VERGIC ENGAGE DIGITAL ENGAGEMENT PLATFORM

This document contains an overarching description of the Vergic Engage Platform (VEP), including architecture. It also includes a description of the platform's functional modules and commercial packages

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1 BACKGROUND

For most organisations their web site and apps form the main hub for managing and nurturing the relationship with their customers. Customers are digital and lots of effort and investments have gone in to creating the digital eco-system that form a modern web site.

The Engagement and collaborative tools of Vergic Engage allows organisations to engage in the personal digital context of the customer, in the communication channel of choice and with access powerful collaborative tools. Keeping customers in their digital context not only allows organisations to leverage from large investments in the digital ecosystem, it also moves customer service processes to the same digital interfaces that forms the hub for most other aspects of the customer relationship management.

2 ARCHITECTURE

Vergic Engage Platform (VEP) is a cloud-based software linked to an existing web solution. The Service in its standard form is delivered through a highly scalable cloud service (SAAS) that handles millions of interactions every day. Other types of hosting options like Dedicated Hosting (Private Cloud) etc. are also available for customers with expanded or specific requirements regarding environment, customization, security etc.

A script tag must be added to the html pages where the Customer wishes to offer personal service to his or her visitors. Vergic Engage is loaded into the visitor's browsers with what is known as PSTAG javascript. This is normally included in one or more of the website's page templates.

- VEP is designed to be integrated with surrounding systems, see 2.4

- VEP is a .NET application consisting of a number of servers and components, which makes it scalable and applicable to all types of organizations

  VEP consists of three main components in the default system:

- A high-performance communication server, written in .NET which serves as a switchboard and handles communication between the different parts of the system

- A visitor part (client interface server) handing everyone that happens in the visitor's web browser

- An agent part (service interface server) generating the user interface the agent sees in front of him/her when working in the system

3 INSTALLATION AND IMPLEMENTATION

VEP is activated on a website by adding the service's JavaScript to all pages where the solution is to be activated. The service is easy to integrate into an existing website. An implementation consists of three main elements; activation, adaptation of layout/design the for interfaces/banners to be shown on the website and texts to be displayed internally and externally and finally the configuration itself where different types of engagement is defined, most often based on interaction rules.

3.1 INTERACTION RULES

VEP can be easily integrated into an existing website. To get started in its simplest form only a JavaScript is needed on each website in its footer, see section 2 above.

Based on version the solution can be configured by defining standard rules for interaction or with other, more adaptive and customised rules. Examples of rules are URL, navigation or content matching. For example:

- If the visitor's URL ('https://psplugin.com/exempelområde/sida1.html') matches a search string ('example')
- If the content of a particular DIV with a particular ID on the page matches a search string, <div id="example"></div>

An event can be linked to each of these rules. Examples of events that can be linked to a rule is proactive engagement, through an agent, BOT or any other type of engagement that is suitable for the specific situation. Engagement is "offered" through the systems banners and engagement type can update dynamically based on for instance time, availability, type of customer etc.

It also possible to create other, more complex rules, adaptations and integrations to further filter events, behaviours, customer types, individual customers etc. on which it then is possible to base the customer interaction.

3.2   Integration

Digital services, web sites, apps etc. of today most often form a complex digital ecosystem. VEP is designed as an open platform and with the purpose to work together with other solutions in that digital ecosystem. The Plug-in framework together with the API's also makes it possible to integrate and leverage from other solutions (or the other way around). Since the architecture is also built on a "open platform perspective" most features and functions of Vergic Engage can also be utilized in a modular way, together with or inside other systems and/or applications. Examples of standard API's and integrations:

- Routing API; move the power of the contact center platform in to the digital interfaces through VEP and utilise the contact center platform for routing, statistics etc.

- CRM API; create and save cases in a CRM system, create proactive engagement rules for Marketing Automation, on-line Sales, Case Management purposes etc. by using CRM data to enrich the customer profile (see 1.1). VEP is also available as a managed Salesforce App.

