AMELIA

Cognitive Agent

Amelia 6.1.0 Release Notes
(Document version 1.0)

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Document History

Author	Version	Date	Comments	Final Approval?
Amelia Research & Development	1.0	January 26, 2024	Added bug fixes and new functionality for 6.1.0	Yes

1. Overview

This document briefly lists significant changes to Amelia because of 6.0.x version releases. A detailed list of all new features and bug fixes are listed in the next section of this document.

1.1 HIGHLIGHTS BY RELEASE

The What's New page for the online documentation for this release links to descriptions of these highlighted tickets.

1.1.1 Release 6.1.0

CORE ADMIN UI
- Add Exclusive Agent Group setting to escalation team workspace to assign groups of agents to a team (AM5-8461)
- Set escalation queue Resolution Codes and Work Time in Contact Center Escalation Queue workspace (AM5-8981)

LANGCHAIN SERVICE
- Add a new amelia-langchain-service available at domain level (AM5-8416)

2. List of All Changes

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

2.1 RELEASE 6.1.0

2.1.1 Bugs

CORE ADMIN UI
- Version and Publish buttons in BPN workspace overlap (AM5-6033)
- Publish preview search query parameter does not return results in Admin API (AM5-6853)
- Loading dataset tab, saving it once, then saving a second time on same tab load corrupts data (AM5-7175)
- Creating duplicate parent or child folder name doesn't display error message (AM5-7601)
- Deleting a folder error message should include the BPN folder name (AM5-7602)
- Drag and dropping gateways doesn't work in Orchestrator (AM5-7686)
- Semantic validation prevents saving routes (AM5-7780)
- Data Set Annotations page does not offer to create intents if not present already (AM5-7789)
- Integration template permissions works for global permissions not individual (AM5-7847)
- Adjust FaceCall UI for thumbs up/down buttons when conversations are long (AM5-7851)
- Restore ability to add tags for Response Entries in Response Pool workspace (AM5-7865)
- Amelia Builds Amelia clickable text is unreadable Light Theme (AM5-7891)
- Poor Dutch translation in Admin UI for concepts of save and disabled (AM5-7995)
- Add New button for Conversation Reports does not display on Firefox (AM5-8033)
- Fix Web Actions panel browser and position of Import button (AM5-8055)
- Intent links with Flow/BPN ID instead of name and chats are escalated when intent is triggered (AM5-8056)
- Deployed UI bundle cannot be accessed/viewed in new interface design (AM5-8092)
- Intent process executed when returning to root context is saved with flow ID instead of flow name (AM5-8101)
- BPN Run Subprocess opens sub flow in new tab and loses access to main BPN (AM5-8112)
- Unable to do bulk intent Edit on ingested intent utterances with API call (AM5-8124)
- Gateways deployed are not being displayed with API call (AM5-8133)
- Unable to copy to clipboard fields from intents, entities, response pools (AM5-8145)
- Incorrect vertical scroll placement for Audit Log (AM5-8183)
- Agent page loads when selecting Orchestrator from the dropdown menu (AM5-8191)
- Typo in "Version could not be deleted" message when undeploying UI theme (AM5-8242)

- Unable to save or create new virtual host in Virtual Hosts workspace (AM5-8253)
- Learning workspace chart does not adjust automatically for data or width (AM5-8255)
- Contact Center link from Orchestrator redirects to old Agent Supervisor page (AM5-8256)
- Hide Auth Systems menu unless user has AUTHORITY_ADMIN_RBAC authority (AM5-8259)
- By default BPN is selected in debugger even when Digital Employee Builder flow is present (AM5-8295)
- Intent workspace displays Amelia Utterances panel when Use FAQ is selected in Action panel (AM5-8312)
- Provide feedback if Agent View My Responses Excel sheet is invalid (AM5-8319)
- Cannot select blank as an option for some Intent workspace settings (AM5-8325)
- Restore Request ID data in Thread tab of View Request tab workspace (AM5-8331)
- Task history portlet is always empty for ITO Tasks (AIOps Tasks) (AM5-8338)
- Restore ability to view full list of intents in Statistics tab of Models tab workspace (AM5-8360)
- Restore display of statistics as percentages in Statistics tab of Models tab workspace (AM5-8362)
- Restore display of training files for older model versions in Models tab workspace (AM5-8365)
- Clicking Logout link logs the user in when SSO is enabled (AM5-8380)
- Latest flow name should be listed and highlighted at the top after an Amelia Builds Amelia (ABA) process (AM5-8385)
- Fix Amelia Voice configuration tab in Digital Employee Builder (DEB) Amelia Says block (AM5-8396)
- Digital Employee Builder (DEB) conversation flow Preview button should display error message if flow has no data (AM5-8446)
- Agent Summary View shows empty when Escalation Team contains Agents From domains the Supervisor cannot access (AM5-8476)
- Scripts workspace caches validation results and returns incorrect messages for valid scripts (AM5-8490)
- Do not reference Document Faq if that subsystem is active but the QA Pairs FAQ subsystem is inactive (AM5-8529)
- Display accurate error message when deleting user from escalation team is invalid (AM5-8530)
- Autosuggest feature in domain dropdown list displays oversized font (AM5-8555)
- Creating custom datum entity with lookup table doesn't save all entries (AM5-8559)
- Display Access Denied message in tab workspace if user is not permissioned for auth systems (AM5-8597)
- Changing Ask block response type to Yes/No should update loopback edges (AM5-8601)
- UI Bundle workspace preview does not persist when tab changes (AM5-8602)
- Import New Tabular Data button is cropped at top right of Tabular Data workspace (AM5-8665)
- Bot Network link on Digital Employee home workspace doesn't lead to Bot Network workspace (AM5-8669)
- User idle time appears for closed conversations in Contact Center workspace (AM5-8780)
- Entries in Entities list panel are not vertically aligned (AM5-8782)
- Execute Process setting link to flow is duplicated and opens BPN not Builder flow in Intent workspace (AM5-8785)
- Configuration tab in escalation gateway workspaces fails to load data (AM5-8793)
- Default login page should not be visible if SSO login is enabled (AM5-8798)
- Saving existing Amelia Builds Amelia flows does not display confirmation status (AM5-8806)
- Utterance Annotation Tool produces HTML instead of annotation metadata (AM5-8819)

