM

Db2 for z/OS is a version of the Db2 database management system designed to operate as a subsystem within the z/OS operating system on IBM mainframes. It's optimized for high-performance, security, and scalability, and integrates tightly with z/OS and System z architecture.

On the other hand, Db2 on distributed refers to the version of Db2 that runs on non-mainframe platforms, such as Windows, Linux, or UNIX. It's designed to operate in a client/server environment, enabling communication between applications and database systems on disparate operating systems.

In summary, the primary differences lie in the underlying hardware platform, integration with the operating system, and specific features tailored to each environment. ▼

Type something... ▶

3. Ask the assistant what is the latest release of Db2 for z/OS.

**Prompt:**

What is the latest release of Db2 for z/OS?

**Example output:**

What is the latest release of Db2 for z/OS?

12:09 PM

The latest release of Db2 for z/OS is Version 13. ▼

4. Ask the assistant what version of z/OS is required for Db2 v13.

**Prompt:**

What version of z/OS does Db2 v13 run on?

**Example output:**

What version of z/OS does Db2 v13 run on?



12:10 PM

Db2 v13 runs on z/OS 2.4 or later.

5. Ask the assistant how to check the version of Db2 on an LPAR.

**Prompt:**

What is the operator command used to check the Db2 for z/OS version level?

**Example output:**

The screenshot shows a messaging interface. A user message at the top right reads "You 11:24 AM". Below it is a question from the user: "What is the operator command used to check the Db2 for z/OS version level?". An AI response follows, timestamped "11:24 AM": "The operator command to check the Db2 for z/OS version level is 'DISPLAY GROUP'. ▼". At the bottom, there's a text input field with "Type something..." placeholder text and a send icon (an arrow).

6. Ask the assistant if it can run the version check.

**Prompt:**

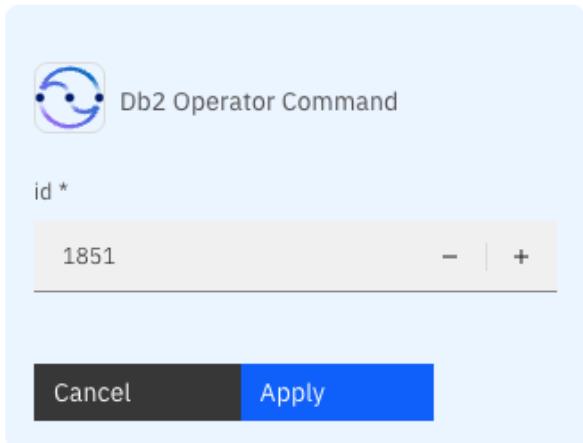
Run the command to check my version level?

**Example output:**

The screenshot shows a messaging interface. A user message at the top right reads "You 11:24 AM". Below it is a speaker's script: "Speaker's script: A skill is triggered to use an Ansible playbook that runs the referenced operator command to return the Db2 details.".

Run the command to check my version level?

11:26 AM  
Running the mentioned operator command to retrieve and display your Db2 subsystem details.



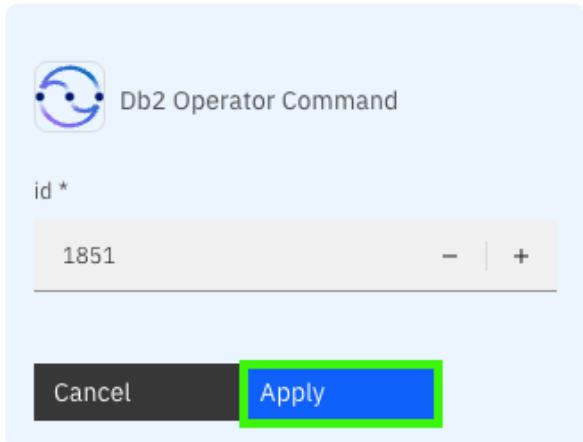
The screenshot shows a message from WatsonX at 11:26 AM instructing the user to run a command to check their Db2 version. Below this, a screenshot of the Db2 Operator Command dialog box is shown. The dialog has a blue header with the title 'Db2 Operator Command'. It contains a text input field labeled 'id \*' with the value '1851'. At the bottom are two buttons: 'Cancel' and 'Apply', with 'Apply' being highlighted in blue. A green dashed border surrounds the entire message and dialog box area.

