

A digital transformation made simple.

How to integrate Skype for Business with a cloud PBX for advanced unified communications capabilities.

The new freedom in business communications.



NFON
Cloud Telephone System

For Small
Businesses



Cracking the code.

Living and working in the digital age, one might expect to be able to mix and match communications applications and capabilities however you want them. If everything is IP, then surely it's reasonable to expect to take the best of everything to create a hybrid solution that suits your unique needs?

Alas, competing vendors and proprietary standards make this hard to accomplish without the pitfalls of compromising business agility, adding unnecessary risk and suffering the expense and disruption of complex implementations and ongoing maintenance.

But there is another way.

This white paper equips business and IT professionals with the simple steps needed to achieve the panacea of unified communications and collaboration: integrating the market-leading Skype for Business (SfB) platform with a fully functioning, dynamic, mobile-optimised cloud PBX.

NOTE: The release of this white paper, compiled in October 2018, follows the recent announcement by Microsoft to focus its future collaboration product strategy on Microsoft Teams. With this yet to take effect with real organisations, Skype for Business remains the dominant product in the market. Future versions of this document will account for the emergence of Microsoft Teams as an eventual replacement for the Skype for Business product.

What if you could gain more value from your Microsoft technology investment?

Microsoft licensing is a considerable line item in any IT budget, and the latest double-digit price increases (October 2018) have put further pressure on already stretched resources.

To optimise ROI, organisations need to extract maximum value from the technology they buy. Whether it's basic Office 365 subscriptions or a fully-fledged E3 Enterprise licence – it's time to scrutinise.

Skype for Business is relatively common among organisations who have invested in the Microsoft suite of products. You might already be paying for it, or should be. It is a powerful tool for presence, instant messaging (IM) and simple voice and video calling. And it has the unique advantage of natively integrating MS address book contacts, calendar presence and other Office applications, as well as Office 365 Azure Directory for identity and authentication.

If you aren't yet using SfB, then you are missing out on a market-leading enterprise collaboration product that seamlessly integrates with your existing Microsoft technology investments. Yet to truly maximise its value means using it to create a single unified communications (UC) experience.

Skype for Business has an Achilles' heel: it can't legitimately do the job of a proper enterprise phone system. Despite supporting voice, to a point, it is not capable of the advanced telephony features businesses expect from a PBX. Want queuing, interactive voice response (IVR), contact centre functions and so on? Forget it.

Even Microsoft's own phone system within Office 365 shares many of these limitations.

Integrating SfB with a standard enterprise phone system is the only way to overcome those shortcomings. Yet this has proven difficult to achieve without attracting considerable costs, overheads and risks.

Integrating SfB with a cloud telephone system is different. Do it right and it will bring a wealth of financial advantages as well as the many wider benefits of UC.

Ten business benefits of Skype for Business and cloud PBX integration.

Every enterprise has some form of phone system as voice remains a critical communications channel for human engagement and workforce collaboration. This looks set to continue for as long as humans sustain the power of speech. Skype for Business offers something extra – the power of presence, IM chat and video conferencing with other SfB users. A powerful collaboration platform that organisations are increasingly harnessing. Running these communications infrastructures separately like this is sub-optimal. Here's what you get when you fully integrate SfB with a cloud PBX.

Greater productivity

Staff become totally plugged-in to full communications capabilities through a single interface. Collaboration opportunities are optimised as people from different parts of the organisation share knowledge and form teams instinctively. Voice and video (the sketchier aspects of SfB) now enjoy consistently assured levels of quality and reliability. This breeds confidence among users to be as productive as possible, locating and interacting with people at the touch of button, with no more time wasted jumping between systems.

Improved staff well-being

In the past, different users would have different experiences of their communications tools. Now the experience will be consistent. The remotest team members will feel inclusion and empowerment with tools that promote a feeling of togetherness. Everyone's morale improves because they have all the connectedness they need, as well as the ability to find urgent solutions to problems quickly and easily. Plenty of research suggests happier employees are more productive employees!

Maximised staff mobility

Too often, smart devices give a user experience that is never quite as effective as the phone system and SfB setup you get in the office. Now organisations can achieve their full potential from mobile, remote and flexible working practices. The beauty of a modern UC platform is having the combined capabilities of conferencing, messaging, video, presence and advanced PBX features from any device in any place at any time.

