



LiveEngine

Rich Multimedia Services for any application

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With Icecom you are faster than your competitors!

Icecom – a technology provider with a fresh approach for IP-communication - offers your company a fast entry to the IP-communication business with

- White-labeled SIP-based communication products
- Professional Services for real-time communication
- Solutions based on Icecom product architecture

The company has combined SIP technology, a VoIP environment as well as mobile and web solutions into products that are flexibly adaptable to meet any customer specific needs. Icecom's innovative communication products help companies expand their services and increase their revenues.

Icecom has extensive expertise and years of experience from telecommunications market using SIP technology, which is used as the core of its innovative solutions.

Icecom was founded in the year 2000 and ever since it has been growing steadily. Icecom's headquarters is situated in Finland and it has sales offices in Europe, and North-America. The company has been nominated by Deloitte as one of the fastest growing Finnish companies, and it is constantly widening its customer base in global markets.

1 Icecom LiveEngine

Get VOIP, Instant messaging and presence client for your own web application or portal in just one day. Follow the instructions above and create your own multimedia tool rapidly and easily with Icecom LiveEngine.

Icecom LiveEngine in brief:

Icecom LiveEngine is a software component designed to integrate SIP-based communication services into various applications. The component is aimed for the use of service providers and 3rd party solution providers since it

- lowers service providers' threshold to create multifunctional SIP- based services
- enables 3rd party solution providers to widen their product capabilities with new converged communication services such as VoIP, Instant messaging and presence



LiveEngine fits in any application (web or native) that you wish to use to provide the converged communications. It runs on open standards and interoperates with any 3rd party SIP elements. Although it provides Voice over IP (VoIP) over SIP, video communications it also provides simple but very detailed control over presence and instant messaging services.

LiveEngine provides a simple but sophisticated Application Programmer's Interface for rapid integration for applications using Javascript, Microsoft .NET platform or native code.

It is shipped with clear and detailed example implementations of web page integration and also for building rich .NET applications. When LiveEngine is deployed with or as a part of another native application, the LiveEngine component can be installed with the same installer that is used for installing the main application.

2 User Interface

With Icecom LiveEngine it is possible to develop various client solutions and multifunctional user interfaces suitable for the specific needs of the customers. With the LiveEngine it is possible not only to define services but also parameters for the service such as SIP Proxy settings. This means "zero configuration" for end-users.

User Interface can be created by using various technologies. For instance UI can be developed on the top of

- Web page (support for any JavaScript enabled browser)
- Java application API
- .net API

In web client implementations the web page has full control over the LiveEngine platform.



3 Enabled Services

Icecom LiveEngine enables the following services:

- **Multi-Client support:**

LiveEngine is able to serve multiple clients simultaneous.

- **Audio calls**

Media session initiation signaling is based on SI-protocol ([RFC3261](#)) and media negotiations follow offer/answer model described in [RFC3264](#) specification. Media streams are using RT-protocol as specified in [RFC3550](#).

- **Audio codecs**

Following audio codecs are supported:

- G.711 a-law
- G.711 μ -law
- G.726 (implemented in the near future)
- AMR (Needs additional Commercial license)
- iLBC
- Speex (implemented in the near future)
- DTMF tones: LiveEngine supports services for sending and receiving DTMF tones according to [RFC2833](#).

- **Sending and receiving Instant Messages**

Instant Messages can be sent and received by using the LiveEngine. The messaging method follows SIP specifications and is described in RFC3428.



- **Presence services**

The presence service allows users to receive information about each others' presence. This guarantees that communication between users can take place when it is most convenient for all parties. The presence service also allows you to define which users receive the presence information.

Presence services are based on IETF SIMPLE presence specifications.

Presence info publication: LiveEngine provides methods for publishing user's presence info. Presence info contains user's status and customized optional message. Publication of user presence info follows [RFC3903](#).

Presence info subscription: Methods for subscribing to presence event package are provided. When the presence status of the user in question changes a notification of the change is sent to the subscriber. LiveEngine service provides methods for passing presence info notifications to client software. Subscription to the presence event package and to the notification is based on [RFC3856](#).

