

# COVID-19: RESTARTING AUSTRALIA THROUGH TECHNOLOGY

# INTRODUCTION

The year 2020 started pretty dramatically. Australia was on fire, the US was sizing up against Iran, and a new communicable disease was raising concerns in China.

As fires were extinguished and tensions de-escalated, the coronavirus was gaining ground. By the end of February, confirmed cases had risen to 85,968 globally. In Europe, Italy went into lockdown on 9 March. Germany and France followed suit the next week. The UK and Australia went into lockdown on 23 March, followed by New Zealand just a couple of days later.

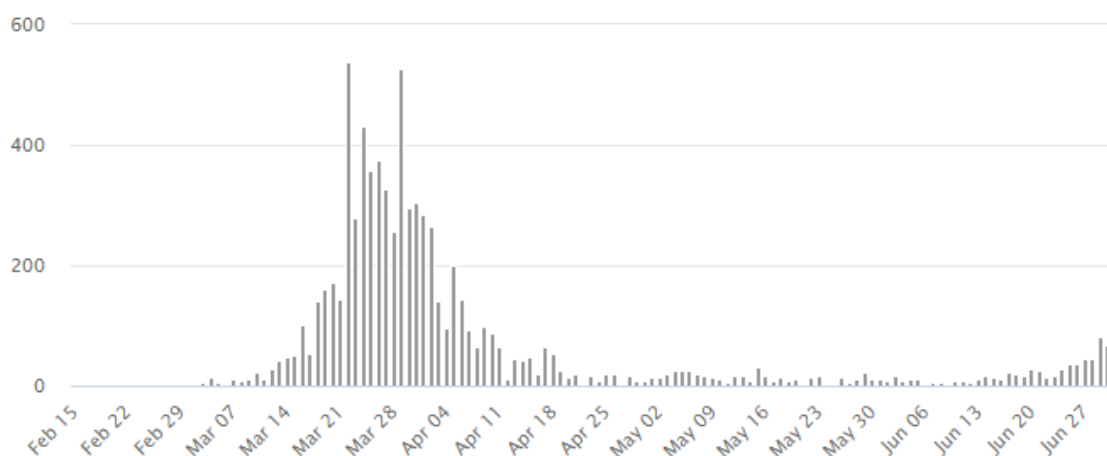
The effect on our lifestyle has been considerable. Online activity shot up, traffic levels plummeted, and Australia's most iconic beach Bondi was closed.

The world of work was also transformed. As the BBC points out, an estimated 200 million people will lose their jobs due to the coronavirus. The financial burden falls most heavily on the most vulnerable in society. Digitisation and pandemics

have accelerated changes to jobs available to humans. How to mitigate the impact on the larger workforce and the most vulnerable is the issue across all industries and countries that deserves not only attention but also a timely and human-centred solution.

RingCentral Australia has analysed these changes to user behaviour during the outbreak and to telecom network traffic in major regions in Australia. Based on various RingCentral customer case studies, and an amalgamation of data from the network and cloud providers, this report aims to provide Australian businesses with rational suggestions for a communications strategy as the country gradually emerges from its isolation.

**Number of new coronavirus (COVID-19) cases in Australia each day March to June (figures as of 2 July 2020)**



Source: [worldometers.info](https://worldometers.info)

## LIFE AT HOME

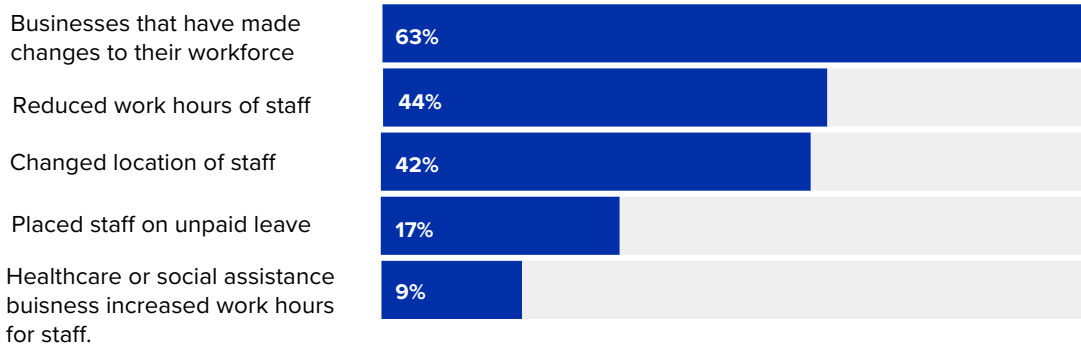
Isolation measures have in large part kept people restricted to their homes. The restriction of physical proximity and contact has all but removed the daily face-to-face interactions most humans have been taking for granted all their lives. As an adaptive species, we've found ways to make this more bearable, stay social despite distancing, and remain productive without "going to" work. Virtual happy hour quickly became a thing.

## TAKING WORK HOME

The physical distancing measures put in place raised challenges and opportunities for businesses and affected the way virtually everybody worked. Even those key workers who continued operating from the same location did so under abnormal conditions—operating from behind Perspex screens, wearing protective equipment, and adapting to new workplace hygiene protocols.

Wireless networks have played a critical role in maintaining connection and facilitating communication between and among people. importantly, we have kept things running throughout. Delivery services (for food, shopping, and essentials) saw a surge, and special shopping hours were put in place by major supermarkets to ensure seniors could obtain those essential items they needed (toilet paper anyone?)

The majority of office workers stayed at home, relying more on virtual conferencing and collaboration tools. [nbn recorded its highest ever peak in data demand](#) in the middle of the lockdown period. For the week from Monday, 27 April to Sunday, 3 May, peak download throughput during the busy evening period increased by 26% to 13.9Tbps, compared to the baseline period during the last week of February 2020.