- Amelia Builds Amelia Configure button is out of alignment in the Configure tab (AM5-8831)
- Cancel and Apply buttons not aligned in the Publish popup in Digital Employees Conversation Flows (AM5-8834)
- No error message displays when Website Link URL is empty in Amelia Builds Amelia Test tab (AM5-8836)
- Unable to change reponse pool domain in Builder Amelia Asks block properties panel (AM5-8964)
- Optimize space used to display Semnet document processing message (AM5-8998)
- FAQ download API times out when document has many items (AM5-9005)
- Display tooltip above P-SLA value in Contact Center Home tab workspace (AM5-9046)
- Intent Tester workspace resumes testing a deleted test (AM5-9062)
- UI name changes cause validation rejections when saving escalation queues (AM5-9067)
- Intent Prediction Score tab in Intent Tester workspace displays "Request failed" message (AM5-9082)
- Browser New Escalation notifications don't display reliably in all scenarios (AM5-9148)

CORE AGENT VIEW
- Loading expired conversations in Agent View Closed panel fails to load conversations and displays spinner (AM5-7615)
- Set Supervisor workspace to display current day as default not rolling 24 hours (AM5-7799)
- Agent Summary in the Contact Center Manager tab workspace does not show offline users (AM5-8564)
- Right edge Agent and Mind links in Amelia chat workspace redirect to incorrect destinations (AM5-8868)

CORE BPN
- Remove closure serialization validation warning because Groovy closures are automatically serialized and deserialized (AM5-7736)
- Allow upload of whitelisted items that do not fall into standard object type buckets (AM5-8209)
- Valid Builder block edge expressions are prefixed with bpn:otherwise() (AM5-8154)
- Unicode characters are not processed correctly in Web Service Actions or Consume Web Service BPN tasks (AM5-8519)
- Property panel Response Pool setting for Amelia Asks and Amelia Says blocks doesn't display all response pools (AM5-9010)

CORE ENCRYPTION
- Google Cloud Platform (GCP) external Key Management System (KSM) support not working with Application Default Credentials (ADC) authentication (AM5-7690)

CORE FAQS
- Clicking download link in Face Call chat interface fails to download file (AM5-6879)
- Make fact checking more consistent with context splitting and rephrasing instructions (AM5-7859)
- Support embeddings from Azure OpenAI Service (AM5-8344)
- Size for the document is 0 when parsed by LangChain. (AM5-8599)
- Document processing takes time after being indexed in LangChain (AM5-8618)
- Uploading multiple FAQ documents fails (AM5-8742)
- Uploading XML file throws "Extension does not match content" error in FAQ workspace (AM5-8745)
- LangChain service must point to different embedding services when indexing vs inference (AM5-9051)

- JSON URL fails to index an integration template (AM5-9052)

CORE FRAMEWORK

- Amelia active conversation display fails to cleanup due to deletion error (AM5-3150)
- Amelia Builds Amelia screens do not display well in light mode (AM5-7252)
- Conversation status API requires global observe authority with domain level authority (AM5-7646)
- Agent coref application.properties setting should be disabled by default (AM5-7714)
- Saving Amelia Builds Amelia flow displays loading message instead of saving (AM5-8752)
- Empty FAQ results are not being processed (AM5-8840)
- Handle LangChain errors gracefully (AM5-8858)
- API call to return users for group only returns users that are immediate members and not users that are members via member groups. (AM5-8953)
- Circular references are possible with user groups (AM5-8954)
- Remove outdated JavaScript libraries to address security fixes (AM5-8967)
- Remove IDK checks for the LangChain responses (AM5-9000)
- FAQ workspace stalls when processing large sitemaps using a URL (AM5-9014)
- Configure Azure embeddings to work with LangChain (AM5-9030)
- QA responder returns error in addition to an answer (AM5-9039)
- Initialize Null EscalationQueue AfterConversationWork to be 0 (AM5-9058)
- Parsing some PDF documents causes infinite loop (AM5-9124)
- Minor version migration script change in 6.1 causing application failure. (AM5-9175)

