2017 Trends to Watch: Communications Services
Summary

In brief

Context, commerce, and convergence are the keywords for communications in 2017. Telcos, chat apps, and vendors alike are focused on developing or deploying platforms that enable end users, whether consumers or enterprise users, to access a multipurpose service that enables switching between communication channels, as well as the ability to carry out transactions.

Ovum view

Ovum has identified a number of trends that will continue to have a significant impact on the communications services industry in 2017. These trends cover chat apps, enterprise communications, and video communications.

Within the chat app market, the focus has moved from adding new communications capabilities to the pursuit of revenues. Key chat apps such as Facebook Messenger and WhatsApp now have monthly active user (MAU) bases in excess of 1 billion, and they are keen to replicate the financial success of the Asian powerhouses WeChat, Line, and KakaoTalk. The Asian chat apps are already generating substantial revenues from advertising, content, and financial services, and are themselves searching for their next potential sources of income. Contextual or conversational commerce using chat bots is viewed as one way in which chat apps can generate revenues, although chat apps need to tread carefully in order to ensure a good user experience.

In the enterprise communications market, application-to-person (A2P) messaging continues to grow, as cloud communications and communications platform-as-a-service (CPaaS) providers make it simpler for enterprises to add messaging to their existing business systems, and as telcos act to clean up the A2P SMS ecosystem. CPaaS providers are also making it simpler for enterprises and telcos to introduce new communications channels to their customers, building on technologies such as Web Real-Time Communications (WebRTC), Rich Communications Services (RCS), and network functions virtualization (NFV).

Finally, the stage is set for the wider adoption of video communications, catalyzed by video chat and video streaming/livestreaming apps such as FaceTime, Skype, Periscope, and Snapchat. However, the availability of reliable fixed or mobile broadband (and thus quality of experience) dictates the extent to which video calling or video chat will be adopted within a particular market or region. WebRTC is one option for telcos and enterprises seeking to enable web-based communications services, including video chat.

Key messages

- Chat apps are pursuing new revenue streams, including the sale of connected devices, MVNOs, conversational commerce via chat bots, and greater engagement with the enterprise market.
- Consumers seek to communicate with enterprises in the same way that they interact with each other, which means that enterprises – and their telco partners – must be able to support multiple communication channels, including chat apps and IP-based voice and video chat, as well as traditional communications capabilities such as SMS. Being able to support multiple
Communications channels is a complex undertaking; telcos, vendors, and enterprises alike should consider using technologies such as WebRTC, RCS, and NFV.

- Although video communication is a small proportion of mobile users' daily use of services, there are indications that within certain demographics user-generated video streaming or video livestreaming is becoming popular. It is likely that as time goes on, consumers and enterprise users will become more accustomed to video calling and video chat as a way of communicating, but for 2017 the stage is still being set for this outcome to eventuate.

Recommendations

Recommendations for service providers

Service providers need to position themselves so that they can quickly adapt to the rapid pace of change in the consumer communications domain, and enable media rich services and popular services such as video livestreaming. Service providers can achieve this either by adopting a CPaaS platform or by investing in building the services themselves using WebRTC or RCS. Service providers that do not wish to pursue the previous options can partner with OTT players and offer their consumers access to the same suite of services. Service providers that are planning to launch chat bots must do so with caution. Chat bots should be designed to provide a user experience that is positive and adds value. Many players are adding chat bots without ensuring a good quality of experience. This does not go down well with consumers.

Recommendations for vendors

Vendors need to be cognizant of the major trends in the consumer space and adapt their solutions to support these trends. For instance, the growth in multichannel communications and video streaming requires vendor support in terms of network capacity and platforms that allow service providers to offer consumers an OTT-like unified communications experience. Vendors should also offer solutions based on technologies that are popular with service providers in the markets relevant to them. Ovum's Enhanced Telco Communications Tracker: 3Q16 allows vendors to check which technologies – RCS, WebRTC, VoLTE, Wi-Fi calling, or VoWiFi – are being deployed by operators on a country-by-country basis, and enables extrapolation of underserved markets. However, vendors should be careful to not ignore SMS because it still serves as an important customer service communications channel and remains a source of revenues for both vendors and telcos.

