TalkingPointz Research Note

The Firstline/Deskless Opportunity 2019

By Dave Michels, July 2019

1. Overview

1. The group is as old as work itself, but it's a relatively new concept in enterprise communications. We are not even sure what to call this group. Two of the more common names are "deskless" and "firstline" workers.
2. The terms can be used interchangeably, but are slightly different. There's more emphasis on mobility with deskless workers. Think of field workers, drivers, sales staff, etc. The term firstline is more closely associated with the delivery/creation of service at a specific location such as retail staff, hair stylists, and warehouse workers.
3. Companies can accelerate transformational initiatives by including frontline/deskless workers.
4. It is difficult to quantify deskless workers, but estimates are very high — as high as 80% of the workforce. Industries such as construction, manufacturing, travel, and agriculture are predominantly deskless.
5. Full-time, nonmanagement employees generally fall into one of two categories: information (or knowledge) workers and firstline/deskless workers. The latter often perform a direct role in the production of goods and services. They typically require a higher degree of mobility (such as across a store, warehouse, or region).
6. It has been difficult for enterprise communications vendors to address the needs of deskless workers beyond basic phones. The gap has largely been addressed with specialized vendors and equipment that differs by industry, role, and responsibility.

2. Mobile-First

1. The initial "mobile-first" movement came soon after the smartphone. It simply indicated that app developers were prioritizing mobile apps over desktop apps.
2. Mobile-first today has evolved from dev priority to workflow, or less about smartphones and more about mobility. The smartphone is more than 10 years old, but the mobile opportunity is only beginning.
3. Most enterprise workflow apps are not mobile, yet most enterprise employees are. This discrepancy is creating an opportunity to better facilitate firstline/deskless workers. It's a now-obvious opportunity that snuck up on us with smartphones and wireless (3G/4G and Wi-Fi) networks.
4. A perception remains that the desktop PC is more versatile than mobile devices, but the opposite is true. The modern smartphone has better security and authentication (biometrics), more secure operating systems, location awareness, a camera, and access to a larger library of applications.
5. The main limitation of mobile devices has been form factor, but many mobile OS devices are available that support larger screens, keyboards, and mice. Both Android and iOS have added desktop OS capabilities. Samsung DeX transforms a mobile phone into a desktop. Expected new features in Android are designed for large format displays and external keyboards. ChromeOS also provides a viable, often low-cost, option as well. All of these devices are built for cloud, are secure, and are easy to share/swap.

6. Beyond computing power, smartphones are familiar, connected, inexpensive, and often employee provided. They also have cameras, biometrics, and numerous sensors. The camera can be used for documentation (package delivered) and can provide remote sight in “see-what-I-see” support apps.

3. Drivers

1. Millennials will account for more than half of the workforce by 2020, and some 20% of these young professionals are mobile only (do not use a traditional PC).
2. There’s simply no reason (barriers) any more not to better support/connect firstline/deskless workers.
3. Most companies and industries are consumed with increasing productivity, and making business applications mobile-ready can improve employee efficiency and organizational agility.
4. The costs are relatively low. Mobile devices are relatively inexpensive (less than a phone or desktop PC — and can replace both) and have inexpensive operating/support costs. Software is usually self-installed.
5. Currently, firstline/deskless workers are not typically connected to enterprise systems. For example, the sales clerk or even floor supervisor at a large retailer is unlikely to have an enterprise phone number, voicemail box, or email account.
6. For the first time, it is possible for organizations to cost-effectively connect every employee to a single communications platform. Applications and integrations change the workflow as appropriate, but they exist on top of a single communications platform.
7. The primary approach vehicle/app for accomplishing enterprise-wide communications is messaging-centric apps such as Microsoft Teams, Cisco Webex Teams, and Workplace by Facebook. These apps are typically sold at the enterprise level, though they do have freemium options that may appeal to line-of-business users.
8. Microsoft and Workplace by Facebook are aggressively marketing their platforms to firstline/deskless use cases. Both feature several apps designed for firstline/deskless workers.
    a) Microsoft Teams has applets for shift scheduling and time clocking. The shift scheduling app provides a simple and interactive tool for staffing and can even be configured to allow workers to trade shifts. The time clocking app uses location awareness so that employees can only clock in or out when at the work site.
    b) Workplace supports features such as surveys.
    c) Both apps support enterprise-wide broadcast messaging and videos.