- Tracking API; provide real time updates to another statistics monitoring system, provide case data, chat transcripts etc. to case management systems

- BOT API; allows any external BOT/AI system to interact with VEP. The BOT service can leverage on the powerful engagement and collaborative tools described under 1.1 and transfers from BOT to human agent and back again becomes totally seamless

- Desktop plug-in API; enriches the agent experience, plug-in provides easy access to data from external systems, for instance a KB, specific case data etc. for simplified and faster case resolution

- For a complete list of API's please contact pre-sales

4   VERGIC ENGAGE PLATFORM (VEP)

Customers are digital and VEP allows companies and organisations to not only engage but also interact with customers "at the point of action", i.e. directly in any web site, digital process or app utilising the channel of choice. The functional modules or "packages" of VEP are described below.

4.1   Cobrowse and Advanced Chat

Vergic Engage Cobrowse technology is based on unique and patented technologies, it makes possible for an agent and visitor to follow each other on the customers (agents) web site. Vergic Cobrowse can be utilized "stand alone" or coupled with Vergic Advanced Chat. The technology allows an agent to get directly into a shared web experience with the visitor. There is no need to restart a joint session where the visitor will lose any information already submitted and no screen buffer sharing which is problematic from a personal data protection perspective.

Vergic standard cobrowsing is very easy to implement and demands very little bandwidth, it basically just passes weblinks back and forth, i.e. for most use cases it is very fast and effective. For more complex websites and use cases DOM Cobrowse can be offered. Agent and visitor experience are still the same, it's just the background technology that works differently and requires a little bit more work during implementation.

When coupled with Advanced chat Vergic cobrowse technology even allows agents to handle multiple chats just as easy as in a plain text chat only scenario. It simply adds the possibility for the agent get right into the digital context of the visitor, enhancing both agent efficiency and customer experience.

Chat messages are passed between the parties using the https protocol. For enhanced security chats can also be protected by strong (bankiD or similar) authentication.

4.2   AI-driven Proactive Digital Engagement in any channel

Digital engagement with Vergic Engage is built in and embedded directly in a web site or app. Digital engagement implemented that way can be tailored to suit any specific process, e-commerce, sales, an on-line application, "manage your account", "contact us" etc. It doesn't matter if it's a complex or more straight forward process. Vergic Engage will not only support channels like live chat, voice, video, messaging etc. The "offer" for engagement can also be based on BOT-services, marketing automation or any other type of "offer" that might be relevant for the situation.
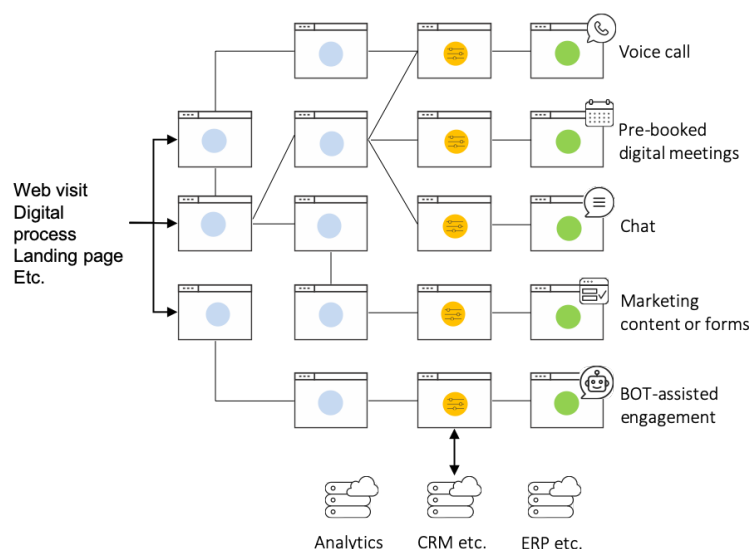
The algorithms and AI-services of Vergic Engage analyses every single visitor and their behaviour on-line.

It can also take a lot more parameters into account and "dress" the visitor profile with other types of data from external systems and databases.

