



CISCO SPARK AND THE NEW ERA OF COLLABORATION TOOLS

2016-2020

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ABOUT FUTURUM RESEARCH

Futurum Research provides research, insights and analysis to the market that help tie leading and emerging technology solutions to strategic business needs. The purpose behind each of our reports is to help business executives and decision-makers gain a better understanding of the technologies driving digital transformation, connect the dots between the practical business requirements of digital transformation and the forces that impact employees, customers, markets and experiences, and take appropriate action regarding critical digital transformation opportunities.



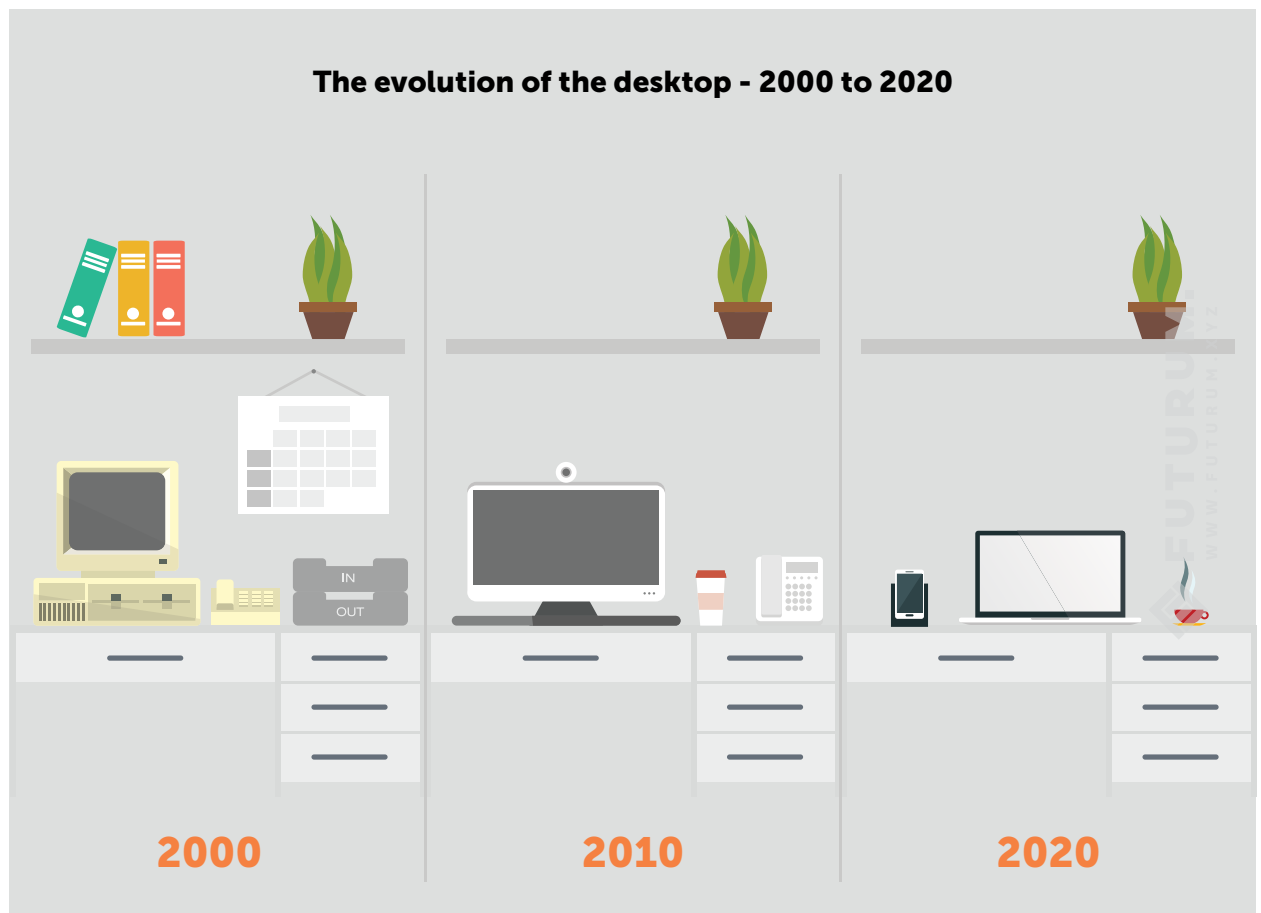
THE MILLENNIAL EFFECT

By 2020, nearly half of the global workforce will be comprised of millennials. If one trend, data point or insight can help us understand the fundamental shift currently transforming both the workplace and collaboration tools, it is this.

Because they are largely unburdened by the limitations of productivity and collaboration tools of bygone eras, and because they have spent the last decade developing naturally collaborative skills and processes by way of apps, mobile devices, and social media, millennials enjoy a practical understanding of efficient workflows that is vastly different from those endured by many of their predecessors. As a result, millennials bring their own technology requirements, their own expectations, and their own

way of doing things to today's workplace.

Collaboration via email, which has always been limited and fraught with inefficiencies, has been bypassed by faster, slicker, and less interruptive messaging apps. Physical meetings have largely been replaced by video. Cumbersome desktops, calendars and handsets have been replaced by laptops and smartphones. Like it or not, millennials are already reshaping the workplace to fit their own collaborative styles. Empowered by new technologies like mobile devices, the cloud, and a rich ecosystem of apps, they are bypassing operational and technological bottlenecks that the majority of their less technologically savvy peers still find themselves having to wrestle with.



As more millennials begin to populate and take over IT departments, and other key line of business roles fall to millennials as well, the tendency to replace aging, cumbersome and increasingly ineffective “enterprise” collaboration tools with a new generation of agile, cloud-based collaboration apps is taking hold and spreading fast. Much of the digital transformation currently reshaping the world of business is being driven by millennial decision-makers letting go of outdated technologies, methodologies and mindsets, and replacing them with something better and far more efficient. Today’s most innovative companies are being increasingly led and managed by digitally-literate millennials, and that trend is unlikely to change in the next 5-10 years.

