

The Db2 for z/OS Agent Let's have a Chat with the Catalog!



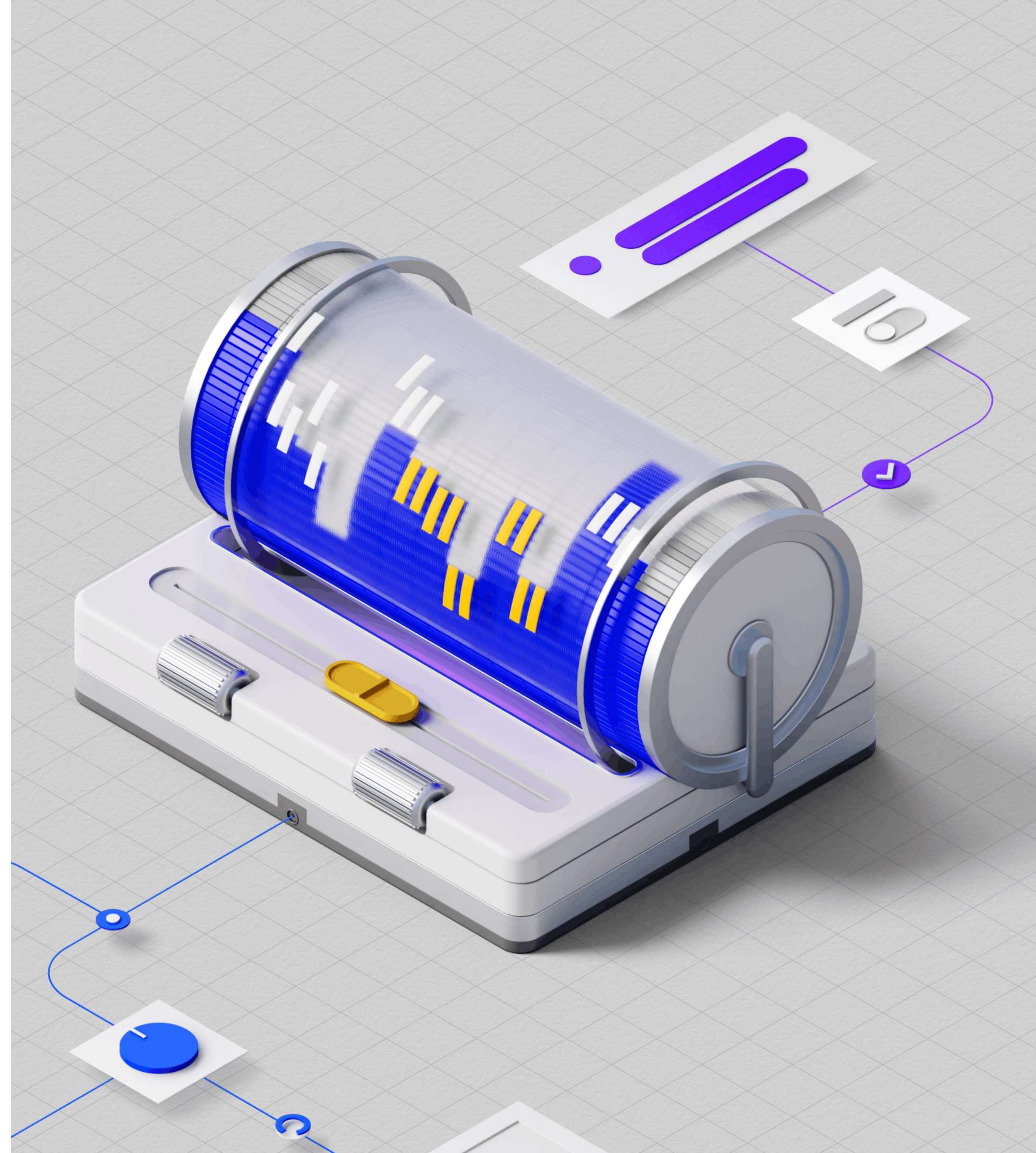
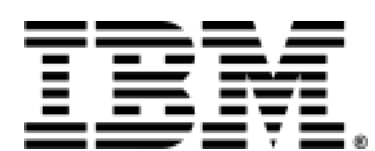
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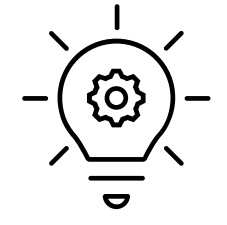
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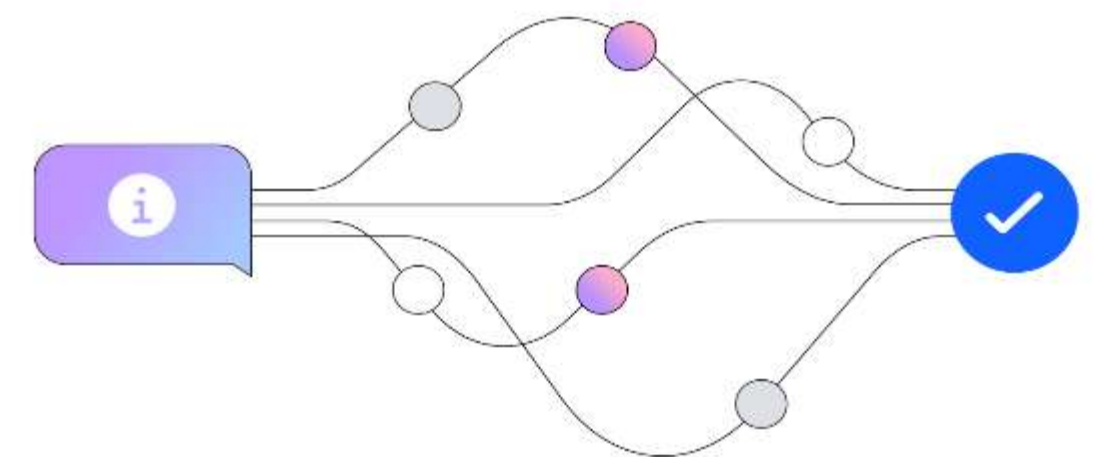
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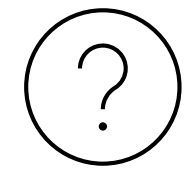
AI Agent



- **Intelligent, autonomous system** with the **chat interface** that supports **natural-language** as its input.
- AI agents can encompass a wide range of functions beyond natural language processing including **decision-making, problem-solving, interacting with external environments and performing actions.**
- Uses advanced natural language processing techniques of large language models (**LLMs**) to comprehend and respond to user inputs step-by-step and determine when to call on external tools.
- Uses **tool calling ability on the backend to obtain up-to-date information by interacting with external systems via tools.**
- Stores past interaction in memory to offer **personalized experiences** and comprehensive responses.
- Uses advanced natural language processing techniques of large language models (LLMs) to comprehend and **respond to user inputs step-by-step and determine when to call on external tools**

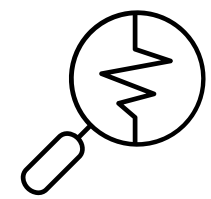


What is the Db2 Agent?



