Oracle® Cloud

What's New in Oracle Digital Assistant

Release 24.06

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What's New in Oracle Digital Assistant

Here's an overview of recently-added features and enhancements in Oracle Digital Assistant.

Topics:

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- Release 20.12
- Release 20.09
- August, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- June, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- May, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- April, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- March, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- February, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- January, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- December, 2019 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- October, 2019 (Oracle Digital Assistant on Oracle Cloud Platform)
- October, 2019 (Oracle Digital Assistant on Oracle Cloud Infrastructure)
- June, 2019 (Oracle Digital Assistant on Oracle Cloud Platform)
- February, 2019 (Oracle Digital Assistant on Oracle Cloud Platform)
- November, 2018 (Oracle Digital Assistant on Oracle Cloud Platform)

Release 24.06

Feature, Enhancement, or Change

Impact

Web SDK:

- Video Embedding Support for Vimeo and Dailymotion Videos -Along with the links for YouTube videos that are already supported, the SDK now also supports embedding video links for videos from the Dailymotion and Vimeo platforms.
- Toggle Widget Visibility The new showWidget and hideWidget APIs allows the chat widget to be displayed or hidden on the page when it's in its collapsed or expanded state.
- Always Show the Send Button The new alwaysShowSendButton boolean flag enables the display of the send button even when there's no user input text.
- Enable Rich Text in the Connection Failure Message The SDK now supports passing in HTML to the connectionFailureMessage configuration to display rich text in connection failure messages.

Release 24.04



Impact

Batch Testing with Input Parameters: We've streamlined testing for multiple values in user messages by adding input parameters to test cases. Instead of duplicating the same test case for different values, you can now run multiple variations of the same test case by just defining an array of input parameter values. See Add Input Parameters for User Messages.

Web SDK:

- The new enableVoiceOnlyMode boolean flag allows users to interact in voice-only mode, eliminating the need to click the mic button after each bot message.
- Language option labels, when available, are now displayed in their respective languages.
- Autocomplete suggestions have been made more accessible.

iOS SDK:

 Single .xcframework File: We have merged the different frameworks into a single .xcframework file. (Previously, we shipped separate .xcframework files for Intel and M1 Chip Macs.)

Release 24.02

Feature, Enhancement, or Change

Impact

LLM Blocks:

We've enhanced Oracle Digital Assistant's LLM integration in the following ways:

- LLM Services Tab: This new tab in Settings > API Services simplifies work with your instance's LLM services. In addition, you can convert any REST services that were created for LLMs in prior releases to be explicitly recognized as LLM services.
 See LLM Services.
- LLM Interactions Tab in the Conversation Tester: This new view
 of LLM state execution enables you see both the model's output
 and the actual prompt with the variable values that the model
 received. It also shows you the number of retries required for
 validation, the number of turns required for the final output, and any
 errors that occurred during the LLM processing.
 See LLM Interactions in the Skill Tester.
- You no longer need navigate several levels of nesting in the Conversation tab's Variable tree to see the LLM interactions.

New Oracle Generative Al Transformation Handlers for Text Generation and Summarization: We've expanded our support for the Cohere models that are accessed via the OCI Generative Al service by adding transformation handler templates for the cohere.command, cohere.command-light, and meta.llama-2-70b-chat models. In addition to the text generation provided by these models, we've also expanded our LLM capabilities to include summarization with the introduction of a transformation handler for the summarization properties of the cohere.command model.

See LLM Transformation Handlers.



Impact

Skill Tester Enhancements

- Testing for Inbound Events and Individual Flows: You can now
 directly test inbound events and individual flows from within the
 Conversation Tester for both the skill and digital assistant. For
 event testing, you can trigger a conversation with an event, or
 interject the event at a later point at a later point in the
 conversation.
 - See Track Conversations.
- Importing and exporting test suites.
- Importing batches of test cases.

Web SDK:

- Resizable Chat Widget: The new enableResizableWidget configuration allows users to dynamically resize the chat widget.
- HTML entities like  can now be rendered in user messages.

Release 23.12

Feature, Enhancement, or Change

Impact

LLM Blocks: The user feedback for thumbs down ratings has been enhanced. Now when a user gives a thumbs down rating to an unsatisfactory LLM response, they are prompted with a short multiple choice feedback form that allows them to choose the issue that caused the answer to fall short, such as a lack of relevance, appropriateness, or accuracy. See User Ratings for LLM Content.

For existing skills, if you have feedback enabled in the Invoke Large Language Model component, this form will appear when the user gives a thumbs down rating.

Conversation Tester: There are two new test case enhancements: test suites and detailed test run results. Prior to this release, you could only add test cases to the Default Test Suite. Now you can create your own to partition your testing. Along with the test suites, we've enabled more detailed results for failed test cases so that you can compare and resolve the actual and expected results from the top-level message node down to the postback node. See Test Cases.

New Transition Action: The system.nonSequitur.onResume transition action has been added to provide alternate navigation for a state when the conversation returns to that state after having handled a non sequitur. See Transitions.

Web SDK:

- Now supports rendering custom single-select lists in editable forms. Users can now search within a list, navigate through the filtered list options, and select from among them.
- Popup Actions We now support pop-up actions that open a dialog window after the user clicks an element. See Actions.
- Display Type for Actions The new displayType action property enables you to render different types of actions (buttons, links, or icons). See Actions.
- Fixes a security vulnerability, mitigating the risk of DOM-based XSS attacks by sanitizing user input before displaying it on the page.



Release 23.10

Feature, Enhancement, or Change **Impact** LLM Blocks: You can now add a generative AI capability like summarization, sentiment analysis, and small talk whenever you need it in your dialog flow using the new Invoke Large Language Model (LLM) component. This component handles interactive transactions, such as multi-turn refinements, the back-and-forth exchanges between the user and the LMM that hone the LLM output through rounds of user feedback. You can also use LLM components to collect out for downstream use. The LLM component's built-in validation provides guardrails against vulnerabilities like prompt-injection attacks that bypass the model's content moderation guidelines. See LLM Blocks in Skills. **Zoom App channel:** There is a new channel for incorporating a digital assistant into Zoom Meetings video conferences through the Oracle Digital Assistant for Zoom app that is available in the Zoom Marketplace. See Zoom App. Automated Data Purge: You can now schedule archive and purge tasks at regular intervals using the Data Management auto purge preferences. Using these preferences, you can implement your document retention policy's requirements for automatically deleting data that has fallen outside of the document retention period and create an audit trail that fulfills operational and legal requirements for automated data purging. See Schedule Automated Archive and Purge Tasks. New User Tracking in Insights: Starting with this release, User Metrics reporting now tracks new users (the users who have never previously interacted with either a skill or digital assistant). See Enable New User Tracking. Bots Node SDK: Support for LLM components and rich form layouts have been added. MvSQL private trust support for SQL Dialogs: You can now register MySQL as a data service using a private CA certificate. SQL Dialogs improvements: In SQL Dialog skills that are based on Applies to skills that platform version 23.10, there are the following improvements: are on platform Abbreviated numbers like "2.5K" are resolved correctly. version 23.10 (or higher). Queries with consecutive values of different type are understood (e.g. "show Chicago salesmen" could be understood as "show employees where the location is Chicago and the job is salesman". Order by multiple attributes (show all employees ordered by salary and hire date). Order by multiple conditions (show employees earning more than 1000 and less than 2000). Grouped by multiple attributes (show number of employees by job, location, and manager).

Release 23.08

Date/Time Enhancements: In user utterances that include a month,

the resolution process considers the year value in the context of the

utterance. For example, for the phrase "show results for October and

December in 2021", the year for both months should resolve to 2021.



Applies to skills

based on platform

version 23.10 (or

higher).

Feature, Enhancement, or Change	Impact
Apple Messages for Business channel: There is a new channel for the Apple Messages for Business service, including support for its List Picker, Time Picker, Quick Reply, and Form message types. See Apple Messages for Business.	
Utterance Tester: You can now use the Utterance Tester to verify that any utterances that you've added to the help, exit, or unresolvedIntent built-in system intents have not compromised the routing within a digital assistant. See Add Test Cases for System Intents.	
Slack channel: It is now possible to configure Slack channels to allow messages to be sent to the Slack app without user mentions of the Slack app. See Enable Messages Without User Mention in Slack Group Chats.	
SQL Dialogs: The SQL Dialogs model in a skill now is tied to the platform version of the skill. Previously, if a new Oracle Digital Assistant release included updates to the SQL Dialogs model, existing SQL Dialogs skills would automatically use the updated model regardless of the platform version of the skill. The model for SQL Dialogs skills is now only updated when you update the platform version of the skill.	Skills with platform versions of 23.06 or earlier will use the 23.06 SQL Dialogs model. When a skill is upgraded to platform version 23.08 or higher, it will begin using that updated version of the SQL Dialogs model.