Enhanced workflow efficiency

The business processes and workflows scattered around your organisation are massively improved with a single UC platform. What's more – taking down those old silo separations enables brand-new workflows to be designed, increasing the satisfaction levels of customers when they communicate with you.

Enterprise-grade competitiveness – for an SME budget

Integrating your SfB investment with a cloud PBX means a level playing field with your enterprise-scale competitors – without having to pay for more than you need. And while every user will need to use the phone system, some won't need SfB. The right integration approach ensures you avoid overprovisioning of licences and pay only for what the organisation requires – rather than buying everything for everyone.

Simplified IT management

Having one system to manage instead of two cuts the management burden in half – a real advantage now that experts predict a shortage of 500,000 ICT professionals in the EU by 2020. It also enables the migration of all numbers to a single carrier, and the ability to use all national and international phone numbers at competitive rates. With the time and resources saved, managers can free up valuable, skilled technology staff from time-consuming IT admin duties and reassign them to more strategic projects that drive greater value into the business.

Reduced maintenance overheads and risk

Utilising a true cloud PBX invariably means ditching legacy comms infrastructure situated on-premises or hosted by a third party. This drastically minimises maintenance overheads and stops you spending money on ancient legacy tech skills that cost more with each passing year. Your risk profile is also improved as critical application vulnerabilities are automatically patched for both the cloud PBX and Microsoft applications. Choose an integration approach where all the work happens at the back end and you can keep the front-end user interface the same – creating a new UC platform with no extra user training required.

Attractive working environment

Millennials aren't the only generation with an appetite for technology. As new waves of employees come on stream, expect to compete for talent with other organisations to offer a new kind of perk: digital environments that facilitate their expectations for data, immersive experiences, collaboration and mobility. An advanced UC platform can be a cornerstone for this future of work, and one that evolves rather than stands still.

Supports progressive digital strategy

The trend toward greater digital transformation is rooted in hard-headed commercial and organisational logic. Technology is an enabler for business. New digital applications, devices and services – combined with the power and ubiquity of the cloud – enable business to be done faster, more accurately and more efficiently than ever before. Integrating SfB with a cloud PBX is consistent with the latest strategic IT thinking; strategies that envision smart buildings, streamlined operations and a digital-first approach to work. According to Nemertes Research (2017), companies with successful digital transformation initiatives are investing 72 percent more in unified communications and collaboration (UCC).

More scalability and agility

When business runs at a million miles an hour, your competition is fierce and customers expect to reach you 24/7, having the flexibility to adapt is a superpower. Keeping your communications in separate silos is a real obstacle to agility, forcing you to double up on activity and multiplying the unintended technical issues that come out at the other end. Integrating a cloud PBX and SfB with each other empowers you to respond to changing needs and take advantage of new opportunities.

The different approaches to integration.

The question of how to get Skype for Business to integrate with your choice of phone system comes down to one of three options:

- Application plug-ins
- Bespoke software development
- Server-level integration

Skype for Business, however it is deployed, offers the same integration challenges regardless of the approach taken. The choice of enterprise phone system and the range of features required, on the other hand, dictate the options available.

Most organisations who see the opportunities and benefits of UC understand that this will involve removing their old PBX and just connecting straight into SfB with a more flexible, all-IP cloud telephone system.

Application plug-ins

This is the shortcut option, for organisations willing to compromise on the capabilities and benefits achievable from a comparatively basic, non-disruptive application plug-in.

One approach in this respect is to present a softphone client as a 'sidecar' window directly adjacent to the SfB application on the user's screen – thereby enabling them to launch more complex features when they select the appropriate option. However, this gives the impression of a deeper integration that is not present. The user experience is made more complicated and it's too easy to confuse the two applications. The reliability and robustness of such an approach is also called into question when compared to deeper (less superficial) integration methods.

Bespoke software development

This approach is the choice of larger businesses that cannot envisage replacing their current phone system with a cloud-based communications platform, and wish instead to persist with a complex integration project that marries their legacy infrastructure with SfB.

Smaller organisations simply don't have the budgets to commission software developers to create a bespoke integration. Even if they did, the many risks, delays and other pitfalls could put them off.