Percentage of millennials in the global workforce in 2020

50%



It is also worth noting that by 2020, one in three Americans will be a millennial, and that one in three purchases will have been made by a millennial. This further informs the need for businesses to align themselves to the technology expectations

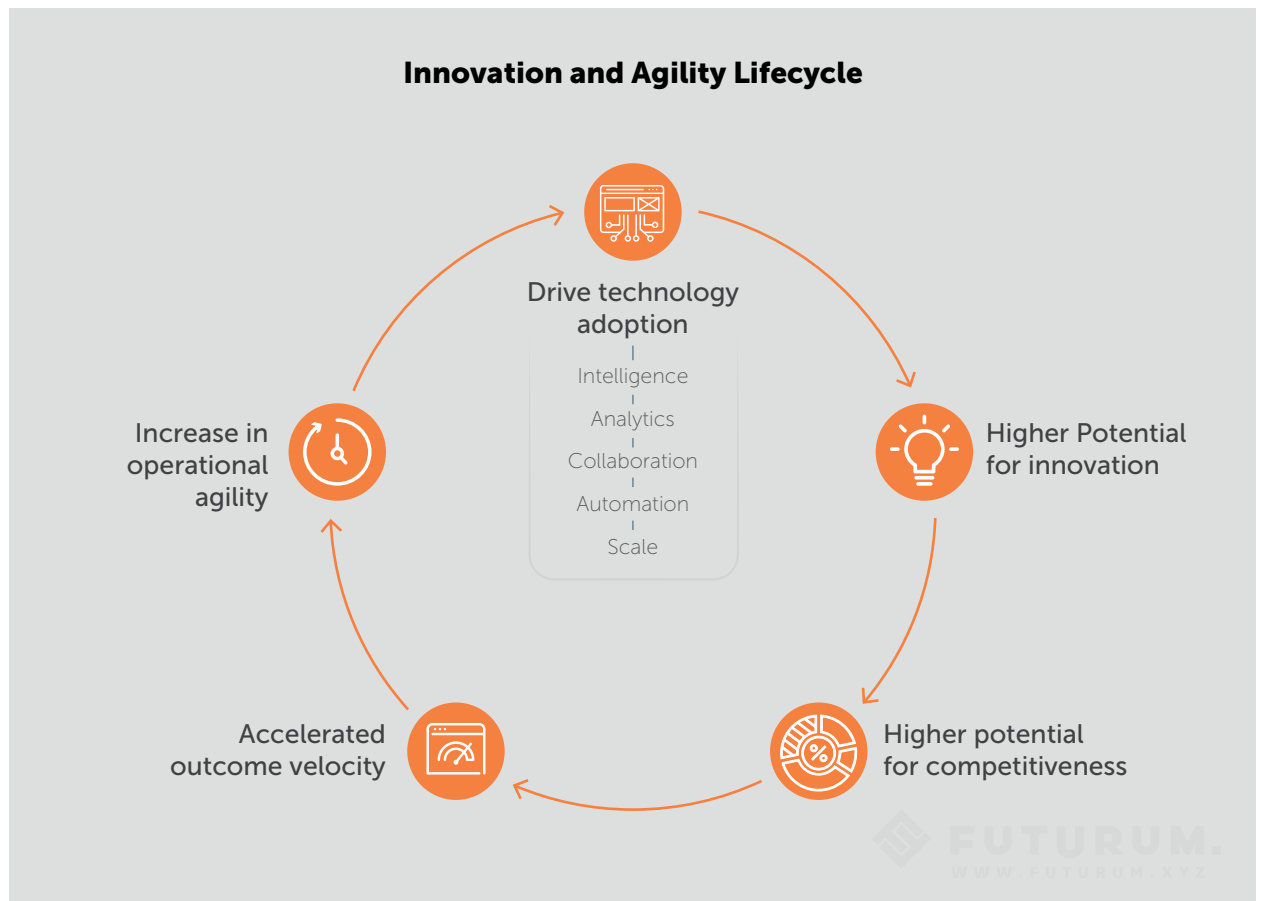
of millennials in their extended markets. That alignment begins within, with the adoption of consumer-friendly digital technologies and a mindset predicated on operational agility, velocity of execution, and continuous business innovation at scale.

INNOVATION AND AGILITY AS A DYNAMIC CONTINUUM

An organization's ability to innovate is a function of its own practical degree of adaptive agility: Companies that are good at innovation tend to also be agile when it comes to adapting to technological disruption. Conversely, companies that are good at adapting to technological disruption also tend to be highly innovative.

This means that any actions a company can take to drive technology adoption and deployments within

its walls will naturally result in a higher potential for innovation, and consequently, competitiveness. As digitally-savvy millennials with experience working with agile collaboration tools begin to not only populate organizations but take over management and leadership roles, the new generation of tools they invest in will naturally tend to accelerate innovation and accelerate project timelines by eliminating the types of collaboration hurdles that incumbent software solutions were unfortunately ill-designed to iron out.

