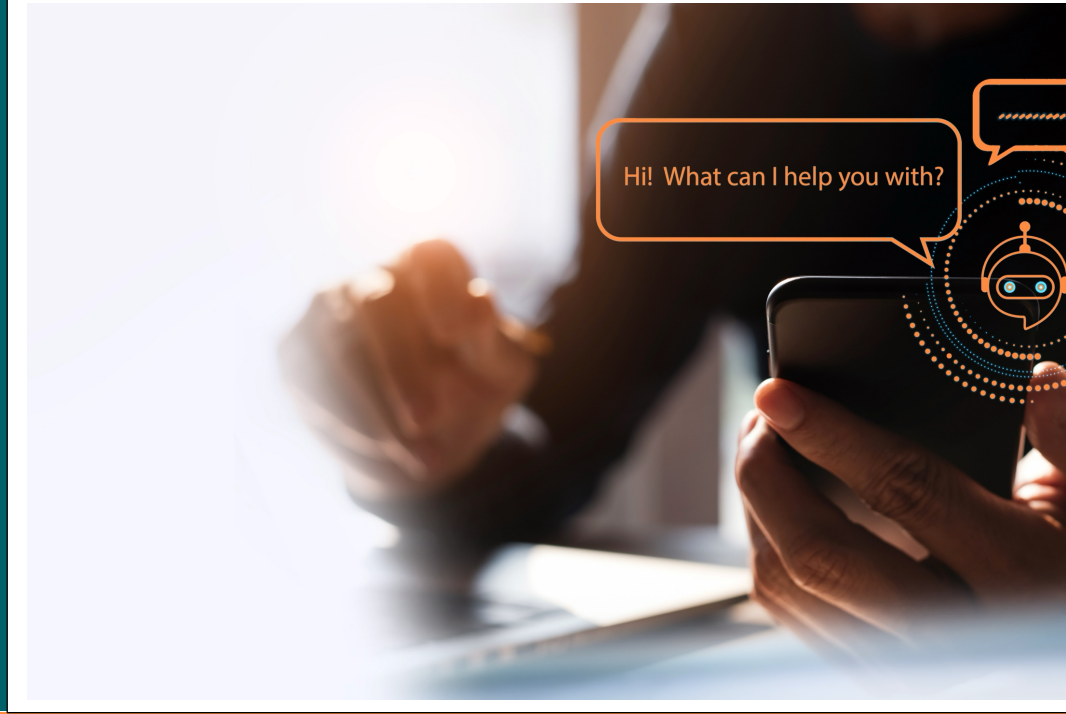


The Gluon Release of V-Person™ Technology



A conversational AI platform delivering the next generation of customer and employee engagement by putting you in complete control of the AI.

creative**virtual**
The science of conversation™

Featuring: A flexible architecture for V-Person chatbot, virtual agent, and live chat technologies and a refreshed design of V-Studio™, the V-Person management platform, Creative Virtual's Gluon release delivers the next generation of conversational AI.

The Gluon release of V-Person technology makes it quicker and easier to build, deploy, and maintain effective conversational AI solutions. Gluon puts you in control of the AI to create accurate, reliable engagement at scale.

You can deliver better experiences for customers and employees with enhanced integration options, enriched personalisation capabilities, and sophisticated dialogue management.

From leveraging large language models (LLMs) to creating complex and connected conversation flows, V-Studio's intuitive user interface makes it simpler to deploy and maintain your solutions without compromising on any functionality.

This release is based on Creative Virtual's two decades of experience in the industry and close collaborations with our customers and partners. It combines trends in customer and employee engagement with the real needs and challenges of organisations. The Gluon release delivers innovation designed with function, usability, and business results in mind.

For businesses taking a composable approach to customer and employee experiences, the Gluon release provides the tools and technology needed for conversational AI success.

The flexible architecture of V-Person and refreshed design of V-Studio create added agility and flexibility combined with the advanced functionality Creative Virtual is known for delivering. This enables you to create and implement innovative solutions at scale to meet customer and employee needs even during times of rapid change.

