



Preview MQ Agent



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Termes

MCP
Server

AI

Prompts

Agents

LLM

Tools

Model Context Protocol

Agentique

Agentic AI

Sources

- Cette présentation est largement inspirée d'un article de blog de MATTHEW LEMING (IBM Hursley)

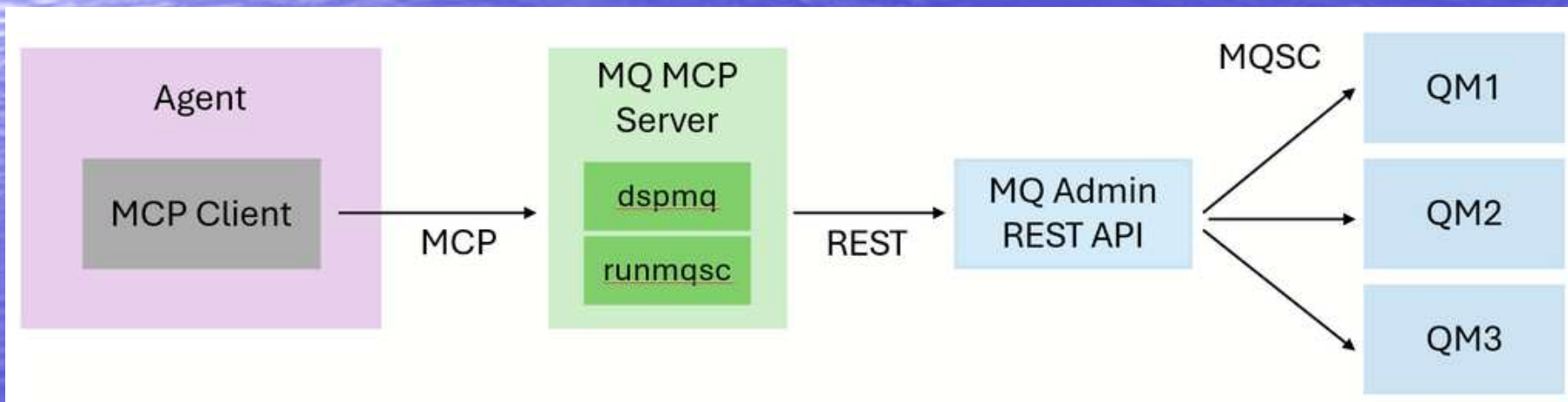
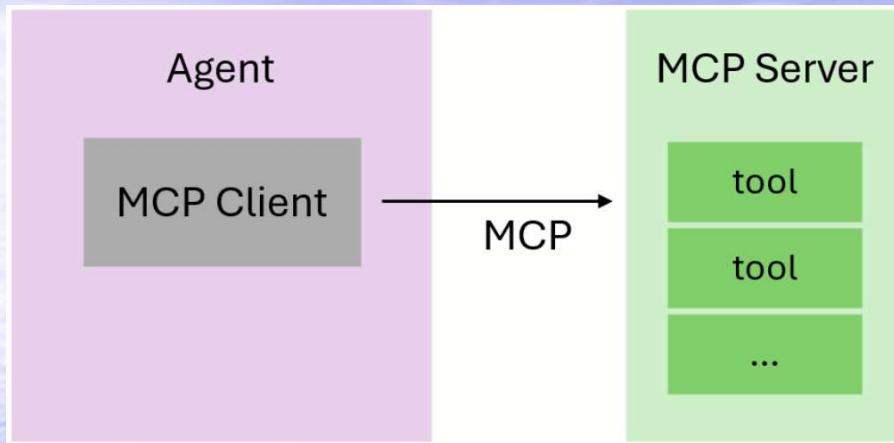
<https://community.ibm.com/community/user/blogs/matthew-leming1/2025/07/15/using-mcp-with-ibm-mq>



Définitions

- MCP - Model Context Protocol :
 - C'est le standard ouvert d'OpenAI (et de la communauté agentique) pour connecter des agents, outils et serveurs entre eux.
- Server :
 - Un serveur MCP expose les capacités d'un système externe via le protocole MCP
- Client :
 - Un client MCP se connecte à un serveur MCP, autorise les agents AI à découvrir les capacités d'un serveur et à les appeler
- Tool :
 - Les serveurs MCP peuvent fournir des outils (tools) qui autorisent les agents AI à exécuter des actions sur les systèmes externes

MQ Agent - Principe





MQ MCP Server en python

(version Open Source)

(<https://github.com/ibm-messaging/mq-mcp-server/blob/main/mqmcpserver.py>)

mq-mcp-server / README.md

 mamwl1 Update README.md

e9573e6 · 3 months ago History

Preview Code Blame

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Sample IBM MQ MCP server

MCP (Model Context Protocol) is an open standard that all interact with external services such as databases, REST API: on the details of MCP [here](#).

