webMethods Integration Cloud 5.1.0 Readme

February 2019

This file contains important information you must read before using webMethods Integration Cloud 5.1.0. You can find system requirements and user documentation on the [Documentation website](#) or the [TECHcommunity website](#). At those locations, you can also find suite-related security and globalization information.

Included in this file is information about functionality that has been added, removed, deprecated, or changed for this product. Deprecated functionality continues to work and is supported by Software AG, but may be removed in a future release. Software AG recommends against using deprecated functionality in new projects.

1.0 Critical Information

This section lists any critical issues for the current release that were known when this readme was published. For critical information found later, go to the Knowledge Center on the <u>Empower website</u>.

2.0 Known Issues

This section lists any issues for the current release that were known when this readme was published. For known issues found later, go to the Knowledge Center on the <u>Empower website</u>.

- LIP-5405
  Infinite document reference loops lead to errors.
  When a document type is created with a document reference to the same document type, it leads to infinite document reference loops. Errors are observed when this document type is used in the pipeline.
  There is currently no workaround for this issue.

- MOC-469
  Emails are not received when some alert rules are violated.
  For example, if a runtime goes down, an alert is raised and appears on the monitoring pages, but emails are not received.
  There is currently no workaround for this issue.

3.0 Usage Notes

This section provides any additional information you need to work with the current release of webMethods Integration Cloud.

- webMethods Integration Cloud is best experienced using Google Chrome browser or Mozilla Firefox. Some features may not work if you are using Microsoft Internet Explorer 10.0 or earlier versions.

4.0 Other Resolved Issues

This section lists the issues that were resolved in each release. A release is listed in this section only if changes occurred in that release.

Release 4.1.0

- LIP-3087
  Pipeline mapping screen does not respond if there is a large number of nested complex fields.
  The pipeline mapping page becomes unresponsive when a large number of nested complex fields is

selected in a custom operation.

Workaround: While creating a custom operation, ensure that you select only the required fields.

▪ LIP-3932

Audit log displays both Login and Logout entries after you have logged into Integration Cloud.

When you log in, both Login and Logout entries appear in the Audit log. The Audit Log should display only the Login entry.

There is currently no workaround for this issue.

5.0   Documentation Changes

This section describes *significant changes* to the documentation, such as the addition, relocation, or removal of product guides, online help, chapters, or other major content. A release is listed in this section only if changes occurred in that release.

Release 5.0.0

The new *Deploying to webMethods Integration Cloud* document describes how to deploy user-created packages and configurations that reside within on-premises runtimes or repositories to webMethods Integration Cloud.

Release 1.0

The new context-sensitive *webMethods Integration Cloud Help* describes how to use Integration Cloud and its features.

6.0   Terminology Changes

A release is listed in this section only if changes occurred in that release.

Release 5.0.0

Old Term	New Term
Default ACL - Everybody	Default

Release 4.5.0

Old Term	New Term
Advanced Security	Keys & Certificates
Exit Integration	Exit Integration signaling success

Old Term	New Term
Exit Integration with failure	Exit Integration signaling failure
Stage Management	Manage Stages

Release 4.0.0

Old Term	New Term
Expose as a REST service	Enable Integration to be invoked over HTTP

7.0   Added, Removed, Deprecated, or Changed Items

This section lists functionality, controls, portlets, properties, or other items that have been added, removed, deprecated, or changed. A release is listed in this section only if changes occurred in that release.

Release 5.1.0

Added Item	Description

Integration Cloud

User Interface changes due to performance enhancements	The following user interface changes are made to enhance the performance and reduce the wait time for user actions: • Applications are now listed under different categories such as Predefined Applications, REST Applications, On-Premises Applications, and SOAP Applications. • The Integrations list page (Develop > Integrations) now shows a basic view of all the Integrations. To view the references (*Uses* column), select the *Show Advanced View* check box available on the Integrations list page.

Added Item	Description
Support for viewing Integration Cloud Capabilities	The new *Capability* page allows you to view the status of some of the system capabilities, based on your license offering. To access this page, from the Integration Cloud navigation bar, click 🔵 and select *Licensing > Capability*.
Support for multipart request body	For some Applications and Operations, for example, for the *CloudStreams Connector for Salesforce(R) Bulk v2 Data Loader* Application and *Create Job and Upload Job Data* Operation, Integration Cloud supports multipart request body.
Mapping enhancement	While doing pipeline mapping, you can now view only the mapped fields by selecting the *Show Only Mapped Fields* check box.
Support for invoking deployed services from Integration Cloud	Integration Cloud Integrations can now invoke Cloud Deployment webMethods Integration Server services for the same tenant. A new pre-defined Application, *Cloud Deployment*, is added in Integration Cloud. Using this Application, you can select the solution webMethods Integration Server services that you want to call from Integration Cloud.

Added Item	Description
OAuth 2.0 enhancements	The following OAuth 2.0 enhancements have been implemented in this release:

- From the *Client Registration* page, you can now associate scopes with a client as well as create a new scope and associate it with a client by clicking the *Associate Scopes* option.
- Support is added for Client Credentials Grant and Resource Owner Password Credential Grant types as part of OAuth spec for OAuth token generation flow.
- After you select the *Enable Integration to be invoked over HTTP* option on the Integration Details page, *OAuth Scopes containing the exposed Integration URL* appears. Clicking the *OAuth Scopes* option displays the OAuth Scopes which contain the exposed URL of the Integration. You can add the exposed URL of the Integration to an existing scope or add a new Scope which will contain the exposed URL of the Integration.
- From the REST API Resources page for a REST API which is created from scratch, you can now click the *OAuth Scopes* option to view the OAuth Scopes which contain the REST Resource path with Method. You can add the REST Resource path with Method to an existing scope or add a new scope which will contain the REST Resource path with Method.
- While creating or updating a scope, you can now select the exposed Integrations and REST Resources that you want to add as Service URLs from the *Services* dialog box.
- Enhanced the OAuth Approval page generated in the OAuth token generation flow.
- SSO support for authentication during OAuth token generation flow.
- Support for auditing OAuth Client, Scope, and Token CRUD operations.

