

The workplace revolution

Executive summary

Digital technology added \$45 billion to the Australian economy in 2013 alone. This result is particularly striking against a backdrop of stagnant national productivity. In this context, organisations are increasingly looking towards innovation and technology as two of its most prospective levers to drive productivity and competitiveness.

The purpose of this paper is to identify the benefits and role that innovation and collaboration technology play in a contemporary workplace. While physical spaces matter, investment in tools and technology that improve work practices and drive innovation offer even greater dividends. The form and function of the contemporary workplace is undergoing enormous change and is influenced by three primary factors:

1. Opportunities presented by new technology are driving organisations to innovation and collaboration

Globalisation and digital disruption are creating major challenges for incumbents in established industries. The low-hanging fruit efficiencies have been harvested and organisations are recognising the need to invest in and focus on finding new ways to create value and improve productivity.

2. Generational change which is creating higher – and often unmet – expectations

The millennial generation increasingly expect their workplace to accommodate their technology preferences and provide opportunities to network and to learn. The ability to seamlessly move between social and work contexts, and physical and virtual environments, is a threshold condition

3. Focus on creating organisational agility

In a period of economic, technological and social disruption organisations need to be change-ready and able to implement change quickly.

A wave of disruptive technologies is helping organisations respond to these pressures, and future-proof in the face of emerging ones. Cloud, the Internet of Things, big data/analytics and ubiquitous connectivity offer organisations the prospect of simultaneously improving productivity, staff engagement and business outcomes.

Digital collaboration technologies are critical to a broad range of future roles. The value and role of these technologies change based on whether an employee is anchored to a workstation versus highly mobile.

Workstation anchored	Remote collaborator	Region mobile	Neighbourhood collaborator	Highly mobile
 <p>Desk-bound, non-mobile employee who performs highly-focused individual work; some team interaction</p>	 <p>Non-mobile employee who works frequently with off-site colleagues, and frequently works from home</p>	 <p>Internally mobile in a single location; interacts cross-functional in face-to-face scheduled meetings; often in leadership roles</p>	 <p>Internally mobile across multiple buildings</p>	 <p>Externally mobile; travels extensively to stakeholder locations; frequently interacts with external stakeholders</p>

The need for workplaces to change

Effective organisations will need to better exploit the most precious assets – the knowledge and the capability of their people – and in doing so rethink even the most ingrained processes and workplace norms. Some organisations have embraced disruption, while others dismiss the threat and are adopting a ‘wait and see’ approach. Most organisations sit somewhere in the middle: they don’t want to take first mover risk, but know they need to orient their cultures and processes towards innovation and collaboration.

“Australia is on the cusp of the next wave of the industrial revolution. Like the previous technologically driven transformation, this revolution has the potential to radically upend business practices, change social arrangements and dramatically reshape the workforce¹.” – Nathan Taylor, CEDA Chief Economist

What’s driving organisations towards digital collaboration technologies

While organisations are redesigning workspaces to be more flexible and functional, some of the most profound transformations are occurring beneath the architectural and interior surfaces. Organisations are recognising the critical role technology has in supporting improved work practices and enabling employees to augment face-to-face engagement with immersive, collaborative and efficient modes of communication and sharing. Collaboration technologies offer three broad sets of benefits: organisational effectiveness, staff engagement and operational efficiency (see Figure 1).