All of this creates a _visitor profile_ on which highly individualized types of engagement can be offered on a very granular level.

The most important aspect of this is that the engagement as such can always be built on the customers digital context creating a highly personalized and contextual customer experience. Type of channel, whether it's asynchronous messaging, a voice channel, real-time chat or even another type of engagement such as booking a digital sales meeting, collecting data or presenting a form doesn't matter, the powerful collaborative tools of Vergic Engage can always be made available at the point of customer interaction. No matter what channel, the interaction can be tailored to suit anything from a high value digital Sales meeting to BOT-interaction.

4.3   Advanced Collaboration – WebRTC communication

WebRTC is a common public technology in modern web browsers. It has been integrated into VEP to allow voice and video calls as well as complex digital collaboration through VEP without the need for any party to install applications or plugins. Voice, video and advanced digital collaboration can be used in VEP with both parties using only a standard web browser.

As standard, once the WebRTC session has been established, the two browsers communicate directly peer-to-peer but as standard VEP is also built to handle situation where per-to-peer communication is not possible. In those cases when fall-back to a TURN server is required, VEP also establishes access tokens for the TURN server that are sent to the VEP users, allowing us to prevent unrelated Internet users from spending bandwidth on the TURN server. More in depth descriptions of WebRTC architecture is available in separate documentation.

5 VEP FUNCTIONS AND COMMERCIAL PACKAGES

Table below gives an overview of the functions and the commercial packages of the Vergic Engage Platform. The table also gives an overview of the packaged add-ons as well as other add-ons (available through pre-sales).

1. *Cobrowse* package – **(CB)**
2. *Advanced Chat* package – **(AC)**
3. *Digital Engagement* package – **(DE)**

Packaged add-ons:

1. *Asynchronous Chat (Messaging)*
2. *Pre-booked digital meetings and advanced collaboration*
3. *Chatbot Automation toolkit*

✓ = Included, * = Available as add-on X = Not available in package

Functions	Description	CB	AC	DE
Configurator	Provides access to the Vergic Engage administrator interface	✓	✓	✓
Mobile adapted	So called responsive design on mobile devices, smartphones, tablets etc.	✓	✓	✓
Cobrowsing	Plug in-free and secure cobrowsing. Agent can guide, collaborate and assist a visitor on the web site, in web processes as well as share and collaborate on pre-defined external content such as documents, videos, files etc.	✓	✓	✓
Site Guidance "page push"	Direct a visitor to a new page (page push through link)	✓	✓	✓
On-line form management	The agent can assist a customer through an on-line form. The agent is able to read the form and any error made by the visitor while filling it out without possibility for the agent to manipulate input data.	✓	✓	✓
Masking of sensitive content	Mask certain fields, types of input data etc. that are not supposed to be readable by the agent	✓	✓	✓
Phone2Digital	Provides possibility to connect an on-going telephone call with visual guidance (co-browsing) and/or move from telephone to a digital channel	✓	✓	✓
Dynamic shortcuts, "Actions"	Possibility of configurable shortcuts, "drag & drop" in the form of links, documents, films etc., that can be adapted according to competence group	✓	✓	✓
Text chat	Provides possibility of chat between visitor and agent	X	✓	✓
Standard texts	Define case specific standard texts. The agent can choose and send those directly to the customer or edit before send during a chat interaction with a customer	X	✓	✓
Competence Groups	Define multiple competence groups with own unique rules and attributes	X	✓	✓
Send dialogue as e-mail	Possibility for visitors to send a copy of the chat dialogue as e-mail to themselves	X	✓	✓
Save dialogue as pdf	Possibility, e.g. for security reasons to save chat dialogue as pdf and disable "send e-mail as chat"	X	✓	✓
Statistics Enterprise	Access extended statistical reporting and downloadable data	X	X	✓
Dynamic load management	Reduces risk for long queue times for visitors on home page	X	X	✓
Real time monitoring	Real time analysis of visitor behaviour on home page. Enables possibility to define dynamic and proactive rules through Engage Enterprise rule engine	X	X	✓
Digital Engagement rule engine, "Web Analytics"	Allows Vergic Engage to leverage on existing web content and web integrations when defining engagement and interaction rules. Enables possibility to design content and context sensitive rules thus designing a highly adaptive, proactive and individualised engagement solution	X	X	✓