Measures taken by businesses to manage workforces as a result of coronavirus (COVID-19) in Australia in March 2020

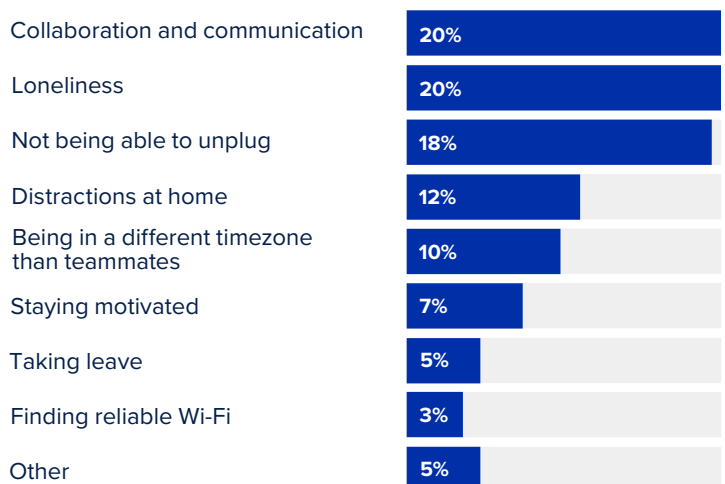
Source: [ABS.com](#)

According to [Ray Morgan research](#), over 4.3 million people (32% of working Australians) have been working from home since lockdown and social distancing has been implemented, relying more on virtual conferencing and collaboration tools to stay connected.

There are significant differences between people working in different industries. Over half of people working in Finance & Insurance (58%) and Public Administration & Defence (51%) have been working from home and just under half of those in Communications (47%).

Far less likely to be working from home are Australians working in more 'hands-on' industries. Fewer than one-in-six Australians working in Manufacturing (16%), Transport & Storage (15%), Agriculture (13%) or Retail (12%) have been working from home during the last few months.

## What's your biggest struggle with working remotely?



Source: [buffer.com](#)

## HOW WE LEARN: FROM IN-CLASSROOM TO DISTANCE LEARNING

UNESCO, the United Nations education agency, estimates that 91% of the world's students have now been affected by school closures. The education sector, which earned over 12 billion Australian dollars from Chinese students alone in 2019, began the first semester of 2020 without hundreds of thousands of international students, who were unable to enter the country due to travel restrictions. Many educational institutions started offering courses online to ensure education was not disrupted by quarantine measures.

Educational institutions from kindergarten through to post-graduate have had to pivot to 100% online teaching and learning – UTS Insearch in Sydney, a case in point. Once life returns to normal, the expectation is that there will be a permanent and more pervasive use of online teaching and learning in Australia. For example, the NSW Government has already announced that it will be delivering online vocational education and training (VET) in every government high school by 2022.

### Top education apps in Australia

Rank April, 2019

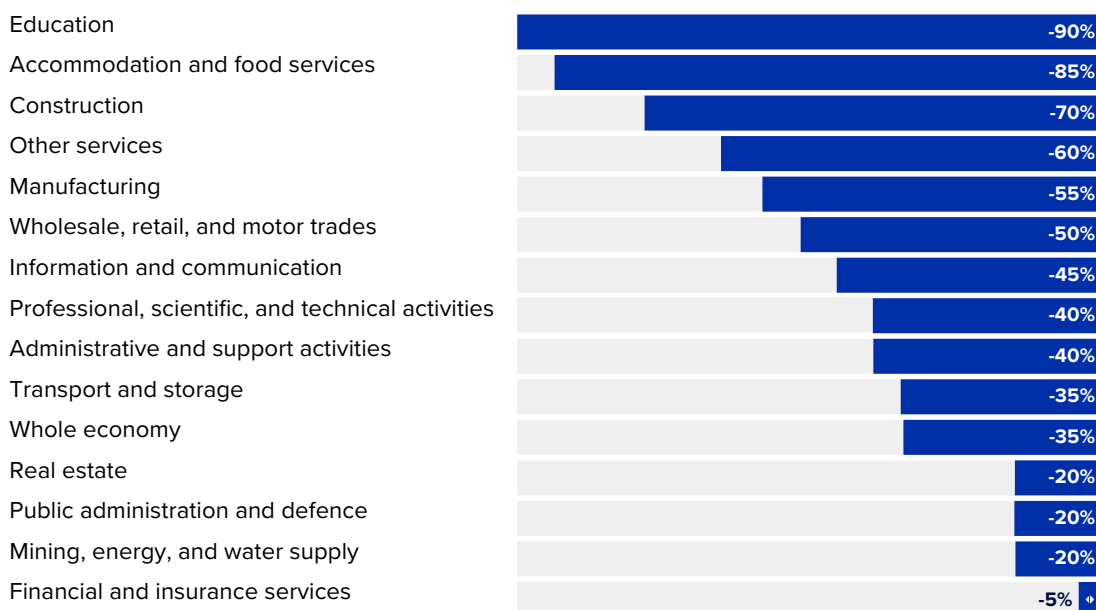
1	Duolingo	6	Compass
2	Kahoot!	7	SkyView Lite
3	Lumosity	8	Babbel
4	ClassDojo	9	Seesaw
5	Peak	10	Google Classroom

Note: iOS and Google Play combined.

Source: [sensortower](#)

Many Australian parents who thought their children might spend lockdown engaged in face-to-face video conferences with teachers have ended up disappointed. In Australia, virtual classrooms have been much less common than in other parts of the world—with the exception of some private schools.

