Synaptein Solutions

Synaptein- Enhancing Digital Process Automation with Pega Integration

Introduction:

Synaptein is a cutting-edge digital process automation platform designed to streamline and optimize business processes across various industries. With its seamless integration with Pega, a leading provider of customer engagement and digital process automation solutions, Synaptein empowers organizations to achieve unparalleled efficiency, agility, and customer-centricity in their operations.

Key Features and Benefits:

Unified Platform for End-to-End Automation:

Synaptein integrates seamlessly with Pega's robust digital process automation capabilities, providing organizations with a unified platform for end-to-end automation. From process orchestration and workflow management to case management and decisioning, Synaptein leverages Pega's advanced tools and frameworks to automate complex business processes with ease.

Intelligent Decisioning and Analytics:

Leveraging Pega's powerful decisioning capabilities, Synaptein enables organizations to make smarter, data-driven decisions in real-time. By analyzing vast amounts of data and applying predictive analytics and machine learning algorithms, Synaptein helps organizations optimize their processes, personalize customer experiences, and drive business outcomes.

Omni-Channel Customer Engagement:

Synaptein leverages Pega's omni-channel engagement capabilities to enable organizations to deliver seamless and personalized experiences across various touchpoints. Whether it's through email, web, mobile, social media, or chat, Synaptein ensures consistent and contextual interactions with customers, driving satisfaction, loyalty, and retention.

Robotic Process Automation (RPA) Integration:

Synaptein integrates seamlessly with Pega's RPA capabilities, allowing organizations to automate repetitive and rule-based tasks with virtual robots. By combining the power of RPA with intelligent decisioning and process orchestration, Synaptein enables organizations to achieve greater operational efficiency, accuracy, and scalability.

Agile Development and Low-Code/No-Code Capabilities:

Synaptein leverages Pega's agile development methodologies and low-code/no-code capabilities to accelerate the delivery of innovative solutions. With drag-and-drop interfaces, visual modeling tools, and reusable components, Synaptein empowers business users and developers to collaborate effectively and rapidly build, deploy, and iterate on applications and workflows.

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Use Cases:

Claims Processing Optimization:

Synaptein streamlines the claims processing workflow by integrating with Pega's case management capabilities. From intake and adjudication to resolution and payment, Synaptein automates and orchestrates the entire process, reducing cycle times, improving accuracy, and enhancing customer satisfaction.

Customer Onboarding and KYC Compliance:

Synaptein leverages Pega's decisioning and analytics capabilities to streamline customer onboarding and ensure compliance with Know Your Customer (KYC) regulations. By automating identity verification, risk assessment, and document validation processes, Synaptein accelerates onboarding timelines while mitigating risk and enhancing security.

Marketing Campaign Management:

Synaptein integrates with Pega's marketing automation capabilities to orchestrate targeted and personalized campaigns across multiple channels. By analyzing customer data, segmenting audiences, and triggering automated campaigns based on behavior and preferences, Synaptein helps organizations drive engagement, conversion, and revenue growth.

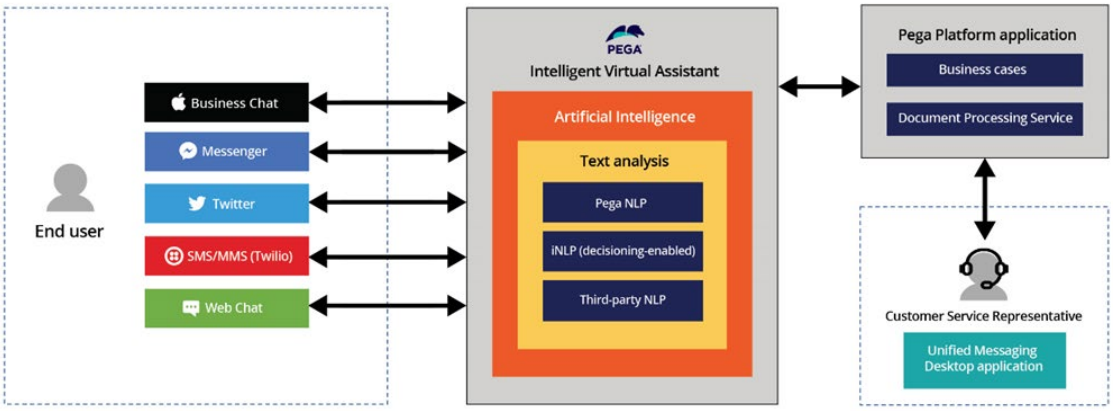
Pega Intelligent Virtual Assistant (IVA)

Pega Intelligent Virtual Assistant (IVA) is a chatbot technology that interacts with an application by sending and receiving text messages from users, in a simple question and answer form. By interacting with an IVA through various social messaging platforms, users can resolve issues or address questions and other concerns. For example, to speed up business processes, users can request more details about a subject and open a case in the system.