Web SDK: Support for advanced form layouts has been added.

Release 23.06

Feature, Enhancement, or Change	Impact
Editable forms: We've added a new user messaging template to the Visual Flow Designer that enables you to add cross-channel input forms. You don't need to add custom components or extensive channel-specific coding to add a form with a submit button and elements like input fields, date pickers, toggle switches, and select lists. Instead, whenever the conversation requires a transition from conversational back-and-forth to data input, you can insert a form message by just editing Markdown templates for the input fields. See User Input Form Messages.	
Utterance Tester: To make intent matching analysis even easier, we've added test suite filtering to the Intents report that lets you quickly find out how individual test suites fared in a given test run. See Filter by Test Suite.	
Insights: Insights reporting now provides metrics for a skill's user base that let you can find out how many users a skill has and how many of these users are returning users. See User Metrics.	



Impact

Strict Boundary Enforcement for ML Entities: To prevent the model from parsing ML entity input for system entity values, we've introduced the Strict Boundary option for ML entities. You can enable this option if the training annotations for an ML entity contain names, locations, numbers, or other content that can cause ML entity and system entity values to clash at runtime. See Exclude System Entity Matches.

Bots Node.js SDK: The MessageFactory class has been introduced to support new message types and new properties for existing message types. This class supercedes the MessageModel, which is now deprecated. See the version 2.67 release notes.

Release 23.04

Feature, Enhancement, or Change

Impact

OCI Language translation service support: You can now use OCI Language as a translation service for your skills and digital assistants. This enables you to use a wide variety of languages in your digital assistants without exposing conversation text to third-party translation services. See Translation Services in Skills.

Private Endpoint: This new feature enables you to connect from your skills to data and REST services that don't expose public endpoints. For example, you can set up a private endpoints to connect to an onpremises database, or a database running in an Oracle Cloud Infrastructure VCN, that you need to use for SQL Dialog skills. See Private Endpoint in the documentation.

Insights: You can now export logs for custom metrics Insights data as a CSV file for offline analysis. See Export Custom Metrics Data.

Web SDK:

- TTS Support: The Oracle Web SDK is now integrated with Oracle's own TTS service, which features high-quality natural voices. See Oracle TTS.
- Hotkeys: You can now configure keyboard shortcuts that enable users to perform actions with Alt Key combinations. See Keyboard Shortcuts and Hotkeys.
- Event Messages: We are introducing two new message types, inboundEventMessage and outboundEventMessage, to support event-based skill interactions.

Release 23.02



Impact

Utterance Tester: We've added metrics, more detailed reporting, and improved navigability to the test run results. Here are a few of the enhancements:

- The Overview report now gives you more insight into the test run's overall scores by providing a breakdown of these results on a pertest suite basis.
- The Intents report now has Confidence Pass and Confidence Fail metrics, which are averages of the confidence scores for all of the tests that passed or failed in a test run.

See Create Test Runs.

DA As An Agent:

- The DA as an Agent feature now supports integration with Oracle Fusion Service for live help chats with B2B customers.
- You can now use Web Chat for Service (WCFS), instead of inlays, as the chat client for DA-as-an-Agent digital assistants. WCFS is a version of the Web SDK that is tailored for DA-as-an-Agent digital assistants.
- You can now use the Incident Creation component to create a Service Request in Oracle Fusion Service.

Release 22.12

Feature, Enhancement, or Change

Impact

SQL Dialog skills: This new feature enables you to build skills that let users converse with a database using natural language. Queries against the database are formulated simply by asking questions. Here are some key aspects to the feature:

- There is a new entity type, Query Entity, that you can use to define a logical object model that is mapped to underlying database tables.
- A pre-trained, built-in Al model supports a wide range of out-of-thebox queries that are translated from natural language to SQL based on the logical model defined by the query entities.
- Custom training may be used to teach the built-in model new concepts.
- Routing data may be used to combine SQL Dialogs functionality with intent-based functionality within in a single skill or multiple skills within a DA.

See SQL Dialog Skills.

Enhanced Test Run Reporting: We've added new reports for evaluating the model's performance for a given test run. These reports, which replace and expand upon the Analytics report of prior releases, provide you with contrasting metrics for the model's overall accuracy in terms of end-to-end testing of each test case and its ability to accurately predict the expected intents at, or above, the skill's Confidence Threshold. See Create Test Runs



Feature, Enhancement, or Change Knowledge resources: The Knowledge feature for generating answer intents from FAQs now supports editing of the generated questions and answers with a visual rich text editor. In addition, lists and headers are now supported in answers generated from PDFs. See Generate Answer Intents from an Existing Knowledge Resource. Unified User Identity and User Consent: You can now enable linking of user identities across multiple channels so that they can have conversations across multiple channels. In addition, you can give users

Digital Assistant.

Typing Indicator for User-Agent Conversations: The client SDKs now support typing indicators that display on both the user and agent views. This enhancement to the live agent chat experience provides visual confirmation that both parties are engaged in the conversation. See the docs for the Web, iOS, and Android SDKs.

the options to consent to or opt out of this feature. See User Identity in

Other enhancements and changes include:

- Autocomplete for Apache FreeMarker Expressions: In Visual dialog mode, autocompletion is available for variable values and for resource bundle keys.
- Rich Text Editor Support for Answer Intents: We now provide an editor for answer intent responses that enables you to apply standard HTML text formatting and elements. See Create Answer Intents.
- Knowledge Search: You can now specify custom URLs for the links to answer details and search results.

Release 22.10

Feature, Enhancement, or Change	Impact
Knowledge resources: The Knowledge feature for generating answer intents from FAQs now supports local HTML documents. See Generate Answer Intents from an Existing Knowledge Resource.	
Identification of Unreliable Test Cases: You can now audit your test suites for test cases that are unreliable due to being within 5% of the confidence threshold. Small statistical changes introduced by data changes or different versions of the training model may cause the unreliable to test cases to flip from pass to fail or vice versa. See Unreliable Test Cases.	
DATE_TIME Subtypes in the Utterance Tester and Test Case Results: The subtypes of the DATE_TIME entity are identified in the Label View and the List View for both the Utterance Tester and the Test Results report for test cases.	Applies to any skill that uses the DATE_TIME entity.
Insights for External Events: The digital assistant-level Insights reporting now includes graphs and metrics that measure the volume and trends for both the external events that were relayed to a digital assistant's skills through the Events channel and the outbound application events published by the skills. See Event Insights.	



Feature, Enhancement, or Change	Impact
Fuzzy Match: Fuzzy matching for list value entities is now based on word stemming instead of on partial matching and auto correct. With fuzzy matching, a value match is based on the lexical root of the word. See Word Stemming Support in Fuzzy Match.	Applies to skills using platform version 22.10 or higher, including skills that have been upgraded from earlier platform versions.

Skill Store: A new sample digital assistant, called Financial.DigitalAssistant has been added to the Store. This digital assistant and its four skills highlight a variety of useful design and implementation practices, including composite bag entities, ML entities, visual flow design, test suites, handling of small talk, and using well-trained answer intents to answer FAQs. You can use this as a template of best practices to consider following in your own digital assistant development. See Sample Digital Assistants and Skills.

Intelligent Advisor: The Intelligent Advisor built-in component template now allows you to specify the ISO-4217 currency code that is used by the interview. When you specify the currency code, then the user only can input currency values in the formats that are allowed for that currency. See Intelligent Advisor Properties (for the Visual Flow Designer component) and System.IntelligentAdvisor (for the YAML version of the component).

Client SDK improvements, including:

- Custom Message Rendering for Web SDK: New samples added for OJET, React & Angular.
- Agent Integration for End Conversation: Now agents are notified when the user explicitly ends the conversation.
- Horizontal alignment of actions for Android & iOS SDKs
- Launch icon background customization for Web SDK.

Intent Annotations: You can tag intents with annotations and then sort a skill's intents by that annotation. See Create Intents.

Release 22.08

Feature, Enhancement, or Change **Impact** New Skill Quality Report: We've introduced the Skill Quality Report The Skill Quality that enables you to quickly check the size and shape of your training Report is data as well identify anomalies among the utterances. This report available for skills replaces the Data Quality report of prior releases. See Skill Quality on all platform versions. You can use this report as your data set grows throughout the Anomaly reports development process to make sure that your training data is compliant are available for with our guidelines. skills on platform 21.12 or later that use Trainer Tm and native language support.



