



Cognitive Agent

Amelia 6.10.0 Release Notes

(Document version 1.0)



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Document History

Author	Version	Date	Comments	Final Approval?
Amelia Research & Development	1.0	November 4, 2024	Added bug fixes and new functionality for 6.10.0 release	Yes

1. Highlights by Release

This document briefly lists significant changes to Amelia because of 6.10.x version releases. A detailed list of all new features and bug fixes are listed in the next section of this document.

1.1 BREAKING CHANGES

CORE FRAMEWORK

With this release, some Amelia instances may have a problem using SAML authentication. On login, a blank page displays for Single Sign-On (SSO) that employ automatic form POSTS like certain SAML providers.

Update the default **amelia.content.security.header** setting in the application.properties file. For customers with this problem, adding the **unsafe-inline** and **unsafe-eval** options in the **script-src** and **style-src** definitions will correct the problem:

```
amelia.content.security.header=default-src 'self' data: blob;; script-src 'self' data: blob: 'unsafe-inline' 'unsafe-eval' https://www.gstatic.com; object-src 'self' blob: data;; style-src 'self' blob: data: 'unsafe-inline' https://fonts.googleapis.com https://www.gstatic.com;img-src'self' blob: data;; media-src 'self' blob: data;; frame-src 'self' blob: data;; font-src 'self' blob: data: https://fonts.gstatic.com;
```

Update the application.properties file in the common-config folder location or the user-web and admin-web folder locations. Where depends on how the instance is configured for inheritance. Settings and values in the common-config application.properties file will be used for all services that do not specify them in their own application.properties file.

If you encounter this problem with SAML authentication using POST, be sure to confirm that the amelia.content.security.header setting is defined with unsafe-inline and unsafe-eval options. If it is not defined, add the options as described above.

Also, if you have an older Custom UI configured with no custom headers, definitely update the amelia.content.security.header setting as described above. (AM5-12381)

1.2 RELEASE 6.10.0

INLINE CITATIONS WITHIN AMELIA ANSWERS MESSAGE

We've added a new setting within the Amelia Answers Settings called "Cite Inline Knowledge Source". This is available in the Auditability section of Amelia Answers Settings.

When set to True, the Amelia Answers response will include a new section with entries for all the sources used to generate the response. Inline within the response, there will be citations that point to specific sources used to generate part of an answer.

Note: For the 6.10.0 release, citations are supported only in the Custom UI interfaces. The test interface in the Amelia platform will not render the citations appropriately. (AM5-11911)

PROVIDE APIS TO EXPORT CONVERSATION RECORDINGS

Users can now access conversation recordings via APIs through Amelia's Rest Gateway. This is in addition to exporting recordings with the UI or storing recordings in an S3 bucket.

Users can export individual recordings or specify a list of conversations to export.

Recordings are exported as mp3 files and the export includes metadata about each recording. Bulk exports are exported within a Zip file. The new endpoints are within our swagger documentation, within the /metrics/domains/recordings endpoints. (AM5-12426)

ADD LLM TASK IN DEB

We've added an LLM block to the Digital Employee Builder tool where users can create an integration with an LLM from directly inside of a conversation flow. This allows our users to more easily build dynamic conversation flows and leverage cutting edge technology.

To use the block, users select a Cognitive Provider and build the prompt that's sent out to the LLM when that block is hit. Inside the prompt, users can reference and incorporate variables from the Builder flow. Users also can send over the transcript alongside their request for additional context for the LLM. (AM5-11964)

2. List of All Changes

This section provides a detailed list of all new features, improvements, and bug fixes.

