



White Paper

b+s Cloud Services - UCaaS

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Objective

It is increasingly the case that the same software features found in on-premises installations are now also available in cloud services. This white paper explains the advantages of utilizing cloud services for modern Unified Communication solutions. Despite a high degree of standardization, cloud services offer remarkable architecture and implementation flexibility thanks to the availability of hybrid models and open interfaces. This white paper is addressed to business customers, consultants, and IT service providers involved in updating and enhancing communications technology. The document seeks to articulate more modern approaches to IT architecture design. As well, it introduces the target audience to practical options available with cloud and hybrid cloud solutions as an alternative to exclusively on-premises installations.

Introduction

Bucher + Suter (b+s) is a global provider of solutions and services for contact centers utilizing both Cisco technologies and software products b+s has developed. In response to changes in market demands, b+s has set up its own cloud platform and is now offering customers cloud services that provide the same scope of features as are found in traditional on-premises contexts. These cloud services cover the entire spectrum of modern business communication tools and go far beyond intelligent contact center solutions with CRM integration. The b+s Cloud platform delivers modular services with open interfaces such that service provision can meet the widest variety of customer requirements. This makes it possible to leverage Unified Communications services (UCaaS) to replace older PBXs with next-generation business communication solutions.

Unified Communications (UC) has taken IP telephony (VoIP) communication to the next level. In contrast to IP telephony, UC developed dramatically in recent years. With UC, the focus no longer lies solely on voice transmission, but rather on linking a telephony solution with systems that are already in place as well as on merging different communication channels.

The term “Unified Communications” itself does not have an exact definition and is subject to different interpretations across providers. This is why it is important to focus on and prioritize customer needs in order to avoid altering workflow and infrastructure in those environments with the solution specific providers happen to be able to furnish.

A further challenge involves the impact of implementing increasingly complex on-premises solutions: increasing the number applications and communications channels greatly escalates system complexity. Consequently, employees implementing and running these solutions must continuously expand their

“Cloud services offer remarkable architecture and implementation flexibility thanks to the availability of hybrid models and open interfaces.”



knowledge and expertise to be able to support these systems. And yet, enhancing on-premises systems requires a high degree of expertise when it comes to staying current with new technologies, having market knowledge, and familiarity with relevant manufacturers. The result of the necessarily, ever-widening knowledge gap that occurs here is that companies are becoming more reliant upon external experts, while at the same time compromising the resources IT departments have available for strategically important business issues. For example, release and lifecycle management alone substantially tie up resources without providing direct added value for the company. This is precisely where cloud services offer great optimization potential for businesses.

What follows provides information relevant to the decision-making process associated with considering whether or not, and how, transitioning into a cloud model can be helpful. The goal is to help businesses make an objective, informed decision regarding the enhancement options with respect to business communication as Unified Communications.

The advantages of cloud services

Replacing a PBX or UC installation with a cloud service represents a strategic decision that goes well beyond the standard comparison of replacement and upgrade costs; accurate financial evaluation requires an analysis of total cost of ownership (TCO) over a service life of three to five years. Furthermore, the decision-making process must also consider what will here be termed: focus, agility, and simplicity.

Focus

- Internal resources are relieved from the burden of running and maintaining an infrastructure. Physical infrastructure needs to be replaced from time to time, which involves the processes of specification, evaluation, negotiation, procurement, implementation, and training. Unburdening IT departments from lifecycle management translates into more time for strategic and internal IT issues.
- Instead, the service provider handles release management and ensures that software is up-to-date. Providing upgrades comprises a regular part of that service. For this reason, business units can rest assured that their applications will always be up-to-date. Moreover, it guarantees that further development work for the service is performed on a regular basis, which translates into maximum investment protection and time-saving.
- Business tasks that do not contribute to value-creation can be left to service providers, thereby freeing resources for supporting core tasks. With the exception of terminal devices, service provision requires no investments in



hardware (HW) or software (SW), which means capital will not be locked up. Furthermore, it will no longer be necessary for accounting departments to track equipment depreciation. Finally, there will be minimal HW and SW replacements and no need to renew service contracts.