Chat apps: Contextual commerce, chat bots, and customer engagement will rule in 2017

Chat apps use scale to tap into new revenue channels

During 2017, OTT communications players will implement a wide range of new services and business models, as they seek to monetize their burgeoning user bases. Ovum forecasts that the MAUs of OTT communications apps (chat apps) will exceed 2.3 billion in 2017 (each MAU will typically use more than one chat app). WhatsApp and Facebook Messenger both crossed the milestone of 1 billion MAUs in 2016, and they are using their scale to work with businesses and grow revenues by offering application programming interfaces (APIs) and integration with their chat platforms. Facebook
Messenger has also introduced bots to enable businesses to automate their interactions with consumers. The enterprises' ability to interact with consumers on chat apps brings a new dimension to OTT communications, allowing consumers to purchase goods, contact customer care, and even access information services on their chat app. It is clear that the chat app has moved well beyond being a pure communications platform, to becoming a digital hub for the consumer's life, which in turn opens up a range of potential revenue channels.

Smaller players in the OTT communications space have also begun to explore new revenue opportunities. For example, Snap Inc.'s Snapchat initially generated revenues through advertising and its Discover media platform, which enabled publishers such as CNN, ESPN, and MTV to create content channels. However, in September 2016, Snap announced Spectacles, which will retail at $130. This comprises sunglasses with an inbuilt camera, which allows users to record 30-second videos and share them on Snapchat. Snapchat had 150 million daily active users (DAUs) as of June 2016.

Snapchat is not the only player entering the hardware space. Japanese messaging app Line announced in September 2016 that it will sell mobile phones, as part of its new MVNO, Line Mobile. The SIM-free handsets will be bundled with SIM cards and data plans, with service plans starting from JPY500 ($4.83) and including unlimited use of Line's chat app for text, photo and video messages, and voice calls.

Chat apps are also generating revenues from other types of services. For example, Tencent's WeChat has over 200 million registered credit cards on its platform, and it enables payments for goods, peer-to-peer money transfer, charitable donations, and even funds management. Tencent CEO Pony Ma suggested at a press conference in March 2016 that WeChat receives a fee of 0.1% for each transaction and that the fees amounted to more than CNY300m ($44.4m) in January 2016 (during Chinese New Year). This means that the total value of transactions was at least CNY300bn ($44.4bn).

In summary, some chat apps have already moved well beyond traditional revenue streams such as subscription or virtual goods, to far more sustainable and long-term revenue channels such as payments and device sales. Ovum expects most, if not all, of the other chat apps to pursue similar strategies – if they have not begun to do so already – as their user bases grow.
AI will take time to mature, but bots are an immediate play

In 2017, there will be an acceleration in the deployment of various types of bots and the inclusion of more sophisticated artificial intelligence (AI) on devices and apps. The strong push from the wider tech community toward the adoption of AI and bots has percolated down to OTT communications players. The incorporation of AI on chat apps is likely to serve long-term strategic objectives on the part of the larger players, while the use of bots is aimed at quickly expanding the chat app’s suite of services, and will be applicable to small and large players alike.

Google has deployed AI in its smart messaging app Allo, and it has also made AI the core of its new Pixel handset. Meanwhile, Apple has opened up APIs to Siri, its AI-based digital assistant, which will allow developers to more tightly integrate AI into other services on Apple devices. Amazon and Facebook have also invested heavily in their AI-based digital assistants, Alexa and M, respectively.

Chat app integration of AI is a long-term strategy because it will take time for AI to become sophisticated enough that it can offer a truly contextual and appealing user experience. In the short term, some of these moonshots may not pay off immediately. For instance, Google’s Allo has received an underwhelming response because the app’s AI agent is not mature enough to seamlessly carry out tasks and has not matched consumer expectations. However, the inclusion of AI in Google’s Allo acknowledges the fact that AI will become an important component of communications services in the near future.

