

UC MANAGEMENT: THE IT PRO GUIDE FOR THE DIGITAL WORKPLACE

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Changing Work Dynamics Create New Communication Needs

Unified communications (UC) management needs a consolidated approach as enterprise communication requirements expand in line with changing work patterns, creating demand for a range of communication modes and endpoints with different types of deployments from several UC&C vendors.

The key features of a modern workplace, reflecting the need for a complex blend of communication tools and sophisticated UC management solutions, are as follows:

- **Adoption of new tools for more flexible communication.** Traditional communication methods are no longer sufficient as employees increasingly work collaboratively. This gives rise to the need for videoconferencing solutions such as Webex and team collaboration hubs such as MS Teams, which can complement traditional communication tools such as telephony, conferencing, and emails. According to IDC, team collaboration is projected to increase at a 16% CAGR between 2019 and 2023. The adoption of modern communication tools is expected to accelerate due to COVID-19 as employees increasingly collaborate remotely. This is likely to become the "new normal," and this means user provisioning across a wider range of communication methods.
- **Varying worker profiles.** The types of employees involved in projects could be on permanent, part-time, or short-term contracts in addition to those working outside an organization as enterprises increasingly work in partnership within the broader ecosystem, extending the types of user provisioning and configurations required.
- **Wide-ranging workstations.** There are now many types of workstations as the way people work shifts from traditional style to non-conventional ways. Employees now work both onsite and offsite. Onsite could mean working at permanent desks or hot-desks, and offsite could mean working from home, cafés, across international borders, and while on the move. Workstyle determines the type of device configurations employees need.
- **Use of multiple devices.** The devices used to access communication and collaboration tools are wide ranging and include desk phones, desktops, laptops, mobile phones, and tablets. According to IDC's *Enterprise Communications Survey 2019* (see Figure 1), the percentage of respondents who said they use PCs/laptops and smartphones to access UC solutions fell between 2018 and 2019, while those using tablets increased. To make things even more complex, the communication devices have to be linked to enable call diversion from one device to the other, making user provisioning and configurations more complex.

AT A GLANCE

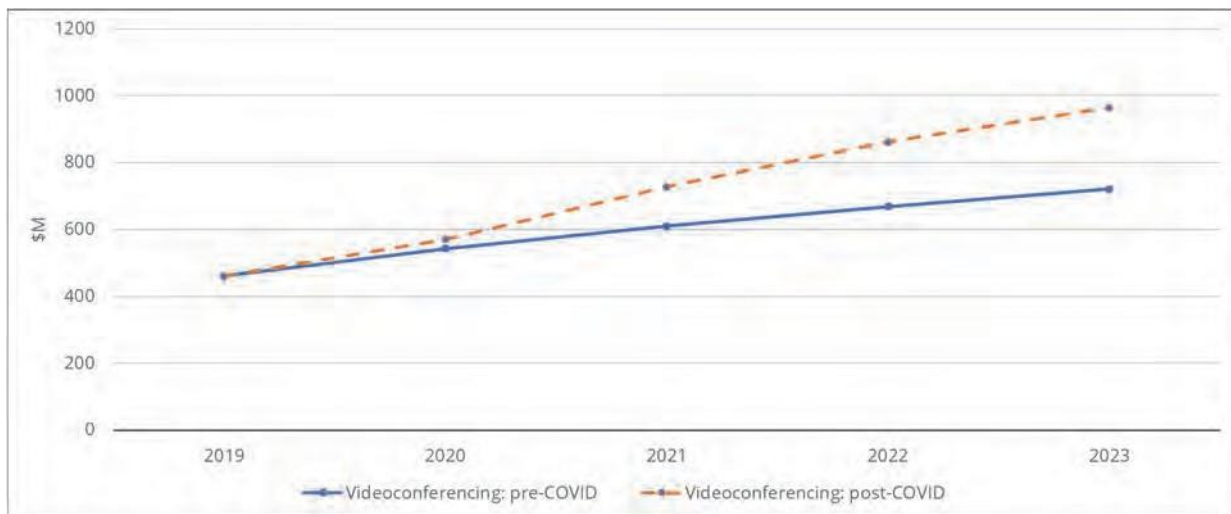
WHAT'S IMPORTANT

Unified communications provisioning and management is developing as a distinct category in UCC to reflect the growing complexity in the enterprise communications system, requiring dedicated and specialized solutions.