CORE GRAMMAR

- Detect recursive references in NLU grammars (AM5-7618)

CORE NLU

- CQA feature triggers when evaluating models after it is switched off in NLU Settings (AM5-5464)
- Spelling and grammar correction should not be applied to button values and similar (AM5-5585)
- Intent Tester returns incorrect results compared to Predict workspace (AM5-7448)
- Adding a QA Pair manually displays 400 error code (AM5-8263)
- Restarting Amelia Builds Amelia (ABA) does not display same reset flow in left and right panels (AM5-8309)
- Failure of Knowledge Ingestor import in Amelia Builds Amelia (ABA) displays status as Complete not Failed (AM5-8333)
- Display, process, and index files when multiple FAQ files are selected (AM5-8526)
- Intents list in Amelia Builds Amelia (ABA) is not fully visible (AM5-8621)
- Amelia Builds Amelia bulk import of PDFs displays binary data not readable data (AM5-8622)
- Handle Time updates continuously when conversation status is CLOSED in Contact Center workspace (AM5-8691)
- Deployment version dropdown list is inactive in Amelia Builds Amelia DEB workspace (AM5-8832)
- Long utterances in DEB editor always expand beyond block boundaries (AM5-9020)
- Spaces in variable or entity name in Amelia Builds Amelia process prevents deployment of flow (AM5-9021)

- Auto Scroll to the Chat window bottom when a User Input is entered (AM5-9136)

CORE OTHER
- Supervisor workspace doesn't display accurate agent user TimeZone for active chats (AM5-7565)
- Norwegian language not detected correctly when using Azure Translation (AM5-8958)

CORE TRAINER
- Intent Learning workspace does not display transcripts for selected utterance (AM5-8673)

CORE UI
- Bot network error message should display error reason not the error type (AM5-2628)
- Don't auto-translate intent model version numbers when the UI language is set to non-English (AM5-7984)
- Voice properties disappear in imported workflow when Builder Amelia Asks block is clicked (AM5-8327)
- File upload widget gets stuck when uploaded file size exceeds the limit (AM5-8343)
- After file is uploaded in FaceCall hide browse component generated by Request block (AM5-8539)

CUSTOM UI
- Selecting Auto build option creating Amelia Builds Amelia flow displays "Auto Undefined" message (AM5-8845)

DIGITAL EMPLOYEE BUILDER (DEB)
- Period appended at the end of sentences in Amelia Says or Amelia Asks blocks (AM5-7405)
- Option to activate/deactivate auto save disappears after flow is deployed (AM5-7531)
- Cannot copy tasks between DEB tabs (AM5-8009)
- Valid/Invalid/IDK flow panels need to be added back to the interface (AM5-8176)
- Adding same custom property to DEB block causes one property to disappear (AM5-8186)
- Amelia Asks and Amelia Says block properties aren't updated after modifying response pools defined for the blocks (AM5-8202)
- Advanced tabs for Amelia Digital Employee Builder (DEB) Present, Push Conversation, Request, Subflow blocks do not display settings (AM5-8379)
- Subflow properties message suggests using BPN version when creating DEB flow (AM5-8432)
- Unable to complete custom datum form displayed by Amelia in a conversation (AM5-8453)
- The response: prefix does not match with response.matches expression in Amelia Asks block (AM5-8468)
- Deploying Builder flow with Amelia Asks block at end displays End Event is Missing error message (AM5-8554)
- Changing Amelia Asks block to Amelia Says block converts invalid edge to infinite self-loop (AM5-9143)
- Changing responder setting to empty in Amelia Asks block property panel triggers Invalid Response pool (AM5-9144)

GATEWAY REST
- Rest Gateway apiSession cleanup job not firing (AM5-7655)
- Agent Summary API method has incorrect model response in its summary (AM5-7661)

- Add shared logging pattern to Rest gateway properties file to streamline troubleshooting (AM5-9138)

INTEGRATION SERVICE
- Do not allow spaces when creating and updating integration asset names (AM5-8737)

JAVA SDK
- Remove no longer present in core OutboundSemNetFaqDetailMessage (AM5-9174)

LANGCHAIN SERVICE
- Fix errors happening when calling Amelia LLM and deletion API (AM5-8512)
- LangChain service errors Missing transformer dependencies for LangChain service (AM5-8830)
- Error handling in LangChain and propagate errors to caller (AM5-8857)
- Langchain RetrievalQAWithSourcesChain returns 'UNKNOWN' in obvious cases (AM5-8985)