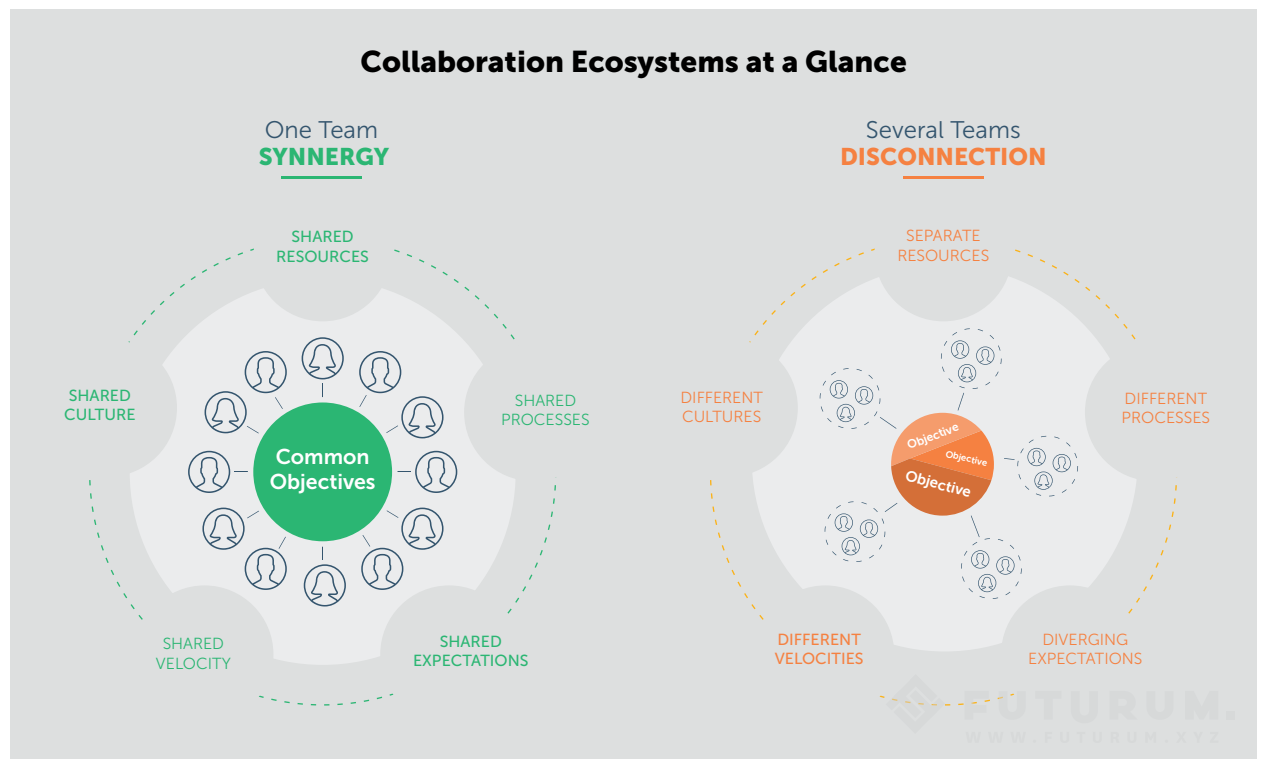


ENGINEERING THE END OF SILOS

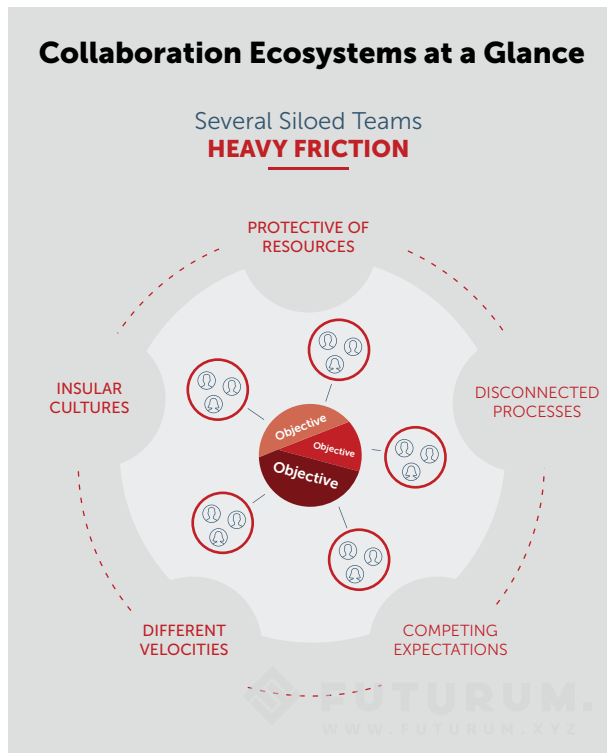
Technology isn't the only culprit. Culture, mindsets and poorly designed methodologies and processes also get in the way of effective collaboration. For instance, a recent study from [Study Info] reveals a 25% efficiency gap between vertical collaboration (following a traditional direct report hierarchy) and lateral collaboration (non-direct-report relationship). Using the same tools, and operating in the same environment and within the same culture, lateral collaboration was 25% less effective than vertical collaboration. That isn't caused by tools. The effectiveness of a collaborative endeavor may be predicated far more on how people perceive the value of a particular collaborative relationship than on their technical ability to consistently execute it at a tactical level.

To better frame the problem, let's look at collabora-

tion absent tools: It is natural for teams to work well together. When you work with the same people all day, every day, it's almost impossible not to develop a natural operational synergy. Even among teams that don't gel particularly well, certain aspects of teamwork, like rhythm, velocity, and expectations, will naturally form around a nucleus of common objectives, schedules, and joint resources. In other words, even when teams don't work very well together, they are still working together, and this drives efficiencies not always present in instances where strangers with different objectives and operational styles are suddenly thrown together to accomplish a task. This means that we should always expect established teams to be more efficient in regards to collaboration than individuals from different departments being asked to work together on some joint project.