In the short term, however, chat apps can deploy bots to automate basic processes and replace low-level apps. Facebook Messenger has more than 30,000 bots as of September 2016, and players such as Skype, Slack, Kik, Telegram, and Line have also enabled bots on their apps. The deployment of bots is regarded as the quickest way in which chat apps can add services to their platforms in order to move beyond simply providing communications, and to work with enterprises. If successful, bots will slowly begin to cannibalize low-level apps that perform routine functions. However, there is still much
work to be done on bots in terms of improving the user experience (e.g. ensuring that bots provide users with information that they can actually use, as opposed to spam).

**Expect greater engagement with enterprises via chat apps**

OTT messaging traffic will exceed 45 trillion messages sent by end-2017, representing growth of 20% year on year, according to Ovum’s *OTT Messaging Forecast: 2016–20* (Figure 2). One of the factors that will drive increased OTT messaging traffic is increased enterprise engagement with consumers via chat apps, such as WeChat, WhatsApp, and Facebook Messenger. For example, Facebook Messenger is working with enterprises such as KLM to offer an intuitive and media-rich user experience to their customers. In March 2016, KLM added a chat bot on Facebook Messenger, through which it is providing its customers with automated flight updates and check-in information. As a result, KLM saw its Facebook Messenger traffic increase 40% in the first month of deployment, with 1.7 million messages sent by its 500,000 Facebook Messenger followers. Meanwhile, hotel chain Hyatt, one of the first enterprise partners for Facebook Messenger, also saw a quick adoption of its Facebook Messenger–based service, which was launched in late 2015, with 10% of social media traffic now coming in through this chat app.

The chat app is an ideal place for enterprises to connect with customers because it is a communications channel that can enable real-time and asynchronous interaction; the ability to share files, location, and media; and voice and video calling.

However, a far more important driver for the use of chat apps is the transformation of user behavior from an open-community style discussion via social networks and social media to a private one-on-one conversation with an enterprise. For some interactions, customers prefer to communicate with enterprises in a secure and private environment, as opposed to via an open platform such as Facebook and Twitter.

**Figure 2: OTT mobile messaging traffic, 2013–17**

![Chart showing OTT mobile messaging traffic from 2013 to 2017](Source: Ovum)
Putting enterprise messaging in context

SMS maintains role as customer communications channel

Enterprise use of A2P SMS will continue to grow in 2017. Ovum forecasts that A2P SMS traffic will reach 1.25 trillion events by end-2017 (Figure 3), up from 1.18 trillion events by end-2016. For enterprises, SMS remains the cheapest, most reliable, and most accessible mobile messaging communications channel to reach customers and employees, even as global chat apps such as Facebook Messenger and WhatsApp seek to emulate Asian chat powerhouses WeChat, Line, and KakaoTalk in engaging with the enterprise market.

More mobile operators are working toward ensuring that they can maximize their revenues from A2P SMS. A number of telcos have deployed SMS firewalls and anti-fraud platforms, which enable them to identify incoming A2P SMS traffic and its origin. This allows them to block spam and detect gray route traffic terminating on their networks, which is typically traffic for which they are not being paid. By being able to identify gray route traffic, telcos can, where possible and desirable, enforce commercial agreements for SMS termination and thus recover revenues. For example, Vodafone Carrier Services's deployment of an SMS firewall in May 2015 has since resulted in many of its opcos reporting revenue increases, which has made a noticeable difference to their balance sheets. Telcos such as Telenor Norway have experienced similar results. Telenor Norway stated that it has generated €80m ($88.8m) in revenues since 2007; on the back of this, the company, at the Mobile World Congress 2016, announced that it would expand A2P SMS protection throughout its global network of 13 opcos. Ovum expects that the trend of telcos deploying SMS firewalls in order to protect both their customers and their revenues will continue throughout 2017.
Chat apps fly the flag for unified communications, and telcos must follow suit

It is now increasingly common for chat apps to enable users to communicate via multiple channels from within the same user interface – chat, voice, and video – and to switch channels depending on the context of the communication or the quality of data connection. Some chat apps, such as iMessage and Facebook Messenger, also enable automatic fallback to SMS when a data connection is not available. Multi-device availability of chat apps and the synchronization of conversations across multiple devices are also standard across chat apps.