Added Item	Description
	Cloud Deployment
Support for viewing Cloud Deployment Capabilities	The new *Capability* page allows you to view the status of some of the Cloud Deployment capabilities, based on your license offering. To access this page, from the Cloud Deployment navigation bar, click 🔵 and select *Licensing > Capability*.
Support for deleting assets	You can now delete assets from all stages from the *Deploy* page for a solution.
Support for viewing more assets	You can now view more on-premises assets for Cloud Deployment.
Support for stateless cluster of webMethods Integration Servers	In addition to supporting stateful webMethods Integration Server clusters, you can now define that a cluster is *stateless* from the *Landscape* page for a solution. The deployment of a solution will therefore not need a Terracotta Server Array.
Landscape component status	You can now see the status of a solution landscape component whether it is ready or not ready on the landscape page.
Deployment Status Tracking	You can now type a message to describe the rollback. The rollback message appears on the *History* page. The History page shows the *Trace ID*, that is, the tracking ID, which is automatically generated on every successful or unsuccessful promotion, rollback, or deletion, the Deployment, Rollback, or Deletion Action, Date when the asset was promoted, rolled back, or deleted, the User who promoted, rolled back, or deleted the asset, and the commit Message for the selected instance. You can click on a Trace ID to see the *Track History* for the specific action.

Added Item	Description
Support for usage based license monitoring of CPU and Memory capacity	You can now view the cumulative usage of CPU and Memory for all the active solutions in all the stages from the *Usage* page. To access this page, from the Cloud Deployment navigation bar, click ⓘ and select *Licensing > Usage*.
	Further, on the Cloud Deployment landing page, you can see the current usage (CPU and Memory) for the tenant.
Continuous Integration/Continuous Deployment (CI/CD)	You can now build user-created assets and configurations using webMethods Asset Build Environment (ABE), retrieve those assets and configurations from a VCS by using ABE or an automated tool like Jenkins, and then deploy those assets and configurations to the Integration Cloud Development Stage using ABE. For information on CI/CD and how to promote assets across stages, see the *Deploying to webMethods Integration Cloud* document.
Support for webMethods Adapter KPI monitoring	You can now monitor the following details of all the installed Adapters: • Total number of enabled and disabled connection pools • Total number of enabled and disabled listeners • Total number of enabled and disabled notifications
Duplicate low severity alerts	In earlier releases, along with critical alerts, redundant alerts of lower severity like warning and info alerts were also displayed. From this release, if there are critical alerts, lower severity alerts will not be displayed.

Release 5.0.0

Added Item	Description
Integration Cloud	
Debug Orchestrated Integrations	You can now debug an orchestrated Integration and can inspect the data flow during the debugging session. You can inspect and edit the pipeline data before and after executing the individual blocks. Further, you can step over each block one at a time, or can specify breakpoints where you want to halt the execution.
Support for OAuth 2.0	You can now protect Integration services and REST APIs using the OAuth 2.0 protocol.
Support for enabling dynamic account configuration details at runtime	For REST Application operations, you can now provide account configurations at runtime during integration execution. When you create or edit an operation of a REST application, you can select the fields you want to pass at runtime in the *Dynamic Account Configuration Fields* dialog box.
Support for configuring two-way SSL for inbound connections	Integration Cloud now supports two-way SSL for inbound connections. You can store client certificates and associate a certificate with a user account.
Support for refreshing OAuth 2.0 Access Tokens	To refresh the access tokens for accounts which use the OAuth 2.0 protocol, you can now specify a call-back Integration which will execute when the access token expires. Select *Custom ESB Service* in the *Refresh URL Request* field and provide the Integration name in the *Refresh Custom ESB Service* field.

Added Item	Description
New Applications	• *Applicability Statement 2 (AS2)* - Applicability Statement 2 (AS2) allows you to transport EDI and other business data securely and reliably using the HTTP transport protocol. The application supports the AS2 protocol versions 1.1 and 1.2. You can configure the AS2 Application with the *Auto Detect* option. • *Microsoft Dynamics CRM 365* - Microsoft Dynamics CRM 365 allows you to manage CRM data and access metadata that defines the specific CRM instance to which you are connecting using the OData API Version 4.0. This Application performs standard CRUD operations on business objects by connecting to the OData service endpoint.
Support for configuring Headers and Parameters for REST-based Applications	You can now add and configure the Headers and Parameters for REST-based Applications.
Support for viewing associated ACLs for an Access Profile	You can now view ACLs associated with an Access Profile from the Access Profile details page.
Support for editing the default Access Control List	You can now edit the default Access Control List. Further, the name of the default ACL has been changed from "Everybody" to "Default".
Service changes	• New services *sleep:* This service has been added under the *Flow* category. • Updated Services *xmlStringToDocument* - New input parameters have been added to this service.
Enhancements for Interactions and Business Objects for Operations	You can now edit interactions in a single request and also edit multiple business objects in a single request. Further, you can drag and drop the interactions or business objects to change the order in which they will execute.

