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On the way to limitless collaboration

A manual for professionals
Part 1: Connecting people

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Connecting *people*

On the way to limitless *collaboration*

Everyone is talking about Unified Communications & Collaboration. The technology is now here to change fundamentally the way people communicate and collaborate at work.

People are key: Communications & Collaboration only makes sense if people can use the new communication methods to be more productive.

The challenge we face is not so much the technical infrastructure but supporting people through the change.

This book deals with Swisscom as a major Swiss corporate business on its way towards spontaneous communication.

The book

In our private lives, there is no end to skyping and online chatting. Cloud services are part of everyday life. The younger generation use them in an intuitive and uninhibited way. They can call up a document and work on it together without a second thought. Young people know when their friends are online and when they can contact them. Communication is direct and spontaneous.

It can be the same at work. Even if it means new ground for many employees, it's worth engaging with the new communication methods and evaluating their potential benefits.

The authors

We, the authors of this book, fundamentally changed the way we communicate over a two-year period in a bid to collaborate more effectively. This book looks at our journey towards spontaneous communication and our first steps to virtual collaboration.

We hope that you will find it interesting. And we hope that the ideas we share will make your journey towards spontaneous communication easier.

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Work smart @ swisscom

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A new way to *communicate*

by Ruggero Crameri, Project Leader Collaboration

Why *rethink?*

Companies split over different locations have more historical challenges to overcome in their communication systems and their culture of communication.

For a start, most have an individual solution at each site. In our case we had around 100 sites using systems from Siemens, Alcatel, Nortel and Cisco, all with different variations, degrees of networking and software releases. They needed to be standardised and centralised.

Secondly, new communication systems are increasingly integrated in work processes. Whether it's the systems themselves with their servers and software, or their integration in PC workstations and processes. We are moving from telephony to challenging IT projects and from decentralised to centralised solutions. This requires new skills: Telephony specialists have to reinvent themselves or they will find themselves replaced by IT specialists.

Thirdly, employees travelling back and forth between sites create costs, waste time and increase the company's CO_2 footprint. If we take the example of 5,000 employees who save a journey costing just CHF 50 a month by using an intelligent and user-friendly conference system – that's CHF 3 million each year! As well as saving time, the reduced stress, better work-life balance and higher productivity create added values for employees that need to be taken seriously.

Fourthly, we constantly have to deal with more information in the time we have available. Lone warriors are dying out – teamwork is the order of the day. 1+1=3. Together, we can pool our knowledge and our capacity for innovation. This needs new and spontaneous ways to communicate, and it changes the way we work together.

Fifthly, the need to be mobile is constantly increasing. We need to find the same way to communicate – regardless of where we work. Whether we are at home, in a hotel or café, or at a desk-sharing workstation in the company – meeting these demands for mobility can create new desk-sharing concepts and home offices, reduce office space and support part-time models.

Facing these challenges creates a range of tasks. These include clear and measurable goal setting, make-or-buy discussions, optimising or even redefining rules and work processes, open communication – and, not least, continuously supporting employees through the change process.

Every major company will have to deal with these challenges sooner or later. Sharing experiences with companies that have already gone through this process is very worthwhile. Particularly in the make-or-buy discussion, it is important to clearly define roles and to distinguish the purchase of services from the managerial responsibility and the cultural change in the company.

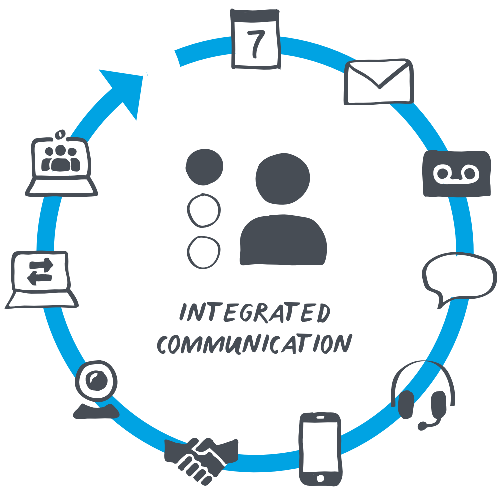
What is integrated *communication?*

It is a big mistake to try and replace old ways of working and old technology with new technology alone. We often start by getting quotes for things we are familiar with, without thinking first about our goals and requirements – irrespective of the technology.

The first thing to identify – what are the functions of the new integrated communication? Who would have thought, for example, that in a company of 20›000 employees, almost as many instant-message conferences as audio conferences would take place a year after introducing the new communication tools?

Integrated communication isn't just about replacing telephony and creating a computer-supported interface.

It's about a whole range of coordinated functions. The central focus is the person, with her name and presence information.



Presence information

Presence information helps us to contact others using the optimum means of communication at the best time. There is no point in calling my colleague if she is already on the phone, in an online conference or not there at all.

This is also how managing team phone numbers work. Only those in the group who are available are called. This is an advantage for the caller as well as the person taking the call. When you are having a conversation, the most important person is the one you are talking to. The call-waiting feature, which requires a decision about whether the person trying to call in could be more important, is always disruptive.

Presence information is often cited as a monitoring tool that makes it easy to check what employees are up to – but that doesn't hold water. There are two factors at play here – the company culture in dealing with communication tools and the employees themselves, who can change their presence status as they wish. The information is not meaningful in and of itself, so it is useless for monitoring purposes.

In any case, presence alone is no guarantee of efficiency and says nothing about the employee's productivity.

If an employee wants to concentrate on a piece of work that he doesn't want to be disturbed with, he can switch his presence status to "do not disturb". The only people who can interrupt him then are those he has explicitly authorised. All other calls and chats are automatically diverted to voicemail or e-mail.

If someone needs information from an employee who is absent, the presence information makes it possible to see who else in the team is available. So the flow of information no longer depends on an individual employee; you can quickly contact other colleagues who will probably be able to help.

Integrated communication means that you can trigger communication through the presence information in the particular application that the employee is using at that time. Direct communication is possible wherever the name, telephone number or e-mail address of an employee can be recognised. Whether it is in the intranet, Internet, a specific business application or even in a document. The employee shouldn't have to change the medium to be able to communicate.

Instant messages

Instant messages have developed within our company with unexpected speed. If the person you want to contact is busy and you just want to check something like a name or a link to a web page, or you just need a quick "yes" or "no" answer, then instant messages are a perfect solution.

In our company in January 2012 there were around 1.3 million 1:1 meetings incorporating about 9.4 million instant messages. What is even more astonishing is the number of instant message conferences with more than two people, which is coming close to the overall number of audio conferences! This shows that instant messages are increasingly used to quickly gain a third opinion, to reach joint decisions or to solve a small problem.

We discovered, however, that employees were sending instant messages back and forth for a long time without noticing that they could change to a call at the click of a button and speak to each other. It is also comical to see how one person uses an instant message to ask a colleague marked as busy if he has time to speak and then both try to ring each other at the same time. This shows that "unwritten rules" establish themselves over time.

Instant messages should not be considered a toy for the younger generation. This "spontaneous" communication, along with the presence information, is becoming increasingly important in the business world. Employees are able to communicate with each other quicker, more easily and, above all, more directly. So they save time and work more efficiently.

Voice communication

After 150 years of evolution, voice communication is undergoing a change that is seen as "disruptive" by many employees: people are no longer reaching for the phone! Headsets are replacing the trusty handset. Employees are "having to" change their behaviour. New functions are available: group calling or stand-in configurations would have needed the help of telecommunication experts in the past and are now set up by the user in just a few mouse clicks. It's easy and intuitive to transfer calls or add more participants to the conversation using drag and drop, with no need to dial any numbers.

The call is placed to the employee on the device he is currently using. The options here include parallel calls to a PC and mobile telephone or call forwarding if there is "no answer" after the time you select. If the presence information is set to "do not disturb", all calls go immediately to voicemail and the parties are advised by e-mail.

The administrator configures non-personal group telephone numbers into the desired groups and call distributions, in line with the defined hours of work. The options become more sophisticated, yet everything is based on the presence information.

Call distribution based on presence information is the most difficult transition for group call numbers. There has to be a shift in thinking – there is no longer a telephone on the desk that rings even if no one is there. In the past, another employee would go to the colleague's desk to pick up the phone; with group number distribution of calls today, the call can only go to someone who is available.

Voice communication is also becoming a collaboration tool. While you are speaking to someone there is also the option to "just quickly" send a link or an address by instant message as part of the same conversation, or "just quickly" share a screen so you can both discuss a presentation, or to add video to the call and see the person you are speaking to, making the communication friendlier.

Mobile integration

The huge expansion of smartphones has increased the need to be able to use all the different aspects of mobile phones for business communication. Alongside parallel business number calls, mobile integration also gives the user access to many useful functions on the mobile device, like dialling into online conferences at the touch of a button, direct access to voicemails, access to the company address book with photos and presence information and setting up call control, right to sending instant messages.

Depending on how it is set up, mobile integration also offers a one-number concept where calls made through the application are shown with the company identity in the form of the business number. That way, only one phone number is known outside the company, and it is not the caller who decides which number to ring – the person being called consciously controls where the call should go.

Mobile integration gets exciting with the use of tablets like iPads – particularly for sharing and discussing content in online conferences.

The use of mobile integration increases as long as the application works reliably on the device and is easy to use. If users encounter the smallest of problems, they are likely to give up relatively quickly and it is difficult to motivate them to try it out a second time.

Video

There has been a lot of emphasis on video across all solutions, right up to demands for high-definition quality. In reality, however, the adoption curve for this has been the one that has developed the least. As soon as content is available in online conferences, video becomes a side issue. And due to the bandwidth available, video is often waived in favour of screen sharing.

When we deployed, we did not proactively provide cameras for notebooks or monitors. Instead we ensured that no new devices are available without a built-in camera.

Online conferences

With a conferencing system available now on every desktop, it is no longer necessary to book expensive solutions for online conferences. These options are easy to use through an Internet connection, regardless of where you are. You can now change a meeting request into an online conference at the click of a button. For internal or external contacts, the request contains the access data for participating in the online conference via your computer or the telephone connection for audio conferences.

New participants can be added to an existing online conference using drag and drop, and you can extend the online conference with screen sharing or video.

Screen sharing

Screen sharing is the first real step to collaboration because it is the start of collaboration at a distance. The option to work jointly on a document is now helping home-office concepts to experience a real breakthrough. It is just like being in the same room with a projector: all the employees can now work on the same presentation or on the whiteboard wherever they are – it is practical and easy.

Depending on the system, you can make subtle changes to what exactly you share on the screen – a presentation or a particular application, the entire screen or just a particular section. The person sharing the screen can also specify who is able to work on the document.

E-mail

Not that all this will sound the death knell for e-mail – and rightly so! Nonetheless, there is a shift in the way short information is being mailed back and forth, such as: Do you fancy going for lunch? > yes, great > when should we go? > 12.15? > fine by me > ok, see you then > looking forward to it ;-). This conversation would now take place through instant messaging. Surveys, decisions and feedback rounds are now carried out in workspaces and communities. E-mail remains unchanged – and it also makes sense to base a number of familiar processes on it.

Yet e-mail is also being augmented with new options. In the addressee box, you can see immediately who is available right now. So you can send an instant message or make a call in a mouse click.

The person you are calling can see the subject line and knows what you are calling about before answering. This opens up new communication channels that develop out of the application that we are already working with and allow us to move from communication to collaboration.

It also reduces the number of irrelevant e-mails automatically over time, relieving the burden on employees and systems.

Voicemail

In a new development, voicemail is integrated in the workplace even more than before. Most of the new communication solution providers have the same philosophy: “There’s no such thing as a busy line!” All calls have to be answered – even if it’s just by the option to leave a message. Voicemail is the last resort. This philosophy seems a bit strange to us here in Switzerland. Some of our teams are even set up so that callers receive a busy signal and then have to try again later. We just don’t have time to call people back at the end of the day! But as we said, it is a question of philosophy.

So when the presence information changes to “do not disturb”, all calls automatically go directly to voicemail or the person being called can manually forward a second incoming call to voicemail.

Which is why integrating voicemail in the workplace is so important. It needs to be easy to manage, listen to and forward voicemails on the desktop or via mobile integration.

Voicemail access often offers other options: the voice control function can find and call contacts in the company directory or read out the e-mails you have received – just two essential tools as example for car drivers.

In this context, it is important that employees know about these new options and benefits so they can gain the most advantage from them.

Calendar

The calendar also contains new functions that can trigger a fresh approach to collaboration. While employees are used to scheduling meetings that people attend in person, it is now possible to change the meeting into an online conference at the click of a button. So conferences are much more common than they used to be because there is no need for all the participants to travel to one site.

In another new development – a calendar entry for a meeting can be used to initiate an instant message, including the subject, to all or just some of those involved in the meeting. This is another small upgrade that people only gradually notice after the introduction of the complete solution and the relevant support measures – and then it starts to pay dividends.

The calendar entries also control the presence information. If a meeting is entered in the calendar, the presence information shows “Busy”; during meetings it displays “In a meeting”.