As an industry, telcos have taken some time to catch up with chat apps in terms of understanding how their customers’ communications behaviors are changing, and to evolve their offerings accordingly. Telcos should expedite this if they are serious about ensuring their customers continue to use their networks for communications. Most telcos still enable communications in silos (i.e. a client for messaging and a client for voice calls), while few telcos offer video calling or multi-device access. However, telcos such as Vodafone, Deutsche Telekom, Telefonica, and Orange have developed services that are not only similar to those provided by chat apps but also build on network-based assets that chat apps do not have. Some telcos are pursuing multiple strategies: For example, Telefonica has launched a multi-device, multichannel communications service TU Go (based on a mixture of proprietary technology and WebRTC) while also offering services based on the GSMA’s RCS in several markets. Deutsche Telekom has similarly taken a dual approach with immmr (proprietary/WebRTC) and RCS.

Meanwhile, Google’s partnership with the GSMA, operators, and OEMs to increase the penetration of RCS-based services is likely to bear fruit in 2017, following the November 2016 publication of the GSMA’s Universal Profile for Advanced Messaging. The publication of the profile was preceded by US telco Sprint’s announcement that it was the first to launch Google’s Messenger for Android app, which is based on the profile, and that all its new Android devices in 2017 will be preloaded with the app as the default SMS and RCS messaging client. Android devices will comprise 83% of all smartphone sales by end-2017, according to Ovum’s Mobile Handset Sales Volume Forecast: 2015–20.

CPaaS and NFV can help enterprises and telcos adapt to the fast-moving communications segment

As more consumers adopt chat apps for personal use, there will be a rise in demand for the same experience from their business applications, customer care organizations, and telco consumer services. IP-based rich media services, such as VoIP calls and video chat, will become essential to the user. Enterprises and service providers must keep up with the evolution of communication services either by investing in their own platforms or by using a third-party platform to quickly deploy and upgrade these services. Whether enterprises and telcos invest in creating their own platform or utilize packaged services offered by vendors will depend on internal factors such as available resources, long-term strategy, and the make-up of the customer base.

The CPaaS approach, where enterprises and service providers purchase cloud-based packaged services from a third party, is more likely to be adopted by companies that do not have sufficient resources or the necessary expertise to develop their own services. The modularity of CPaaS platforms means that enterprises and telcos can select the combination of services they wish to roll
out to their customers, and can scale services according to consumer usage. Ovum expects CPaaS to become increasingly relevant for enterprises and telcos in 2017, as they come under increasing pressure to evolve their communications services in a cost-effective manner in order to meet the escalating needs of their consumers and enterprise customers, respectively.

NFV is also an option for telcos that are seeking to reduce their operational and capital expenditure by moving the provision of their communications services from a dedicated hardware platform to a group of virtual machines (VMs) running on shared hardware. The shared hardware can be either owned by the telco or operated in the cloud by a third party. As with CPaaS, the advantages of NFV in this context are the ability for telcos to more easily add or drop services and to scale services according to consumer usage. However, NFV is a nascent technology. Therefore, Ovum believes that as the first NFV deployments take place at end-2016 and into 2017, there will be teething problems related to determining which communications functions can or should be virtualized.

