

Remote Access, Reimagined: Optimizing Enterprise Operations to Increase Productivity and Unlock New Opportunities





Introduction

From vast mobile deployments to cloud technology, to the billions of Internet-connected devices being deployed at tremendous speed, it's getting harder and harder to keep up with the seismic changes brought about by the digital transformation of the IT landscape.

In this white paper, we'll take you through that transformation and show you ways you can build out a global remote operations infrastructure right now, without requiring the immediate replacement of existing gear or purchasing new appliances or machinery. We'll show you how you can manage, monitor, and remotely control endpoints and connected devices. We'll also cover how offering remote access and support to your employees can help improve their productivity and increase their overall effectiveness.

- Learn how digital transformation is decentralizing work and workloads, and how remote access can help streamline operational processes, reduce costs, and foster excellence.
- Discover how to go beyond traditional remote access to create global workspaces for dispersed workforces.
- Look into the near future with remote control, remote monitoring, and even augmented reality (AR) and virtual reality (VR). Learn how powerful they can be for your enterprise deployments and IT environments.

Remote access and remote control are becoming mission-critical for global IT operations. Read on to discover why and how to leverage the latest advances to support your workforce and boost efficiency and agility.

DIGITAL TRANSFORMATION: TECHNOLOGY, DECENTRALIZED

The nature of work is changing. Workers are no longer tied to factories and offices. Work happens wherever it needs to be done, thanks to nearly ubiquitous internet access and portable, yet powerful computing devices — even on slow and intermittent connections.

Workers are location-independent, and resources (not to mention customers) are often remote. Remote access and global remote operations are key to powering modern workforces and reaching and satisfying customers worldwide.

Remote access and global operations are key to powering modern workforces.

THE CHANGING NATURE OF IT

Managing an organization's IT used to be about centralized resources. Mainframes and servers were located on-premises, and most employees were co-located with those computing resources. Local area networks (LANs) were disruptive, allowing resources like files and information assets to be shared among workers in a given building or campus. The job of IT was setting up, managing, and securing these resources.

Today, with mobile and cloud technology, nothing about IT is guaranteed to be centralized. IT has become

decentralized not just for companies like Amazon and Google, but smaller enterprises too, with data centers scattered across the world. Many, if not most IT organizations mix on-premises operations with cloud services as a way to scale rapidly, control costs, and convert difficult-to-amortize capital expense (CAPEX) charges to much more manageable operational expense (OPEX) costs.

How do you track, secure, update, and monitor devices that may be across the world?

The work of today's IT professionals is much more complex. Your IT teams must be prepared to manage technology that's everywhere, including in

locations that aren't easily accessible. This increases the overall management challenge exponentially. How do you track, secure, update, and monitor devices that may be across the world or, as we'll show later, even in outer space?

WORK AND WORKLOADS ARE NOW MORE DECENTRALIZED

According to Gallup, the number of workers who spent a day or less per week working remotely shrank from 34 percent to 25 percent from 2012 to 2016. By contrast, the number of workers who work remotely four or five days a week went up from 24 percent to 31 percent. Gallup also reported in 2016, that 43 percent (up from 39 percent in 2012) spent at least some time working from home. This trend indicates that employees are working remotely more frequently.

Projects and teams are often made up of members scattered across the world, especially when they include contractors and agencies. It's not uncommon for meetings to include participants from across the United States, Europe, Asia, and Australia. In fact, the World Economic Forum considers virtual teams "one of the biggest drivers of transformation."





A key knowledge worker or project manager might participate on many such virtual teams, so many that it would be logistically impossible for all the members of all the teams to travel in order to collaborate.

Conferencing software, screen sharing, document sharing, notification services, and other collaboration tools are rapidly replacing travel as corporate essentials.

Virtual project management is not only less expensive than physical travel, it is also more effective, less stressful, and more efficient than long-distance business trips. Team members experience heightened job satisfaction since they can get work done without continually disrupting their personal lives.