2.1 RELEASE 6.10.0

2.1.1 Agent View

BUG

- My Responses Widget not visible to Agent (AM5-12334)
- Only See "My Responses" With Global Agent Permissions (AM5-12411)
- Duplicate CognitiveTaskSubTypes in ConversationSummarization.java Leads to Duplicated Dropdown Entries in UI (AM5-12444)
- Reset conversation id after conversation reset (AM5-12448)
- Display "No log messages so far" if there is no messages in console (AM5-12449)
- Accessibility issue in My Responses Section (Light Mode) (AM5-12479)

IMPROVEMENT

- Preprocessors tab in debug panel (AM5-12471)

2.1.2 Amelia Answers

BUG

- Stop sending redundant diagnosis events from Amelia Answers (AM5-12246)
- Nested Sitemaps are not being indexed for Amelia Answers (AM5-12267)
- Testing cognitive provider does not work for Azure Open AI because of content filtering (AM5-12307)
- Knowledge Sources that do not include Generated with QA Pairs are missing Search (AM5-12383)

NEW FEATURE

- Amelia Answer: Capture all sources and segments inside Debugging Tools (AM5-11063)
- Inline Citations and Multiple Sources within Amelia Answers Response (AM5-11911)

IMPROVEMENT

- Implement Answer Relevancy for Generation in Amelia Answer Pipeline (AM5-12143)
- Change Default Selection when Uploading a File to Amelia Answers (AM5-12310)
- Change default view within Knowledge Sources to Segments (AM5-12384)
- Utilize Current Year and Domain in Amelia Answers Analytics (AM5-12385)

2.1.3 Contact Center

IMPROVEMENT

- Add Hover Details to Column Headers in Agent Summary Table in Contact Center (AM5-12330)
- Add Hover Interaction to Table Rows in Contact Center (AM5-12331)
- Hide Columns in Supervisor View (AM5-12338)

2.1.4 Core Admin UI

BUG

- Add an action tab overlapped in Custom Cards (AM5-9627)
- Tried to mute Amelia queue but received an error in Contact Center (AM5-11925)
- Error message is not clear when disabling domain with no responders (AM5-12055)
- Mind view shows responder of the Amelia reply one or two steps before (AM5-12088)
- Options for HTML formatting and Speech SSML for Intent FAQ answers are missing in new UI (AM5-12132)
- Better UI error returns when deleting a user (AM5-12308)
- Not possible to change a name for adaptive card (AM5-12504)
- Unable to add the Facebook page in integration gateway (AM5-12518)
- No Escalation queue field on Solidus gateway (AM5-12519)

IMPROVEMENT

- Use variables autosuggest for custom properties in deb editor (AM5-10614)
- Support anonymous page access to Amelia (AM5-12062)
- Add icon to indicate a tab with an error message (AM5-12281)
- Ability to see corresponding data in debug panel for selected utterance (AM5-12290)
- Display list of available icons to choose from in ui bundle action (AM5-12322)
- Sort Amelia Utterance Alphabetically in Intent (AM5-12341)
- Display Number of Amelia Utterances in Intent (AM5-12342)
- Pagination of Utterances in Intent Screen (AM5-12343)
- Add ServiceNow Virtual Agent Handshake Message UI configuration to the ServiceNow Agent Chat gateway (AM5-12428)
- Translations tab in debug panel (AM5-12472)

2.1.5 Core BPN

BUG

- Tabular data BPNFAQTABLE file is not opening (AM5-12328)
- The contextService.extractFirstEntity does not permit use of parent domain entity (AM5-12377)

2.1.6 Core Framework

IMPROVEMENT

- Move LangChain service configuration from Domain settings to Cognitive Task Configuration (AM5-10294)
- Capture the reason of No Answer from Amelia Answers (AM5-11862)
- Allow context token limit to be specified in Cognitive Provider (AM5-12163)
- Add system tests for conversation closure API (AM5-12241)
- Set CSP header default-src to none (AM5-12324)
- Remove unsafe-inline and unsafe-eval options from amelia.content.security.header property in the application.properties file (AM5-12381)

2.1.7 Core LLM

BUG

- Improve OpenAi embeddings retry and failure case (AM5-12486)

IMPROVEMENT

- Support Custom Instruction in Agent Recommendation, Rephrasing, Conversation Summarization, Design assistant (AM5-11575)

2.1.8 Core NLU

BUG

- Dialog Act Cancel Retraining to manage overmatching (AM5-11125)
- Align classification statistics score formats (AM5-11749)
- Same Domain Name Translation file override on another instance (AM5-12157)
- Issue with Alternative intent (AM5-12198)