A survey of 10,000 Australian teachers found only 35 per cent of teachers felt students had adequate resources at home — including having a freely available adult on hand to assist, along with technology or even a desk. Anecdotal evidence suggests many parents felt overwhelmed with their newfound responsibility.



**Output losses relative to the baseline due to the coronavirus (COVID-19) pandemic in second quarter 2020, by sector**

Source: [statista.com](#)

## PUBLIC SERVICE CHANGES: TELEMEDICINE SURGES, AND CONTACTLESS IS THE NEW NORM

Digital communications played a major role in Australia's fight against the coronavirus. We have had to move quickly to adopt telemedicine. The Australian Government introduced a temporary scheme from March to September 2020, allowing health professionals to treat patients virtually or over the phone. This has been embraced enthusiastically by Australians. It turns out that **we have had the largest uptake globally** in new users of telemedicine services during the COVID-19 pandemic.

ABC News reports that doctors in rural and regional Australia are urging the Government to continue the telehealth scheme, saying it will help to close Australia's health gap. "I would hope the success of this implementation, over COVID-19, is enough to stimulate further reforms in this area, to allow telemedicine to be extended, supported and the breadth of it to be used in general practice for years to come," said CSIRO health and biosecurity director Dr Rob Grenfell in the ABC article.

The coronavirus crisis also prompted a major surge in the number of Australians getting their **medication scripts online** to avoid GP waiting rooms. Some online prescribing services reported a 400 per cent increase in orders, during the last weeks of March. And the changes didn't stop there.

On the 31st March the Australian Government also announced a new **Home Medicines Service** to provide home delivery of PBS and Repatriation Pharmaceutical Benefits Scheme medicines, for vulnerable people and people in isolation. This service was to complement the Government's investments in telehealth, allowing vulnerable people to have their scripts filled remotely and delivered to their home.

## PANDEMIC AS AN OPERATIONAL RISK TO BUSINESS

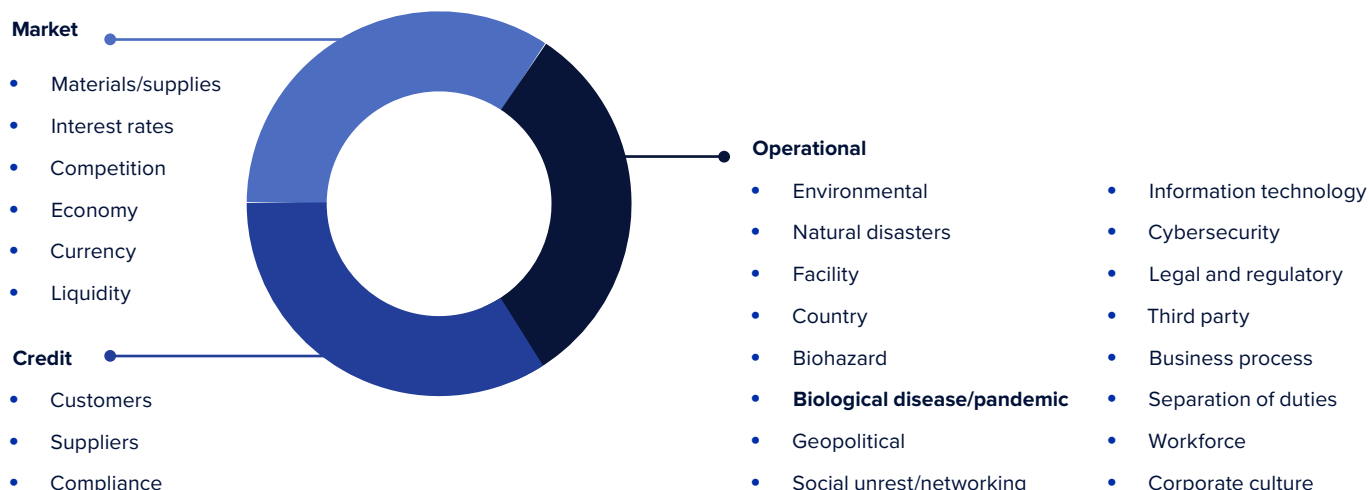
The pandemic has affected business and commerce all over the world and across all aspects of business, from customer service to supply chains. A variety of measures have been adopted in an attempt to mitigate the effects of the pandemic. On the 30th March, the Federal Government announced the introduction of the **JobKeeper payment**. The payment is a wage subsidy paid by the Government to businesses significantly impacted by the Coronavirus. This allowed employers to continue paying their employees whether they are able to work or not. The Government will provide \$1,500 per fortnight (pf) per employee for up to six months to eligible businesses.

Certain sectors took a bigger hit than others; travel and hospitality in particular came under threat as hotels and restaurants closed, airlines cut flights, and customers sought cancellation reimbursements. Research headed by Professor Warwick McKibbin shows the coronavirus pandemic will cost the **Australian economy at least \$170 billion** this year.

Even those businesses that weren't forced to cease operations faced a challenge—companies relying on access to an on-premises hardware stack for their operational, communications, and productivity tools were left rueing not being more thorough in considering a pandemic more prominently in their operational risk assessments.

### A pandemic is an operational risk

#### Organisational resilience risks



Source: [emtemp.gcom](http://emtemp.gcom)

## SOCIETAL DEPENDENCE ON NETWORK COMMUNICATIONS SURGES

With users spending long periods of time online, we have also seen changes in telecom network traffic and protocols. Australians are accessing the internet from home in record numbers, causing up to an 80 per cent increase in demand.