This repo contains a simple MCP server, written in Python, [Administrative REST API](#) as two MCP tools:

- dsqmq: lists any queue managers that are local to the or not
- runmqsc: runs any MQSC command against a specific [text MQSC API](#)

```

62 @mcp.tool()
63 ✓ async def runmqsc(qmgr_name: str, mqsc_command: str) -> str:
64     """Run an MQSC command against a specific queue manager
65
66     Args:
67         qmgr_name: A queue manager name
68         mqsc_command: An MQSC command to run on the queue manager
69     """
70     headers = {
71         "Content-Type": "application/json",
72         "ibm-mq-rest-csrf-token": "a"
73     }
74
75     data = "{\"type\": \"runCommand\", \"parameters\": {\"command\": \"" + mqsc_command + "\"}}"
76
77     url = URL_BASE + "action/qmgr/" + qmgr_name + "/mqsc"

```



IBM MQ Agent preview

<https://early-access.ibm.com/software/support/trial/cst/programwebsite.wss?siteId=2301>

Welcome to the IBM MQ Agent preview!

We're excited to offer you pre-release access to the IBM MQ Agent, a cutting-edge AI feature designed to enhance your messaging experience. This preview program is your chance to shape the future of IBM MQ and provide valuable feedback to our development team.

Thank you for participating in the IBM MQ Agent Preview program. We look forward to hearing your thoughts and working together to shape the future of IBM MQ!

Why use the IBM MQ Agent?

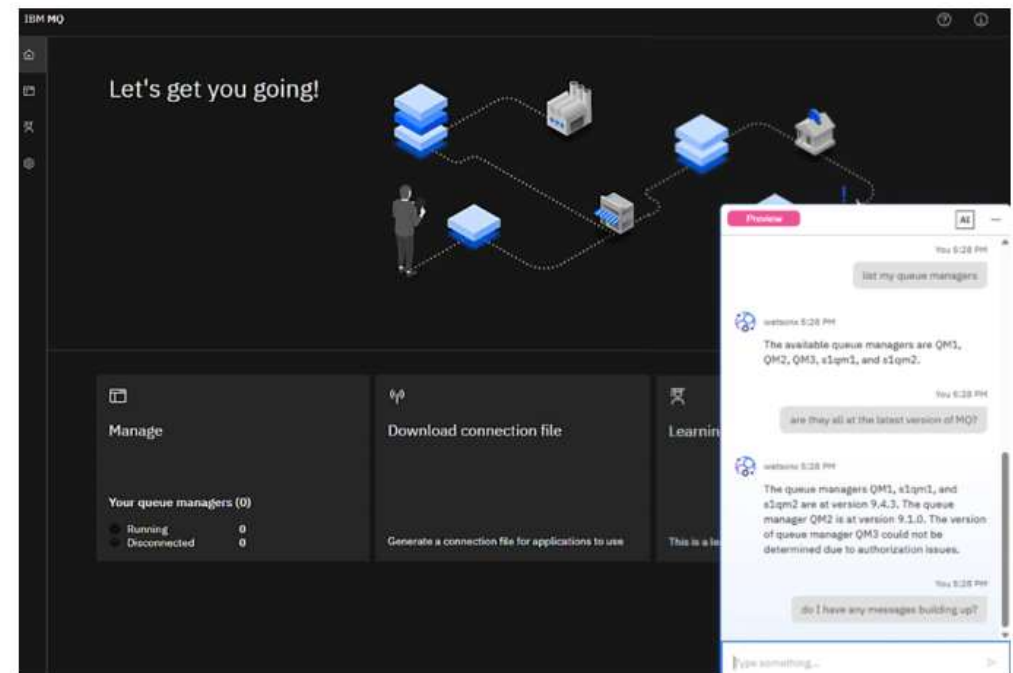
IBM's innovative solution leverages agentic systems which enable **autonomy**, **self-directed problem-solving**, and **long-term goal management**. By harnessing the power of agentic systems, you can **transform your MQ experience**, **improve administrator productivity**, and **enhance customer satisfaction**.