4. Dave’s Thoughts

1. There are several simultaneous disruptive shifts occurring in enterprise communications that are reshaping the vendor landscape:
    a) From real-time to near-real-time communications.
    b) Increased capabilities associated with mobility (smartphones and wireless networking technologies).
    c) Toward video.
    d) Artificial intelligence (AI) enhancements (context).

2. Messaging apps (workstream collaboration, workstream messaging, and team chat) are at the epicenter of these changes. Messaging on its own is more efficient than voice, video, or email. It can be urgent, but not necessarily. The UI is also familiar to consumer messaging apps.
3. Messaging apps today also blur with platforms. Applications can be built on them. They can include voice and video. Plus, they can integrate to other apps, store content, and tie into corporate systems such as single sign-on (SSO).
4. Messaging apps also build a foundation for AI as they create usable data including interactions, conversational content, and data from other applications. Conversation history can be searched and shared.
5. These new messaging apps are redefining intra-enterprise communications. They are the next evolution after 20 years of browser innovation, broadband wireless networks, mobile operating systems, and powerful mobile devices. Messaging has already transformed personal communications.
6. The day-to-day nature of work will change for nearly everyone as firstline/deskless workers and intelligent machines participate in the conversation.
7. Frontline/deskless workers are often directly involved in the customer experience. They are in the best position to see, hear, and evaluate what works, what doesn't, and why. Yet, they are the least connected.
8. Frontline/deskless workers receive updates and guidance communications, but typically do not have many ways to communicate upward.
9. Facilitating improved communications from frontline/deskless workers enable them to share their observations and ideas and generally increase service awareness within an organization.
10. One of the problems with email is nonproductive broadcasts and inappropriate reply-alls. Messages often have a short useful life (such as "cake in the break-room"). Because each message requires the recipient to process (delete, save, or respond), there's a cost associated with giving users a voice. The good news is messaging apps tend to have shorter communications, but there's still going to be an organizational learning curve around firstline workers. Deskless workers are less experienced with enterprise communications and may require guidance in acceptable usage. Technical solutions, such as limiting visibility and participation rights, can work against the empowerment these apps inherently provide.
11. A reasonable barrier to adoption is privacy and encryption. Of the solutions mentioned in this report, Cisco Webex Teams is the only one that offers an enterprise key management (EKM) option that prevents the provider from accessing content.

Enterprise-Wide Communications

12. Embracing the firstline/deskless worker is much more than a logical adjacency. It's a complete reimagining of enterprise communications, as there are more deskless workers than knowledge workers. This new inclusive vision heavily leverages messaging and mobile devices.
13. The keys to a fully inclusive enterprise communications strategy are:
    a) Embrace the smartphone as the primary device.
    b) Leverage familiarity with consumer social media tools.
    c) Focus on two-way messaging and broadcast video.
    d) Create specialized apps that facilitate deskless workflows; for example, scheduling tools.
    e) Integrate with enterprise infrastructure such as SSO, shared secure content, and more.