Authorizing presence watcher: LiveEngine provides services for manipulating authorization list of presence watchers. Authorization of presence watchers is done according to <http://www.ietf.org/internet-drafts/draft-ietf-simple-presence-rules-05.txt>

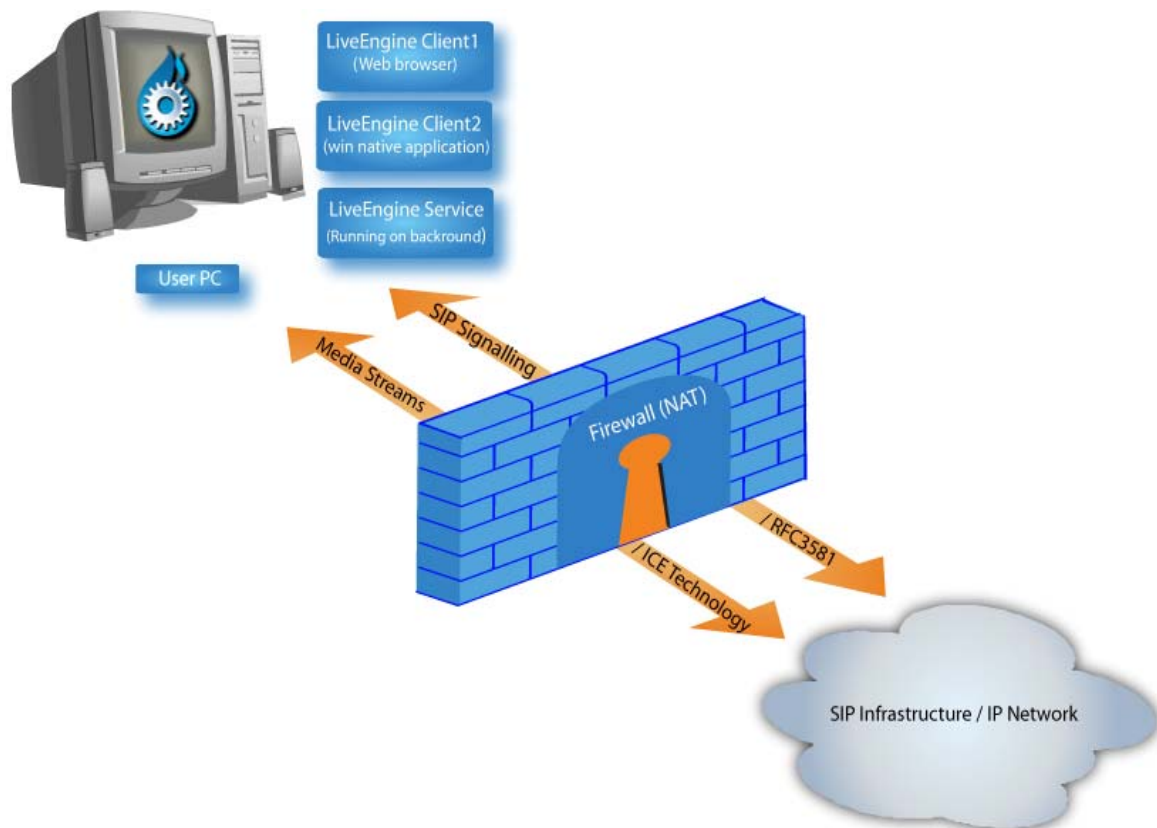
- **NAT traversal**

LiveEngine contains a module which is using methods for circumventing NAT/firewall problems by using ICE methodology based on draft-ietf-mmusic-ice-08. This means that LiveEngine is checking all interfaces and available STUN-service and choosing the most suitable one for real-time communication.