KEY TAKEAWAYS

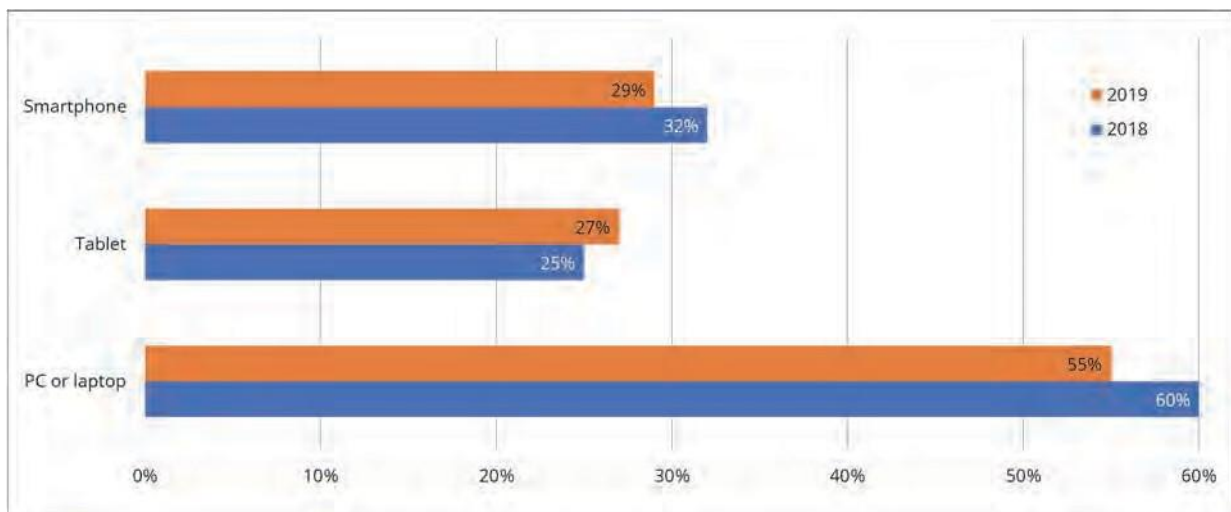
Work patterns are changing, requiring a set of tools sourced from multiple vendors; this makes management more complex and error prone, and leads to the need for centralized and simplified UC management solutions.

FIGURE 1
Market Size Comparison, Pre- and Post-COVID-19 in Europe



Source: IDC, 2020

FIGURE 2
Endpoints to Access UC Solutions



Source: IDC, *Enterprise Communications Survey, 2019* (n = 661)

Traditional UC Management a Challenge as Enterprise Communication Evolves

Changing work patterns are creating challenges for UC management.

- Current UC management can be more costly.** The current UC environment, with multiple technologies, platforms, deployments, tools, and user profiles, can be very costly. Also, difficulties in managing the environment could lead to disruption to work, resulting in unhappy users and more calls to helpdesks — adding to operational costs. According to IDC's *Enterprise Communications Survey 2019*, there has been an uptake in the number of respondents using service providers to manage their on-prem UC infrastructure, from 55% in 2018 to 61% in 2019, indicating the need to have dedicated providers for the job.

- **Managing UC increasingly complex.** The complexity of managing UC comes at two levels. Firstly, managing multiple UC components either in the same vendor environment or multiple vendor environments makes the process repetitive and time consuming as each UC environment needs to be managed separately. Secondly, managing UC solutions from traditional vendors required experts well versed in the vendor technology and programming to deploy and maintain the solution, tying up IT experts for relatively simple administrative tasks.
- **Managing a wide array of collaboration tools is more challenging.** Given that the tools used in enterprise communications are expanding, configuration involves setting permission and access for a wider range of tools such as telephony, conferencing, team collaboration apps, and emails — making the process of provisioning users more lengthy and time consuming.
- **Manual configuration consumes additional resources and is error prone.** Manual configuration to incorporate the expanding boundary of enterprise communication needs, involving multiple vendor portals and devices along with different parameters for diverse worker profiles and workstations, would be unmanageable and error prone, leading to disruption in workflow, unsatisfied workers, and a rise in helpdesk calls.
- **Coping with frequent changes in communication systems is increasingly difficult.** Digital transformation and the speed at which communication methods are changing requires enterprises to migrate to new systems such as UCaaS. The complexity of current UC environments can make migration difficult, involving a large database with different configuration rules. Unless managed properly, there could be outage and serious disruption to workflows.
- **Optimal allocation of resources more challenging.** As provisioning becomes more demanding in a complex UC environment, there is a risk of IT experts getting sucked into performing more mundane tasks instead of infrastructure-related jobs that are a better use of their skills.

