

Development of a Discussion Service for the SmartRoom System

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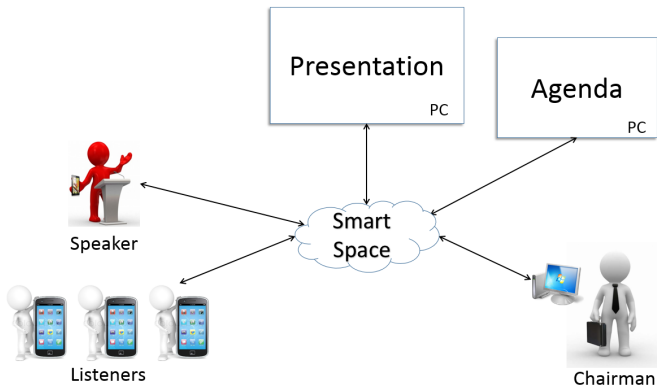
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Introduction: SmartRoom system

- Aimed at automation of meetings or conferences.
- Based on smart spaces.



Goals

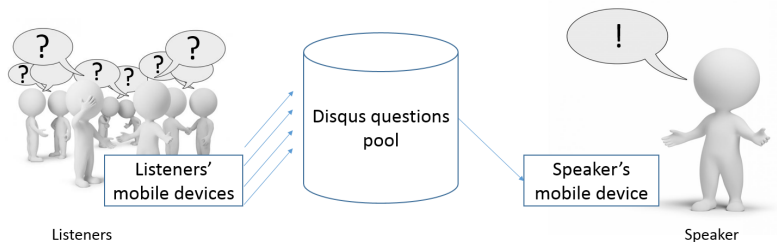
The idea is to develop a discussion service for SmartRoom system and integrate it into it, thus, expanding already existing pool of its services.

- Choose the existing web-service with available API, that allows creating discussions.
- Investigate its mechanics and learn the ways to link it with existing SmartRoom architecture.
- Embed this service into a new module that allows SmartRoom users to interact with it.

Goals

- Allow conference participants leave their commentaries of different kinds to the current speaker.
- Minimize listeners' participation in creating discussion branches by using available Smart-M3 tools.

Result: Improving the level of holding events by automating certain elements of interaction between its participants.



User types



Programming languages and requirements

Requirements

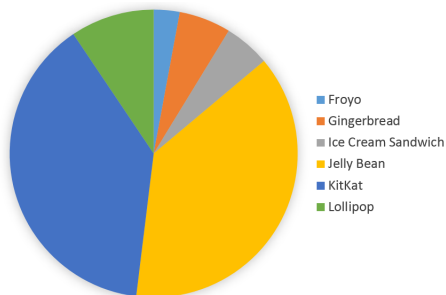
- Conference-wide Internet access
- Android 4.0 or higher (API 15+) mobile device.

Programming languages

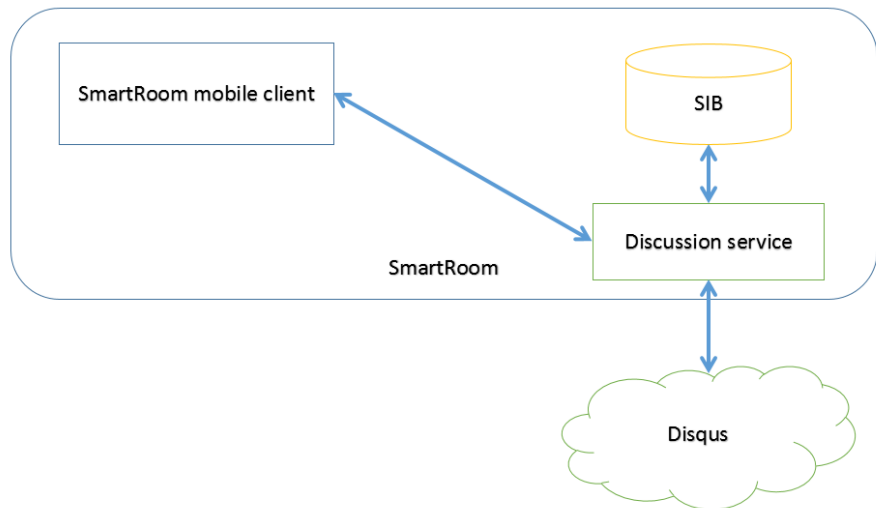
- Java is used to modify Android client.
- Discussion service and all its components are written using Python.

Compatibility

Version	Codename	API	Distribution
2.2	Froyo	8	0.3%
2.3.3 - 2.3.7	Gingerbread	10	5.7%
4.0.3 - 4.0.4	Ice Cream Sandwich	15	5.3%
4.1.x	Jelly Bean	16	15.6%
4.2.x		17	18.1%
4.3		18	5.5%
4.4	KitKat	19	39.8%
5.0	Lollipop	21	9.0%
5.1		22	0.7%