Feature, Enhancement, or Change	Impact
Hierarchical Date Entity: A new system entity, DATE_TIME, has been introduced. This entity has a nested structure that lets you slot date, time, date and time, duration, interval, and recurring information. See Hierarchical Date Entity.	New skills created in Release 22.08 will not contain the DATE, TIME, DURATION, and SET system entities. Existing skills upgraded to 22.08 will continue to support these legacy system entities, though there may be some behavior changes.
Rich Text Formatting Across Multiple Channels: You can now use HTML tags to format skill messages, even for channels that have channel-specific markdown. This enables you write messages in one place for multiple channels. Any tags unsupported for a given channel are stripped out when passed to that channel. See Rich Text Formatting in Channels. In addition, answer intents that are created from Knowledge resources are generated with the HTML markup corresponding with the formatting in the source documents.	Can be used for both new and existing skills.
New Invoke Skill Component: In the Visual Flow Designer, you can use the Invoke Skill component to explicitly call a flow from another skill. See Invoke Another Skill from a Flow.	Applies to all dialog flows developed in Visual mode.
 Miscellaneous Visual Flow Designer Enhancements: Export and import dialog flows. Ability to add a preceding state before the first (or root) state. Ability to delete (and undelete) multiple states. 	These enhancements apply to all dialog flows developed in Visual mode.
Events and Notifications: You can now register event types in Digital Assistant and use the Notify User component in Visual dialog flows to notify the user when the event occurs. See External Events.	The Notify User component is only available in skills with dialog flows developed in Visual mode.
Test Suite Creation for Insights Retrainer and Data Manufacturing Reports: You can now create test suites for the Utterance Tester directly from the utterances queried in the Insights Retrainer and from completed Intent Annotation and Intent Validation Data Manufacturing jobs.	Can be used for both new and existing skills.
Enhanced Slot Filling: Prevents blanket value-slotting when multiple items in the composite bag have the same entity type. See Enhanced Slot Filling.	Available for all skills, but only switched on by default for new skills based on platform version 22.08 (or later).
Unified User ID Associated with OAuth 2 Account Link: A new property has been added to the OAuth 2 Account Link that enables the user context to be persisted context across channels.	Users are no longer scoped to a single channel. A user can start a conversation on one channel and resume it on another.



Impact

Client SDK improvements, including:

- Dynamic updating of the agent and user avatars at runtime in the iOS, Android, and Web client SDKs. You can customize the agent avatar, which now displays the agent name to users. If no agent avatar has been configured, an avatar that displays the initials of the agent name is created dynamically.
- Metadata JSON for the Native Client SDK for Web. The chat widget configuration settings schema for the Web SDK is now available in standard JSON schema format through a CDN, which can be used to create dynamic configuration screens.

Other enhancements and changes include:

- You can use the new Incident Creation component to create a B2C incident. For Visual Flow Designer, see Incident Creation. For ObotML, see System.IncidentCreation.
- The composite bag entity configuration has been updated with a new out-of-order extraction rule, Only when resolving the intent utterance, and the Updatable field, which enables Apache FreeMarker support for updating an already-slotted item value.
- ML entities now recognize entity values surrounded by, or adjacent to, special characters. Double quotation marks ("), commas (,), colons (:), equal signs (=), en dashes (-), and periods (.) are fully supported. Single quotation marks (') and semicolons (;) are partially supported.
- There are improvements in detection of out-of-domain and out-ofscope input in non-English languages.
- The Knowledge resource feature for creating answer intents now supports Arabic.
- The usability of the Insights Analytics report has been enhanced by the addition of descriptive text for its graphs and metrics. With this added information, you no longer have to rely on the documentation to understand trends and comparisons visualized in the report.
- You can use Knowledge resource feature to create answer intents in all skills, no matter the platform version.

Release 22.06

Feature, Enhancement, or Change

Additional Benefits and Impact

Call REST Service Component: There is a new built-in component that you can use to send REST requests to a backend service without having to implement a custom component. This feature is supported for visual dialogs only. See Access Backends Using the REST Service Component



Additional Benefits and Impact

Migrating Skills to Visual Dialog Mode: You can automatically migrate OBotML-authored dialog flows to the Visual Flow Designer for skills versioned 21.12 and higher. When the migration is completed, the dialog flow is transcribed to Visual Flow Designer in a new version of the skill. To assist with successful migration, the Findings dialog now includes a Migrations tab, which pinpoints any validation errors or syntax that will prevent migration and provides you with recommendations for fixing them. See Migrate to Visual Dialog Mode.

Visual Flow Designer Enhancements:

- The ability to copy and paste states in the dialog flow.
- Search window in the Add State dialog.
- The ability to create the next state on the fly from the Transitions page in the property inspector.

Intent Annotation and Intent Validation Jobs for Conversation Logs: You can now crowd source the review of the user input that's collected in the Retrainer report. For example, you can create an Intent Annotation job for utterances filtered by unresolvedIntent or an Intent Validation job for the utterances that match an intent. See Create Data Manufacturing Jobs from the Retrainer.

Knowledge Search Integration with B2B Service Knowledge Management: You can now create knowledge search services that integrate knowledge search with B2B Service Knowledge management and perform searches using the Knowledge Search component. See Knowledge Search.

Other enhancements and changes include:

- In the Knowledge feature, there are improvements in the detection of Q&A pairs in web pages and PDF documents.
- You can now test search terms for B2C Knowledge Foundation directly from the Knowledge Search Service page. See Test Knowledge Foundation Search Terms.

Release 22.04

Feature, Enhancement, or Change Role-Based Access: IAM *identity domains* are now available for Digital Assistant. See Create an Oracle Digital Assistant Service Instance. You can enable role-based access when provisioning a Digital Assistant instance.



Benefits and Impact

Service Instance API: The service instance API and SDKs have enhanced to enable:

- Programmatic creation and management of skills, digital assistants, channels, and other resources.
- Importing of packages of skills and digital assistants into an instance.
- Temporarily assigning of ownership of Digital Assistant instances to other services (using oda-instance-attachment operations) to carry out importing of packages and managing resources within the instance.

See the updated Service Instance API reference docs.

For information on using the Digital Assistant Service Instance API and its corresponding SDKs and CLI, see the Developer Tools and Resources page.

Visual Flow Designer: There is a brand new visual designer that enables you to:

- Design dialog flows with minimal code.
- · Create separate flows for each intent.
- Create sub-flows and reusable utility flows.

See the documentation and tutorial.

- Greatly simplifies design and maintenance of dialog flows.
- Currently is only available for newly-created skills.

Knowledge Documents: The new Knowledge feature enables you to quickly create answer intents from existing PDF files and web pages that contain text in a Q&A format. You don't have to manually format those documents, and non-Q&A text in the documents is ignored. See Generate Answer Intents from an Existing Knowledge Resource.

- Replaces the need for creating separate Q&A modules for FAQs.
- In conversations with the skill, the generated answer intents are resolved with NLP like regular intents.

Similar Utterances: This new tool in the Utterance Tester ranks all of the utterances in the training corpus in terms of how close they are to the test phrase. This enables you to evaluate whether the similarities between a test phrase and some of the top-ranking training utterances can be attributed to the test phrase resolving below the confidence level or to the wrong intent. See Similar Utterances.



Benefits and Impact

PII Anonymization:

- Support for anonymizing the PII (Personally Identifiable Information) values that are recognized for the PERSON, PHONE NUMBER, EMAIL, URL, and NUMBER entities has been extended to digital assistants. See PII Anonymization in Digital Assistants.
- You can now apply anonyms to the PII values in the exported Insights files. See the documentation for creating an export task in digital assistants and in skills.
- Potentially sensitive user data can be protected throughout the entire digital assistant-skill interaction.
- In Insights
 exports, you can
 ensure that all
 PII values are
 replaced, even if
 the skill or digital
 assistant PII
 anonymization
 settings have
 been periodically
 disabled.

Knowledge Search:

- You can now filter Knowledge Search results to only include results that contain all of the words in the search term. See Find Only the Results That Contain All the Words in the Search Term.
- You now have the option to display all the answer's content (in lieu
 of a just a few lines of the answer plus a button for the full answer).
 See Remove the View Details Button and Display All the Text.

REST API:

The result body for the Get Conversation Log API (GET /api/v1/bots/sessions/{channelId}/{userId}/{sessionId}/log)
 API now includes the eventIndex, intentName, and skillName properties.

See Get Conversation Log docs.

The Start Export Task API (POST /api/v1/bots/insights/dataExports) now includes the piiAnonymizeExport query parameter to specify whether to modify the personally identifiable information (PII) in the exported data.
 See the Start Export Task docs.

Q&A deprecated: Starting with this release, the Q&A feature is being phased out. We recommend that you switch to using answer intents (either with the help of the Knowledge feature or by creating answer intents manually). See Answer Intents.

If you have an existing skill created in Release 22.02 or earlier that has a Q&A module, you can continue using that Q&A module in future versions of the skill. But Q&A is not available for new skills that you create in this release or later.