7. Wait approximately 10 seconds and then click **Apply**.

#### Sample input

Run the command to check my version level?

11:26 AM  
Running the mentioned operator command to retrieve and display your Db2 subsystem details.



The screenshot shows a message from WatsonX at 11:26 AM instructing the user to run a command to check their Db2 version. Below this, a screenshot of the Db2 Operator Command dialog box is shown. The dialog has a blue header with the title 'Db2 Operator Command'. It contains a text input field labeled 'id \*' with the value '1851'. At the bottom are two buttons: 'Cancel' and 'Apply', with 'Apply' being highlighted in blue. A green dashed border surrounds the entire message and dialog box area.

#### Example output:

## Speaker's script

See the skill returned the version of Db2 running on the LPAR.



Db2 Operator Command

content

Identity added: /runner/artifacts/1851/ssh\_key\_data (/runner/artifacts/1851/s [1;35m[WARNING]: Collection ibm.ibm\_zos\_core does not support Ansible ver

PLAY [zos\_host] \*\*\*\*\*

TASK [Submit z/OS operator command.] \*\*\*\*\*  
[0;33mchanged: [zos\_host] [0m

TASK [Response from operator command.] \*\*\*\*\*  
[0;32mok: [zos\_host] => { [0m

[0;32m "msg": [ [0m  
[0;32m "VS01 2025022 13:27:00.00 ISF031I CONSOLE IBMU0C  
[0;32m "VS01 2025022 13:27:00.00 --  
DBC1 DISPLAY GROUP ", [0m  
[0;32m "VS01 2025022 13:27:00.00 DSN7100I -  
DBC1 DSN7GCMD", [0m

[0;32m " \*\*\* BEGIN DISPLAY OF GROUP(.....) CATA  
[0;32m " CURRENT FUNCTION LEVEL(V12P  
[0;32m " HIGHEST ACTIVATED FUNCTION  
[0;32m " HIGHEST POSSIBLE FUNCTION L  
[0;32m " PROTOCOL LEVEL(2)", [0m  
[0;32m " GROUP ATTACH NAME(...)", [0m  
[0;32m " -----  
-----", [0m



11:28 AM

Type something...



8. Ask the assistant how to migrate from one version of Db2 to another.

**Prompt:**

How do I migrate from Db2 v12 to Db2 v13 on z/OS?

**Example output:**

The screenshot shows a messaging interface. A user message at the top asks, "How do I migrate from Db2 v12 to Db2 v13 on z/OS?". Below it, a response from "You" provides a detailed guide. The response starts with a general instruction: "To migrate from Db2 v12 to Db2 v13 on z/OS, follow these steps:". This is followed by a numbered list of seven steps. After the list, a note says, "Remember, after migration, you must verify your Db2 13 system using sample jobs from the previous release. Also, ensure that your z/OS system is at least version 2.4 for automatic data collection from SMF Type 1154 Subtype 81." At the bottom, there's a text input field with a placeholder "Type something..." and a send button with a right-pointing arrow.

You 11:29 AM

How do I migrate from Db2 v12 to Db2 v13 on z/OS?

11:29 AM

To migrate from Db2 v12 to Db2 v13 on z/OS, follow these steps:

1. Check readiness for migration to Db2 13.
2. Estimate storage needs for your Db2 13 environment.
3. Determine new capabilities you want to use in Db2 13 and plan other changes.
4. Install TCPIP, VTAM, or both if you're using distributed data.
5. Set up a Parallel Sysplex if you plan to use data sharing.
6. Use SMP/E to load the Db2 13 libraries.
7. After migration, run job DSNTIJRT to enable the administrative task scheduler.

Remember, after migration, you must verify your Db2 13 system using sample jobs from the previous release. Also, ensure that your z/OS system is at least version 2.4 for automatic data collection from SMF Type 1154 Subtype 81. ▾

Type something... ➤

## Cleanup steps

None.