Communicate with externals

New ways to communicate with externals start to make a new communication solution really interesting. Online conferences with screen sharing, extending the display of presence information beyond internal company use, and the chat and video function are now available alongside all the features we used previously. You can suddenly see the status of an external contact and communicate in just the same way as you would internally.

Of course the various integrated communication solution providers are just taking the first steps towards offering the user comprehensive, "limitless" communication. But it is only a matter of time until all the manufacturers agree on a standard and there are simple solutions that allow this cross-company communication.

It is startling how many global corporations already use integrated solutions like these and how quickly the employees get used to this type of collaboration.

Ultimately it is also up to individual companies to engage with the issue of federation. Many are still reluctant to allow open federation, with its unrestricted access to all other companies who support this new way of communication and collaboration. They usually start with black and white lists, mailing agreements back and forth between those responsible for IT, requesting these to be signed to protect them from "who knows what" – until they realise that it is practically impossible to manage this and it makes no sense.

Our company is committed to open communication and we avoid any such requests and agreements – we just want everyone to be able to communicate easily with us.

In terms of integrated communication, many benefits will only become fully apparent when the employees start to use the "system". But in this way the company lays the foundation for the next step, which is unlimited collaboration. This is when collaboration begins to change – with meetings only taking place physically every third or fourth time; with people discovering that they have the same working conditions from anywhere and then spend a day working from home, converting commuting time into working time…

The new publications in our #WorkSmart series will tell you how we, as a Swiss corporate business, are changing the way we work step-by-step: Part 2 "Sharing knowledge" and Part 3 "Learning together".

We wish you, dear reader, plenty of new ideas on your way to limitless collaboration.

Business *case*

by Andreas Arrigoni, Communications & Collaboration Experience

Let me say from the outset, setting up a business case is no small matter: quantifying soft factors is not something that is widely accepted. It is also hard to predict how the company will adapt to the new collaboration aims in advance. In our case, we can also show that changes to major aspects of the business case through urgent decisions made by the company and project management (see the section on Realisation Phase 1) can create a new starting position from a financial viewpoint at any time.

Groundwork is *crucial*

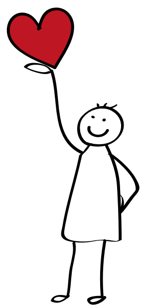
Who is responsible for project groundwork and how strongly the different interests influence this preliminary work – whether consciously or not – is crucial. *Different interests, lack of knowledge and lack of willingness are the three greatest dangers in the business case phase.* These can greatly influence the whole outcome of the project from the start.

Different interests

Let's start with the usual scenario: the boss sees employees in another company working more efficiently together with modern communication methods. He comes back – and who does he turn to? The person in charge of telecommunications.

He gives him the job of working on a Communications & Collaboration solution with the IT manager, with a view to implementing it in his own company. Right from the start, personal interests start to influence the business case. The person in charge of telecommunications feels the rug being pulled from under his feet. The IT manager either sees new challenges and responsibilities or just lots of new problems that he doesn't have the resources for.

It is therefore important to make sure that those who stand to gain most from it – those in the business field and not those dealing with the technology – undertake the work on the business case. Of course, that doesn't mean that the business and technical staff shouldn't work on the business case together. But it should be driven by those who stand to benefit and they should start by defining the business goals they want to see clearly demonstrated after the rollout.



Lack of knowledge

Old wine in new skins. That is the solution that will be suggested by a telecommunications specialist given the job of working out a business case if he has spent his whole life dealing with traditional telephone exchanges.

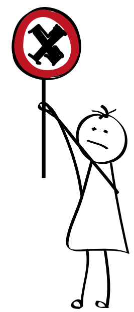
So functions and features will come to the fore that nobody actually needs. And mistakes will be made that are difficult to rectify after the project. *What you need here are farsighted people who realise that there are new opportunities that will fundamentally change the way people work.* We often make the mistake of wanting to substitute new technology for old. But that doesn't make any sense. What do we gain if we just do what we always did in the past after we take the trouble to install the latest technology? Ultimately, we don't gain anything.

Lack of knowledge can mean that functions and features can seem more important than increasing efficiency through new ways of working – and then the benefits you expected don't materialise.

Lack of willingness

Lack of willingness is the logical consequence when "interests" and "lack of knowledge" hold sway and the business staff seek a solution that is not accepted by technical staff.

Collaboration between the business and technology staff has to be defined before work starts on the business case and it has to be consciously guided by the company management. They can then ensure that their expectations are taken into account in the business case and not distorted.



How the business case *turns green?*

As we mentioned in the introduction, quantifying soft factors makes the business case interesting. The assessments begin with assumptions. And assumptions are just as hard for a project controller to quantify as they are for the company management.

Needs

Let›s start with the needs and look at how they can be assessed in the business case and what tools can help.

The person is the key factor when it comes to achieving objectives with the business case.

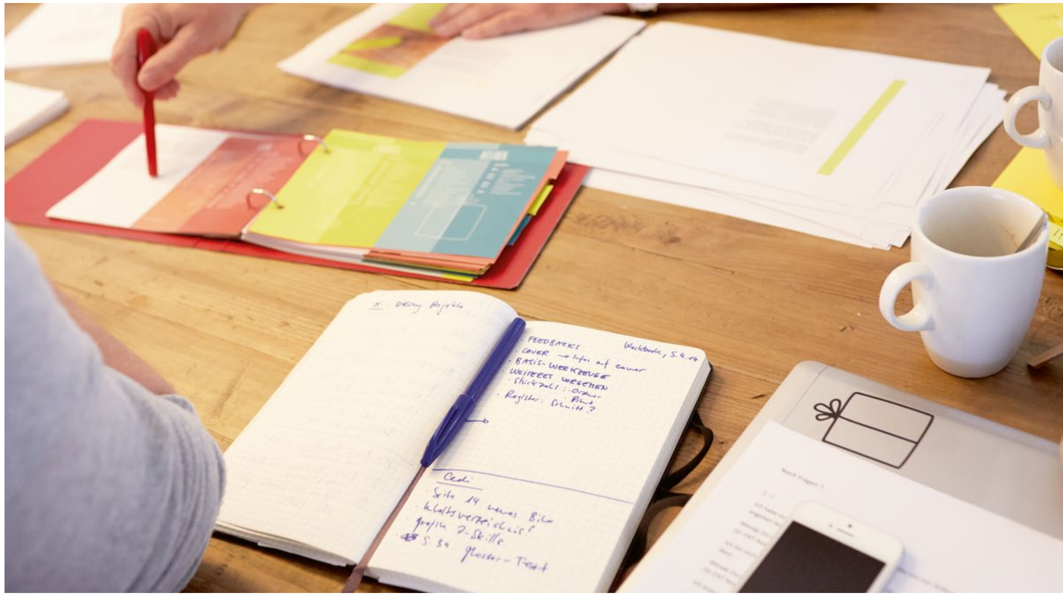
We want teams to travel less to meetings, agreeing things and meeting virtually instead. We want to make sure that employees no longer call their work colleagues on their mobile phone numbers – they use Communications & Collaboration to initiate contact and the person they are calling can decide what device to use to take the call. We want as many employees as possible to be online and available to shorten communication and decision paths.

It all takes technology – but it only works if people change their individual way of working and adopt a common approach as a team. This is one of the challenges that we shouldn't underestimate. We are, after all, creatures of habit!

Technology is another factor.

We didn't want to invest further millions of francs in the hundred or so legacy telephone systems we had: we wanted to centralise them and simplify their operation. We wanted to integrate communication right across our work processes and make it as easy as possible to use. We wanted to clean up and harmonise our "untidy numbering". We wanted to reduce the systems and connections, as well as the on-site intervention. We wanted to simplify or even eliminate the technical processes and reduce activity that was no longer necessary. One aim was to centralise services like faxing and shift from the premise that each employee still required a computer and a telephone.

Technological factors are easier to translate into numbers than human factors as long as all the technology costs are transparent. Yet this transparency is rarely available.



The organisation also has its own goals too.

We wanted to reduce the use – and also the cost – of expensive conference systems and services. We also wanted to reduce travelling time and travelling expenses. We wanted to facilitate working from home for employees, to improve their work-life balance and also to alleviate pressure on office space. On the other hand, we wanted to accelerate processes that could improve spontaneous collaboration, make it easier to make decisions and ensure direct communication without the need for voicemail ping-pong. Our goal was to stem the flood of e-mails and extend collaboration with external partners through new channels.

We wanted to be seen as an innovative, effective company that is also committed to environmental conservation.

We wanted to increase employee satisfaction and establish a showcase for our Communications & Collaboration skills. And not least, we wanted a fast return.

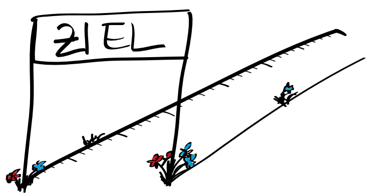
These needs were translated into measurable targets and included as items in the business case. For a business case to justify the investment, you need to establish the Communications & Collaboration goals from a human, technical and organisational point of view.

Measurable goals

Before we make any investment in old or new systems, we can summarise some of the recurring hard factors and the expected soft factors from the previous paragraphs. This allows us to show transparently what makes sense and what doesn't in the business case.

Depending on the company, different factors will be more or less important. For a cantonal administration, for instance, there will be less focus on travel costs than there would be in an international company. *The clearer a company is about its needs from the outset, the better* – for the project team objectives as well as the business case. An important core element is the implementation period: the shorter this is, the quicker the return!

Item	Method of measuring	hard	soft
Travel expenses	Comparison before and after	hard	
Travel time	Employee survey before and after		soft
Telephone costs	Comparison before and after	hard	
Operational costs	Comparison before and after	hard	
Time saving	Employee survey before and after		soft
Process costs	Employee survey before and after		soft
Conference costs	Comparison before and after	hard	
Office space	Comparison before and after	hard	
Realisation period	Project controlling	hard	



Investment

The investment can be influenced by some bold decisions from the start. It is therefore worth learning from experience gained in other projects. A visit to a company that had already implemented the solution we were considering meant we were able to cancel the rollout of cameras, for instance. See the section on "Valuable decisions" in «Realisation Phase 1».

As a starting point, you need to establish all the investments – and all possible future investments – that you require. Then there is the immediate question of whether you want to invest in or just utilise a service. "Make or buy" questions come into play here: where does it make sense to maintain your own operation and your own infrastructure and where does it not?

Some possible investments include:

Item	Description
Legacy systems	Upgrades that no longer need to be undertaken
New systems	Infrastructure for Communications & Collaboration
WAN expansion	Additional capacity and voice priority
LAN expansion	Any expansion of the LAN infrastructure
WLAN expansion	Redesign WLAN for real-time transmission
Devices	Purchasing headsets, cameras, speakers...
Analoge Ports	Any purchase of systems to cover old non-personal telephone devices etc.
Training	Any measures needed to support the employees in adapting to the new solution
Removal	Removal and disposal of legacy systems

Our experience

We are not including an example of a business case here because it is individual to every company. However, it may be helpful to detail the findings and experience from our project.

Finding 1

EA project is highly dependent on the people involved. While one team carried out all the preparation and piloting, right to presenting the business case and gaining the approval of the Group Executive Board; another team was responsible for the realisation, employee support and removal of the previous system. As a consequence, the original business case was completely turned inside out by decisions made in the three realisation phases. You can see how the distribution of investment ended up under "Support that pays off" in «Realisation Phase 2».

Finding 2

The success of the business case is entirely dependent on soft factors. Or to put it another way: people use the solution to create a benefit and they are the deciding factor for a good or bad business case.

So, as well as investing in a reliable environment, the most important investment overall is in employee support.

Finding 3

BDecisions made by the company management and project management together can have a huge impact on the investment. You can see examples in the section on "Valuable decisions" in «Realisation Phase 1».

The most important decisions with regard to the business case are:

- Changing the numbers shortened the realisation phase by eight months.
- Choosing consumer products instead of expensive business devices saved CHF 0.5 million.
- Consistent use of trainees in the project saved CHF 1 million in external support costs (see the chapter on "Ambassadors" under the section on support in "Realisation Phase 2").
- By eschewing a specific and redundant new system – to make analogue connections available – we avoided an investment of a further CHF 1 million.

Finding 4

We were caught off guard by the unforeseen (no surprise there...). Although we made huge savings in time and money, we had to change our scope several times and make unexpected investments. We had one consolation: overall the project did not overrun either in terms of costs or time frame, even though we achieved far more than originally anticipated.

The main unexpected items that caused additional costs were:

- We had to optimise the Wireless LAN for voice and video communication at all sites.
- We had to quickly carry out a second unexpected rollout, provide the technology required for it and retrain the employees.
- We had to provide a temporary system to make the number change run smoothly, which we had not budgeted for.
- We extended the security and business continuity functions.

Finding 5

At the outset, it is worth determining the business objectives, including measurement methods, and specifying an initial value. Otherwise it is not possible to show clearly that you have met your objectives.

In order to calculate soft factors, we made certain assumptions in the business case without specifying the initial corresponding values. In the end, we were only able to show that our objectives had been met by conducting time-consuming surveys.

The operational savings, which you should be able to quantify, need to be considered in terms of the total cost of ownership before you calculate the business case. After that, it is practically impossible to show the savings. In some rare cases, however, the hidden costs are known or can be shown in comparison to the new solution.