Updated UC Management Solution to Address Complex Communication Needs

Given the challenges, it is increasingly being recognized that the old system of managing UC in-house with internal staff is no longer the best option. UC management requires specialized solutions, and as a result it is becoming a new category in the UC space.

The key objective of UC management solutions is to centralize command and control from one place by integrating a myriad of applications, features, and network elements in one platform to help drive efficiency, optimization of resources, user experience, and productivity — and, at the same time, lower operational costs. The broad solutions for UC management are listed below:

- **Single pane of glass for multiple UC applications.** A single pane of glass, involving a single entry point for managing UC operations, is becoming increasingly vital in UC management, as it:

- **Eliminates repeated actions.** A single pane of glass eliminates the need for IT admins to use different vendor portals. The necessary provisioning is done from a centralized place by filling in a template with relevant information that then automatically connects and updates the vendor portals. This reduces the time taken to perform the tasks and the risk of error. The same principle applies to "move, addition, change, and delete" (MACD), as IT admins can save time by performing the tasks from a centralized place instead of using different interfaces and vendor portals.
- **Enables access to IT tickets from the same interface.** Integrating a single pane of glass with an IT service management (ITSM) solution, such as ServiceNow, enables IT admins to see tickets from a centralized place, reducing the risk of missing them if they were to sit in a different user interface.
- **Automating provisioning to drive efficiency and reduce errors.** Automation can drive high-level efficiency in user provisioning by automating relevant tasks with the option to customize settings for each user manually.
- **Zero-touch provisioning is the goal.** Increasing automation has given rise to the concept of zero-touch provisioning, which technically means no manual intervention when it comes to provisioning users, though absolute zero touch in end-to-end provisioning processes is still a theoretical concept. Efforts to achieve zero-touch provisioning, however, have led vendors to increase the level of automation to minimize human intervention, making the process simpler, easier, more efficient, and less error prone.
- **Simplifies provisioning through automation.** Automating provisioning can drive efficiency by minimizing or eliminating manual intervention for validation of service-level access and updating changes in employee profiles in the different UC systems in an enterprise. Automating the provisioning process involves integrating with companies' active directories, which enables IT admins to seek validation for service-level access through a centralized interface — eliminating the need to repeat the process for each service. Adding provisioning software to the UC management solutions can further automate provisioning processes as changes to employee profiles are automatically identified and updated across all the relevant UC systems with no intervention from the IT admins. The ability to integrate with ITSM solutions such as ServiceNow (for those enterprises using the solution) can add another layer of automation as it can automate workflows in addition to the validation process for service-level access.
- **Reduces manual intervention in longer template forms.** User profile templates are becoming longer given the expanding communication features. For example, in addition to assigning numbers and basic calling features, employees may be entitled to single number reach (SNR) to divert calls to mobile phones when they are unable to take calls on desk phones. For employees who hot-desk, admins will need to activate extension mobility by adding the relevant configurations to the device's profile. Manually filling out a long template with many fields could be tedious, time consuming, and error prone. Automating the process involves integrating UC management platforms with an active

directory; when the username and profile are filled out in the template, the system triggers the rest of the fields to be automatically filled out by the system.