REMOTE CONNECTIVITY AS A PLATFORM

The trend toward decentralization goes far beyond person-to-person collaboration. We need to be able to access and control our computers, devices, and even specialized gear like industrial equipment, medical systems, and sensors remotely, as well. In the corporate world and public sector, industrial control systems and field-based technology — all of which once required on-site service to access — are gaining connectivity and joining the Internet of Things (IoT).

Enterprises — or, more specifically, enterprise IT teams — need to be able to reach out and touch their technology, no matter where it is. That might be accomplished through a remote desktop connection, a file upload or download, or even remotely piloting a rover on the surface of Mars.

Remote access is growing into a critical component of most enterprise IT environments. Digital transformation, in this regard, means remote access is powering global operations, enabling IT to manage and control devices no matter their form factor, location, or interface.

To accomplish this, remote connectivity has to be treated as a critical platform — a system to build on and build into solutions. We'll discuss this concept in-depth throughout this white paper.

Remote connectivity is growing into a critical component of most enterprise IT environments.

BEYOND TRADITIONAL REMOTE CONNECTIVITY

The basics of remote connectivity have been with us for years, but the technology gets better and better. What's changing is that remote access is becoming mission-critical as systems, users, and devices are more dispersed and more mobile than ever before.

THREE FUNDAMENTAL PILLARS OF REMOTE CONNECTIVITY

At its core, remote access comprises three fundamental pillars.

The first pillar is the ability to remote screen or view a remote camera securely, without lag. It no longer matters whether that screen is at work and you're at home, or that screen is on the International Space Station and you're in a hospital; if you have the requisite permissions and the infrastructure, a modern connectivity solution can handle it.



The second pillar is remote control — the ability to execute commands, launch scripts, and enter command line instructions by taking control of the remote mouse and keyboard. Remote access has long supported controlling a remote client's screen or desktop, but it's now growing to managing headless servers and systems, automated maintenance and operations, and even custom camera and device manipulation controls.

The third pillar is file sharing or transferring files — the ability to move data efficiently (whether in the form of files or packets) in support of remote operations. This, especially when integrated with remote scripting and automated commands, empowers modern workflows.

This becomes particularly powerful for IT administrators. With so many machines and devices out there, the ability to perform remote updates, patching, and maintenance is not only a way to save money, it may well be the only way to keep up with the demands inherent in managing a vast fleet of mobile devices, networked computers, and IoT endpoints.

Remote support apps or features are often installed before a problem crops up.

SUPPORT: REACH OUT AND HELP SOMEONE

One of the earliest widespread uses of remote access was for computer tech support. Technicians (and often tech-savvy family members and friends) needed to be able to see and interact remotely with other problematic computers. Often the challenge for a technician wasn't solving the original problem, but guiding technically-challenged users through the often unintuitive and intimidating process of installing a remote access client.

While this situation still exists on some unmanaged machines, IT organizations are starting to get ahead of the problem. At the enterprise level, remote support apps or features are often installed before a problem crops up, which facilitates connecting, evaluating the problem, and implementing a fix.

Remote support has now expanded into an entire array of helpdesk solutions. With corporate provisioning of smartphones and tablets — plus, bring your own device (BYOD), choose your own device (CYOD), or corporate-owned, personally enabled (COPE) — a secure, permission-based app can be installed (and locked from deletion) at the time the device is provisioned.

This means that when a helpdesk call inevitably comes in, the authorized agent can access not only a desktop or laptop, but even the phone of an employee calling in from the field. With remote access, screen sharing, remote control, and file transfer capabilities can be built into solutions, verticals, and entire industrial and enterprise implementations. We'll take a deep dive into this effective strategy later.