These include:

- the challenge of finding a reputable, experienced and suitably skilled software development company at affordable rates.
- the large financial costs of specialist development time plus any third-party software licences associated with the integration.
- the requirement to commit to a long-term contract both for SfB and the PBX licence.
- the substantial risk of technical failure and creation of bugs to be expected from bespoke software projects.
- the months or possibly even years it may take to complete the project, during which you will have to continue with your existing set-up.
- the disruption and delay of rolling out the integration to all devices and users.
- ongoing maintenance costs and internal management time for the software integration, SfB Server and PBX platform.
- a potentially compromised user experience, with the user unable to apply the PBX features intuitively within the same seamless SfB interface.

The upside of bespoke software development projects is that (hypothetically) the resulting integration is uniquely relevant to the specific needs of the organisation. This is often the justification for choosing this option.

Server-level integration

The deepest level of integration – this approach is 100 percent back end – enables users to enjoy the full combined range of UC functions without any changes to their familiar SfB interface.

Crucial to this approach is the use of a true, web-scale cloud communications platform from NFON, because the integration with SfB takes place at the server level, in the cloud. This ensures a successful and complete integration across all devices and users, while at the same time removing any risk of disruption at customer sites. It also negates the involvement of third-party applications or code.

The resulting integrations are:

- scalable from just a handful of extensions up to hundreds of thousands.
- ready for immediate rollout, with no need to program user devices.
- completely intuitive for users familiar with the SfB environment.
- flexibly provisioned without long-term contractual tie-ins.
- supported by automatic application updates with no requirement for manual maintenance regimes.
- a requirement for media gateways or hardware warranties.
- suitable for mixed deployments where not all phone extensions necessarily require SfB capabilities/licences (or vice versa).



This integration preparedness checklist will help you achieve your goals.

Now that you know the options available, get ready to choose the path that's right for your business. For this, you'll need to consider your current technical setup as well as the short, medium and long-term business goals of your organisation.

Part A: Technical setup

Are you already running SfB or only Office 365?

Organisations already equipped with SfB will be especially keen to ensure users access the same consistent interface post-integration. From a commercial standpoint, organisations looking to use SfB for the first time will want to mitigate the risk of their investment with a smooth, on-time and on-budget rollout that delivers benefits from day one.

Does your current infrastructure run on-premise or in the cloud?

Organisations already running cloud technology have the clearest run at a deep, server-level integration of SfB and telephony. This option is also the most efficient for those with legacy on-premises deployments, as long as they are prepared to migrate. Should they take this path, they stand

to gain numerous financial and organisational benefits such as eliminating maintenance overheads and enjoying greater business agility.

Which of your users need the combined capabilities of an integrated SfB and phone system solution, and which are better suited to one or the other?

No one should assume all users must reap the benefits of integrating SfB and a cloud PBX to create a UC platform. Planning for a uniform rather than a hybrid rollout means paying the full licence costs of every user. Every organisation is different, and there are always some people who simply don't need the full-featured set. Bespoke software projects are unlikely to give you that flexibility. The other approaches will.

Part B: Business objectives

Are you trying to take advantage of digital and cloud technologies?

Combining SfB with a cloud telephone system is a great way to achieve digital transformation goals. It's also an opportunity to break free from legacy technologies like TDM and ISDN, and shift on premise infrastructure into a cloud infrastructure. However, not all integration approaches live up to the standards set by progressive strategic IT thinking. Carefully consider how your choice of integration approach positions you for the challenges you'll face three or five years down the line – not just today.

Is it just simple voice calling you need integrated with your SfB features?

Some SMEs convince themselves that they don't need the 150+ features you get with a cloud telephone system. But these factors are so often underestimated. Now is the time to evaluate how you use communications services, and see the potential for improvement through some simple steps. Many SMEs find they are, for example, paying significant sums for third-party conferencing sessions and that their users have gone rogue with communications applications that compromise data security and compliance.

What about advanced contact centre functions like automatic call distribution (ACD) and interactive voice response (IVR)?