The Gluon Release



Flexible Architecture of V-Person & V-Studio

Microservices | Containerisation | Low-code & no-code | Large language models | Other third-party systems | Single Sign On

Refreshed design of V-Studio

Conversational flow manager | Theme builder | Content management | User management | User customisation

Artificial Intelligence

Controlling the black box | Using large language models | Testing the system

Business Intelligence

Real-time data streaming | Customisable reporting



Flexible architecture of V-Person & V-Studio

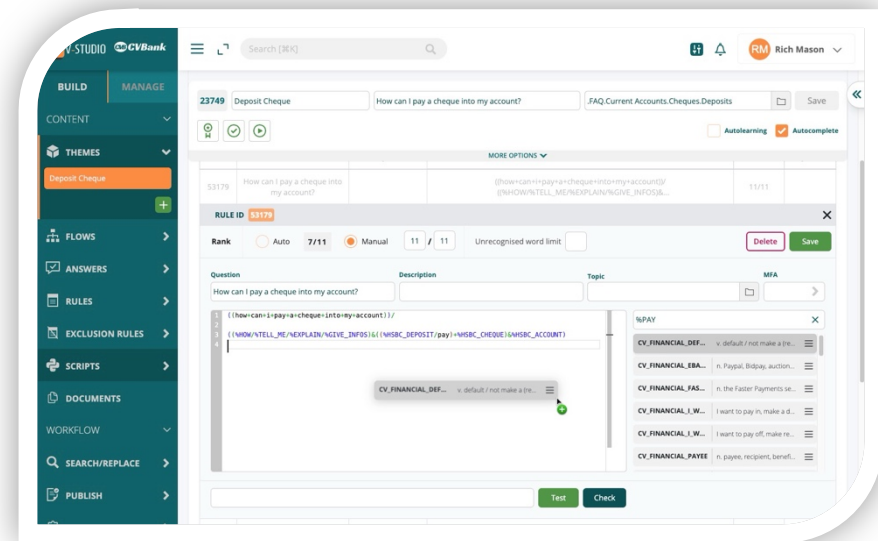
The Gluon release of V-Person technology features a flexible architecture at both the front and backends to improve scalability and simplify deployment. This architecture enables a more functional user interface, improvements to our machine learning approach, and additional business intelligence options.

MICROSERVICES V-Studio leverages a microservices architecture to provide more flexibility in development workflow. This also allows for accelerated product iteration and integration of third-party applications around Creative Virtual's world-leading technologies. A microservices architecture better supports the composable business approach with the agility needed to develop and deliver innovative conversational AI solutions at scale for better customer and employee experiences.

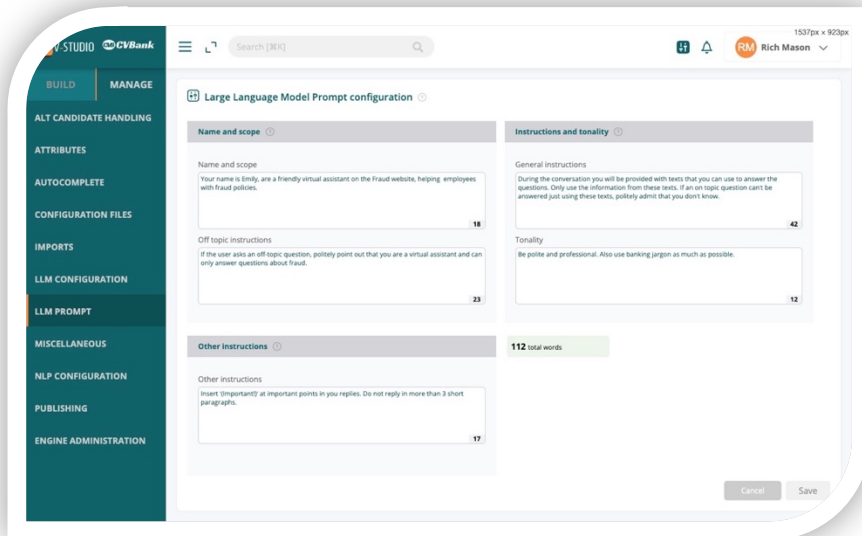
CONTAINERISATION The wholesale adoption of containerisation brings numerous benefits, including simpler deployment and upgrade processes for cloud, secure cloud, and on-premise customers as well as greater scalability.

