



Skype and Skype testing

04.10.07





Who we are:

- Tiit Paananen
 - Skype QA team lead
 - skype:parasiil
- Tannar Esna
 - Core library QA engineer
 - skype:tannar.esna



The beginning

- 2002 – Kazaa sold
- 2002 – 2003 Skyper
 - community based wifi hotspots
- 2003 august first Skype beta

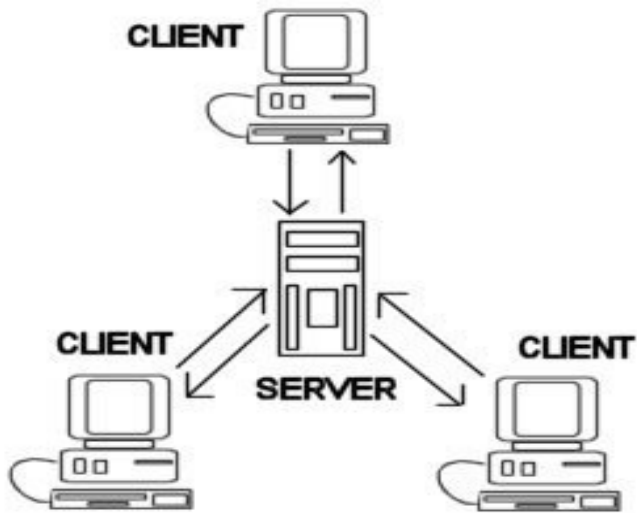


How does Skype work

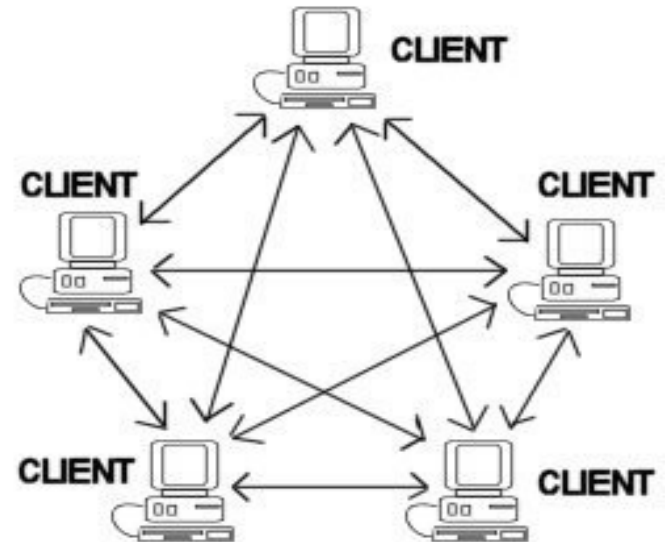
- Peer to Peer technology (P2P)
 - Patent: PEER-TO-PEER TELEPHONE SYSTEM AND METHOD
 - AHTI HEINLA
 - PRIIT KASESALU