Agility

- Service implementation can be tailored to the number of users at different physical work locations. As well, profiles and options can be selected and allocated as needed. The web-based administration portal allows administrators to manage local users with monthly invoicing adjusted accordingly.
- The consolidation of heterogeneous infrastructures across business divisions can be carried out swiftly, flexibly, and incrementally.
- Thanks to open interfaces and hybrid strategies, it is easy to integrate new applications, devices, and soft clients into the overall Unified Communications concept. This makes it possible to react quickly to new business communication requirements.

Simplicity

- Users have access to well-designed, intuitive interfaces for devices and soft clients. The uniform integration of all communication channels makes it easier for users to perform day-to-day work and to increase efficiency.
- Cloud services facilitate in-house administration, which, in turn, simplifies system and account maintenance.
- Automated services provide transparency, with an overview of user usage and standardized reporting, as well as usage-related billing.

Cloud models

Use of cloud services is widespread; these clouds generally come in three different configurations:

- **Public cloud:** The service comes directly from an external service provider via the Internet. Customers share a virtualized infrastructure, with applications made available via multi-client functionality. Services on a public cloud have minimal flexibility with regard to specific customer requirements and are highly standardized and automated. The key evaluation criteria for public clouds are scalability and reduction of production costs.
- **Private cloud:** The service comes from an internal or external service provider. Here, too, a virtualized infrastructure is implemented with a separate, fully isolated application. Private clouds have more flexibility for specific customer requirements. However, private clouds must still continue to guarantee the advantages established in automation, standardization, and relative scalability.



- **Hybrid Cloud:** The entire system is sourced via various clouds. The classic approach for setting up a hybrid cloud consists in offering a combination of services, sourced from a public cloud, which is also linked with a locally installed system. This makes it possible to store data locally at the company without having to forego the advantages of cloud services. The hybrid cloud model is becoming more and more important due to the combination of various public cloud services.¹

Companies can select the cloud configuration best aligned with their needs and legal requirements. For example, in the banking sector, it is possible to use and save all customer data in a local business system while also utilizing the Unified Communications system as a cloud service. This ensures that passwords and financial data are protected while still allowing the bank and its customers to utilize a range of cloud services.

b+s Cloud Services – UCaaS

Bucher + Suter runs its own cloud platform in conjunction with “Hosted Collaboration Solutions” (HCS) from Cisco to offer a Unified Communications service as UCaaS. Cisco has certified b+s with the CMSP label (Cloud and Managed Services Program – Master).

Gartner studies divides Unified Communications into six product categories². UCaaS from the b+s Cloud offers all six product categories and comes standard with straightforward integration into existing systems and supplementary services.

The six product categories are:

- **Telephony:** VoIP Technology for landline, mobiles, telephone soft clients for audio, and video communication
- **Conferencing:** Multi-party audio and video for video conferences, web conferences, screen sharing, and collaboration
- **Messaging:** Voicemail and e-mail integration
- **Presence and instant messaging:** Presence display and text messages
- **Clients:** Clients for software-based telephony, web clients, mobile devices, and tablets
- **Communications-enabled applications (CEA):** Integration into business applications (e.g. Contact Center, CRM)

For customers with approximately 100 more users, UCaaS can be sourced as a private cloud service. The private cloud service will be a kind of an extension of

¹ It should be noted that hybrid clouds are sometimes defined as a combination of a public and a private cloud. In this document, it is not intended in this way.

² <https://www.gartner.com/doc/reprints?id=1-385Q79Y&ct=160527&st=sb>



the existing customer network. This architecture offers a fully independent Unified Communications solution, making it very well-suited to customers from the banking and insurance industries.