GLOBAL WORKSPACES FOR A REMOTE WORKFORCE

According to real estate giant Transwestern, the <u>national average</u> <u>office rent</u> grew by 4.1 percent in 2018, exceeding the expected five-year compound annual growth rate of 3.4 percent. While the national average asking price is \$26.63 per square foot, <u>office space in major cities</u> like Washington, New York, and Austin, averages between \$500 - \$600 per square foot. At rates like that, remote workers can be an enormous benefit to the bottom line.



Back in 2013, ZDNet <u>calculated</u> that American commuters drove 1.9 trillion miles each year. They estimated that the yearly commute

consumed 85 billion gallons of gasoline, as well. According to ABC News, cited in that article, the average commuter took 52 minutes to commute 32 miles, twice a day.

According to a 2018 Regus study <u>reported in The Economic Times</u>, flexible working could save more than 3.5 billion hours of commuting time and contribute more than US \$10 trillion to the global economy by 2030. China and India are projected to see the greatest increase, with a gross value add (GVA) of US \$1.4 trillion in China and US \$376 billion in India.

A more recent study, the March 2019 <u>IWG Global Workplace Survey</u>, noted that 85 percent of business leaders surveyed reported that flexible working has made their businesses more productive, while 67 percent quantified that productivity, attributing at least a 20 percent

productivity gain derived from flexible working conditions. In other words, allowing for a flexible workforce gained most workers almost a day a week in added productivity.

When it comes to attracting talent, the survey reported that more than 4 out of 5 respondents confirmed that, given two similar job offers, they would turn down the one that did not offer flexible working. Additionally, 65 percent of respondents reported that flexible workplace environments help them "reduce CAPEX/OPEX, manage risk, and consolidate their portfolio."

85 percent of business leaders say flexible working makes their companies more productive.

This makes for a very simple calculus. Office space is expensive, and workers spend nearly two hours a day on the road. It becomes clear that telecommuting is a win-win situation for everyone, including the planet. Add to that the fact that teams are now comprised of individuals from many geographic areas, and it becomes clear that the remote workforce is a trend that will stay with us for the foreseeable future.

This creates new opportunities and new challenges. Remote desktop allows for provisioning and management, enables employees to work wherever they're most comfortable, and facilitates collaboration. By expanding provisioning and management to mobile devices, it's possible to create an inclusive global workspace for a geographically dispersed workforce.

Cloud computing has actually helped in driving this trend. Branch office infrastructure and distributed



hardware require physical visits for maintenance and repair. With cloud, IT managers never physically touch the resources they use. Remote desktop, then, can be expanded to remotely control servers, IT resources, and cloud resources — reducing that headache. By implementing remote maintenance and unified operations through a centralized platform, support agents and technicians can maintain and manage many more devices at a substantially reduced cost.

INTEGRATING REMOTE ACCESS INTO ENTERPRISE SOLUTIONS

No matter how global an enterprise ecosystem is, collaboration, management, remote access and control are critical. Building remote operations capabilities into solutions from the ground up will reduce costs, increase responsiveness, and improve recovery time at global scale.

BUILDING SOLUTIONS WITH TIGHTLY INTEGRATED REMOTE ACCESS AND REMOTE CONTROL

It's human nature to wait for a wake up call before taking action. Organizations that didn't have a disaster recovery or business continuity plan in place before a crisis suddenly make preparation a top priority once a crisis has occurred. The same holds true for cybersecurity in the wake of a highly publicized data breach.

You don't want to wait for a crisis before you install the tools that can prevent or mitigate that crisis. Remote access can make all the difference when dealing with a crisis anywhere. Your experts can roll out

of bed and make a quick fix, rather than booking a flight and traveling across time zones. Problems can be solved in minutes, compared to taking a day or more and costing thousands of dollars. Remote access helps enterprises manage lost or stolen devices/computers as well, giving you the power to wipe them remotely if they fall into the wrong hands.

You don't want to wait for a crisis before you install the tools that can prevent it.

