

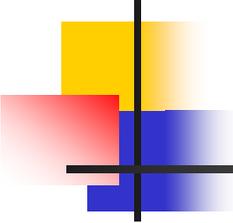
Hubbub - An innovative customer support forum

Duong Nguyen, Simon Thompson, Cefn Hoile
British Telecommunications Plc
Adastral Park, Martlesham Heath
Ipswich, IP5 3RE, UK

{duong.nguyen, simon.2.thompson, cefn.hoile}@bt.com

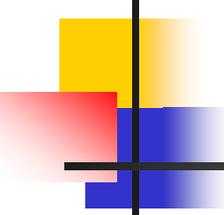
With thanks to Dr. John Davies for delivering this presentation





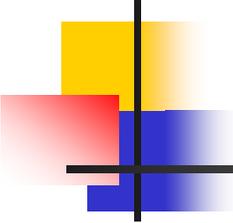
Agenda

- Background on customer support fora
- Hubbub technical details
- Current Status
- Results
- Future plans



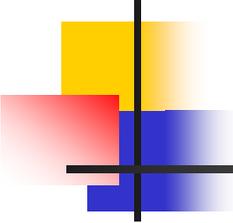
Background

- Internet forums go back a long way
 - 10-15 years ago
- Bulletin boards (e.g. UBB, VBB) were popular at the time
- Initially were informal communication spaces but began to be used as support tools for various businesses (e.g. Microsoft TechNet, Apple, ...)



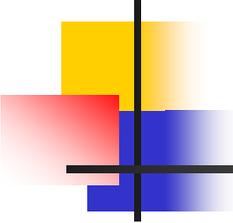
Background (cont.)

- Most of the forums are:
 - Category hierarchy based
 - Forum -> Sub forums
 - Browse and read user journey
 - Browsing the content to select topic to read
 - Scattered content
 - Two related and relevant posts might be in two different forums



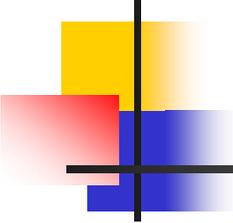
Issues as support tools

- Traditional forums focus more on engaging users in communications, not specifically on user support
- Difficult to find relevant information
- Difficult for novice user to get help
- Also true for current forum solutions like Lithium/RightNow



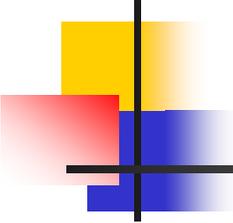
Business background

- Converged communication products
 - Multiple interacting systems
 - VOIP – network, client software, VOIP server, PC hardware and drivers, modem, ...
- Support challenges
 - Users unable to articulate problem
 - Boundary of responsibility issues
 - Low price ⇒ pressure on support costs



New concept

- “Ask question first” user journey
 - Direct to content rather than browsing
 - Focus on supporting users rather than general discussions
- Maintain the social network
 - Interest registered
 - Notification mechanism