From a security perspective

The threat of cyber-attacks has been increasing over time. For this reason, some companies do not use any cloud services at all, and even go so far as to shy away from networking of any kind. Yet the actual problem here is that digitalization and the rapid advancement in information technology require a lot of network infrastructure. And yet, this is something proprietary IT is no longer capable of supporting so it is adequately up to date and safe from cyber-attacks. In many cases, the requisite resources and costs exceed a company's capabilities to keep abreast with the technological requirements to keep secure information safe. In contrast, cloud service providers feature the advantage that they can concentrate on security in a focused manner with a high degree of expertise and much greater efficiency since providing hosting services is all they are doing. The kind of ongoing monitoring of potential risk and enhancement to security installations these clouds are able to provide significantly reduce these kinds of cyber-risks.

Cloud service providers have implemented and audited security processes and codes of conduct to reduce the dangers and risks associated with human error, thereby taking on a prophylactic approach to preventing cyber-crime. Bucher + Suter is familiar with the high risk posed by cyber-attacks and human error. For this reason, the b+s Cloud platform is run in accordance with the very highest security requirements and most modern implementation standards. Ultimately, Bucher + Suter's expertise guarantees customers will have the highest quality security.

b+s Cloud Services are based on a private cloud model. That means that the solution should be seen as a system with its own network. In every case, we provide dedicated communications solutions to our customers. This guarantees physical separation from the other customer cloud solutions, which prevents data from becoming accessible from other customer installations, where inevitable errors are made in usage.

Bucher + Suter runs its cloud platform at two Swiss data processing centers. Development on the test platform as well as the organization for operation and support is all done in Switzerland. And, the cloud platform and data processing centers are planned, implemented, and run in accordance with standard data privacy provisions in Switzerland and Germany.

Bucher + Suter guarantees compliance with Swiss data privacy legislation (DSG, VDSG) and that the company implements all of the measures requisite to data



security. Furthermore, German Data Processing Guidelines, the legal foundation of which are established as the standard for companies in EU Countries to source b+s Cloud Services. Because Switzerland counts as an EU State when it comes to data privacy, these same security standards transfer to Switzerland.

From a user perspective

User experience is central to the goal of a successful UCaaS implementation. In order for cloud services be a viable and useful technology solution, it must be possible to utilize them seamlessly and intuitively, without complicated instruction manuals or training. Users have access to a soft client that looks the same across all platforms (mobile devices and computers) and which is easy to use. The soft client offers all functions that are necessary for carrying out day-to-day tasks. Furthermore, depending on the kind of task and workstation environment, it is also possible to integrate and provide telephone devices. These telephone devices offer an attractive design and all modern and standard functions. Video conference rooms and further collaboration tools can also be configured and made available. For customer service agents, the Contact Center Service (CCaaS) is available on the same platform.

From an administrator and IT department perspective

"Companies should make sure they do not replace heterogeneous, on-premises implementations with cloud solutions that are equally heterogeneous."

The use of a Unified Communications solution that functions from the cloud saves both administrators and IT staff a great deal of time. Consequently, resources are available for other core business issues of strategic importance. Expensive, time-consuming tasks such as upgrades and the periodical replacement of hardware and software are no longer necessary.

A further advantage is that the management of web-based portals makes day-to-day tasks easier, which provides administrators with the ability to pass individual tasks on to other departments. Specifically, adding, changing, and removing locations or employees generally takes only a few moments.

Using b+s Cloud Services

b+s Cloud Services is a package that can be used to cover all of a company's technical communication needs. Services encompass the entire infrastructure, provided centrally from a public cloud, a private cloud, or a hybrid model. To connect with the cloud, a link is established to a customer WAN (MPLS) in order to ensure that all channel data are reproduced with the highest fidelity. For small customer installations, it is also possible to have customer connection over the Internet.



In order to guarantee seamless integration into existing customer systems, b+s Cloud Services can be connected with customers' local Active Directory and Exchange system.

Connection to the public telephone grid can be run directly over the b+s Cloud platform. The phone numbers for terminal devices are managed via the service's portals. If customers already have their own connection to a provider's public telephone grid, that too can be integrated into cloud service.

For mobile and home office staff, it is possible to configure secure access via the internet.

