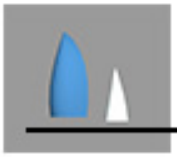

Smith's Point Analytics, LLC

WebRTC and Cloud RTC Platforms: Communications as a Feature – Second Edition

July 2015

Peter Crocker
Founder and Principal Analyst
peter@smithspointanalytics.com

Smith's Point Analytics LLC
6 Lufkin Street
Essex, MA 01929
617-633-9507

www.smithspointanalytics.com

Order Here

Executive Summary

Demand for In-app communications and Cloud RTC platforms is growing at an accelerated pace as projects move out of beta into full production and vendors are aggressively positioning themselves for the future. This market is expected to reach over $4.3 billion USD by 2019 equating to a CAGR of 57% over the forecast period. Developer awareness and the opportunity for more contextual communications are two key factors driving the demand for Cloud RTC platforms, or platforms that enable developers to easily integrate communications into their apps. These platforms provide SDKs and APIs to mobile and web developers that abstract away the complexity of telecommunications technology, simplifying access to messaging, voice, and video services.

As the market grows, so does the competition and a land grab mentality is emerging with infrastructure players, start-ups and call center software vendors quickly entering the market. We believe competitors will either differentiate on reach and quality of service or richness of the client experience. Competition and demand is also driving platform vendors to quickly build out their offerings to provide a variety of services and features that enable developers with varying skill levels and requirements to benefit from Cloud RTC platforms.

While competition is quickly gathering and first movers are establishing strong positions, we believe much opportunity exists across a number of vertical applications and horizontal services. This fact will create a robust ecosystem. Opportunities in social networking, customer services and collaboration apps are generating the most demand in today's market. Social networking apps are integrating multiple forms of real-time communications and brands are integrating click-to-call features into their apps and websites. Also, Cloud RTC vendors are bringing to market more collaboration features such as file sharing and co-browsing. The ability for Cloud RTC platforms to easily enable app developers to integrate two factor authentication into their apps and streamline the process of on-boarding new accounts is also driving significant demand in the short term. Going forward we see increased opportunity for HD voice and video, video conferencing and analytics.

Developers in verticals such as travel and real-estate/ facility maintenance are currently implementing communications into their apps. In the future we see significant growth in the education and healthcare segments.

While growth is robust, barriers do exist. The WebRTC standard is still evolving and the industry needs greater consensus around signaling. More innovators are also required. Many developers are having trouble envisioning how to leverage communications in new ways within their apps. In some cases the technology may be ahead of the imaginations of app creators who are challenged to think beyond the traditional simple phone call.

The opportunity for in-app communications is broad and diverse. With so many innovative use cases, we do not see single killer app emerging to drive rapid awareness and cultural shifts. Incremental innovation will provide steady but rapid adoption of Cloud RTC platforms.

Order Now

Table of Contents

Market Definition 7
WebRTC 7
Importance of WebRTC and Communications Platforms 7
Market Structure 9
Cloud RTC Platforms 9
Carrier Developer Programs 12
Gateway Vendors 12
Drivers and Barriers 14
Drivers 14
Demand for Contextual Communications 14
Disparate Skill Sets of Web/Mobile and Telecom Developers 15
Communications Infrastructure is Moving to the Cloud 15
Social Networking and OTT Players Adding Additional Communications 15
Need to Extend IMS Investments 15
Growing Sharing and Peer–to-peer Economy 16
Authentication & Validation 16
Barriers 16
Challenges of Signaling with WebRTC 16
Unfinished Standard 18
Universal Support 19
Limited Innovation 20
Applications, Opportunities, and Use Cases 22
Horizontals 23
Vertical Segments 23
Operator or Service Provider 26
Marketing Strategy & Business Models 27
Market Strategy 27
Horizontal Strategy 27
Vertical Strategy 27
Business Models 28
Strategies for Recruiting Developers 30
Competitive Analysis 31
Horizontal Players 32
Vertical Players 32
Competitive Differentiators 33
Quality of Service (QoS) 33
Fall Back Strategies 34
Pricing 34
Packaging 35
Awareness 36
Evolving Competitive Landscape 37
Infrastructure Players 38
Contact Centers 39
IoT Players 40
M&A 40
Forecasts 41
Geographic Segmentation 43
User Survey 48
Demographics 48
Demand 53
By Developer Type and Service 56
Features 59
Experience & Challenges 64