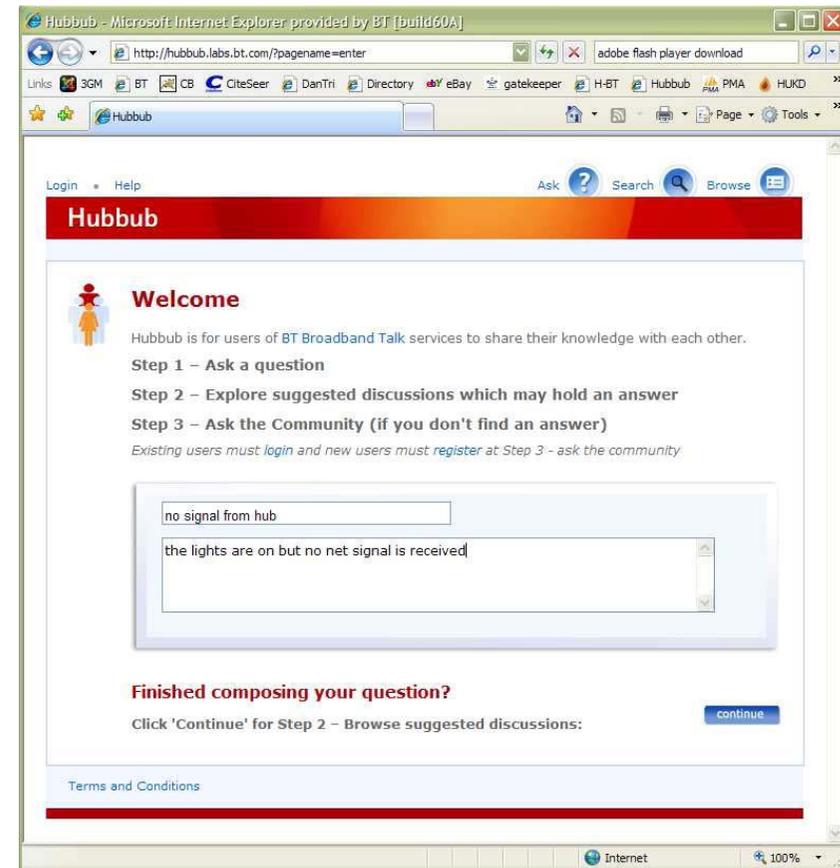


Hubbub

- As a forum that focuses on solving customer problem
- Let users help themselves
- Diversion from contact call centre
- Net centric
- Question answering system

User journey

- Users type in their problem (title and a summary of problem)



User journey (cont.)

- Keywords are extracted from that problem
 - User can refine the keywords set
- Relevant discussions are retrieved based on this set of keywords and presented to users

Hubbug - Microsoft Internet Explorer provided by BT [build60A]

http://hubbug.labs.bt.com/?pagename=suggest

Matching Discussions

Hubbug has found the following discussions matching your question.

All Discussions Solutions Other Contributions

Posted by	Status	Posts	Date posted
pjmartin79	hub phone once a call is received		Tuesday December 19
Stantrow	Hub Phone calls are not received		Monday July 02
Loobyanne	only 4 lights on hub phone light not on		Friday January 05
Loobyanne	only 4 lights on hub phone light not on		Friday January 05
Loobyanne	only 4 lights on hub phone light not on		Friday January 05

Results 1 to 20 Next >

Didn't find your answer?

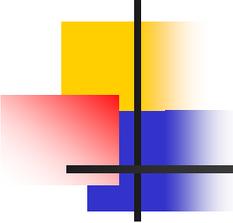
Your search keywords:

Add or remove keywords using the tickboxes to improve the relevance of your search results

Hub Lights Net Received
 Signal

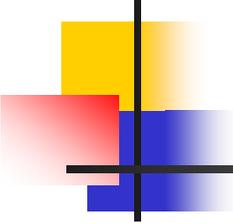
Refine your search
If you think extra keywords could be relevant. [add keywords](#)