Through this Preview, you can discover how the MQ Agent can help you achieve greater efficiency and reliability in your messaging operations.

Pre-requisites

To participate in the preview program, you'll need access to the following resources:

- A RedHat OpenShift cluster on which you'll run the IBM MQ Agent
- The free MQ Developer Edition or access to an existing MQ installation and queues
- The IBM Watsonx.ai runtime - don't worry, we've got you covered. Access to an IBM



**Q: What is the IBM MQ AI-powered assistant?**

A: The IBM MQ AI-powered assistant is a new tool that helps administrators quickly diagnose and resolve message flow issues in IBM MQ.

Q: How does the assistant work?

A: The assistant uses specialized agents to provide comprehensive support and guidance, including message buildup analysis, channel health monitoring, application queue diagnosis, and dead letter queue management.

Q: What are the benefits of using the assistant?

A: The assistant helps administrators to minimize downtime, improve productivity, and enhance customer satisfaction.

Q: How do I access the assistant?

A: The assistant is built into the IBM Console and can be accessed through the console interface.

Q: Can I ask questions in natural language?

A: Yes, the assistant allows you to ask questions in natural language and provides personalized support and guidance.

Q: What kind of support is available for the assistant?

A: Whilst in preview help is available via email or Slack. Please see the Support and Feedback tab.

Q: Is the assistant secure?

A: Yes, the assistant is built on a foundation of end-to-end encryption and assured delivery.

Q: How does the assistant help with message buildup issues?

A: The assistant provides message buildup analysis and helps administrators to quickly identify and resolve issues.

Q: Can the assistant help with channel health monitoring?

A: Yes, the assistant provides channel health monitoring and helps administrators to proactively identify potential issues.

Q: How does the assistant help with application queue diagnosis?

A: The assistant provides application queue diagnosis and helps administrators to quickly identify and resolve issues.

Q: Can the assistant help with dead letter queue management?

A: Yes, the assistant provides dead letter queue management and helps administrators to efficiently manage and resolve issues.



MQ Console AI Assistant

Attention : produit en beta et non finalisé

- Implémentation actuelle : dans MQ Console
- Objectifs :
 - Répondre à des questions techniques sur MQ
 - Statut de votre environnement MQ
 - Actions sur votre environnement MQ
 - Manuel
 - Automatique