- **Makes it easy to allocate numbers.** The provision of phone number range is an important feature in UC management solutions. This involves generating a list of unused numbers when a phone number is being assigned to a new user. This is achieved by integrating the UC management platform with the company's phone number inventory. When filling in the relevant field, a dropdown menu brings up a list of unused numbers for the IT admin to choose from. There are options to see reserved numbers that are free but cannot be assigned and numbers that were recently in use to prevent calls meant for the previous user. IT admins can also pre-set the date when the number should go live.
- **Efficient bulk migration.** There are different scenarios in which migration can take place, but a good solution needs to support multiple data sources so that the right data is captured and extracted from various sources, software versions, and data formats. The system needs to reduce errors and risks by implementing a set of rules to map and transform data from a standard library of rules, while providing the option to add advanced rules to accommodate the more demanding migration scenarios. It's important to evaluate how flexible the system is to cater to a wide range of customer-specific scenarios and requirements, integrate with existing business processes and approvals, and enable the new and old system to co-exist for a required time on the same administrative platform for a smoother transition.
- **Delegation/role-based access/self-service to reduce pressure on IT resources.** Role-based access, as the name implies, enables only access to or visibility of IT administrative features necessary for the designated job functions. For example, an admin responsible for administering IT operations in the U.S. can be set to see only the users based in that country. This is designed to minimize workload for skilled IT people to perform more specialized tasks such as IT projects and designing and deploying underlying infrastructure. Role-based access can come at two levels — non-technical IT administrators and end users through self-services with the same underlying principles of using pre-set templates and limited access to only the features necessary for their specific jobs.
- **Non-technical IT personnel.** UC management systems are now automated, involving pre-set templates to perform the general administrative tasks through a few data entries that then trigger actions to fill the other related fields. Consequently, the workload relating to IT admins can be transferred from experts or highly qualified engineers to non-technical IT personnel. With non-technical people becoming responsible for the general IT administrative functions, including MACD, it's important that they have limited permission so that they're not at risk of jeopardizing the infrastructure or other critical IT projects.
- **End-user portal to offload IT support.** End-user portals are designed to delegate user provisioning and service activation to employees by enabling them to create their own UC profile by selecting services such as call forward management, password reset, and phone remote control using a set template.

- This frees up time resolving lower-priority issues, enabling enterprises to operate with a smaller helpdesk team, which in turn helps them to save costs and time.
- **Analytics/audit trail to help fix errors and drive accountability.** An audit trail is a chronological set of records to provide documentary evidence of activities that have taken place in UC management processes. It can also be used to provide license counts.
- **Audit trail is important to identify and fix errors.** It's important to have an audit trail to identify and fix errors by going back to the steps or tasks that were undertaken to perform a certain job.
- **Audit trail retains accountability.** In addition, there is an accountability aspect to UC management functions, as it provides transparency into which jobs were done.

Choosing a UC Management Solution

Broad UC management solutions are similar, so the right choice needs to be based on more granular features. Actual distinctions rest on the underlying architecture and how closely the solutions can deliver the promised benefits to enterprises. The selection criteria when choosing a UC management solution include:

- **Customization to match customer processes.** One of the selection criteria should be based on the extent to which the UC management solution can be matched to customer work processes. The solution needs to be able to adapt to customers' business rules, integrate through northbound APIs with third-party applications, and have a toolkit to self-develop specific features.
- **Suitable for multivendor environments.** Solutions compatible with a wider array of UC&C vendors are better, given that UC solutions involve technologies from a large number of UC&C vendors. Additionally, as UC vendors consolidate their portfolios to align with the shifting market, it's likely that enterprises may consider migrating from one vendor to another. A UC management solution that can support a wider array of UC vendors will avoid the need to change the UC management solution.
- **Connecting with contemporary directory services and easy integration with spreadsheets.** This is an integral part of UC management solutions as the automation of provisioning rests on the underlying active directory supported by Windows Server and Lightweight Directory Access Protocol (LDAP). Excel is used extensively as the input for employee information, and easy integration with it is key to choosing a provider for UC management solutions.
- **Efficiency in provisioning users (total time taken in provision).** An important consideration is the actual time taken for user provisioning: some solutions can take longer than others. Another aspect to consider is how easy it is to delegate provisioning to non-technical people, both helpdesk and end users, and if the templates are intuitive and easy to use. Some vendors link more UC features to self-service portals in which employees can perform more actions to create their own UC profile. In terms of role-based access, it's important to assess how easy it is to limit the capabilities and how well it works.