Using existing *project experience*

Experience from other projects can help you to present the business case for new projects in a new and more informed way. So various companies have been able to benefit from surveys, usage statistics and information from our project when developing their own business case.

Another way of benefiting from the experience of others is in purchasing Communications & Collaboration as a service. *Your project team can then focus on providing essential support to employees while the technology is provided by the professionals in a simple way and constantly updated – and all this with virtually no initial investment required.* This is surely an attractive alternative, since the business case is not calculated on its technical basis anyway.

Some of our customers have been impressed by the success of our ambassadors who accompany them. Meanwhile, in cooperation with our vocational training, we have professionalised the procedure as a service and support other companies in their rollouts. We share our experiences with our customers through young media-literate people and play our role as a companion in the global network.

We were certainly able to benefit greatly from both internal and external experiences, and consequently, focus on measures with direct business advantages.

In this vein, we wish you every success in your projects on the way to spontaneous communication.

Change

by Christa Engelmann, Business Strategy Consulting

Focussing *on the individual*

The individual person and the relationships between the people in our company are crucial to our future success.

It was clear at the outset of this project that we wanted to place as much emphasis on people and teams as the technology within the team. This was something new for all those involved, but its importance was never in doubt. There are various reasons for this, but one stood out: it is one of the biggest changes people have to face in a company.

In the future we won't phone each other, we will communicate instead; reaching for the phone will be a thing of the past. When we ring someone up or talk with each other, we won't be sure if the other person has picked up the phone or is still there because it is so quiet and the familiar hissing on the line is no longer present. We will give up a little of our private space, for instance, by showing the whole company, and other connected companies, whether we can be reached or if we are absent.

This type of communication makes mobile working, wherever you are, and home office solutions a little more practical. It is a change that unnerves employees and managers in equal measure. The manager can no longer lead by physical presence and is challenged by new forms of interaction and management. The employee nevertheless still wonders – even if it makes no sense to travel – how often he should be "visible" to the boss to avoid negative feedback. How often will we want to meet in the future – we call it the physical minimum – if we want to maintain our relationships with each other and with the company?

All these things – and the list of examples and variants is even longer – cause uncertainty, discomfort and resistance, quite apart from the issue of coming to terms with a new technical tool. We have encountered resistance at all levels and it is still happening now – even after the actual technical project has been completed. This goes to show:

Change takes time. People need time. The path we take and the support we provide are crucial.

We have worked with a range of measures and communication strategies in order to manage change positively, to ease the pain so to speak, and to be heading in the right direction again quickly.

The measures we used not only raised awareness, but were also met with enthusiasm. Many wanted to be involved and make a contribution sooner than was actually possible in the rollout. This started as early as the "pilot", although the number of people involved meant that it could hardly be described as such. It might be better described as a pre-rollout. There were measures to train people and teams, help was provided and the whole undertaking was realised with a very direct link to the project team. At times we felt completely overwhelmed. We were simply unprepared for the level of interaction required. This has shown us once again how important personal – even if it's sometimes virtual – contact is, and also that we are on the right track. We describe almost all the support measures we employed in the chapter "Realisation Phase 2".

I would like to highlight one measure from the "removing-the-old-solution" category – namely, that in the introductory part of the rollout, each employee's phone was removed by a trainee. With video evidence of this happening to the corporation's boss too, this measure resulted in few real difficulties. However, the situation did become a little uncomfortable when the first complaints were made about voice quality. These were mere ripples at first, but then the protests grew until concern was eventually raised at the highest level. This was not a pleasant situation for the team and for the project lead in particular. I won't go into the reasons here, other than to say that it was a combination of human, technological and office equipment factors – which was neither easy to pinpoint nor to solve.

My biggest personal learning experience was, "Fail quicker, succeed sooner"!

Because people had few alternative options – the mobile phone was all that remained – immense effort was invested in finding a solution. An absolute focus on finding the solution and implementing the necessary measures is crucial, rather than apportioning blame or talking too much about what should, may or can be done. We were then able to implement the solution in a relatively short period of time. We couldn't produce an overnight cure – but it still required less time and pressure than we would have needed in normal circumstances.

We have achieved a lot in this project – with people, with technology and with the organisation. But we are not yet at the end of our journey. In terms of Unified Communications, we have achieved "simple communication" and "simple collaboration". We have still to reach our full potential in terms of meetings and instigate measures for greater collaboration. We have not yet succeeded in providing additional support to people after the project, to build on the positives and exploit dormant potential further.

To do this and to win the support of the Group Executive Board, it has taken another year of intensive work around the issue of collaboration and discussions with the decision makers.

Realisation *phase 1*

by Ruggero Crameri, Project Leader Collaboration

Once a company has made the decision to embark on the journey to integrated communication it is particularly important to clarify certain issues.

The measures described in the following chapters refer to a company with 20,000 employees with the aim of sharing ideas and experiences that can be transferred to the correct degree in your own company.

To the correct degree means that where the implementation affects 1,000 employees, all the measures we describe may not be automatically necessary: the risks will be smaller and the support can be controlled in a more targeted way, etc.

Challenges before *the rollout*

At the start, all the parties involved are keen to incorporate their specific interests. It is easy to forget that a pilot phase that, from a business view point, results in the decision to implement Unified Communications & Collaboration for the whole company, will still fall short of fulfilling everyone's particular interests.

It has often been possible to use special authorisations to make "provisional" arrangements during the pilot phase but these do not constitute a "normal case" and a lot of discussion is required to reach a consensus. It is essential to hold these discussions, to get people round the table, to arrive at consensus and move forward together. Such discussions are generally difficult. The opposing factions often clash.

We therefore recommend that every effort is made, including the use of moderated workshops, to ensure that all parties work together rather than against each other.

Workshops, workshops, workshops

After an 18-month pilot phase, our company decided to introduce Unified Communications & Collaboration across the board for all office and mobile workers – with the exception of the Contact Centers.

We started with precisely the discussions outlined above. Suddenly we had all kinds of people at the door: security officers, governance representatives, risk and fraud management assessors, the company commission, the IT department, network and telephony specialists, those responsible for corporate responsibility and infrastructure – and just about everyone else. *Everyone wanted to provide information and compare details relevant to their particular interests.*

One of the greatest challenges – for Security and Risk Management in particular – was the peer-to-peer communication. Up till now it had been possible to monitor the entire communication process centrally for risks. Now the only thing taking place centrally was an exchange of information about who is currently where, so that a direct connection could be established between the participants.

In the end we reached a consensus about a risk acceptance process whereby IT, Security and Risk Management were able to consistently agree on the following points:

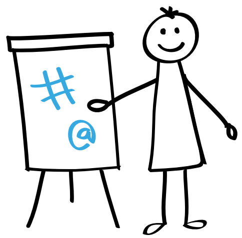
- The log in for communication via the Internet, which is for e-mail and Unified Communications & Collaboration, is admitted with no second authorisation mechanism
- Automatic open federation with other companies
- Prevention of peer-to-peer data exchange with externals
- All communication is encoded, which means that voice and video are blocked with public Internet services like Windows Live
- Logs are classified and have a defined life cycle
- Fraud Management is granted access to all log data
- Adjustment of the usage guidelines for handling access data, in relation to smartphones in particular
- The network intercepts denial of service attacks

Industry and internationality are other points that can greatly influence this process in terms of complexity. Banks, for instance, have far stricter legal requirements (right up to archiving and traceability of instant messages, recorded conversations and conferences), which go far beyond the standard functions available for the products used. These requirements can only be met by specialised third-party products, which in turn increase the complexity of the overall solution and create dependencies in the operation and in the life cycle. *Here it is important to enter into discussions proactively and at an early stage, so as to reach the best possible consensus between all parties involved.*

This was soon followed by the discussions dealing with personal aspects. The company commission represents the interests of the employees. Here we had to take a position with regard to privacy rights, including photos, presence information and checkability, emergency calls and nomadic users, remote working, constant availability, support and the time scale.

Every company should be able to learn from other enterprises that have already implemented similar plans. Their experiences are valuable and can even help to avoid poor investments on a large scale. For instance, we were able to learn from the experience of a large company that rolled out 6,000 cameras, only to realise that, after a brief period of euphoria, they were practically no longer used. We therefore decided against rolling out that type of device.

We also had sudden visits from all kinds of suppliers anxious to show us their products and services. We had to make sure we kept our distance, made no concessions and remained open in our communication.



Network

Even if some manufacturers claim that their concepts no longer require voice prioritisation, guaranteeing voice quality… it is absolutely essential that we design the network for voice transmission – from bandwidth to voice prioritisation, with as few firewalls in between as possible. Leaving this to the network professionals is an investment that definitely pays off.

Don't forget, the old telephone systems have had 150 years of development under their belt and voice transmission via the network has only been around for 15 years! It is a benchmark that is hard to beat. We have to do everything to ensure that the change process does not trigger negative responses among users, as that would be fatal.

In our rollout, Wireless LAN was clearly "out of scope" in the beginning. We focussed on the rollout, which was a big enough task in itself, with clear communication that the first step would be a wired connection to the LAN, with no guarantee of wireless initially.

However, we quickly found out that Wireless LAN is such a large requirement that we had to move quickly with the second step. You can read about the impact that this had on the project in «Realisation Phase 3».

Number allocation

With regard to telephone numbers, there are two variants when switching the entire historically developed telecommunication environment to a central service on a large scale: a hard restrictive variant and a simpler more flexible one.

The hard variant is to transfer the old numbers, which imposes endless obstacles and dependencies, unnecessarily prolonging the rollout phase and increasing the error rate.

It wouldn't be impossible, but in a project like this one, project duration is the factor that significantly influences the return on investment and the error rate most strongly influences user acceptance.

The easy variant is to define new numbers, set up the solution ready for use and switch flexibly – step by step with clear dependencies, stress free. It is no longer a question of implementation by site or team. This approach allows complete flexibility, including fallback positions if a team is not ready to switch for any reason.

In our case we chose the second option even though the decision sparked a lot of discussion at the beginning. We randomly distributed 058 numbers that were site-independent, harmonising the overall number plan and making everyone equal with regard to the "nice" numbers.

Notice about the change to individual numbers was given early enough to make sure that customers and partners could be advised. Any member of staff could make the switch on their own, or representatives on site implemented it on a specific changeover date. In the background there was a specific service with a preset announcement for every new telephone number.

Callers to the old number were advised of the new one for the first three months after the switch. We diverted incoming fax messages directly to the new fax number and advised the sender of the number change in a reply fax. After three months we changed the message to a main number instead of a personal one. This was also the date set for gradually decommissioning the old telephone system. It was then possible to finally deactivate the old numbers after removing the legacy telephone system.

Rollout by site, number range or team?

Whether to make the switch by site, number range or team is strongly influenced by the number decision described above.

While the hard variation that transfers numbers basically leaves little option apart from a migration based on the number range, the second and easier option leaves the switch open. This gives the rollout team the flexibility they need to meet customer requirements and react to any unforeseen eventualities.

In our case, the team planned the switch by site. Where there were entire teams split over several sites, the switch could be made flexibly by team.

In this sense the decision to introduce new numbers made the realisation much easier and considerably shorter – and also allowed a better and more flexible customer service.

Support plan

Communication is different in every company and the support plan is closely linked with communication. They are pivotal for the success or failure of the entire project. In a large company it is therefore vital to exploit all the possible communication channels so that the information reaches everyone concerned.

Some read e-mails and others get their information from the intranet. Everyone gets the employee newsletter but some would rather watch a video message and others want to hear information directly from their boss.

Alongside the different communication channels, timing is the second important component. The change process spans between one and two years. With this in mind, communication should be topic-based and continually provide a fresh update on the progress.

It also makes sense to keep introducing new functions that can be reported on. The employees then have the chance to get to grips with the issues in bite-size chunks and continually learn something new.

Particularly when support measures are planned on site, it is important to have one or more ambassador teams, depending on the size of the rollout. There needs to be at least one for each region with a different language. The ambassador teams are resource intensive and should inspire the employees.

In our case we involved our young people instead of recruiting external coaches.
We swapped roles and let the trainees train us. 70 trainees in one project is a challenge. But the friendly, open approach of the young people carried the employees with them and even turned some objectors into fans. And on the financial side, we were able to save around CHF 1 million by taking this route.

Analogue connections

It is amazing what you find when you tidy up! There are analogue connections everywhere: as voice stations in the conference rooms, as fax machines, as infrastructure maintenance modems, as emergency telephones in lifts and computing centres, as franking machines...

These analogue connections are non-personal connections, which pose a great challenge to a user account-based solution approach.

There are two approaches here too. One way is to replace everything one-to-one and make it available again.
The other approach is make a clean break and try to eliminate as many analogue connections as possible.
Of course you can never eliminate all of them, but it is amazing how few are left over if your communication is consistently clear.

Another question is: does it make sense to offer analogue connections on IP-based technology thereby increasing both complexity and costs unnecessarily?

Our approach was simple and pragmatic. Instead of investing in an additional complex solution that would have provided over a thousand existing analogue connections – centrally based and completely redundant – and would have required a further investment of over CHF 1 million, we took the brave decision to eliminate a large part of the analogue connections.