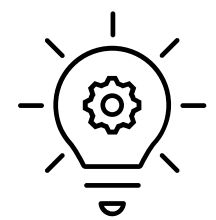
PROBLEM STATEMENT

[Complexity](#) and [deep expertise](#) required to manage Db2 for z/OS environments. Long ramp-up times, [knowledge silos](#), and time-consuming troubleshooting.



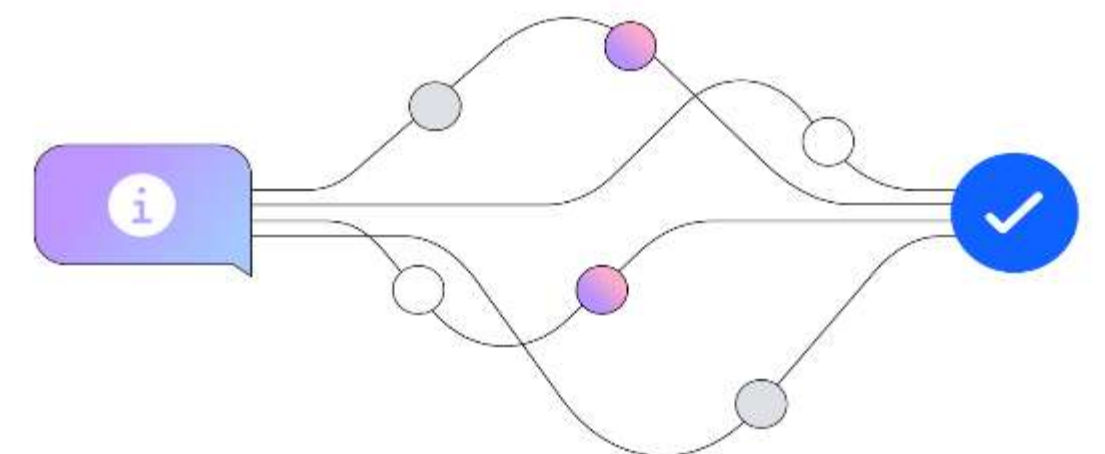
OPPORTUNITY

[Simplify and modernize](#) Db2 for z/OS operations using AI-driven experience — enabling teams to [work more efficiently](#), accelerate knowledge sharing, and streamline operations.



SOLUTION

[Db2 for z/OS Agent](#) delivers an AI-powered [conversational experience](#) to Db2 for z/OS subsystems that provides live system-insights in [natural language](#).



What is the Db2 Agent?

- Provides a **natural-language interface** for interrogating Db2 for z/OS catalog structures, system metadata and operational diagnostics
- Converts DBA intent into optimized SQL, catalog traversal patterns, or system-level analysis workflows
- **Improves DBA throughput** by offloading repetitive metadata exploration and cross-catalog correlation.
- Accelerates **onboarding of newer team** members

Why it matters?

- **Complexity and deep expertise** required to manage Db2 for z/OS environments.
- Long **ramp-up times, knowledge silos, and time-consuming** troubleshooting.
- Simplify and modernize Db2 for z/OS operations using **AI-driven experience** — enabling teams to work more efficiently, **accelerate knowledge sharing**, and streamline operations.
- Db2 for z/OS Agent **delivers an AI-powered conversational experience** to Db2 for z/OS subsystems that **provides system-insights in natural language**.

Targeted Personas – DBAs



- Acts as a **trusted advisor** — points out anomalies, inefficiencies, and misconfigurations
- Supports **faster decisions** — senior DBAs stay fully in control
- **Bridges experience gaps by explaining decisions** the way a senior DBA would
- **Empowers junior staff** to ask the right questions — and understand the “why”
- Speeds up diagnosis with **cross-subsystem comparisons** and correlated context
- **Natural language access to tuning**, health, and performance insights
- Enables **faster decision-making** — senior DBAs stay in control, just better informed
- **Reduces tool-hopping** — insights pulled into single conversational surface

The One Thing to Remember

The Agent is **read-only and passive by design currently** — it offers expert-level insights and recommendations but never changes system state. The human always stays fully in control.

Getting to Know the Db2 Agent

[All products](#) / [Db2 for z/OS](#) / [13.0.0](#) /

Was this topic helpful?   

Overview of Db2 for z/OS Agent

Last Updated: 2025-10-10

IBM® Db2® for z/OS® Agent is an AI-powered assistant that enables you to easily obtain real-time information about your Db2 for z/OS subsystems and catalog tables through a simple prompt-based conversational interface.

For example, you can ask it what the current value of a particular subsystem parameter is, which buffer pool a particular index uses, or to return a list of all the schemas on a subsystem. In addition to providing a response, the agent also explains the method that it used to obtain the response. For a better understanding of the types of questions that you can ask the agent, review the list of [sample prompts](#).

Db2 for z/OS Agent runs in an IBM watsonx Assistant™ for Z environment, which is powered by watsonx™ Orchestrate®. See the [watsonx Assistant for Z documentation](#) to familiarize yourself with its basic concepts.

Db2 for z/OS Agent is available to licensed Db2 13 for z/OS users free of charge. To obtain the entitlement key, open a case with IBM Support indicating that you are requesting the entitlement key for Db2 for z/OS Agent.