# Scenarios: Initial Program Load

## Scenario overview

### Speaker's script

You are now a Systems Programmer ([sysprog](#)) that is preparing for an upcoming Initial Programming Load ([IPL](#)) scheduled for one of your IBM Z systems. It's been a while since you helped prepare for an [IPL](#) and you want to refamiliarize yourself with this process. Rather than spending time reading through the wide array of documentation available online, you leverage the conversational [AI](#) capabilities provided by IBM watsonx Assistant for Z to get accurate responses to your questions quickly, along with step-by-step guidance and links to documentation to learn more. When asking the assistant "How to perform an [IPL](#) on IBM Z?", you realize there's some information needed about your system; for example, the [IPL](#) volume and the [IPL LOAD PARM](#). The conversational skills capabilities provided by the assistant allows you to issue operator commands on the system directly within the assistant itself, serving as a one-stop shop for retrieving details required for the [IPL](#) process to go smoothly and increasing efficiency.



### Responses from the virtual assistant are likely to change

Responses generated by IBM watsonx Assistant for Z are likely to change over time. The responses you see when you run the queries in this section may differ from the screen images captured in the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide. Using the exact queries specified will help assure a successful demonstration. Also, as updates to the environment are made, some confirmation dialogs may no longer be displayed as illustrated in the Example outputs.

## Prerequisite steps

None.

## Prompts and Example outputs

### Copy and paste the prompt ▼

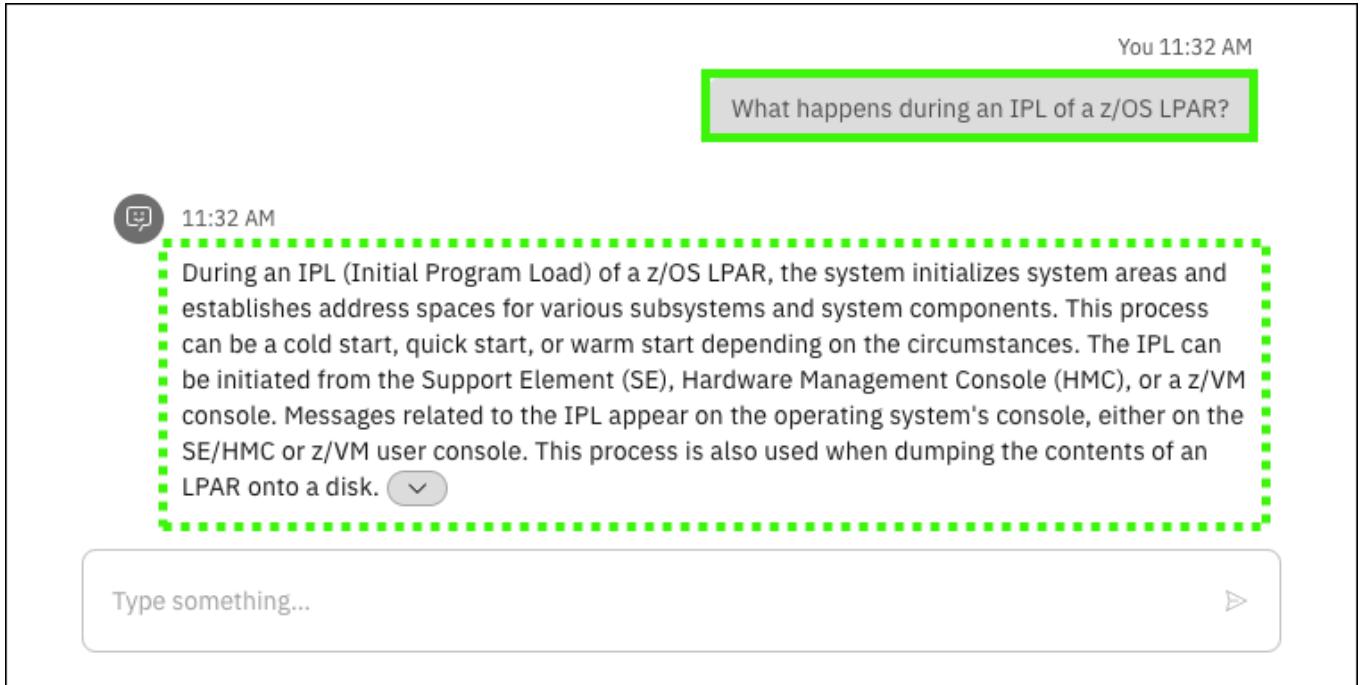
Use the copy icon  to copy prompts from this demonstration guide and then paste the prompt using  +  or right click and select Paste.