Release 22.02

Feature, Enhancement, or Change

Live Agent Insights: Insights reporting at the skill and digital assistant levels now includes live agent transfer metrics. See Skill Live Agent Metrics and Digital Assistant Live Agent Metrics.

Benefits and Impact

Using these metrics, you can assess how well your skills and digital assistants have deflected user requests from the Oracle B2C Service by comparing totals for skill-handled conversations and live agent-routed conversations against the total number of conversations.

Client SDKs: The Web, iOS, and Android SDKs have been updated to include the Redwood theme and support for adding customized messages for when there are delays in a bot's responses. Here's the information on handling delayed messages for each SDK:

- Web SDK
- iOS SDK
- Android SDK

Other enhancements and changes include:

- You can now access Oracle Intelligent Advisor attribute values from a skill after the interview has completed. See Access Interview Attributes.
- You can now set the System.IntelligentAdvisor endLabel property to blank to omit the end of interview text.
- The Bots Node SDK has been updated with various fixes and enhancements. See https://github.com/oracle/bots-node-sdk/ releases/tag/v2.6.0 and https://github.com/oracle/bots-node-sdk/ releases/tag/v2.6.1.

Release 21.12



Independent Bag Item Customization: When two or more composite bag items reference the same entity, their respective item customizations for that entity are now handled separately. Previously, the Fuzzy Match setting in value list entity items and the customizations for built-in entities (DATE, TIME, CURRENCY, and NUMBER) were overridden by the customizations of previously resolved bag items.

Benefits and Impact

This change enables you to have multiple references to the same system entity (such as when multiple bag items use that same entity) and be able to override their settings independently instead of reusing the main entity match. WARNING: Skills upgraded to 21.12 that use System.SetVariabl e to set variables using the results held in the nlpResult object using syntax iResult.value.ent ityMatches may fail because the entity values are no longer present in the top level payload. To ensure the continued functioning of skills and follow best practices - reference the values in the composite bag (<variable name>. value.<item name>) and use the System.CommonResp onse or SystemResolveEnti ties components

instead of the

e component.

System.SetVariabl



Feature, Enhancement, or Change	Benefits and Impact
Training data for intents with built-in entities can be entity-aware: Starting with platform version 21.12, when you associate a built-in entity (such DATE, NUMBER, and LOCATION) with an intent, the training model by default takes into account the presence of the entity in utterances, which generally improves intent resolution. However, if intent resolution in your skill relies at all on specific values of an entity in the user input, this entity-aware behavior might not be desirable. To switch it off for an entity in an intent, go to the page for the intent, find the entry for the associated entity and turn its Value Agnostic switch off. See Add Entities to Intents.	With the Value Agnostic switch set to On, intent resolution is more stable and less likely to be skewed by varying entity values. However, if you have intents that rely on specific entity values to help determine intent resolution, you should make sure that the Value Agnostic setting for the entity in those intents is turned off.
Anonymization of Personally Identifiable Information (PII): You can now protect users' identities by anonymizing the values extracted for the PERSON, URL, EMAIL, PHONE_NUMBER, and NUMBER system entities in both the Insights reports, and in the exported conversation logs. You can select the value types that you want replaced by a generic replacement or anonymn. See PII Anonymization	values in the Insights reports (including the
Session Metrics: Insights now offers session metrics for the skill, digital assistant, and site-wide analytics reporting in addition to the conversation-level reporting that we've offered up to this point. A session begins when a client connects to skill or digital assistant and ends when the client disconnects. See Session Metrics for Skills, Session Metrics for Digital Assistants, and Session Insights (LOB).	Because sessions can be seen as proxy for users (both new and returning), the sessions reports provide you with a higher-level view of usage.
REST API for Resource Bundles: There are now REST APIs for resource bundles. See REST API endpoints.	Via the API, you can now list and update resource bundle entries as well as add messages in other languages to existing entries.



Benefits and Impact

Other enhancements and changes include:

- In platform version 21.12, detection of out-of-scope and out-ofdomain user input has been improved.
- System.KnowledgeSearch has a new customFilters property that lets you filter answers by product or category, or by both. See Filter Results by Product and Category.
- If your Oracle Knowledge Base instance has interfaces for different languages, you can now associate the knowledge search service with all the interfaces. You then use the System.KnowledgeSearch component's locale property to indicate which interface to use for a search. See Implement Multi-Lingual Knowledge Search.

Release 21.10

Feature, Enhancement, or Change

Benefits and Impact

New System.Feedback component: You can collect direct, real-time user feedback with the new System.Feedback component. See the System.Feedback and the Review User Feedback and Ratings Insights topic.

The client SDKs support the feedback component by enabling you to customize the look and feel of the buttons that users click to assign a rating. For example, you can display them as stars or as other symbols. In addition, you can customize their accessibility message and the colors that indicate whether or not a user has selected one or more of them.

Using this component, you can report user rating and feedback comments in Insights, where the new User Rating chart shows the distribution of scores and an overall rating across all conversations. User comments are also aggregated using a tag cloud.

New Conversations Report for DA-Level Insights: The

Conversations report now shows how the digital assistant routed the chat to its skills. You can read the transcripts for the conversations that occurred within a session and also see them in a chat window view that shows you where the digital assistant switched skills during a conversation and the intents that were invoked along the way. See the View the Conversations Report topic for digital assistant Insights.

To find out how the digital assistant routed the chat to its skills, you no longer need to rely on the exported conversation logs. All of this information is now directly available in the UI.



Benefits and Impact

Enhancements to the Intelligent Advisor Service Page:

- The active deployments list lets you open the Hub's deployment page for each deployment.
- The page now displays all the skills that use the service and shows which deployments each skill accesses. You can also test each skill directly from the service page.
- You can create a skill with a System. IntelligentAdvisor component for the specified deployment directly from the service

See List Available Deployments and Create and Test Skills from Service Page.

Enhancements to the System. IntelligentAdvisor Component:

- The component now has a params property for passing web service connector values to the interview.
- For multi-locale deployments, you can now use the locale property to specify which locale to use (the default is profile.locale). Note that the skill will resolve the date, number, and currency inputs based on the specified locale.

See the System. Intelligent Advisor docs.

Other enhancements and changes include:

- ML Entities have been optimized to better handle variation in natural language utterances.
- You can now verify your Knowledge Search service connection by clicking Verify Settings. See Add a Knowledge Search Service.
- The default size of exported Insights files has been reduced to make sure that Microsoft Excel can open the files. This might result in multiple files being generated when you export data from Insights.

Release 21.08

Feature, Enhancement, or Change Draft skills can now be added to a digital assistant: You no longer need to publish a skill before you add it to a digital assistant (or replace an existing version of the skill in the digital assistant). You can add a draft skill to the digital assistant and iteratively test and modify it until you are satisfied with its behavior in the digital assistant before you publish it.

Benefits and Impact

This makes it easier to iteratively test and modify skills by reducing the frequency with which you need to create new skill versions (and publish those versions).



Feature, Enhancement, or Change	Benefits and Impact
Custom Metrics in Skill-level Insights: You can now create your own dimensions for Insights Reporting. You define these dimensions in the dialog flow definition using the new System.setCustomMetrics component. Using the new Custom Metrics report, you can review conversation totals and graphs for each dimension that you've defined. See Review Custom Metrics.	You can add another layer to the Insights reporting by quantifying skill-specific usage. For example, you can measure the number of conversations where an entity value was set, or where a particular subflow was traversed.
Voice: The en-IN (Indian English) and hi-IN (Hindi) locales have been added. In addition the model for the en-US locale has been enhanced to better handle international names.	
New System.AgentTransferCondition to get agent availability: DA-as-Agent skills can use the new System.AgentTransferCondition component to see if agents are available and determine the estimated wait time for transferring to an agent. See Get Agent Availability and Wait Time for the details.	You can use the status information that's returned by this component to display the expected wait time and ask the user if they still want to transfer.
Intelligent Advisor Services page now displays Active Chat Deployments: On the Intelligent Advisor Services page, you can now view a list of active chat deployments and click a deployment to start a web interview. See List Available Deployments for the details.	Skill builders can see what interview deployments are available for use in skills as well as easily try out the web version of an interview.



Feature, Enhancement, or Change	Benefits and Impact
Embedded custom component service now uses Node.js version 14.17: The embedded custom component service now uses nodejs version 14.17.0 for custom component packages that you upload to the embedded container. For custom components that are in the skills that you pull from the Store, the embedded container will use version 14.17.3.	You should make sure that all of the libraries in your custom code packages are compatible with Node.js version 14.17.
	That said, existing custom component services continue to use the Node.js version that was used when the package was last loaded unless you click Reload for a service. Clicking Reload will redeploy the custom component package with the new Node.js version.
Enhancements to the Client SDKs: New enhancements include support for two new locales: Indian English (en-IN), and Hindi (hi-IN). We've added a download control to each attachment message sent from the skill. Image attachment messages also include a zoom control.	The controls added to the attachment messages allow easier downloads and enable users to see images in detail within the chat view.