2.1.2 New Features

CORE ADMIN UI
- Fix BPN Designer UI issues with icons, text, labels in Light and Dark themes (AM5-95)
- Add ability to view and search FAQ pairs assigned to sections and delete sections (AM5-2314)
- Added modal with details of errors and warnings when a submission has problems (AM5-5525)
- Display intents list in Builder Flow Settings and BPN Start Event property panels (AM5-6309)
- Response pools and entity utterances should support annotations (AM5-6339)
- Add ability to configure chat box text for UI Bundle for main menu, header menu, chat header menu, and chat menu with JSON text view (AM5-7248)
- Add Voice configuration tab and options for BPN and Builder property panels (AM5-7300)
- Improve NLU routes to handle intent mapping, matching and generalizing routes, and text changes (AM5-7414)
- Add Amelia Voice configuration tab in Digital Employee Builder (DEB) Amelia Says block (AM5-7758)
- Create a placeholder message to display on empty home pages (AM5-8004)
- Prevent XSS entered by knowledge designer (AM5-8063)
- Add Consume Web Service URL support to BPN UI to help with migrating content (AM5-8070)
- Filter out activated domain subsystems in the domain admin subsystem dropdown list (AM5-8104)
- Optimize translation of UI labels to Swedish in admin UI (AM5-8117)
- Add created and createdBy fields to get list of revisions API (AM5-8157)
- Organize gateways by Escalation and Conversation types in New Integration tab workspace (AM5-8187)
- Optimize translation of UI labels to French in admin UI (AM5-8192)
- Add footer message setting as an advanced feature for virtual hosts (AM5-8210)
- Optimize the FAQ loading process with processing and status display updates (AM5-8244)
- Show warning if there are no system responders in domain (AM5-8247)
- Revisions tab of UI Bundles workspace lists Custom UI revision names and numbers (AM5-8278)
- Add preview feature to display changes live when making Custom UI changes (AM5-8279)
- Knowledge ingester import should send autoBuild request parameter to true when uploading files (AM5-8290)

- Add autosuggest to all domain dropdown selectors (AM5-8328)
- Set defaults for Authentication Policy, Locale, and Timezone when creating users (AM5-8329)
- Change the Cleanup Transcript button icon in User Basic tab panel (AM5-8330)
- Add footer message setting as an advanced feature for virtual hosts (AM5-8339)
- Allow using Integration Properties in Web Actions (AM5-8340)
- Add back colors to Models workspace statistics to indicate intents that are good, can do better, and need work (AM5-8361)
- Filter out already selected datasets from the Training Datasets dropdown lists in the Models tab workspace (AM5-8363)
- Add Exclusive Agent Group setting to escalation team workspace to assign groups of agents to a team (AM5-8461)
- Sort list of Training Datasets and Validation Datasets options in Models workspace (AM5-8482)
- View all teams an agent is assigned and assign an agent to a team (AM5-8567)
- Redesign interface and process to create, manage, and revise UI Bundles (AM5-8572)
- Add Reset to Default button to reset UI Bundle settings to their default values (AM5-8573)
- Create API to get list of response pool utterances would support withAnnotations (AM5-8595)
- Modify API to get utterance annotation to be returned with Slot utterances (AM5-8609)
- Create API to return configurationSchema for UI Bundle (AM5-8637)
- Contact Center conversation Details panel changes URLs on tab switch (AM5-8661)
- Add support for FAQ document ingestion for sitemaps and list of URLs (AM5-8710)
- Refactor gateway integration process to be reusable and support integration type in URL (AM5-8718)
- Display meaningful error message when Semnet document or Knowledge Ingestor import fails (AM5-8738)
- Add teams API to list user assigned escalation teams, bulk add teams, bulk delete teams (AM5-8740)
- Add UI changes to add Property Set in Webaction (AM5-8759)
- Use entity description in entity prediction using LLMs (AM5-8784)
- Add FAQ pair API to fetch pairs for sections and move pairs between sections (AM5-8861)
- Set escalation queue Resolution Codes and Work Time in Contact Center Escalation Queue workspace (AM5-8981)
- Add Needs Resolution link in Agent View Conversations panel to manage closed conversations awaiting resolution (AM5-8982)
- Download FAQ Pairs button should respect download status (AM5-9031)
- Limit FAQ pair status values that can be changed with batch jobs (AM5-9054)
- Add summaries field to list the message log and log level (AM5-9079)
- Display version number in UI Bundles panel in Administration UI Bundles workspace (AM5-9149)

CORE AGENT VIEW
- Add Responses Templates in Contact Center to allow supervisors to create canned responses to display in Agent View Responses panel (AM5-6244)
- Amelia can offer agent wrapup behavior when agent or user closes the conversation (AM5-7459)
- Increase escalation Reason column width to decrease page height of Tasks page (AM5-7718)
- Add optional property to restrict exclusive supervisors to view only their queues (AM5-7800)