Developer Personas *66*
Enterprise Developers 66
ISVs and Technology 67
Agency and Contract Developers 68
Independent Developers and Entrepreneurs 69
Future Outlook **70**
Many Catalysts Exists Across Many use Cases and Segments *70*
Cloud RTC Platforms Continue to Become More Robust *70*
The Market Will Get Crowded *71*
More Engaging Web *71*
Recommendations **72**
Make It Easy to Implement *72*
Build Relationships & be Trusted Partner *72*
Invest in Helping Your Customers Innovate *72*
Find the Right Niche *72*
Profiles **74**
Acision *74*
Company Overview 74
Product 74
Competitive Advantages 75
Competitive Challenges 75
AT&T *76*
Company Overview 76
Product 76
Competitive Advantage 77
Competitive Challenges 77
Genband *78*
Company Overview 78
Products 78
Competitive Advantage 79
Competitive Challenges 79
Nexmo *80*
Company Overview 80
Product 80
Competitive advantages 81
Competitive Challenges 81
Twilio *82*
Company overview 82
Product 82
Competitive Advantage 83
Competitive Challenges 84

Table of Figures

Figure 1 – Cloud Telephony Applications Architecture ..... **Error! Bookmark not defined.**
Figure 2 – Developers Attitude Towards WebRTC ..... **Error! Bookmark not defined.**
Figure 3 –Developer Interest in In-App Communications Segmented by App Type ..... **Error! Bookmark not defined.**
Figure 4– Preferred Business Models ..... **Error! Bookmark not defined.**
Figure 5– Preferred business models y/y trend ..... **Error! Bookmark not defined.**
Figure 6 – Price Elasticity for Premium Quality of Service ..... **Error! Bookmark not defined.**
Figure 7 – Developers Using Various Integration Options ..... **Error! Bookmark not defined.**

Figure 8 – Developer Usage, Expected Usage and Awareness of Leading Platforms ..... **Error! Bookmark not defined.**
Figure 9 – Current & Future Competition ..... **Error! Bookmark not defined.**
Figure 10 – Recent M&A Activity in the Cloud RTC and WebRTC Space ..... **Error! Bookmark not defined.**
Figure 11 – Revenue Forecast for Cloud RTC Platforms 2014-2019 ..... **Error! Bookmark not defined.**
Figure 12 – Total Developers Integrating Communications Into Their Apps ..... **Error! Bookmark not defined.**
Figure 13 – Revenue Forecast for Cloud RTC Platforms Segmented by Region 2014-2019 ..... **Error! Bookmark not defined.**
Figure 14 – Total Developers Integrating Communications Into their Apps Segmented by Region ... **Error! Bookmark not defined.**
Figure 15 – Revenue Forecast for Cloud RTC Platforms Segmented by Service 2014-2019..... **Error! Bookmark not defined.**
Figure 16 – Revenue Forecast for In-App Messaging delivered by Cloud RTC Platforms Segmented by Region 2014-2019 ..... **Error! Bookmark not defined.**
Figure 17 - Revenue Forecast for In-App Voice delivered by Cloud RTC Platforms Segmented by Region 2014-2019 ..... **Error! Bookmark not defined.**
Figure 18 - Revenue Forecast for In-App Video delivered by Cloud RTC Platforms Segmented by Region 2014-2019 ..... **Error! Bookmark not defined.**
Figure 19 - Survey Respondents Segmented by Region ..... **Error! Bookmark not defined.**
Figure 20 - Survey Respondents Segmented by Income from Apps ..... **Error! Bookmark not defined.**
Figure 21 – Survey Respondents Segmented by Role in Software Development ..... **Error! Bookmark not defined.**
Figure 22 – Devices Developers are Targeting ..... **Error! Bookmark not defined.**
Figure 23 – Survey Respondents Segmented by Type of Employer ..... **Error! Bookmark not defined.**
Figure 24 – Type of Applications Developed by Respondents ..... **Error! Bookmark not defined.**
Figure 25 - Developers Use and Interest in In-App Communications ..... **Error! Bookmark not defined.**
Figure 26 – Developers Use and Interest in In-App Communications Year over Year Comparison .... **Error! Bookmark not defined.**
Figure 27 - Developers Use and Interest in In-App Communications Segmented by Region ..... **Error! Bookmark not defined.**
Figure 28 - Developer Use and Interest in In-App Services Comparison ..... **Error! Bookmark not defined.**
Figure 29 - Developer Use and Interest in In-App One Way Messaging Comparison .... **Error! Bookmark not defined.**
Figure 30 - Developer Use and Interest in In-App Two Way Messaging Comparison ... **Error! Bookmark not defined.**
Figure 31 - Developer Use and Interest in In-App Voice by Developer Type ..... **Error! Bookmark not defined.**
Figure 32 - Developer Use and Interest in In-App Video and Video Calling by Developer Types .. **Error! Bookmark not defined.**
Figure 33 – Integration Strategies ..... **Error! Bookmark not defined.**
Figure 34 – Required Level of Interconnectivity ..... **Error! Bookmark not defined.**
Figure 35 – Additional Capabilities Developers Have Integrated Into Their App ..... **Error! Bookmark not defined.**
Figure 36 – Additional Communications Capabilities Developers are Interested In ..... **Error! Bookmark not defined.**
Figure 37 – Ranked Selection Criteria ..... **Error! Bookmark not defined.**
Figure 38- Challenges Faced When Integrating Communications ..... **Error! Bookmark not defined.**
Figure 39 – Experience Working With Web Technologies ..... **Error! Bookmark not defined.**
Figure 40 – Experience Working With Telecom Technologies ..... **Error! Bookmark not defined.**
Figure 41 – Cloud RTC Platform Selection Criteria Segmented by Enterprise Developers ..... **Error! Bookmark not defined.**
Figure 42 – Top Additional Features Currently Implemented Segmented by Enterprise Developers **Error! Bookmark not defined.**
Figure 43 – Factors Driving Platform Vendor Choice Segmented by ISVs and Technology Vendors .. **Error! Bookmark not defined.**
Figure 44 - Top Additional Features Currently Implemented Segmented by ISVs and Technology Providers ..... **Error! Bookmark not defined.**