LOW-CODE & NO-CODE The Gluon release offers support for low-code and no-code virtual agent development and maintenance. This backs composable business efforts and enables non-programmers to help design seamless conversational AI engagements.

For example, the updated conversational flows editor supports the drag-and-drop of pre-built components



for integration with third party systems, such as checking the availability of live chat agents. Likewise, the NLP rules editor allows the drag-and-drop of pre-defined encapsulated language rules, and the built-in Python editor allows the drag-and-drop of predefined functions to instantly populate all the required parameters for value filling.



LARGE LANGUAGE MODELS The Gluon release delivers native support for LLMs such as GPT3/4 within the V-Studio platform. The flexible architecture enables this deeper integration as well as allowing for integration with other LLMs if desired. This expanded capability supports options for developing and configuring response delivery strategies based on best confidence. Real-time testing of the solution within V-Studio shows the origins of the matching method (e.g. predefined rule or LLM match), as does reporting on production environment engines.

OTHER THIRD-PARTY SYSTEMS The Gluon release delivers easier integration with contact centre platforms, CRMs, voice technologies, and other internal systems. V-Person technology offers an extensive collection of pre-built connectors for a variety of third-party systems, as

well as the flexibility of custom Python code for advanced integration possibilities. The redesigned V-Studio interface makes it more straightforward to utilise these integrations when crafting content and guided flows with a drag-and-drop library of pre-defined connectors.

SINGLE SIGN ON The Gluon release expands V-Studio's seamless and secure Single Sign On (SSO) capabilities with a wider range of authentication providers through the adoption of Okta as the primary Identity and Access management platform. This will support OpenID Connect, SAML, OAuth, and LDAP/Active Directory.

SSO will also allow optional identification of end users of the virtual agent at the point of entry, with most social media platforms supported out-of-the-box. Identification of users will enable support for unbroken conversations and, with proper authorisation, access to user information such as name to enhance the user experience through personalisation.

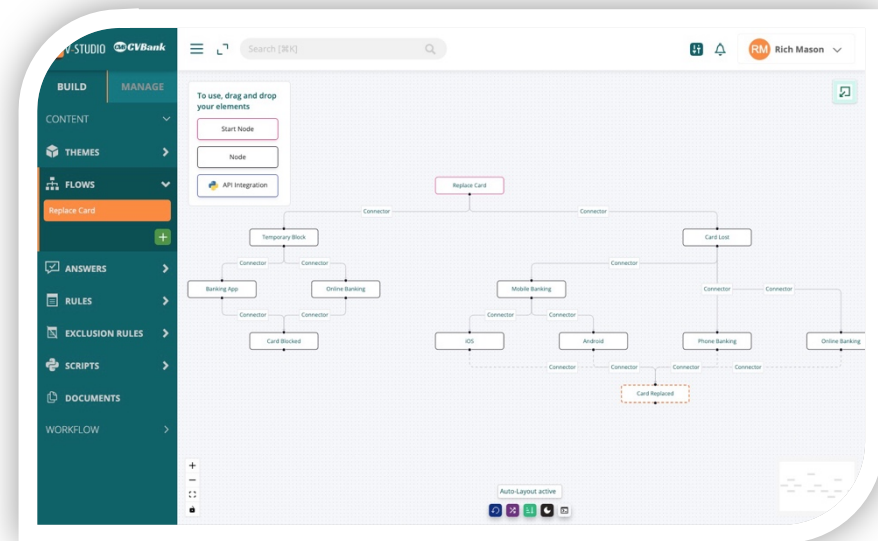


Refreshed design of V-Studio

The Gluon release brings to the market a refreshed design of V-Studio, Creative Virtual's comprehensive conversational AI platform. The updated platform employs modern user interface frameworks to reimagine its advanced functionality and make the tool more intuitive. The new design helps streamline processes, makes the platform more user friendly, and seamlessly supports no-code and low-code options.