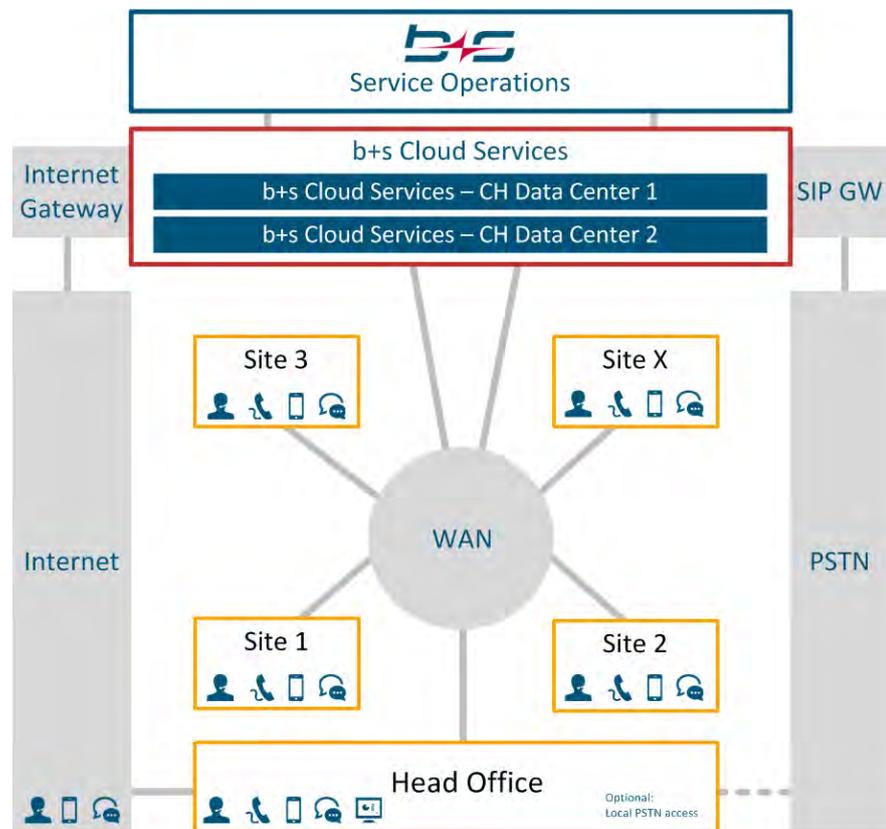


Illustration 1: Architecture

Consulting and planning

Bucher + Suter consults customers and plans solutions in conjunction with IT partners. Those partners function as the general contractor. This collaboration with established IT partners guarantees customers that their existing solutions and peripheral systems can be integrated. Moreover, working together fosters



cooperation through new communication instruments. Bucher + Suter collaborates with numerous IT partners who also have a high level of expertise in Cisco Collaboration and are certified and regularly audited by Cisco.

Migration

Cloud services also offer advantages when it comes to the migration process, since these solutions can be configured and tested in parallel with existing operations. Once everything is ready and staff and administrators have been prepared accordingly, the new solution can be launched and the predecessor system can be turned off. This reduces the risk of downtime and guarantees a fallback scenario.

Conclusion

In view of the diverse cloud solutions available on the market, companies should make sure they do not replace a heterogeneous, on-premises solution (IP telephony or a Unified Communications solution) with a cloud solution that is equally heterogeneous; doing so would result in the creation of cloud silos. A consistent and efficient cloud solution requires that—to the extent possible—all desired functions be unified within the same service and sourced from the same cloud platform. When functions are sourced from various services, there is a great deal of resource-consuming, release management and testing involved, which is similar to what happens with on-premises solutions. It would also mean that new service features could no longer be used in a straightforward, efficient manner. Thus, the advantages of cloud solutions would be partially annulled.

When the time comes to make larger lifecycle investments, every company should consider whether migration to cloud services makes sense from a strategic standpoint, which means evaluating the circumstances from the three perspectives outlined above: focus, agility, simplicity. An analysis of an on-premises solution versus a cloud solution should include all cost-driving factors (TCO), with calculations compared for a period of at least three years. Thanks to high standards and legal organization, security and Unified Communications services are no longer mutually exclusive.