1. Ask the assistant what happens during an IPL.

**Prompt:**

What happens during an IPL of a z/OS LPAR?

**Example output:**



The screenshot shows a conversation in the IBM Watson Assistant interface. The user asks, "What happens during an IPL of a z/OS LPAR?" and the AI assistant responds with a detailed explanation of the IPL process. The AI's response is highlighted with a green dashed box. The user can scroll up and down within this box. At the bottom, there is a text input field with the placeholder "Type something..." and a send button with a right-pointing arrow.

You 11:32 AM

What happens during an IPL of a z/OS LPAR?

11:32 AM

During an IPL (Initial Program Load) of a z/OS LPAR, the system initializes system areas and establishes address spaces for various subsystems and system components. This process can be a cold start, quick start, or warm start depending on the circumstances. The IPL can be initiated from the Support Element (SE), Hardware Management Console (HMC), or a z/VM console. Messages related to the IPL appear on the operating system's console, either on the SE/HMC or z/VM user console. This process is also used when dumping the contents of an LPAR onto a disk. ▼

Type something... ▶

2. Ask the assistance how to perform an IPL.

**Prompt:**

What information is needed to perform an IPL on a z/OS LPAR?

**Example output:**

The screenshot shows a messaging interface. At the top right, it says "You 11:33 AM". Below that is a message box containing the question "What information is needed to perform an IPL on a z/OS LPAR?". A green dashed box highlights this question. In the main body of the message, there is a reply from a user icon at 11:33 AM. This reply contains a large amount of text explaining the requirements for performing an IPL on a z/OS LPAR, including details about LOADDEV parameters like device number, cylinder number, and starting block number. A small dropdown arrow is shown at the end of the text. At the bottom, there is a text input field with "Type something..." placeholder text and a send button with a right-pointing arrow.

To perform an IPL on a z/OS LPAR, all necessary information must be set in the LOADDEV parameters, including the device number. The LOADDEV operand indicates a list-directed IPL that loads an operating system program without dump. For DASD devices, the cylinder number (cylno) or starting block number (blkno) must be specified to indicate the location of the IPL data. The NOCLEAR or CLEAR operand can be used to set the contents of the virtual machine's storage before program load. If a dump is required, the DUMP operand should be specified along with the fcp\_vdev operand for an attached FCP device and DUMPDEV parameters set via the SET DUMPDEV command. ▼

Type something... ▶

3. Ask the assistant what information is need to perform an IPL.

**Prompt:**

How do you retrieve the information needed to IPL a z/OS LPAR?

**Example output:**

You 11:34 AM

How do you retrieve the information needed to IPL a z/OS LPAR?



11:34 AM

To retrieve the necessary information for IPLing a z/OS LPAR, navigate to System Management > CPC Configuration > FCP Configuration on the Support Element (SE), where is your system's name. The easiest method to gather this data is by transferring the file containing World Wide Names (WWNs) for the z/VM LPAR to a remote FTP server via FTP.



Type something...