As you plan out new solutions or retrofits for legacy installed solutions, be sure to include remote access and remote control. This is particularly valuable as you install headless devices, because remote access and remote control will

give you a way to monitor, operate, and support unattended devices anytime, from anywhere. This is ideal for enterprises that manage point of sale (POS) devices, digital signage, IoT devices, remote servers, industrial equipment, and more. Making remote access and remote control key components of new solutions from the beginning means you'll reap the benefits from initial deployment onward.

REMOTE ACCESS EXAMPLES IN RETAIL AND HEALTH CARE

In this section, we'll take a look at two very different industries — retail and health care — to explore how



device and machine access can be unchained from physical constraints.

These are just a few examples of the many ways remote access can be deployed in different industries, markets, and applications.

Point of Sale

In retail, let's examine how remote access works with a nationwide network of (POS) machines. POS systems are the front lines of any retail chain. When a POS machine goes down, not only will its operator lose money, it also negatively impacts customer experience.

Without remote access, if POS machines fail, there are three traditional options: send it in for repair, wait for a technician to come out to your location, or rely on staff to somehow suddenly become "tech experts" to follow helpdesk instructions — a process fraught with frustration and errors.

But if you bake in remote access from the start, solving problems with devices become a matter of simply making a call. No expertise is required at the sales location. The technician can dig into the problematic device, diagnose the problems, and implement a fix remotely.

Once you have remote access built in, there's an even bigger advantage: remote updates and operations. Even without a helpdesk agent, automated scripts can reach out to each POS device and trigger operations and scripts there, pushing out and installing updates and patches as necessary.

Health Care

Technology use in health care is growing at a rapid pace due to the Affordable Care Act (ACA) and its <u>directives</u> towards the use of integrative care, electronic health records across providers, innovation in service delivery models, and new opportunities in home health services and remote monitoring.

Within the medical field, remote access solutions help medical professionals securely access patient information from home or provide remote medical consultative services to patients unable to attend office appointments or travel for care. (In fact, the term "telepresence" is most associated with remote medical providers.)

According to James Marcin, director of the pediatric telemedicine program at UC Davis presenting at the <u>Forum on Medical and Public Health</u>

<u>Preparedness for Catastrophic Events</u>, telemedicine has been particularly helpful in rural areas, allowing "clinical expertise to be everywhere."

These solutions help medical professionals access patient information from home or provide remote medical consultative services.

But "everywhere" doesn't come easily. The challenge here is not only implementing a high-speed and highly reliable network connection, but also making sure any two-way video conferencing is secure and Health Insurance Portability and Accountability Act (HIPAA) compliant. In order to provide services like outpatient specialty consultations, inpatient intensive care specialty consultations, operative and procedural consultations, interpretation of images, and remote patient



monitoring, remote access will need to be built in to proprietary medical systems and applications, so doctors and nurses can access that information securely from outside the hospital or connect to patients who are outside the walls of their practice.

In health care, remote access isn't just about computing devices, either. Many special-purpose medical devices are often operated with both screens and custom-built interfaces ranging from joysticks and knobs, to touchscreen tablets, to dials and force-feedback controls.

It's now possible to replicate those controls remotely, as well. One exciting example is <u>the work being</u> <u>done</u> by Dr. Philipe Arbeille, Professor of Biophysics, School of Medicine, University of Tours. He is researching the damage that may occur to astronauts' blood vessels when traveling in space.

To do this, he and his team partnered with TeamViewer to devise a solution that would allow astronauts to carry out their own guided echocardiogram while on the International Space Station. The team developed motorized probes that are held in place by the astronaut and guided by an ultrasound technician on the ground. During the echocardiogram, high resolution images are transmitted securely from 254 miles up and then analyzed by the Earth-bound cardiology team.

Whether your project is down to earth or out of this world, by building in the necessary remote access and remote control capabilities at the time of design, it's possible to integrate remote access and remote control into custom control panels. This is ideal for remote support, predictive and proactive maintenance, training, deploying updates and security patches, as well as actual operation.