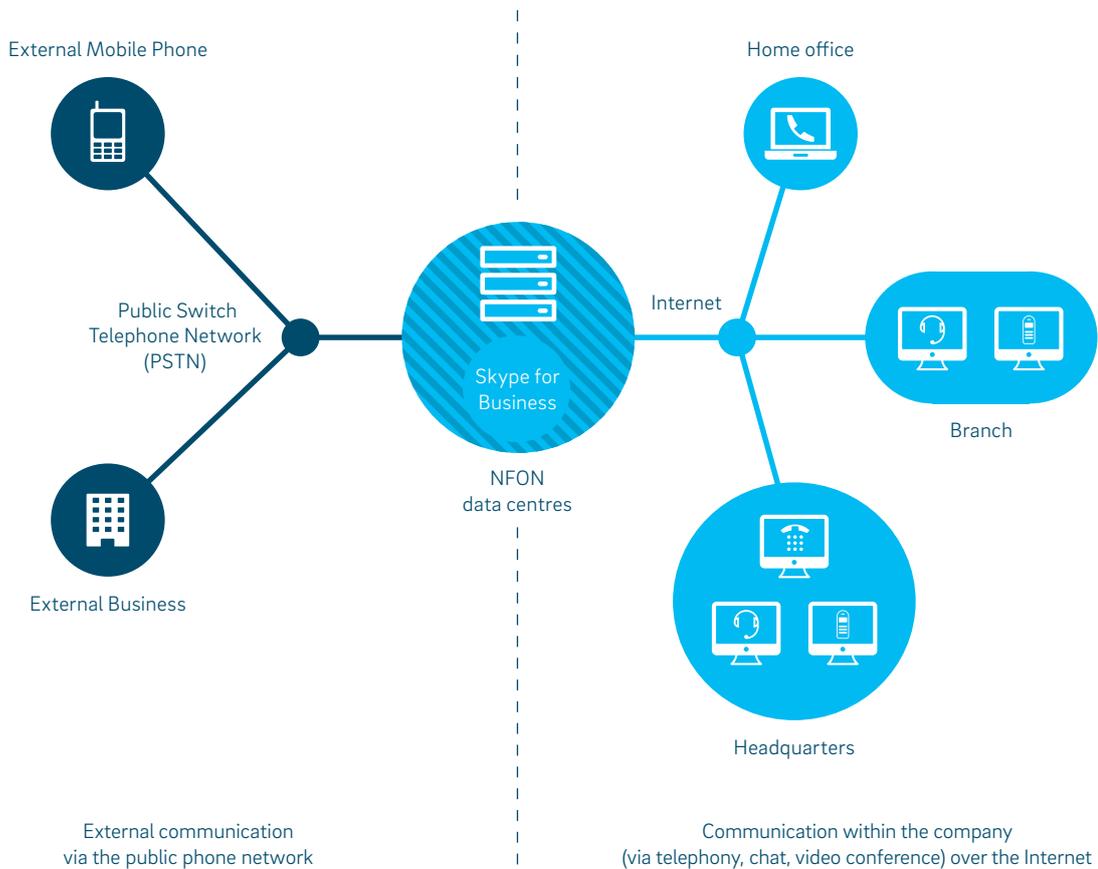
You don't have to be a massive enterprise to capitalise on contact centre technology. Contact centres are no longer just 'places'. Today, they are dynamic and virtual ways to organise resources so that you can communicate with customers efficiently and effectively. Applying this to the three approaches detailed earlier, integration of SfB with these capabilities will be beyond the scope of any single application plug-in. As far as bespoke software development goes, the associated risks and costs would be significant yet not completely unsurmountable. Only the server-level integration approach enables a swift and seamless solution.

Introducing the Nvoice for Skype for Business solution.

Nvoice for Skype for Business achieves the seamless server-level integration of UC with Cloudya, the cloud telephone system from NFON.

Based on an SfB multi-tenanted implementation, with direct integration into the cloud telephone system infrastructure from NFON and connected to the PSTN, the result is a complete UC platform that delivers truly unified, enterprise-class business communications.

NFON extends Skype for Business with the full functionality of an enterprise telephone system, combining presence, IM chat and video conferencing capabilities with the 150+ features of a PBX – and all using cloud technology. The resulting integration enables organisations to use SfB as a complete communications platform, simply and cost effectively, regardless of time, location or device.



Benefits

No expensive investments or need to run your own SfB Server

We run the SfB Server and telephone system for you in ultra-modern, geo-redundant, secure data centres. We take care of server updates and maintenance at no additional cost. All you need is an adequate internet connection, and we do the rest.

Skype for Business is simply another terminal on Cloudya, the cloud telephone system from NFON

Your chosen employees use the familiar SfB interface and benefit from added UCC functions such as presence, chat and video conferencing. Nvoice for Skype for Business has all the standard features of a traditional telephone system such as external telephony, call routing and queuing. This enables SfB participants to, for example, be a part of a group or queue.