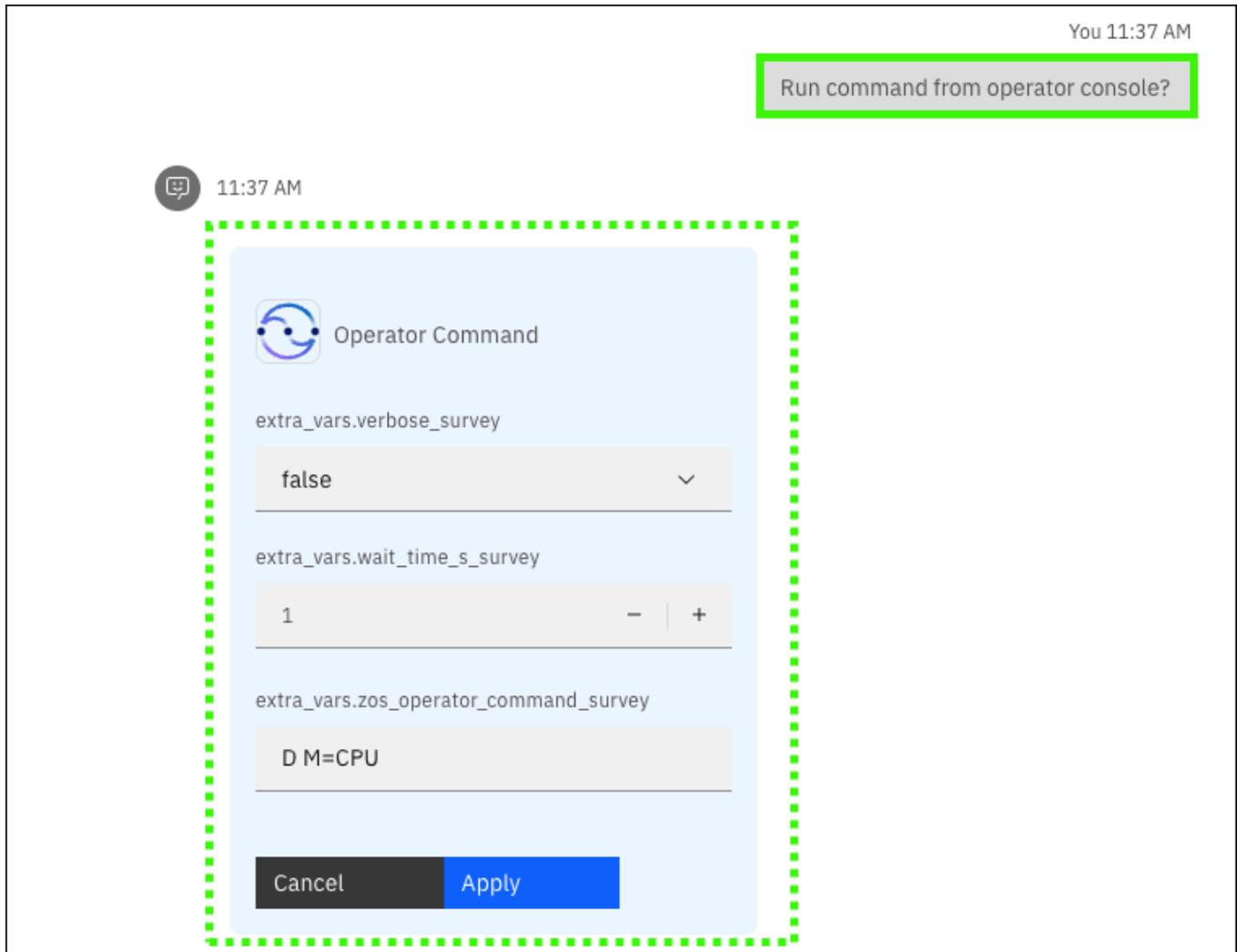


4. Ask the assistant to run the command to retrieve IPL information.

**Prompt:**

Run command from operator console?