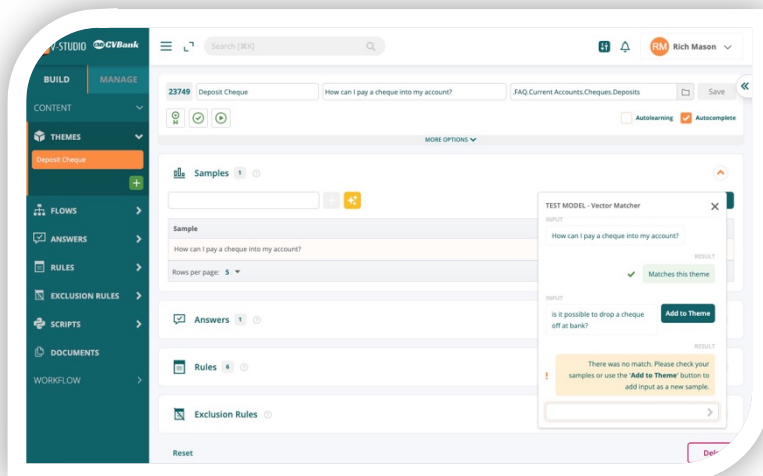
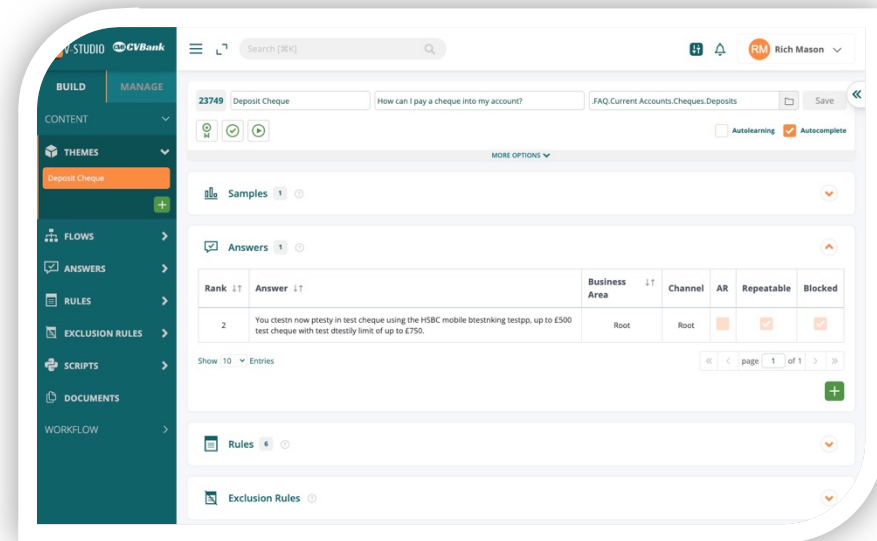
CONVERSATION FLOW MANAGER The Gluon release makes it easier to craft customised conversation flows with a ground-breaking visual flow manager. The intuitive drag-and-drop interface allows for the building of complex and connected conversation flows. It supports sub-flows and more perceptive entity extraction and slot-filling functionality. This facilitates sophisticated personalisation delivered in a more natural conversational style.

Adding customised conversation flows enables the V-Person system to guide users through processes step-by-step. These flows are useful for troubleshooting account or device issues, submitting forms and applications, completing transactions, and pinpointing a very specific piece of information to assist the customer.



THEME BUILDER The new design of V-Studio creates a more straightforward experience for building, testing, and maintaining system themes. Within one screen, users can view and edit a theme's natural language rules, exclusion rules, and answers. Answers support rich media including images, videos, and carousels. Users can easily test and make updates on a single theme builder screen.

