

# The Evolution of Messaging

**The next essential platform  
for business**

# Introduction

In the past two decades, messaging has evolved from a convenient method of online conversation to an enterprise-class technology capable of transforming operations in business and government. Messaging is now poised to displace email, streamline workflows, and simplify life for workers who find themselves switching among dozens of applications and cloud services every day. Far from being merely a fad for Millennials, messaging is one of the most important technologies of the early 21st century.

# From Buddy Lists to Business-Critical Services

Messaging began as a convenient way for friends online to exchange brief, text-based communications. Today, it supports group interactions, file transfers, video conferencing, and more. Soon, it will connect users to the business systems they depend on to do their jobs.

Let's briefly trace the major stages in the evolution of messaging:

## Person to person

Messaging began as instant messaging (IM) on desktop computers—an informal, real-time alternative to email. A great deal of messaging still consists of informal IM communication, though today's messaging users are just as likely to be on mobile devices as on desktops. In fact, messaging has become so popular on smartphones that phone owners are making significantly fewer voice calls when they want to communicate.<sup>1</sup> The user communities for today's messaging apps are vast. Chinese messaging app QQ has a billion users. WhatsApp, now owned by Facebook, has 800 million users.<sup>2</sup> Facebook Messenger has 700 million users, and WeChat 600 million users. Aside from these popular consumer apps, person-to-person messaging is used within enterprises for interdepartmental communication and collaboration.

## System to person

Continuously consulted and available at a glance, messaging apps are natural channels for receiving text notifications about bank balances, money transfers, flight arrivals, shipping confirmations, and other events involving business systems. Many businesses now offer SMS services for delivering messages to customers. As more businesses develop apps on messaging platforms, such as Facebook Messenger, we can expect some of these notifications to be delivered within messaging apps.

## Person to system

If users can receive notifications from business systems through a messaging app, why can't they use that same messaging app to submit requests and commands back to business systems? Introducing support for person to- system communications will be one of the most important developments in messaging's ongoing evolution. Person-to-system messaging requires significant technical advances, including the use of AI and natural language recognition for translating informally written messages into precise application directives. Because it affects commerce and confidential data, person-to-system messaging will also require user authentication, data encryption, and other security features. The advantage of this technically challenging development is that it could make interacting with a variety of different business services as easy as sending a text.

## Deep integration with business systems

To support person-to-system interactions, messaging platforms need to integrate with business systems. The widespread use of Web services and APIs among business software vendors makes this integration much more feasible than it would have been before open interfaces and SOA architectures. Integration can be achieved through back-end services accessed solely through the messaging interface or with plugins accessed within a messaging app. WeChat's inclusion of video games and shopping features hint at future integrations achievable with messaging apps.

## Bots

People are already turning to their smartphones to set up reminders and to issue commands, such as finding a location on a map or scheduling appointments. But there's no reason that these requests, in the form of text messages, could not be submitted to a bot that acts as a concierge, routing requests to the appropriate service. A single messaging app could enable an information worker to file a bug in Jira, update a customer record in Salesforce, query the commute time to an evening venue, and submit an order for pizza to be picked up on the way home.

## “ **From App to Platform**

*The evolution of messaging encompasses not only broader uses for this form of communication, but also the development of software features, add-ons, and frameworks beyond traditional messaging apps. To support concierge-like bot services and other business system integration, messaging technology must evolve into a true business platform, while also supporting enterprise services for identity management, business rules, and security policies. As messaging becomes the “go to” interface for all kinds of services beyond basic personal communication and collaboration, messaging will likely overtake email as the communications technology of choice. Unmanageable email inboxes will shrink as email conversations are replaced by context-savvy messaging streams that offer quick, concise interactions with co-workers, customers, partners, and business systems.*

# The Precedent for Message-based Interfaces

If it seems surprising to consider messaging the next major user interface for enterprise organizations, remember that most IT user interfaces were text-based until the mid-1990s. Even after the rise of the PC in the 1980s and 1990s, many computer interfaces continued to rely on text commands. These commands were terse and cryptic, as opposed to the everyday language people use for messaging today.

Not only were the text commands different from today's messages, but the IT systems they connected to were vastly different as well. IT systems back then lacked connectivity to third-party services such as map services, weather services, and logistics systems. Because IT systems were isolated, they had no ability to understand the user's context. They could interpret commands, but they could not understand needs beyond those expressed explicitly in the commands themselves. They could output responses, but each system's responses involved only the resources that system had fully within its control. Location-aware mobile devices and other computing systems today provide exactly this context. And the context of a user in a conference room at a manufacturing facility at 2pm on a Tuesday afternoon is very different from the context of that same user at 7pm on a rainy Friday night on a Manhattan street. Apps, including messaging apps, can take advantage of context and the interconnectivity of Web-based systems to provide much richer solutions for users.

Critically, the interface to these rich, contextual services is already known and trusted by millions of users: a message.

In this sense, the evolution of messaging is a return to computing's roots. Much of the interface is text-based, but now software understands human language, is capable of surmising the context of the user's situation, and is capable of connecting to myriad systems for businesses and services of all kind. A message can inform a manufacturing manager that a shipment has arrived, or it can help four friends find a well-reviewed sushi restaurant within a three block radius of the closest metro stop. The difference between text inputs of old and message inputs of today is profound. Messages can be used for interpersonal communication. They can also be used to transform the sophisticated, networked systems that make up an enterprise's IT infrastructure.

# Staying Ahead of the Curve: How Businesses Can Innovate with Messaging

The business transformation described here is already underway. Enterprises should recognize that messaging is evolving and that it holds the potential to enable significantly greater efficiency and productivity for today's mobile workforces.

## Here are four steps that IT organizations can take today to prepare for messaging's changing role in the enterprise:

Evaluate how employees are using messaging today. Is it widely used? Is it officially sanctioned? Which apps are the most popular? What usage patterns already exist? What do they say about the inefficiency of alternative communication channels?

Evaluate the security of the messaging apps currently in use. Are employees sharing confidential information over unsecured channels? Are they using apps that encrypt data automatically? Do the apps being used allow IT organizations to monitor or log messaging communications and file transfers? To prepare for the secure, enterprise-class messaging platform of the future, it makes sense to assess the security of the messaging tools and practices in use today.

Consider how many everyday interactions with business systems could be simplified through a messaging interface. Can messaging be used to reduce today's overwhelming volumes of email? Which business services support APIs or features that could easily be integrated with messaging?

Find opportunities to run pilot tests and evaluations to take advantage of developments in messaging technologies. Are there departments or projects that could try out new messaging solutions and report on results?

“ *Messaging is evolving quickly. To realize this potential, messaging must become a true enterprise-class solution: centrally managed, secure, auditable, and integrated with critical business systems such as CRM platforms and logistics systems. Successful organizations will evolve with it, becoming faster, stronger competitors.* ”



**Thank You**