Collaboration Ecosystems at a Glance

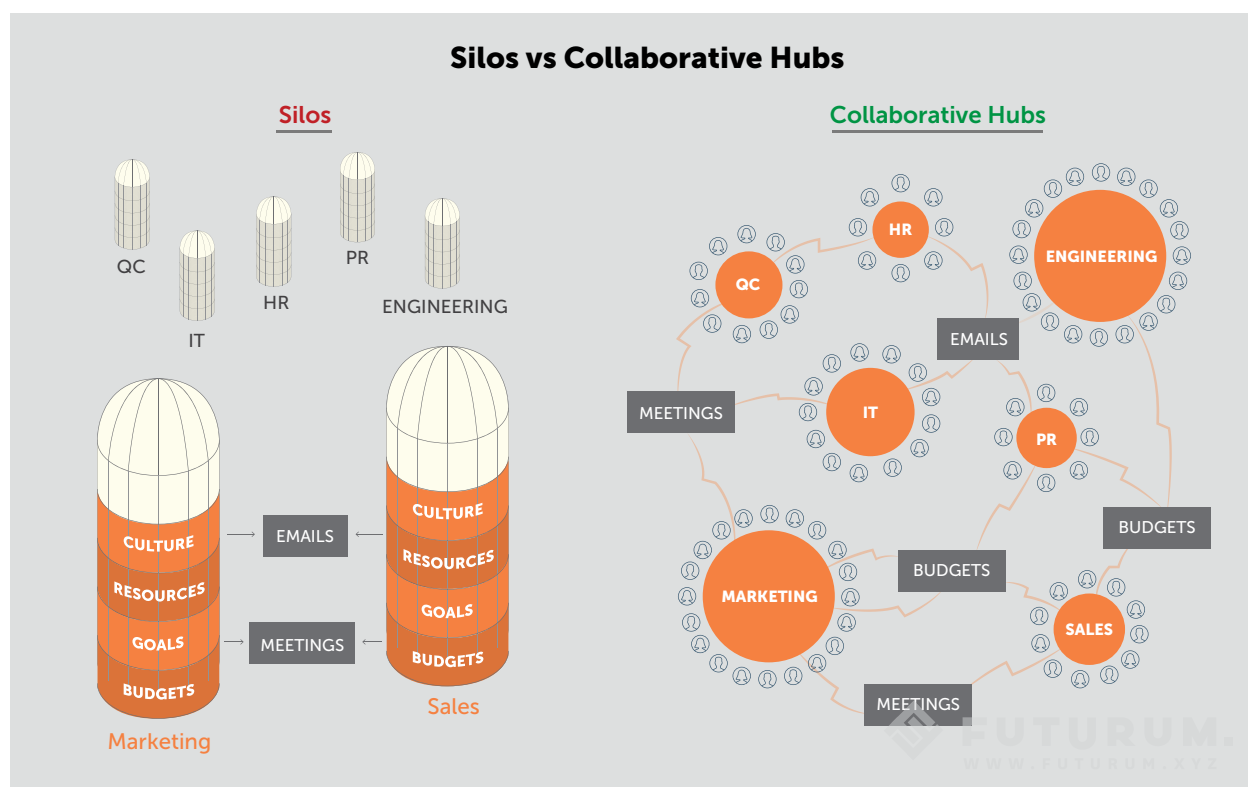


This phenomenon is often further exacerbated by the presence of silos. For reasons we just highlighted, in-silo teams and hierarchies will tend to work better together than cross-silo working groups. The stronger the silos, the more difficult it will be for a culture of collaboration to truly spread across an organization. Corporate cultures that still favor or ena-

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ble silos tend to have a more difficult time executing on technology adoption and deployment initiatives, for instance. They also typically struggle with the implementation of scalable silo-agnostic collaboration models as well as operational agility in general. They are also more likely than silo-free companies to fall into the digital laggard category, which only adds to their general inability to carry out a timely digital transformation, even in instance where their industry's timeframe for change is slower than most.

