

IBM Cloud Pak for Integration 2021.2.1 adds new features, enhances event endpoint management features, reduces the deployment footprint for some capabilities, and adds automation, AI, and machine learning capabilities for testing APIs

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Overview

IBM Cloud Pak^(R) for Integration offers a powerful integrated platform for deploying containerized integration capabilities as part of a Red Hat^(R) OpenShift^(R) deployment environment. By making use of Cloud Pak for Integration, an organization can connect applications, systems, and services together quickly and simply, as part of a managed, controlled, scalable, and security-rich environment.

Cloud Pak for Integration 2021.2.1 includes the following enhancements and new capabilities:

- Enhances features for deploying and using Event Endpoint Management
- Uses natural language to create integration flows based on known templates
- Includes additional enhancements for AI-powered API test generation
- Includes AI based transformation generator
- Reduces the deployment footprint needed for selected integration capabilities
- Delivers enhanced security scanning for Cloud Pak for Integration libraries
- Uses continuous integration continuous deployment (CI/CD) pipeline to deploy integration solutions without the need to build custom images
- Includes additional prebuilt smart connectors
- Adds the following integration features to IBM^(R) App Connect Enterprise 12
 - Restyled and updated integration tooling, including a new testing framework
 - No-code RESTful integration services
 - A new simplified API authoring tool
 - Flexible integration patterns and new tutorials
 - Broad deployment options

Key requirements

- Runs in a Red Hat OpenShift environment included with the offering

- Only available for x86 deployment

Planned availability date

June 25, 2021

Description

Included in Cloud Pak for Integration are the following foundational IBM integration offerings that deliver integration capabilities as entitled and included features under the single integrated interface:

- App Connect Enterprise
- API Connect
- IBM Aspera^(R) High Speed Transfer Server
- IBM DataPower^(R) Gateway Virtual Edition
- IBM MQ and IBM MQ Advanced
- Cloud Pak for Integration features also available in other IBM Cloud Pak offerings:
 - Robotic Process Automation (RPA) platform
 - RPA environment
 - RPA unattended bot
 - Process Mining

Entitlement to Cloud Pak for Integration enables organizations to choose to use one or more of the existing separate integration offerings, as well as the integrated capabilities within the offerings. This flexible approach enables organizations to modernize their infrastructure over time without disrupting their existing deployed environment.

Enhances features for deploying and using Event Endpoint Management

Cloud Pak for Integration includes Event Endpoint Management that enables organizations to use the AsyncAPI standard to access data from Kafka topics as part of a Multi-Form API management solution. As part of Cloud Pak for Integration 2021.2.1, organizations looking to specifically deploy this feature can now select it as a specific deployable component rather than selecting the API Connect component to deploy it. In addition, developers looking to use this feature can now discover the Kafka topic they want from the developer portal and can generate their own credentials to start consuming from that topic. Developers can quickly and easily make use of this new capability.

Uses natural language to create integration flows based on known templates

Cloud Pak for Integration 2021.2.1 enables a user to describe an integration flow using natural language, by typing into the entry field. As the user types the integration wanted, an included AI powered engine creates suggested integration flows based on existing templates provided in Cloud Pak for Integration. Templates can also be pulled from those created by the organization.

Includes additional enhancements for AI-powered API test generation

Through the analysis of production OpenTracing data, existing test coverage of API implementations are automatically reviewed and behavior not tested is identified. These tests can be customized by the user.

Improved application development through additional AI capabilities in Cloud Pak for Integration Designer:

- Transformation generator that intelligently builds suggested mapping expressions using sample data from the source and target
- Incremental learning that makes use of previous integration flow definitions from the same user by using operational feedback to retrain the AI model for Mapping Assist

Reduces the deployment footprint needed for selected integration capabilities

Cloud Pak for Integration is deployed through Kubernetes Operators where only the components required are used. Different configurations into varying amounts of resources are required for different use cases. The product documentation lists the minimum required resources needed for deployments of each component. For certain smaller deployment configurations, the minimum requirements can benefit from reduced resource allocations. As part of Cloud Pak for Integration 2021.2.1, various enhancements help reduce the minimum resource settings needed for each component deployment. However, reduced resource allocations may impact the performance or throughput possible with those deployments.