A central fax solution was provided to replace the old fax machines. Incoming fax messages can therefore – by ordering a new inbound fax number – be forwarded directly to a defined mailbox. Outgoing fax messages are sent via the personal mail client of every employee.

Analogue conference stations were systematically decommissioned because every employee now had a conference solution on his notebook. Round table devices (audio and 360° video) or speaker phones (audio only) could be booked in the meeting room booking system at every site and then picked up at the main reception.

Every infrastructure connection (such as lift phones, maintenance modems and corridor phones) was reassessed in conjunction with the building owner and the responsibility for it revised. Where it made sense, it was possible to keep a normal analogue connection, for a franking machine or a sound station in a meeting room for instance, where the work is done on the desktop rather than on notebooks. But you don't need a redundant centrally operated telephone system for this. Normal economy lines are completely adequate.

Team numbers

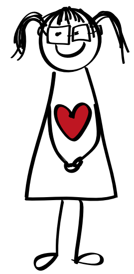
Team configuration is a sensitive area. On the one hand, the teams have been used to working with the technical options available over the years; on the other hand, these are sometimes very complex and specific – and implemented on completely different systems.

Suddenly practically everything is possible another way – but it is another way that requires change. And change usually always means resistance. So you need more than a range of functions that is clearly specified and therefore also operable – you also need people with enough intuition to advise the teams and to make their move to presence-based communication as easy as possible.

These facilitators need specialist knowledge. Alongside the functionality provided by the new system, they also need to understand the needs that have been ingrained by the old world of telephones. It also really needs "IT telephoners" – people who meet both needs as well as possible.

Armed with a modular set of function blocks you can put together a versatile portfolio for team configuration. In this way, operations can be optimally guaranteed with a very large range of functions. Nonetheless, there will always be areas where there have to be compromises. This requires facilitators who understand how to work out solutions at the coalface without losing touch with the people involved, making sure they can find a beneficial solution together.

Over time it became clear in our case that certain requirements related to team configuration could only be resolved satisfactorily with additional products. Two examples are the "Engineer on Duty" and the "Busy on Busy" functions.



The Engineer on Duty case required a team number that could be transferred flexibly and easily to whoever was responsible at the time. In the evening, for example, Fritz takes the team number on his mobile device. The next morning, Hans takes it over in the team configuration. At lunchtime, Peter takes the number on his mobile device and after lunch, Hans switches the number to the team configuration again. In the evening Manuela transfers the number to her private home number. The stand-by plan changes continuously. We made flexible numbers like this available in a number range specifically defined within the entire number plan, enabling us to meet the needs of around 300 groups this way.

In the old days if a line was busy, it was busy; the caller just had to try again later. Nowadays, every call has to be answered, even if it's just by voicemail.

Now there are teams who spend their day taking calls all day from employees on the front line. They simply don't have the time to answer voicemail messages. We could cover this need for "Busy on Busy" with a simple third-party solution that kept 20 teams with around 300 employees happy.

There is always a tight-rope walk between flexibility and operability.

The team configuration allocation, in particular, has to be defined clearly. It is important to start the communication so that there is enough time to advise the teams on site and to draw up, test and optimise the team configuration by the agreed commissioning date. In most cases the team configuration involves several sites and requires correspondingly flexible planning so as not to encroach upon the on-site activities of the regular rollout teams who remove and dispose of all the old end devices once they are deinstalled, for instance.

End devices

End devices are a highly emotive area. They are very personal and everyone has their own opinion. This topic quickly develops its own momentum and is hard to counter. But the end devices are the components that have a massive influence on whether the voice quality is perceived to be good or not. The end-device portfolio, therefore, is an essential part of the service and also has a high weighting with regard to service quality.

The range available is overwhelming. So those in charge are completely spoiled for choice when it comes to putting together a small, clear internal portfolio. We would in no way recommend that this choice should be taken away from those in charge. It is a process that is individual to every company and its environment.

The requirements can very quickly diverge. In our case we restricted ourselves to two types of USB headsets with one or two headphones (monaural and binaural), a bluetooth device that could also be used combined with a mobile telephone and a USB telephone with receiver.

The distribution showed a relatively high bluetooth share and this had some consequences, as you can see in «Realisation Phase 2». We were very clear from the start, however, about our decision to avoid stand-alone IP phones, and we stuck to this through the entire realisation and afterwards.

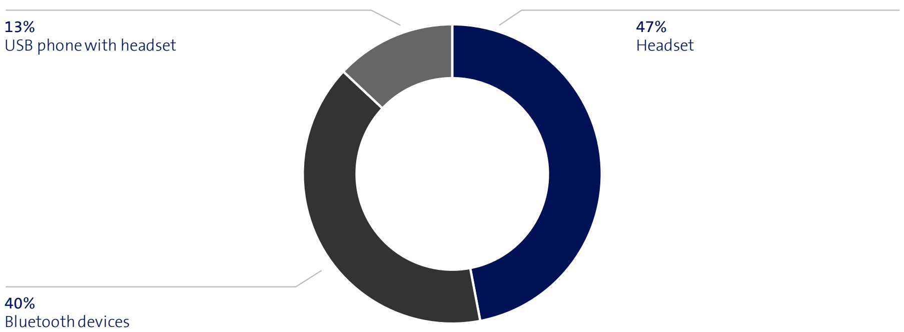
It just doesn't make any sense to have a computer and an IP phone. After all, the goal was always that employees could communicate directly with one another from one application. We wanted to avoid people having to find a number and type it into their phone, wedging the phone between their shoulder and chin to make the call – not exactly the best workplace ergonomics! It makes much more sense to use a combination of mobile devices with parallel calls.

Experience shows that if we want to replicate old technology with new, we might as well just leave it the way it is without investing anything. Employees will never leave their old ways to try new options that might be beneficial as long as they are not forced to leave their comfort zones. IP phones are a great example of how you can avoid change and minimise the desired benefits.

One of the drivers for IP phones are “non-personal” accounts like a device in a first-aid room, an emergency device in the ground-floor hallway or at a workstation where it is continually answered by lots of different employees. In our case we made a single exception for receptions and opened “functional” accounts instead of personal ones. In these cases, however, the “non-personal” accounts were set up with a USB phone instead of an IP phone and the call distribution linked flexibly with a mobile device.

For the other cases, such as emergency devices and for first-aid rooms, IP phones make little sense. Firstly, accounts with a login and password, including password policies that apply across the board, are still necessary – in our case passwords need to be changed every two months. Secondly, these devices use power, whether it is from the network connection with Power over Ethernet or through a power adaptor, which again requires building measures. Thirdly, IP phones also need software upgrades. There is often a grey area about who should take responsibility for this.

Distribution of headsets



Connection to the public telephone network

The connection to the public telephone network is strongly influenced by the company topology. Let’s assume that we are centralising our services in Switzerland into two data centres with the goal of not having to operate unnecessary equipment at every site. We would then need a connection that brought all our numbers to this data centre.

And this connection would need to meet the following strict requirements:

- It would have to bring all the local numbers in one location together, so the provider would have to support this. This was easy for us because we had decided in favour of new site-independent numbers.
- It must be scalable. Our connection has 1,250 channels per data centre!
- It has to be IP based already (SIP trunk) to avoid stacking unnecessary primary rate connections in the computing centre. Around 40 primary rate connections would be necessary for 1,250 channels!
- It has to be able to distribute all traffic equally on the geo-redundant systems (load balancing).
- Legal requirements for emergency calls have to be met.

We have a SIP trunk providing redundant service to our computing centres that meets all these requirements. It also fulfils the legal requirements for emergency calls. For nomadic behaviour, however, it has not been possible to create a standard with regard to the legislation or the emergency organisations that is both technically possible and yet still meets the high standards of all parties. Working groups are currently trying to find a solution.

If there are additional sites abroad, the architecture has to be configured accordingly, with local breakouts in each country. It is particularly important to consider the legal requirements of the country here.

Simplify

A change should also be used to take a fresh look at old ingrained processes that no one questions any more. There is a lot of potential here.

Just think about billing for telephone calls. It used to be that every employee was given a user-based cost itemisation. What benefit does this work bring to the company? None. On the contrary, it takes employees with expert knowledge to ensure the specific technical arrangements are in place for this.

We have replaced this outdated practice and simply split our existing costs by the number of employees with telephone numbers and defined a monthly internal "flat fee" that is the same for everyone. This eliminates all the work detailed above and can be carried out by any controller, with no specific expertise required. On an annual basis, the total costs are aligned with the internal flat fee and any necessary adjustments are undertaken. Since billing by minutes is slowly but surely disappearing anyway, the internal flat fee will prove less expensive rather than more expensive.

Another example relates to rights management and administration. In the old days, trainees could only make internal calls, only some employees could make calls within Switzerland and others were able to call abroad. Even just working out the guidelines and advising all the managers about the process, not to mention the administration involved – it doesn't bear thinking about!

We reached the following decision: we work as a company and we all have the same rights to communicate with the rest of the world. That's it. Fraud Management have had very few individual cases to deal with in the past two years where these circumstances were abused.

Another simplification that has a functional background and that we strongly recommend: e-mail address = SIP address. Particularly now, when we can see that federation with other companies is increasing rapidly, it is really cumbersome to receive an e-mail asking for the SIP address to enable modern communication because it is different from the e-mail address. This approach is also valuable with regard to new functions, such as moving in the direction of standardising the contacts in an address book.

One question that crops up again and again concerns combining traditional telephone systems with the new Unified Communications & Collaboration solution. Of course, all the telephone system manufacturers strongly support this, as do many of those responsible for company telephony systems, who see the rug being pulled from under them.

If you take a step back, however, this discussion is straightforward. A combination like this requires two systems – and both generate costs. Both systems need to be harmonised, which involves a lot of work; the systems need technical expertise, they increase the complexity, they raise the dependencies and have different release cycles, which means that you are always waiting for one of the two manufacturers to finally certify the other's release, and so on.

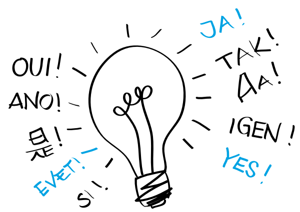
Why have two systems when one can cover everything you need?
Simplification is the name of the game here – which is clearly a brave step forward as well as a cultural change.

Languages

Switzerland has four official languages, with English usually close behind as a common tongue… If a company operates internationally, then other languages come into the equation. This creates some hurdles in terms of technology and communication.

We had to prepare all our communication in the three languages used in the company – German, French and Italian. That meant user manuals, use cases, intranet, videos – everything. With some manufacturer documentation only available in English, we were forced to produce some ourselves. The effort required is huge and the next release means starting from scratch again. We would therefore urge caution here: sometimes it is advisable not to migrate straight to Release x.0 but to wait until Release x.1 at least. The first teething problems have usually been sorted by then and the manufacturer has translated the documentation into the relevant languages. Of course, we could have broken a taboo and just made all the documentation available in English, massively reducing the work involved in the process. It's a decision that is still unresolved – the real question is user experience versus effort required. We decided in favour of user experience.

On the technical side it is also advisable to carry out a pilot phase with users and profiles in a variety of languages. During the migration, for instance, we discovered that the language menus for managing voicemail just hadn't been translated. *In French-speaking or Italian-speaking areas a voicemail in German is not an option.* That meant starting a change process with the manufacturer to find a workaround and hoping for an update at the next release…



Ready for the *next step*

With the issues and objectives from the last chapter clarified, there is a sound basis for the actual implementation, as shown in the following chapter, "Realisation Phase 2". An effective team and support from the company management make it possible to tackle technical and cultural change.

But isn't there something important missing?

Goals

There has to be a reason for an undertaking of this technical and cultural extent.

Drivers give us goals and these goals create benefits. To gain these benefits there has to be change, and that has to be accompanied by appropriate measures.

If we know our goals, we have the chance to see if the work we have undertaken was successful or not.

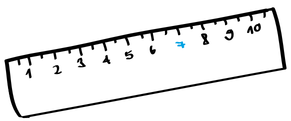
The changes after implementation and the measurable benefits are compared to an as-is analysis from the start of the project. This is one of the main tasks of the project team and it ultimately justifies the business case.

Creating value

Measurable benefits

It can be very difficult to evidence benefits; on the other hand, however, benefits can also be observed easily if the exact aims are clear from the start. Take the following examples:

- Travel is a case in point. However, we need the travel statistics to be available at the start: analysing what has changed is not easy in retrospect. Whether it's the number of journeys, travel time saved, travel costs or CO2 emissions, the end goal has to be defined before the change is implemented.
- The project goal is usually to save on operational costs. You can measure how this goal is achieved by the number of legacy telephone systems removed. Every system that you no longer run carries a saving. In practice, however, there will always be enough arguments put forward for keeping the old system at site X. So this measure has to be clearly defined in the project mandate.
- Quantitative and qualitative surveys represent an equally simple measurement. The employees provide information on how much time they have gained by using the new communication tools, how much less they need to travel and how their team benefits. These surveys also show whether the support measures are working or not. In the implementation phase it is worth conducting the same survey periodically.
- Measuring system use gives a good overview of the development and the effectiveness of the support. Measuring this across the entire company is perfectly adequate initially. After the introduction phase, however, it should be broken down within the organisation so that targeted measures can be introduced where it is clear that the system is not bearing fruit. Changing the measurement system during the project, however, is not advisable as every system evaluates the results differently and this impinges on the long-term monitoring.



