jingle:
jabber does voip
peter saint-andre
jingle
jabber does multimedia
what is jabber?
real-time messaging
presence
powered by streaming xml
jeremieu miller
1998
tired
4 different im clients
multiple accounts
no interoperability
foster freedom of conversation
scratch an itch
open-source messaging and presence server
jabberd
january 4, 1999
more than a server
clients
libraries
add-on components
multiple server codebases
client-server architecture
decentralized network
inter-domain messaging
like email
but really fast
with built-in presence
no server spoofing
and no spam
xml wire protocol
standardized through ietf
extensible
messaging
and presence
protocol
rfcs 3920 + 3921
more than protocols
50,000+ servers (?)
40+ million users (?)
clients for every platform
libraries
for every language
deployed worldwide
wall street banks
u.s. government
hp, eds, fedex
orange, bell south, sapo, ntt, sun rocket
google, apple, sun, live journal
and you
run your own server
write your own components
integrate with your own systems
build competitive advantage
open technologies
this is a good thing
application server for the real-time internet
layer 7 xml router + presence engine
low-latency signalling channel
extensible from the ground up (pure xml)
strong security
stable identities
dynamic capabilities

discovery
and presence
“the new dial tone”
presence is boring!
presence is a catalyst for communication
jingle?
xmppp extensions
modular framework
multimedia session management
negotiate session parameters over xmpp
use a binary-friendly transport for media
pluggable transports:
rtp-ice, raw udp, etc.
pluggable session types: audio, video, etc.
sound familiar?
why jingle?
community interest in multimedia since 1999
enable jabber clients to do voice, video, & more
need standards for interoperability
past approaches
h.323
proprietary xmpp extensions
“tins”
(sdp over xmpp)
dual-headed
xmpp+sip clients
issues
two centers of control (sip and xmpp)
addressing
(unicode in xmpp)
authentication
(mandatory in xmpp)
sender identity
(validated in xmpp)
traffic validation
(xmpp schemas)
manageability
(client-server in xmpp)
presence
(native in xmpp)
buddy lists [tm]
(native in xmpp)
presence subscriptions
(long-lived in xmpp)
40+ million jabber users can’t be wrong
multimedia goodness to xmpp network
build a native XMPP signalling protocol
ensure interoperability with sip
not trying
to supplant sip
adding jabber users to open voip networks
early version developed with sip guru
cto @ jabber inc.
(they pay me)
google talk
standardization underway
jabber software foundation
specs in JSF’s XEP series
xep-0166 etc.
last call in progress
informational rfc
(eventually)
support coming to...
google’s libjingle
(c++ library)
many more jabber clients
telepathy / gnome
freeswitch
various devices
(nokia 770, etc.)
providers, telcos, hw/sw vendors
asterisk
federate pbx’s over xmpp backbone
look ma, no bell!
(route around telcos)
gateways to sip, h.323, pstn
open IETF standards + open extensions
open-source or commercial
mix and match
buy or build
deploy as you please
play with others
talk with everyone
innovate at the edges
no silos
no spam
no guano
open technologies
the way life should be
join the conversation
let’s build the real-time internet