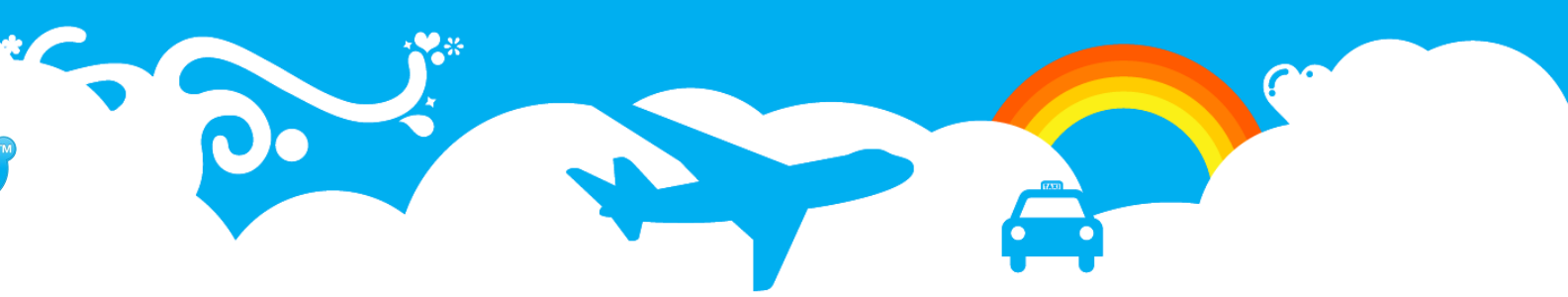


Client/Server



P2P



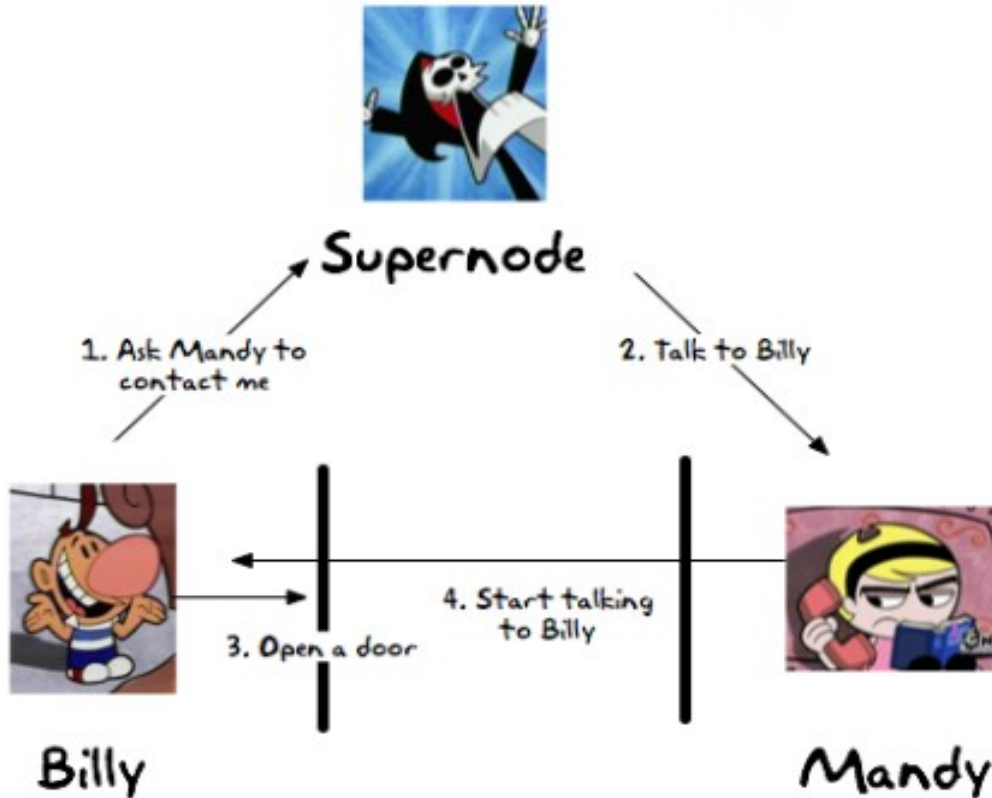


Skype P2P network

- Peer
 - Local client
- Supernode
 - The backbone of Skype P2P network
- Relay
 - Exchanges data (calls, file transfers, chat) between clients



Firewall traversal





Skype progress

- 28.09.06
 - 140 million registered users
 - max 7 million online users
 - 30 000 bugs reported
 - 450 employees
- 04.10.07
 - 240 million registered users
 - max ~10 million online users
 - over 60 000 bugs reported
 - 525 employees



AMERICAN



AUSTRALIAN



BRITISH



CANADIAN



DOMINICAN



FINNISH



FRENCH



GERMAN



IRISH



ITALIAN



BRAZILIAN



JAPAN



LATVIAN



LITHUANIAN



MOROCCAN



MEXICAN



ZELANIAN



POLISH



PORTUGUESE



RUSSIAN



SPANISH



SWEDISH



TURKISH



TRINIDADIAN



VENEZUELAN



9/9

0800 Antan started
 1000 " stopped - antan ✓

			{ 1.2700	9.037 847 025
				9.037 846 995 correct
	13°C (032)	MP - MC	1.98264000	
			2.130476415	4.615925059 (-2)
	(033)	PRO 2	2.130476415	
		correct	2.130676415	

Relays 6-2 in 033 failed special speed test
 in relay " " test.