14. The enterprise communications and collaboration story becomes more powerful with the inclusion of deskless employees.
    a) The solution can now address all employees.
    b) The solution becomes much more effective in driving agility and responsiveness.
    c) The resulting inclusiveness can increase retention and stimulate innovation.
    d) The total addressable market (TAM) becomes much larger, justifying higher investments.
    e) The scope of the solution becomes broader than general communications and collaboration.
15. Strategies and solutions that include all employees remain the exception, not the rule, as they have only become feasible in the past decade.
16. Workplace by Facebook just made an intriguing pricing change. The application was already reasonably inexpensive at $3/user/month. The company's new plan has higher prices for paid knowledge workers ($4 or $8/user/month), but slashes the price for firstline/deskless workers to $1.50/user/month. Facebook claims that 80% of its customers are firstline workers, so this "price increase" is a significant price cut.
17. Increased collaboration: employees can share tips, best practices, and other ideas through local/team or wider groups. An example may be in-store displays. Employees can share with others ideas to optimize an in-store display with photos and commentary.
18. Increased safety: Workplace offers an employee check-in capability similar to that of Facebook. If a disaster strikes a certain area, the enterprise has a simple way to hear if employees are ok.
19. Surveys suggest that a lack of communication significantly affects employee engagement.
20. There is a play for messaging firstline apps in the contact center. For example, checking the status of a package could result from the agent messaging the delivery driver. Also, just as Apple Chat and Messenger are becoming contact center channels, so could these messaging apps. For example, Cisco Webex Teams has a EURL feature which points a browser to a public meeting room. Agent moderation or escalation is a reasonable expansion.
21. It also seems inevitable that scheduling applications, such as Microsoft's Teams-based Shifts, will evolve to meet the needs of contact centers — currently met by Workforce Optimization Apps.
22. Most of these apps support 1:1, small group, and broadcast video. Microsoft, Cisco, and others have room-based video. Slack, Workplace, and others rely on partners for room solutions such as BlueJeans and Zoom.

It's the Device

23. It has become so familiar that it's easy to forget how disruptive the smartphone is. More than portability, the smartphone heralded a new era of computing. It introduced a new touch UI and a new software distribution model. It bolstered cloud computing and introduced concepts such as geo-awareness.
24. One key benefit of a smartphone is it can do local authentication. Just requiring an unlocked screen is one form of authentication, but it can be bolstered with geo-verification and biometrics such as a fingerprint or facial scan.
25. Smartphones are more universal, more secure, and have evolved into a sensor-rich, all-in-one portable device for general computing and communications.
26. Smartphones are enabling digital transformation in otherwise stagnant areas. A good example is the time clock app in Microsoft Teams. It turns a physical device into a virtual device, offers digital data

instead of physical cards, reduces space requirements, and reduces the possibility of a friend doing the timestamp. The same app can be used in multiple locations within a building and around the world.

27. The mobile operating systems (Android, iOS, iPad OS, and ChromeOS) require little to no system administration and increased security.
28. Mobile apps tend to be more intuitive. Rarely do users require training or even consult a manual with their apps, which was a common practice not long ago.
29. These modern-day general computing devices are relatively inexpensive, but also popular. It's not unreasonable to require employees to have one to do their job.
30. Mobile device security practices have also evolved, and it's actually easier to partition business and personal data and apps on a mobile device than on a PC or laptop.

Total Addressable Market (TAM)

31. TAM estimates vary widely: 80% of the workforce, 2.7B deskless workers, etc. I have not been able to find a reasonable public estimate of the firstline/deskless market. Regardless, it's a considerably larger market than the desked or knowledge worker segment we know so well in enterprise communications.
32. The estimates have evolved. In 2017 when Microsoft introduced StaffHub, Microsoft wrote in the press release "there are an estimated 500 million frontline staff workers around the world in retail stores, hotels, restaurants, manufacturing, and other service-related industries." Later that same year, Microsoft revised its numbers. "Firstline workers comprise the majority of our global workforce. Numbering two billion people worldwide, they are the people behind the counter, on the phone, in the clinics, on the shop floor, and in the field." Microsoft could not explain the discrepancy, and is unwilling to substantiate or source its figures.
33. This 2B figure is particularly relevant to Microsoft. In 2017, CEO Nadella said there were about 1B Windows users, down from about 1.5B in 2014. Just this month at Microsoft Inspire, Nadella spoke about the firstline opportunity. "[There are] 2 billion first-line workers, and 77 percent of these 2 billion workers feel they don't have the tools to empower them. We've always focused our tools with the knowledge worker. But the real opportunity for us is to bring knowledge workers and first-line workers together to empower companies and people."
34. Workplace by Facebook also cites a 2B user market opportunity, but as the total enterprise communications and collaboration market. Workplace believes that frontline employees represent 80% of the total market (1.6B users globally). Workplace does not share its source either.
35. It probably doesn't really matter. I think we can safely assume that the firstline/deskless opportunity is huge, larger than the traditional knowledge worker segment, and that addressing this larger segment poses a transformative opportunity for enterprise communications.
36. In fact, the existing market has the potential to become a small segment of this new emerging concept of enterprise communications. This could radically change the industry. Knowledge workers in the future may represent specialized or fringe user requirements.
37. Most industries with a high percentage of deskless workers are viewed as tech laggards. This is in part due to the fact that products evolve much quicker for general purpose markets. Agriculture, manufacturing, retail, restaurants, healthcare, hospitality, construction, and transportation/logistics tend to require specialized equipment. Smartphones and new firstline capabilities in general messaging applications will disrupt these sectors with rapid innovation. These, like most, industries are eager to invest in transformational technologies.