Benefits and Impact

Other enhancements and changes include:

- Improvements to the model for system intents, including optimizations to prevent false negatives for Help utterances.
- The URL for the System. KnowledgeSearch search link button has changed from https://<host_name>/app/results/to https://<host_name>/app/answers/list/.
- The System.KnowledgeSearch component's new customFilters property enables you to filter the results for a specified product or a category (or both). See Filter Results by Product and Category.
- The System.AgentTransfer customProperties element only requires a type property for custom fields.
- For DA as Agent, you can now set errorMessage, rejectedMessage, and/or waitingMessage to blank to prevent any message from being displayed. When set to blank, the default message is no longer displayed.
- System.IntelligentAdvisor now uses the image button group's Horizontal/Vertical setting to determine whether to display the buttons vertically or horizontally.
- Locale is now considered for System. IntelligentAdvisor interviews. If the profile.locale variable has a value then it is passed to the deployment. Otherwise the channel's locale is passed, if it has a value.

Release 21.06

Feature, Enhancement, or Change Benefits and Impact ML Entities: This new entity type enables entity extraction by context With ML entities, the Intent Engine can rather than by an exact value match. You do not create ML entities from static values or with regular expressions. Instead, you train them with detect an entity utterances that have labels that identify entity values that are related to based on the wording the ML entity (store names might be labeled for an ML entity called of the user input even Merchants, for example). The model does not learn from the values when the entity value themselves, but instead by how and where these values are used in an has not been utterance. explicitly defined in See ML Entities for the details. the training data. Hidden Skills: In digital assistants, you can now designate skills to not One particular benefit be exposed in menus or mentioned in transition dialogs. In transitions to of this feature is that it enables you to and from such a skill, no transition prompts or messages are displayed. See Hidden Skills for the full summary. create utility skills for things like handling small talk without explicitly exposing them as features of the digital assistant.



Feature, Enhancement, or Change	Benefits and Impact
See Pre-seeded Training Data in System Intents for a description of	Disabling these segments might be useful if you are creating your own custom intents for these purposes, such as for greeting the user.
 for the PERSON, DATE, TIME, CURRENCY, and NUMBER entities. For the PERSON entity, you can enhance its name recognition by adding a Value List entity of names to make sure those names are extracted by that entity during intent resolution. For the CURRENCY, DATE, TIME, and NUMBER entities, you can customize the resolution according to the locale of the user or set a default format when no locale can be detected. The \$ (dollar) and ¥ (yen & yuan) symbols now resolve to actual currencies, based on the locale. You can also specify the exact currency when defining the entity in cases where the locale doesn't correspond to one of those currencies. Before, those symbols simply resolved to "dollar" or "yen"/"yuan", respectively, without specifying which country's currency (e.g. U.S. dollar or Canadiab dollar) unless the the currency was also specified in the utterance (e.g. "\$30 USD). When there's ambiguous input for the DATE and TIME entities, you can resolve their behavior by specifying whether they should resolve the input as the nearest time or date in the past, present, or future, or if it should be resolved as the default, pre-21.06 format. See Locale-Based Entity Resolution and Ambiguity Resolution Rules 	The new configuration options give you more control how the entities resolve.
for Times and Dates for the specifics.	
Dialog Flow Component Template Simplication : The dialog flow component templates have been reorganized and, in some cases, rewritten to better reflect common use cases for the components and best practices. There is also a new Hot Picks category that contains	For some use cases, like outputting text and displaying menus, the templates

best practices. There is also a new Hot Picks category that contains frequently-used code patterns.

menus, the templates have been rewritten to use the ${\tt System.CommonResp}$ onse component. This ensures that any states written with these templates can more smoothly evolve to incorporate other features, like multilanguage support.



Other enhancements and changes include:

- No training required for any non-ML changes to draft skills:
 Any changes that you make to a skill that do not affect its training model no longer require you to retrain the skill afterwards. Changes that don't require retraining include modifications to parameters, the dialog flow, and resource bundles.
- Entity Annotation Jobs in Data Manufacturing: Data Manufacturing now has two new job types that support ML Entities: the Entity Annotation job and the Entity Validation job.
- Digital Assistant-level access to Insights for individual skills: You can now drill down from the digital assistant Insights report to view the Insights data for each version of skill. See Review the Overview Metrics and Graphs
- Digital assistant routing capacity: Starting with platform version 21.06, digital assistants can handle routing for up to a total of 10,000 intents split across all of its skills.
- Training utterance capacity: Starting with platform version 21.06, digital assistants can handle up to 25,000 training utterances split across all of its skills.
- Custom components in multi-lingual skills: You can now access and use resource bundles entries from custom component code.
- Bots Node SDK 2.5.5: You can now use the translate method in custom components. Previously you could only use it with entity event handlers.
- **Trainer Tm**: There have been some incremental improvements in the training model.
- Speech Service: The Web and Android SDKs now enable you to inject a speech synthesis service into your digital assistants so that you can use voices that are tailored to your brand or user experience design.
- You can now change a digital assistant's language mode (native support or translation service) when you create a new version or clone. Similarly, you can now rebase a digital assistant to a version with a different language mode. Any skills in the digital assistant that don't have the same language mode as the digital assistant are disabled. You can then manually replace them with versions of those skills that have the same language mode as the digital assistant.

Release 21.04

Feature, Enhancement, or Change

Benefits and Impact

Email notifications: You can now subscribe to receive notifications via email. To subscribe, open the user profile menu on the top right of Oracle Digital Assistant and select **Subscription Preferences**. In the dialog, enter your email address and select one or more of the message categories.

You will only receive email notifications for the categories you select.



Feature, Enhancement, or Change **Benefits and Impact Redwood**: The Digital Assistant UI now uses the Redwood theme, Your interaction with which provides a significant update to the look and feel, a new set of Digital Assistant won't icons, and some changes in page layout. fundamentally change, though you may notice some minor changes, such as placement of controls on the page. Utterance Tester: Utterance testing has been enhanced to include test The user interface for suites. You can compile test utterances into test suites and save them the tester has been for reuse, both for new bots in development and for existing bots that changed. Most you are updating. notably, the "Try It Now" tester that used See The Utterance Tester and Test Routing with the Utterance Tester. to appear on the **Intents** page is now called the Utterance Tester and can be accessed by clicking Test Utterances. The UI for batch testing has also been reworked. You can now load a batch test file by opening the Utterance Tester, clicking Go to Test Cases and selecting More > Import. In addition to Resource Bundles: Resource bundles are now more thoroughly integrated into the developer experience. simplifying the On the Resource Bundles page for skills and digital assistants, localizing of skills and there is a new Configuration tab that contains keys for configuration digital assistants, properties that contain user-facing text. This includes keys for: these improvements Common prompts and messages that are defined on the also reduce the **Settings > Configuration** page for the skill or digital assistant. amount of YAML in your dialog flow, since Default prompts, labels, and messages that are built into you now no longer standard dialog flow components. This includes properties like need to define a the System.Intent component's optionsPrompt. context variable for You don't need to define a context variable for resource bundles for resource bundles and skills. You can use rb, which is automatically reserved for resource you can change the value of default See Types of Resource Bundle Keys and Translatable Strings in Digital prompts, messages, Assistants. and labels in the resource bundle instead of by adding properties to the dialog flow definition. Voice: Italian (it-IT) and German (de-DE) are now supported. In addition, the en-GB and en-AU locales have been added for English



(where en-US was already supported).

Benefits and Impact

Insights:

- For multi-lingual skills, Insights reporting at the instance, digital assistant, and skill levels provides you with a breakdown of usage by language.
- At the skill level, the Languages report compares usage as percentages of the whole and provides access to the Conversations report so that you can review the conversations for the language in question. See Review Language Usage.
- For all the skills in the instance, or for the skills registered to a
 digital assistant, Insights provides the Languages chart, a
 rendering of the conversation count by language for each skill
 (represented as a stacked bar chart). See Review the Overview
 Metrics and Graphs.
- You can now also apply digital assistant-level Retrainer to multilingual skills.

Intelligent Advisor integration: The System.IntelligentAdvisor component has numerous enhancements, including support of the following:

- Attachments on web channels.
- Reference tags in explanations.
- Display of images in toggle buttons in rich UI channels (except for Slack).
- Sliders in text channels.
- Display values that don't match option values.