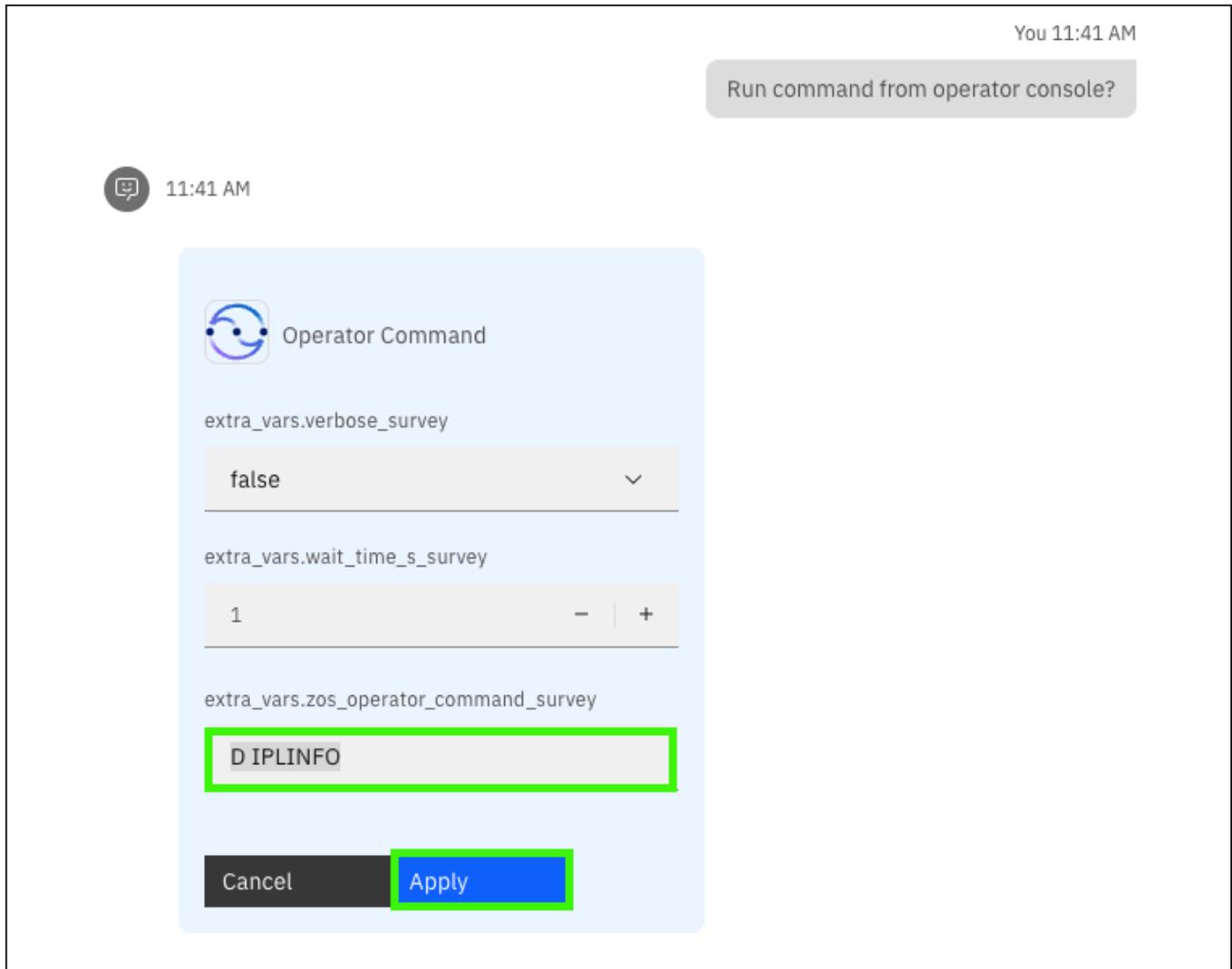
**Example output:**



5. Change **extra\_vars.zos\_operator\_command\_survey** field to `D IPLINFO`, wait approximately 10 seconds, and then click **Apply**.

**Input:**

```
D IPLINFO
```



**Example output:**

#### Speaker's script

In the output you can see the last time the system was IPLed, the z/OS version, the IPL LOAD PARM (LOADK2 member in SYS0.IPLPARM), and the IPL boot volume (D25VS1).

 Operator Command

extra\_vars.verbose\_survey

false

extra\_vars.wait\_time\_s\_survey

1 - +

extra\_vars.zos\_operator\_command\_survey

D IPLINFO

 Operator Command

id \*

1853 - +

**Cancel** **Apply**

6. Wait approximately 10 seconds and then click **Apply**.

**Example output:**

The screenshot shows two stacked configuration panels for an 'Operator Command'.