		CB	AC	DE
Proactive interaction rules	Provides possibility of defining proactive (targeted) interaction rules and queues	✗	✗	✓
Intelligent routing	Use rules to define how and to which (competence groups) an interaction shall be routed based on visitor behaviour as well as place, event, context etc. during a visitor session	✗	✗	✓
Dynamic Banner content	Provides possibility of linking peripheral systems to Vergic Engage to utilize the system's banners and rules for example for campaign offerings, FAQ contents etc. (Might require separate API/Integration connector)	✗	✗	✓
Click to call (WebRTC)	Use voice as channel for communication through WebRTC	✗	✗	✓
Video chat/ audio chat, WebRTC	Communicate via video and/or audio Can be utilized both one and two-way. The agent switches seamlessly between the various forms of chat (text, audio, audio/video), depending on situation. Communication through STUN Server	✗	✗	✓

Functions	Packaged add-on	CB	AC	DE
Asynchronous chat (Messaging)	Use external messaging channels as part of the solution, SMS or FB Messenger, WhatsApp etc. Includes up to 10,000 interactions/month sent through the Vergic Messaging API	✗	✗	*
Pre-booked digital meetings & advanced collaboration	Fully integrated meeting booking functionality. Configurable meeting logic based on meeting type, skill etc. Including functionality to confirm/cancel/re-schedule, automatic meeting start etc. Digital meetings can take place behind or in front of secure authentication	✗	✗	*
Advanced collaboration and file uploading service (included in above)	Share and collaborate on content through Web RTC. Also includes 2-way agent controlled document upload services (see below), communication through account specific STUN and/or TURN server possible			
Chatbot Automation Toolkit	Provides a Plugin and BOT-framework together with the services needed for automation or semi automation of cases and processes. Can be used with Vergic Cognitive Services "AI" or together with any preferred external BOT providers "AI". Includes up to 10,000 interactions/month processed by the Chatbot API	✗	✗	*
Functions	Other available add-ons, contact Pre-Sales	CB	AC	DE
Dedicated log-in server	Restrict or deny public access to the solution (agent log in)	*	*	*
SSO integration	Support single sign on through integration with existing solution	*	*	*
Secure dialogues and authentication	Support for secure (bank-id etc.) authentication and dialogues. Communicate with a securely authenticated visitor in an encrypted dialogue	✗	*	*
API/Integration connector	Provides access to Vergic Engage message broker architecture	✗	*	*
In-line (chat) forms	Use forms, both secure and open (readable for agent) to capture anything from credit card information to other types of data for in-chat case processing	✗	*	*
In-line secure and open forms	Work with custom forms in chat, both secure (credit card payment, secure log-in etc.) and open forms ("in chat order process", data upload etc.)	✗	*	*
Custom GDPR Settings	Provides a possibility to define own retention policy etc. as part of a Data Processing Agreement	✗	*	*
Additional domain	Same design or language but addition of new domain	✗	*	*
Additional Themes/sites	Additional theme with other language and/or design	✗	✗	*
Chatbot API Embedded "AI"[1]	Use of Vergic's compiled library of cognitive services to use as part of a BOT-service. Includes up to 10,000 interactions/month processed by the Embedded AI platform	✗	✗	*

WebRTC TURN server	Account specific TURN Server for WebRTC communication	✗	✗	*
Dedicated Hosting	A "Private Cloud" solution, solution hosted on a dedicated, private tenant	✗	✗	*
Additional/Custom Hosting Services	Dual Datacentre hosting, local storage of script etc.	✗	✗	*

[1] **Vergic Cognitive Services**

A compiled library of Cognitive Services including:

- Language recognition
- Translation
- NLU/NLP Classification Services
- NLU/NLP Entity recognition Services
- Sentiment Analysis