Flexible usage per employee – scale as required

Select Nvoice for Skype for Business tariffs for your individual employees, and operate hybrid user environments to optimise licence costs. Give users a desk with a telephone, modern unified communications workstations, or simply combine both in every workplace. Billing is completely transparent and booked monthly per tariff, per extension.

Unified Communications integrated at the highest level

With Nvoice for Skype for Business you benefit from the combination of cloud telephony and the leading UC solution from Microsoft. Increase the efficiency of your communications processes and focus on your strategic IT objectives.

Selected features:

- › Unlimited SIP domains per organisation
- › Unlimited user accounts
- › 99.9 percent service availability
- › Emergency call function
- › Extended presence
- › Permanent chat rooms
- › Ad hoc desktop sharing/app access/whiteboard access
- › Ad hoc SfB video conferences with multiple participants
- › Up to 250 participants per SfB conference
- › Skype for Business Open Federation with Office 365 and associated organisation
- › Usage of SfB communication on the road
- › Integration with ACD, IVR and so on supported

Want to phone someone about an email they sent?

That's two unconnected systems and workflows to jump between. Not with Nvoice for Skype for Business. As its one platform, switching between communications channels is easy.

Want to escalate a live IM group chat into a quick conference with some extra people who aren't in your Skype address book?

Without integrating SfB and your phone system, you'll need to take everything down and start again. Nvoice for Skype for Business prevents that from happening, giving back added productivity.

Your pre-integration checklist for successful deployments.

Follow these six pre-integration checks to ensure your adoption of Nvoice for Skype for Business is as smooth and successful as possible.

Check current and future licensing position

Consult your software asset register to verify present licensing status and work with your Microsoft partner to ensure this meets your current and future requirements.

Your licence position should reflect the needs of each user, ensuring everyone who requires it has access to the features they need. This means you don't overpay for licences that don't deliver value.

Plot network overview

If you're switching to a cloud communications service for the first time, you can quickly collate all the information you have about your present and projected telephony usage to help transfer from your incumbent provider.

Details should include:

- › names and locations/address of each user
- › list of telephone numbers, correlated to user, for devising a number porting plan
- › any users with exceptional requirements
- › details of telecom service provider/s, related to which users/numbers
- › any prior or current usage of VoIP, or whether this is being embraced for the first time
- › names of individuals authorised to make changes to services held with the incumbent provider
- › user mobility requirements (yes/no)

Plan DNS/network/firewall configuration

Organisations migrating from legacy TDM-based PBX systems need to consider the minimum network requirements that cloud communications services need to operate effectively. These modest requirements are well within the scope of standard business networks; however, you still need to check.

Take the opportunity to determine aspects such as:

- › Your internet bandwidth to each site (sufficient to support the anticipated number of concurrent calls).
- › The network throughput performance of your core LAN/WLAN/WAN infrastructure.
- › The correct configuration of modems, routers, switches and firewalls to enable QoS (quality of service) and VoIP prioritisation.
- › The processing capacity of laptops/PCs (sufficient to support real time voice and video applications in addition to everything else).

Map processes and policies

Set out the business workflows you plan to optimise or create with your new integration so you can look back in six months' time to evaluate your success. You should also map your internal Microsoft Group policies to ensure these successfully migrate.

Engage staff

Staff will not need training nor will they experience any disruption. Yet getting them engaged is a smart move as it promotes adoption and demystifies preconceptions – maximising ROI.

Make this a positive opportunity for staff to get excited about the possibilities. After all, you're equipping them with a full-featured, future-proof communications experience that helps them perform better.

Get ready to go

There's just a few minor checks to complete before you're ready to get started.

In the remaining hours before your go-live date, we suggest:

- ▶ instructing your email provider to whitelist inbound traffic from NFON to ensure you don't inadvertently block important services notifications or treat new IP ranges as untrusted
- ▶ bookmarking NFON service portals for easy reference as well as circulating relevant documentation to users and administrators

About NFON AG.

Headquartered in Munich, NFON AG is the only pan-European cloud PBX provider – counting more than 15,000 companies across 13 European countries as customers. With Cloudya, NFON offers an easy-to-use, independent and reliable solution for advanced cloud business communications. Further premium and industry solutions complete the portfolio in the field of cloud communications. With our intuitive communications solutions, we enable European companies to improve their work a little, every single day. NFON is the new freedom in business communications.



Cloud solution 'made in Germany'



High savings potential



Unlimited capacity



Intelligent functions



Easy to use



Network of local service partners

 nfon.com

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