Delivers enhanced security scanning for Cloud Pak for Integration libraries

With many different code libraries being included in products such as Cloud Pak for Integration, it is increasingly important that none of these libraries include security vulnerabilities. Cloud Pak for Integration scans the included code libraries for any vulnerabilities for each new release of Cloud Pak for Integration to let organizations deploy Cloud Pak for Integration releases with more assurance of protection from security risks.

Uses CI/CD pipeline to deploy integration solutions without the need to build custom images

A growing number of use cases require the use of multiple styles of integration to best address business requirements. With this new feature, you can deploy, configure, and bind multiple different integration capabilities. This makes it possible for the outcome to be part of a deployment pipeline as a single integration solution without the need for a separate process to create a custom image of the desired integration solution.

Adds smart connectors

Cloud Pak for Integration 2021.2.1 includes additional prebuilt smart connectors that make simpler to connect to more applications. These connectors include the following:

- flexEngage
- Azure Blob storage
- Salesforce Commerce Cloud
- MQ
- OpenAPI 3
- Gmail
- Box
- Trello

New application integration capabilities delivered as part of App Connect Enterprise 12

- Restyled and updated integration tooling
 - The upgraded App Connect Enterprise Toolkit, designed primarily for integrators with an IT background, is now based on Eclipse 4.15, and provides

frictionless access to enterprise data. The modernized look and feel simplifies the creation of message flows and message models from scratch. For those wanting additional assistance, App Connect Enterprise Toolkit also provides built-in architectural patterns and a newly designed tutorial interface with over 100 tutorials, making it easier to get started. New features to enable test driven development make it easy to run unit tests for App Connect Enterprise integration flows with built-in Spies, Mocks and Stubs. This unit-testing framework also provides product-specific matchers, support for JUnit assertions, and third-party matcher libraries. The testing framework enables developers to iteratively test as they develop and automate test authoring to help mitigate the risk of issues that could result when upgrading and updating software. A new wizard provides a simple single interface for interactive test generation, and a new message assembly editor for changing test data. Command-line tools for bulk message recording and automated test generation assist with quality assurance of integrations and faster time to market when updating integration deployments or upgrading to an App Connect Enterprise version. The award-winning web browser-based App Connect Designer component helps bring together the teams that own and manage data with those that have the context to apply it by providing a no-code integration design tool, whether those individuals are in IT or are citizen integrators in a specific line of business. The option within App Connect Enterprise Designer to use intuitive interfaces to enhance the user development experience provides an optimal view and enhanced user experience of the organization's integration design.

- No-code RESTful integration services
 - App Connect Enterprise 12 supports building integration flows through a no-code approach and exposes those flows as RESTful APIs to users without the users being API development experts. These APIs can be seamlessly brought into API Connect Enterprise to handle the managing, securing, and socializing APIs so that development teams can reuse assets across business units. Whether building cloud scale, resilient applications from the ground up, or taking the opportunity to utilize existing technologies as part of a serverless architecture, organizations can rely on the rapid build and access to the systems when needed.
- A new simplified API authoring tool
 - The new API authoring tool is a common tool across API authoring in App Connect Enterprise, App Connect Designer, and API Connect authoring experiences with support for OAPI 3. The API authoring tool offers API developers a simplified consistent experience across APIs and application integration development.
- Flexible integration patterns
 - App Connect Enterprise offers broad support, in a single platform, for API, automation, and event-driven technologies that complement other integration patterns. Deployment can be accomplished in the patterns users demand, such as container native microservices and enterprise service bus (ESB) architectures. The flexible integration patterns help ensure that existing investments in integration can be used where they are optimal, while supporting the rapid build of new use cases in application-centric, event-centric, and data-centric scenarios. There is additional assistance for users with a new tutorials gallery that provides an updated user interface with tag and search capabilities. More than 100 tutorials are included with step-by-step guidance for both existing scenarios and new features.
- Broad deployment options
 - These options include on-premises traditional integration patterns on different hardware architectures, highly flexible container native microservice deployments in many Kubernetes distributions, Cloud Pak for Integration, as well as options to deploy in public cloud native or hybrid cloud deployments. The decision of where to run the integration can be optimized for the specific needs of the business.

Accessibility by people with disabilities

Accessibility Compliance Reports (previously known as a VPAT) containing details on accessibility compliance to standards, including the Worldwide Consortium Web Content Accessibility Guidelines, European Standard EN 301 349, and US Section 508, can be found on the [IBM Accessibility Conformance Report Request](#) website.