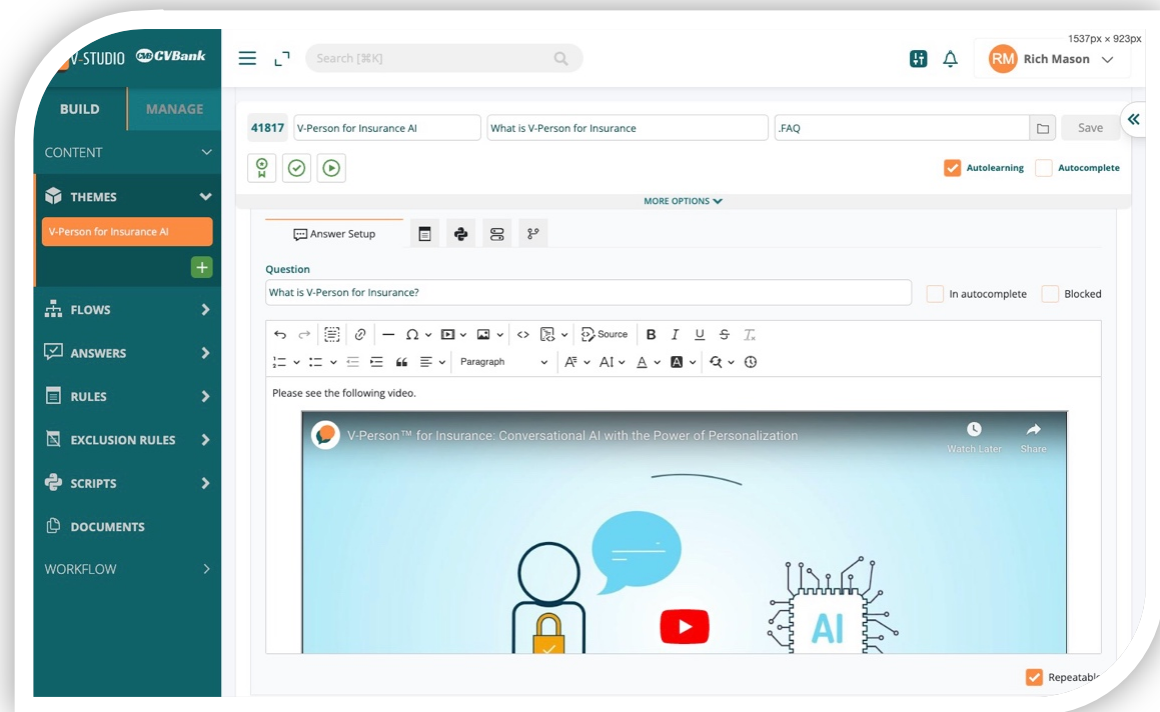
The theme builder makes it quicker and easier to ensure reliability of the system with options to interface with LLMs, configure responses based on best confidence, deploy rules to override the machine learning where required, and create exclusion rules.



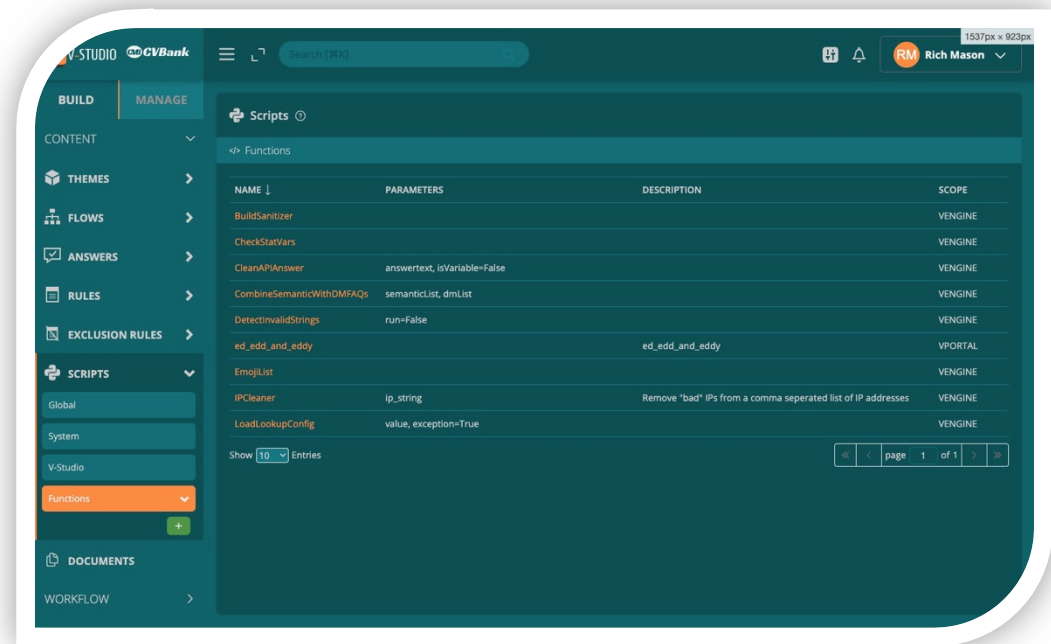
CONTENT MANAGEMENT V-Studio gives organisations options to create and maintain all content within the platform, integrate with external content sources, or use a combination of both for their conversational AI solution. The knowledge management capabilities within V-Studio allow for content to be organised and structured in a way that aligns with how the solution will be used. It is combined with workflow functionality and user management to make sure content is created, reviewed, and updated in a timely manner by the right team members.