The nbn, which is now available to 95 per cent of Australian households, has seen data demand increase by more than 70 to 80 per cent during daytime hours, compared to figures calculated at the end of February. Prior to COVID-19, the nbn network processed about 5 terabits per second (Tbps) from 8am to 5pm. On March 27, data demand peaked at 9.2Tbps.

The effect of the transition from in-office to work from home was remarkable. Digital transformation strategies and cloud adoption in business generally have accelerated during the pandemic. "The lockdown and work from home period has had a massive impact on the amount of cloud services being used ... this is true for almost all business applications, but the biggest impact is the uptake of collaboration tools and video conferencing, which are all built on cloud ms," said platfor Telsyte's managing director Foad Fadaghi.

That sort of capability allowed Australian software company TechnologyOne to send 50% of its workforce home even before the enforced lockdown, and maintain business as usual operations.

"RingCentral has been great for uniting our entire company across all offices, globally, and helping everyone communicate and connect more effectively," says Jacqueline Ho, TechnologyOne's IT Director, adding that she and her colleagues are thrilled to have a single system for telephony, call centre, video conferencing, as well as team chat and collaboration. "Having all of these tools on the same solution around the world helps us train people and makes it easy for us to stay connected."

Working from home or WFH has been a growing phenomenon in Australia. Around 74% of Australians consider flexible working to be the new normal, and in 2019 the Australian Bureau of Statistics (ABS) reported that 34% of all employed people in Australia regularly worked from home.



# DEMAND FOR CLOUD COMMUNICATIONS SYSTEMS RISE DURING THE PANDEMIC

Individuals, families, and businesses from all industries have been greatly affected by lockdown measures, pushing them to demand more from their communications systems. Many businesses have come to realise the importance of digital transformation, and they are working with cloud providers to leverage technology to fight against the pandemic.

## INDUSTRIES GOING DIGITAL TO STRENGTHEN THEIR BUSINESS CONTINUITY

Industries that heavily rely on a physical component were hit hard by the isolation measures. The highest output of losses due to the coronavirus were reported in the education, accommodation and food services, construction, and manufacturing sectors. Much of this was a direct result of the voluntary or mandated changes in behaviour. The [most common measures](#) taken to manage workforces due to the coronavirus were enforcing working from home, encouraging

working from home, decreasing working hours, and reducing staff levels in the short term. Numerous industries are still seeking solutions to the problem of connecting staff and customers, reinstating their supply lines, and generating direct revenue. Great potential remains for businesses to identify and adopt more advanced communications technologies to fight the pandemic and stay in touch with their customers.

## CLOUD ADOPTION ACCELERATES

When the shift was made to working remotely in lockdown, the businesses that were already operating in a cloud-native manner switched to remote working seamlessly. For those that weren't operating in the cloud, we've seen the coronavirus pandemic accelerating cloud adoption. This is not just a technological shift but is also an operating model shift, as companies recognise the limitations of their current environments and struggle with the impact of the pandemic on their financials. We expect this shift to be dramatic and compress the adoption curve from decades to just a few years.

The most immediate impact we have seen with our customers is the massive shift to remote working. We're engaging with our customers regularly to support them through the pandemic in light of the stay-at-home reality. The effect of the transition from in-office to work from home was remarkable: By the end of

March, RingCentral app downloads were up 300% MoM, meetings usage was up 100%, and team messaging usage was up 70% MoM.

The world is currently redefining what it means to "go to work." Customers are trusting us to guide them on that journey. This has meant new customers embracing our unified Message-Video-Phone #MVP solution—backed by our quality, experience, and reliability.

We expect that using video optimisation and network traffic management tools (SD-WAN), in line with existing cloud apps will allow businesses to maintain service availability for all forms of internet usage. Vodafone cited that their own employees are [hosting 40,000 virtual video meetings over 6 million minutes](#) every single day thanks to a rapid expansion of capacity to all of the digital tools.



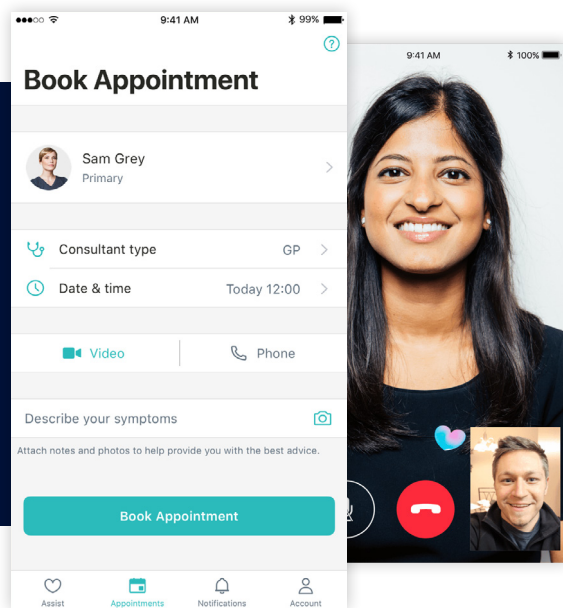
## THE FUTURE OF AUSTRALIAN HEALTHCARE: FULLY CONNECTED, CONTACTLESS, AND GEOLOCATION DEPENDENT

“The telemedicine agenda has been accelerated by about 10 years, simply because it is not safe or practical to do much of the traditional medical model,” says [Dr Rhyddian Harris](#), a former clinician who works as a product manager for Pando.

In what could be a silver lining of this pandemic cloud, physical distancing brought remote medicine, or telehealth, into greater prominence. With a growing population, diminishing budgets, and rapidly ageing technology, healthcare providers in

Australia were already struggling to meet the demands of patient management, especially in rural areas.