- Display Online Agents and Available Agents for escalation queues in Transfer Conversation popup (AM5-7818)
- Current agent must not see conversations transferred to another agent (AM5-7947)
- At the end of current escalation distribution logic additionally distribute to the agent that is longest available (AM5-7993)
- /Amelia/admin/api/supervisor/agent-summary API incorrectly calculates totalElements (AM5-8579)
- Export APIs should include Agent Wrap Up Time (AM5-8772)

CORE AIML
- ChitChatEditModel should have localeId and directory fields (AM5-7637)

CORE BPN
- Allow agents to resize Agent View chat window (AM5-7817)
- Whitelist internal SimpleTemplateEngine classes (AM5-8354)
- Create persistent value of reprompt count from a prior BPN Ask task with voice:askRepromptCount() (AM5-8505)
- Auto Feedback Negative setting in Ask task/blocks no longer a default in Other Responders panel (AM5-8547)

CORE ENCRYPTION
- Extract amelia-crypto from core into module that can be shared (AM5-7702)

CORE FAQS
- Use OpenAI embeddings for Semnet answers (AM5-6150)
- Activating "Did you want to show additional info?" FAQ Setting always sends first FAQ response to all channels (AM5-7764)
- Add FAQ import support for uploading sitemap file then importing the URLs (AM5-8106)
- Add configuration to use a link to hide content for Additional Info for FAQs (AM5-8137)
- Add system prompting to OpenAi Chat Completion API for use with FAQs (AM5-8464)
- Allow the execution of a BPN after FAQ responds (AM5-8495)
- Predict feature doesn't display similarity scores for different FAQ pairs (AM5-8546)
- Remove old indexing fallback that causes indexing delays when LangChain is selected (AM5-8563)
- QaResponder should use LangChain service for answering (AM5-8594)
- Add core support for configurable prompt for LangChain service (AM5-8596)
- UI should support new format of FAQ Messages (AM5-8777)
- Enhance FAQ responses to format lists and full sentences based on type of content (AM5-8817)
- Use CQA to clarify user request before FAQ LLM returns an answer (AM5-8908)
- CQA question provided as an answer triggers DontKnow subsystem responder (AM5-8943)
- Pick up new conversation summaries of FAQ pairs with Document FAQ responder batch jobs (AM5-8944)
- Use optional domain level LangChain service to optimize FAQ responses (AM5-8975)
- Prevent prompt injection attacks in DocumentFaq responder (AM5-8997)
- Change Langchain PDF Loader to PyMuPDFLoader (AM5-9060)
- FAQs should map to section chunk based on similarity between section and answer (AM5-9061)

- Optimize FAQ responses for quotations around answers, unwanted phrases, and data titles (AM5-9088)
- Optimize FAQ responses for quotations around answers (AM5-9094)
- Optimize FAQ responses for data source titles (AM5-9108)
- Optimize FAQ responses to remove "according to the context", typos, and intro sentences (AM5-9114)
- Optimize FAQ responses to remove end of response "This information is from source 16-pl" (AM5-9120)

CORE FRAMEWORK

- Improve Amelia Builds Amelia layout by adding to sidebar, home page, and a Show All button (AM5-7500)
- Use Brandfetch API to augment Amelia Builds Amelia Publish preview feature (AM5-7636)
- Add partitioned cookies so embedded custom UI continues to work (AM5-7678)
- Allow publish preview of Amelia Builds Amelia (ABA) flows (AM5-8238)
- Integrate new LangChain service with Amelia core (AM5-8418)
- Fix application error message to address pen test findings (AM5-8422)
- Add predictFaq method to ContextService to return best answer with details like document extracted from (AM5-8583)
- Create configurable prompt for new LangChain service (AM5-8735)
- Display completion percentage value below the Amelia Builds Amelia progress bar (AM5-8746)
- Display user option messages when Amelia Builds Amelia discovery and build process completes (AM5-8747)
- Display newly created flows on left side when Amelia Builds Amelia process completes (AM5-8748)
- Amelia Builds Amelia should list flows built from latest transcript above flows from earlier transcripts (AM5-8764)
- Use publish preview data to display Amelia UI instead of calling Brandfetch API directly (AM5-8786)
- Update SDK to include new message OutboundAdditionalResponseMessage (AM5-8797)
- Improve LangChain prompt to return better results (AM5-8918)
- Add document URL parsing to identify content type file extensions in URLs (AM5-9001)
- Accept After Conversation Work after active conversation expired (AM5-9073)

CORE NLU

- Have different configurations for Embedding Services for engine and admin service (AM5-7875)
- Shift+Enter creates new line to add steps in Amelia Builds Amelia prompt box (AM5-8447)
- Send the correct mime type for resource-download API (AM5-8630)
- Display processing status messages for Amelia Builds Amelia Knowledge Ingestor and Transcript features (AM5-8693)
- Display Builder blocks as they are imported into the Amelia Builds Amelia workspace (AM5-8769)
- Failed Amelia Builds Amelia process displays a success message (AM5-8792)