Valuable decisions

Decisions have to be made in advance by the leadership, project management and change management that may be disruptive and can only be approved by the company management.

These kind of considerations should be raised before the project implementation as far as possible and set out in writing in the project mandate, in conjunction with the client. Putting it in writing makes it easier to implement the decision. Even if the management supports the change and communicates this openly, there will be inevitable resistance in a company with 20,000 employees. That takes up considerable time in terms of clarification and requires strength on the part of the project team and the project sponsors.

Here are some of the challenges and arguments we faced:

We defined the shutdown of around 100 existing telephony systems as a fixed component. Support from a well-known member of the leadership team in the form of a video message underlined why we were making the change and showed that our common goal was collaboration in the future with one state-of-the-art communication solution.

This way we sent a strong signal that supported the arguments against retaining the legacy systems, and it meant that all the systems could be deactivated six months earlier than planned.

The most valuable decision of all was the company-wide number change to site-independent telephone numbers. We were able to implement this quickly and easily. This approach sped up the process by about eight months. And that gave us a fast return for the investment and meant we could concentrate on the support measures, which then further increased the benefit.

If a bad network impairs the voice quality, employee acceptance will be low from the start. The effort required to convert this into a positive user experience is substantially more than if the network is optimised for voice transmission right at the start.

The first step was to set up the solution for wired LAN. The wireless LAN was then optimised for voice transmission to ensure the anticipated service quality for mobile phone users too.

We made a clear distinction between Contact Center and Communications & Collaboration. So we have two standards meeting different needs. Contact Center agents work with a specialist system (supplemented by selected services from Communications & Collaboration, such as instant messaging and screen sharing); office and mobile employees only work with Communications & Collaboration along with their mobile device.

There are no non-personal accounts. Someone is allocated to every account – and therefore every telephone number. So we avoid having devices for which no one is responsible – and simplify the processes and operation at the same time.

We have no IP phones. There is no point in an employee having an IP phone and a computer or notebook when you can cover all the functions of an IP phone with the computer. As with non-personal accounts, the use case does not support non-personal telephones (such as in meeting rooms) because all the employees have their own conference system on their own notebook.

We are reducing analogue connections to a minimum. This commitment alone meant we were able to eliminate 90% of the connections. It is still possible to order a normal analogue connection. But it is now operated as a normal outside line instead of an internal port on a telephone system. The realignment showed how strongly we hold onto old things without questioning if we still really use them.

This procedure allowed us to abandon the original plan for a central solution for a thousand analogue connections and save around CHF 1 million.

Fax is now offered as a centralised service. Anyone can send an outgoing fax from his or her mail system. For incoming faxes, you can order an inbound fax number that forwards the incoming messages in a digital format to the mailbox of your choice. A few teams work with faxes a lot and these are served by an analogue line. All of the other fax machines were removed.

As a result we achieved the following benefits: an end to toner changes, separate fax directories that had to be managed manually and paper refills. It also got rid of scores of energy guzzlers, streamlining the operation.

We can trust our employees! Everyone has the same authorisations. There is no restriction on anyone's calls. Whether it is to a business number or an international call – it makes no difference! This saved on considerable administrative effort. The result: within two years we have only had two cases where Fraud Management had to intervene.

End devices can quickly add up to cost a fortune. A simple portfolio and strict distribution management are essential. We decided to give every employee just one device and no video cameras.

Bearing in mind the short lifetime of around two years, we went for consumer products that met certain standards but were still value for money instead of expensive business devices in the device portfolio. This saved us around CHF 500,000.

Our company should employ the most up-to-date communication tools in the world. Open federation means communication and collaboration with our partners and customers is direct and straightforward thanks to the presence status display. We don't operate black lists or white lists. And we categorically resist any requests to sign agreements in this regard. Open is open.

We are a sustainable company. With regard to the removal of the telephone systems and the old telephones we put particular emphasis on the professional disposal of devices and systems.

These decisions, supported by the company management, contributed to our ability to communicate and act clearly. The implementation was significantly simplified as a result and the employees could be supported appropriately throughout the change.

The extent of the business benefits were only recognised after the project implementation. We were able to invest savings made during the project in unforeseen measures, which meant we could achieve more than we planned within the means available to us – to the benefit of all.

Realisation *phase 2*

by Ruggero Crameri, Project Leader Collaboration

Let's be clear from the outset: if you have a partner who is at ease with the technology and who can be relied upon to deal with any unexpected adjustments, then your company will be able to concentrate on the introduction process.

People are the focal point of the change process. Alongside the technical implementation, all the other measures should therefore be geared towards ensuring that people are the beneficiaries of change. The goal of the project team is to support all the employees so that they can derive the greatest possible benefit from their new communication system – and this includes support in the change process.

Support

As we already discussed, the support measures should always relate to the size of the company. There is no point in a company with 500 employees throwing resources at every channel if it could reach all its employees more simply.

The following measures are designed for a strongly heterogeneous large Swiss company with a high information-worker ratio and differing levels of mobility.

Ambassadors

"Learn from the new generation" was the motto behind the deployment of 70 trainees as "ambassadors" during and after the rollout. The ambassadors' task was mainly to provide employees with personal training in using the new communication tools. At the ambassador camp, they were trained as specialists who wore blue sweatshirts or as advanced "genius"-level experts in red. *These young people brought an intense and infectious spirit to the project, which the entire team and many employees picked up on.*

Many were ready to take on responsibility and this enabled us to establish an "eco-system" in which the young people were rotated to work on various tasks:

- On-site instruction of employees in German, French and Italian-speaking areas of Switzerland, including distribution of booklets
- Clean-up subsequent to the on-site instruction with qualitative questioning of the employees
- Super-user training
- Running a forum on the intranet
- Planning and coordinating the on-site operations, including access administration, recycling of the old infrastructure and related communication
- Running the info e-mail address
- Developing and distributing stickers on the desk-sharing workstations and in conference rooms
- Developing use cases as online documentation for self-study
- Recording training videos for online self-study
- Planning and implementation of training for teams on request
- Online immersion training via online conferences with screen sharing
- Planning and implementation of walk-in sessions for team leaders and assistants

Communication

By using our trainees as ambassadors, we were able to present a personable and emotional story.

This included a film in which an ambassador trains our CEO in Unified Communications & Collaboration and then clears away the old system telephone, preparing employees for the forthcoming change.

Communication is a tightrope walk. How much communication is positive before the employee switches off? When is the right time to extend the half-life? Which channels are worthwhile and which work best for particular information?

We split communication into three categories:

- General communication to all
- Targeted communication to specific groups
- Personal communication

Personal communication is always possible in combination with general or targeted communication.

We can consider different channels for each of these three categories. While the intranet serves as the main channel for general communication, targeted and personal communication is usually by e-mail. There are also the following channels to consider: employee newsletters, posters, stickers and displays at the sites, passing on information through the line manager, internal post or correspondence sent to home addresses. If there are already communities in the company, these can be used for communication.

For general communication, there needs to be a communication plan that covers the entire project so that everyone gets the same information. In our case we used group news on the intranet and directed people to a special page with information on the project, video messages, a forum and a variety of documents for self-study – right to e-learning.

The general communication can be set up as a campaign on the intranet with a recognisable design. It can be extended to other areas like a report in the employee newsletter, appearances at management events, collaboration with Corporate Responsibility and so on.

The campaign design is also used on the specific intranet site. All the documentation is immediately linked to the project this way and thus attracts more attention.

Unified Communications & Collaboration is also a good advertising platform in its own right – both in terms of sustainability with regard to the environmental impact (CO_2 emissions) thanks to the reduction in travel and with regard to the work-life balance achieved by targeted presence control and the option of new workplace and home-office models.

It is absolutely key that the company management strongly endorses the project and communicates directly with the employees, whether through video messages, at events or in blogs.

Examples of general communication

- Project launch
- What UCC can do for employees
- Activation of the UCC Intranet site

- We are ready, the ambassadors are on their way
- Learn from the new Generation + Video
- Experiences and useful tips

- Workflow for de-installing old systems and video
- Announcement of a representative survey
- On-site training courses completed

- De-installation of old systems completed
- Project conclusion and survey results

The rollout requires targeted communication to specific groups. Whether for individual sites or teams or a combination of both, in our case e-mail communication with links to videos and other more detailed information on our intranet site proved most effective. We also personalised the communication and addressed all the e-mail recipients by their first name. At the end of the day, it is a personal issue that can produce benefits for every individual.

Our first announcements about the on-site rollouts were each made five weeks before the due date.

This first announcement was the most detailed and called for the cooperation of all staff. This e-mail was used to:

- Describe the rollout process
- Link the video example of the CEO being trained by our ambassador
- Provide details of the new telephone numbers
- Ask employees to order their headsets
- Ask team leaders to seek support with regard to team configurations
- Request those affected by the replacement of analogue faxes to order incoming fax numbers
- Advertise the link to the forum
- Give links to more detailed information on Communications & Collaboration on the intranet site

Announcement of the on-site rollout

2 weeks	1 week	1 week	
Announcement	Reminder	Poster	Rollout

E-mail communication to groups always triggers a flood of replies so it is worth anticipating the response.

Of course, it would be possible just to set up a no-reply account but we wanted to "get a feel for" the questions and concerns of employees and this gave us direct feedback.

The trainees – our ambassadors – set up a project office, answering questions posted in the forum and sent to our info e-mail address. Anything that was relevant to everyone was posted in the forum. This initial effort meant that a very comprehensive and well-used forum could be established relatively quickly.

Three weeks before the rollout the employees received a friendly reminder to order headsets, seek support with team configuration and apply for the new fax numbers.

A week before the rollout the ambassadors set up displays in the entrances and lifts at each site.

And then the ball really started rolling, with direct personal contact on site – the ambassadors, kitted out in their blue and red sweatshirts, approaching all the employees at their own workstations.

This approach is an example of the role that communication played in the whole project – it was possible to positively steer and influence the entire rollout and therefore the development of the project though coordinated and planned communication.

So it was worth placing the same emphasis on the area of communication – along with the training measures described in the next section – as the technical implementation. At the end of the day, the project is only successful if the employees know how to use the solution effectively.

Training

Communication is there to manage the rollout. The training measures, however, drive the change and create benefits for the employees and the company to a greater or lesser extent, depending on the emphasis. The training is put together and implemented in line with the goals the company has set.

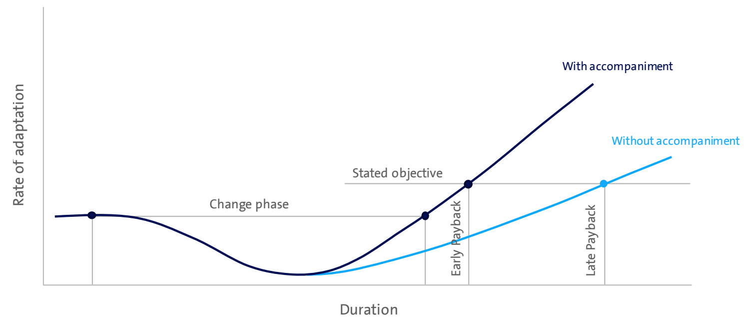
A more versatile training plan will be able to reach more people. It is important to find a good balance here between the effort involved and the benefit gained – and to match the planned training to the size of the company.

Assuming we have set a goal for our return on investment in Communications & Collaboration, we should be able to establish when this actually occurs by looking at the usage statistics.

When we change the way we work, there is always a drop in efficiency at the start. We want to use targeted support to shorten this change phase as much as possible and achieve the payback as quickly as possible.

If we do this and keep the support in place after achieving the return, we also gain the additional side effect of a high adoption rate, which in turn pays dividends in terms of employee efficiency.

Accompaniment worth having



Suggestions for targeted support

Self-study

An intranet presence with all sorts of information serves as a hub for Communications & Collaboration. You can find project information and news, videos, online training, the online booklet, specific use cases, the forum, details on the status and schedule of the rollout, order forms for headsets, success stories, presentations, earlier intranet publications and employee comments here.

In our case, we also had to make everything available in three languages! This forced us to produce a lot of the documentation ourselves, as it simply wasn't already available in all the languages. In retrospect, the question remains as to whether this huge effort is really justified in the 21st century, when so many people speak English – a fundamental question that needs to be addressed at the start.

Booklet

During the on-site training, the ambassadors distributed booklets to employees with short, handy instructions on the most important aspects of the new system. They were designed to give users an insight into the new communication world and enable them to master the most common functions.

The booklet was available at every reception. It could also be downloaded on the Communications & Collaboration intranet page and shown on mobile devices.

When the user interface changed at the first system upgrade, the second version of the booklet was also sent by post to all employees, with a personal message from the management board.

Use cases

As well as the booklet, employees were also able to gain a more in-depth view of the new communication environment using application examples (such as setting up a stand-in, selecting and ordering hardware, connecting with customers and partners, holding online meetings with externals, mobile working, and so on). These application examples were published on the intranet site and employees were referred to them in answer to questions in the forum and in the info e-mail.