Added Item	Description

Cloud Deployment

Support for Cloud Deployment	Cloud Deployment allows you to deploy on-premises assets and configurations, which are developed using Software AG Designer and on-premises Integration Server, to Integration Cloud. You can choose from predefined solution landscapes to deploy your on-premises assets from Software AG Designer. The assets and configurations can be promoted from one stage to another stage. During promotion, the asset field values can be changed. You can monitor the health and availability of the solutions and run-time instances, alerts, and alert statuses for all the deployed solutions.
New Administrative Permissions for Solutions	Permissions for creating, updating, and deleting solutions have been added under Access Profile > Administrative Permissions > *Functional Controls*. The permissions allow you to add, modify, and delete solutions available on Integration Cloud.
Solution Permissions	A new *Solution Permissions* page in Access Profiles is now available which allows you to map Integration Server user groups to an Access Profile. With this mapping, the Integration Cloud user who has that Access Profile can perform tasks on the solution Integration Server(s) by being present in that particular user group.
Customized message while promoting assets	You can now type a message while promoting assets. The promotion message appears on the new *History* page.
Infrastructure provisioning status for Cloud Deployment	You can now see the status when a solution landscape is provisioning or has been successfully provisioned. The user interface pages will be disabled when a solution is being provisioned.

Release 4.6.0

Added Item	Description
Reference Data enhancements	You can now view, edit, delete, and download Reference Data *in all stages*. The new *Status* column in the Reference Data table displays *Configured* if the Reference Data is available in the current stage and displays *Not Configured* if the Reference Data is not available in the current stage but available in any other stage.
Controlling Integration Executions using Access Control Lists (ACLs)	You can now use Access Control Lists (ACLs) to control the execution permission of an Integration. An ACL can be assigned to an Integration and a user can be associated with the ACL through the Access Profile. Therefore using ACLs, you can control the users who can execute an Integration.
Users associated with an Access Profile	You can now view the list of users associated with an Access Profile by clicking the Access Profile link on the Access Profiles page.
Support for associating multiple Access Profiles with an Access Control List	You can now associate multiple Access Profiles with an ACL while creating or modifying an ACL from the Access Control List > *Associate with Access Profiles* page.
Ability to Copy, Export, Import, and Refresh REST APIs	Integration Cloud now allows you to copy, export, import, and also refresh a REST API.

Added Item	Description
Support for nested and multiple Business Objects and Interactions	You can now create or update *multiple business objects*, for example, Contact, Opportunities, and Account in a single request for the Salesforce v42 Application. The following operations have been added for the Salesforce v42 Application: *createMultiple* - This operation allows you to add one or more records of different business object types. For example, Account and Contact business objects can be created in a single invocation. *updateMultiple* - This operation allows you to update one or more records of different business object types. For example, Account and Contact business objects can be updated in a single invocation. You can also add *interactions (*sub-operations), for example, Create, Update, Upsert, and Delete, and then *associate those interactions with business objects in a single request* for the OData 4.0 Application. The following operations are available for the OData 4.0 Application: *Batch* - Batch requests allow grouping multiple interactions into a single HTTP request payload. Batch allows you to create, update, read, and/or delete entities of same or different entity types in a single request. *ChangeSet* - A change set is an atomic unit of work consisting of an unordered group of one or more data modification requests. ChangeSet allows you to create, update and/or delete entities of same or different entity types in a single request. Note that business objects and Interactions appear only for certain Applications and Operations. Further, for some operations, for example, for the *Retrieve Contained Or Derived Entity* operation in the OData 4.0 Application, Integration Cloud displays nested business objects. You can expand the nested business objects to display the child-level objects.

Added Item	Description
New Applications	The following Applications are added in this release: • *Amazon Kinesis* - Amazon Kinesis is a managed service that scales elastically for real-time processing of streaming big data. The most common Amazon Kinesis use case scenario is rapid and continuous data intake and aggregation. • *Twilio* - Using the REST interface, Twilio allows you to programmatically make and receive phone calls and send and receive text messages.
Help navigation and user interface changes	Page titles and help icons have now been removed from the specific user interface pages. To access context-sensitive help information, click on the icon from the navigation bar.
Recipes page enhancements	*Pagination* The Recipes page is now paginated to identify the sequential order of the pages. You can also select the number of recipes to be viewed per page. *Search* You can now search Recipes by Application names.
Registration page changes	The field name of the email address provided during registration has been changed to *Work Email Address*.

Added Item	Description
New Services	New services have been added under the following categories: *Date* • currentNanoTime • elapsedNanoTime • formatDate • getCurrentDate *Document* • searchDocuments *List* • addItemToVector • vectorToArray *Math* • addObjects • divideObjects • min • multiplyObjects • subtractObjects • toNumber *String* • HTMLDecode • HTMLEncode *Utils* • generateUUID

Changed Item	Description
Submit option is deprecated while executing Integrations from an external system	You can use the *run* option in the Request URL while executing an Integration from an external system, that is, if the Integration is enabled to be invoked over HTTP.