CORE OTHER

- Expand Amelia Builds Amelia text input field size limit to match LLM token limits (AM5-7873)
- Add AUTHORITY_UNLIMITED_CONCURRENT_USER_SESSIONS to Global Gateway Service user group (AM5-9142)

CORE SECURITY
- Add authority to manage escalation team members and read only for escalation team details (AM5-7575)
- LangChain connection should be on TLS enabled by default (AM5-9038)

CORE UI
- Rename Train button to Add Model in MODELS panel in Models workspace (AM5-7983)

DIGITAL EMPLOYEE BUILDER (DEB)
- Selection policy missing for existing entities in Amelia Asks block (AM5-2495)
- Need a feature to adding Yes/No Ask questions from UI (AM5-4409)
- Add Creator Name and Creation Datetime to Digital Employee Builder (DEB) list of deployed versions of a flow (AM5-8102)
- Amelia Asks block should support entity question selection policy (AM5-8258)
- Add Yes/No buttons for Ask blocks with response:yes() and response:no() edges (AM5-8612)

GATEWAY CORE
- Gateways API should return gateway type (AM5-8201)

SINTEGRATION SERVICES
- Develop chat-completion model support with cognitive search support for Azure OpenAI integration with Amelia (AM5-8096)

JAVA SDK
- Update SDK to include new field added for AIML API (AM5-7638)
- Add property set in webaction in SDK (AM5-8825)
- Update SDK to invoke BPNs with an FAQ (AM5-8956)
- Add AfterEscalationWorkTime and TabularDataId to EscalationQueue in SDK (AM5-9072)

LANGCHAIN SERVICE
- Add a new amelia-langchain-service (AM5-8416)
- Refactor Amelia-langchain-service (AM5-8489)
- Support Azure OpenAI for new LangChain service (AM5-8494)
- Create configurable text splitter for new LangChain service (AM5-8570)
- Reduce context size used to provide context in LLM prompt (AM5-8574)
- New LangChain service should support indexing QaResponder subsystem (AM5-8719)
- Work on the langchain service to ensure OpenAI CQA & FAQ works end-to-end (AM5-8720)
- Update grpcio to 1.53.0+ to address CVE report (AM5-8946)
- Add support for dynamic FAQ mapping with sections in new LangChain service (AM5-9111)

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								
	6.1.0								
Custom User Interface	5.19.30								
HAproxy	2.6.12								
Percona	8.0.29-21.1								
Java JDK	11.0.19.7								
Redis/Redis Sentinel	7.0.03								
AV Gateway	1.2.7								
Syntaxnet	1.0.10								
Duckling	6.1.0								
amelia-coref-service	6.1.0								
Amelia-question-generation-service									
amelia-assignment-en_us									
amelia-robertaqa-en_us									
amelia-facial-recognition	6.1.0								
amelia-embedding-service	6.1.0								
amelia-langchain-service	6.1.0								
amelia-weaviate-service									

Table 2. Gateway Versions

Type	Amelia Release								
	6.1.0								
Alexa	6.1.0								
Amazon Lex	6.1.0								
Cisco ECE *	6.1.0								
Digital First Omnichannel	6.1.0								
Email	6.1.0								
Facebook Messenger	6.1.0								
Firebase Cloud	6.1.0								
Genesys Cloud Chat	6.1.0								
Genesys PureCloud	6.1.0								

	Amelia Release										
Type	6.1.0										
Genesys PureConnect	6.1.0										
Genesys PureEngage	6.1.0										
Gateway Service	6.1.0										
Google Chat	6.1.0										
InContact Escalation	6.1.0										
LinkMobility (WhatsApp)	6.1.0										
LiveEngage Messaging	6.1.0										
Meta Workplace	6.1.0										
Microsoft Teams	6.1.0										
Oracle Digital Assistant	6.1.0										
Oracle Service Cloud (REST)	6.1.0										
PEGA Chat	6.1.0										
REST	6.1.0										
Salesforce Chat	6.1.0										
Salesforce Escalation	6.1.0										
ServiceNow Chat Classic	6.1.0										
ServiceNow Agent Chat	6.1.0										
ServiceNow Escalation	6.1.0										
ServiceNow Virtual Agent	6.1.0										
Slack REST (V2)	6.1.0										
Solidus	6.1.0										
Sprinklr											
Symphony	6.1.0										
Twilio	6.1.0										
Twitter	6.1.0										
Webex Teams	6.1.0										
Zendesk Sunshine	6.1.0										