<https://www.ibm.com/docs/en/db2-for-zos/13.0.0?topic=agent-overview>

Prerequisites

WxA4Z v3, Db2 13 for z/OS. ODBC Driver

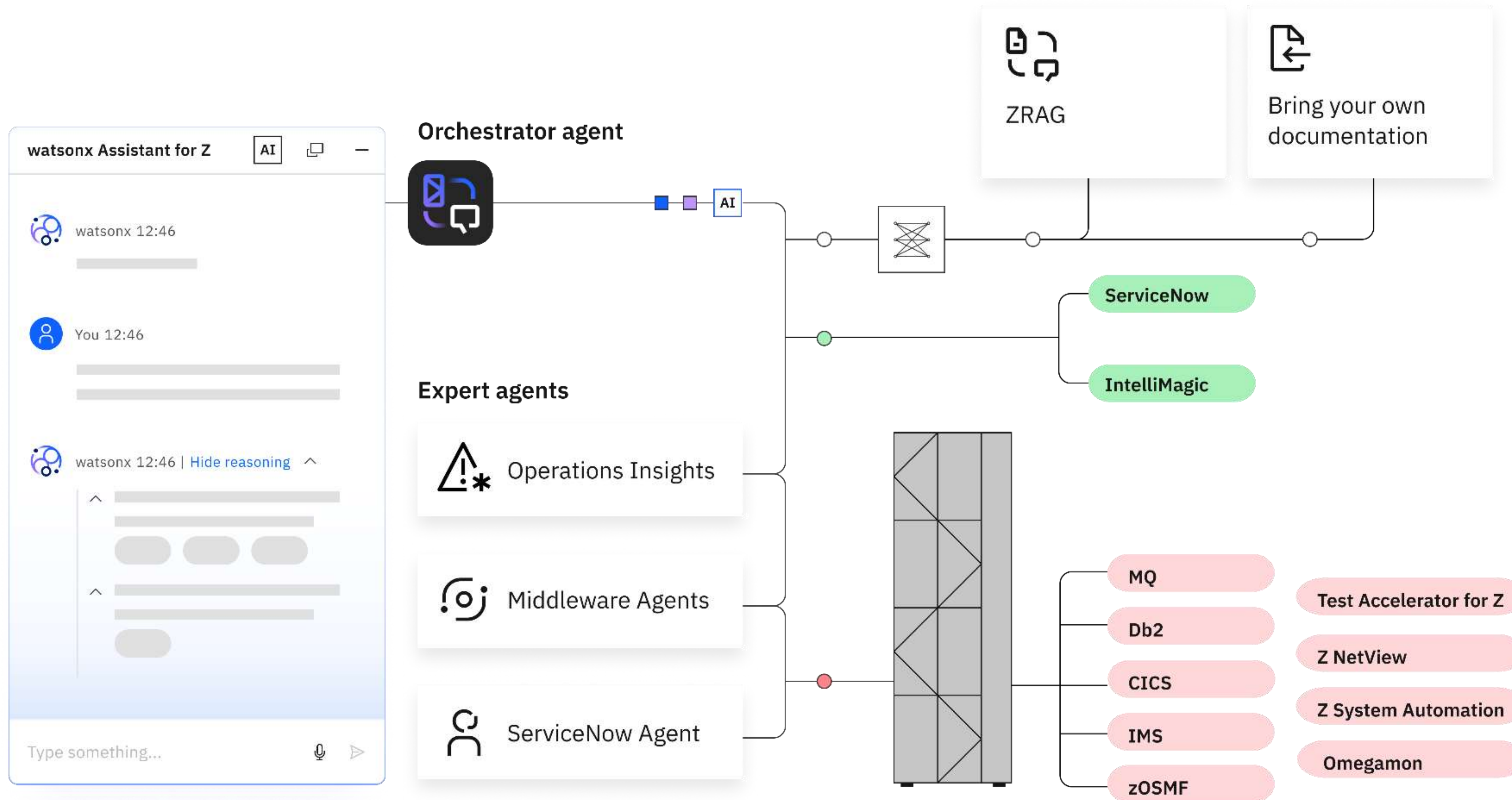
Github link for more information <https://github.com/IBM/z-ai-agents/tree/main/agent-helm-charts/db2z-agent#prerequisites>

Agent capabilities

Agent capability	Description
Retrieving System Information	
Show me all the bufferpools under DBD1.	Lists all bufferpools in the specified Db2 subsystem.
Can you tell me details about BP32K?	Retrieves configuration and usage details for the specified bufferpool.
Comparing System Information Across Subsystems	Compares system information between different Db2 subsystems and shows only differences.
Retrieving zParm Values	
What is the zparm value of UTILITY_HISTORY in DBD1?	Shows current value of the specified zparm parameter.
Comparing zParm Across Subsystems	
Show me MAXDBAT, CONDBAT, DSMAX, and APPLCOMPAT zparm values for DBD1 and DBC1.	Structured output listing the values of the requested zparm.
Catalog Navigation with System Information	
What are the schemas under DBD1?	Lists all schemas defined in the given Db2 subsystem.
What are the indexes under DSN81310?	Lists all indexes within the specified schema.
Which table is XCONA1 created for?	Identifies the table that a given index is defined on.
Which bufferpool does XCONA1 use?	Shows which bufferpool is associated with the index.
Can you give me details about that bufferpool?	Fetches detailed bufferpool information related to the referenced index.

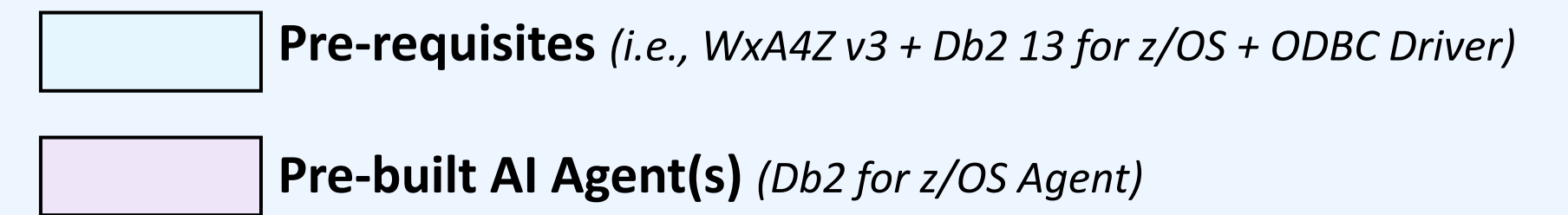
Getting to know other Agents on the Platform