Release 4.5.0

Added Item	Description
Create REST APIs	Integration Cloud allows you to write integration logic to integrate different types of applications. This logic can be exposed to the external world using REST APIs.
	These REST APIs can be created by using an existing set of Integrations (from scratch) or by using a file containing the Open API specification (formerly known as the Swagger specification) as a template.
	A REST API consists of many Resource Operations and each Resource Operation has a Path, one or more HTTP Methods, and an associated Integration.
	A REST Resource Operation can be tried out from the Swagger screen of a REST API. When the Resource Operation is invoked using the HTTP Method, the associated Integration gets executed.
Application enhancements	Following are the Application enhancements: • Some Applications, including custom REST Applications now allow two-way SSL authentication by providing keystore and truststore aliases in the Account Configuration section. • The Account configuration field *Use Chunking* has been added in many Applications. • For custom REST Applications, *binary* has been added as the content type for the Request/Response body. Binary data can be sent as an input to a REST operation.
Refresh SOAP Applications	You can now update a SOAP Application by specifying a new WSDL URL or by uploading a new WSDL file.

Added Item	Description
New Blocks and Expressions in Orchestrated Integrations	Following are the new and modified blocks and expressions:

New Blocks

- *switch* block in *Control Flow* category. The *switch* block can be mutated for multiple *cases* and one *default*.

- *Throw error "..."* block in *Control Flow* category.

- *Field exists* expression in *Expressions* category.

Modified Blocks

- *if* block has been enhanced and can now be mutated.

- *if else* block has been deprecated and is not available from this release but Integrations currently using the *if else* block will continue to work successfully.

- *Exit Integration* has been renamed to *Exit Integration signaling success* and *Exit Integration with failure* has been renamed to *Exit Integration signaling failure*.

Ability to delete assets used by an Integration	You can now delete custom Applications, Accounts, Operations, Integrations, Reference Data, and Document Types assets available in the *Development* stage, even if those assets are referenced by other assets. Note that if assets used by an Integration are deleted, you will not be able to pull the Integration into subsequent stages or export the Integration. After deleting an asset, the deleted asset reference is highlighted (⚠) in the user interface.
Ability to delete Users	You can now delete users provided you have the *User Management* permission. Note that you cannot delete your own user profile. If a user is deleted, then the user cannot be recovered and all assets created or modified by the user will appear in the *Created By* and *Modified By* columns as *Unknown User{first two characters of the first name and last name}*.

Added Item	Description
New Services	The following new services have been added under the *IO* category: • *streamToString* - Creates a string from data that is read from an InputStream. • *stringToStream* - Converts a string to a binary stream. The following new services have been added under the *Flow* category: • *clearPipeline* - Removes all fields from the pipeline. • *getHTTPRequest* - Gets information about the HTTP request, received by Integration Cloud. • *setHTTPResponse* - Sets the HTTP response information to be returned by Integration Cloud.
Terminate in-progress Integration executions	You can now click the *Terminate* option available in the Execution Results details page to terminate *in-progress* Integration executions provided you have the Execute Integration permission. The *Terminate* audit log entry is created.
New Application	A new Application, *Anaplan*, has been added in this release. Anaplan allows you to interact with data in your models and securely upload files, download files, import and export data, and run actions programmatically.
Viewing assets and services in various stages	Integration Cloud now displays the current active stage on the navigation bar: Stage In View / Test ⚙ ❓ 👤. The stage in view can be changed in the *Stages > Change Stage To View* page. You can view assets and services in each stage and *view only those assets that are available in the selected stage*.
API Management permission	The *Manage Promotions* permission has been added under *Functional Controls* and allows you to add, modify, and delete API Gateway stages, or move API Gateway assets from the source stage to one or more target stages, or to rollback an asset promotion that is already available in the target stage at any time.

Added Item	Description
Redesigned user interface	The user interface has been redesigned and has a new look and feel in this release. The functions that can be accomplished have been reorganized for improved usability. • *Settings* menu can be accessed by clicking on the ⚙ icon. • *User Profile*, *My Profile* and *Logout* menu items can be accessed by clicking on the 👤 icon. • *Help Topics*, *TECHcommunity* website, and the *About* page can be accessed by clicking on the ❓ icon. • *Applications* and *Keys & Certificates* have been moved under the *Connect* menu. • *Stages* tab has been newly added in this release and contains *Change Stage To View, Deploy, and Manage*. The *Deploy* option is also available on the *Integrations* page. • *Recipes* tab has been moved under *Develop*. • The *Pull* functionality has been moved from the *Integration Details* page to the *Deploy Assets* (*Stages > Deploy*) page. This page allows you to move assets from one stage to another stage. • Stage selection drop-down list box has been removed from the *Dashboard* and *Execution Results* pages.

Release 4.1.0

Added Item	Description
Export and Import Integrations	Integration Cloud now allows you to export Integrations from one tenant and import those Integrations to another tenant. You can import only those Integrations that are exported from Integration Cloud. You must have the "Export" permission to export Integrations.
Home page enhancements	The Home page has been redesigned and has a new look and feel in this release. The functions that can be accomplished from the Home page have been reorganized for improved usability.

Added Item	Description
Customizing Integration Cloud	You can now customize the Integration Cloud user interface by changing the logo, colors, font face, copyright information, and the "About" page contents. The behavior or functionality of Integration Cloud cannot be changed.
Email opt-in during new tenant registration	The Email opt-in field is now added that will enable you to receive marketing materials from Software AG. You can unsubscribe from the updates at any time.
SSO login capability	If you have already configured SSO, the "SSO Login" option now appears in the login page. Clicking this option redirects you to the Identity Provider (IdP) login page. After you provide the IdP login credentials, you will be logged into Integration Cloud.
Redesigned test results and Orchestration layout	The test results panel has been redesigned to provide a larger work space in this release. Also, the "Cancel" button in the Orchestrated Integration page has been changed to "Exit" and the Help icon has been moved to the lower left-corner of the page.
Logged fields for business data	Integration Cloud now allows you to select any number of fields to log business data from the Operation and Integration signatures.
New Applications	The following Applications are added in this release: • DocuSign • Amazon DynamoDB
New Services	The new *Storage* block is added in this release and the following services are added under the *Storage* block: *add, get, keys, lock, put, remove,* and *unlock.* The *objectToString* service is added under the *String* block and it is also available as a transformer service.
New Recipes	39 new Recipes integrating Coupa, NetSuite, ServiceNow, Salesforce, Amazon S3, FTP server, Jira, Sugar CRM, Concur, and Zendesk have been added in this release.