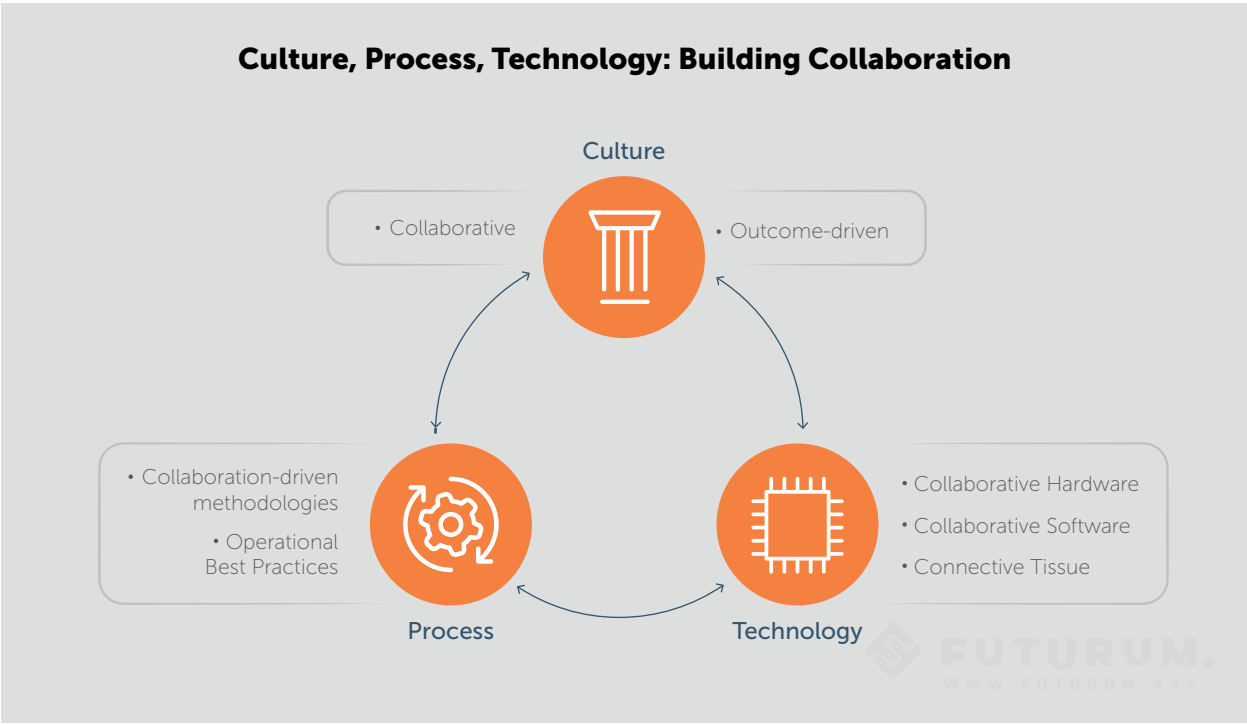
Silos vs Collaborative Hubs



It is important to note that silos aren't all bad. They do create structure, foster specialization and expertise, and help drive key objectives and targets inside an organization. Silos are valuable in the sense that clusters of functional expertise, like the ones united under departments and business groups, are both valuable and useful. Silos, however should learn to operate more like specialized and highly collaborative hubs than semi-permeable fiefdoms.

This means that organizations with silos in place should not look to tear them down completely, but rather, should keep their foundations intact, then tear down their walls and build bridges between them – or rather connective tissue, as it were. This connective tissue must be partly cultural, partly process-based, and partly technological.

- The *cultural* piece is simply a highly collaborative and outcome-driven shared mindset.
- The *process* piece is an ecosystem of methodologies and operational best practices that promote and guide collaboration across the entire organization.
- The *technology* piece is both hardware and software-based, and must answer the following question: What collaborative tools will best help us create these layers of connective tissue within these hubs as well as between them?



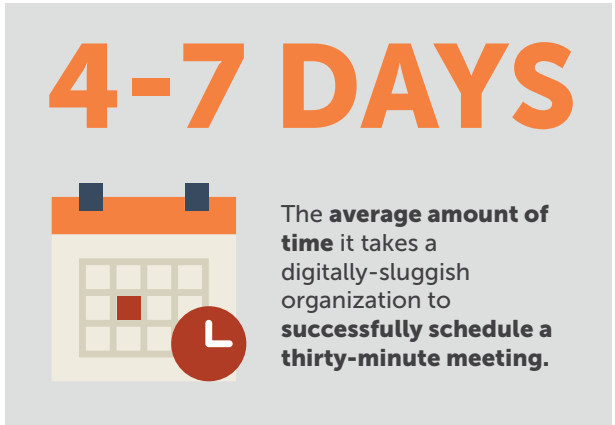
IDENTIFYING COLLABORATION PAIN POINTS AND INEFFICIENCIES: WHAT TYPES OF PROBLEMS ARE WE TRYING TO SOLVE?

To avoid falling prey to shiny object syndrome, new tools have to solve concrete problems for their users. If existing processes are complicated, they should simplify them; If existing steps take up a lot of time to complete, they should save time; and so on. Some of the most frustrating aspects of business technology in the last twenty years has been that it often complicated simple processes instead of simplifying them, created layers of additional work, and tethered workers to their desks, which kept them from being able to properly collaborate with their peers. These are the types of problems that new collaboration tools and millennials have successfully worked to bypass.

Meetings, for instance, have been a pain point for most organizations. For starters, why must meetings last an hour? Why can't meetings last however long they need to last, whether that duration is ten minutes or ninety? Is there a better way to structure meetings, and can apps, the cloud, and mobile devices help us do this?

Also, why do meetings have to take so much energy to organize? Think of the process many companies still go through to get five people into a room together: Everyone gets an email, people respond

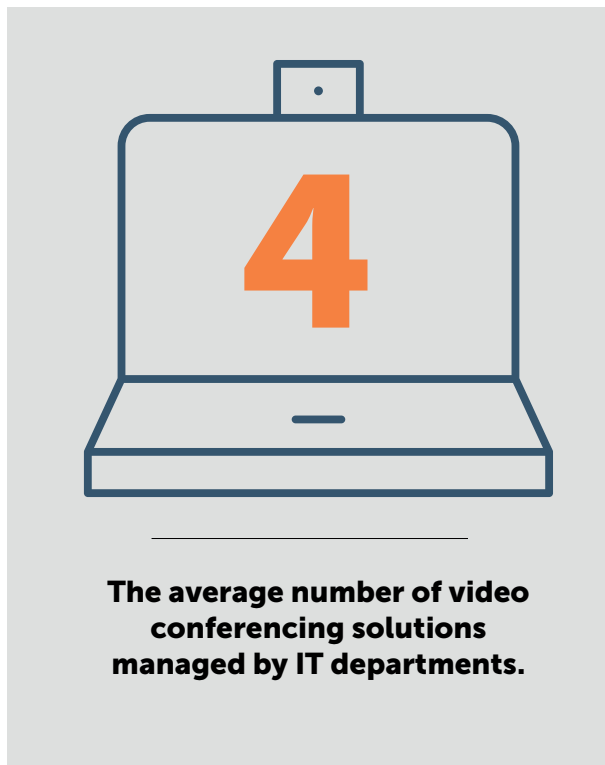
faster slower than others (or not at all), time conflicts are agonized over in endless email threads, until finally, the meeting can be properly organized. The result is that in more companies than we care to admit, a simple one-hour meeting can take over a week to schedule. The compounding effect that this sort of chronic inefficiency can have on project deadlines can be crippling, especially now that velocity matter so much more than it once did. It can also rob a project of its momentum, which can be as deadly to a project's success and employee engagement than a draconian budget re-assessment.



4-7 DAYS

The **average amount of time** it takes a digitally-sluggish organization to **successfully schedule a thirty-minute meeting.**





The meetings themselves become problematic. Take technology asymmetries for instance: screen sharing may not be available to everyone on the call. When it is, sketching ideas, or any kind of whiteboarding function is often non-existent or extremely limited. Furthermore, instead of all attendees having access to the same information right away, a follow-up email often has to be scheduled, with notes, sketches and other attachments to be sent hours, sometimes days later, when the energy and creative momentum of the meeting have already dissipated.