The adoption of remote working software allows healthcare professionals to carry out consultations without the risk of cross infection and is an efficient alternative to in-person appointments. While video conferencing has been adopted by some health workers to conduct virtual “screenings” of patients to aid in the diagnostic process, its full potential in terms of alleviating pressure on the system is yet to be realised.



In what could be a silver lining of this pandemic cloud, physical distancing brought remote medicine, or telehealth, into greater prominence.

## THE FUTURE OF PUBLIC SERVICES: LEANING ON BIG DATA, REAL-TIME NATIONAL COMMUNICATIONS AND DRONE SURVEILLANCE

As drone surveillance becomes more widespread, privacy concerns haven't diminished. In China, using drones did help areas like Wuhan enforce their shelter-in-place orders. Drones reduce the need for law enforcement to patrol during a pandemic response, instead allowing flying drones to survey city streets and spot citizens defying orders. Our own police force in [NSW](#) has also been using drones to survey 55 boarder crossing points between NSW and VIC, since the boarder between the two states closed.

Cloud communications technologies have been identified as a strong vehicle for urgent public services, such as the promotion and execution of epidemic prevention and control measures.

These can be seen in the growing deployment of field workers using digital platforms to report back on patrolled open spaces, digital platforms being used to broadcast coronavirus-related knowledge within local communities, and more.

Cloud has been a huge part of the 'digital transformation' conversation within [Australian government](#) during recent years. Through initiatives such as the Digital Transformation Agency's (DTA) Secure Cloud Strategy, the Australian Signals Directorate's Certified Cloud Services List, and cloud-based platforms made available for different agencies, the promotion of a cloud-first strategy over the past few years is now paying off, providing more flexibility to government workers than ever.



## THE FUTURE OF AUSTRALIAN EDUCATION: NEEDS HIGH BANDWIDTH, VIDEO CONFERENCING, AND LOW LATENCY SERVICES

As of mid-April, 191 countries announced or implemented school or university closures, impacting 1.57 billion students. The coronavirus has forced elementary and secondary schools across Australia to move school online, and office workers to work from home. Technologies involved in distance learning are similar to those for remote work and also include virtual reality, augmented reality, 3D printing, and artificial-intelligence-enabled robot teachers. There are some major considerations when adopting this new distance learning ecosystem, however. Concerns about distance learning include the possibility the technologies could create a wider divide in terms of digital readiness and income level. Distance learning could also create

economic pressure on parents—more often women—who need to stay home to watch their children and may face decreased productivity at work.

Lastly, we must consider the network demands distance learning will put on our at-home networks. High latency and network downtime have been the cause of some complaint during the pandemic, though the disruption was not as considerable as some feared. However, in considering distance learning alongside professional video conferencing from a long-term perspective, the capacity of cloud platforms and the bandwidth of internet networks are critical components in enabling such widespread practices.

## THE FUTURE OF AUSTRALIA'S HOSPITALITY SECTOR: CONTACTLESS PLATFORMS AND DELIVERY AUTOMATION

School holidays and public holidays in the Australia are traditionally marked by holiday home bookings, social gatherings, weddings and receptions, birthday celebrations, and other activities. This year, the industries supporting those activities will be unable to benefit from the demand. Restaurants and venues are either closed or opened to limited numbers, and hotels are operating skeleton crews due to the outbreak. As a result, transportation of food and other goods has required delivery drivers and logistics employees to work through many of these orders. Efficient contactless services require online platforms that support online orders, cloud-based inventory management, and mobile payment.

Smart cities that embrace autonomous delivery options such as drones, driverless trucks, and even autonomous ships, can seamlessly control the transportation of goods and services in times of crisis. This gives cities the power to prioritise needs, such as the delivery of medicine.

During the time of crisis, many local support groups have sprung up all over the country to serve those in need. Such community-driven groups use diverse communication platforms to provide safe and inclusive ways for people to network during illness and self-isolation.



Image source: [startup daily](https://www.startupdaily.com)

These technology trends rely on a stable, high-speed and affordable internet. The adoption of 5G will increase the cost of compatible devices and the cost of data plans. Addressing these issues to ensure inclusive access to the internet will continue to be a challenge as the 5G network expands globally.

## THE FUTURE OF AUSTRALIAN RETAIL: ONLINE SHOPPING, DIGITAL PAYMENTS, AND CONTACTLESS DELIVERIES

The coronavirus has transformed online shopping from a nice-to-have to a must-have around the world. Some bars have even continued to offer beverages through online orders and at-home delivery. Online shopping needs to be supported by a robust logistics system and in-person delivery is not virus-proof. Many delivery companies and restaurants globally are launching contactless delivery services where goods are picked up and dropped off at a designated location instead of from or into the hands of a person.

Cash might carry the virus, many retailers and restaurants have now banned cash payments. Contactless digital payments, either in the form of cards or e-wallets, remain the recommended payment method to avoid the spread of the coronavirus. Digital payments enable people to make online purchases and payments of goods, services, and even utility payments, as well as to receive stimulus funds faster. The availability of digital payments also relies on internet availability, devices, and a network to convert cash into a digitalised format.

A quarter of online sales in Australia were made through mobile devices in 2019, with 48 per cent of customers shopping on mobile at least once a week. Statista predicts 19.27 million Australians will use smartphones by 2022 for online shopping.



source: [Dynamic Business](#)

## EPIDEMIC EFFORTS FROM RINGCENTRAL IN AUSTRALIA

Measures RingCentral took to protect its workforce and customers from the coronavirus:

- Asked employees to work from home and perform self-quarantine to reduce the spread of the virus.
- Initiated 100% remote working policies globally and banned international business travel to protect employees' safety.
- Provided communications stack assurance in terms of hardware, software, spare parts, human resources, and other aspects to ensure connectivity.
- Offered affected industries (customers) [free service for three months](#) to alleviate cash flow concerns during the pandemic.
- Offered new customers access to the [RingCentral Contact Centre Work from Home Business Continuity Programme for 90 days](#), with a 48-hour go-live express implementation SLA.
- Offered [48-hour rapid deployment](#) of RingCentral Office to help new customers set up working from home quickly.