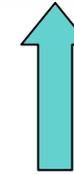
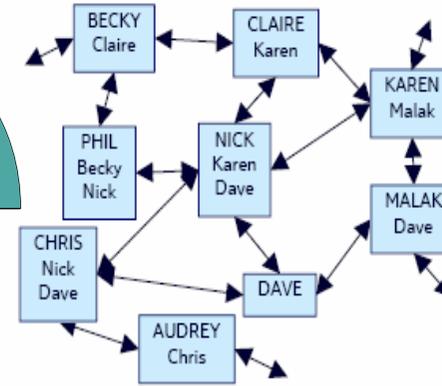
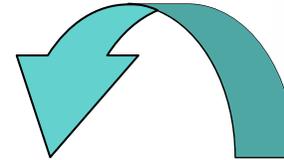
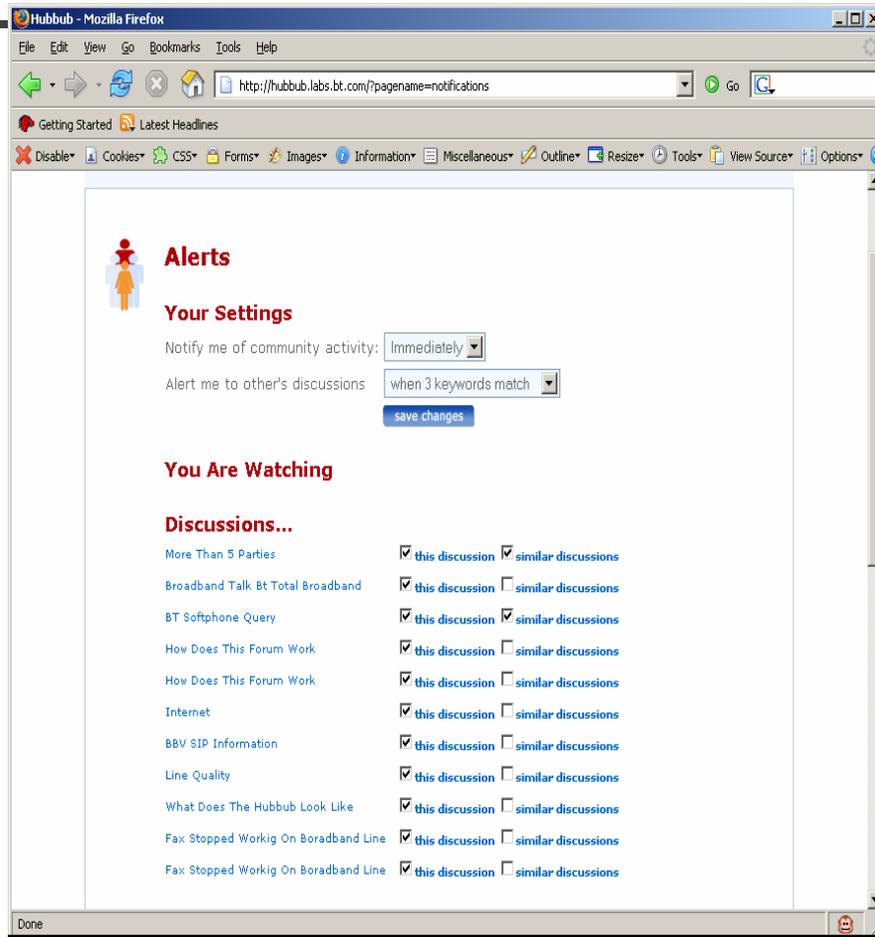
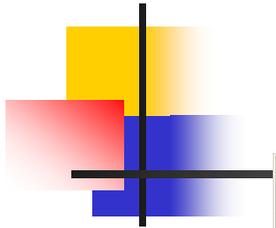
User journey (cont.)

- If no solution can be found, the problem can be registered as a forum post so that others can reply to it
- User can subscribe to keyword/post/user
- Users will be notified via email if a new post matching their interests is registered or somebody else replied to their problem.



User journey (cont.)

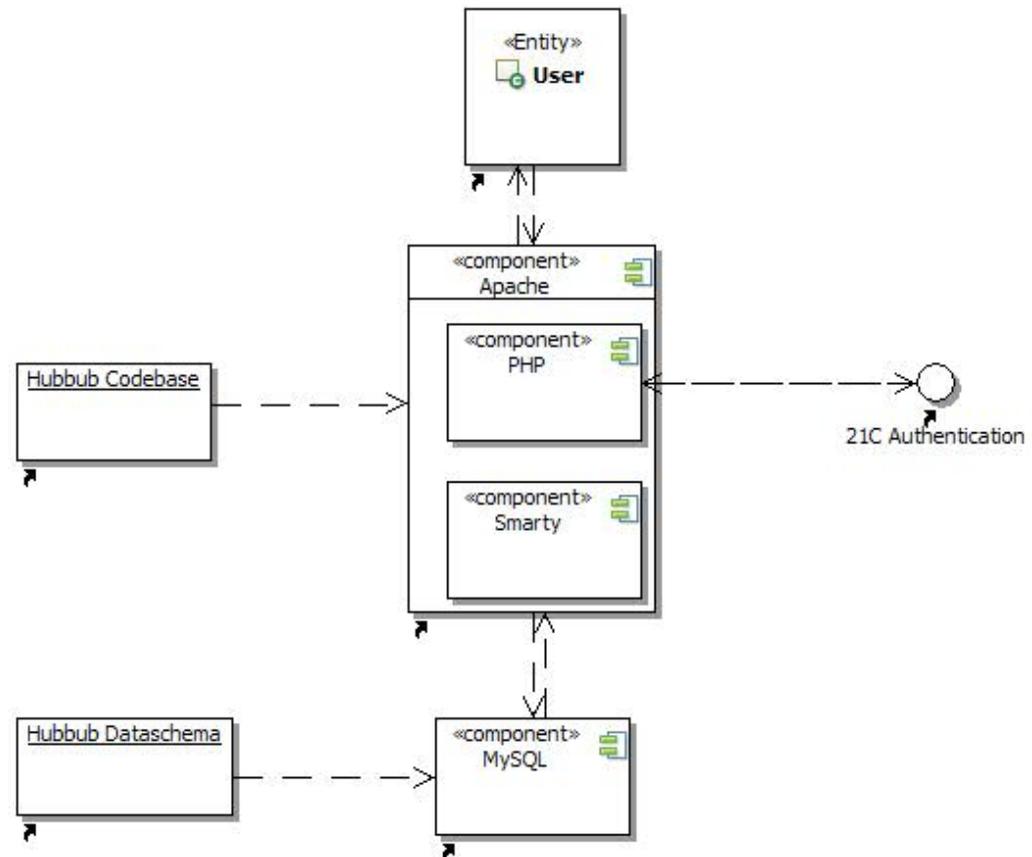
- Inappropriate posts (containing banned words) will be automatically banned and can only be lifted by a BT moderator
- Users can flag posts as offensive
- Users can browse and read posts
 - but not category-based