* ECE: Cisco Enterprise Chat and Email

Table 3. Amelia Integration Framework (AIF) Versions

	Amelia Release										
Type	6.1.0										
Integration-Service	6.1.0										

Amelia 6.1.0 Release Notes (version 1.0) — Page 15

4. Amelia 6.1.x System Architecture

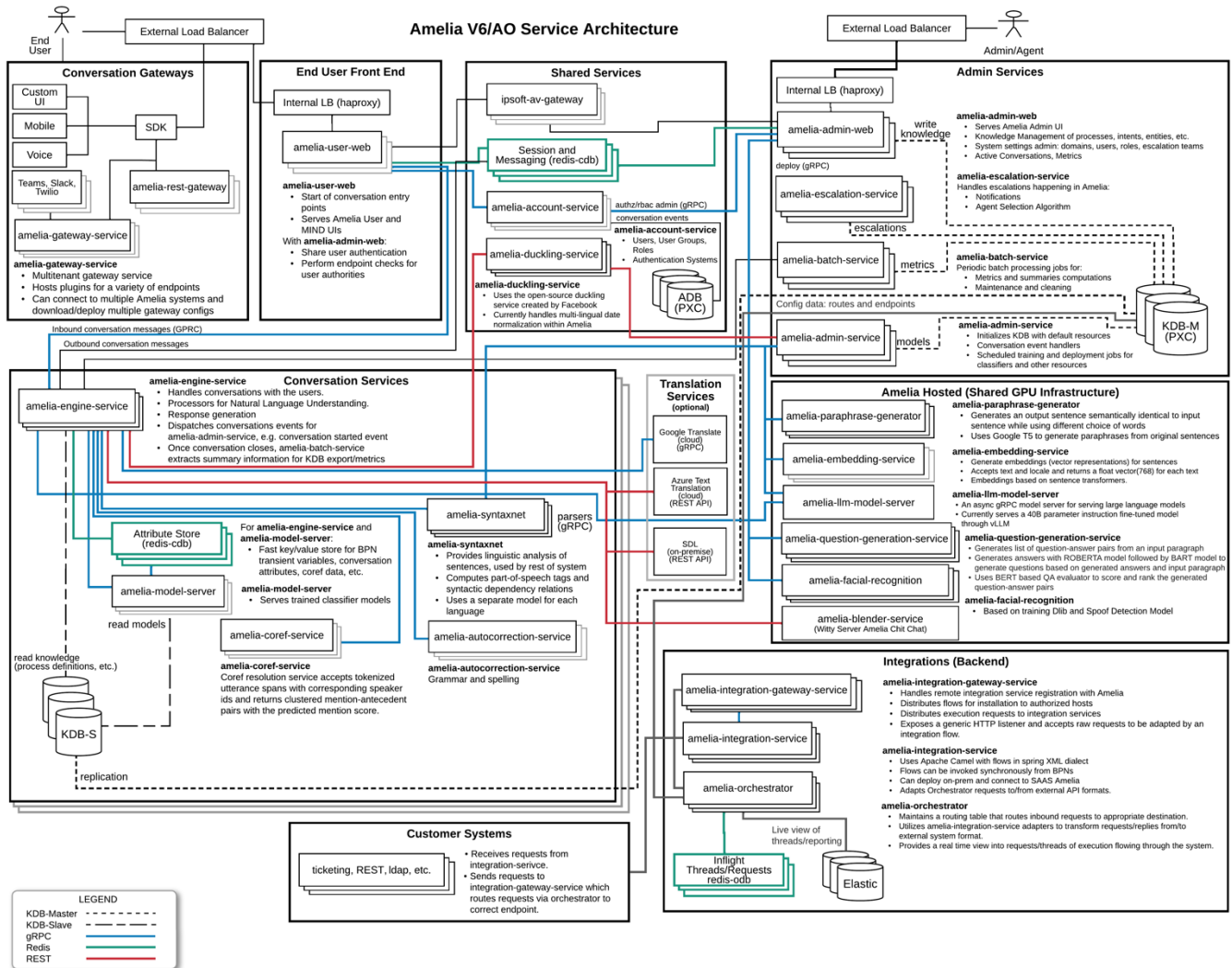This diagram reflects the current architecture of the Amelia software system.

Amelia V6/AO Service Architecture

End User

External Load Balancer

External Load Balancer

Admin/Agent

Conversation Gateways
- Custom UI
- Mobile
- Voice
- SDK
- Teams, Slack, Twilio
- amelia-rest-gateway
- amelia-gateway-service

amelia-gateway-service
- Multitenant gateway service
- Hosts plugins for a variety of endpoints
- Can connect to multiple Amelia systems and download/deploy multiple gateway configs

End User Front End

Internal LB (haproxy)

amelia-user-web

amelia-user-web
- Start of conversation entry points
- Serves Amelia User and MIND UIs

With **amelia-admin-web**:
- Share user authentication
- Perform endpoint checks for user authorities

Shared Services

ipsoft-av-gateway

Session and Messaging (redis-cdb)

amelia-account-service

authz/rbac admin (gRPC)
conversation events

amelia-account-service
- Users, User Groups, Roles
- Authentication Systems

amelia-duckling-service

amelia-duckling-service
- Uses the open-source duckling service created by Facebook
- Currently handles multi-lingual date normalization within Amelia

ADB (PXC)