Watson Assistant for Z

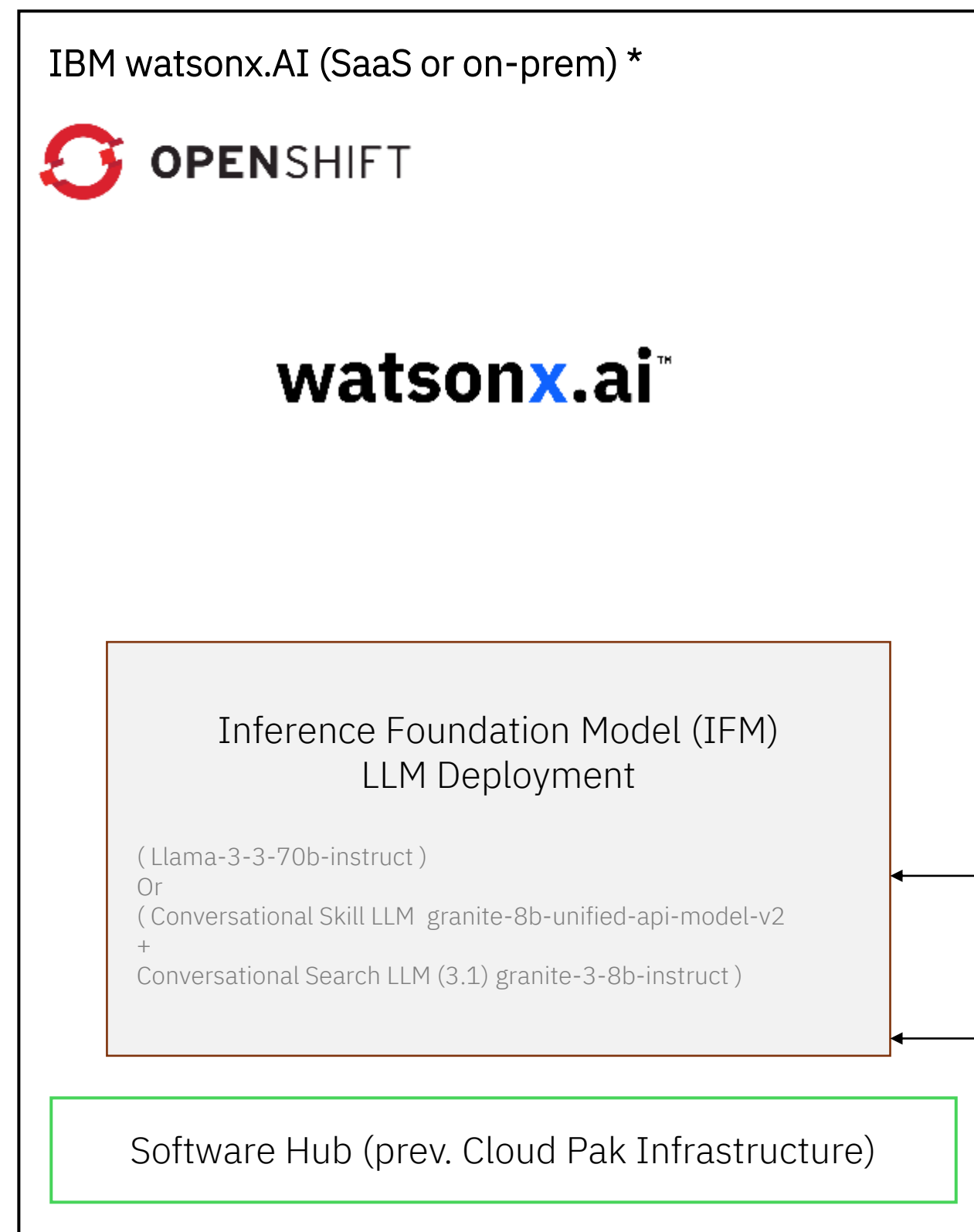


High-Level Architecture

... for Db2 for z/OS Agent v1.1

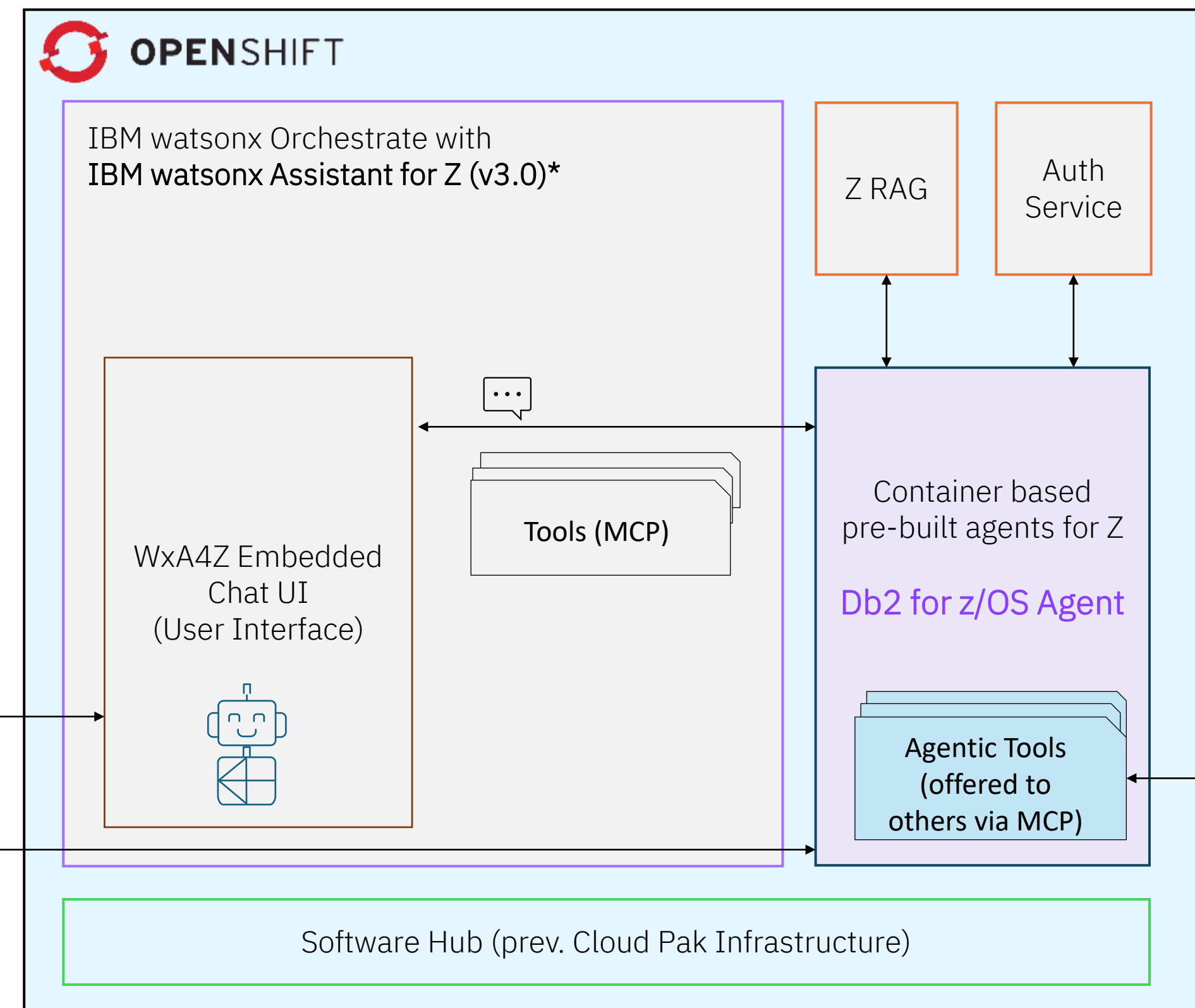


* *watsonx.ai* is bundled along with *watsonx Orchestrate*



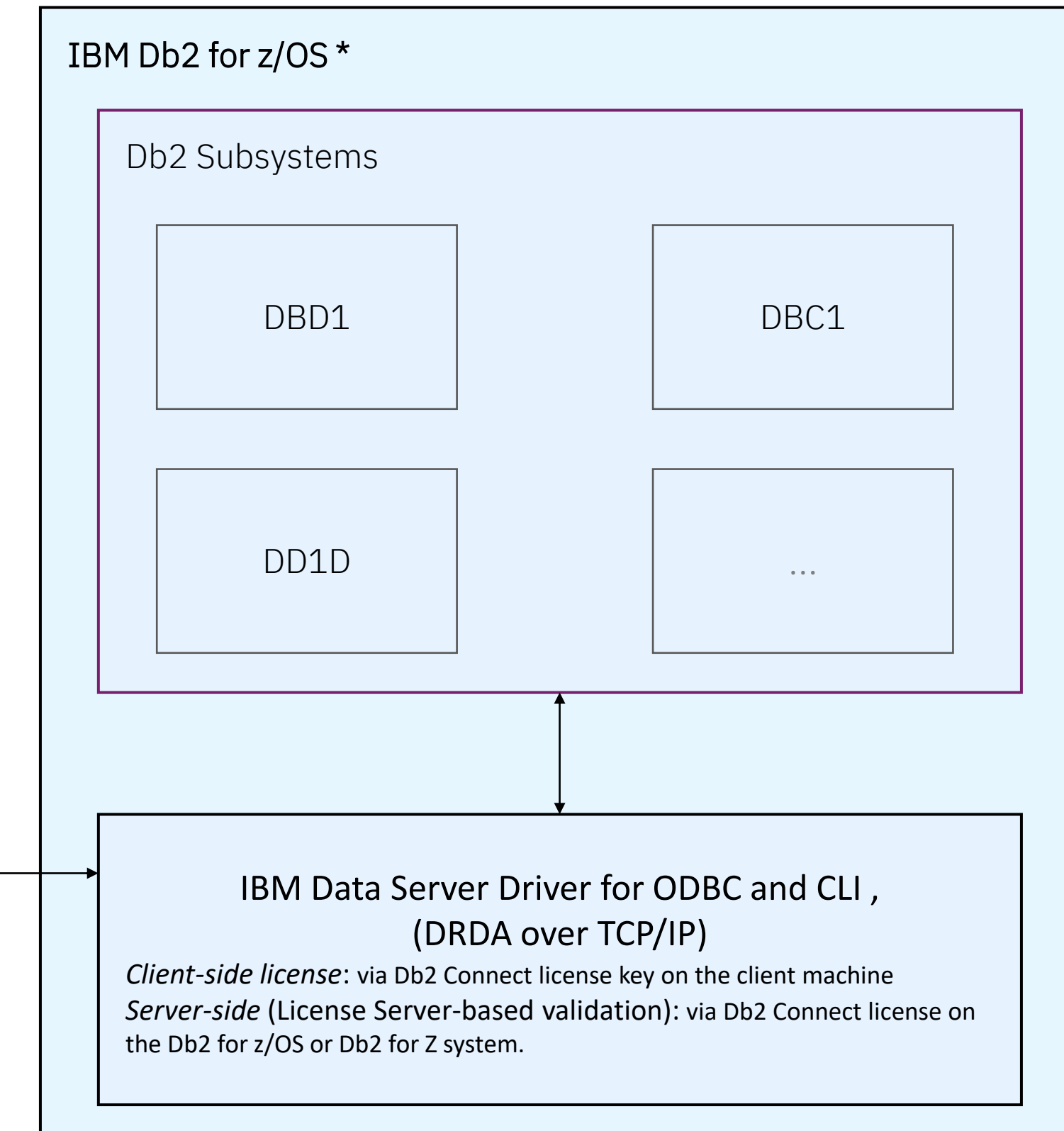
Supported Platforms: x86 (Linux AMD 64 + NVIDIA), future: s390 Linux + Spyre

* *wxa4z* is an On-prem offering only | No immediate plans to release on SaaS



Supported Platforms: x86 (Linux AMD 64)

* *Db2 for z/OS Agent* supported with version 13.0 and above.



Supported Platform: IBM z/OS (Operating System)

High-Level Architecture

... for Db2 for z/OS Agent v1.1

Deploy the agent on a Linux® 64 (x86) system by using **IBM watsonx.ai** development studio. IBM watsonx.ai provides the foundational LLM framework that Db2 for z/OS Agent needs to help answer questions.

IBM watsonx Assistant for Z is an extension to watsonx Orchestrate that enables agents for interaction with IBM Z®.

An MCP (Model Context Protocol) server is an open-source framework for standardizing how AI systems, particularly LLMs, interact with external tools, databases and data sources.

Converse with your Db2 for z/OS

Show me all the bufferpools under DBD1.

AI

1

Show me all the bufferpools under DBD1.

Db2 for z/OS Agent 01:08 PM | Show Reasoning

2

Answer: Here is the list of bufferpools under DBD1:

Bufferpool Name	Bufferpool ID	Use Count	Buffer Pool Size	Autsize	VPSIZE MINIMUM	VPSIZE MAXIMUM	Alloc
BP0	0	96	20000	NO	0	0	2000
BP32K	80	7	250	NO	0	0	250
BPSK0	100	5	2000	NO	0	0	2000
BP16K0	120	4	500	NO	0	0	500

3

The bufferpools are all set to use the LRU (Least Recently Used) page stealing method, and none of them have pending changes to this attribute. The thresholds for VP sequential, SP sequential, deferred write, and parallel sequential are all set to the same values across all bufferpools.