V-Studio's content management supports multiple versions of answers for a single theme, giving granular control over the responses given, allowing for optimisation for individual channels, and enabling the management of multi-lingual solutions within a single knowledgebase. This creates options for presenting users with a specific response based on a variety of criteria, including channel, authenticated user profile, or selected language. The platform also supports the use of rich media such as diagrams, images, and videos in addition to text and hyperlinks within the answers.

USER MANAGEMENT User management within V-Studio is simplified with a new role-based system designed with the large enterprise in mind. This makes it easier to control project access while still allowing for customised settings for the creation, approval, and publishing of content. User profile and permission settings are combined with easy-to-use workflows and audit trails to assist with setting priorities, complying with company and industry regulations, and ensuring content accuracy.



USER CUSTOMISATION V-Studio's modern design delivers even more options for users to create a personalised platform experience. Users can customise their dashboard using a variety of built-in widgets as well as third-party widgets so they can see the information most important to them. These re-arrangeable widgets include system conversation insights and trends, project tasks, and engine status. The Gluon release also offers a dark mode setting and the ability to select a platform language independent of the knowledgebase content's language.





Artificial Intelligence

The Gluon release provides machine learning with pragmatic and verifiable maintenance made possible through our hybrid approach to natural language processing (NLP): combining our proprietary and proven rules-based approach with the power of large language models (LLMs) such as GPT. This creates easier and quicker builds for new deployments as well as seamless migration for existing projects.

CONTROLLING THE BLACK BOX Other conversational AI platforms use a 'black box only' approach that makes you feel like you're playing 'Whac-A-Mole' when trying to train the system: you make changes then have to hope the algorithm updates correctly. This method is frustrating, time consuming, and highly inefficient, especially with very specific or overlapping content. It undermines the success of your project with less accurate, reliable chatbot and virtual agent deployments.

With Creative Virtual's signature blend of machine learning and a rules-based approach to NLP, there is no neural network black box to fear. The machine learning component is integrated with workflow functionality, so you decide the best configuration for your conversational AI tool to continuously improve in a controlled and reliable way. At the same time, natural language rules can be used as an 'override' to the machine learning to ensure accuracy, resolve content clashes, and deliver very precise responses when needed. No other conversational AI platform offers this level of enterprise-grade functionality.

USING LARGE LANGUAGE MODELS

The flexible architecture of Gluon enables integration with external LLMs as part of our hybrid approach to conversational AI. In particular, the native support for models such as GPT/4 in this release allows for it to be used in place of our own neural network. It is implemented using a vectorisation method for theme classification. Using LLMs delivers value to V-Person solutions by reducing the required time and effort for deployment, removing the need to re-train the system, and increasing accuracy of the AI matching in many cases.

Organisations preferring not to use LLMs will still have the option to use our in-house neural network instead.