Added Item	Description
Prevent concurrent executions	Integration Cloud now allows you to skip the next scheduled Integration execution if the previous scheduled execution is still running by selecting the "Prevent concurrent executions" option in the Schedule Execution window.

Release 4.0.0

Added Item	Description
Alert rules	You can now create alert rules and send email messages to selected users for one or more Integrations based on Integration execution results (Failed, Completed with Errors, or Completed Successfully) for different stages (Development, Test, Pre-live, and Live). Email messages are sent only if there are executions that match the alert rules.
Restart/Resume Integration executions	Integration Cloud now allows you to restart or resume Integration executions. You can enable Integration executions to be restartable or resumable by selecting the *Enable executions to be restartable* option in the Integration Details page. From the Execution Results page, based on the execution status, you can either resume or restart the Integration execution.
Orchestration UI changes	The Orchestration User Interface has a new look and feel in this release. The block shapes, colors, and icons have changed but there is no change in the Orchestration functionality.
New Applications	The following Applications are added in this release: • Atlassian Jira v2 • IBM Watson Tone Analyzer v3.0 • Google Analytics Reporting v4.0 • Google Analytics v3.0 • Coupa v19 • Google Prediction • NetSuite 2016_2 • Siemens MindSphere v2.0

Added Item	Description
Add custom fields to operations	For some operations of certain Applications, for example, Coupa, you can now add your own fields. Such fields are called custom fields.
getSessionInfo service enhanced	The getSessionInfo service is enhanced in this release to include the *executionResultReference* parameter in the response under $session. The *executionResultReference* parameter returns the current Integration execution result reference identifier. For example, you can pass the identifier to an on-premises operation and trace the Integration execution.
New Recipes	16 new Recipes integrating Cumulocity, ServiceNow, IBM Watson Tone Analyzer, Zendesk, Salesforce CRM, Marketo, Google Sheets, Slack, MS Dynamics CRM, and Magento have been added in this release.
Orchestrate containerized Integration Server services	You can now invoke services exposed by Integration Servers running in Docker containers from Integrations.
API Management permissions	Integration Cloud now allows you to create and manage API Management Access Profiles provided you have the required API Gateway Cloud and/or API Portal Cloud licenses. The following predefined Access Profiles are provided: • API Gateway Administrators • API Gateway Providers • API Portal Administrators • API Portal Providers

Deprecated Item	Replacement, if any
Coupa v17	Coupa v19
NetSuite 2014_2	NetSuite 2016_2

Release 3.6.0

Added Item	Description
Create REST Applications	Integration Cloud now allows you to define REST Resources and Actions and create REST Applications.

Added Item	Description
New Recipes	New recipes are added in this release. The recipes page now displays the number of times each recipe has been used to create Integrations. The page also displays the Applications referenced in the recipe.
New Applications	The following Applications are added in this release: • Apache Solr • Concur • Coupa • Cumulocity • SugarCRM • Zendesk
Double-click to set field values	You can now double-click a field while mapping and set a value for that field.
View Docker Image Tag label details	You can now view the Docker Image Tag label details on the *Image Tag* details page.
View the number of available Docker containers	You can now view the number of available Docker containers in the repositories screen based on your license permissions.
Password Policy changes	The following fields are added in the *Password Policy* page: • Password Never Expires for • Inactive Session Timeout
SOAP Account configuration changes	Protocol, Host, and Port fields in the SOAP Account configuration page are replaced with the *URL* field.
Save Integration execution test results	You can now either open or view an Integration execution test result entry or save it locally in JSON format. You can also delete the selected test result entry from the *Test Results* page.

Added Item	Description
Licensing model changes	Licensing model has now changed and the details are as follows: • Licensing is now based on the number of Applications and not on the number of Accounts created. • If an Application has an Account, then the Application is considered as being used. • The total number of Applications allowed is 2 for Basic, 5 for Advanced, and 8 for Enterprise editions. • You can now use all released versions of an Application, that is, you can use both version 29 and 31 of Salesforce CRM. The Application count will still be considered as 1. • The Application count will be considered as 1 for any number of custom SOAP or REST Applications created in Integration Cloud. • The "Applications" page message now displays the total number of allowed Applications and the total number of Applications used. On-premises applications are not counted as part of the total number of applications allowed.
Redesigned Registration page	The *Registration* page has a new look and feel in this release. Further, the following fields are added: • Your Role • Company Size • Is your interest based on

Release 3.5.0

Added Item	Description
Recipes	You can now use pre-built Orchestrated or Point-to-Point Integration templates to create an Integration. Recipes are based on the most common integration needs and can significantly reduce the effort required to build an Integration. You can also preview the recipe description and its assets before using the recipe.