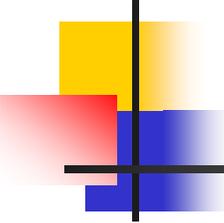


Technical details

- Open source components

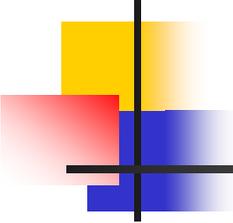
- Apache
- PHP
- MySQL
- Smarty
- OpenSSO





Cost effective

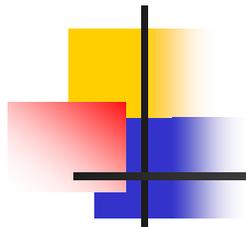
- Easy to setup
 - Need one hosting machine
 - Import existing FAQs
 - That's it, ready for use
- Easy to maintain
 - Low ongoing costs
 - Just need to ensure server is up and running
 - Have only restarted the server once between Sep 07 and Jan 08



Status

- Support channel for BT Softphone since June 2006
- BT Softphone status (January 08)
 - 5,500 users
 - 41,000 queries
 - 12,000 posts
 - Implies 29,000 queries did not require new post
 - 950 marked as solved
 - 11,000 either have no solution *or not marked by user*
 - 6,000 posts had at least one reply
 - 300,000 unique IPs
 - 5,000 real requests per day, excluding search bots





([Beejaycee](#)) Tuesday October 31

Thank you



LisaC -

following your instructions I found that my webcam was not selected against 'devices' as soon as I selected my webcam and clicked 'Apply' a picture appeared in the webcam window.

Problem Solved.

([Drossfone](#)) Wednesday November 08

RESOLVE the TIME Problem BY
DOING THIS:-



Log into Hub Manager and go to Advanced (ID admin PW admin)
Switch to another user
Click on Configuration then Configure
Under Time Configuration, tick the box that says Auto Configuration
Ensure the Time Zone is UTC
Enter TIME.WINDOWS.COM in the Time server 1 box.

That's it.

([luk3](#)) Wednesday October 04

Brilliant!

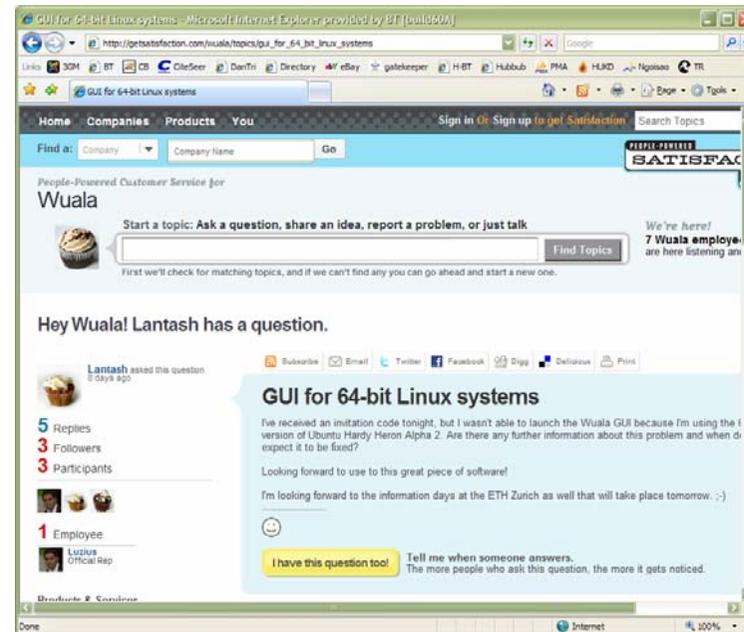


Thanks very

much for the solution - I've been looking for ages!

