

# RTC beyond borders

Alan Duric

# Agenda

- Quo Vadis - RTC in 2014 - “Big numbers game”
- Considerations for RTC solutions
- webRTC and Kamailio's role

Quo Vadis - RTC in 2014  
“Big numbers game”

What happens in a month?



# **Messaging App Viber Sells For \$900 Million To Japanese E-Commerce Giant Rakuten**

14FEB2014



# Facebook to buy WhatsApp for \$19 billion

19FEB2014





# Alibaba Sinks \$215 Million Into Messaging App Tango, Valuing It At More Than \$1 Billion

20MAR2014





What will it turn into?

# Considerations for RTC solutions



Macro perspective



**Smartphones=game changer**





**LTE = final reverticalization**



Arbitrage is going away -  
needed new differentiation!

**European Parliament votes to end roaming charges, expand consumer rights and make it easier to create better telecoms.**

Brussels, 03APR2014







Rise of the sensors



# Sensors are intersecting RTC



# The Self(ie) Generation

MAY 20, 2013

Obama's New Boss / Syria  
face-off McCain vs. Brzezinski / **PLUS:** Summer's  
best movies & more

# TIME

## THE ME ME ME GENERATION

Millennials are lazy, entitled narcissists  
who still live with their parents

Why they'll save us all

BY JOEL STEIN



Presence ...



- Presence became adult
  - 18y old – ICQ
- Major rework is needed
  - Automatised
  - Meaningful
  - Privacy aspect

... and it is still broken!!!

Metrics ...



**WhatsApp Inc.** ✓

@WhatsApp

+ **Follow**

new daily record: 20B messages sent (inbound) and 44B messages received (outbound) by our users = 64B messages handled in just 24 hours.

Reply Retweet Favorite More

RETWEETS

**1,130**

FAVORITES

**490**



8:24 PM - 1 Apr 2014





>450M Monthly Active Users, ~70% Active On a Given Day  
Growing by >1M Registered Users Per Day



WhatsApp Messaging Volume Approaching Entire Global  
SMS Telecom Volume (19B Sent & 34B Received per Day)



>600M Photos Uploaded Per Day



>200M Voice Messages Sent Per Day



>100M Video Messages Sent Per Day



>100% Year Over Year Growth for All of the Above

# Whatsapp impact

- Scaling - 64 bn messages per day!
  - 752k messages/second!
- Business - 64 bn messages per day!
  - close to world wide SMS traffic
  - with avg cost of 1.1 c/msg = 200 mUSD/day



# New metrics

- Activity - Tinder - 300 m swipes per day
- Photos - Instagram 60m uploaded per day (stored) vs 600m/day which are passed - Whatsapp
- Activity - login daily Instagram and Whatsapp - 70% users



# Security and Privacy



# Considerations

- Make sure to use TLS!
- Encrypt media. SRTP is Your friend (DTLS for key exchange)!
- Treat Your customers well.
- Safe harbours

Biz impacts



- Inevitable shift and proliferation of biz models
- For operators value is
  - ubiquitous access
  - Billing relationships
  - enabling 3<sup>rd</sup> parties
- Dynamic revenues models
- New universe of partnerships
- Profit is not the only measure and target

webRTC's and  
Kamailio's



# Outlook - webRTC and Kamailio

## Market share of the top million busiest sites

- Shift from circuit switched communications is expediting
- Arbitrage is going away - enabling (for real) rich communications
- On the way to become “Apaches of the RTC space”

Developer	January 2014	Percent
Apache	554,533	55.45%
nginx	159,079	15.91%
Microsoft	126,568	12.66%
Google	30,370	3.04%

Netcraft, JAN14