Added Item	Description
Alphanumeric characters on the New Registration, Reset Password, and Login screens	Integration Cloud now displays distorted alphanumeric characters on the "Password Reset" and "New Registration" screens. Further, if you are not able to successfully login after a few attempts, you are required to enter the distorted alphanumeric characters that appear on the login screen.
Password in a follow-up email	After you submit the new registration form and as soon as the registration process is complete, an email is sent to the email address you provided during registration. A follow-up email is now sent that contains the temporary password. The follow-up email is also sent for "Password Reset".
New Applications	The following Applications are added: ▪ Google Cloud Storage ▪ SAP S/4HANA Marketing Cloud
Enhanced Integration Scheduling	You can now define a recurrence pattern to schedule integration flows at 1 minute intervals.
New types Integer, Short, Long, Float, Double, and Boolean are introduced for defining the data contained by a field.	While defining fields of a Document Type, you can now specify Integer, Short, Long, Float, Double, and Boolean as types.
Enhanced Operations screen	"Show Signature" and "Test" options are now available on the Operations screen. The "Show Signature" option allows you to view the Input and Output signature of all predefined and custom Operations. The "Test" option allows you to test all predefined and custom Operations. Both Trigger and Action Operations can be tested. If an operation does not have an input signature, the input fields are not displayed.
Enhanced Business Data logging	Integration Cloud now allows you to capture business data for all (successful and error) transactions. The "Always" option is added in the "Select Business Data to log" dialog box, which allows you to *always* log select business data from the Operation and Integration signature.

Added Item	Description
Enhanced Dashboard	Integration Cloud Dashboard displays the number of in-progress Integration executions. You can now click on the number to view the in-progress Integration execution details.
Reference Data in Point-to-Point Integrations	Reference Data is now available in Point-to-Point Integrations while transforming data.

Changed Item	Description
getSession	Name of the "getSession" service is changed to "getSessionInfo". The service is available under the Services > Flow block.

Release 3.1.0

Added Item	Description
Redesigned Container management UI	Container Repository and Services screens are reorganized for improved usability. Container now includes elastic volume for Docker application data persistent.
Run Universal Messaging (UM) as a container	Universal Messaging (UM) can now be run as a container in Integration Cloud. For creating the UM Docker images supported by Integration Cloud, you must run the Integration Cloud UM script to modify the base image before it is uploaded into Integration Cloud.
New Service	"getSession" service is now added under the Services > Flow block.
Redesigned Execution Results screen	You can now view execution results for all Integrations in all stages for a specified time period. Execution status filters are provided to filter the results. Numbers inside the status filter circles indicate the sum of the execution counts for that status. Detailed screens are provided to view the number of documents processed by an Integration along with information about the Operations for a selected Integration. You can also view the business data logs when errors occur along with custom messages from the Execution Results screen.

Added Item	Description
Redesigned Dashboard screen	The Dashboard now displays the total number of documents processed (counted using the countProcessedDocuments service) by an Integration or for all Integrations. It also shows Integration executions that have completed with errors.
Alerts on Welcome screen	You can now view alerts on the Integration Cloud Welcome screen. High severity messages appear in red color. Medium severity messages, for example, deprecated information, appear in yellow color. Low severity messages, for example, scheduled and upgrade messages, appear in blue color.
New Services	groupDocuments, documentToBytes, bytesToDocument, and sortDocuments services are added under the Document block. countProcessedDocuments service is added under the Flow block.
New Applications	The following Applications are added: ▪ Avalara AvaTax ▪ Google BigQuery ▪ Magento eCommerce Platform ▪ OData v2.0 ▪ ServiceNow Enterprise Service Management (Geneva) ▪ Slack
Copy fields and Paste fields	You can now copy a field from a pipeline view or a Document Type view and depending on the context, paste either the field or the field path.
New Control Flow blocks	"Exit Integration", "Exit Integration with failure", and "Break out of loop" blocks are now added under the Control Flow category.

Deprecated Item	Replacement, if any
ServiceNow Enterprise Service Management version Calgary.	ServiceNow Enterprise Service Management version Geneva.

Release 3.0.0

Added Item	Description
Container management service	You can now package existing webMethods Integration Server services as a Docker image or a repository and upload them in the Integration Cloud registry using the Docker CLI. From the Integration Cloud User Interface, you can create Docker containers from those repositories and start, stop, or delete the container services.
Support for upgrading Accounts and Operations	You can now upgrade Accounts and Operations from a lower version to a higher version. If an upgrade is available, the upgrade notification text appears on the Applications screen beside the Application. In this release, only Salesforce CRM Application can be upgraded from v29 to v31.
Support for complex fields	Integration Cloud now allows you to select nested data fields while creating a custom operation.
Enhanced look and feel for the User Interface	Integration Cloud User Interface has a new look and feel in this release. The screen layout and width has changed but there is no change in the User Interface functionality.
Field level help texts	For some fields in Integration Cloud, you can now point the mouse cursor to the help icon (❓) next to a field, and view the field level help text.

Deprecated Item	Replacement, if any
Salesforce CRM version 29 is deprecated.	Salesforce CRM version 31.

Release 2.6.0

Added Item	Description
Performance data on Welcome screen	You can now view performance data regarding Integration executions on the Integration Cloud Welcome screen.
Dashboard for monitoring	Dashboard provides a centralized and intuitive way to view and monitor Integration executions and performance details. You can quickly identify, diagnose, and address problems in Integrations. Dashboard is available on the "Monitor" menu.