Different types of users interact with an IVA for an application.

- A **channel developer** creates an IVA channel, configures its behavior, and trains data for the system.
- **Customer service representatives** (CSRs) and managers then use the Pega Customer Service portal to efficiently address the reported issues or other user requests.
- A **channel administrator** troubleshoots and upgrades the IVA so that the system runs correctly and smoothly.
- **End users** are customers that interact with an IVA in a production environment by sending text messages to report issues or to ask for help.

IVA Components. An IVA that a channel developer builds and configures in a Pega Platform application consists of the following key features and components



Social messaging platform

A way for users to interact with an IVA channel and a Pega Platform application to report an issue or resolve a problem. Users can choose Apple Business Chat, Facebook Messenger, MMS/SMS (Twilio), Twitter, or WhatsApp Messenger as the social messaging platform for a Digital Messaging channel.

Text analysis

A capability of an IVA that permits the system to examine the content of a chat text message by using natural language processing (NLP), adaptive analytics, and artificial intelligence to interact with a user in a natural, conversational manner. The IVA can detect the general subject matter of the email (topic), text that falls into a common category (entities), sentiment, and language in the message by using text analysis. To perform text analysis, a data scientist configures a text prediction, or a channel developer defines text analyzers for the IVA, for example, Pega NLP. Next, a channel developer trains the data for the IVA in the preview console, so that the system knows how to correctly analyze and interpret content from chat text messages.

Channel behavior

The built-in artificial intelligence and text analysis capability of an IVA that ensures that the system responds correctly and promptly to users in a chat conversation. Channel developers define the channel behavior of an IVA by adding a conversation to a case type, adding case and responses commands to the system, and configuring text analyzer settings. Channel developers can then continue to improve the channel behavior by simulating a conversation in a preview console, training sample data, and rebuilding the text analytics model.

Preview console

A built-in panel in the IVA that channel developers can use to verify whether the chatbot works correctly by simulating a conversation before moving the system to a production environment. By making changes to the channel configuration and training data in a development environment, channel developers can rebuild the text analytics model to improve the text analysis and artificial intelligence of the IVA.

1. **Authenticated Chatbot should integrate with:**

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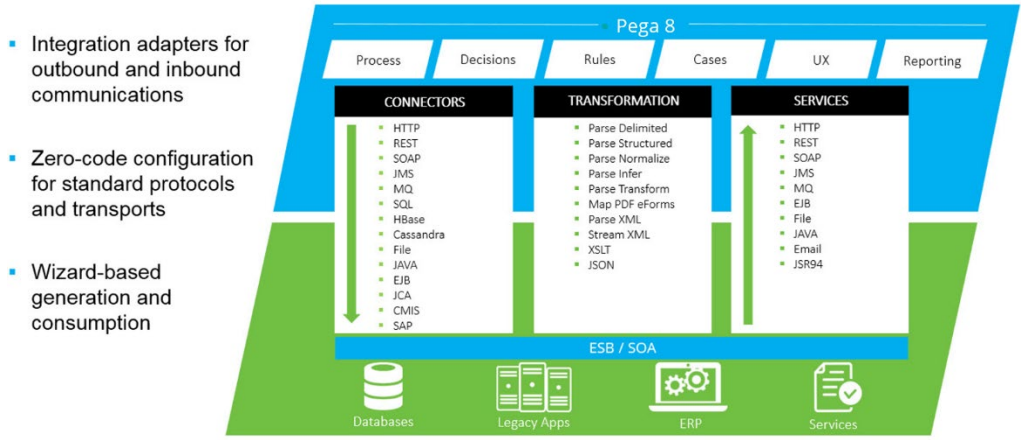
The Pega Platform has an extensive integration capability that includes consuming external web services and allowing other systems to consume Pega web services. The Pega Platform allows for these services to be used in various ways to achieve business outcomes that include the common use in business flows and case management, for example, to initiate tasks, create cases, create notifications, and update such as:

- SharePoint;
- Web Site's;
- People Soft;
- Canvas; and
- MS Teams.