38. Microsoft estimates that 2B deskless workers have access to high speed network connections. In a call with investors this year, Satya Nadella, Microsoft's CEO, said selling products for deskless workers has already expanded its market.

Messaging Apps Are Paving the Way

39. Messaging apps are the path to the deskless worker.
40. Messaging is less disruptive (interruptive) than telephony or video, and more streamlined than email.
41. Messaging apps can bring with them content, telephony, video, and integrations, and they can serve as an applications platform.
42. Messaging apps also have enterprise-wide applicability. They can provide a common foundation, yet serve knowledge workers and deskless workers in different ways.
43. Training costs are negligible. The mobile UI is what largely killed software manuals, and many of these apps mimic the UIs of popular consumer apps (such as WhatsApp, Facebook, and Instagram).
44. Messaging apps are an order of magnitude less expensive than UC solutions.
45. The conversational history of messaging apps is more useful than email chains. They are easier to retain, search, and share.
46. Most of these apps offer little in the way of interoperability. The limitation means they are generally used for internal-only communications. Conversely, this simplifies compliance and security concerns and aids in keeping internal matters internal.

Messaging App Landscape

47. Most UC and UCaaS vendors have developed a messaging app.
48. The gorillas in this space are Microsoft Teams, RingCentral Glip, and Workplace by Facebook. Google will soon be releasing a new version of Hangouts Chat that has potential.
49. Viable messaging solutions are available from 8x8, Cisco, Fuze, Vonage, Unify, and Zoom.
50. Most UCaaS offers tend to bundle with mandatory telephony service. This limits their market opportunity as frontline/deskless workers usually do not want or require telephony.
51. The UCaaS-messaging bundle can be appealing, but the services need to be separable. Some customers may not want messaging or have already selected a messaging solution such as Workplace or Slack. The other, larger scenario is customers want messaging but not telephony. Note that apps like WhatsApp, Messenger, and even Slack do very well without telephony. Most organizations already have a telephony standard, but messaging is still emerging as an enterprise tool.
52. The same modular requirement is recommended for the client. There are benefits to a combined, integrated client, but it will limit opportunities. For example, an organization committed to Slack or Google Chat is unlikely to consider messaging-centric Microsoft Teams for its UCaaS solution.
53. Slack is well positioned in messaging, but has not effectively targeted firstline/deskless use cases (yet).
54. Neither Avaya nor NEC have made significant progress with messaging.
55. The firstline/deskless opportunity is growing in general. Consider Square's credit card readers, Microsoft's HaloLens, and Samsung DeX. The terms "firstline" and "deskless" are relatively new and already understood. ServiceMax acquired messaging app Zinc, and then was acquired itself by GE. ServiceMax is positioned as a field service dispatch app with messaging.
56. Cisco Webex Chat and Google Chat are likely the strongest for inter-organizational messaging.