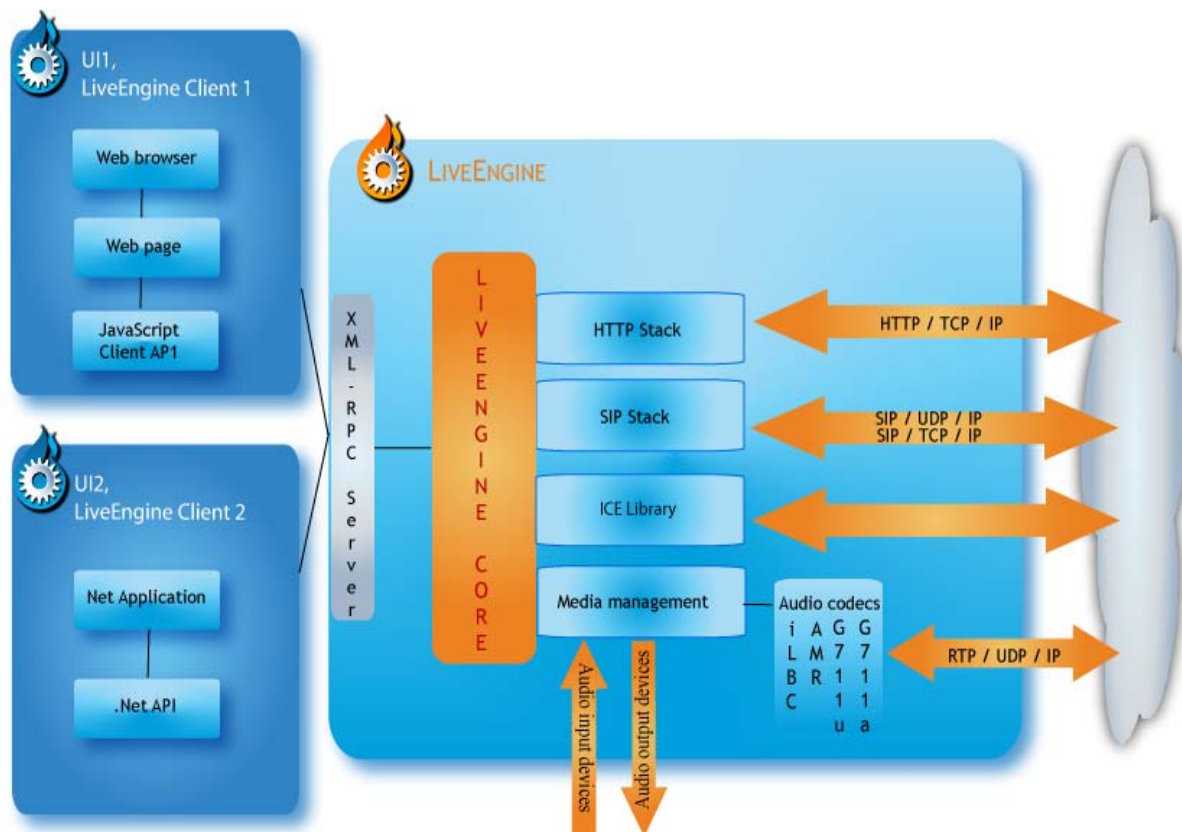
4 Solution Architecture

The picture below shows the basic architecture of the LiveEngine and its connections with the network and the User Interface



Picture 1. Illustrates LiveEngine in its Network context





Picture 2. LiveEngine Architecture

5 Commercial Licensing

Icecom has installed a demo-kit with a license that expires after one month. The LiveEngine is sold under commercial licensing policy. Two pricing models in commercial licenses are offered: a perpetual and an annual license. Please ask for an offer tailored to your demands and volumes.

Encrypted License key of the LiveEngine includes either a SIP-proxy address or a web-domain which will be used in each customer case. Restriction is executed in order to prevent possible abuse of the web-technology, if the Customer's intention is to use only a native java- or windows application, the possibility to use web-browser can be disabled to sustain security.



6 Professional services

We highly recommend the use of Icecom's Professional Services for creating a customer specific solution. Please contact sales@icecom.fi to discuss further about a customized communication package.

Icecom can help you to build the most efficient SIP-platform design, either to integrate Icecom solutions to 3rd party environment or to combine the LiveEngine with the Icecom Server solution.

7 Support

Icecom provides technology support concerning LiveEngine and its services. A detailed manual will also be delivered to you when you purchase a Commercial Licence.

The following support packages are offered by Icecom:

1. **Basic support.** Icecom will provide 2. level support for the LiveEngine, the support includes 8/5 Customer Care unit availability by Email or phone. All bug-fixes and enhancement included to minor software releases are provided to the Customer.
2. **Premium support.** Icecom will provide 2. level support for the LiveEngine, the support includes 24/7 Customer Care unit availability by Email or phone. All bug-fixes and enhancement included to minor software releases are provided to the Customer.