**Video communications: The stage is set**

**Chat apps will drive uptake of video calling**

The confluence of chat apps, smartphones, and tablets with professional-grade cameras and large screens, the widespread availability of broadband and Wi-Fi, and the youth demographic is an enabler of the wider uptake of video calling. Desktop- and mobile-based video chat apps such as Skype and FaceTime have catalyzed the video calling market in terms of familiarizing users with the experience of talking and being seen on camera. Most chat apps now enable video calling. The user experience of video calling and video chat is greatly enhanced by the increasingly high megapixel rate of cameras on smartphones and tablets, and the quality and size of the screens on these devices. The ability to access broadband and Wi-Fi pretty much anywhere via the mobile or the desktop, particularly in developed markets, means that the networks themselves can support a better quality of experience, lowering the instance of problems such as dropped calls, screen freezing, and audio–video desynchronization. Finally, children, teenagers, and young adults are inhabiting a world in which video communication is increasingly normalized, meaning that as time goes on, consumers will be as comfortable with video calling and video chat as they are with making a voice call.

However, the pace at which video chat and video calling go mainstream within a market is also dependent on the factors listed above, especially the penetration of fixed and mobile broadband. Therefore, consumers in developed markets are more likely to use video chat and video calling services, at least in the short term. Ovum expects 32% growth in video calling for both one-to-one and one-to-many chat over the next four years. However, according to Ovum’s *Digital Economy 2025: The Future of Communications*, video calling will still represent only 1.5% of the daily time a user spends on mobile by 2018, up from 1% in 2015 (Figure 5).
User-generated live video goes mainstream

Services such as Twitter's Periscope and Snapchat have popularized video streaming and sharing experiences, especially through the curation of live events using services such as Snapchat's Live Stories. Live Stories is doing extremely well with the younger demographic. During the 2016 Olympics, more than 50 million Snapchat users watched Olympic videos on Live Stories. Although Live Stories is not truly "live," as it allows users to access videos well after an event is over, it offers users the unique ability to share an event through their own eyes.

In April 2016, Facebook followed Periscope and Snapchat into livestreaming with the introduction of Facebook Live, paying more than 140 media companies and celebrities to create content in order to accelerate the adoption of the service.

Video livestreaming services such as Snapchat and Periscope have excelled at making users part of the content-generation experience, rather than just passive viewers. This has contributed to the popularity of these services. However, not all video livestreaming apps have succeeded. Meerkat pivoted from livestreaming to video social networking in March 2016 before shutting completely in October 2016. Later that month, Twitter shut down Vine, its short-form video messaging app. Meerkat cited lack of engagement as the reason for the exit, as did the beleaguered Twitter, which is focusing on Periscope instead.

The demise of Meerkat and Vine should not be taken as a sign of malaise within the wider video streaming segment. Indeed, the opposite seems true. The video streaming market is becoming increasingly crowded. Although companies such as Facebook, Twitter, and Snapchat provide video livestreaming as part of a suite of media services, there is still room for start-ups with innovative ideas to capture mind and market share, particularly within the youth demographic, which is more comfortable engaging with video streaming (and at that, livestreaming) services. For example, social video app musical.ly, which enables users to record and share lip-synching videos, reportedly had
130 million users as of October 2016, and was valued at $500m during a $100m funding round in May 2016. It launched in 2014.

**WebRTC eases the way**

The Google-initiated WebRTC framework, protocols, and APIs are aimed at enabling browser-based peer-to-peer communications, including voice and video calling, screen and media sharing, and file transfer and content sharing (via Data Channel). The objective of WebRTC is to allow end users, whether consumers or business users, to access communications services via multiple device types and over multiple network technologies. Although initially a Google open source project, the development of WebRTC is now governed by the World Wide Web Consortium (W3C) and the Internet Engineering Task Force (IETF). Other key Internet browser companies including Mozilla, Opera, and Microsoft have joined in its development.

WebRTC is still a relatively nascent technology, and by June 2016, just under 1,000 companies and projects were using WebRTC, including Facebook Messenger, Amazon Mayday, Snapchat, and Slack. More than 2 billion WebRTC-enabled browsers were present in the market, transmitting an estimated 1 billion audio and video minutes per week on Chrome alone, and more than 500TB of data per week via the WebRTC Data Channel. Key use cases for WebRTC include web-based audio and video conferencing, collaboration, large file transfer, content delivery networks, gaming, IoT, and virtual reality.