Note that the average company's IT department manages no fewer than four different video conferencing solutions and four voice conferencing solutions at any given time. That says nothing of the mess of mismatched and often not entirely compatible conference room cameras, video screens, microphones, speakers, handsets, and other hardware bits and ends haphazardly patched together amid wild tangles of knotted wires and poorly labeled cables. This too is a pain point that new collaborative tools should seek to eradicate.

Lastly, let's be honest: email is generally an effective communication tool to share thoughts, information, and documents, but it is a patently ineffective collaboration tool. It is too cumbersome, lumbering, and ill-adapted to the natural, dynamic flow of nimble and often asymmetrical collaborative interactions.

Imagine being a project manager with twenty direct reports and a dozen outside partners. Now imagine having to keep track of hundreds of dis-

jointed email threads over the course of a six-month timeframe. As conversations spiral into endless RE:RE:RE: threads, they can snowball into unmanageable volumes of interruptive and time-draining tangents that sap stakeholders' productivity. As a result, email threads tend to be ignored or skimmed, or put off, and time-sensitive information or questions gets lost in the shuffle. Threads can also branch off into tangents that accidentally leave out key stakeholders, creating information gaps and confusion within the project team.

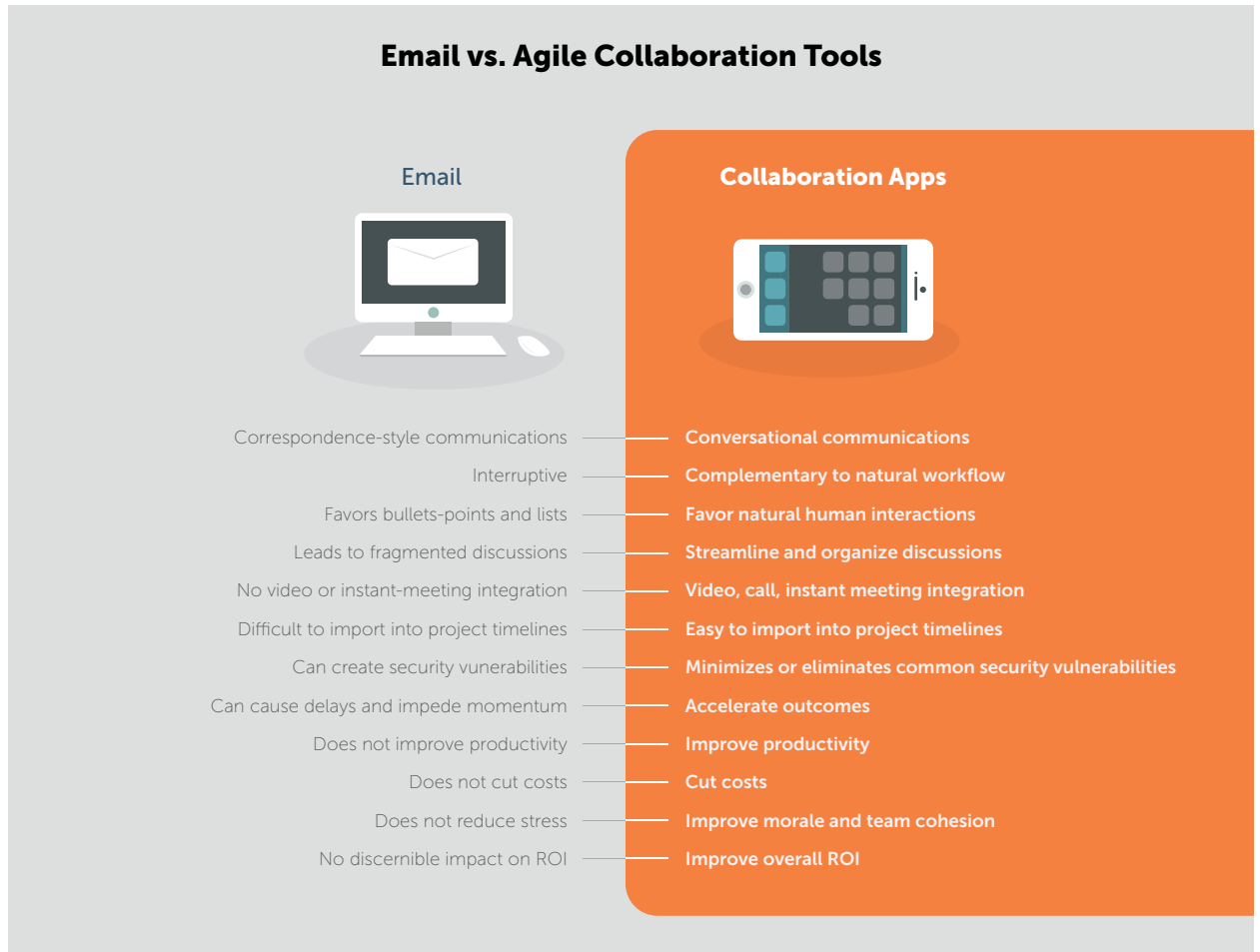
Lastly, organizing emails for a project file can be prohibitively time-consuming and inconsistent. Without project admins corralling the team's emails, project management can become an exercise in bureaucratic congestion rather than the dynamic leadership-driven innovation catalyst it should be.