Video training

Our ambassadors, confronted as they were by all kinds of questions from employees on site, in the forum and by e-mail, worked on two training videos – one covering the basics and another for meetings – that showed an overview of all the important functions and explained them simply. It was a positive way forward, again meeting the requirements of visual learners who tend to avoid reading instructions. These videos could also be accessed on the Communications & Collaboration intranet site.

Forum

A forum only works if you can find content on it and you get answers to questions. And that doesn't happen by itself! There is a rule of thumb that you will generate 90% of the content at the start yourself, with only 10% from the participants. Over time that balance should shift to be 80% from the participants and 20% from the project. With the input of the ambassadors, the Communications & Collaboration forum developed into the most visited forum in the company.

Info-e-mail

We were able to use the info e-mail account for targeted personal communication – and it also provided all kind of questions and feedback for the project team. The feedback through this channel required proactive management but it quickly brought to light concerns and areas of improvement that the project team could react to quickly.

Super-user-community

There is nothing more effective than being trained by a colleague. Our ambassadors in the three language regions specially trained super-users. Anyone could apply for the training voluntarily and they were then subsequently active in the forum. This allowed us to make sure that there were enough contacts at each site who were able to provide information about Communications & Collaboration.

We did, however, miss the opportunity to give this super-user community an appropriate medium for networking that we could also use for providing information updates. It took us too long to realise that a community needs a lot more care to stay vibrant than the forum and the intranet were providing.

On-site instruction from ambassadors

Our on-site instruction provided by the ambassadors was the most productive measure with the highest benefit – as well as offering a friendly approach, it was effective and also very individual. We allowed 15 minutes per employee. Where employees shared offices it was easier to deal with individual requirements, and interaction resulted with other staff. This meant the time could be used efficiently and the training was enhanced.

Clean-up and quality survey

Despite considerable notice about the on-site training, staff absences meant that it was never possible to reach all the employees. The ambassadors were given the job – as long as the removal pallets for the legacy telephones were still on site – of visiting the sites again without any advance warning to clarify questions and problems that had cropped up and to survey some employees about their experience before and during the rollout. This gave us the opportunity to reach an astonishing number of employees who were not there during the first visit and to give follow-up training to anyone who still needed help. The quality survey provided feedback on the employee experience in the change phase and enabled us to make ongoing improvements to these processes for the sites that followed.

Team support from facilitators

The acceptance of the new communication solution depends greatly on the team configuration described in the chapter on "Challenges before the rollout". This support required corresponding knowledge and intuition on the part of the facilitators. They did all the hard work – the teams had to reassess their work procedures, optimise them where possible and leave behind the old ways of working in favour of new ones, a transition that called for commitment, empathy, skill and enthusiasm from the facilitators.

Walk-in-sessions

At the larger sites we organised daily walk-in sessions. On an hourly basis, managers and their assistants could set up and try out the stand-in configurations, plan online meetings on behalf of someone else and ask questions. This campaign was accompanied by intranet messages, posters and e-mails.

Team training on request

The ambassadors carried out team training on request. This meant employees were able to test the new functions with each other and gain their first experience at team meetings. One of the team members then usually took on the role of the team super-user and became the contact person for all questions. This had the advantage that the users sought direct support less and less: the longer and the more they shared experiences with each other, the more they were able to resolve problems themselves.

Help and bug report

Support requests incur costs in our company. As a result, employees try to avoid asking for help. To aid us, however, we wanted details of resolved errors to be fed back to support. We therefore inserted a free help and bug report button directly into the client. This was managed by using a form with automatic evaluation. We quickly realised that there were no recognisable patterns in the feedback and simplified the error messages to a single text field.

At the start we were too slow to react to the many requests. This left something of a bitter after-taste with employees who had reported errors in good faith and were only contacted by our ambassadors weeks later. Although this measure could be very efficient, it does require significant resources to process all the incoming error messages.

Usage statistics

It is beneficial to define usage statistics at the start of the rollout and to collect this data on a monthly basis. This way you can analyse how effective measures are. Something has clearly gone wrong if, for instance, special training courses and information sessions are run as online meetings and the number of online meetings does not increase. Most systems provided fairly good evaluations.

Evaluations about the development of the usage in the company as a whole are sufficient initially. Later on, it is important to compare evaluations of the various teams or departments. This shows how the different organisations are reacting to the new services and targeted measures can be taken in conjunction with the appropriate managers.

Help days

Once the introduction was complete, help days were organised at over 30 of the larger sites. Help desks were set up in the lobbies where employees could go with their questions. Employees were very positive about the personal consulting provided by the ambassadors and the spontaneity of the campaigns.

Many technical and functional problems were solved and entire teams were given supplementary training in some instances. The end result was a further increase in usage. These events had to the potential to reach 12,000 employees. Around 2,000 people sought help and then passed on their experience to colleagues.

Info stickers

The ambassadors created A5-size Communications & Collaboration stickers in three languages that were prominently placed on the desk-sharing workstations at all the major sites as well as in the conference rooms. The workstation stickers focussed on tips and tricks for everyday use while the conference room stickers gave pointers for online meetings. It is particularly important to use stickers that are easy to remove and leave no residue.

Other small stickers with the emergency numbers, advising users to provide site details for emergency calls, were distributed with the booklets. Every trained employee received a sticker saying, “Communications & Collaboration is my life” to stick on the cover of their notebook.

Online training

When the rollout was complete, we offered some additional training to consolidate the learning. Employees could register for online meetings in the three language areas. The ambassadors provided the additional training and answered any outstanding questions from the participants.

It proved a successful initiative with minimal effort.

Windows start message

With profile pictures becoming more important – and Communications & Collaboration is no exception – we looked at how we could encourage as many employees as possible to activate their profile pictures and make them visible to all. This couldn’t be done automatically for data protection reasons. After activating the user in the intranet employee profile, the profile picture is then used for all the other applications. The employee decides whether to share a picture – and which picture to share.

The employees were encouraged to share their profile pictures on the intranet. On system start-up a scan on the status of personal picture files was also carried out. If there was no picture, a pop-up appeared with instructions and a direct link to the intranet employee profile. This request was sent a maximum of three times to each employee. As a result a considerable number of pictures were made available within a short time, enabling more friendly communication. The number of activated pictures has risen steadily since.

Support that pays off

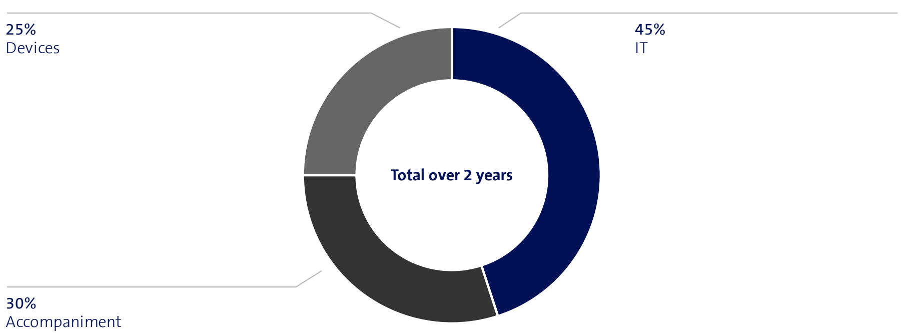
At a first glance, putting all the support in place seems like a mammoth task. But if you compare it to the overall investment, the support – in our case for 20,000 employees – only accounts for a third of the cost.

If we consider our initial example: 5,000 employees saving a journey costing CHF 50 every month, thanks to an intelligent conference system that is user-friendly. Clever support meant that we were able to reach this position eight months earlier that we could have otherwise – saving CHF 2 million right away.

A representative survey of our employees showed that an average of 1.7 journeys per employee per month had been saved.

The support pays for itself in other ways too – consider the increase in efficiency highlighted in the same survey at two hours per week and the increase in home-office days, which worked out at 1.2 days per employee per month. The work-life balance has also been significantly improved, increasing employee satisfaction.

Budget breakdown



Challenges *during the rollout*

All of the points that had not been addressed in the preparation work became apparent relatively quickly – and sometimes painfully – during the implementation. Other issues cropped up that none of us had considered in our wildest dreams.

As a project team we had to be flexible, agile, positive and calm with regard to the changes.

A calm approach was important because many “escalations” turned out to be little more than hot air when we dug a little deeper – overreaction is common but it brings disquiet and resentment to the whole project.

We activated all the employees for the new Communications & Collaboration services on one day without telling anyone yet. We then communicated with every site individually. The first three sites served as a pilot and we were able to test the processes inside out. The facilitators started in advance with the first team coaching sessions, setting up the first team configurations and testing them with the team leaders. The ambassadors then started their first training – a little shy at the start but quickly gaining confidence. We tested how effective the communication was with a follow-up employee survey and implemented immediate improvements before tackling the next site.

The following sections consider the activities and challenges of the rollout.

Ignoring communication

Employee disregard for communication caused countless firefighting exercises and delays.

If the employees hadn't ordered headsets, they couldn't be satisfactorily instructed and the migration couldn't take place. Their phone stayed on the desk and had to be removed at a different time.

This was one nuisance that we could anticipate so the ambassadors always had a selection of headsets with them. But it still caused more work – the database had to be kept up to date to make sure that employees who were given a headset during the rollout didn't order a second set, sending the costs through the roof.

We had already planned an unannounced follow-up – or clean-up – to cover absences and to obtain feedback for our qualitative survey.

If the team configuration had not been registered or the incoming fax number hadn't been ordered, it created more work, which took days rather than hours to sort out. A follow-up then becomes unavoidable and the pallets for removing the end devices have to remain longer at the site. The removal has to be recoordinated. A second team has to deal with the follow-up because the first team is already due at the next site.

Team numbers

Incorporating the team configurations required a degree of flexibility from the facilitators. As well as advising the teams, they were also involved in driving the implementation with the technical staff behind the scenes.

The process for establishing requirements, implementing the agreed team configuration and testing with the team should not take more than two weeks. The process can be set up as a workflow and fully documented. This way there are fewer errors: the team leaders know what they are getting, the technical staff know what is needed and the information for troubleshooting on the operational side is up to date.

The facilitators can work autonomously alongside the on-site training but they have to take this into account as far as possible with regard to scheduling to make sure they do not impinge unnecessarily on the disposal process. It is helpful if these facilitators engage with the planned team configuration before the rollout, while others join forces with the ambassadors at the on-site meetings to work with all those teams who were unaware that they were supposed to be reporting their requirements. They can then act as firefighters with an effective technical team at hand for rapid implementation.

During the rollout we also had to overcome technical hurdles, such as the group-number caller ID for the group team members. Comprehensive IT and telephony knowledge is required for an important function like this, as is supplier support.

Recycling of devices

As a sustainable company, the removal of devices is particularly important to us. We found a socially engaged company that took the old devices and systems, organised their removal, reconditioned any devices that could be reused and returned them to the market, and dealt with the specialist disposal of any parts that could no longer be used. This kept our corporate image intact while supporting a good cause.

Outsourcing this service paid off for both parties – undoubtedly a win-win situation.

Dealing with workstations at reception desks

We made a fundamental decision not to set up any non-personal accounts. However, we were forced to make one exception during the rollout. Different employees constantly man our reception workstations, which are operated by a partner company. *We had to define "functional" accounts linked to each desktop.*
This enabled the partner company to deploy staff flexibly at the various sites and left us with less work, with no further mutations to implement.

USB phones with receivers were used at these workstations instead of headsets on grounds of hygiene.

Struggling with the selected device

Put yourself in the place of an employee who has never worked with a headset – and now has to choose between a bluetooth headset, USB headset or a USB phone with receiver. What was the most popular selection? *In our case, 7,000 USB headsets, 6,000 bluetooth headsets and 2,000 USB phones with receivers.*

But it quickly became apparent to some users that a bluetooth headset offered more than undiluted wireless pleasure. It has to be charged... it can be connected to the mobile phone and the computer... it fits strangely in your ear... and if you touch it, the volume changes! It's not everyone's cup of tea! Some people who started off with USB phones and receivers began to see they could work more easily at their computer with a headset.

The desire to swap came slowly but surely! During the rollout we accommodated the requests and swapped the devices without any fuss – after all, it weren't many.

Influences on voice quality

As a rule, two factors influence the voice quality: the network quality and the headset. But where there are rules, there are always exceptions.

We realised that a bluetooth headset beside a railway line or a laser printer is a no go. If there was no headset, it meant using the PC microphone without echo cancellation. But then the background noise can be heard just as clearly as your own voice – so the noise of someone typing on the computer becomes unbearable!

Not all notebooks have a combined headphone/microphone port that can be used for the headset of a mobile telephone. Devices like this that still have two separate ports, which were usual for us, are not so well suited to the use of the mobile headsets, although they can be plugged in. Some users found the sound quality to be good. They didn't realise, however, that they were "sending" though the built-in PC microphone and the quality at the other end was poor. Some managed to use a connector to join the headset output and the microphone input in one port.