Reference information

For additional information about Cloud Pak for Integration, see:

- Software Announcement [221-167](#), dated May 4, 2021.
- Software Announcement [221-067](#), dated March 23, 2021.
- Software Announcement [220-456](#), dated December 1, 2020.
- Software Announcement [220-307](#), dated September 22, 2020.
- Software Announcement [220-300](#), dated June 23, 2020.
- Software Announcement [220-168](#), dated April 28, 2020.
- Software Announcement [220-044](#), dated March 31, 2020.
- Software Announcement [219-064](#), dated December 17, 2019.
- Software Announcement [219-443](#), dated October 29, 2019.
- Software Announcement [219-515](#), dated October 15, 2019.
- Software Announcement [219-304](#), dated June 18, 2019.
- Software Announcement [219-064](#), dated December 17, 2019.
- For additional information about App Connect 12, see: [221-033](#), dated April 27, 2021.

For additional information about Cloud Pak for Integration (formerly known as Cloud Integration Platform), see:

- Software Announcement [219-236](#), dated April 30, 2019.
- Software Announcement [219-009](#), dated January 8, 2019.

For information about the Red Hat OpenShift Container Platform, see the [Red Hat](#) website.

For more information about API Connect, see:

- Software Announcement [220-492](#), dated November 3, 2020.
- Software Announcement [220-133](#), dated April 28, 2020.
- Software Announcement [218-489](#), dated November 13, 2018.
- Software Announcement [218-018](#), dated March 13, 2018.
- Software Announcement [220-133](#), dated April 28, 2020.

For more information about App Connect Enterprise, see:

- Software Announcement [220-292](#), dated September 15, 2020.
- Software Announcement [219-109](#), dated March 5, 2019.
- Software Announcement [218-037](#), dated January 30, 2018.

For more information about DataPower^(R) Gateway, see:

- Software Announcement [220-492](#), dated November 3, 2020.
- Software Announcement [220-133](#), dated April 28, 2020.

- Software Announcement [220-133](#), dated April 28, 2020.
- Software Announcement [218-489](#), dated November 13, 2018.
- Software Announcement [218-018](#), dated March 13, 2018.
- Software Announcement [217-265](#), dated July 25, 2017.
- Software Announcement [216-024](#), dated February 16, 2016.
- Software Announcement [215-108](#), dated May 26, 2015.

For more information about MQ and MQ Advanced, see:

- Software Announcement [220-448](#), dated December 1, 2020.
- Software Announcement [220-238](#), dated July 21, 2020.
- Software Announcement [220-094](#), dated April 2, 2020.
- Software Announcement [219-487](#), dated December 3, 2019.
- Software Announcement [219-254](#), dated July 9, 2019.
- Software Announcement [219-220](#), dated April 2, 2019.
- Software Announcement [219-015](#), dated February 5, 2019.
- Software Announcement [218-246](#), dated July 3, 2018.
- Software Announcement [218-069](#), dated March 13, 2018.

Program number

Program number	VRM	Program name
5737-I89	2021.2.1	IBM Cloud Pak for Integration

Publications

Additional information about Cloud Pak for Integration is available in [IBM Documentation](#).

For documentation about the other offerings within this announcement, see the *Publications* sections of the respective Software Announcements that are listed in the [Reference information](#) section.

Services

Software Services

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Technical information

Specified operating environment

Hardware requirements

Cloud Pak for Integration 2021.2.1 is only available for x86 deployment. Cloud Pak for Integration 2021.2.1 is not available for IBM Z^(R) Integrated Facility for Linux^(R) engines. Cloud Pak for Integration 2020.4.1 continues to be available for that platform.

For specific hardware requirements for the offerings within this announcement, see the Hardware requirements sections of the respective Software Announcements listed in the [Reference information](#) section.

Software requirements

For specific software requirements for the offerings within this announcement, see the Software requirements sections of the respective Software Announcements listed in the [Reference information](#) section.

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Planning information

Packaging

This offering is accessed through the internet. There is no physical media or electronic deliverable.

Security, auditability, and control

Cloud Pak for Integration uses the security and auditability features of the host software.

The client is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

For ordering information, consult your IBM representative or IBM Business Partner, or go to the [Passport Advantage^{\(R\)}](#) website.