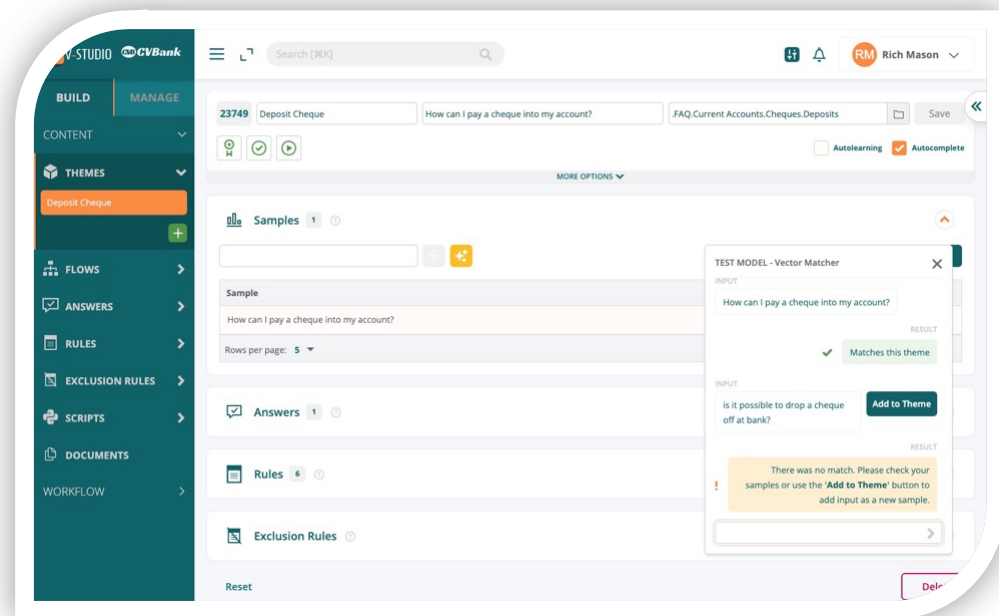
For some deployments, certain content types, and specific use cases, customers can opt for on-premise or secure cloud deployment of the language model, thus ensuring data security and privacy.

Regardless of which neural network or LLM you opt to use for your V-Person solution, it is integrated with workflow functionality in V-Studio to allow for custom configuration and control of the machine learning.

The screenshot shows the 'Large Language Model Configuration' interface in V-Studio. The left sidebar contains a navigation menu with options: BUILD, MANAGE, ALT CANDIDATE HANDLING, ATTRIBUTES, AUTOCOMPLETE, CONFIGURATION FILES, IMPORTS, LLM CONFIGURATION (highlighted), LLM PROMPT, MISCELLANEOUS, NLP CONFIGURATION, PUBLISHING, and ENGINE ADMINISTRATION. The main panel is titled 'Large Language Model Configuration' and contains several sections: 'Language Model' with a dropdown set to 'OpenAI - GPT-3.5'; 'Model Selection' with fields for 'API URL (embeddings endpoint)' (https://api.openai.com/v1/embeddings), 'Vectorization Model (the specific model to use)' (text-embedding-ada-002), and 'Chat Model' (gpt-3.5-turbo); 'Limits' with fields for 'Number of Themes to return in list' (10), 'Max. Samples' (5), and 'API Call Timeout (in seconds)' (1); 'Insertion configuration' with fields for 'Insertion main rank (integer, 0-20)' (10), 'Insertion sub rank (integer, 0-20)' (10), and 'VM insertion similarity difference threshold'; and 'Matching configuration' with fields for 'VM insertion similarity difference Theme count' (4), 'Sample fraction' (0.75), and 'Weight growth'.

TESTING THE SYSTEM Users can test the system from the theme screen, seeing if an input successfully matches that theme, matches a different theme in the knowledgebase, or doesn't match any existing themes. An input that has no match or is not providing the correct response can be quickly addressed right within that same screen.

V-Studio also provides a full testing window with options to set test parameters, view related data, and see if an input is matching based on the machine learning model or a natural language rule.