We cannot over-emphasize that what employees do can hugely influence voice quality. *Using certified headsets and taking account of the environment achieves a lot.*

Measurements from the system allowed us to see anyone using non-certified devices for the most part. Direct correspondence to the "black sheep" recommending the use of certified headsets to improve voice quality were not met with many shouts of joy. You can just imagine the reactions in our mailbox.

Targeted communication

Targeted communication has its pitfalls. The distribution lists are taken from one system and filtered manually, so there can be mistakes – some bigger than others. We had occasions where whole teams were given information and invited to take part in campaigns that did not affect them at all. This obviously triggered a reaction in our mailbox from the employees and then from the team leaders, in an escalated response.

The result was bad feeling that meant a kid-glove approach was required for the entire team. *It is a mistake that can be quickly rectified – but the image of the project team suffers for a long time.*

Photos, presence information and federation

Data protection is a very sensitive issue. Every company has employees who foresee an immediate danger with every change. Suddenly the simplest of things like a profile picture or the use of presence information – whether for internal use or for open federation externally – become a major debate involving human resources, legal departments and the company commission.

It is therefore expeditious to have a good case prepared in advance and to work on a privacy statement with the relevant organisations. For us, it was important to present a transparent, open and detailed account of what would be visible externally and what would remain internally.

Profile pictures, for instance, were used internally – and only internally – when the employee profile was activated on the intranet. If the employee wanted to allow the picture to be shown externally he had to make a conscious decision to share the picture, in the knowledge that it would then be freely available on the Internet.

The presence information had already given people plenty to talk about, with all sorts of theories circulating: "Now anyone can check when I am present!"; "We need to let the employees decide whether to show their presence information or not!"; "I'm going to keep mine set to 'do not disturb' so no-one can see when I'm free!"

But the presence information is just the modern "dialling tone" as it were – it is the starting point for communication today. A company can set this as a policy and there is nothing "unjust" about it.

Open federation takes the whole thing a step further. Put simply, suddenly the whole world can see whether I'm red or green – and that makes us nervous. Yet the advantages outweigh the fears. In the last two years we have not been aware of any case where this information was "abused".

By using clear definitions and providing employees with transparent information, we have created a solid basis that can also cope with the recurring concerns of certain employees, without compromising their privacy.

On a final point with regard to open federation it is still worth having clear definitions for requests from companies who want to sign agreements of "mutual trust". We are clear: open is open. We therefore categorically oppose any such agreements. How could we progress if we made every partner company that wanted to communicate with us sign a contract first?

Do we really want *to do this?*

There is a lot to consider and you are possibly already wondering: "Do I really want to take this on?" The answer is: "Yes, definitely!" We have already gained the experience described in the previous chapters.

So at least you can avoid the worst mistakes right from the start, which will make the implementation easier.

The technology is available – and so are the partners who can implement it. So it is possible to concentrate on the employees and make them the key focus – realising the best possible benefits for them, and the company, in the process. It is only then that the whole effort becomes worthwhile. And the company gain is twofold – from a fast implementation with the corresponding return on the one hand, and from satisfied employees who can manage their daily work more efficiently thanks to the new communication tools on the other.

Realisation *phase 3*

by Ruggero Crameri, Project Leader Collaboration

The first realisation phase of decision-making and planning was followed by the second phase of implementation, expansion and experience. The third phase dealt with consolidating support, optimising processes, removing the old infrastructure and evaluating the support.

As before, the focus lay on enhancing the employee support and continually striving to highlight new benefits – and thus continually increasing the attractiveness of the new communication environment.

Post-rollout
challenges

We may have all patted each other on the back at the first milestone parties – but the rollout is only complete when the legacy system is removed and no longer costs money to operate. Then there are the new requirements and challenges generated by the large number of users that no one had expected.

> *The third realisation phase is the least pleasant.*

It is all about cleaning up, documenting everything, admitting mistakes and correcting them, arguing your case, presenting numbers, rectifying technical faults end-to-end, being strong and not losing motivation so that you can continue to move forwards and focus on the people involved. You might even need to add some fresh faces to the project team to sustain the positive energy required and to face a difficult but exciting time with renewed vigour.

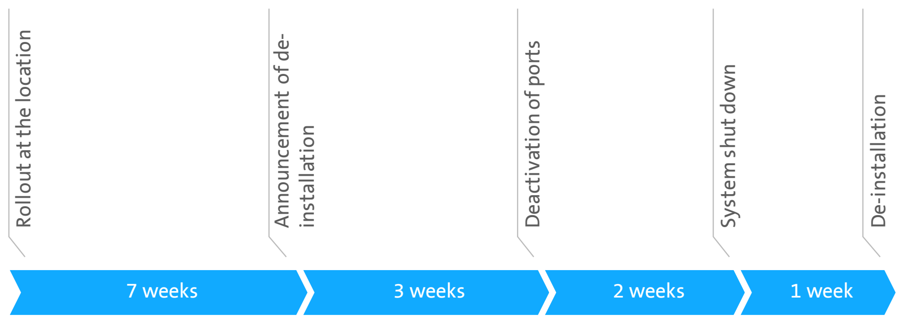
Deactivating, removing and disposing of legacy systems

Just as planning the communication before the rollout is crucial, it is important to define the communication and the process for removing the legacy telephone system. This process begins on the day of the rollout on-site. In our case it lasted for just three months.

We gave the employees and the teams seven weeks to get familiar with the new system. At the same time we worked on the last stragglers, carried out optimisations and evaluated the system use. Then we sent an e-mail to the entire site giving notice of the removal. Everyone knew now that we really meant business. *In this phase it is very important to provide clear and unambiguous details about the switch-off date and stick to it.* Anyone who still objects is then obliged to take action – and has three weeks to do so.

Obviously, we had to turn a blind eye here and there and extend the timing by one or two weeks. For the main part, however, we were able to stick to the schedule and deactivate the ports after three weeks' notice.

Workflow for de-installation of telephone systems



This gave the late-comers who had forgotten something time to sort it out. Until this point calls were still being transferred to the system that announced the new individual numbers. When the telephone system was shut down on site, all the numbers were then put through our contact center and the calls answered by a group of agents. After a week without power, the telephone systems were finally disconnected and removed for professional disposal.

It may sound harsh and a period of three months may seem quick, but it worked. It is another success story we can be proud of. All the 100 or so systems were completely removed three months before the planned deadline. The few remaining callers to the old numbers spoke to a call centre agent who advised them of the number change and transferred the call. This gave us the chance to evaluate how long calls were still made to the old numbers and set up a framework for finally returning the old telephone numbers.

The satisfaction curve

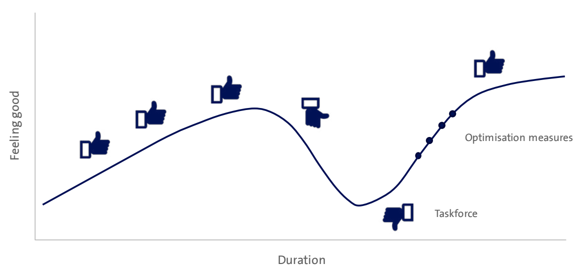
As we mentioned in the introduction, the third phase of the realisation is the least pleasant. The new communication solution is introduced with a trumpet fanfare and the old one removed. Now all the employees have to use the new tool – or try to, at least. For 20,000 people that means there is a lot of direct feedback. Until this point most people were happy, to a greater or less degree.

Now there is an end to treating everyone with kid gloves and the "don't-worry-it's-all-still-new-approach". And it can turn negative relatively quickly. The satisfaction curve starts to drop further and further. As more people and sites are affected it falls more because the potential to make mistakes increases.

Network errors that cause poor voice quality; a wireless network that is not yet optimised for voice transmission; headsets that are distorted by the environment; the missing busy signal; a software error that changes the headset settings and makes the voice quality perceived by the user worse; USB hubs and docking stations that cause problems; monitors that interfere with bluetooth; online conferences that don't work right away; stand-ins that are not properly set up, and so on. It's a mix of "we still make mistakes using the system" and "technical faults" that are extremely difficult to investigate.

Confidence in the system falls and the cry goes up to the managers and the board of directors: *"Is this really the right solution for us?" That is when you need a task force there immediately!*

The feel-good curve



Task force

In retrospect it is something we can laugh about. But at the time we had to put together a task force, the pressure was huge. We had to act quickly. We had to gather end-to-end know-how – from desktop specialists to network and security engineering experts, right to system architects and administrators, SIP trunk specialists and mobile network experts. Everyone had to be on board. The results had to be quick!

Suppliers and experts from the various systems components were called on site for an end-to-end health check carried out in a workshop lasting several days. Everything was measured and analysed. Errors from the bug report described in the support chapter were gathered. We went through these with a fine toothcomb and worked out response measures.

How well does the person I am calling hear me?

To give the users the chance to check their device settings, we quickly introduced voice testing and told everyone about it. The users were encouraged to take up the opportunity to hear how other people hear them. This function is now permanently incorporated in the solution. At the time, however, we had to create the function first.

This raised awareness of the major role that the device plays in the voice quality experience. And it let the employees take heart that they were not causing poor voice quality in online conferences.

Samples and test calls

The more you measure, the more mistakes you make, so the saying goes. Every system produces some kind of measurement results. They all say: "Our part is fine; we've nothing untoward to report." Yet, something isn't working if you can hardly hear the person you are talking to! The interaction of all the systems and services creates the quality at the end of the day. To measure this, you need to take end-to-end samples. Manual test calls that we were able to track precisely and measurement devices placed along the entire line made the picture more transparent and threw up some isolated faults – but it didn't recognise any system faults!

Device problems

As we had discovered earlier in the process, our experience here proved again that the device is the component that mostly influences voice quality. You can have the best network but if you use a sub-standard device, the network will just transport the poor signal in good quality – it can't perform magic on it. It is as simple as that! So what is a bad device? When is the device at fault, when is it the user and when is it the environment? It's a sensitive area since human error is usually the cause – whether conscious or not. And making people aware of errors is a whole other issue. The issues here are a no-blame culture and respect. We were able to help employees using a mixture of information and "friendly requests".

When it came to devices, we had to show that there are good and bad devices. We were able to locate the users with bad devices and make them personally aware of the situation. Of course, that set a lot of indignant responses in motion. We prepared tips and tricks to use in practice. The bluetooth headsets caused a lot of problems for employees so we organised an initiative to swap them for USB headsets. More than 8% of the bluetooth headset users took up this opportunity. Then there was also the environment to consider. As we discussed previously, that included: monitors where the bluetooth dongle behind the desktop interfered with the headset in front of the monitor; USB hubs and docking stations that caused problems; laser printers or railway lines that created interference; old headsets behind USB phones, and so on.

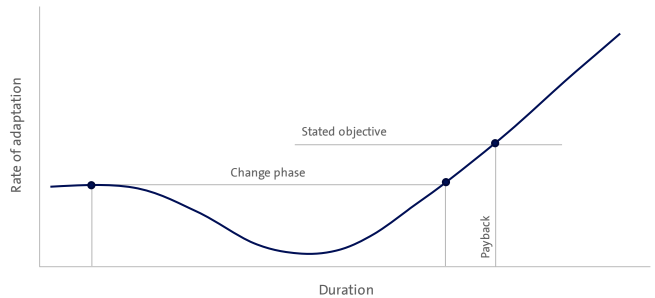
Software bugs

In our case the worst incident was a software problem that switched the settings for the user's headset microphone to the built-in microphone on the PC, unbeknown to them! That was one reason why we changed relatively early and quickly to the next software release.

Usability and behaviour

As well as wrongly configured devices there were also the other issues that are inherent in every change. It is in the nature of the beast that change initially causes a decline in efficiency. As soon as we start to use the new tools and learn the process, the "negative reaction" starts to recede by itself. But when a manager wants to dial into an online conference at the last minute and he's never done it before, there is a good chance that it will go pear-shaped! Then it's all the fault of a poor solution, it's not intuitive enough, it's not acceptable – and everything was better before!

There is only one solution: hang in there! Communicate openly, help, train, offer support, send new ambassadors, stay positive and constructive and just don't give up. It is particularly important to keep the company management on side and use executives to promote the solution.



Business-continuity

It may sound ridiculous but this actually happened: the IT requirements stated initially that all the implemented systems had to be set up redundantly across two sites. It didn't state, however, that both sites had to be able to deal with the full capacity of the other! So everything was valiantly installed and implemented and no one really realised that if there were a failure at one site, the other site would be overloaded to the same degree! With all the telephone systems now centralised, the consequences are no longer a failure at one site but a failure of the entire company.

This deficiency soon became clear to the task force and the systems were set up and activated again so that business continuity could be fully guaranteed.

An emergency scenario was also mapped out. Despite all the measures we have taken, disasters can still happen. To cope with this scenario every employee can set up an emergency number in his or her employee profile in advance, such as a mobile connection. In an emergency, operations can simply switch all the number ranges in the company to mobile phones. Entering this number is the employee's responsibility.