Added Item	Description
Integration Cloud User Interface	"Audit Log" and "Execution Results" are now available on the "Monitor" menu.
Business Data Logging	Integration Cloud now allows you to log select business data from the Operation and Integration signature. Values of logged fields can be viewed in the "Business Data" section in Execution Results. You can also create aliases for the logged fields.
New Service	The "logCustomMessage" service is added under the Flow block.
Download Execution Results	You can now download execution results from the Execution Results screen.
SAML 2.0 based Single Sign-On (SSO)	Integration Cloud now supports Single Sign-On (SSO) that allows users to authenticate themselves against an Identity Provider (IdP). Both Service Provider and Identity Provider initiated SSO capabilities are supported.
Federation ID for SSO	You can now enter the *Federation ID* in the *User profile > Basic* tab if your Identity Provider passes the Federation ID for Single Sign-On.
Secure File Transfer Protocol (SFTP)	You can now connect to a SFTP server using the new SFTP Application and download files from or upload files to an SFTP-enabled server using the secure file transport channel.
Amazon Simple Notification Service (SNS)	An additional Application for Integration Cloud. Integration Cloud connects to Amazon Simple Notification Service (Amazon SNS) using the REST interface and allows you to publish messages and deliver them to subscribers and other applications.
SAP Cloud for Customer (C4C) OData v2.0	An additional Application for Integration Cloud. Integration Cloud connects to SAP Cloud for Customer (C4C) including SAP Cloud for Sales, SAP Cloud for Service, and SAP Cloud for Social Engagement solutions using the REST interface, and allows you to do standard CRUD operations on business objects by connecting to the OData Service endpoint. The SAP Cloud for Customer (C4C) OData v2.0 Application is a Beta candidate.

Added Item	Description
Marketo	An additional Application for Integration Cloud. Integration Cloud connects to Marketo using the Marketo REST API and allows you to create, retrieve, and remove entities and data stored within Marketo.

Release 2.5.0

Added Item	Description
Added new services under String block	The following new services are added: isNumber, isAlphanumeric, isNullOrBlank, isDate, substitutePipelineVariables, compareStrings.
Added a new FTP predefined operation	renameFile operation is added for FTP Application.
Alfabet	An additional Application for Integration Cloud. Integration Cloud connects to Alfabet using the Interface for RESTful Web Services Version 1 and supports working with the various object types as defined in Alfabet. You can use it to query, retrieve, create, update, and delete objects of any type, and also manage relations between the objects.
Ability to connect to Salesforce using Partner SOAP API version 31 and Salesforce Bulk API version 31	Integration Cloud can now connect to Salesforce using the Partner SOAP API version 31 and the Salesforce Bulk API version 31.
Added a new Salesforce CRM predefined operation	uploadDataToWave operation is added for Salesforce CRM.
Download Integration Cloud Readme	You can now download the Integration Cloud Release Readme from the *About webMethods Integration Cloud* page (*<Logged in User>* > About > About webMethods Integration Cloud).

Changed Item	Description
Integration Cloud User Interface	Integration Cloud has a new look and feel in this release. The location of the menu has changed but there is no change in the User Interface functionality.

Release 2.1.0

Added Item	Description
Added new services under Date, Document, List, and Flow blocks	The following new services are added: compareDates, incrementDate, insertDocument, deleteDocuments, documentListToDocument, documentToDocumentList, appendToDocumentList, appendToStringList, sizeOfList, stringListToDocumentList, getLastError.
Test Integration executions in real time	You can now test the Integration execution in real time and view the execution results in the "Test Results" pane.
Support for document references	You can now create pipeline variables as document references, create document types comprising of document references, and also define the signature of Integrations comprising of document references.
Connection status for FTP and SOAP Accounts	You can now select "Test Connection" if you want to view the status of the connection for an FTP or custom SOAP Application. In earlier releases, Integration Cloud automatically verified the connection status.
Integration inputs during scheduling	You can now use "Schedule" or "Run Now" options available in the Integration details page and provide inputs to the Integration based on the defined input signature.
Enhanced Reference Data signature	You can now filter the Reference data by providing an appropriate "matchCriteria". The output of Reference Data used in an Integration is a list of documents that match the specified "matchCriteria". Reference Data signature is derived from the column names of the uploaded text file. The root element in the output of Reference Data created from Integration Cloud version 2.1.0 has the same name as the one given to the Reference Data.

Added Item	Description
Map an indexed item of a String List, Document List, Document Reference List, or Object List	You can now add an indexed item to a String List, Document List, Document Reference List, or Object List and also map the indexed item. You can delete the selected indexed item provided the indexed item or none of its child fields are mapped.

Release 2.0.1

Added Item	Description
Microsoft Dynamics CRM	An additional Application for Integration Cloud. Integration Cloud connects to Microsoft Dynamics CRM 2013 using the Microsoft Dynamics CRM SOAP API. You can manage CRM data and access metadata that defines the specific CRM instance to which you are connecting.

Release 2.0

Added Item	Description
Create and edit Document types	You can now create a Document type and use it to define the input or output parameters for an Integration.
Specify input/output signatures	You can now declare input and output parameters for an Integration using the Input and Output tabs.
Invoke an Integration from another Integration	A new "Integrations" block is added, which displays the list of Integrations created in Integration Cloud. You can now invoke an Integration from another Integration. When copying integrations from one stage to another, all the referred Integrations and their dependents are also copied. You can also edit the referred Integration, which will open the Integration in a new tab.
Improved Orchestrated Integration User Interface	Blocks are reordered for improved usability.
Perform pipeline variable substitution	You can now perform pipeline variable substitution if you want to replace the value of a pipeline field at run time.