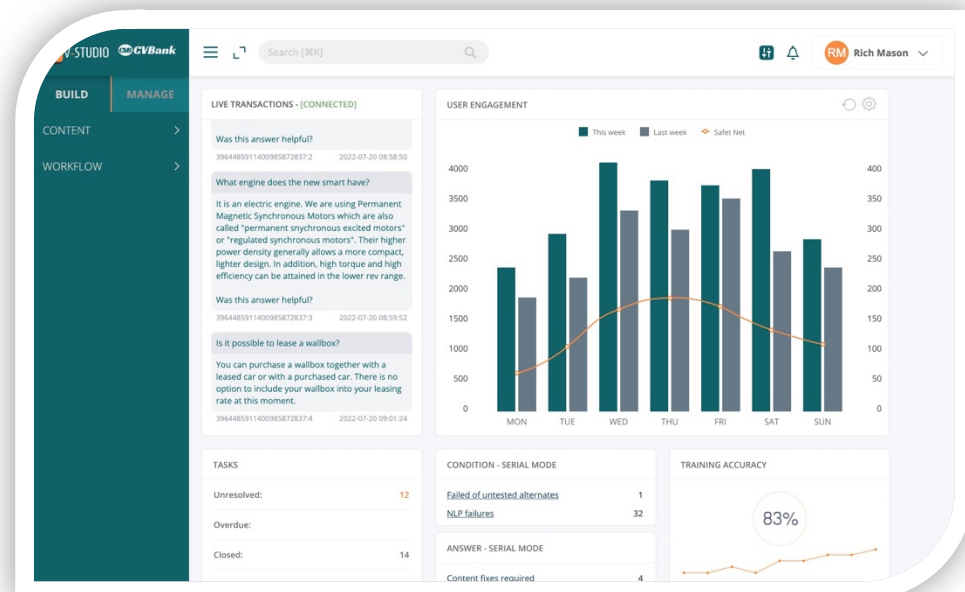


Business Intelligence

The Gluon release expands the business intelligence capabilities of V-Studio to deliver comprehensive insights for V-Person chatbot, virtual agent, and live chat solutions. Users can generate and analyse conversational analytics and user feedback through customised reporting.

REAL-TIME DATA STREAMING Support for real-time data streaming, including Kafka event streaming, is available within the Gluon release, enabling the stream-savvy to tap into the heavily enriched transactional data produced by the Creative Virtual V-Engine. This allows for real-time analysis of the data as well as bespoke storage solutions for later deep mining and processive business intelligence production. Event streaming helps support composable business with the insights needed to identify and deliver solutions thoughtfully and quickly.

CUSTOMISABLE REPORTING V-Studio delivers a wealth of metrics to track performance and help with further system improvements through both standardised and customised reporting. Users can create a personalised dashboard to bring together the most important information to view at a single glance. Reports allow users to analyse headline statistics as well as drill down into the performance of very specific pieces of content, business areas, or channels.





The Gluon Release of V-Person technology delivers the next generation of conversational AI

As a pioneer in the industry, Creative Virtual is proud of our pivotal role in the evolution of conversational AI technology and the ways it can be implemented. The Gluon release continues our two-decade history of innovation and builds on our long track record of successful collaborations with organisations around the world.

We are a true conversational AI partner that becomes a trusted extension of your own team, helping you address your biggest challenges and achieve real results. We offer:

- Options for hosting on-premise, cloud, and private cloud (including the language model)
- A variety of pricing models that align with your business, solution, and internal budgeting needs
- Offices around the globe and an extensive partner network delivering local support and international insights
- Experience developing solutions in over 40 languages to deliver native language and multi-lingual support
- Expertise in building a business case, developing conversational AI strategies, and improving existing projects
- Proven results with award-winning customer support, employee support, and contact centre agent support solutions
- Industry-specific solutions for Financial Services, Telecommunications, Travel & Hospitality, Retail, Government, Utilities, Insurance, Healthcare, and Charities

Take your conversational AI strategy to the next level with the Gluon Release of V-Person Technology.

Contact Creative Virtual's expert team today: www.creativevirtual.com | info@creativevirtual.com