Telcos such as Telefonica, Telenor, NTT DoCoMo, and Deutsche Telekom are already either offering services based on WebRTC to the enterprise or consumer market, or using WebRTC as a platform for enhancing internal functions such as customer care. Telefonica and NTT DoCoMo are offering WebRTC-based CPaaS services TokBox and SkyWay, respectively. Telenor's appear.in service can be used by enterprises and consumers alike. Deutsche Telekom's forthcoming immmr service is partly based on the WebRTC technology of its supplier, Genband.

WebRTC is becoming a major part of the technology plumbing as an enabler of IP-based communications services. Numerous vendors have incorporated WebRTC capabilities into their platforms and applications, including the providers of enterprise applications for customer relationship management, field force management, and collaboration. There have already been 29 WebRTC-related vendor acquisitions, including Cisco’s acquisition of Tropo and Acision's merger with Comverse (later to be rebranded as Xura).

Ovum expects the high activity levels around WebRTC to continue into 2017, with more telcos and enterprises using WebRTC-based platforms to more easily provide their customers with advanced communications services such as web-based video chat and screen sharing. Although the development of the WebRTC framework, and subsequently its deployment, has been largely focused on the desktop, work is ongoing to enable WebRTC in mobile apps. It is likely that existing WebRTC-based services will be either extended to mobile or launched as mobile-first services in 2017.
Appendix

Further reading

OTT Messaging Forecast: 2016–20, TE0003-000952 (September 2016)

Mobile Handset Sales Volume Forecasts: 2015–20, TE0004-001075 (April 2016)

Enhanced Telco Communications Tracker: 3Q16, TE0003-000973 (November 2016)

WeChat: The Making of a Digital Services Platform, TE0003-000957 (October 2016)

"Although disruptive, chat bots will not kill of apps any time soon," TE0003-000967 (October 2016)

A Day in the Life of Mobile Communications, TE0003-000939 (September 2016)

Remaining Relevant in Communications: Partnering with WhatsApp, TE0003-000935 (August 2016)

"Messaging players evolve with AI-enabled bots," TE0003-000931 (June 2016)

Intelligent Agents in Consumer Commerce: Market Dynamics, TE0003-000965 (November 2016)

Intelligent Agents in Consumer Commerce: Commercial Prospects, TE0003-000966 (November 2016)

Intelligent Agents in Consumer Commerce: Market Context, TE0003-000964 (October 2016)

Author

Pamela Clark-Dickson, Principal Analyst, Consumer Services

pamela.clark-dickson@ovum.com

Neha Dharia, Senior Analyst, Consumer Services

neha.dharia@ovum.com

Ovum Consulting

We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum’s consulting team may be able to help you. For more information about Ovum’s consulting capabilities, please contact us directly at consulting@ovum.com.

Copyright notice and disclaimer

The contents of this product are protected by international copyright laws, database rights and other intellectual property rights. The owner of these rights is Informa Telecoms and Media Limited, our affiliates or other third party licensors. All product and company names and logos contained within or appearing on this product are the trademarks, service marks or trading names of their respective owners, including Informa Telecoms and Media Limited. This product may not be copied, reproduced, distributed or transmitted in any form or by any means without the prior permission of Informa Telecoms and Media Limited.

Whilst reasonable efforts have been made to ensure that the information and content of this product was correct as at the date of first publication, neither Informa Telecoms and Media Limited nor any person engaged or employed by Informa Telecoms and Media Limited accepts any liability for any
errors, omissions or other inaccuracies. Readers should independently verify any facts and figures as no liability can be accepted in this regard – readers assume full responsibility and risk accordingly for their use of such information and content.

Any views and/or opinions expressed in this product by individual authors or contributors are their personal views and/or opinions and do not necessarily reflect the views and/or opinions of Informa Telecoms and Media Limited.
CONTACT US
www.ovum.com
analystsupport@ovum.com

INTERNATIONAL OFFICES
Beijing
Dubai
Hong Kong
Hyderabad
Johannesburg
London
Melbourne
New York
San Francisco
Sao Paulo
Tokyo