Admin Services

Internal LB (haproxy)

amelia-admin-web

write knowledge

amelia-admin-web
- Serves Amelia Admin UI
- Knowledge Management of processes, intents, entities, etc.
- System settings admin: domains, users, roles, escalation teams
- Active Conversations, Metrics

deploy (gRPC)

amelia-escalation-service

amelia-escalation-service
Handles escalations happening in Amelia:
- Notifications
- Agent Selection Algorithm

escalations

amelia-batch-service

metrics

amelia-batch-service
Periodic batch processing jobs for:
- Metrics and summaries computations
- Maintenance and cleaning

Config data: routes and endpoints

amelia-admin-service

models

amelia-admin-service
- Initializes KDB with default resources
- Conversation event handlers
- Scheduled training and deployment jobs for classifiers and other resources

KDB-M (PXC)

Inbound conversation messages (GPRC)
Outbound conversation messages

Conversation Services

amelia-engine-service

amelia-engine-service
- Handles conversations with the users.
- Processors for Natural Language Understanding.
- Response generation
- Dispatches conversations events for amelia-admin-service, e.g. conversation started event
- Once conversation closes, amelia-batch-service extracts summary information for KDB export/metrics

Attribute Store (redis-cdb)

For **amelia-engine-service** and **amelia-model-server**:
- Fast key/value store for BPN transient variables, conversation attributes, coref data, etc.

amelia-model-server

amelia-model-server
- Serves trained classifier models

read models

read knowledge (process definitions, etc.)

KDB-S

replication

amelia-coref-service

amelia-coref-service
Coref resolution service accepts tokenized utterance spans with corresponding speaker ids and returns clustered mention-antecedent pairs with the predicted mention score.

amelia-syntaxnet

parsers (gRPC)

amelia-syntaxnet
- Provides linguistic analysis of sentences, used by rest of system
- Computes part-of-speech tags and syntactic dependency relations
- Uses a separate model for each language

amelia-autocorrection-service

amelia-autocorrection-service
Grammar and spelling

Translation Services (optional)

Google Translate (cloud) (gRPC)

Azure Text Translation (cloud) (REST API)

SDL (on-premise) (REST API)

Amelia Hosted (Shared GPU Infrastructure)

amelia-paraphrase-generator

amelia-paraphrase-generator
- Generates an output sentence semantically identical to input sentence while using different choice of words
- Uses Google T5 to generate paraphrases from original sentences

amelia-embedding-service

amelia-embedding-service
- Generate embeddings (vector representations) for sentences
- Accepts text and locale and returns a float vector(768) for each text
- Embeddings based on sentence transformers.

amelia-llm-model-server

amelia-llm-model-server
- An async gRPC model server for serving large language models
- Currently serves a 40B parameter instruction fine-tuned model through vLLM

amelia-question-generation-service

amelia-question-generation-service
- Generates list of question-answer pairs from an input paragraph
- Generates answers with ROBERTA model followed by BART model to generate questions based on generated answers and input paragraph
- Uses BERT based QA evaluator to score and rank the generated question-answer pairs

amelia-facial-recognition

amelia-facial-recognition
- Based on training Dlib and Spoof Detection Model

amelia-blender-service (Witty Server Amelia Chit Chat)

Integrations (Backend)

amelia-integration-gateway-service

amelia-integration-gateway-service
- Handles remote integration service registration with Amelia
- Distributes flows for installation to authorized hosts
- Distributes execution requests to integration services
- Exposes a generic HTTP listener and accepts raw requests to be adapted by an integration flow.

amelia-integration-service

amelia-integration-service
- Uses Apache Camel with flows in spring XML dialect
- Flows can be invoked synchronously from BPNs
- Can deploy on-prem and connect to SAAS Amelia
- Adapts Orchestrator requests to/from external API formats.

amelia-orchestrator

amelia-orchestrator
- Maintains a routing table that routes inbound requests to appropriate destination.
- Utilizes amelia-integration-service adapters to transform requests/replies from/to external system format.
- Provides a real time view into requests/threads of execution flowing through the system.

Live view of threads/reporting

Inflight Threads/Requests redis-odb

Elastic

Customer Systems

ticketing, REST, ldap, etc.
- Receives requests from integration-serivce.
- Sends requests to integration-gateway-service which routes requests via orchestrator to correct endpoint.

LEGEND
- KDB-Master
- KDB-Slave
- gRPC
- Redis
- REST

Figure 1. Amelia 6.1.x System Architecture

IPSOFT PROPRIETARY

5. Glossary

This table describes common terms used in these release notes.

Table 4. Glossary of Terms

Term	Definition
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.
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.
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.
CSV	Comma Separated Values is a text file where row data is separated (delimited) with commas.
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.
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).

Term	Definition
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.
LDAP	The Lightweight Directory Access Protocol (LDAP) is an open cross platform protocol used for directory services authentication. LDAP is a language applications use to communicate with directory services to authenticate users.
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.
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-premise 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.

Term	Definition
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.
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.