# USING TECHNOLOGY TO STAY CONNECTED

## EDUCATION

UTS Insearch's rollout of RingCentral was "literally in the nick of time" according to Sarah Chaloner, the global education provider's Head of IT and Digital Services. The cutover and porting of telephone extensions to RingCentral's unified communications from its legacy IP telephony environment took place in March – just as Australia was implementing strict new COVID-19 lockdown restrictions. UTS Insearch is the premium pathway provider to the University of Technology Sydney, delivering education programs to transform the lives of over 5,000 students from 75 different countries every year.

"With the rollout of RingCentral Phone, our default position was that everybody gets a softphone. That meant that as soon as the COVID-19 lockdown happened, we provisioned our teams with headsets and laptops so that they could work from home," explained Chaloner.

Insearch marked their first full month of teaching, learning and working online by clocking up around 3.5 million minutes using RingCentral Meetings, with a cumulative figure of 110,000 participants from 41 countries joining and collaborating in 4,844 meetings.

## HEALTHCARE

Private and public organisations have been using cloud telephony, AI, and mobile apps to help keep the public safe and enable digital health.

- **Broadcasting information:** Several Australian police services have set up dedicated resources to assist in containing the virus. These include major incident rooms and operations and specific new taskforces. Local police patrol streets and communicate with headquarters remotely by using secure mobile cloud communications apps in order to promote epidemic prevention information and instructions.
- **Connecting temporary testing sites:** The Australian government set up various temporary testing sites as quickly as they could by leveraging cloud and VoIP communications platforms and high-speed connectivity.
- **Keeping people at home:** Telehealth services and digital prescriptions encourages people to avoid public exposure by enabling non-urgent patients to use virtual healthcare to fill their prescriptions and stay out of doctors offices and hospitals.
- **COVIDSafe app:** Big data helps users see if they are closely connected to a coronavirus patient. There is increasing demand for big data given recent developments and the need to prevent the disease from spreading. To meet such demands, the Australian government launched the COVIDSafe app. This app analyses whether the user has been in close contact with a coronavirus patient by using big data analyses of travel history and public transit records.

## REMOTE COLLABORATION IMPROVING RESOURCE SHARING, DIAGNOSIS, AND TREATMENTS

To respond to these challenges, cloud and healthcare partners quickly provided multiple solutions for remote collaboration. Where possible, many doctors have turned to telehealth to aid diagnosis. As the coronavirus situation became more serious, Texas-based [Consultants in Pain Medicine \(CPM\)](#)

realised it needed a way to allow doctors to work virtually. After expanding its reliance on RingCentral from fax to also cover video meetings, CPM had trained doctors and was providing customers with telemedicine appointments within 48 hours.



This solution allowed medical experts in different locations to read scans remotely and make diagnoses in real time.

Mental health has been a prominent subject in the discussion of life during lockdown around the globe. Counsellors and psychiatrists have also adopted video conferencing to offer continuity of their services while the uncertainty of the pandemic looms large. [Men's Action Network](#), an organisation promoting and supporting men's mental health in Northern Ireland, used RingCentral's cloud-based voice and video service to maintain contact with clients.

Accepting RingCentral's offer of free licences to help continue their work during the pandemic, Men's Action Network was able to upgrade from an office-based PBX to a cloud service to keep their helpline open by enabling volunteers to receive calls from anywhere on their mobile devices. The organisation is also able to maintain its face-to-face counselling service by using video calls as an alternative to same-room interaction.

## AUSTRALIAN HOMES: A LASTING CHANGE

Photos of empty city centre streets highlight the dramatic way in which the pandemic has affected daily life. The home has overwhelmingly become the epicentre of daily life, taking on new roles as classroom, office, and even hospice. However, thanks to digital connections, more functions than ever before can be continued while sheltering within four walls.

Although quarantine measures have reduced in-person interactions significantly, human creativity has brought the party online. Cloud raves and online streaming of concerts have gained traction around the world. Film production companies and Netflix also released films online. Museums and international

heritage sites offer virtual tours, meaning you can now virtually visit almost anywhere including places closer to home like [Uluru](#). There has also been a surge of online gaming traffic since the outbreak.

The suspension of many sporting codes drew much discussion, in part driven by opinions on financial issues such as voluntary wage cuts and applications for governmental aid. Head of [AFL Media](#) Sarah Wyse agrees that a lot of fans are craving for live sport to return "We have actually seen over a 50 per cent increase in our web and app traffic and our engagement in social, compared to our off-season numbers," she said.

In the UK promotion hopefuls Fulham FC used their social media accounts to keep fans engaged by conducting video [interviews with players](#) and coaching staff, and publishing them online. Fulham FC had adopted RingCentral's cloud-based message,

video, and phone capability only a few months previously, so they were ideally prepared to make the most of their digital capability to keep players, staff, and fans connected.



The home has overwhelmingly become the epicentre of daily life, taking on new roles as classroom, office, and even hospice.

## AU ENTERPRISES: CLOUD COMPUTING PROVES INDISPENSABLE

When the Australian government announced its swift “stay at home” measures it took many businesses by surprise. Suddenly, offices had to close, threatening to separate workforces from their means of productivity.

Most work would have to take place virtually. To meet businesses’ demand for virtual connections, network and cloud providers put measures in place to help businesses.