2.1.9 Core Other

BUG

- Slash issue in buttons (AM5-12259)
- OrchestratorRawSystemTest null pointer exception (AM5-12497)

NEW FEATURE

- Provide APIs to Export Conversation Recordings (AM5-12426)

2.1.10 Core Response Pools

BUG

- Response Pool Not Importing All Entries (AM5-12065)

- Bad request error while attempting to delete responses pools (AM5-12112)

2.1.11 Core Security

IMPROVEMENT

- Make SockJS httpMessageCacheSize and disconnectDelay configurable (AM5-12581)

2.1.12 Core System Entity

BUG

- Uploading files for Entity tagger training doesn't train (AM5-11906)

2.1.13 Core Tabular Data

BUG

- Default delimiter to comma in Tabular Data editor (AM5-12508)

2.1.14 Core UI

IMPROVEMENT

- Create routes so that new Amelia and Agent UIs are available on the same routes as in user-interface (AM5-11791)
- UI changes for OAuth for inbound messages to the Gateway Service from ServiceNow for the ServiceNow Agent Chat Gateway (AM5-12284)

2.1.15 DEB (Digital Employee Builder)

NEW FEATURE

- Add LLM Task in DEB (AM5-11964)
- Make Call LLM DEB Block conversation aware (AM5-12137)

2.1.16 Digital Employees

BUG

- Unable to create the UIPath configuration because of bad request error (AM5-10922)
- Entities browser sometimes have too wide and content changing width (AM5-11845)
- Adding the new intents to the datasets returns Bad request (AM5-12020)
- Utterances vs Amelia Utterances in the Intent FAQ (AM5-12191)

2.1.17 Gateway Service

BUG

- HTML characters in gateway configuration fields are replaced by their escaped characters in the gateway service configuration (AM5-5499)

IMPROVEMENT

- Ensure Amelia conversation ID is logged wherever feasible in Gateway Service logs (AM5-12228)
- Add Handshake Messages to Virtual Agent topic initiation code for ServiceNow Agent Chat (AM5-12387)
- Improve logging for outbound and inbound assertions and thread interruption for Gateways (AM5-12478)
- Improve logging for ServiceNow Agent Chat gateway (AM5-12494)

2.1.18 Gateway ServiceNowAgentChat

NEW FEATURE

- OAuth for incoming message from ServiceNow in the ServiceNow Agent Chat Gateway (AM5-12256)

2.1.19 Integration Service

IMPROVEMENT

- Update Jackson in Integration Service (AM5-12529)

2.1.20 Java SDK

NEW FEATURE

- Update Java SDK to support Voice Recording API (AM5-5981)

IMPROVEMENT

- Add AgentConversationApi in amelia-java-client and amelia-rest-web (AM5-12147)

2.1.21 LLM Model Server

IMPROVEMENT

- Update LLM model server config to support paraphrase model (AM5-11288)

2.1.22 Rest Gateway

BUG

- RestAPI not showing modified time (AM5-11928)

IMPROVEMENT

- Address formatting for net.ipsoft.amelia.rest.api.v1.MessagesToAmeliaApi (AM5-12499)

2.1.23 Translation

BUG

- Translation is causing inappropriate agent responses to user (AM5-11924)
- Translation issues with typing in Indonesian language (AM5-12114)
- Unwanted Locale Switch During Escalation (AM5-12452)

3. Component Versions

This section provides a detailed list of the version numbers for each component included in this release.

Table 1. Component Software Versions

Type	Amelia Release								
	6.10.0								
Custom User Interface	6.0.26								
HAproxy	2.8.3								
Percona	8.0.29-21.1								
Java JDK	11.0.24								
Redis/Redis Sentinel	7.0.13								
AV Gateway	1.2.8								
Syntaxnet	1.0.11								
Duckling	6.10.0								
amelia-coref-service	6.10.0								
amelia-assignment-en_us	5.7.0								
amelia-robertaqa-en_us	5.7.0								
amelia-facial-recognition	6.10.0								
amelia-embedding-service	6.10.0								
amelia-LangChain-service	6.10.0								
amelia-weaviate-service	1.24.6								