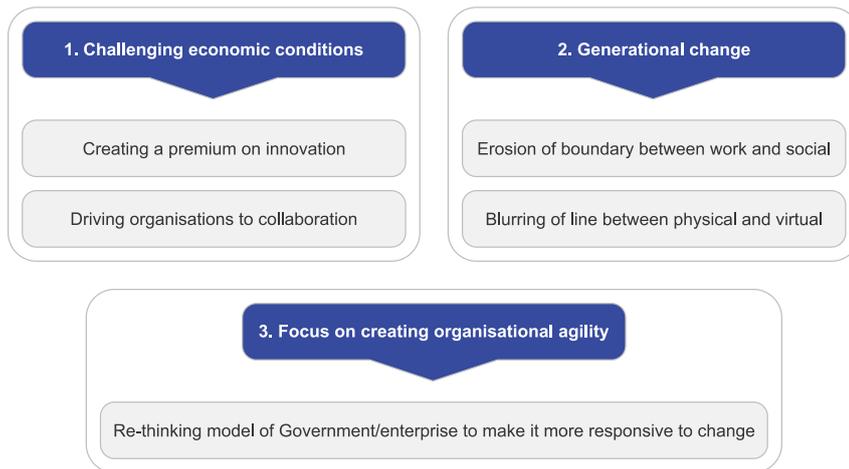
	Objective	Achieved via digital collaboration	Specific role played by digital collaboration
Organisational performance	Harnessing a broader set of skills (e.g. creativity)	●	Making the workplace a mechanism for effective collaboration
	Faster decision making and execution	●	Effective collaboration is faster, cheaper and better
	Improved services and products (citizen and customer-centric)	●	More regular and authentic engagement with stakeholders in and outside the organisation
	Builds workplace capability and encourages workforce diversity	●	Creates a learning organisation and engages with individuals on the fringes of the labour market
Employee engagement and retention	Increased probability for the employee and ability to deal with broader life circumstances	●	Enables capacity to work remotely
	More flexible and customised workplace	●	Accommodating device preferences (BYOD), customised tools
	Richer, more rewarding employee experience leading to higher retention and lower absenteeism	●	Availability of tools that are simple to access and use
Operational expenditure and sustainability	Reduced cost of meetings	●	Avoids productivity costs associated with travel time to work
	Reduced costs associated with travel	●	Cost saving from car/plane travel
	Reduced cost for stall acquisition	●	Higher retention rates through more collaborative technology
	Reduced carbon footprint	●	Environmental savings from reduced car/plane travel

Figure 1. What’s driving investment in digital collaboration technology in the workplace

¹ CEDA, *Australia’s Future Workforce?* (June 2015)

Factors increasing the appetite for change

Three major factors are fuelling interest and investment in new ways of working and digital collaboration specifically: 1) Challenging economic conditions, 2) Generational change, and 3) A focus on organisational agility.



Factor #1: Challenging economic conditions are driving organisations to innovation and collaboration

The Australian economy is experiencing immense disruption

Digitisation is creating opportunities at an industry, institution and firm level. Against a backdrop of low economic growth, labour market changes and declining levels of productivity, technology offers one of the few avenues of growth for Australia. To demonstrate, the Australian economy is considered to be \$45 billion larger than would have been the case without the impact of digital, as demonstrated in Figure 2.

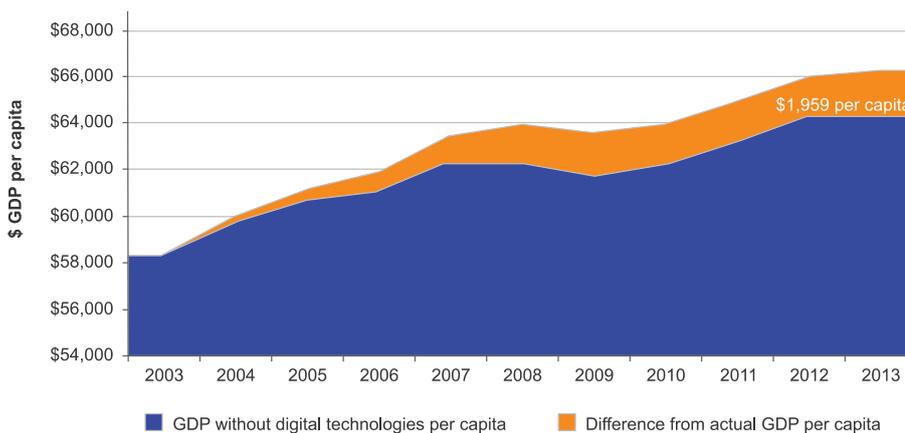


Figure 2. The impact of digital technologies

This disruption is being experienced in microcosm at the organisation level

Organisations have harvested most of the low-hanging fruit from scalable efficiency and automation. Governments, enterprise and institutions are recognising that they can't save their way to success. Collaboration represents one of their most prospective levers to harness the potential of their people and exploit sunk costs in buildings and other tangibles. One of the challenges in contemporary workplaces is that collaboration is difficult to achieve at scale. Deloitte found that 46% of the typical workday was spent interacting with other people – and 10% of that communication was described as collaborative². But organisations have struggled to find authentic and effective mechanisms to improve those statistics.