It's worth noting that the simulated buffer pool size is 0 for all bufferpools, indicating that the buffer pool sizes are not being dynamically adjusted. The preferred frame size for all bufferpools is 4K.

Overall, the bufferpools under DBD1 appear to be well-configured, with a good balance between buffer pool size and usage. However, it's always a good idea to monitor buffer pool performance and adjust the configuration as needed to ensure optimal system performance.

Can you tell me what you would like to do next with the bufferpools under DBD1?

Type something...

W

1

Ask questions about your subsystem

2

Easy to read tabular format

3

System insights

Ask questions about multiple subsystems

What is the zparm value of UTILITY_HISTORY in DBD1?

AI

You 01:11 PM

What is the zparm value of UTILITY_HISTORY in DBD1?

Db2 for zOS Agent 01:11 PM

Can you confirm the subsystem name is DBD1?

You 01:12 PM

Yes

Db2 for zOS Agent 01:12 PM | Show Reasoning

Answer: The zparm value of UTILITY_HISTORY in DBD1 is NONE.

Here is the relevant information:

ROWNUM	MACRO	PARAMETER	INSTALL_PANEL	INSTALL_FIELD	INST/
285	DSN6SPRM	UTILITY_HISTORY	DSNTIP63	UTILITY HISTORY	

This value is set to NONE, which means that utility history is not being tracked or recorded in DBD1.

Would you like to know more about the other zparm settings in DBD1?

Show me MAXDBAT, CONDBAT, DSMAX, and APPLCOMPAT zparm values for DBD1 and DBC1.

AI

What is the zparm value of UTILITY_HISTORY in DBD1?

AI

Db2 for zOS Agent 01:13 PM

Here are the zparm values for DBD1 and DBC1:

DBD1 ZParm Values

ZParm	Value
MAXDBAT	00200
CONDBAT	0000010000
DSMAX	0000020000
APPLCOMPAT	V13R1M501

DBC1 ZParm Values



ZParm	Value
MAXDBAT	00200
CONDBAT	0000010000
DSMAX	0000020000
APPLCOMPAT	V12R1M500

Let me know if you need any further assistance!

Type something...

AI

Use Cases - Walkthrough

Category	Prompt / Query 	Response / Outcome 
Retrieving System Information	<i>Show me all the bufferpools under DBD1.</i>	<i>Lists all bufferpools in the specified Db2 subsystem</i>
Bufferpool SystemInfo RuntimeStatus	<i>Can you tell me details about BP32K?</i>	<i>Retrieves configuration and usage details for the specified bufferpool</i>
Comparing System Information Across Subsystems	<i>List only the different local bufferpools between DBD1 and DBC1.</i>	<i>Compares local bufferpools and shows only differences</i>
Bufferpool SystemInfo Comparison	<i>List only the different group bufferpool between DBD1 and DBC1?</i>	<i>Returns "Unavailable" because alias1 and alias2 are standalone systems, not in data sharing</i>
Retrieving zParm Values	<i>What is the zparm value of UTILITY_HISTORY in DBD1?</i>	<i>Shows current value of the specified zparm parameter</i>
SystemInfo zParm RuntimeStatus	<i>Are there any utilities currently running under DBD1?</i>	<i>Lists currently executing utilities under the given alias</i>
Comparing zParm Across Subsystems	<i>Show me MAXDBAT, CONDBAT, DSMAX, and APPLCOMPAT zparm values for DBD1 and DBC1.</i>	<i>Structured output listing the values of the requested zparm</i>
SystemInfo Comparison zParm	<i>What are the schemas under DBD1?</i>	<i>Lists all schemas defined in the given Db2 subsystem</i>
Catalog Navigation with System Information	<i>What are the indexes under DSN81310?</i>	<i>Lists all indexes within the specified schema</i>
Bufferpool ContextAware CatalogNav	<i>Which table is XCONA1 created for?</i>	<i>Identifies the table that a given index is defined on</i>
SystemInfo	<i>Which bufferpool does XCONA1 use?</i>	<i>Shows which bufferpool is associated with the index</i>
	<i>Can you give me details about that bufferpool?</i>	<i>Fetches detailed bufferpool information related to the referenced index</i>

Agentic Tools Available to Db2 Agent

*Please Note:
This is a working list and is subject to change.*

Db2 Commands

- group_info - DISPLAY GROUP
- trace_info - DISPLAY TRACE
- procedure_info
- DISPLAY PROCEDURE
- database_info
- DISPLAY DATABASE
- accel_info - DISPLAY ACCEL
- utility_info - DISPLAY UTILITY
- ddf_info - DISPLAY DDF
- blocker_info - DISPLAY BLOCKER
- bufferpool_info
- DISPLAY BUFFERPOOL
- group_bufferpool_info
- DISPLAY GROUPBUFFERPOOL
- thread_info - DISPLAY THREAD

Db2 Admin Information

- syslog_info - ADMIN_INFO_SYSLOG
- zparm_info -
ADMIN_INFO_SYSPARM

Sub-agents

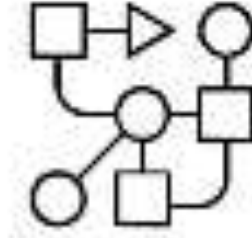
- Catalog Query Generation

Catalog SQL Generation



SQL generated catalog exploration

- **Describe** and **discover** what you want
- Get what you ask for **tailored** to your question



Traditional catalog navigation

- **Know** what you're trying to look for
- **Fixed** column values dictated by tool
- **Manual** browsing rows and rows of data

Configuration REST APIs (1|3)

Add Db2 for z/OS subsystem(s)

For agent awareness

Scan Db2 for z/OS catalog tables

For catalog SQL generation

Talk to Db2 for z/OS

Refer to your subsystem by alias

Configuration REST APIs (2|3)

Adding connection

- Typical ODBC/JDBC database connection information
 - host, port, location, username, password
 - **username and password are not stored**
 - Used for validating the connection and checking catalog tables in the environment
 - Each environment is different since subsystems can be at different functional levels

```
POST {{origin}}/api/v1/databases/connections
Accept: application/json
Content-Type: application/json

{

  "alias": DBD1
  "location": DBD1LOC
  "host": host_name
  "port": port
  "appl_id": DBD1
  "username": DBZUSER101
  "password": xxxxxxxx

}
```

Configuration REST APIs (3|3)

Scanning catalog tables

- Identify the columns and data types in the catalog table
- Retrieve example values and descriptions

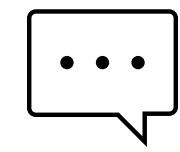
```
POST {{origin}}/api/v1/tables/descriptions/scan?db_connection_id=db_connection_id_value
Accept: application/json
Content-Type: application/json

{
  "username": DUMMYDB2USER101
  "password": DUMMYPASSWORD
}
```

IBM Db2 for z/OS Agent

Ask. Know. Act. — simplifying Db2 for z/OS for everyone.