Other enhancements and changes include:

- Automatic Instance Linking: If you have an instance that is
 paired with an Oracle Applications subscription and you then
 purchase a subscription to Oracle Digital Assistant Platform for
 SaaS in the same Oracle Cloud account and activate that
 entitlement, your paired Digital Assistant instance is automatically
 associated with that new entitlement.
- Knowledge Search: The System.KnowledgeSearch component now includes a cardLayout property to display the results horizontally or vertically.
- Agent Integration: The System.AgentInitiation component now includes the transcriptDateTimeFormat and transcriptTimezoneName properties for formatting the date and time in the conversation history that's passed to the agent.
- DA as Agent: The System. AgentTransfer component now allows you to pass values to the chat service.

Release 21.02

Feature	Find out more
There are now calendar components, which you can use to connect your skills with Microsoft and Google calendar services. You can get info about a calendar event, list calendar events, invite attendees, and create, add, update, and delete calendar events.	Calendar Components



Feature	Find out more
You can now create entity event handlers to resolve entities. You can create these handlers using the Bots Node SDK or using the embedded JavaScript editor in the Entities page of the Digital Assistant user interface.	Entity Event Handlers
 The Bots Node SDK has been enhanced with these features: You can now create event handler packages. You can create TypeScript component packages in addition to JavaScript. You can use an alternative invoke method syntax that enables you to write asynchronous code in a synchronous way using the await keyword. In addition, you no longer have to call done () at every place in your code where the custom component logic is completed. 	Bots Node SDK
The dialog flow validator has been extended to encompass intents and entities and provide tips on best practices.	Validate Your Work
For bots that you expose through Microsoft Teams and which require authentication, you can configure single sign-on authentication so that users will be able to log in to Teams with their Azure AD credentials and then seamlessly interact with the digital assistant without having to sign in again.	SSO Configuration for Microsoft Teams Channels
Other enhancements include: • The System.AgentConversation component now has waitExpired and waitExpiryMessage actions.	
 GET <skill> now returns base skill information.</skill> In a digital assistant's Exit Confirmation prompt, there are now two "no" responses from which a user can select: No, continue based on my previous response, where 	

Release 20.12

Feature	Find out more
Version 20.12 of the platform includes new native support for Arabic, Dutch, French, German, Italian, Portuguese, and Spanish. You can now create skills and digital assistants for these languages without having to use a translation service.	Native Language Support
You can now incorporate interviews created in Oracle Intelligent Advisor into your skills.	Intelligent Advisor Integration
The new Data Manufacturing feature enables you to crowd source the generation of training data for your skills.	Data Manufacturing
With the new group chat capability, you can make digital assistants part of group conversations in Microsoft Teams and Slack.	Group Chats
You can now use ICU message formatting in your resource bundles to handle plural and named parameters.	Resource Bundle Message Formats



Feature	Find out more
You can now improve speech recognition of unusual words and phrases that are specific to a skill. When you use the Enhanced Speech feature, the recognition system builds an enhanced speech model that's based on the example utterances and entity values that are in the skill's training data.	Enhanced Speech Models
It's now possible to create external functions in your Oracle Cloud Infrastructure tenancy and use them for custom components.	Deploy to Oracle Functions
 Insights has been enhanced in the following ways: The key phrase cloud now identifies the language of phrases in natively-supported languages. The skill-level Retrainer lets you query for and add phrases to the training set by natively-supported language. For skills, there is now an Incomplete Conversation Breakdown report, which breaks down the total number of incomplete conversations by error category and enables you to see these errors within the context of the incomplete conversation itself. You can now retrain skills through a digital assistant. You can now export digital assistant logs through the UI. There's a new user-friendly format for exported Insights data. 	 Native Language Support Digital Assistant Retrainer Digital Assistant Export Export Logs
When you create custom parameters for your skills, you can now hide their values so that other developers, such as those creating versions or clones of that skill don't have access to the value.	Secure Parameters
The Web SDK improves the user experience even further by supporting relative timestamps. This release also introduces a WebView component that enables users to access web pages from within a chat widget so that they don't have to move from the chat to view a page in a new tab or window.	Relative TimestampsIn-Widget WebView
You can now configure components in dialog flows to require authorization. You can set requires Authorization for the whole dialog flow or per state.	
The autoTranslate context variable and the translate property for dialog flow components can now be configured separately for user input and skill responses.	autotranslate Context Variable and translate Property
The Insights Export REST API now lets you export 2 variations of the CSV file. You can include all the data, or just the essential data.	Go to Start Export Task in REST API for Oracle Digital Assistant on Oracle Cloud Infrastructure, scroll to Request Body, and click insightsDataExport.



Feature	Find out more
The Dynamic Entities REST API now requires that the request body items include the primaryLanguageCanonicalName and nativeLanguageTag properties for secondary-language entity values for native multi-language skills.	For an example request body for native multi-language skills, see the dynamic entities use case. To see the property descriptions, go to the Push Data to Request task in REST API for Oracle Digital Assistant on Oracle Cloud Infrastructure, scroll to the Request body section, click add, click DynamicEntityPushTempE ntityValue and then click primaryLanguageCanonic alName and nativeLanguageTag.

Release 20.09

Feature	Find out more
Version 20.09 of the platform contains Natural Language Processing (NLP) improvements, particularly in the areas of domain detection and being able to better classify utterances that are closely related to the skill's training data.	
You can now create groups of skills within a digital assistant to improve intent resolution for skills that are in the same domain.	Skill Groups
You can now configure when to attempt agent transfer. If you know the queue that the conversation will be transferred to, then you have options for when to transfer the chat to a human agent. For example you can specify to transfer only if at least one agent is available.	Configure When to Attempt Agent Transfer
The Native Client SDK for Web was updated to version 20.8.2. In prior releases, the SDK sent the messages initiated by the initUserHiddenMessage and initUserProfile properties when the client connected to the skill for the first time. It didn't matter whether the chat widget was opened or closed. Consequently, these messages counted towards billing and increased the number of incomplete conversations logged by Insights. Starting with this release, these messages are only sent after the client has connected to the skill and the chat widget is expanded. If you still want to send the message whenever the client has connected to the skill, with no regards to display state of chat widget, you can use the new property, initMessageOptions. If you opt for this behavior, billing starts when the init message has been sent, even if the widget is still closed.	Web SDK Functionality



August, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Feature	Find out more
Starting with this release, each skill and digital assistant is tied to a specific <i>platform version</i> that corresponds to a release. This means that the behavior of your bots doesn't change when your Digital Assistant instance is upgraded. You can upgrade your bots to pick up enhancements from new platform versions when it best suits you. Each platform version remains valid for 18 months.	Platform Version
You can now create multi-language digital assistants, based on a translation service. For output messages, you can either use the translation service or resource bundles.	Localization of Digital Assistants
If you have a Oracle Digital Assistant instance that is paired with a Fusion-based Oracle Applications Cloud service, such as HCM Cloud or Sales Cloud, you can now link that instance with a Digital Assistant instance that you have as an individual service. This enables you to create custom skills and digital assistants directly within your paired instance.	Linking Instances
You can now create authentication services of grant type authorization code for Google Identity Platform and Microsoft Identity Platform, in addition to OAM and IDCS.	Add an Authorization Code Service
Your skills can now integrate with an Oracle Service Cloud Knowledge Foundation service to search for and display articles from its knowledge base. In addition, the Automated Agent Assistant sample from the skill store now includes examples of how to use this feature.	Use the System.KnowledgeSearch Component
You can now change the DA as Agent channel routing without having to disable the channel.	Change DA as Agent Channel Configuration
You can compare two or more versions of a skill to find out how changes to the skill or the platform may have affected the skill's ability to complete conversations.	Compare Metrics Across Different Versions of Skills
You can now apply a Confidence Threshold to a batch test to approximate real-world intent resolution.	Batch Test Intents
The Skill Tester now has voice support for the client SDKs (Oracle Web, Oracle Android, and Oracle iOS).	The Skill Tester
Skill Insights now tracks voice conversations side-by-side with text conversations. Voice conversations are measured by both voice-specific metrics and the metrics common to both voice and text, such as completed or incomplete conversation counts.	Insights
The client SDKs (Oracle Web, Oracle Android, and Oracle iOS) have been enhanced through the addition of a voice visualizer in the testing widget that indicates the audio level, an icon for live agents, and a dynamic typing indicator that displays after each skill response.	Oracle Digital Assistant SDK Downloads
There is a new API to export a digital assistant's or skill's insights data.	Insights Export in REST API for Oracle Digital Assistant on Oracle Cloud Infrastructure.



Feature	Find out more
You can now have our Ops team set up a backup Digital Assistant instance in a designated region. This will serve as a hot spare for the primary instance with metadata replication. Heartbeat checks will monitor the health of the message delivery in primary instance and automated failover will kick in within a few minutes if necessary.	
It is now possible for bot users to retrieve attachments that are included in conversations in the Slack and Microsoft Teams channels. To enable this, the URL in the attachment message payload now points to a Digital Assistant attachment server rather than to Microsoft or Slack server.	

June, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Feature	Find out more
In addition to being able extend skills, you can now extend any digital assistant that you pull from the Skill Store and then later rebase that digital assistant to take advantage of updates to the original.	Extending Digital Assistants and Skills
You can now record and use test cases for digital assistants. If you pull a digital assistant from the Skill Store and that digital assistant comes with test cases, you can run these test cases against extended versions of this digital assistant to ensure that your modifications have not broken any of the digital assistant's basic functions.	Test Cases
Creation of Slack channels is now based on an updated OAuth flow in Slack apps that enables more granular scopes.	Slack Channels
Oracle Service Cloud supports embedded chat inlay for versions 20A and later. If the chat client for your DA-as-agent digital assistant is the embedded chat inlay instead of the default chat that's accessed through the customer portal, then the common response component of type card will display items as cards, and actions will display as buttons. With the default chat, these are displayed as text only.	How UI Components Display in Oracle Service Cloud Chat
Version 20.6.1 of the Oracle Native Web SDK has been released. This release provides improvements for browser storage management and the validation of messages that are returned by delegate callback handlers. In addition to these improvements, the fixes in this version of the SDK address reflected XXS attacks and correct the prior release's problems with the voice authentication process in client auth-enabled mode.	Oracle Digital Assistant SDK Downloads
The CURRENCY, NUMBER, DATE, and TIME entities have been improved to better handle the context in which they are uttered. For example, in the phrase "transfer 500 USD", "500 USD" will be matched to the CURRENCY entity, but "500" will not be matched to NUMBER.	



Feature	Find out more

The UI framework of Digital Assistant has been upgraded to Oracle JET version 8.2. The result is some performance improvements and some minor changes in the UI. Most notably, the button for the bot tester has moved from the left navigation for skills and digital assistants to the top of the page.

May, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Frature	Find out more
Feature	Find out more
Version 20.5.1 of the Oracle SDKs for Web, iOS, and Android have all been released. These updates include support for the Redwood Dark theme, support for the French (fr-fr) and Spanish	Oracle Digital Assistant SDK Downloads
(es-es) locales, accessibility improvements, and many other enhancements and fixes.	

April, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Feature	Find out more
Trainer Tm has been enhanced. Among other capabilities, Tm can now automatically recognize out-of-domain phrases and can distinguish between the relevant and irrelevant content in a phrases, even when the irrelevant content can be resolved to an intent. If you want to use the improved Trainer Tm in existing skills, you need to retrain them. Note that the confidence levels for your intents may change when you start using the new Tm.	Trainer Tm
You can now store IDCS user profile data for authenticated users for the duration of a skill's conversation. To store the data, set the ${\tt System.OAuth2AccountLink's updateUserProfile property} \ to \ true.$	
When extending skills that you have pulled from the Skill Store, you can now disable any intents that you don't want to use.	Disabling Intents
Now you can track the number of multi-turn conversations being carried out by the skills registered to your digital assistant.	In Progress Conversations Monitored at the Digital Assistant Level
You can now configure the System.AgentTransfer component to transfer to an agent even if all agents have reached their maximum number of chats. You can also request a transfer even if no agents have requested a chat or all agents have reached their maximum.	Configure When to Attempt Agent Transfer



March, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Feature	Find out more
You can now set up skills to initiate conversations with users on the Microsoft Teams and Slack messaging platforms. (This feature was already available for Twilio.)	Application-Initiated Conversations
There are new properties that you can use in your dialog flows to focus the Insights reporting to just the parts of conversation that you're interested in.	Conversation Markers
Skill Insights now counts "in-flight" conversations, so that you can keep track of multi-turn conversations.	In Progress Conversation Count
In Insights, there's now a Most Popular Intents word cloud report that weighs intent usage and resolution by size and color. You can see key phrases that represent user messages resolved to any intent that you select in the cloud and you can apply the actual messages to the Retrainer.	Most Popular Intents Word Cloud
The Oracle SDKs for Web, iOS, and Android have all been updated.	Oracle Digital Assistant SDK Downloads
Administrators can now access logs of user activity in Oracle Digital Assistant directly from the Oracle Digital Assistant user interface.	Audit Trail

February, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Feature	Find out more
The Oracle Native Client SDKs for iOS and Android are now available to help you create channels for iOS and Android devices. These SDKs include support for:	iOS ChannelAndroid Channel
Voice Recognition: Allows users to converse with skills using their voice.	
 Text to Speech: Supports audio narration of the messages received from skills. 	
 Attachment: Supports uploading attachments to the server and sending them to the skill. It also supports rendering of the attachment messages received from the skill. 	
 Location: Enables users to share their location to the skill when prompted. 	
 Headless SDK: The SDK can be used without a UI. The SDK maintains the connection to server and provides APIs to send messages, receive messages, get updates to network status and other functionalities. 	
 Client Authentication: Supports connections with client authentication enabled or disabled. 	



Feature Find out more ...

The Web SDK has been updated. New features include:

- Cordova Sample: Can be used to build iOS and Android apps.
- typingIndicatorTimeout: Allows you to configure the duration in seconds after which the typing indicator should be removed.
- i18n.<locale>.chatSubtitle: Allows you to set a subtitle in the chat widget header right below the title.
- showPrevConvStatus: Determines whether the status message that is located at the end of older messages from previous conversations is displayed or not.
- getConversationHistory(): Returns an object containing conversation information for the current user.
- **isConnected()**: Returns true if the SDK is connected to server, and false if it is not.
- setUserInputMessage(message): Enables setting or updating the user input TextArea with a message without sending it to the skill or digital assistant. It can be utilized to pre-populate the input with a recommended message.
- setUserInputPlaceholder(text): Enables updating of the input TextArea placeholder dynamically with passed text. It can be utilized to update placeholder text according to the type of input expected from the user.
- setAllMessagesAsRead(): Can be called to mark all messages as having been read by the user.

In addition, the following improvements have been made:

- Voice Buffer: The buffer size for voice data has been finetuned to provide full voice recognition support on Safari.
- Single Reconnection: The SDK now maintains only a single WebSocket connection to the server during reconnection attempts.
- String Translations: The translation service has been updated to give higher preference to the locale configured during initialization over the user's browser locales. The configured locale is applied to the SDK if the translations are available for it. The updated preference order is:
- Configured locale in initialization, e.g. locale: 'fr-fr'
- Browser locales: navigator.languages
- Default: 'en'

January, 2020 (Oracle Digital Assistant on Oracle Cloud Infrastructure)



Web Channel

Feature	Find out more
When you register a skill that's configured to autocomplete user input to a digital assistant, the autocomplete capability for that skill is then surfaced in the digital assistant-level response message.	Autocomplete in the Web Channel
If your skill uses translation services, the Retrainer displays user messages in the target language, but adds English languages versions of them to the training data.	Multilingual Support in the Insights Retrainer
Agent Transfer has a new object structure for passing custom field values to Oracle Service Cloud. Skills that are associated with existing channels can use the prior (legacy) structure. Skills that are associated with newly created channels must use the new structure.	Passing Customer Information to a Live Chat
When you transfer a skill's chat to an Oracle Service Cloud agent, the user can now attach images during the conversation with the agent.	Enable Attachments

December, 2019 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

Starting with this release, all new orders of Oracle Digital Assistant are provisionable on Oracle Cloud Infrastructure (Gen 2).

All features that were previously available only in Oracle Digital Assistant on Oracle Cloud Platform (Gen 1) are now available in this release.

Feature	Find out more
Within Oracle Digital Assistant instances on Oracle Cloud Infrastructure, you can now create a digital assistant and embed it as an agent with Oracle Service Cloud.	DA as an Oracle Service Cloud Agent
There are new Insights reports tailored to digital assistants that are exposed through Oracle Service Cloud.	Insights for DA as an Oracle Service Cloud Agent
You can now let users interact with digital assistants through speech.	Voice Channels
There is a new and enhanced SDK for the Web channel.	Web SDK
You can now define a specific answer for a skill to give when it detects a given intent.	Answer Intents
You can now record conversations in the Skill Tester and use the saved conversations as test cases. Then, for skills from the Skill Store that you have extended, you can run these test cases to ensure that your modifications have not broken any of the skill's basic functions.	Skill Test Cases



Feature	Find out more
Custom component packages that you upload to an embedded custom component service must now contain all node module dependencies. If there are missing node dependencies, you will see this error:	Prepare the Package for an Embedded Container Service
Error Message: failed to start service built: Invalid component	

If you export a skill from a previous version, and the skill uses embedded custom components, you will most likely get an error when you use the skill because the component service's package doesn't contain the dependencies. You will have to download the service's TGZ file, add the node module dependencies, and re-upload.