One of the reasons that collaboration is difficult is because it is a very 'human' activity. Consider that as many as four generations are operating in the average government department or enterprise workplace, creating particular issues in the composition and effective operation of teams. Another challenge is that most spontaneous collaboration and communication tends to occur within confined geographic boundaries. The Allen Curve was a concept developed to describe the correlation between physical proximity and the frequency of communication between employees. It posits that beyond a distance of 50 metres communication deteriorates significantly. In recent years academics³ have sought to test this theory in the light of new technologies, and found that the 'curve' held true for email but not for more collaborative technologies. In short, digital collaboration technologies – as opposed to email – promoted spontaneous communication.

"I've seen workplaces where the under-30s and the over-30s are operating in parallel universes. They interact in different ways, congregate with each other and rarely form genuine teams. That's not diversity – it's co-habitation."
– Anonymous government executive

Research from Deloitte and Google⁴ has shown that when Australians collaborate they are able to complete work 15% faster, and 60% feel they are more innovative and satisfied.

Creating the conditions for effective collaboration is complex. While some suggest technology is only part of the challenge, others disagree. Craig Fox, Deputy Commissioner, Service Operations, from the Australian Tax Office argues that the right technology can have a catalytic effect on an organisation. It can help to drive new work practices, change attitudes and overcome process challenges. As has been observed in other sectors, including education⁵, technology can rapidly accelerate culture and behaviour change.

"At a time where collaboration and co-design are becoming the foundation for modern ecosystem, product and service development, the deep-seated secrecy endemic in the upper levels of all the jurisdictions (South Australia perhaps the exception) reveals again an insular culture stuck in a prior world." – Tom Burton, The Mandarin

² <http://www2.deloitte.com/au/en/pages/economics/articles/collaborative-economy-unlocking-power-of-workplace-crowd.html>

³ Hassell and Optimice have suggested that participatory platform technologies such as Yammer and Slack break this pattern within organizations.

⁴ <http://www2.deloitte.com/au/en/pages/economics/articles/collaborative-economy-unlocking-power-of-workplace-crowd.html>

⁵ A review of the Commonwealth Government Digital Education Revolution (laptops in schools) policy by dandolopartners considered whether the program would have been more effective if the Government had waited for teachers to be ready for the technology before introducing it. The answer was a conclusive no: it was absolutely appropriate that the technology be the catalyst for the culture change that needed to occur.

Workplaces are being oriented towards innovation

Driving innovation and data-driven decision-making in a large organisation is an immense challenge. Digital collaboration technologies play three potential roles in relation to innovation:

1. Accessing new sources of knowledge and diverse views that can unlock new value.
2. Creating an effective mechanism for multi-disciplinary teams to engage in co-design processes.
3. Bringing organisations closer to citizens and customers through co-design. The need to systemise innovation is critical, particularly when you consider that sustainable jobs will be less rules-based/routine and more creative.

The greatest challenge related to data isn't collection or even analysis, but how to turn it into insight and disseminate that to people who can make decisions on the basis of it. Digital collaboration tools are highly effective in being able to surface data (or insight) to a broader group of people within and outside the organisation. This is particularly important given the value placed on 'hyper-awareness' in a digitally disrupted world.

"There are of course differences across the governments. NSW — easily the most progressive of the state and federal administrations — now has real-time data being delivered directly to the Premier's office. Mike Baird can now answer the question no other Australian chief minister can: how did my government perform yesterday?"

– Tom Burton, The Mandarin

Factor #2: Generational change is creating higher – and often unmet – expectations

The impact of the millennial cohort

The demographics of the workforce are changing; consider that by 2025 almost 75% of the workforce will be 'millennials'.⁶ The first generation of digital natives are starting to advance in the workforce, bringing different expectations about what the workplace needs to deliver to them, not just the employer. The emergence of what is being described as the 'gig economy' has profound implications for organisations wanting to attract and retain millennials who are actively resisting traditional workplaces.

Generational change is eroding the boundary between work and social

The ubiquity of mobile communications and technology has contributed to a blurring of the lines between work and social lives. The notion of work finishing when you leave the office has all but evaporated, particularly for white-collar professionals. The American Psychological Association's Center for Organizational Excellence⁷ found that four out of 10 working Americans (42%) said they dealt with personal or family needs during work and about a quarter regularly took work home (26%), worked during holidays (25%) and allowed work to interrupt time with family and friends (25%). While the phenomenon is not universally embraced, the trade-off is considered to be mostly voluntary.