## BUSINESSES OPEN UP TO ENABLE TELECOMMUTING

During the height of the initial outbreak in Australia, many operators opened up some of their cloud conferencing services to existing customers for free so local businesses could get their employees working and meeting online. Right now, the resumption of economic activities is a top concern for local bus

As workers return to their places of employment from where they were sheltered during lockdown, there would be a high risk of cross infection. Ensuring employee security will therefore become one of the biggest considerations for businesses that resume operations.

## RINGCENTRAL SUPPORT

RingCentral's cloud communications platform, RingCentral Office, provides Australian businesses with a full range of communication tools including HD video conferencing, audio conferencing, team messaging and persistent chat apps, task management tools, free cloud storage, file sharing, web sharing,

a mobile app, a desktop app (that you can also use as a phone), light call centre capabilities, powerful analytics, internet fax, voicemail to email, and out-of-the-box integrations with 200+ cloud apps including Salesforce, Google, Microsoft suite, Okta, Zendesk, and more.



This means users can make and receive calls, attend video meetings, collaborate with colleagues, and remain productive from anywhere with an internet connection. The cloud-based nature of RingCentral's communications platform reduces the need for hardware, allowing businesses more flexibility in taking their operations remote.

To help businesses adapt to the pandemic conditions, RingCentral announced its Office product would be free to education, public sector, and non-profit organisations for three months. Later, that group was widened to include further sectors, an additional offer regarding the RingCentral Contact Centre™ product, and an additional Rapid Deployment offer. In the two weeks following the original announcement in March, the number of businesses switching to RingCentral Office increased by over 60%.

Globally, RingCentral now has 4,000+ educational institutions, healthcare organisations, and non-profits signed up on the free COVID-19 offer, covering 50,000+ users, to help address

the circumstances created by the pandemic. All over the world, the offer was particularly useful for vulnerable operations like schools and voluntary services, and was invaluable in helping community groups protect and support their most at-risk members.

To help businesses of all sizes and means adapt to the new conditions, RingCentral created a [remote working resource hub](#) featuring advice, information and signposting about enabling workforces to work from home.

Before committing to helping others fight the pandemic, RingCentral had to make sure its own employees were supported. At the beginning of the initial outbreak, RingCentral took a series of measures to effectively ensure the health and safety of its employees. Using these measures as a foundation for further services, RingCentral then answered to customer and government requests for pandemic relief around the world. Currently, RingCentral is doing all it can to help partners fight the pandemic and resume operations.

## THE WORKING FROM HOME TOOLKIT

Essential tools to enable an agile workforce



### Mobile and desktop app

Simple and intuitive on your preferred devices



### Video meetings

Video conferencing, screen sharing, and webinars



### Team collaboration

All work conversations and shared files in one platform



### Presence and head-up display

Simple and intuitive on your preferred devices



### Call monitoring

Managers can listen into calls, provide coaching, and facilitate discussion



### Call recording

A record of conversations to play back and download anytime



### Admin control

Instant employee moves, adds, and changes from a web interface



### Call forwarding

Divert calls to reach you at any place and time

[ringcentral.com.au/workfromhome](https://ringcentral.com.au/workfromhome)

# IMPLICATIONS AND OUTLOOK

The coronavirus pandemic has gripped the world, and one of the biggest challenges for response teams, as well as researchers and scientists, has been the lack of data about the virus. The coronavirus has demonstrated the importance of digital readiness, which allows business and life to continue as usual—as much as possible—during pandemics. Building the necessary infrastructure to support a digitised world and stay current in the latest technology will be essential for any

business or country to remain competitive in a post-COVID-19 world, as well as take a human-centred and inclusive approach to technology governance. Using technology to track data in real time can be the difference between life and death. Our connected world will continue to revolutionise pandemic responses. Here are some implications for Australian enterprises from the pandemic to consider for the future.

**Communications is the foundation of the digital world, and the digital technology supported by cloud communications is the cornerstone to fighting the pandemic.**

Cloud communications have played an important role in the fight against the pandemic. Digital technologies such as video conferencing, big data, AI, and mobile apps supported by unified cloud communications platforms are crucial in monitoring and analysing the pandemic, tracking the virus, preventing and controlling the pandemic, treating patients, and allocating resources.

These technologies have also been applied in other areas, such as helping businesses tackle their problems and safeguarding normal social activities.

One of the biggest characteristics of the pandemic is that it affects offline economic activities because of the measures such as “stay at home” and “social distancing.” A massive amount of social and economic activities have gone online. Businesses closed their doors and students stayed home from school, but networks and collaboration software allowed people to “go” back to work and school.

The number of daily active users and average daily network usage have both reached record highs.

**When choosing a cloud collaboration software, pay attention to your network provider and vendor’s combined resilience, availability, and flexibility. Keeping a moderate level of network and app redundancy is vital for addressing the traffic surge caused by the pandemic.**



The ongoing pandemic has been an unprecedented shock to telecom networks worldwide, whose traffic models have undergone significant changes as a result. The changes can be summarised as resulting in traffic surges, transferring hotspots, concurrent traffic spikes, and longer periods of heavy traffic. How these changes impact networks worldwide will not be

certain, but Australia's networks have handled heavy traffic flow and remained stable so far. RingCentral Office has the following four pillars as not only founding principles for our architecture and infrastructure decisions, but also critical elements to ensure a reliable and secure solution.