New collaboration tools can solve all of these problems and many more besides:

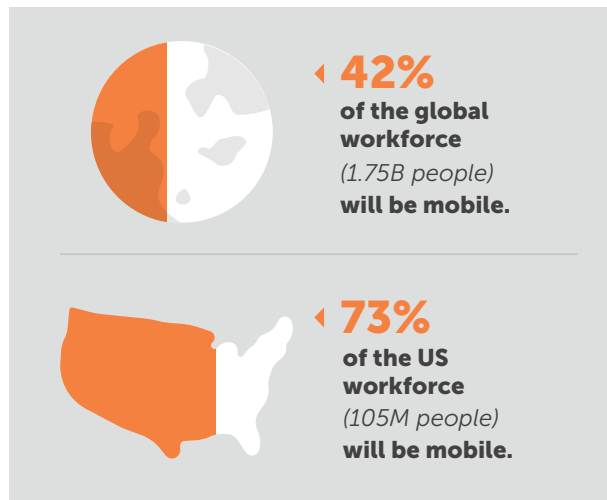
- They can be less interruptive and more dynamic.
- They can streamline and organize discussion threads into neat, easily searchable, self-filing discussion threads.

- They can help collaborators share ideas, organize around tasks, and even schedule short and effective meetings without grinding everyone's day to a halt.
- They can help accelerate outcomes, improve productivity, cut internal costs, raise morale and team cohesion, increase employee engagement and retention, and deliver better ROI.

Wherever a pain point exists in an organization's collaborative ecosystem, agile collaboration tools can solve it, and that is the reason why so many time-crunched millennials and digitally-savvy professionals rightly favor them over older and less agile collaboration solutions.



BETTER TOOLS FOR BETTER PROCESSES: ENTER CISCO SPARK



With mobility now squarely at the center of business productivity, and 42% of the global workforce (1.75 billion people) qualifying as mobile workers by 2020 (for the US, those numbers are 73% and 105 million), collaboration tools in both the enterprise and the SMB space are moving away from the age-old desktop-centric model and becoming native to mobile devices. This isn't to say that collaboration tools are abandoning the desktop, however. Rather, they are being designed for mobile utility first, but with smooth integration into desktop and laptop workstations in order to create an agile endpoint-agnostic collaboration ecosystem in which users can switch between devices at will without suffering any workflow interruptions.

The proliferation of cloud-based, portable, mobile-friendly collaboration solutions like *Slack* and *Cisco Spark* have set the stage for what is to come. As a result, we are already noting an acceleration in the replacement of legacy PC-based collaboration solutions by these new collaboration solutions both in the SMB space and the enterprise, especially where millennials and digitally-savvy workers are taking the lead in technology adoption and collaboration management.

These platforms leverage a thread-based messenger-style design that mimics popular messaging apps. Its simplicity allows it to work equally well for day-to-day team interactions and complex project continuities. These threads can be task-based, team-based, or project-based, and are entirely searchable. Moreover, interactions between collaborators throughout the day tend to be less interruptive than email. Case in point: where reading and responding to an email may force an individual to stop what they are doing and shift their attention away from their other work for five to fifteen

minutes, the micro-interactions of messaging-style collaboration apps allow them to briefly read and respond to a prompt, then immediately return to what they were doing.

Other features already turning up on this new generation of collaboration tools are:

- One-touch video conferencing capabilities.
- Customizable push notification capabilities to alert users to new messages and activity on discussion threads.
- Frictionless calendar integration for meetings and deadlines.
- Whiteboarding functionality for improved idea sharing and conceptualizing.
- Secure encryption layers to protect confidential communications and valuable IP.

One standout product in that category is Spark, from Cisco. Having tested it alongside other types of mobile-friendly, agile collaboration tools for the last few months, we can safely say that it is well ahead of its competition, and here is why:

1. It is easy and painless to download, install, and deploy.
2. It is intuitive, and offers virtually no barriers of adoption, even for digital laggards.
3. It works equally well on every device and OS we tested it on.
4. The menus are designed to be out of the way but easily accessed on a whim, and remarkably easy to manage and navigate.
5. Accessing messages, calls, video-conferencing (meetings), and whiteboarding functionality are never more than a tap or a click away.

6. Cisco's enterprise class end-to-end encryption is designed so that every communication shared via Spark is encrypted on the client before it ever gets to the cloud. This data security architecture ensures that users' IP will be safe from interception – a feature we like a lot.
7. Full integration with Spark Board, its all-in-one meeting solution is something no other company currently offers.

The last item on the list, perhaps more than the other six, is what clearly separates Cisco Spark from the rest of the field: Spark is not just a collaboration *app*. It is a fully fleshed-out collaboration *platform* that seamlessly bridges the gap between software and hardware, and manages to do so in such a way as to find itself equally at home in the enterprise space as it is in the SMB space.

In other words, Spark does more than just move collaboration away from email and into the mobile





messaging space. It is a platform that allows teams to collaborate seamlessly 24/7 and put meetings, formal and informal, at the center of collaboration in a way that fits effortlessly into natural workflows.

The addition of Spark Board to the Spark platform replaces complicated, burdensome, and often outdated conference and meeting room hardware with an elegant, all-in one single-device system that looks deceptively like an HD flat screen. It is much more than that, however, as it comes equipped with a number of built-in enhancements:

- A 4K ultra high definition touch screen (70" and 55" options).
- A 4K 50fps camera with an 86 degree field of view.
- A built-in 12-element microphone array.

At its core, Spark Board is designed to let users make high-definition video calls. Calls can be initiated either directly from the Spark Board itself or from whatever device a user happens to be using at the time. Any device can control Spark Board, including laptops, tablets, and smartphones. Un-

like traditional video conferencing systems, Spark Board requires no remote control. Once users have downloaded the Spark app for their devices, they are able to sync with Spark Board with one swipe.

One of the more impressive details relating to Spark Board's functionality, and one which illustrates the degree to which Cisco worked to iron out every possible pain point relative to technology and meetings, is that the Spark app automatically pairs with Spark Board when in range. This means that just by entering a conference room equipped with Spark Board, users are ready to join or launch a call without having to wrestle through time-wasting logins.