"Employees whose jobs fit well with the rest of their lives are more engaged and motivated, report higher levels of job satisfaction, have better work relationships and are less likely to say they intend to leave the organisation in the next year." – David W. Ballard PsyD, MBA, head of the Center for Organisational Excellence

⁶ Defined as the generation that grew up with the Internet as part of their daily lives (and generally came into adulthood around the turn of the century).

⁷ American Psychological Association, The line between people's work and non-work lives continues to blur (November 2015)

The trend goes beyond work habits. Evidence shows that younger employees increasingly share personal information and would like their workplace to serve as a network, not just a place to house them. The social compact of work is therefore changing: the trade-off used to be loyalty for security, but in 2016 employees are far more likely to concede accessibility for flexibility.

Lines between the physical and virtual are also blurring, creating challenges for organisations

The blurred edges between work and social are mirrored by ambiguous separation of physical and virtual workspaces. Increasingly the home – or café – is a part-time workplace and employees expect to be able to access information, people and tools regardless of location. The trend could be described as a move away from the ‘cubicle culture’, where data was accessed physically and stored on site. With advances in wireless and cloud technology, data is now accessible anywhere, and from any device, but presents new challenges and risks including technical ones (e.g. cyber security). The expectations of workers are changing rapidly with regard to the physical/virtual divide. They expect:

- The capacity to seamlessly move between devices and IT ‘environments’.
- The ability to interact with colleagues (and even clients) from remote locations. This translates into the capacity to have immersive, high-definition and reliable virtual meetings.
- To collaborate – not just communicate – via virtual means. It is also widely acknowledged that email is one of the least effective mechanisms to engage with new workers.

Evidence suggests that the absence of high-quality digital collaboration technology creates a major human resources risk for organisations, particularly those that want to embrace carers, women returning to work and people with disabilities. These cohorts tend to fare worst in inflexible work environments, and digital collaboration technology provides flexibility.

Attracting talent and diversity is not driven by social conscience alone. The economic stakes are high when one considers the cost of employee acquisition and retention. A recent study⁸ found 80% of people would be more likely to stay longer with an existing employer if offered the flexibility of working remotely or from home. Most employees are prepared to forgo a percentage of their pay in exchange for greater flexibility in their working arrangements. Around 6% would be willing to compromise 20% of their pay – a day’s pay – in exchange for the opportunity to work remotely or from home.

The utility of digital collaboration tools also extends to executive ranks. The capacity for executives to interact more often – and more authentically – with peers and staff via technology has the potential to create enormous value but also create enormous savings. Hours of executive time saved on travel add up quickly, particularly for national and multinational organisations.

“How we organise workplaces is fundamental to delivering on improvements/higher living standards.”

– Dr Ric Simes, Director Deloitte Access Economics

⁸ McCrindle, *Teleworking in Australia: Latest Trends and Perceptions* (June 2013)

Factor #3: Focus on creating organisational agility

Organisational agility is a major factor in dealing with digital disruption

In a period of economic, technological and social disruption organisations need to be change-ready and able to implement change quickly. Agile organisations promote the open flow of information, encourage experimentation and function as a network. They also need to be able execute quickly and effectively.

Cisco's own research sought to understand the core capabilities organisations were trying to build as they attempted to react to digital disruption. Three core capabilities⁹ were identified for agile organisations:

1. Hyper-awareness
2. Informed decision-making
3. Fast execution

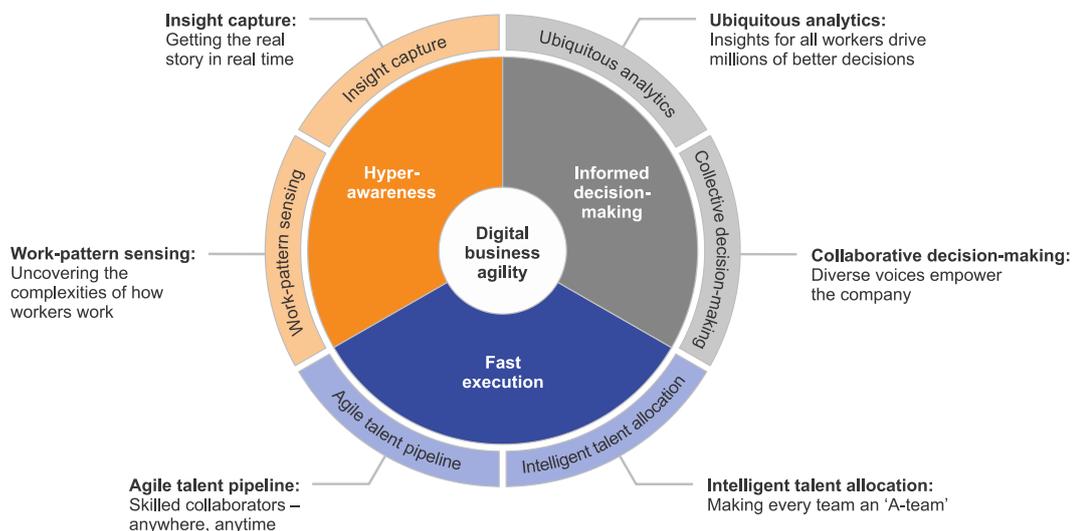


Figure 3. Core capabilities for competing in the digital world

The core operating models of government and enterprise need to be re-thought

The core operating models of government and enterprise are being strained by new technology and the accelerating pace of change. These changes are forcing governments and enterprise to re-evaluate their basic operating and business models. To demonstrate, human and community services are no longer delivered exclusively by government, but rather a more complex and effective set of partnerships with external parties, including the not-for-profit sector, as part of a collaborative service model. Enterprises are being challenged even more fundamentally. A major survey of global business leaders estimated that around four of today's top 10 incumbents (in terms of market share) in each industry will be displaced by digital disruption in the next five years¹⁰. Despite these ramifications, digital disruption is not seen as worthy of board-level attention in about 45% of companies and only 25% describe their approach to digital disruption as proactive.

⁹ Ross Fowler (Cisco), *Putting People at the Centre of Digital Transformation* (May 2016)

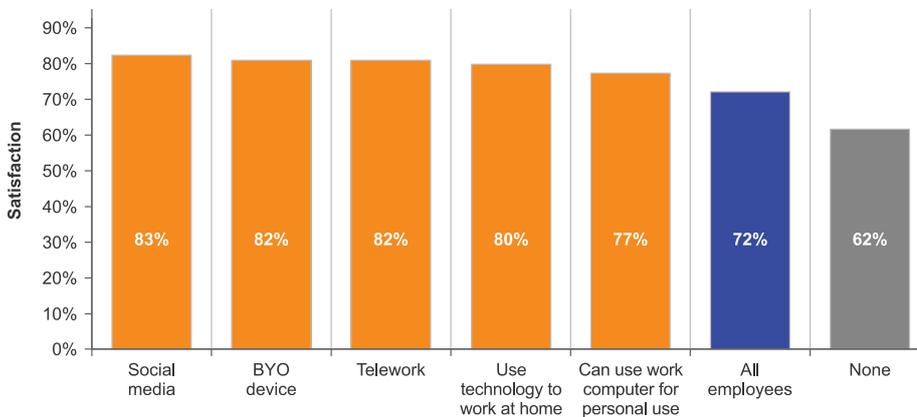
¹⁰ Global Center for Digital Business Transformation, *How Digital Disruption is Redefining Industries* (June 2015)

Agility is also important for individual workers

Disruption to the labour market is creating challenges for individuals. A recent PWC report forecast that up to 40% of jobs are considered at risk of digitisation, particularly process-oriented 'white-collar' occupations such as accounting and administrative clerks. This – coupled with the rise of the gig economy – will force individuals to navigate the job market as entrepreneurs. The ability of a worker to create and sustain professional networks will be a core capability, and it is increasingly likely that those networks will have a virtual component.

Technology has a major role to play in increasing agility

Changing operating models takes time; time that some organisations don't have. Part of the attraction of digital collaboration technologies – even more than investment in physical spaces – is that they can be deployed and realise benefits quickly. Deloitte¹¹ found that inflexible policies were a major factor in employees intending to leave. A flexible workforce policy is not simply about enabling a larger proportion of staff to work from home; increasingly it is about providing employees with the capacity to move between home, vehicles and the 'office' without impacting on their capacity to collaborate or remain connected. Figure 4 demonstrates the correlation between satisfaction and flexible policies related to telework and device choice.