The Pega Platform provides the ability to create applications that are built for change and, at the same time, provide seamless integration to your legacy systems. The Pega Platform will allow customer to extend apps to multiple channels, connect them to external systems, and integrate them with critical business systems. Pega allows you to do this through our robust integration capabilities:

- **Connectors** enable Pega to request services, data, etc., from sources both inside or outside an enterprise. Pega provides protocol connectors – SOAP, EJB, JCA, Java, JMS and MQ, HTTP or REST, as well as application-specific connectors to leading 3rd party software (such as Box.com, DocuSign, and SAP for integration to your ERP systems) available on Pega Exchange. If the connection endpoints provide metadata for introspection, like a WSDL file for SOAP or a formatted URI for REST, Pega can generate the integration models for you. We can integrate through leading middleware and ESB platforms like Mulesoft, TIBCO, and Oracle Service Bus; but, if you do not possess a middleware or ESB-layer, we can enable point-to-point integration and leverage our Live Data capability to integrate directly with the required systems.
- **Services** enable application functionality configured within Pega to be exposed to other systems through an application specific API. Pega provides support for the most widely used protocols – SOAP, EJB, JCA, Java, JMS and MQ, HTTP or RESTful services, JSR-94 (the Java rules engine standard) and files or FTP. Services can expose nearly anything in Pega from a complex case flow to a simple business rule. If the service type has metadata associated with it, the application can automatically generate it, such as publishing the various steps of a business process as a WSDL.
- Pega also supports XML-based **data transformation**, native interaction with Java objects and Java Beans, delimited and structured file records, complex transformations via Regular Expressions, and even a limited amount of free text parsing.
- **The Pega API** is a RESTful API that provides a generic way to interact with any Pega application. Many common tasks can be achieved directly thru the Pega API. For example, pulling a list of assignments for a user, creating a case, etc. Recent additions to the Pega API

support our DevOps initiatives, which will now allow you to do things like pull/push branches and execute unit test suites.



Pega Robotics for Integration

If an application exists where no APIs exist or are accessible to the agency, then Pega robotics can be used to service enable that application. Pega Robotic technology is application-agnostic and can be used with any application that has a Windows client--even browser-based ones, including: Thick client Windows (developed using newer techniques with .NET or older technologies like Power builder), Thin client Web applications, legacy mainframe, Async, AS400 systems, Virtual environments, and MS office connectors. Pega's Robotic technology is an event and object-oriented technology that tightly binds to the Win 32 layer of the operating system. This allows us to integrate at the windows control level and makes these integrations more robust than other technologies.

Pega Live Data

Complementing our pure data integration capabilities is *Pega Live Data*. Pega Live Data brings a number of middleware-like capabilities out of the box, providing key capabilities on top of our integration services and connectors:

- Data Abstraction: Those configuring your Pega application are simply working with the data model and aren't concerned with where the data came from or what protocol was used to get it. With Data Abstraction, they don't have to be.
- Declarative in nature: You don't have to explicitly instantiate your data objects when you want to use them. Simply refer the model and properties and Pega Live Data will determine if the data needs to be fetched/refreshed.
- Configurable Conditional Access: This is used for situations where your data model might be populated from different systems of record based on a condition or business rule. Pega Live

Data can do mediation at runtime to determine which system of record should be used to populate your data model.

- In situations where your data model is sourced from multiple systems, Pega Live Data provides native support for Composite Data Sources. For example, general customer information such as name and address may come from your CRM system, but billing information is housed in your billing system. You might want to combine that information in your customer data model. Pega Live Data can populate that data model from your CRM and billing system. Furthermore, that data can be retrieved in parallel so that you can meet your performance SLAs.
- Performance: Pega Live Data provides robust caching support, native in the platform. So, for those situations where data does not always need to be real time (for example – a list of products), you can use Pega Live Data to cache the information in memory. Caching can be at session scope all the way to cluster-wide scope. In addition, Pega Live Data allows you to determine how long things stay in cache – whether it's based on a business rule or a time interval you define.
- Pega Live Data is a prominent feature in our Designer Studio environment, making the discovery of existing Data Pages easy by eliminating manual searches through your application for existing integrations. All Live Data items are readily available on the Data tab in the Pega Designer Studio.

This is done through by leveraging the Pega platform integration capabilities.

Conclusion:

Synaptein's integration with Pega empowers organizations to achieve digital process automation excellence by leveraging best-in-class tools and capabilities. From end-to-end process automation and intelligent decisioning to omni-channel customer engagement and robotic process automation, Synaptein enables organizations to unlock new levels of efficiency, agility, and innovation in today's rapidly evolving digital landscape.