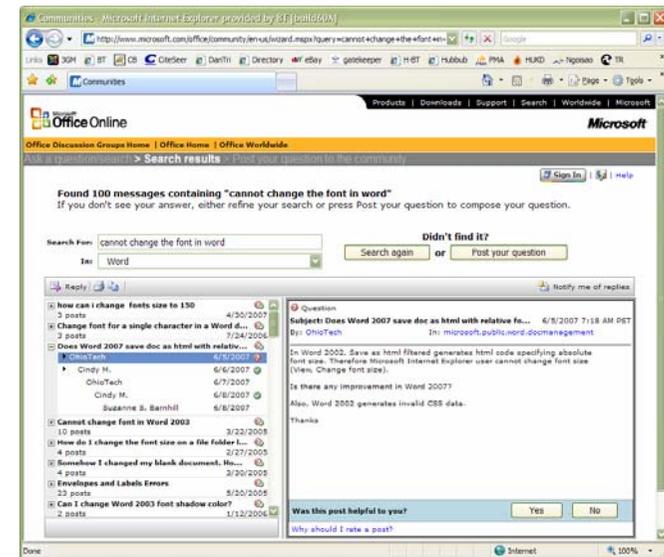
Similar approaches

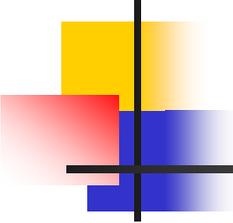
- <http://www.getsfatisfaction.com>
 - Commercial
 - 200 companies
 - 30,000 posts



Similar approaches (cont.)

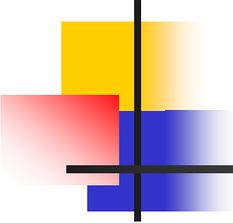
- Microsoft Office Live
 - Cover Office products
 - Limited experience
- Hubbub
 - Adds ability to refine search (change keywords)
 - Support for Web 2.0-style community





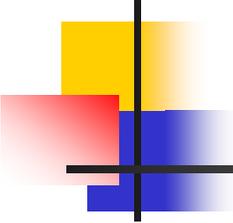
Customer Benefits

- Reduces dissatisfaction with help desks, no call waiting or handling times
- 24/7 free customer support. Customer can ask a question whenever they want
- Permanent record of solution, no need to call back if answer is forgotten
- Solves unsupported problems e.g. non-BT equipment
- Puts customers in touch and builds a community within a BT safe environment



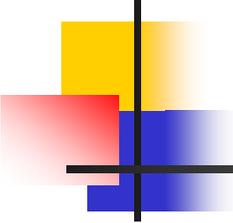
BT benefits

- Reduced helpdesk costs
- Increases utilization of call centre agents (contribute to Hubbub in downtime)
- Identifies common customer issues early
- Database of solutions to problems
- Free, up to date and accurate customer research and feedback
- Connects the product manager directly to the customer
- Builds a network and community of users which in turn reduces churn



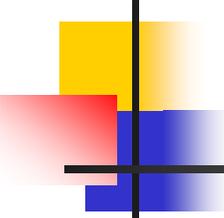
Future

- Integrate workflow management
 - Distribute work to agents if community cannot respond
 - Skills and reputation based distribution
- Recommendation system
 - Personalisation based on history of reading and posting
- Learning system
 - Intelligent keyword recognition
 - Better keyword suggesting
 - E.g. Softphone <-> virtual phone



Conclusion

- New trend towards question answering for customer self help system
- Effective support tool
 - Benefits for BT and customer
 - Est. saving of £300,000 per month (£7 per call)
- Could evolve into a more complete work management system
- <http://hubbub.labs.bt.com>



That's it!

- Thank you for your attention
- Questions?