Added Item	Description
View execution results within Integration Cloud	You can now view the last five execution results in the Integration details page.
File Transfer Protocol (FTP/FTPS) Application	You can now connect to a FTP server using the new FTP/FTPS Application and download files from or upload files to the FTP-enabled server.
Added new services	New services are added under Flat File, JSON, and XML in this release.
WSDL file selection for a custom SOAP Application	You can now select a WSDL file from your local file system while creating a custom SOAP Application.
Ability to upload custom Application logos	You can now select a different icon for your custom SOAP Application.
Support for Partner or agent	You can now define Partner users. Even if "Allow User Interface Access" permission available under Access Profile > Administrative Permissions > Account Controls is not enabled, a Partner User can still perform on-premise tasks.
View and download Audit Logs and update the retention period	You can now view and download audit logs related to additions, deletions, updates, export, schedule, login, logout, password changes, record access attempts, access violations, deployments, and so on for a user.

Release 1.6.0

Added Item	Description
Advanced Security	Integration Cloud now allows you to upload Keystores, Truststores, and Partner Certificates. These can be applied while creating an Account for a Custom Application.
Custom SOAP Applications	Integration Cloud now allows you to create Custom SOAP Applications. Custom SOAP Applications enable you to access third party web services hosted in the cloud or on-premise environment. The Custom SOAP Application uses a WSDL that is accessible through publicly or locally accessible URLs.

Added Item	Description
Web Service Security	Integration Cloud now allows you to create Custom SOAP Applications with third party Web Services that have WS-Security policies annotated in them. The WS-Security policies are automatically acknowledged in Integration Cloud if those policies are enforced on the Web Services.
New Services	findDocuments, fuzzyMatch, bytesToStream, and streamToBytes services are added to Integration Cloud in this release.
Reference Data	Integration Cloud now allows you to upload Reference Data from a text file containing tabular data separated by a character. Reference data is a collection of key-value pairs, which can be used to determine the value of a data field based on the value of another data field. You can access the uploaded Reference Data in Orchestrated Integrations as a list of documents, by using the Reference Data block and providing an appropriate name.
Add fields to the pipeline	Integration Cloud now allows you to add a field to the pipeline while creating an Orchestrated Integration.

Release 1.5.1

Added Item	Description
Remove field *Restore* field	You can drop or remove an existing pipeline input field. Once you drop a field from the pipeline, it is no longer available to subsequent services. The field which is removed can be restored.

Release 1.5

Added Item	Description
Orchestrated Integration	Integration Cloud now supports advanced integration scenarios involving multiple application endpoints, complex routing, and orchestrations requiring multiple steps. Using a graphical drag and drop tool, you can create complex, orchestrated integrations and run them in the Integration Cloud environment.

Release 1.2

Added Item	Description
Better logging and auditing capabilities	For better debugging of the integration execution failures, more information is now provided in the "Execution Results" page.
Application Account enable and disable functionality	You can now configure the Account details correctly in a stage. If you have configured the Account details incorrectly in any stage, the stage will appear in red color in the "Connectivity Status" column. If an Account is configured correctly in a particular stage, then that stage will appear in green color, and if an Account is not configured in a particular stage, then that stage will appear in white color.
Ability to expose an Integration as a REST service	You can now trigger the execution of an Integration from an external system. This feature provides you with one more option to trigger Integration executions from a software application, for example, a REST Client, apart from manual and scheduled integrations from the user interface.
Amazon Simple Storage Service (S3)	An additional Application for Integration Cloud. Integration Cloud connects to Amazon Simple Storage Service (S3) using the REST interface and provides read, write, and delete access to the Amazon S3 buckets and objects within the Amazon instance.
Amazon Simple Queue Service (SQS)	An additional Application for Integration Cloud. Integration Cloud connects to Amazon Simple Queue Service (SQS) using the REST interface and provides access to the SQS objects within the Amazon instance.
StrikeIron Contact Verification	The StrikeIron Contact Verification Application has been added in this release.
Predefined operations added in Salesforce CRM	*getDeletedBusinessObjectIDs* - Fetches the ID field of business objects deleted within the provided timeframe.
	getUpdatedBusinessObjectIDs - Fetches the ID field of business objects updated within the provided timeframe.

Salesforce Bulk Data Loader	An additional Application for Integration Cloud. Integration Cloud connects to Salesforce using the Salesforce Bulk API version 29 and supports Job and Batch resources. You can use it to create, update, query jobs and batches, and operate on large number of records asynchronously by submitting batches which are processed in the background by Salesforce.
SuccessFactors HCM	An additional Application for Integration Cloud. Integration Cloud connects to SuccessFactors using the SuccessFactors web service SFAPI, and performs SuccessFactors operations (Create, Read, Update, Delete, Fetch, Insert, Query, queryMore, and Upsert) over HTTP, using synchronous SOAP protocols. This Application has been tested with the following business objects: GOAL$1, GOAL$2, GOAL$3, GoalMilestone$2, GoalMilestone$3, GoalTask$2, GoalTask$3, MatrixManager, and CustomManager.
ServiceNow Enterprise Service Management	An additional Application for Integration Cloud. webMethods Integration Cloud connects to different areas (Incident, Problem, and Change management) of ServiceNow using the Calgary version of the ServiceNow API. You can create incidents, get details of created incidents, and update and delete them. Similar operations are available for problem and change management cloud applications.

Release 1.1

Removed Item	Replacement, if any
StrikeIron Contact Verification	The *StrikeIron Contact Verification* Application has been temporarily removed. If you have created StrikeIron Accounts, Custom Operations, and Integrations, these will not function. The Application may be reintroduced in a future release.

8.0   Copyright Information

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