Relay
 2145
 Relay 3376

1100 Started Cosine Tapc (Sine check)
 1525 Started Mult + Adder Test.

1545



Relay #70 Panel F
 (moth) in relay.

First actual case of bug being found.

~~1630~~ Antan started.

1700 closed down.

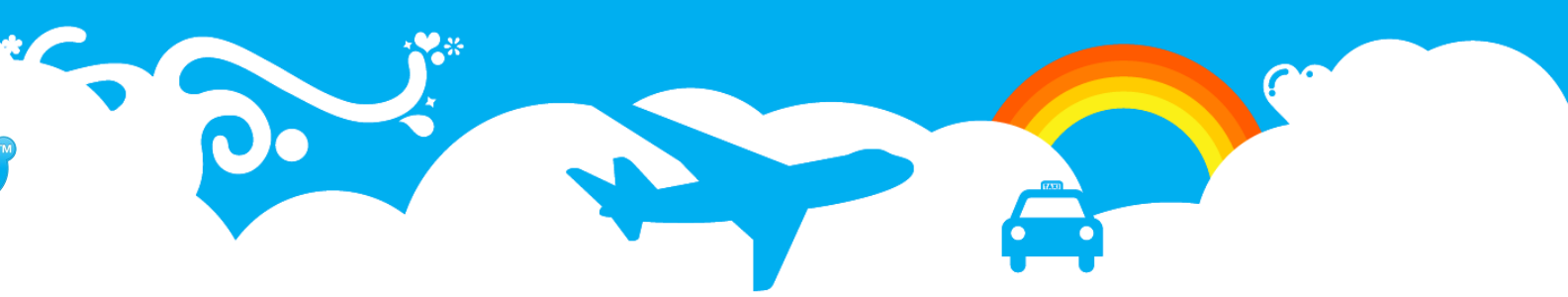




Team overview

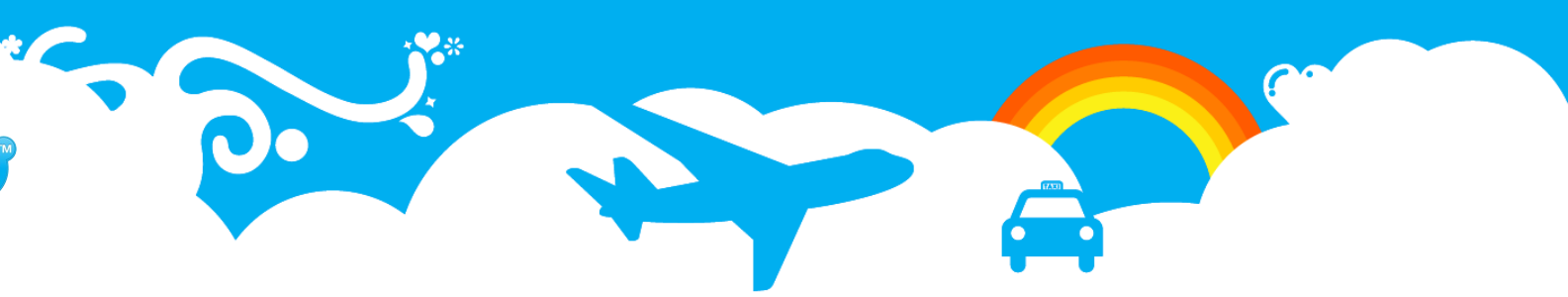
- Desktop QA (win, mac and linux) - UI testing
- Web QA - e-com, store/shop, Web FE and emails
- Library QA, Audio/Video - core functionality, network and A/V
- Backend QA - services and support infra
- Mobile QA - testing mobile and embedded solutions

- BETA program
- Partner relations



Core library QA

- Who we are
- What we do:
 - Skype testing (NAT, Router, CallManager, Session_manager, Presence, Chat ...)
 - Develop automated test environments
 - Analyse Skype blocking solutions



Types of testing. What we do?

- Planned blackbox exploratory approach mixed with scripted testing
- Bug and fix verification
- Whitebox, code review
- Regressiontesting on UI, WEB, LIB and BE or DB
- Load and performance testing
- Integration testing
- Security testing
- Automated testing
 - Build quality run
 - UI and WEB automation



What we don't do?