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Passport Advantage

IBM Cloud Pak for Integration (5737-I89)

There is no new ordering information in this release. As a convenience, the following table lists previously announced part numbers:

Part description	Part number
IBM Cloud Pak for Integration Virtual Processor Core Subscription License	D2689LL

Part description	Part number
IBM Cloud Pak for Integration Virtual Processor Core License + SW Subscription & Support 12 Months	D20ZBLL
IBM Cloud Pak for Integration Virtual Processor Core Monthly License	D211KLL
IBM Cloud Pak for Integration Virtual Processor Core Annual SW Subscription & Support Renewal 12 Months	E0PPBLL
IBM Cloud Pak for Integration Virtual Processor Core SW Subscription & Support Reinstatement 12 Months	D20ZELL
IBM Cloud Pak for Integration-Operations Dashboard Add-On Virtual Processor Core License + SW Subscription & Support 12 Months	D25XKLL
IBM Cloud Pak for Integration-Operations Dashboard Add-On Virtual Processor Core Monthly License	D25XILL
IBM Cloud Pak for Integration-Operations Dashboard Add-On Virtual Processor Core Annual SW Subscription & Support Renewal 12 Months	E0QG2LL
IBM Cloud Pak for Integration-Operations Dashboard Add-On Virtual Processor Core SW Subscription & Support Reinstatement 12 Months	D25XLLL
IBM Cloud Pak for Integration Operations Dashboard Add-On Virtual Processor Core Subscription License	D27ZXLL
IBM Cloud Pak for Integration - API Calls Resource Value Unit Subscription License	D052XZX
IBM Aspera [®] Enterprise 10 GBPS for Cloud Pak Integration Install Subscription License	D0537ZX

Cross-platform product for use on IBM Z

Order the part numbers that follow when the product is used for either the development of code that will be deployed on IBM Z or when the product will be communicating or transferring data between a distributed server and a IBM Z. Otherwise order from the other set of part numbers in this announcement. This set of part numbers provides the identical supply and authorization as the other set in this announcement.

IBM Cloud Pak for Integration (5737-I89)

There is no new ordering information in this release. As a convenience, the following table lists previously announced part numbers:

Part number description	Part number
IBM Cloud Pak for Integration For IBM Z Virtual Processor Core Subscription License	D268BLL
IBM Cloud Pak for Integration Virtual Processor Core for IBM Z License + SW Subscription & Support 12 Months	D20ZILL
IBM Cloud Pak for Integration Virtual Processor Core for IBM Z Monthly License	D211LLL
IBM Cloud Pak for Integration Virtual Processor Core for IBM Z Annual SW Subscription & Support Renewal 12 Months	E0PPCLL
IBM Cloud Pak for Integration Virtual Processor Core for IBM Z SW Subscription & Support Reinstatement 12 Months	D20ZJLL

Part number description	Part number
IBM Cloud Pak for Integration-Operations Dashboard Add-On For IBM Z Virtual Processor Core Monthly License	D25XJLL
IBM Cloud Pak for Integration-Operations Dashboard Add-On For IBM Z Virtual Processor Core Annual SW Subscription & Support Renewal 12 Months	E0QG3LL
IBM Cloud Pak for Integration-Operations Dashboard Add-On For IBM Z Virtual Processor Core SW Subscription & Support Reinstatement 12 Months	D25XNLL
IBM Cloud Pak for Integration Operations Dashboard Add-On For IBM Z Virtual Processor Core Subscription License	D27ZYLL
IBM Cloud Pak for Integration - API Calls for IBM Z Resource Value Unit Subscription License	D0532ZX
IBM Aspera Enterprise 10 GBPS for Cloud Pak Integration for IBM Z Install Subscription License	D053CZX

Charge metric

The charge metrics for this licensed product can be found in the following License Information documents:

Program name	PID number	License Information document number
IBM Cloud Pak for Integration 2022.2.1	5737-I89	L-RJON-BZFQU2

Select your language of choice and scroll down to the Charge Metrics section. Follow-on releases, if any, may have updated terms. See the [License Information documents](#) website for more information.

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License Information number

The following License Information documents apply to the offering in this announcement:

Program name	PID number	License Information document number
IBM Cloud Pak for Integration 2021.2.1	5737-I89	L-RJON-BZFQU2

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Limited warranty

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Money-back guarantee

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Volume orders (IVO)

No

Passport Advantage applies

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Variable charges apply

No

Educational allowance available

Not applicable

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