High-level model

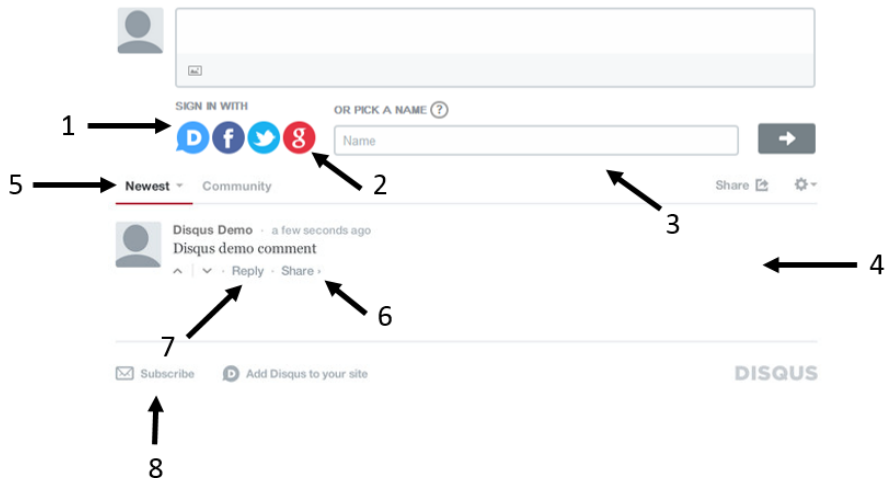


Service components: Disqus web-service

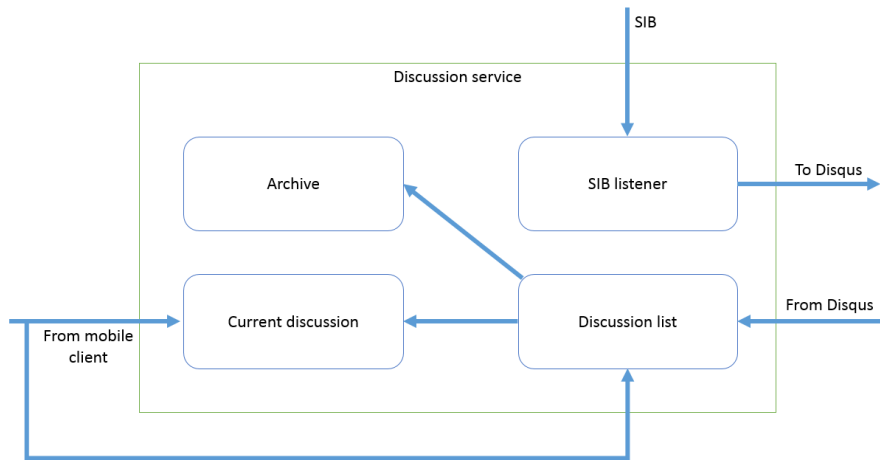
- 1 Launched in the USA in 2007.
- 2 Embedded in more than 33000 web-resources worldwide.
- 3 Has its own social network.
- 4 Synchronizes with existing social networks.
- 5 Allows leaving messages anonymously.
- 6 Free-to-use business model.



Service components: Disqus interface



Service components: Discussion module elements



Service components: SIB listener

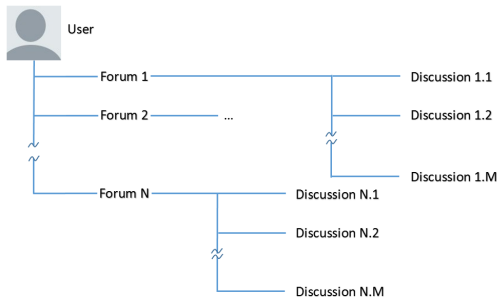
The main task of this element is to adequately respond on certain events in SIB by creating new Discussion branches.

- 1 It subscribes on the event of starting new section.
- 2 When event triggers, it creates new Forum with a set of branches by sending POST messages to Disqus remote server.

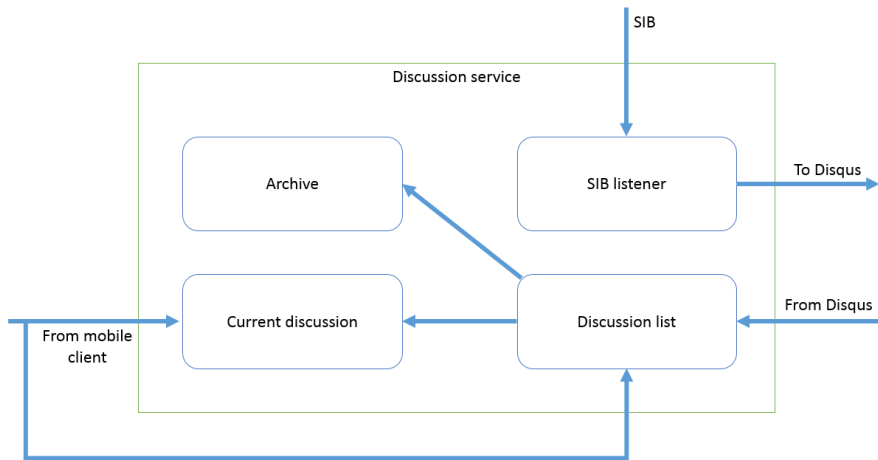
When response from Disqus server is received, it is redirected to the "Discussion list" element, that is accessible by conference participants.

Service components: Archive

- Stores all forums and branches under their creators account.
- Allows accessing them at any time by using their ID or name



Service components: Discussion module elements



Conclusion

- Created Discussion service architecture:
 - ▶ SIB listener
 - ▶ Archive
 - ▶ Current discussion
 - ▶ Discussion list
- SmartRoom client acts as a "thin client" in all discussion scenarios.

Service now is in the stage of implementation.

Thank you for attention

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