- **The extent of automation/AI capabilities.** The key benchmark for automation is how close it is to zero-touch provisioning — in other words, the number of touchpoints associated with configuration. Although all providers claim to provide automation, some systems involve more manual steps than others. Another aspect to consider is the robustness of the claims to zero-touch provisioning. In practice, the system could have glitches that require IT personnel to go to each individual vendor portal to make the necessary provisioning.
- **The detailed features for migration.** Migration is a complex process involving large databases from various sources and transforming them into a different system. Even with automation this process is complex, so the selection criteria should be based on who provides the best automation without compromising output quality. Having the option to set up an administrative portal before migration is important as it can ensure the same level of support and can start with best practices and rules on the target environment.
- **Extent of open architecture to support integration.** This is a given, and the value of an open architecture is that it enables more integration with vendors, active directories, and third-party players. The need for UC management solutions results from the complexity of managing multiple UC and cloud vendors. The extent to which the backend architecture supports integration with other systems determines the robustness of the solution.
- **Supports all types of deployment.** Given an enterprise communication environment comprises cloud, hybrid, and on-prem architecture, UC management solutions need to support all kinds of deployment to provide a full range of services required by enterprises.
- **Easy to use/intuitive UI.** All systems require training, but some systems may be harder to understand due to a difficult user interface. Enterprises need to assess how intuitive is the interface, as an intuitive interface makes training easy and effective.
- **Provides support to IT admins.** This is a key element in the selection of a UC management solution. If IT admins discover glitches, they should be able to get support as and when necessary. Some providers offer better support than others, and this needs to be factored into the selection criteria.
- **Offers strong security measures.** The platform used for UC management needs to have the right security measures given that it involves connecting with enterprise data and confidential information that could be leaked, hacked, or damaged, at a heavy cost to the enterprise.
- **Monitoring and reverting actions.** Being able to monitor operations performed by a team and revert any action in one click when necessary is an important feature as it helps to undo actions in a simplified manner.
- **Advanced RBAC features.** Advanced RBAC features are important for managing administrator profiles and delegating operations with no compromise to security.

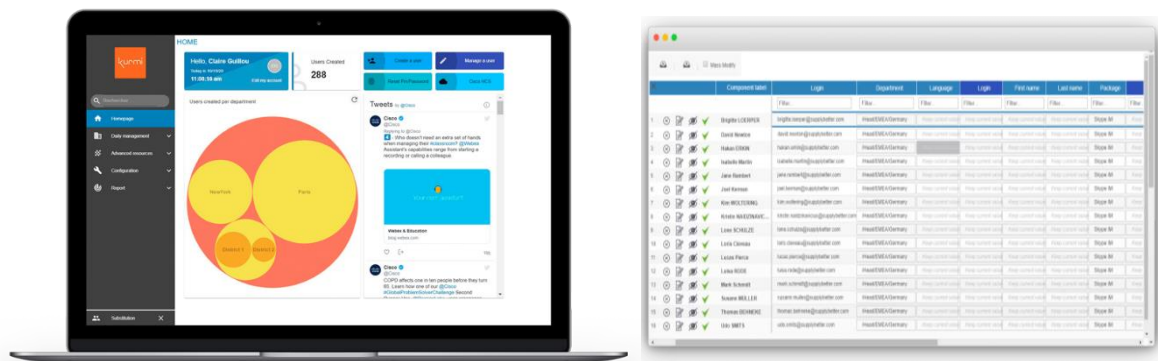
Conclusion

The UC management space is evolving fast, in line with the increasing complexities in enterprise communication systems. It now involves dealing with various types of user profiles, communication tools, and features sitting on different platforms, devices, and infrastructures (cloud, hybrid, and on premises).

A number of vendors provide UC management solutions, but the key is to select one that can help to drive maximum productivity through the most efficient provisioning that not only helps to reduce time and cost but also minimizes the risk of error and causes the least disruption to workflows.

The ultimate choice should rest on value for money and return on investment through the solution's unique functionalities, options for flexibility and customization, and features such as delegation, self-care, role-based access, and zero-touch provisioning.

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Kurmi Software provides an award-winning unified management platform for enterprise communication and collaboration infrastructures that simplifies user provisioning, facilitates migrations, and enables day-to-day administration, while offering the best UC administrator and end-user experience. With its advanced automation and integration capabilities, **Kurmi Software** reduces the administration cost and provisioning time of Unified Communications and Contact Center platforms (telephony, videoconferencing, email and messaging, plus other collaboration applications), delivering significant productivity gains and ROI.

Kurmi's offers highly customizable, and ultra-scalable management of the market's leading Unified Communications platforms: **Avaya, Cisco, Microsoft, Zoom**, and others. Founded in 2011, with offices in New York, Montreal, Berlin, Rennes, Paris and Dubai, Kurmi Software supports global enterprises and managed service providers through a network of certified partners around the world.

For more information visit kurmi-software.com.

About the Analyst

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Mohiuddin is a research manager in IDC's European Enterprise Communications and Collaboration team. Based in London, she is responsible for IDC's coverage of unified communications and collaboration in the region. Her work focuses on tracking the markets for premises-based and cloud solutions and new developments and trends, particularly in light of changing work patterns impacting the traditional mode of enterprise communications.

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