Exemples

IBM MQ

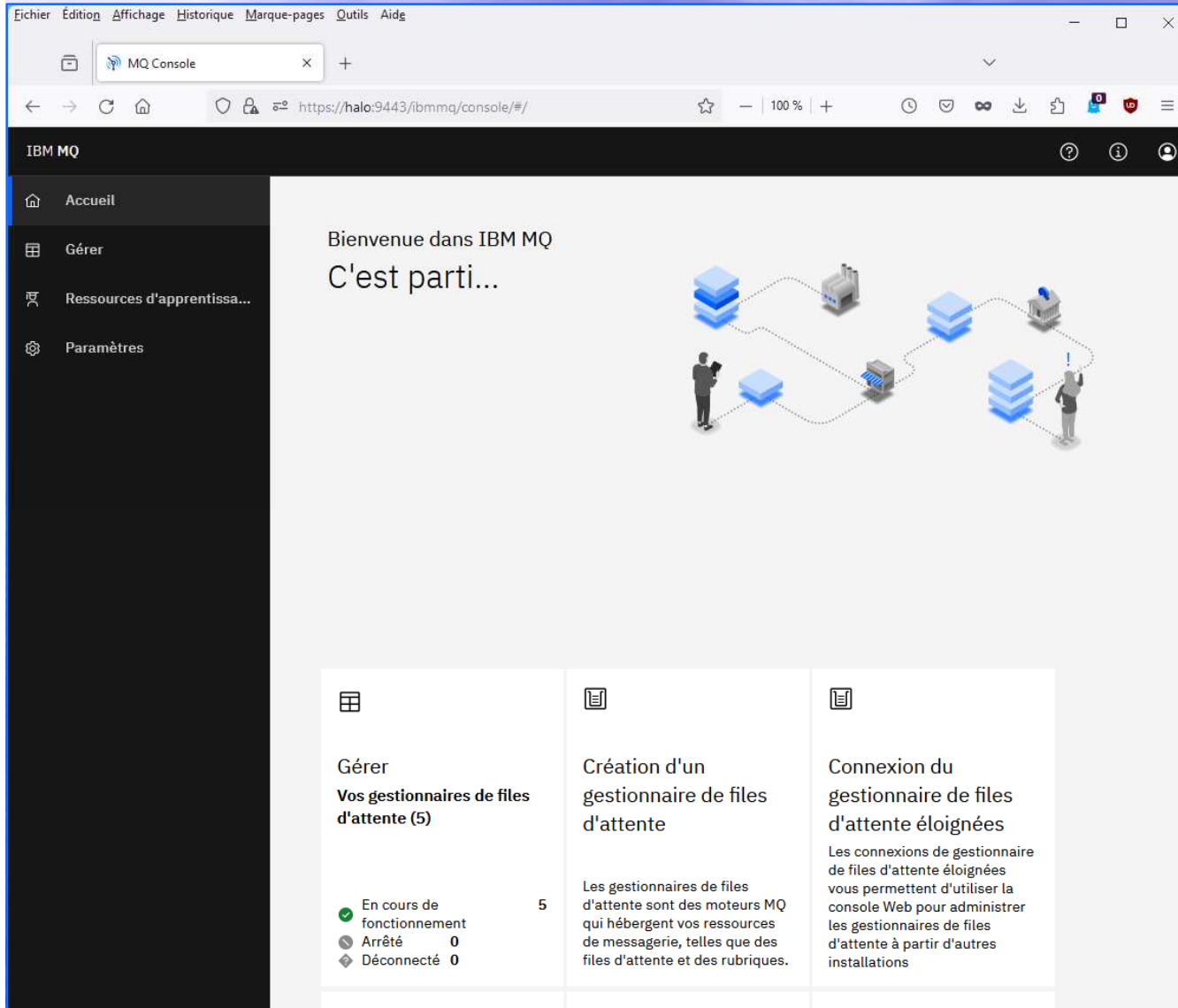
Bienvenue dans IBM MQ
C'est parti...

Gérer	Création d'un gestionnaire de files d'attente	Connexion du gestionnaire de files d'attente éloignées
Vos gestionnaires de files d'attente (5)	Création d'un gestionnaire de files d'attente	Connexion du gestionnaire de files d'attente éloignées
En cours de fonctionnement 5 Arrêté 0 Déconnecté 0	Les gestionnaires de files d'attente sont des moteurs MQ qui hébergent vos ressources de messagerie, telles que des files d'attente et des rubriques.	Les connexions de gestionnaire de files d'attente éloignées vous permettent d'utiliser la console Web pour administrer les gestionnaires de files d'attente à partir d'autres installations

Q : I'am using MQ 9.4.2.0,
What does CAPEXPY do ?

R : In IBM 9.4.2, the
CAPEXPY attribute is used
to limit the expiry time of
messages on a queue or
topic. This means you can set
a specific time after which
messages will automatically
expire and be removed from
the queue or topic.

Exemples



IBM MQ

Bienvenue dans IBM MQ
C'est parti...

Gérer
Vos gestionnaires de files d'attente (5)

En cours de fonctionnement	5
Arrêté	0
Déconnecté	0

Création d'un gestionnaire de files d'attente

Les gestionnaires de files d'attente sont des moteurs MQ qui hébergent vos ressources de messagerie, telles que des files d'attente et des rubriques.

Connexion du gestionnaire de files d'attente éloignées

Les connexions de gestionnaire de files d'attente éloignées vous permettent d'utiliser la console Web pour administrer les gestionnaires de files d'attente à partir d'autres installations

Q : Which of my queues has the highest depth?

R : I'll check the queues across all of your running queue managers to find which has the highest CURDEPTH

On queue manager MQ1, both queues TEST.Q1 and TEST.Q3 have 25 messages on them.

On queue manager MQ2, queue TEST.Q4 has 1007 messages



Des questions ?

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