IT'S NOT SCIENCE FICTION: CONNECT TO, SEE, AND OPERATE REMOTE DEVICES AND "THINGS"

Protecting and managing critical infrastructure is becoming an absolute necessity in our hyperconnected world. As we deploy millions of smart devices across the planet, they will require maintenance, remote control, timely updates, and efficient management within a highly secure infrastructure.

REMOTE CONTROL AND THE INTERNET OF THINGS

Nearly everything that was once just a "thing" is getting some form of intelligent control, from medical equipment to windmills to vehicles to industrial machines, and beyond.

Remote operations in manufacturing and logistics are becoming a necessity as more devices are deployed worldwide. Industrial, manufacturing, farms, and logistics operations are hotbeds of high tech, benefiting from ubiquitous wireless broadband. But the challenge has been that these specialized pieces of equipment often require control surfaces more complex than just a screen. Knobs and joysticks, for example, allowing an operator to keep eyes on the industrial process, rather than hunt for virtual buttons on a screen.

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Sometimes the devices and the system or person controlling them are thousands of miles away from each other, and yet the remote control interfaces must be identical to those at the process site in order to take advantage of operator muscle memory and years of training.

A key way to accomplish this is to integrate the control mechanisms into the devices as they are designed, or use out-of-the-box software solutions to embed remote operation capabilities to locally-controlled mechanisms. With the rise of affordable and widely accessible Arduino and Raspberry Pi microcontrollers and single-board computers, developing these systems is possible, even on tight budgets.

As such, the barrier of entry to IoT has dropped considerably. But even though the entry cost for deploying intelligent devices is very low, the cost to maintain and manage them will skyrocket without good methods of controlling and supporting them.

There are millions more of these fit-for-purpose devices than there ever were of computing devices with screens. One Cisco report <u>cited in ZDNet</u> estimates that there will be 14.6 billion connected IoT devices by 2022, up from 6.1 billion in 2017.

Even though they might be anywhere in the world (or, sometimes, even in space), all of these devices and "things" need to be monitored, operated, and maintained. The only practical and cost-effective way to accomplish this is to do most of that work remotely.

REMOTE FIELD SUPPORT WITH AUGMENTED REALITY (OR, "SEE THE CABLE I MARKED WITH AN ARROW? UNPLUG THAT.")

Contrary to popular belief, you don't need glasses or a heavy headset to make compelling use of augmented reality (AR).

From the remote operations and remote support standpoint, AR can be as simple as showing a person in the field where and what to manipulate. When field technicians need additional support, they can use an app on their smartphones to request expert assistance. Authorized remote support technicians can see what the workers see via the on-site workers' smartphone camera's live streaming video feed. The

remote expert technician can then guide the worker to accomplish tasks by tagging images or drawing on the smartphone's display to clarify what to do and where to do it.

This enhances the capabilities of remote access and control and represents an additional layer of visual guidance that can be tremendously helpful to support recipients.

Let's go back to that POS example we used earlier. Most operators of POS devices are not highly trained technicians. But in situations where physical,

When a remote technician can see what the user sees and then point at what needs to be touched, it brings immediate benefits.



human manipulation of a remote device is necessary (e.g., replacing the tape on a register or fixing a system crash), having the ability for a remote help desk technician to see what the user sees and then point at what needs to be touched can have immediate and tangible benefits.

Moving forward, AR and VR (virtual reality, or fully-immersed viewing) might also be built into complete, simulated control rooms to allow operation of an entire enterprise's fleet of remote devices. As VR builds out, it may be possible for a local operator to "be there" in a VR environment, while operating remote controls and viewing remote locations.

THE FUTURE: TELEPRESENCE ROBOTS, DRONES, AND AUTOMATED INSPECTION

A very interesting device has been on the market for a few years now. The <u>Double 2</u> is a remotely-operated iPad on a wheeled mount. Using an app, a user working from home can navigate the Double 2 robot around a distant office, visiting workers in cubicles and even sitting in on conference room meetings. The remote users face is shown on the iPad screen and transmits back images and voices at the remote location.