WLAN becomes part of the scope

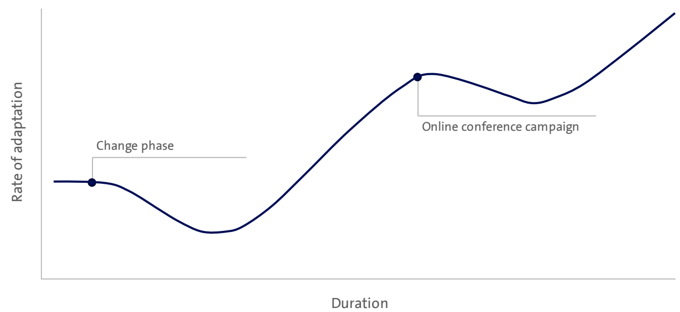
Optimising the Wireless LAN was not part of the initial scope. The first step was to focus on the things that were vital, with optimisation to follow. However, it was clear relatively quickly, particularly in connection with voice quality, that this step had to happen as soon as possible. It was therefore passed to the task force immediately and the upgrade was undertaken.

All the sites were measured again, depending on their size, with the focus on real-time communication and set up to meet the new requirements. A lot of access points were transferred and around 30% more access points were installed. It was an investment in the future since the any-device-any-where approach shifts work to mobile devices in any case and these only operate wirelessly.

Upgrade

A mid-term measure from the task force was the decision to migrate to the newly released software version after just a year. The new release improved usability and eliminated previous software errors. This decision paid off in two ways. Firstly, the employees were able to use the new platform more easily and secondly we were able to implement a second communication campaign.

After the first campaign dealing with basic functions we were able to run a second more comprehensive campaign focusing on online conferences. According to our measurements, this significantly increased the online activity again. A second representative employee survey showed a similar picture: less travel, more home office, less commuting and a higher time saving than in the first survey.



Support

The communication campaign focussing on online conferences was supported by further measures promoting employee collaboration. The approach here was on many-to-many or one-to-many communication rather than one-to-one communication.

It involved group information on the intranet, new use cases, a personally sent booklet, on-site help days and open days, new stickers in meeting rooms, e-learning, a new video message and much more.

At the start, the task force was quite hard work. But it was also a good thing. It showed a mix of technical faults, human error and the potential to improve at all levels. All these measures together delivered a great result that benefited all employees. It is worth noting that it did not cost more money or time at the end of the day than was projected in the original remit. All the measures undertaken in the third phase could be financed from the savings in time and money made in the first two phases. That includes the policy decisions taken in the first phase of the project, the choice of end devices and the consistent use of trainees in the project.

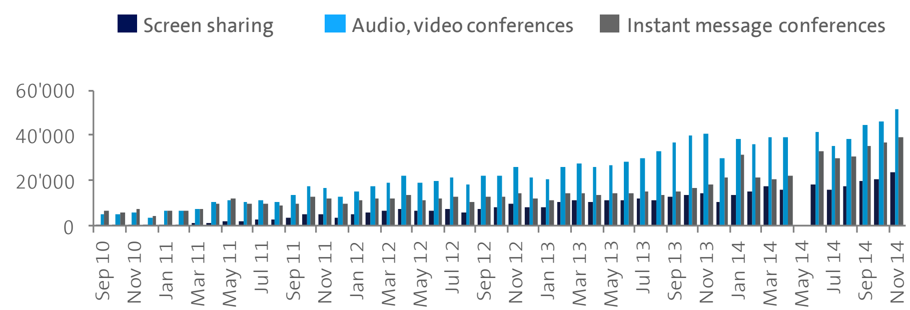
The satisfaction curve looks similar in comparable projects. In some projects it is flatter, in others deeper. This is undoubtedly connected to the size of the company – but also to the way in which the employees are supported through the change process. Anticipating this can prevent a lot of problems and ensure the project is realised to the benefit of all.

Reporting

Use statistics are one of the most effective ways to highlight benefits. It is vital – at least in the first step – to evaluate how the use of various services developed. The success can then be measured in combination with targeted measures. The diagram below shows how the use of online conferences and screen sharing is consistently increasing after two years. In addition, the significance that instant messaging has attained in our day-to-day work is clear.

But now we are a step further on. Evaluating the organisation as a whole is meaningful enough for the rollout, since the same support is offered to everyone on a sprinkler principle.

But now we need to incorporate the company structure in the reporting. We need to compare the organisational units. That way we can see where and how the communication solution is used in particular teams and then intervene with specific measures to increase the use – either through incentives or support. We expect this to increase online conferences by at least 15% within six months.

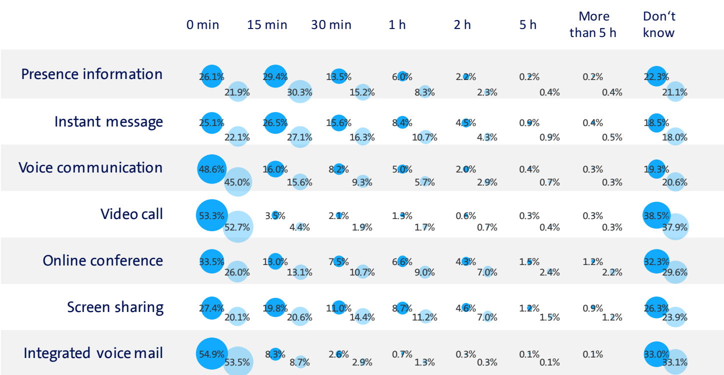


Alongside reporting, which provides a visual picture of the facts and figures from the system, the subjective perceptions of employees are a further component that delivers exciting results. Survey results on the behaviour of employees with regard to home office, reduced travel and time savings let you draw further conclusions about the increase in efficiency and the potential to save money.

How fixed-line and mobile telephones have developed can also be included. Contrary to our expectations, the mobile telephone minutes fell slightly instead of increasing in our case, due to the new parallel calls possible from fixed lines and mobile devices.

The travel statistics can also be compared from values given by employees in the surveys. Further decisions might be necessary as a result, such as replacing travel passes with individual tickets or introducing stricter rules on vehicle allocation.

Reporting gives you the first chance to see the results that have been triggered by the introduction of Communications & Collaboration. So it is advisable to include this visualisation in the project mandate right at the start.



Survey 1
Survey 2

The average time each user has gained per week using Communications & Collaboration has increased from 1.5 to 2 hours.

Sustainability

Finally, it is important to think beyond the here and now. What has the entire case taught us?

Focusing on people should not be one of the aspects of the project – it should be a discipline.

Supporting people in their effective use of tools – not just in communication but also in their daily work and particularly in collaboration – is an everevolving task that is practised in very few large companies.

And yet we saw that people pull all the levers when it comes to the business case. This is something that can be demonstrated in any number of projects. Technology should help people. However, it is not for suppliers to talk us into adopting new technologies just to be hip.

The entire Communications & Collaboration exercise only makes sense if firstly the company's management is ready to make a genuine cultural shift. Secondly, it also requires policy decisions to be taken at the outset with project management and preferably included in the project mandate. And thirdly, the company management has to support the cultural shift inherent in collaboration by visibly and sustainably providing the employee with appropriate support that goes beyond the scope of the project.

In our case the introduction of Communications & Collaboration was completed after about 18 months. And then we needed a further year to work out a vision for future virtual collaboration – currently limited to online meetings and screen sharing – with the Group Executive Board. We showed how the change to our collaboration has been determined largely – who would have thought it – by the individual person and the organisation, with the technology providing us with the basis for realising this vision in the long term.

Learnings

We have made mistakes – in fact, we have made a lot of them! But you learn by making mistakes. And if there is an open culture for dealing with mistakes they become an enriching experience. We have included this experience in this book and we hope it will help you to make a smooth transition towards a collaborative working environment.

When we look back, we did a lot of things right. This is mainly due to a no-blame culture and because company management, project leadership and change management all worked together harmoniously. We also believe that everyone involved worked together tirelessly, with a great deal of commitment and enthusiasm, to achieve our goals. Quite simply, they communicated and collaborated – in the true spirit of Communications & Collaboration.

Learning experiences from the *business viewpoint*

by Andreas Arrigoni, Communications & Collaboration Experience

I often wonder if I gained the benefits that I anticipated. From my point of view we exceeded our objectives, both in terms of quantity and quality.

However, I did not expect the benefits to my own quality of life – in business as well as in personal terms.

- I start my working day with home-office work at 6 a.m., before having breakfast with my family at 7.30 a.m. I then cycle to the train station with the children and take a virtually empty train to work, arriving at the office after a stress-free journey. The extra half hour with the children is worth its weight in gold.
- Or in the office: in the past we had to allow a week to get all the experts we needed around a table; now we can hold a meeting spontaneously online. There is no need to send documents – we can work on them directly in the meeting.

However – as is always the case in everyday life – there are downsides too. As we have already described several times, the individual person is increasingly taking centre stage. Not everyone can deal with this. Some people are unable to cope with not being online all the time.

Others are never online. So it makes we wonder if proper collaboration really is possible. The anxieties underpinning this kind of behaviour need to be addressed and reduced and it is a process that takes at least two years in a large company.

Learning experiences from the *change process*

by Christa Engelmann, Business Strategy Consulting

It is true to say that an emphasis on communication and collaborative skills has little to do with technology. It is far more about the potential of people and teams to make a contribution towards company goals and return on investment by optimising the use of technology in the workplace.

We have learned that communication is just one element that fosters collaboration, but that there are other avenues that should also be pursued to move things forward. It has become evident that a holistic view is required, both from the technology standpoint, as well as in terms of the interaction between people, technology and workplace.

At an early stage in our work we tried to gain allies from within the organisation, from the areas of HR and transformation, and appealed to them for support. We came to realise that this was too much for the organisation and its representatives and that they were not buying into our objectives. So collaboration was minimal and of poor quality. Communication was the one area that worked very well.

Although we continually worried that we were communicating too much, in retrospect it was a good thing. We have also discovered that, as well as good communication, you need measures to motivate employees, to empower them and to support them when the technical project is complete, thereby ensuring sustainability.

Changing the way you work takes longer to bed in than the rollout of a tool – which is why we started actively campaigning for a further collaborative initiative during the final phase of this project.

We have found the employee reaction to the support measures very positive. They accepted them well and rightly kept us very busy with their questions. We were not properly prepared for this. With hindsight, we have come to realise that we should have had more direct interaction over a longer period of time. Unfortunately, we were not able to do justice to the issue of meetings as we would have liked.

We missed an opportunity to exploit the momentum and to draw interested and committed employees more closely into the project and topic. The start of a community, a measure to achieve sustainability, would have been within reach and we could be building on that now. Similarly, we failed to get managers on board as part of the project activities and so were unable to use them as role models and enablers. This resulted in insufficient sustainability, which is difficult to resolve after the fact.

The collaborative initiative gives us a second chance – and we won't let it slip away.

However, overall we have handled this topic with great commitment and with the goodwill of all the parties involved, and it has brought the desired effect.

Learning experiences from the *implementation process*

by Ruggero Crameri, Project Leader Collaboration

We can look back on an exciting project with many personalities, discussions, mistakes, successes – and much enthusiasm, pain and pleasure. A constant rollercoaster of emotions. I would like to highlight a few of the most important experiences here:

- We operated as a team – a team that could put work to the side at times and go for a beer. A team that celebrated success and was also able to speak about things outside work. A team of people with a common goal – a goal that brought out the best in the team as a whole, carrying others along with their enthusiasm.
- Putting people instead of technology at the centre proved the right decision. After all, it is only when people use the solution properly that it creates an added value. It is only then that we can consider things like increasing efficiency and quality, reducing travel, accelerating processes, more direct and simple communication or reducing stress.
- Supporting employees continues beyond the rollout, even if that may sound strange. There is so much potential for even better collaboration, it is worth investing more here. The solution adaption takes two years.
- If you want to focus on supporting employees, you need a reliable provider who is on top of the technology and can react flexibly to changes and adjustments.

The collaboration *continues*

Dear reader: We will be happy to receive all your feedback from your projects. And should, after reading this book, you find yourself wanting to know how we continued along the way to limitless collaboration, then we recommend Part Two and Part Three of our #WorkSmart series to you. They are described in brief on the next page.

On this note, we would like to wish you every success with your projects while following your own way to limitless collaboration.

Part 2: Sharing knowledge

At Swisscom, we have put our efforts into connecting people. This is why we have bid farewell to making telephone calls at our workplaces and are now communicating spontaneously, visually, by mobile means, while integrated in our usual work environment. But is that all we imagined #WorkSmart would mean?

We asked ourselves this question together with the Group Executive Board, and we defined new objectives in order to move even closer to limitless collaboration.

Some time on, the vision has become reality and the technical basis had been created: an open and integrated work environment for all employees! Not only are we now communicating spontaneously, but also sharing our knowledge, working from everywhere and anywhere, in a network with customers and partners, regardless of the device we are using, while remaining secure.

In the second part, we will be demonstrating how Swisscom has evolved from a “Storing Organisation” into a “Sharing Organisation”.

Part 3: Learning together

In the third part, we are showing which effects an integrated and open basis for working can have on 20,000 employees who are now starting to multiply their creativity and their expertise. Workflows are being redefined, knowledge is being developed, annotated, copied and made available to everyone. The employees can act in an entrepreneurial spirit without any limits. Each is a co-creator of our culture of collaboration. We are learning from each other by sharing knowledge.

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