Table 2. Gateway Versions

Type	Amelia Release										
	6.10.0										
Alexa	6.10.0										
Amazon Lex	6.10.0										
Amazon Connect Escalation	6.10.0										
Cisco ECE *	6.10.0										
Digital First Omnichannel	6.10.0										
Email	6.10.0										
Facebook Messenger	6.10.0										
Five9	6.10.0										
Firebase Cloud	6.10.0										
Genesys Cloud Chat	6.10.0										

Type	Amelia Release										
	6.10.0										
Genesys PureCloud	6.10.0										
Genesys PureConnect	6.10.0										
Genesys PureEngage	6.10.0										
Gateway Service	6.10.0										
Google Chat	6.10.0										
InContact Escalation	6.10.0										
LinkMobility	6.10.0										
LiveEngage Messaging	6.10.0										
Meta Workplace	6.10.0										
Microsoft Teams	6.10.0										
Oracle Digital Assistant	6.10.0										
Oracle Service Cloud (REST)	6.10.0										
PEGA Chat	6.10.0										
REST	6.10.0										
Salesforce Chat	6.10.0										
Salesforce Escalation	6.10.0										
ServiceNow Chat Classic	6.10.0										
ServiceNow Agent Chat	6.10.0										
ServiceNow Escalation	6.10.0										
ServiceNow Virtual Agent	6.10.0										
Slack REST (V2)	6.10.0										
Solidus	6.10.0										
Sprinklr	6.10.0										
Symphony	6.10.0										
Twilio	6.10.0										
Twitter	6.10.0										
Webex	6.10.0										
Webex Teams	6.10.0										
Zendesk Sunshine	6.10.0										
Zendesk Sunshine Escalation	6.10.0										

* ECE: Cisco Enterprise Chat and Email

Table 3. Amelia Integration Framework (AIF) Versions

Type	Amelia Release										
	6.10.0										
Integration-Service	6.10.0										

4. Amelia 6.10.x System Architecture

This diagram reflects the current architecture of the Amelia software system.