**Top Panel:**

- Icon: Smiley face
- Title: Operator Command
- Parameter: extra\_vars.verbose\_survey
- Value: false
- Parameter: extra\_vars.wait\_time\_s\_survey
- Value: 1
- Parameter: extra\_vars.zos\_operator\_command\_survey
- Value: D IPLINFO

**Bottom Panel:**

- Icon: Smiley face
- Title: Operator Command
- Parameter: id \*
- Value: 1853
- Buttons: Cancel (grey), Apply (blue)

7. Review the output of the command.

**Example output:**

Speaker's script

In the output you can see the the returned information including the IPL LOAD PARM (LOADK2 member in SYS0.IPLPARM), the last time the system was IPLeD, the z/OS version, and the IPL boot volume (D25VS1).

```
[0;32m "msg": [ [0m
[0;32m    "VS01    2025022 13:44:37.00      ISF031I CONSOLE IBMUOC
[0;32m    "VS01    2025022 13:44:37.00      -D IPLINFO ", [0m
[0;32m    "VS01    2025022 13:44:37.00      IEE254I 13.44.36 IPLINFO
[0;32m    "          SYSTEM IPLED AT 13.33.33 ON 09/05/2022
[0;32m    "          RELEASE z/OS 02.05.00  LICENSE = z/OS
[0;32m    "          USED LOADK2 IN SYS0.IPLPARM ON 0DE2
[0;32m    "          ARCHLVL = 2  MTLSHARE = N", [0m
[0;32m    "          VALIDATED BOOT: NO", [0m
[0;32m    "          IEASYM LIST = (00,K2)", [0m
[0;32m    "          IEASYS LIST = (00) (OP)", [0m
[0;32m    "          IODF DEVICE: ORIGINAL(0DE28) CURRENT(0DE28)
[0;32m    "          IPL DEVICE: ORIGINAL(0DE27) CURRENT(0DE27)
[0;32m    "          VM CPID = zHYPaaS", [0m
[0;32m    "          VM UUID = 5830CC30-8C9C-408B-
9334-6C7E0C0AD7FF", [0m
[0;32m    "          VM NAME = k8s_ea3b", [0m
[0;32m    "          VM EXT NAME = k8s_ea3bac67a91b4a46b
8c9c", [0m
[0;32m    "          -408b-9334-
6c7e0c0ad7ff", [0m
[0;32m    "          ", [0m
[0;32m    "          ", [0m
[0;32m    "          ", [0m
[0;32m  ] [0m
[0;32m} [0m

PLAY RECAP ****
[0;33mzos_host [0m      : [0;32mok=2  [0m [0;33mchanged=1  [0m
```

11:46 AM

Type something...

8. Ask the assistant what needs to be done after an IPL finishes.

### Prompt:

What are the next steps for z/OS initialization after an IPL completes successfully? Provide a detailed answer.

### Example output:

You 11:50 AM

What are the next steps for z/OS initialization after an IPL completes successfully? Provide a detailed answer.



11:50 AM

After a successful IPL in z/OS, the next steps typically involve processing various JCL procedures to allocate space to static partitions and start them. This includes starting the system services address space (ssnmMSTR), the database services address space (ssnmDBM1), the IRLM address space (irlmproc), and possibly the DDF address space (ssnmDIST) and the administrative task scheduler stored procedure address space (ssnmADMT). If the administrative task scheduler starts and job DSNTIJRT hasn't been run, it will issue error message DSNA679I due to SQLCODE -805. The administrative task scheduler initiates if an address space procedure name is specified in the ADMIN SCHEDULER field on installation panel DSNTIPX. If Db2 doesn't start successfully, it usually abends with a reason code indicating the error location, which can be found by checking the associated resource's set of definitions. ▼

Type something... ▶

## Cleanup steps

None.

# Scenario: Additional prompts

## Scenario overview

There are many other queries that an early tenure IBM Z systems programmer may ask. Here are some others you can experiment with.

**Example outputs for these prompts are not provided.**

## Prerequisite steps

None.