A more robust version of this example would be a robot that can roam about outside to let remote operators inspect devices and locations. Many home and commercial inspectors use drones to inspect structures; now imagine those drones were operated from distant locations.

Expect a future of robots and drones that augment remote operations and have access to places that are too dangerous or impractical for humans. By implementing remote control and remote access systematically, on an enterprise-wide or solution-by-solution basis, the ability to integrate remote control with other aspects of device provisioning and fleet management has enormous potential.

ABOUT TEAMVIEWER TENSOR

This white paper makes the case that remote access is necessary to connect growing enterprise deployments worldwide, but now comes the big question: how can it be done securely? The answer is TeamViewer Tensor.

Many IT folks are familiar with TeamViewer for remote support, but most people don't know that there are more than 2 billion installations worldwide and about 340 million active devices each year.

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TeamViewer recently launched Tensor, an enterprise solution for remote connectivity, access, and control on a global scale. Let's look at some of its capabilities.

REMOTE ACCESS AT ENTERPRISE SCALE

Tensor is a cloud-based software-as-a-service (SaaS) solution that provides scalability and manageability without new appliance installations. Because it's cloud-based, provisioning can be done seamlessly and mass deployment to thousands of new devices is fast and secure. Scaling is automatic and graceful.

One of the fundamental core competencies of TeamViewer is the ability to transmit screen data in real time. This communications protocol, which includes end-to-end encryption and compression, can be used to move all command and control data securely. As a bonus, it is not necessary to install or configure a virtual private network (VPN). In fact, TeamViewer's communications protocol is faster and easier to manage than VPNs.

Tensor supports a wide range of mobile devices in addition to desktop solutions, and it supports just about any IoT device, providing full remote control and access to virtually any system. For any company needing help with implementation, the TeamViewer team is there with expert support.

REMOTE OPERATIONS REQUIRES COMPREHENSIVE SECURITY

With worldwide remote access combined with remote control and even automated remote execution, security becomes paramount. Tensor builds security into its solution, starting with end-to-end encryption of all data transmitted. This means no one — including TeamViewer — can read data in motion or at rest. It also integrates with common single sign-on (SSO) identity providers and offers extended multi-factor authentication.

TeamViewer Tensor enables companies to integrate their existing enterprise security policies with their identity provider solutions to onboard and offboard employees efficiently. Tensor also offers full audit, logging, and reporting capabilities, along with activity tracking to monitor all actions taken by users in every remote connection session.

As thousands of devices are deployed, the only way to stay ahead is through centralized systems.

In addition, Tensor includes conditional access, where IT administrators set policies and rules that govern access permissions. Policy-based access ensures that each device or computer is only accessible by authorized users and groups. Remote sessions are also recorded for monitoring and auditing purposes, and are retained for 12 months for security purposes.

Centralized single sign-on (SSO) is certainly important for user provisioning, but centralized device provisioning is becoming even more critical. As thousands upon thousands of devices are deployed, the only way to stay ahead of all that work is by activating and managing them through centralized systems. TeamViewer Tensor provides a "single pane of glass" interface for all those devices, for visibility into a wide variety of systems in one centralized platform.

COST-EFFECTIVE SOLUTIONS THAT SCALE AT THE PACE OF BUSINESS

There are many operational advantages provided by global remote access and control, as well as tangible benefits to the bottom line. Using a SaaS solution like Tensor allows enterprises to avoid big upfront capital expenses associated with traditional on-premises appliances and correlate operational expenses with enterprise needs. Not only does this provide for better cash management, it also allows successful enterprises (in most cases) to expense rather than amortize investments.

The cloud benefit continues when it comes to reduced total cost of ownership (TCO). There's no appliance cost or hardware maintenance, no floor space cost, racks to manage, gear, or heating, ventilation, and air conditioning (HVAC) required. All of an IT organization's resources can go into the core mission — TeamViewer takes care of the maintenance.