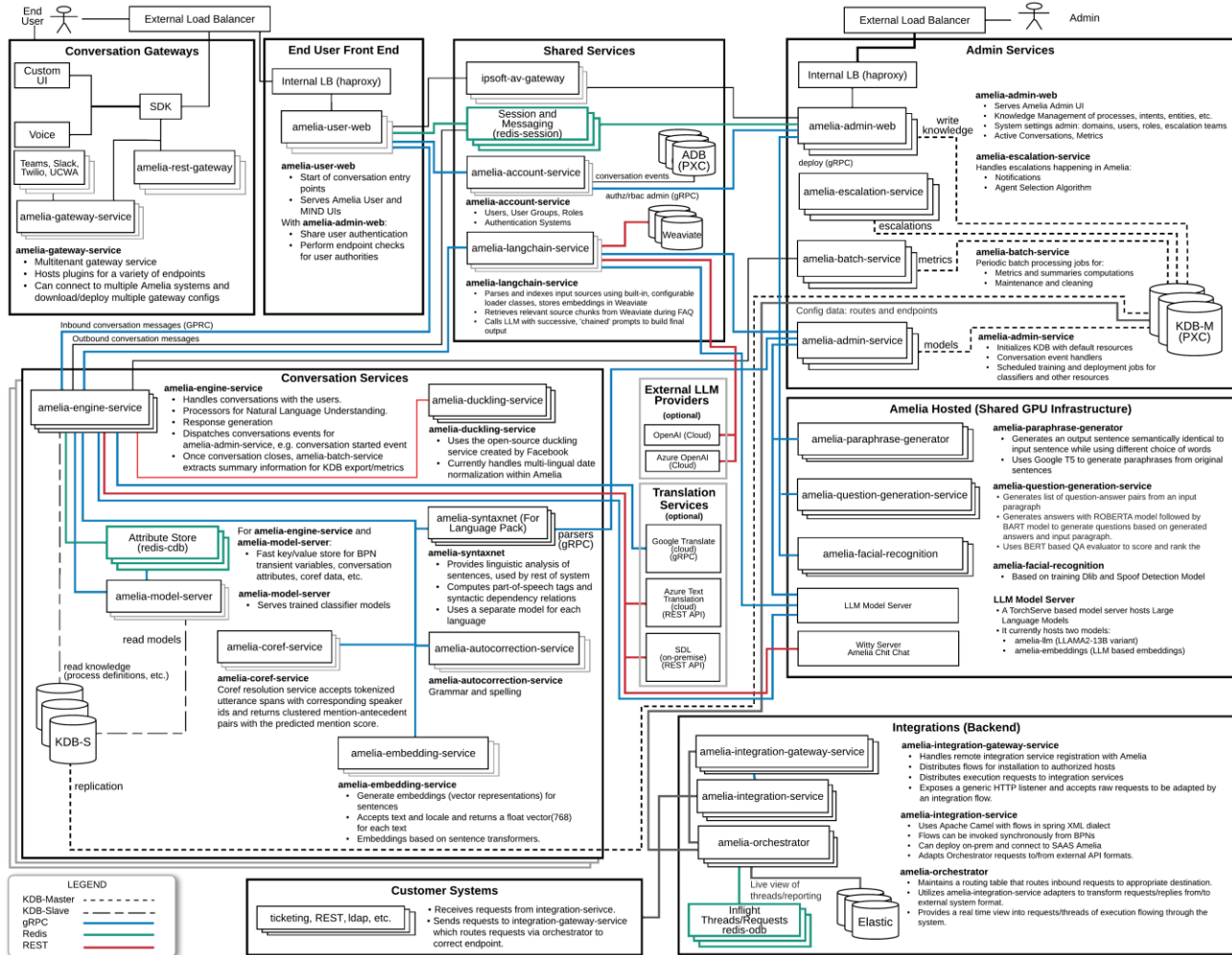


Figure 1. Amelia 6.10.x System Architecture

5. Glossary

This table describes common terms used in these release notes.

Table 4. Glossary of Terms

Term	Definition
ABA	Amelie Builds Amelia is a feature that dynamically builds digital employees.
AIML	Artificial Intelligence Markup Language (AIML) is an XML dialect used by natural language software agents. Elements marked up with AIML tell agents what to say in different situations and, in some cases, how to say their response.
API	Application Programming Interface is a set of subroutines, data structures, communication protocols, and other tools used to build software. An API provides the building blocks used by programmers to build software applications.
AVS	Amelia Voice Service is a technology to deliver Amelia functionality through voice interfaces.
Business Process Network (BPN)	Defines process-based interactions between Amelia and a user, for example, unlocking an account or resetting a password.
Classifier Model	A data set Amelia creates with intents, entities, utterances, and other data to understand conversation used to describe a topic. Algorithms process the input data to evaluate the importance and weight of words and phrases in the data set.
CMS	Content Management System is one or more software programs used to create, manage, and publish digital content.
CPU	A central processing unit (CPU) is the most important processor in a computer. Its electronic circuitry executes arithmetic, logic, controlling, and input/output operations.
CQA	Clarifying Question Answer (CQA) is the ability for Amelia to determine potential confusion within utterances and ask questions to clarify the user intent in the utterance.
CSS	Cascading Style Sheets (CSS) is a style sheet language used to specify the presentation of documents written in a markup language such as HTML or XML.
CSV	Comma Separated Values is a text file where row data is separated (delimited) with commas.
DEB	Digital Employees Builder is a feature that allows users to create flows that map Amelia's responses within conversations.
DNN	A Deep Neural Network (DNN) is an artificial neural network that mimics the complex neural networks in animal and human brains. DNNs have multiple layers between input and output with each layer evaluating utterances for words and the relationships between words.
ELMo	Embeddings from Language Model (ELMo) is a Natural Language Processing (NLP) model used to evaluate utterances to determine the meaning of a single word based on words around it. For example, the word bank has different meanings in the utterances, "The bank down the street was robbed" and "We had a picnic on the bank of the river." The words robbed and river indicate the word bank has a different meaning in each sentence.
Entity	Data collected to complete an intent goal, for example, a date of birth for a loan application.