Once a meeting is underway, screen-sharing is extremely easy and intuitive, as is the sharing of a slide deck, a spreadsheet, a 3D rendition of a product, a video, or a doodle. Spark Board is also a fully functional smart whiteboard: Users can easily draw, sketch or write their notes on it by using their fingertips or a special pen. Although the pen is made of high grade aluminum, it is designed to feel like a dry-erase marker. Sketches, like chats in Spark, are automatically saved for meeting attendees, which we like a lot.

Spark Board also manages to solve one of the most annoying things about traditional video conferencing hardware: depending on where the microphones were in the room, the sound was often pretty awful for whomever was on the other end of the line. The slightest background noise (like a creaking seat or someone sniffing) could force someone to have to repeat what they had just said. Spark Board's built-in mic array, combined with machine learning, puts an end to that problem. The system is able to identify who in the meeting is currently speaking, "zooms in" (so to speak) on their voice, and simultaneously mutes all other background noise.

Spark Board only requires one cable: Power. That's it. The system does come with a few other outlets and plug-ins, like most monitors and digital whiteboards, but Spark Board can easily be used without plugging any cables into it. It is quite literally plug-and-play, making it a breeze for IT departments to not only install but manage once it is in place.

Both Spark and Spark Board play perfectly with workspaces that have instituted BYOD (Bring Your Own Device) policies. There is no need for companies to equip their workforce with additional or specially licensed devices. Cisco even partnered with Apple to add a little extra integration between Spark Board and both iPhones and iPads. For instance, instead of launching a meeting from the Spark app, iPhone users can simply go into their contacts, make a call, and push it to Spark Board with a tap and a swipe, further reducing pain points between users and technology.

In terms of security, Spark and Spark Board offer the same end-to-end encryption. Given how much

confidential information will likely pass through Spark and Spark Board, getting the security piece right is at least as important as the seamless UI, and it looks like Cisco did this right as well.

Beyond features, pricing can often be a hurdle to adoption, so we need to address that detail as well. Professional video conferencing systems and smart boards have traditionally been cost-prohibitive for small companies and budget-strapped departments and project teams, not just in terms of the equipment costs themselves, but also in regards to setting up the on-premise infrastructure that will support them. Cisco smartly addressed this in two ways:

1. Neither Spark nor Spark Board require any on-premise infrastructure aside from a power supply and Wi-Fi. The infrastructure is simply the Spark Cloud, which means that the Spark product ecosystem is plug-and-play. It requires minimal (if any) involvement from IT, and takes care mostly of itself.
2. Spark Board, given everything it can do, is remarkably affordable. The price-points are set at \$4,990 for the 55" version, and \$9,990 for the 70" version. We expect that while the 70" is perfect for corporate conference rooms and classrooms, the 55" will fit nicely on a desk or a smaller meeting room, making it perfect for SMBs, project teams, and individuals with generously sized desks. The service fee itself is a mere \$199 a month, which shouldn't break the bank for any business that has a legitimate use for Spark Board.

IN CONCLUSION

Perpetuating superficial and often blatantly undeserved stereotypes about Millennials won't help businesses properly create value for them in the next five to ten years, and given their impressive buying power and influence, missing the mark with Millennials isn't an option. Leaving assumptions at the door, we can zero-in on empirical data about Millennials - like their behaviors, buying power, and preferences - as well as key insights regarding some of their most common but rarely discussed traits. Far from being fickle, for instance, Millennials can be fiercely loyal to a brand when given a good reason to be, especially if they can easily incorporate them into their personal and tribal identities. Furthermore, we also observe that companies that are able to connect the dots between the childhood experiences of Millennial shoppers and their quest for authenticity will reap the benefits of having respectfully tapped into their nostalgia.

Millennials also tend to look for paths of least resistance when it comes to performing tasks they don't particularly enjoy. As a result, *chore verticals* - banking, healthcare, and utilities, for instance - have the most to lose from moving too slowly in their digital transformation journeys, and the most to gain from reorganizing their business models around the needs of mobile-enabled Millennial consumers. The more a chore vertical can make its interactions with Millennials fast, easy, frictionless and pleasant, the better chance they will have of capturing their business at scale.

Millennials are highly social, but as their social lives are built around digital tools and channels, they have learned to expect all businesses that cater to them to operate as social businesses. In order to properly engage with Millennial shoppers beyond a purely transactional business model, "social media" must be thoroughly integrated into every brand

touch-point, from search and mobile commerce to marketing and customer support. Customer development and loyalty *can* be built around the same digital tools and social interactions used by Millennials to manage their social ecosystems, and companies looking to capitalize on digital tools and the buying power of Millennial consumers will be smart to do so.

Millennials are also instinctively analytical, motivated, complex consumers. Their shopping ecosystem is a rich intertwined blend of digital and analog marketplaces and experiences. In order to remain both relevant and competitive, brands need to think of Millennial consumers not only as "shoppers" but as denizens (or expert users) of their digital retail ecosystems. *Mobile-first* has already proven to be a winning strategy for every single vertical marketing to Millennials, with AI-first beginning to inch its way into Millennial-focused mobile experiences.

The age of the Millennial is here: A whopping \$1 trillion in buying power by 2020, 50% of the world's workforce, 1 in 3 purchase dollars to be spent by Millennials just three years from now. These numbers, and the opportunities they represent, are staggering. As we race towards 2020, business survival is going to become heavily dependent on the ability to digitally and culturally transform in order to create tangible value for Millennials. In order to capitalize on this shift, businesses must begin to learn how to reorganize around Millennial needs and expectations now. And while Digital Transformation is, of course, a critical component of this process of adaptation, understanding Millennial consumers, and by that, we mean *truly* understanding them, is going to be equally vital from this point on. We hope that this report will help you accelerate that process, and look forward to sharing more of our findings in future updates.

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