## Prompts

 **Copy and paste the prompt** ▼

Use the copy icon (copy icon) to copy prompts from this demonstration guide and then paste the prompt using (^ Ctrl + V) or right click and select Paste.

### SMF data

**Prompt:**

What is SMF?

**Prompt:**

What are SMF records?

**Prompt:**

What is the difference between SMF records and syslogs?

**Prompt:**

Can I access SMF records in real time?

**Prompt:**

Which SMF types include information about CICS?

**Prompt:**

What kind of statistics information does SMF type 110, subtype 0002 include?

**Prompt:**

What type of information do SMF 30 records include? Please provide a detailed answer.

**z/OS software maintenance****Prompt:**

What does applying maintenance mean in the context of a z/OS subsystem? Provide a detailed response on how to apply maintenance?

**Prompt:**

How to check prerequisite APARs or PTFs when applying maintenance to a z/OS system? Provide a detailed response.

**Prompt:**

How to check if a prerequisite APAR or PTF is already applied to the z/OS system?

**ISPF and SDSF****Prompt:**

Which tool in ISPF can I use to edit a JCL job? Please provide a step by step guidance.

**Prompt:**

Which tool in ISPF can I use to submit a JCL job? Please provide a step by step guidance.

**Prompt:**

How can I find out if a job completed successfully in SDSF? I need a step by step description.

**Prompt:**

What is the expected return code when a job is executed successfully?

**Prompt:**

How can I use a search function in ISPF to find a JCL job by its name? Please provide a step by step description.

## **z/OS HIPERS and PEs**

### **Prompt:**

How does IBM identify problems that are found in z/OS software?

### **Prompt:**

What happens during z/OS Problem Source Identification (PSI)? Provide a detailed response

### **Prompt:**

Are PEs and HIPERs reported after the Problem Source Identification (PSI) process?

## Cleanup steps

None.

# Scenarios: Conclusion

As mentioned in the demonstration guidance section, it is important to conclude your demonstration with a call to action.

## Speaker's script

So that wraps up my demonstration of IBM watsonx Assistant for Z. As you can see, in the case of an early-tenure mainframe system programmer, or even a more experienced system programmer, rather than spending hours searching through documentation to find answers, they can leverage the domain specific Retrieval-Augmented Generation (RAG) grounded on IBM Z specific knowledge to get trusted answers in seconds. And it also allows them to free up time by automating some of their more manual tasks that they can otherwise spend on building expertise.

Thank you for your time today. Would you agree to meeting again for a more comprehensive workshop?

# Next steps

This IBM watsonx Assistant for Z for Technical Sales Level 3 demonstrated several of the IBM watsonx Assistant for Z capabilities. However, there is still more to learn about IBM watsonx Assistant for Z. Be sure to check out the [offering landing page](#) and the [product documentation](#).

Also, the focus of the IBM watsonx Assistant for Z for Technical Sales Level 3 Demonstration Guide was the *end-user* use of IBM watsonx Assistant for Z. To learn more about deploying, configuring, and customizing IBM watsonx Assistant for Z explore the other capabilities that are included in the [ITZ collection](#) [here](#). Included are guidance for running client pilots and the ability to manage an IBM watsonx Assistant for Z deployment. In the Velocity Pilot environment, you can explore all the capabilities of the offering like creating an assistant, importing documents, and adding automation skills.

## Earn the badge

Finally, remember to complete the IBM watsonx Assistant for Z for Technical Sales Level 3 learning plan to earn the IBM watsonx Assistant for Z Technical Sales Intermediate badge.

**IBM technical sellers** must complete a Stand and Deliver exercise to validate their ability to demonstrate IBM watsonx Assistant for Z to potential clients. Refer to the evaluation checklist in the [YourLearning learning plan](#) for the Stand and Deliver.

**Business Partners** must pass the IBM watsonx Assistant for Z for Technical Sales Level 3 quiz that is located in the [IBM Training learning plan](#). The Business Partner quiz verifies use of the demonstration environment and click-through demonstrations, and not one's general knowledge of the offering.