Figure 45 - Factors Driving Platform Vendor Choice Segmented by Agency and Contract Developers ..... **Error! Bookmark not defined.**
Figure 46 - Top Additional Features Currently Implemented Segmented by Agency and Contract Developers .. **Error! Bookmark not defined.**
Figure 47 - Factors Driving Platform Vendor Choice Segmented by Independent Developers and Entrepreneurs ..... **Error! Bookmark not defined.**
Figure 48 - Top Additional Features Currently Implemented Segmented by Independent Developers and Entrepreneurs..... **Error! Bookmark not defined.**

Companies Mentioned

46 Elks
Accellion
Acision
Acme Packet/Oracle
Aculab
Addlive
Amazon
APIdaze
Aspect
Assemblage
AT&T
Authy
Avaya
Bit6
Blackberry
Blackboard
Broadsoft
Browsetel
Cambly
Cisco
Comcast
Comverse
Cubeslam
Deutsche Telekom
Digium
Ericsson
Facebook
Genband
Google
Hookflash
Huawei
ifbyphone
Intel
Layer
Live Look
Matrix.org
Maviner
mBlox
Microsoft
Mitel
Mongoose Metrics
Mozilla
mPortal
NetMedical
Nexmo
Opera
Orange
Ozonetel
Plivo
Porch
Rabbit TV
Rebtel
Requestec
Ring Central
SAP
Sightcall
Skype
SnapChat
Solaiems
TelAPI
Telefonica
Telestax
Temasys
TenHands
Throughpoint
Togetheroo
Toy Genius
Tropo
Twilio
Ubuntu
Vidtel
Vsee
Whats App
YuuZoo
Zingaya

Methodology/User Survey

Between March 16th 2015 and June 8th 2015 Smith's Point Analytics executed a survey of developers to better understand their requirements and demand. The population consisted of our internal developer panel as well as readers of InfoQ and Rethink Wireless newsletters. The survey included 21 questions

and a total of 182 developers responded. A chance to win an iWatch was offered as a reward for participation in the study.

Data used for comparison in this section also originates from a similar study that was conducted between December 8th 2013 and January 21st 2014. That study had 627 respondents and consisted of 22 questions.

Order Now