An [intelligent, conversational assistant](#) that unlocks the power of Db2 — not just for DBAs, but for anyone who needs quick, clear answers. It uses live data to translate complex subsystem information into understandable summaries, using natural language instead of technical syntax.



Ask

in plain language—no commands.

Input: Natural language question



Know

what matters—instantly.

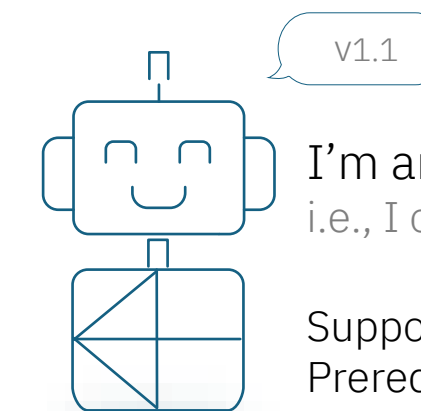
Intelligence: AI + live Db2 data



Act

with confidence and speed.

Outcome: Actionable insight or guidance



I'm an [read-only](#) agent.
i.e., I offer advice, you're in charge

Supported Platform: x86
Prerequisites: Db2 13 for z/OS, WxA4Z v3.0

“What used to take hours and an expert now takes seconds and a question.”

Before

DBA types - `DISPLAY BUFFERPOOL(BPO)` or runs a custom script

Manually parses raw output, cross-checks subsystem configs, and analyzes metrics

Eventually determines buffer pool size and performance manually; may delay action

After

“What is the buffer pool size for BPO on subsystem DB2A?”

AI reasons across subsystems, interprets live data, and outputs: “BPO is 1,024 MB...”

Consider increasing BPO to 1,536 MB to reduce I/O waits and improve throughput.

Benefits:

Decision Agility

Work Optimization

Trusted Access

Faster Onboarding

Simplified Help

Maximize ROI

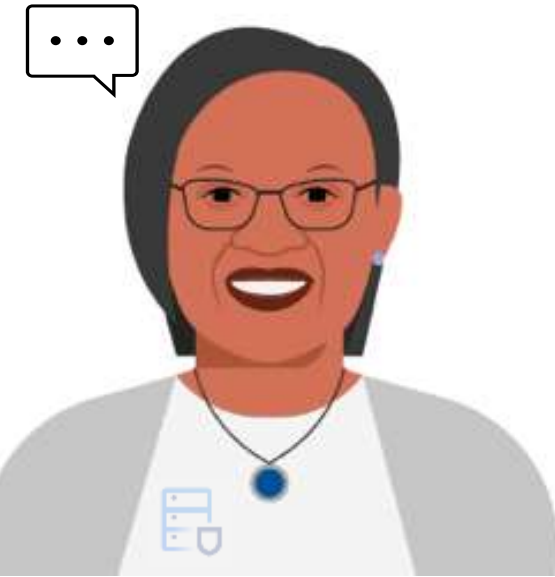
Business Impacts:

Simplifying Db2

Enhanced Productivity

Target Persona

“I’m responsible for keeping Db2 performant, available, and secure — under growing pressure with fewer resources.”



Database Administrators (DBAs)

addresses key challenges like ...

1



Simplifies Operations

Makes complex Db2 tasks easier and faster.

Acts as a trusted advisor — points out anomalies, and misconfigurations

2



Boosts Efficiency

Helps quickly identify and resolve issues.

Reduces tool-hopping — insights pulled into single conversational surface

3



Speeds Troubleshooting

Helps quickly identify and resolve issues.

Enables faster troubleshooting by linking insights across subsystems (local or remote)

4



Shares Knowledge

Captures best practices and team expertise.