CONCLUSION

Speed is essential in this rapidly changing world. For companies that require remote deployment support, the need is immediate. Tensor provides for fast deployment and implementation, easy integration, and the ability to manage thousands of devices securely and efficiently.

Tensor also provides faster time to market with compelling support, remote access, and remote control features that help differentiate against competition and increase user satisfaction.

As we close out this white paper, here are ten important points to keep in mind:

- 1. There are seismic changes brought about by the digital transformation of the IT landscape.
- **2.** IT operations need to manage huge mobile deployments, multi-vendor cloud infrastructure, millions of internet-connected devices all around the world.
- 3. Remote access and remote control are becoming mission-critical for global IT operations.
- **4.** Remote connectivity can help track, secure, update, and monitor devices that may be separated by thousands of miles.
- 5. With remote access, screen sharing, remote control, and file transfer can be built into solutions, verticals, and entire industrial and enterprise implementations.
- **6.** Workspaces are now global. Surveys of business leaders show that a flexible working environment can improve productivity so much that they gain a full day a week in productivity.



- 7. There's a benefit to recruiting as well. Four out of five prospective hires surveyed said that, all other things being equal, they'd choose a company that offered workplace flexibility over one that doesn't.
- Remote access to headless and unattended devices can substantially reduce maintenance costs and downtime.
- 9. There's no way any company can constantly schedule field technicians to manage and maintain all deployed IoT devices that are going to be deployed. Remote access is essential.
- 10. Augmented reality doesn't mean your workers need to wear heavy headsets. AR solutions can include remote expert technicians pointing out important details in live streaming video support session on smartphone displays, saving time, travel expenses, and frustration in the process.

With Tensor, your company can leverage a comprehensive set of enterprise-class capabilities for remote access, opening up a world of optimized business processes and vastly enhanced productivity.

LEARN MORE

Get more information about TeamViewer Tensor at https://teamviewer.com/tensor or see firsthand how it works and request a free demo today: https://www.teamviewer.com/en-us/teamviewer-tensor/signup-tensor-demo/.

SOURCES

- 1. New York Times, "Out of the Office: More People Are Working Remotely, Survey Finds," February 2017
- 2. Gallup, "State of the American Workplace," 2017
- 3. World Economic Forum, "The Future of Jobs," 2016
- 4. GlobeNewswire, "4.1% annual growth in office asking rents above five-year compound annual growth rate," May 2019
- 5. Statista, "Cost of office space in selected major cities in the United States in 2017 (in U.S. dollars per square foot)," July 2019
- 6. ZDNet, "The enormous societal benefits of working from home," March 2013
- The Economic Times, "Flexible working may add USD 376 billion annually to Indian economy by 2030: Study," October 2018
- 8. International Workplace Group, "The IWG Global Workspace Survey: Welcome to the Generation Flex
 the employee power shift," March 2019
- Obamacare Facts, "Summary of Provisions in The Patient Protection and Affordable Care Act,"March 2015
- 10. NCBI, "Leveraging the Affordable Care Act and Information Technology to Innovate," 2014
- 11. TeamViewer, "CNES: Tele-operation of medical equipment in space," 2018
- 12. ZDNet, "IoT to drive growth in connected devices through 2022: Cisco," November 2018
- 13. Double Robotics, "Double 2 Features," 2016



ABOUT TEAMVIEWER

As a leading global remote connectivity platform, TeamViewer empowers users to connect anyone, anything, anywhere, anytime. The company offers secure remote access, support, control, and collaboration capabilities for online endpoints of any kind and supports businesses of all sizes to tap into their full digital potential. TeamViewer has been activated on approximately 2 billion devices; up to 45 million devices are online at the same time. Founded in 2005 in Goeppingen, Germany, the company employs about 800 people in offices across Europe, the US, and Asia Pacific.