## 4 PILLARS OF RELIABILITY



**Scalability**



**Redundancy**



**Quality**



**Security**

### SCALABILITY

The RingCentral Office platform's modular pod design offers remarkable flexibility and allows seamless integration of additional pods as the subscriber base continues to grow. Unlimited new user groups can be added at any time, without

taking the system offline to rebuild databases or add new servers. Network application triggers generate alerts when resources need to be reallocated, and the entire system is constantly monitored for any bottlenecks.

### REDUNDANCY

The RingCentral Office software is purpose-built to perform as a highly redundant, reliable, and secure communications network. This is an important distinction in the UCaaS industry. Core technology infrastructure are housed in multiple geographically diverse, state-of-the-art, Tier 4 data centres, minimising the risk of loss and regional service interruption due to natural disasters and other catastrophic situations. These data centers share hosted facilities space with some of the world's largest financial institutions, high-tech companies, telecommunications carriers, and Australia's top internet exchange points, ensuring the fastest

response times and interconnected services possible. Within each major data centre, RingCentral builds multiple layers of redundancy into a vendor-agnostic, commodity-based architecture. Internet access is ensured by purchasing multiple internet transits. All service components are designed to ensure high availability, fault tolerance, and fault impact segregation. Customer data, including service configurations, messages, etc., is fully replicated across the data centres in real time. This geo-redundant, active-active architecture ensures high availability at all times.

### QUALITY

To consistently deliver the highest HD quality possible, RingCentral Office employs the advanced Opus Interactive codec, as well as the wideband G.722 codec. HD voice with Opus codec is enabled by default on RingCentral apps, providing a better user experience with more clarity in HD voice, especially in limited bandwidth environments.

RingCentral has also developed one of the most proactive QoS initiatives in the industry that covers: Network Address Translation (NAT), bandwidth, monitoring, firewall, DHCP, DNS, last mile integration, wireless operation, line testing.

## SECURITY

[Security is a crucial component](#) of the RingCentral Office software and encompasses policies and governance practices (people), service development and operational processes (process), and application and infrastructure layers (technology).



Enterprise organisation



Business process



Application



Data



Host



Network



Physical

Australian businesses can benefit from evaluating the impact of the pandemic from other countries and proactively deploy business continuity plans to safeguard from future unknowns.

The pandemic is accelerating the digitisation of thousands of industries. Its impact on cloud communications also opens the conversation for Australian businesses to consider and plan future-oriented technology evolution from a new perspective. We propose the following business continuity suggestions:

- **Strong broadband network:** A strong network connection with sufficient bandwidth for your business, personal, and home-education needs helps establish the foundation for a connected, digital world. The network providers we are familiar with provide high-performance and widespread broadband services for individuals, families, and enterprises, and they support ubiquitous connections for everyone's work and personal lives. They also help in the digital transformation of traditional industries for a more robust digital economy.
- **Simplified tech stack:** Simplifying technology strategy with unified applications that seamlessly integrate with devices and other applications can accelerate your productivity through uncertain and ever-changing times such as today. We should learn from this coronavirus pandemic that we need only a few good tools and good internet to get our work done effectively.
- **Cloud collaboration tools:** Leveraging the ever-expanding collaboration tools put out by pure cloud vendors like RingCentral helps your organisation safeguard against coronavirus and any other health pandemics that we may encounter in the future.
- **Intelligent network prioritisation:** This pandemic has posed new requirements on network efficiency and methods. Australian businesses should apply new technologies such as SD-WAN and AI to optimise their bandwidth efficiencies. For example, if you leverage your SD-WAN solution to prioritise VoIP traffic over video traffic, you can ensure that your phone calls to customers are crisp and clear, not compromised due to someone watching HD 4K YouTube cat videos at the same time. This can further be applied to improving the automation and intelligence of networks, bring intelligent troubleshooting, and further accelerate the delivery of new services to your customer base.

The coronavirus pandemic is not over yet, but people have already begun to reflect on it. RingCentral has always been in pursuit of excellent technological innovations as we believe that technology is the ladder of human progress, the key to overcoming difficulties, as well as the foundation of human excellence. Cloud providers play a key role in our fight against the coronavirus outbreak. The invisible light and electrical signals flowing through the cables above and below us

have established a digital channel for saving lives and maintaining the basic operation of society as a whole. Australia's communications infrastructure has become more advanced with the convergence of 5G networks, large-scale data centres, and cloud communications software. We will continue to promote this advantage as much as possible to contribute to the wider economic development.

**“The world of work we’re returning to isn’t the same one that we left. That needn’t be a frightening prospect—a new landscape means new opportunities, and it’s time for us to make the most of what’s available to us.**

**We have the technology to not only survive, but to thrive—as individuals, as colleagues, and as communities. This is our opportunity: to enable every single one of us to start thriving inside and outside of work; no matter where we are, no matter what we do.”**

**Sunny Dhami, Senior Director of Product Marketing, RingCentral**

For more information, please contact one of our solution experts. Visit [ringcentral.com.au](https://ringcentral.com.au) or call 1800 957 188

RingCentral, Inc. (NYSE: RNG) is a leading provider of cloud Message Video Phone (MVP), customer engagement, and contact centre solutions for businesses worldwide. More flexible and cost-effective than legacy on-premises PBX and video conferencing systems that it replaces, RingCentral empowers modern mobile and distributed workforces to communicate, collaborate, and connect via any mode, any device, and any location. RingCentral's open platform integrates with leading third-party business applications and enables customers to easily customise business workflows. RingCentral is headquartered in Belmont, California, and has offices around the world.



RingCentral Australia Pty Ltd, Level 28, 161 Castlereagh Street, Sydney

© 2020 RingCentral, Inc. All rights reserved. RingCentral and the RingCentral logo are registered trademarks of RingCentral, Inc. Other third-party marks and logos displayed in this document are the trademarks of their respective owners.