# Requirements engineering

Sebastian Müller,Leonie Pelle, Jan Kessler, Sven Bamberger und Gero Büßing

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## Anonymous User

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may be invited to sessions

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shall be able to use plugins

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may be invited to sessions
shall be able to use plugins
shall be able to register on servers that allow registration

## Regular User

A regular User:

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must register with a valid email address.

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shall be able to login with his email address and password.

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shall be able to login with his email address and password.
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shall be able to delete his own Account.
shall be able to open Sessions.

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shall be able to login with his email address and password.
shall be able to change his password and/or Alias.
shall be able to delete his own Account.
shall be able to open Sessions.
shall be able to join any Session he is invited to.

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shall be able to close Sessions he has the rights to.

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shall be able to close Sessions he has the rights to.

shall be able to create and distribute Keys and send Invitations to every Session he has the rights to.

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may activate or deactivate Installed Plugins.

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shall be able to close Sessions he has the rights to.

shall be able to create and distribute Keys and send Invitations to every Session he has the rights to.

may activate or deactivate Installed Plugins.

shall be able to request installation of new Plugins.

## Regular User

A Moderator shall be able to restrict privileges of Regular Users, if a Regular User misbehaves like insulting others, uploading inappropriate content or harming the system.

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misbehaves like insulting others, uploading inappropriate content or harming the
system.
A Moderator shall be able to restore privileges of Regular Users.
A Moderator shall be able to suspend Accounts of Regular Users for a certain amount
of time.

## Admin

An Admin User shall be able to test Plugins requested by a Regular User.

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An Admin User shall be able to add Plugins to a Blacklist, if they may harm the system.

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An Admin User shall be able to remove previously Installed Plugins.

An Admin User shall be able to add Plugins to a Blacklist, if they may harm the system.

An Admin User shall be able to remove Plugins from a Blacklist, if they were accidentally added.

User Requirements
**Product Requirements**
Organisational
External
Functional

**Usability**
Efficiency
Dependability
Security

## Devices

The Service should be Touchscreen Compatible.

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## Devices

The Service should be Touchscreen Compatible.
The Service should run on the most popular Browsers.

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## Connection/Encoding

The Service should use tunneling if certain ports are unavailable

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## Connection/Encoding

The Service should use tunneling if certain ports are unavailable
The service should use UTF-8 encoding

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## Performance

The Service should work on Michael's Smartphone

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## Performance

The Service should work on Michael's Smartphone
Sessions Should work with limited bandwith

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## Performance

The Service should work on Michael's Smartphone
Sessions Should work with limited bandwith
The Service should provide automatic scaling of the size/quality of streams based on bandwidth

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## Space

The service should uselossless Codecs to reduce filesize

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## Space

The service should uselossless Codecs to reduce filesize
The service mustn't use more than 20Mb Cache on Mobile Devices.

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Login Data and available plugins should be redundant on multiple servers

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Login Data and available plugins should be redundant on multiple servers
Client side Caching shold be used to minimize bandwidth consumption

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The service must always use encryption to transmit credetials to the server.

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**Security**

The service must always use encryption to transmit credetials to the server.
The service must save the password as a salted hash on the server.

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The service must always use encryption to transmit credetials to the server.
The service must save the password as a salted hash on the server.
The service must provide encryption for transmission of Session data to ensure privacy
and to prevent Man-in-the-middle attacks.

User Requirements
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Environmental
Operational

User Accounts are verified through the users email address and password.

User Requirements
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Account data and Installed Plugins should be backed up frequently to prevent data loss during a server failure

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Account data and Installed Plugins should be backed up frequently to prevent data loss during a server failure
The service itself, its dependencies (like web server software) and the operating system of the server should be kept up to date. Security holes will be closed by updates.

User Requirements
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Account data and Installed Plugins should be backed up frequently to prevent data loss during a server failure

The service itself, its dependencies (like web server software) and the operating system of the server should be kept up to date. Security holes will be closed by updates.

The services should have a logfile that lists status messages and errors (server side only). This helps to find/solve problems.

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Account data and Installed Plugins should be backed up frequently to prevent data loss during a server failure
The service itself, its dependencies (like web server software) and the operating system of the server should be kept up to date. Security holes will be closed by updates.
The services should have a logfile that lists status messages and errors (server side only). This helps to find/solve problems.
The service should offer a test mode to test requested Plugins, without harming the running system.

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**Regulatory**
Ethical
Legislative

The development of the Service will be open to the public.

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The development of the Service will be open to the public.
the source code is open source

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The development of the Service will be open to the public.
the source code is open source
The services has a well documented and public available API.

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No Service side gathering of user data.

User Requirements
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No Service side gathering of user data.
Voluntary data is saved but not to be published, sold or distributed in any way.

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## Software License

The source code will use only GPL libraries

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## Software License

The source code will use only GPL libraries
Distribution of the source code is under the GPL licencse

The user shall be able to compose and configure Window setups and save/load them at their leisure.

The service should provide the functionality to split a single session into multiple sessions.

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The service should provide the functionality to merge multiple sessions into a single one.

The service should provide the functionality to set a reminder for appointments and has the option of notifying every user/email that has subscribed to a notification.

The service should provide the functionality to insert preinstalled and customized emoticons in the chatting plugins

The service should provide the functionality to use a Doodle like plugin to find times for appointments and has the option to set a reminder.

The service should provide the functionality to use a whiteboard like plugin to freely draw in a session

The service should provide the functionality to create and edit contact lists.

The service should provide the functionality to create Business Cards/Profiles other users can see.

The service should provide the functionality to edit Files online and see edits from other users instantly

The whiteboard plugin should have the capability to import pictures to edit

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The plugin should give every listener the option of downloading/saving the picture, at
the Moderators dicretioan

The service should provide the functionality to mute/disable streams at the will of the user.

The service should provide the functionality to call for a quick vote or simple choice.

The service should provide the functionality to search the web and display the search results to everyone who watches the session

The service should provide the functionality to recognize and execute voice commands

The service should provide the functionality for remote desktop recording/viewing.

The service should provide the functionality for client side desktop recording.

The service should provide the functionality to open a chat with at least one other user.

The service should provide the functionality to start audio/video calls with at least one other user.