Oracle Digital Assistant now limits the number of custom component services per instance. You won't be able to do any of the following once you have the maximum of custom component services:

Configure a Service for the Embedded Container

Add a custom component service.

path

- Version or clone a skill that has a custom component service.
- Import a skill that has a custom component service.

If any of these actions fails due to exceeding the limit, you won't see the reason for the failure. To see the component service limit, go to the service limits page in the Infrastructure Console. If you need to raise the limit, you can request an increase.

You can track the performance of one or more states in the Path Insights report to find out how many conversations successfully flowed through them, or how many conversations were ended with them. For the states where the conversation ended prematurely, you can expand the path to find the cause.

Review Paths Insights

October, 2019 (Oracle Digital Assistant on Oracle Cloud Platform)

This release features increased integration with Oracle Service Cloud.

Feature	Find out more
You can now create a digital assistant and embed it as an agent with Oracle Service Cloud.	DA as an Oracle Service Cloud Agent
There are new Insights reports tailored to digital assistants that are exposed through Oracle Service Cloud.	Insights for Oracle Service Cloud Agent
The Conversation Designer now highlights entities and keywords, so you can easily identify the values that get replaced by user input at runtime.	The Conversation Designer



Feature	Find out more
You can now define a specific answer for a skill to give when it detects a given intent.	Answer Intents
You can track the performance of one or more states in the Path Insights report to find out how many conversations successfully flowed through them, or how many conversations were ended with them. For the states where the conversation ended prematurely, you can expand the path to find the cause.	Review Path Insights
Custom component packages that you upload to an embedded custom component service must now contain all node module dependencies. If there are missing node dependencies, you will see this error:	Prepare the Package for an Embedded Container Service
Error Message: failed to start service built: Invalid component path	
If you export a skill from a previous version, and the skill uses	

October, 2019 (Oracle Digital Assistant on Oracle Cloud Infrastructure)

embedded custom components, you will most likely get an error when you use the skill because the component service's package doesn't contain the dependencies. You will have to download the service's TGZ file, add the node module

dependencies, and re-upload.

This is the first release of Oracle Digital Assistant as an Oracle Cloud Infrastructure service. This release contains features particularly geared toward customers of Oracle Cloud Application services who want to customize skills that are provided by those services.

Feature	Find out more
You can now <i>extend</i> skills that you pull from the Skill Store and then later <i>rebase</i> those skills to take advantage of updates to the base skill.	Extending Skills
You can now create entity lists that can be updated dynamically with REST API calls.	Create Dynamic Entities
An improved SDK is available for the web channel.	Oracle Web SDK
The Conversation Designer now highlights entities and keywords, so you can easily identify the values that get replaced by user input at runtime.	The Conversation Designer
The skill and digital assistant tester simulates the rendering on your preferred channel and alerts you to any limitations on that channel.	Test Rendering for a Channel



Feature	Find out more
You can now specify specific states in a digital assistant to handle user input that is resolved as the help intent and for input where the intent is unresolved.	Specify States for the help and unresolvedIntent System Intents
The System.OAuth2Client authentication component has been introduced to support the OAuth Client Credentials grant type.	System.OAuth2Client
The built-in PERSON entity has been enhanced to handle international names and incorrect capitalization. In addition, it can be extracted based on the context.	Complex Entities
There is now a built-in LOCATION entity that is based on machine learning.	Complex Entities
You can incorporate Microsoft Teams components such as adaptive cards in skills that you deploy through a Microsoft Teams channel.	Adaptive Cards

June, 2019 (Oracle Digital Assistant on Oracle Cloud Platform)

Feature	Find out more
It was already possible to create skills in non-English languages. Now you can create digital assistants that provide welcome, help, and disambiguation messages in non-English languages as well.	Non-English Digital Assistants
You can now host your webview apps on an external web app server, or within Oracle Digital Assistant itself. If you let Oracle Digital Assistant host your app, you don't even need a web server. You just need to bundle your app as TGZ file and upload it.	Hosted Webview
Try out the Conversation Designer (in beta for this release) to quickly build a skill without having to define any intents, entities, or write a even a single line of OBotML. Instead, you focus on the user experiencethe typical user requests and bot responses that complete your use case.	The Conversation Designer
Within a skill, it is now possible to add calls to different skills. For example, you can use this to explicitly enable a user of a shopping skill to jump to a banking skill to check their bank balance before returning to the shopping skill to complete an order.	Call a Skill from Another Skill
You can now configure a skill to include an incident ID when transferring a chat to a live agent through Oracle Service Cloud.	The incidentID Property
After an agent ends a chat session in an agent-integrated skill, you might want to ask the customer to complete a survey. Oracle Digital Assistant now makes the Oracle Service Cloud survey ID available from the skill.	Get Survey Information
You can now enable the agent to specify which state to transition to after the live-chat session ends.	Enable Agents to Specify the Transition Action



Feature	Find out more
In your dialog flows, you can take advantage of features that are specific to individual messaging platforms, such as Facebook and Slack.	Channel-Specific Extensions

February, 2019 (Oracle Digital Assistant on Oracle Cloud Platform)

Feature	Find out more
We already provide reports that give you different perspectives on our insights data, but now you can use the new export feature to create your own reports, based on your own requirements.	Export Insights Data
We've added support to show top-level ODA routing analytics (like explicit vs implicit, for example) and popular skills by invocation. Use this data to determine how well the ODA is routing requests to its constituent skills so you can optimize ODA routing, identify popular skills, and so on.	Evaluate Usage Patterns
Our new Analytics reports let you see overall trends in how your skills complete conversations and the volume of conversations for each channel. You can also see how much time customers spend with each skill, as well as how much time they spend with a live agent, or customer service rep (CSR).	Skill Analytics
Want to keep track of how much storage your insights data is consuming, so you can purge it from the database to free up space? Our new Data Management tool lets you do just that.	Data Management
We've added a new map variable type and a new property to our human agent support framework that enables you to route the user to a specific agent queue in Oracle Service Cloud.	Oracle Service Cloud Routing
The new Interrupt Flow Confidence Threshold helps you determine when to send the user a prompt to confirm that they want to switch flows, and when to send a message notifying them that they have switched flows.	Limit the Frequency of Prompts
Need to support your user's chats on more channels? We've added channels for Slack, Skype for Business, Microsoft Teams, and Cortana with this release.	Channels
The new System.OAuth2ResetTokens component enables you to revoke all the logged-in users' refresh and access tokens from a dialog flow. To use this component, you must first provide the identity provider's revoke refresh token URL when you configure the authentication service.	System.OAuth2ResetToken s and Authentication Services
You may sometimes find that the authorization URL generated by the OAuth2AccountLink component (used for the 3-legged OAuth flow) is too large. To address this, you can now use a predefined short URL for the fixed fields, and let the state be populated dynamically.	OAuth2AccountLink



November, 2018 (Oracle Digital Assistant on Oracle Cloud Platform)

Feature	Find out more
Now you can create your own digital assistant, a "master bot" that fields requests from multiple skills (chatbots), while interacting with your customers within the context of a single, unified UI.	What are Digital Assistants?
Need developer-oriented analytics to pinpoint issues with your skills so you can address them <i>before</i> they cause problems? We've got them! Track conversation trends over time, identify execution paths, determine the accuracy of your intent resolutions, and much, much more.	Insights
Sometimes it's not enough to have the customer initiate all the conversations with your skills. You may want your ODA to <i>initiate</i> a conversation with your user whenever it receives a triggering event from another app—like when a user's expense report is rejected, for example. Use our Application-Initiated-Conversations (AIC) to set up the behavior you want.>	Application-Initiated Conversations
This release introduces lots of new features for instant apps, including localization, bring-your-own CSS support, new styling and an updated look and feel, and more.	Instant Apps
Thanks to our new System.OAuth2AccountLink component, which completes all the steps for the three-legged OAuth2 flow and returns the OAuth2 access token, your custom component no longer has to exchange an authorization code for an access token. Faster and easier!	System.OAuth2AccountLink
You could always define custom parameters to be referenced from dialog flows. But now you can define parameters that start with "da" and use them by all the skills that are registered in the same digital assistant.	Custom Parameters
Properties of the System.Intent component, like confidenceLevel and winMargin, are now configured as settings through the UI, instead of from the dialog flow. Much more convenient!	Tune Intent Resolution Before Publishing
Entities have a whole set of exciting new features, including pagination (to control the number of values that display in a message), fuzzy matching, multiple value selection (where users can pick more than one value), and more! There's a lot going on in the composite bag world as well. Composite bag entities can now include non-entity members, for starters. Check out the documentation to find out more!	Entities
ODA now lets you define your intents and custom entities in both English and Simplified Chinese, <i>without</i> having to first configure an auto-translation service.	N/A

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Oracle Cloud What's New in Oracle Digital Assistant , Release 24.06

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