Term	Definition
EQA	Elaborate Question Answering (EQA) involves asking dynamic follow-up questions for more information when an utterance doesn't converge on an intent.
FAQ	A list of frequently asked questions related to a specific topic.
FQT	Fully Qualified Task, a task that has been evaluated as acceptable to be processed to resolution.
HMR	Hot Module Replacement is a feature of webpack software module bundler to allow modules to be exchanged, added, or removed while a software application runs.
IdP	An identity provider (IdP) is a system entity that issues authentication assertions with one or more single sign-on (SSO) profiles using SAML (Security Assertion Markup Language).
Intent	The user's goal, for example, to qualify for an auto loan. The goal requires a process to complete.
JEXL	Java Expression Language is library to provide dynamic scripting features in applications and frameworks written in the Java programming language.
JSON	JavaScript Object Notation is a text data storage standard that uses name (key):value pairs to organize data in an ordered list easily processed by many programming languages.
JWT	JSON Web Token is an open standard that defines a compact and self-contained way to securely transmit information between parties as a JSON object.
LDAP	The Lightweight Directory Access Protocol (LDAP) is an open cross platform protocol used for directory services authentication. LDAP is a language application used to communicate with directory services to authenticate users.
LLM	A Large Language Model is a form of artificial intelligence trained on vast amounts of content to understand a broad range of topics and return answers. A language model is a machine learning model trained to predict the order of words in a sentence to extract meaning.
LP	Language Pack, software that when installed provide Amelia with the ability to speak a specific language.
MIME	MIME (Multi-Purpose Internet Mail Extensions) is an extension of the original Internet e-mail protocol to let people exchange different kinds of data files on the Internet, for example, audio, video, images, application programs, and other kinds, as well as the ASCII text handled in the original protocol.
Negative Utterances	An unlabeled training utterance, negatives help Amelia learn the difference between tasks and knowledge she is trained on and things she is not. They help Amelia understand words that are similar but have different unrelated meanings than utterances used to trigger the intent goal and Amelia's processes.
NER	Named Entity Recognition is part of extracting information to locate named entity mentions in unstructured text then classify the entities into categories, for example, person names, organizations, and date/time expressions.
NLP	Natural Language Processing (NLP) mixes computer science, information engineering, and artificial intelligence to program computers to analyze and understand natural human language, the unconstructed casual way people talk.
NPE	NullPointerException is a Java RuntimeException. In Java, a special null value can be assigned to an object reference. A NullPointerException is thrown when an application attempts to use an object reference that has the null value.
PSA	The Personal Speech Act (PSA) is a classifier used to identify insults and compliments.

Term	Definition
SAML	Security Assertion Markup Language (SAML) is an open standard used to exchange authentication and authorization data between an identity provider and a service provider. SAML is an XML-based markup language.
SDL	Software and Documentation Localization is an on-premises language translation service that provides secure automatic translation.
SpEL	Spring Express Language is a programming language that supports querying and manipulating an object graph at runtime.
SSL	Secure Sockets Layer is a security technology to establish an encrypted link between a web server and web browsers.
SSO	Single sign-on (SSO) is an authentication scheme to allow users to log in with a single ID and password to any of several related yet independent software applications. SSO passes an authentication token seamlessly to applications configured to receive and process tokens.
TLS	Transport Layer Security (TLS), and its now-deprecated predecessor, Secure Sockets Layer (SSL), are cryptographic protocols designed to provide communications security over a computer network. Websites use TLS to secure all communications between their servers and web browsers.
TSV	Tab Separated Values is a text file where row data is separated (delimited) with tabs.
URL	A uniform resource locator (URL) points to a resource location on a computer network, for example, a web page on a web server.
Utterance	Words that represent a natural language sentence, for example, "I want to reset my password." A variety of possible utterances a person might say in a conversation are used to train Amelia.
XML	Extensible Markup Language is a markup language and file format used to store, transmit, and reconstruct data. Its structure is both human readable and machine readable.
XSS	Cross-site Scripting (XSS) attacks inject malicious scripts into the web pages of otherwise benign trusted websites. This allows attackers to bypass access controls and other security measures. While XSS initially described using one or more websites to breach another website, XSS also includes other forms of data injection attacks.