- monkey testing
- usability review
- systems testing
- requirements analysis



Facts

- Bug number 60.000+
- Bug new/closed ratio is over 1 all the time :(
- We have 2-3 hotfixes per release
- RC-s going out with known issues

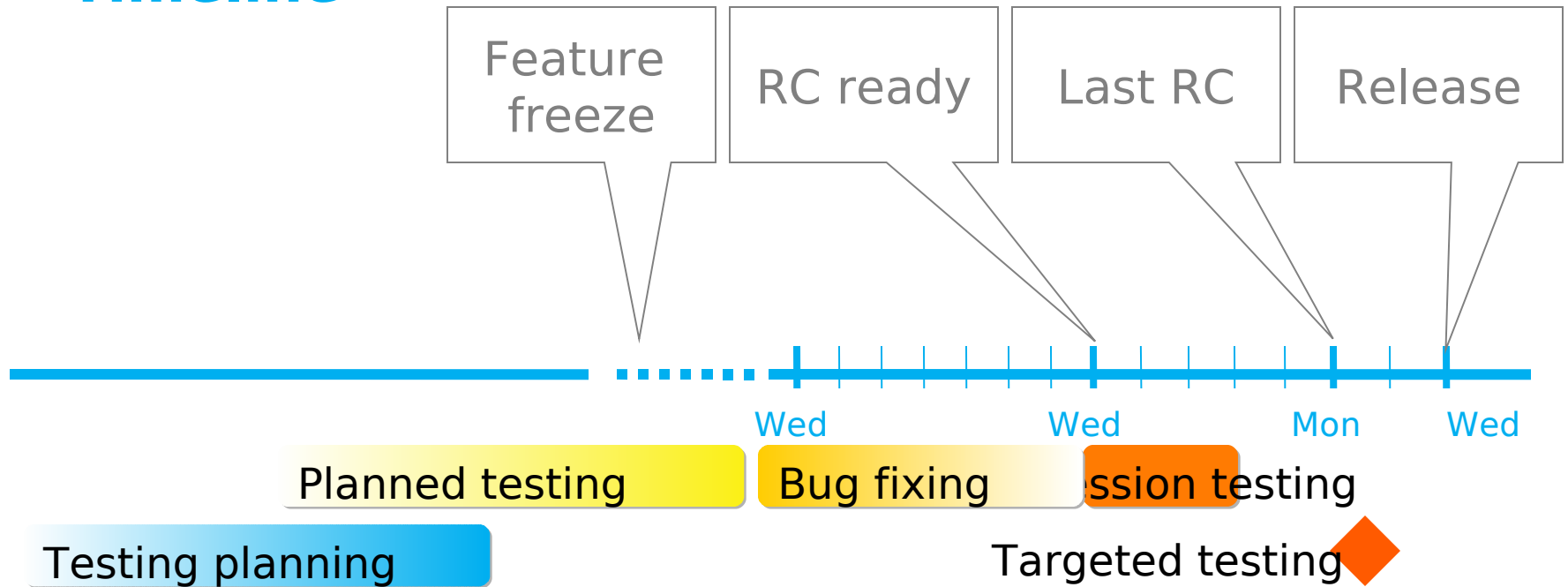


Agile testing? Is it possible?

- What is the difference with “cowboy coding”?
- Communications and short iterations. Documentation?
- Software Quality Assurance is more!
- [Agile testing? How we deal with it.](#)
- Different communications modes on different times
- Using right channels for right stuff
- Automation where possible



Timeline





How bugs are born?

- Poor specification - weak analysis phase
- Errors in source code - usually something missing
- In some cases compiler errors
- Systems interacting - environment
- Time pressure
- Developers disturbed
- Too frequent releases - no stabilisation period
- Lack of focus



What we expect from students

- That they finish their studies
- Realistic attitude > heavy self criticism
- Some experience of projects and initiatives
- Ability to think and do some hard work



Philosophy

All Skypers are testers

Talk about your problems to solve them

BETA program - the best use of slave labour, ever

Release quality issues can postpone releases

We hire attitude and teach skills

We use our own product