Leverages trusted Db2 documentation to reinforce internal knowledge sharing

5



Skills Acceleration

Supports faster onboarding and skill-building

Bridges experience gaps by explaining decisions the way a senior DBA would

6

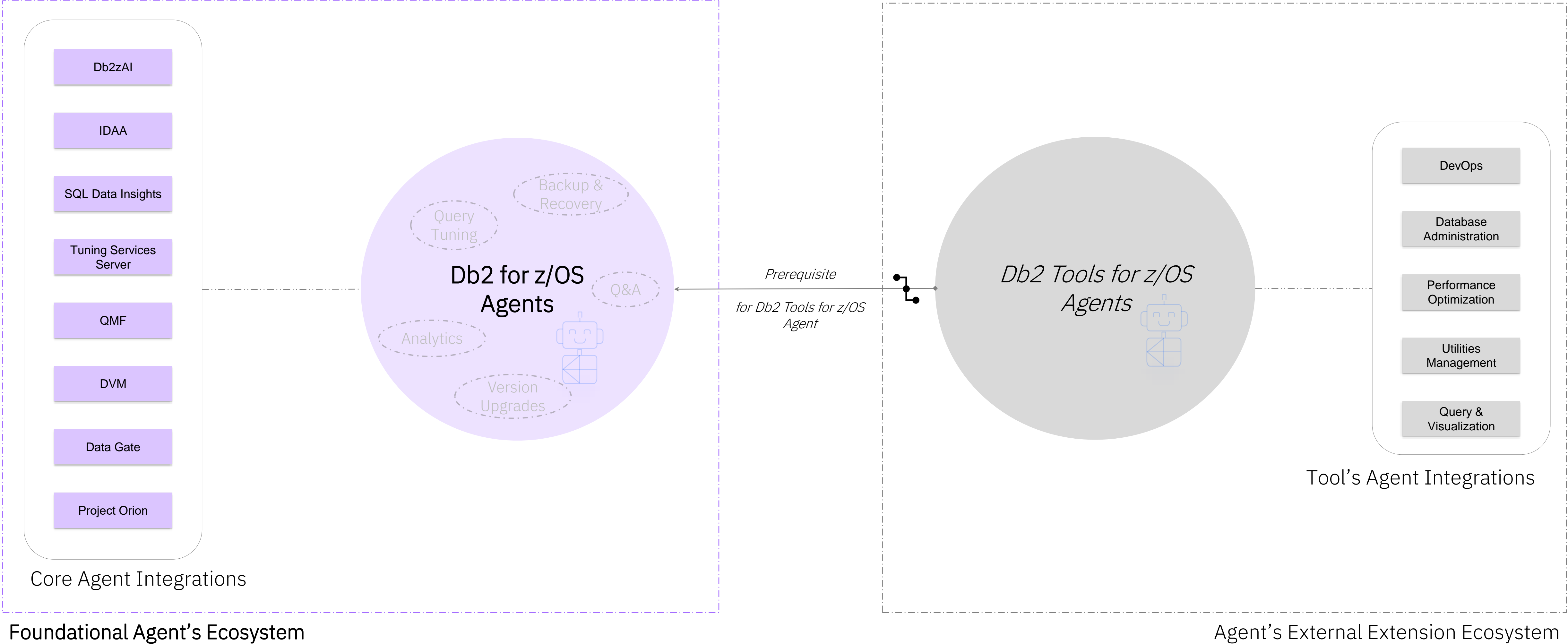


Supports Decisions

Provides insights and recommendations.

Enables faster decision-making — DBAs always stay in control, just better informed

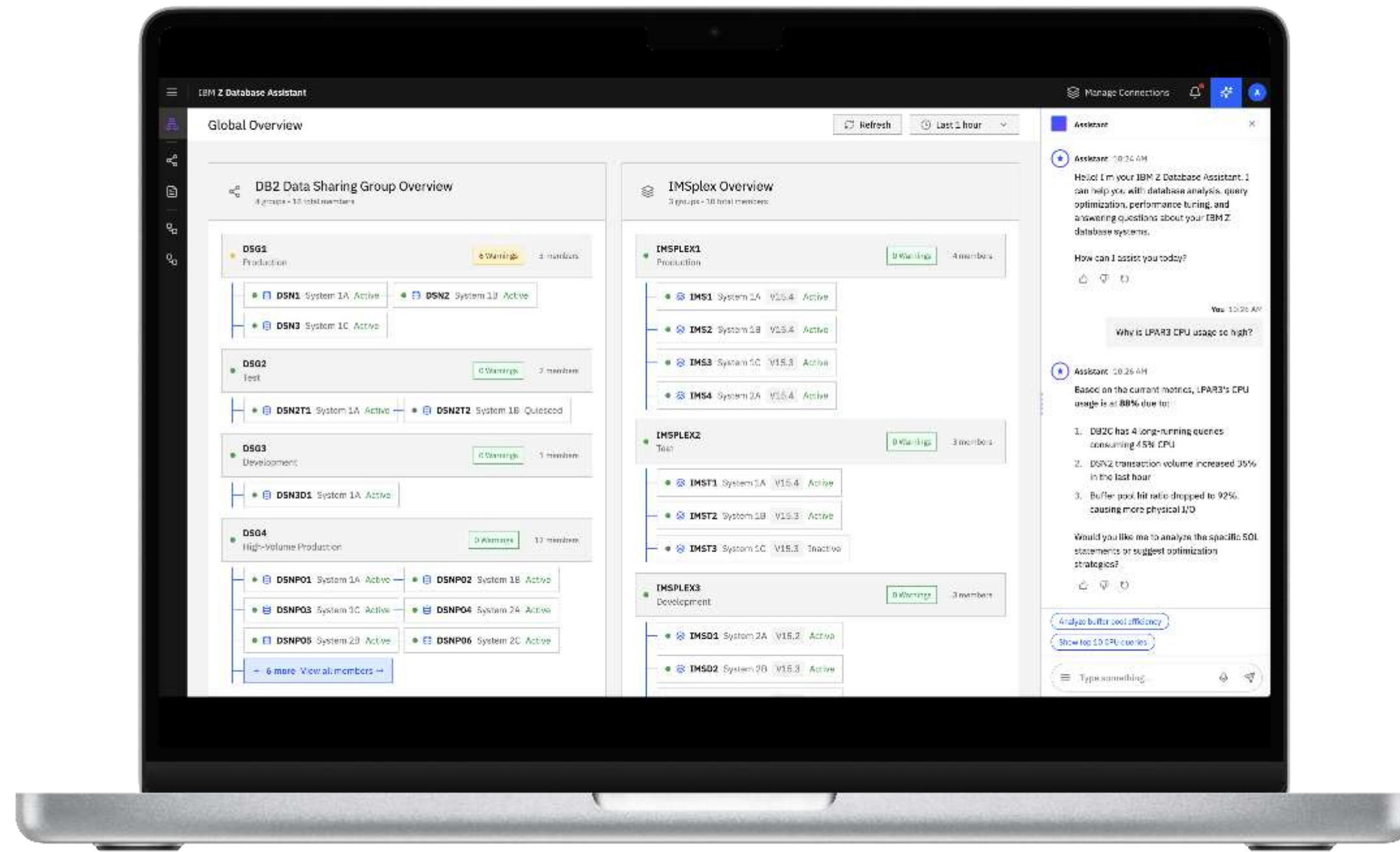
Vision: Building an AI-Driven Ecosystem



Note: Multiple specialized agents will emerge — one per function or tool — to ensure scalability, modularity, and clarity in use.

IBM Z Database Assistant

The unified intelligent workspace powered by agentic AI that acts as a force multiplier for every IBM Z DBA



Intelligent database administration that removes operational friction—enabling IBM Z data to power AI adoption at scale.

Faster Troubleshooting

Accelerated troubleshooting and tuning across Db2 and IMS to keep data pipelines, applications and AI moving faster.

Accelerated DBA on-boarding

AI assistant that explains issues in plain language, automates routine DBA tasks, and helps bridge the DBA skill gap.

Proactive database administration

Agentic framework proactively assessing database environments, optimizing cost and performance, reducing risk and keeping databases AI-ready.

Purpose-built for Db2/IMS on Z

Deep integration with the trusted Z database tools ecosystem and built-in guardrails.

Thank you