Source: Stancombe Research & Planning and Deloitte Access Economics, 2013

Figure 4. Flexible technology policies and job satisfaction rates

Contemporary, future-oriented organisations are increasingly built on a robust digital infrastructure. Communication infrastructure underpins the rate of digital transformation, and accelerates the pace of digital technology diffusion through an economy (and an organisation) over years, rather than decades¹².

“You cannot expect to do innovation at scale without an intelligent network infrastructure.”

– Carsten Bluhme, Area Director, Albertslund Municipality (Denmark)

¹¹ Stancombe Research and Planning and Deloitte Access Economics (2013)

¹² Productivity Commission, *Digital Disruption: What do governments need to do?* (June 2016)

Conclusion

Despite islands of excellence, the public sector and enterprise have been slow to adopt collaboration technologies. The Productivity Commission report into Digital Disruption released in June 2016 criticised government for the slow uptake of technology, but placed little emphasis on its role as a user of technology. Considering that government is a \$400 billion platform, even a modest productivity improvement in the public sector offers enormous economic potential that was seemingly overlooked by the commission. The same opportunity for improved productivity and innovation also exists for enterprise and large institutions such as universities.

"With a few exceptions, governments across Australia have, to date, evidenced largely reactive responses to dealing with digital technologies. Despite promising statements, we have also been unremarkable in our adoption of technologies to improve public sector processes and service delivery." – Productivity Commission Report

Will people want to work for your organisation in the future?

Despite the benefits offered by digital collaboration tools and innovation, there is an underlying anxiety about ensuring new tools, analytics and other technology actually change work practices.

Digital collaboration technologies are critical to a broad range of future roles. The value and role of these technologies change based on whether an employee is anchored to a workstation versus highly mobile.

Workstation anchored	Remote collaborator	Region mobile	Neighbourhood collaborator	Highly mobile
				
Desk-bound, non-mobile employee who performs highly-focused individual work; some team interaction	Non-mobile employee who works frequently with off-site colleagues, and frequently works from home	Internally mobile in a single location; interacts cross-functional in face-to-face scheduled meetings; often in leadership roles	Internally mobile across multiple buildings	Externally mobile; travels extensively to stakeholder locations; frequently interacts with external stakeholders

Risk is offered as a reason for organisations not to invest. However, the risk of doing nothing would appear even greater. Customers and shareholders now expect organisations to deliver value and be more efficient. Employees expect organisations to be flexible but also to develop, challenge and motivate them. Doing nothing in the face of these facts has the potential to increase costs, reduce employee engagement and ultimately erode an organisation's capacity to harness the value of its people.

Major questions being asked in relation to innovation and collaboration and generational change

1. Are we genuinely providing our workforce with opportunities to collaborate and innovate?
2. Are we investing in the tools and technologies that will attract – and retain – the talent we need?
3. Are we creating effective mechanisms for employees to co-design and innovate within and outside the organisational boundaries?
4. How robust is our digital infrastructure, and do opportunities exist to optimise existing infrastructure rather than undertake expensive upgrades?
5. Does our technology environment – including underlying infrastructure – anticipate future scale and innovation requirements, including new smart services made possible as more sensors are connected?
6. Is the level of cyber resilience appropriate, and how do we compare with like organisations?

Three critical imperatives exist for those determined to start the process of building collaboration and innovation into their DNA:

1. **A renewed sense of urgency:** Although the notion of near-constant disruption is acknowledged, the need for immediate action isn't. There is a risk that the speed and magnitude of what's coming is underestimated. The longer organisations wait, the more exposed they are from a service delivery perspective (in the case of government) and to disruptive competitors (in the case of enterprise).
2. **Addressing broader workforce capability and getting the human elements of change right:** Collaborative innovation is not all – or even mostly – about process or technology. People-to-people interaction is critical and true collaboration and effective innovation requires trust and commitment, two very 'human' conditions. The ability to embed change also takes commitment, or what IAG Digital Workspace Director Kath Young refers to as "enlisting people in the business that care".
3. **Treating digital infrastructure as a strategic asset:** The relationship between technology and innovation is intrinsic and any organisation wanting to innovate and collaborate at scale needs to ensure its infrastructure is scalable, secure and efficient. The creation of a seamless, secure and rich virtual collaboration experience has as much to do with the underlying network as the quality of applications they support. Not only does the underlying infrastructure need to support a broad range of critical business requirements, it acts as a platform for innovation.



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