MARKET PERSPECTIVE

The Impact of COVID 19 on the New Zealand ICT Market

Louise Francis
Liam Landon
Monica Collier
Richard Xu
Jefferson King
Emily Lynch
Chayse Gorton

EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Impact of COVID 19 in New Zealand

The New Zealand Government's comprehensive lockdown on March 26, 2020 caught many businesses on the back-foot and almost overnight businesses had to reconfigure and adapt to a new way of working. Technology is playing a big role in helping businesses operate, manage and survive, and while many of the ICT markets will experience a substantial drop in revenues, there will also be new areas of growth, unanticipated six months ago.

Key Takeaways

- The outcome of the economic disruption in New Zealand is uncertain, but market trends already indicate an overall decline in all but a few ICT markets.
- To minimise the financial impact of the crisis by rationalizing services, reducing delivery of service costs and diverting spending to tools and services that facilitate the rapid changes required.
- Early areas of growth will be tied to enabling collaboration, business continuity and risk management. In the mid term the focus will turn to integration and refinement of urgently deployed working from home solutions, building resiliency and supply chain diversity, and strengthening onshore/offshore delivery models.

Recommended Actions

- **Empathy and support for your customers must be your top priority**: This is not the time to be tone deaf and be seen as profiteering from COVID-19.
- **Take a community collaboration approach**: A successful reboot of the New Zealand economy and getting businesses back on their feet quickly will rely on multipartisan collaboration to resolve the roadblocks to recovery.
- **Risk mitigation should be a top priority for every business**: Businesses and the ICT ecosystem must be prepared to flex dependent on market fluctuations. Many business's risk management and contingency planning only covers short term disruption – COVID 19 has proven that this approach is woefully inadequate.

Source: IDC, 2020

March 2020, IDC #AP45234120

NEW MARKET DEVELOPMENTS AND DYNAMICS

Situation Overview

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. Barely two weeks later, The New Zealand Government declared a State of National Emergency on 25 March 2020. On March 26, New Zealand went to Level 4 lockdown. This came less than a week after the closure of New Zealand's borders to all non-resident travelers. The Government's action came sharply and swiftly. With only 48 hours-notice all but essential services businesses were faced with the daunting task of either going into hibernation, shifting their workforce to a work at home model or a combination of the two.

This caught many businesses on the back-foot and almost overnight businesses had to redeploy entire workforces to a work at home environment with little time to prepare systems or services to accommodate the massive changes. However, technology is playing a big role in helping businesses operate, manage, and survive through one of the most economically devastating events New Zealand has experienced. Digital devices, cloud computing, collaboration tools and new workplace models adopted prior to the outbreak have enabled the speed of change to remote working and education in a way that would have not been possible five or so years ago.

At the time of publishing, the short-term and long-term impacts of COVID-19 are still uncertain as the situation evolves. One thing is certain; the pandemic is forcing the local ICT industry to adapt and evolve at a pace that requires decisions to be made quickly and decisively.

Table 1 provides a summary of IDC's evaluation of the impact on the New Zealand ICT market as at 1 April 2020.

Summary of Impact of COVID 19 on New Zealand's ICT Ecosystem

Market	COVID 19 Impact	IDC Opinion
Hardware		
Mobile Devices - Phones	Highly Negative	Negative impact on supply as regional manufacturing facilities close or operate at reduced capacity combined with reduced consumer demand.
Tablets & Laptops	Slightly Negative	Negative impact on supply alongside with some reduction in demand due to brick and mortar lockdowns, but growth will return as schooling and office supplies are considered essential services and online deliveries are already available for delivery or business and personal devices. The Ministry of Education is also purchasing and supplying 17,000 laptops and chromebooks out to students for online learning in Q2.
Peripherals (i.e. Monitors)	Negative	Negative impact on supply rather than demand as consumers working from home for extended periods invest in home office equipment. This spike in demand will be short-lived and demand will decline mid-late 2020.
Software		
Applications	Neutral	Only be slightly impacted but demand for collaboration tools will see a substantial increase, boosting the applications market to neutral growth rates.
Application Development & Deployment	Negative	Deployment and custom development of software will be most impacted large development projects are put on hold or cancelled. Projects will be targeted at business continuity.
System Infrastructure	Negative	Will be impacted in the short term as onsite consultants/contractors are needed. Increased investment will occur around the integration of core existing enterprise software with collaboration platforms deployed under urgency.
SaaS	Positive	Demand for cloud software, especially collaboration and resource management tools, has significantly increased due to the current inability to send in consultants for on-premise deployment.
IT Services and Public Cloud		
Managed Services	Negative	Contracts coming up for renewal in 2020 will undergo scrutiny, simplification and testing for resiliency and customers under financial duress will undertake emergency reviews and exit clauses triggered will drive down spending.
Project Oriented	Highly Negative	Will be impacted hard as non-essential projects are put on hold. Later in 2020 areas of growth will be consulting (enabling business continuity and crisis management), integration, cloud migration and network consulting related services.
Support Services	Negative	Supply chain constraints will put pressure on the hardware deploy and support market but, this will be tempered by a shift towards online education and training.
Cloud (Infrastructure as a Service)	Positive	Organisations will increasingly turn to IaaS to help ensure business continuity. Hardware constraints and remote working will help to promote IaaS investment.
Telecommunications		
Enterprise Services	Neutral	Enterprise spend will be affected the least. Enterprises will still require connectivity and there will be opportunities collaboration and conferencing.
Small Business	Negative	The most heavily impacted segment. Some SMBs will increase connectivity as they create an online presence and work from home, tempered by SMB closures.

Consumer	Negative	There will be increased demand for high quality fixed connection drive by home working, learning and entertainment. Downward pressure from big mobile roaming and handset revenue drops.

Impact on the Telecommunications Market

As essential services, telecommunications retailers and network providers can continue operations in lockdown. This ensures they can offer connectivity and communications services to New Zealanders.

However, it may impact the ways in which some New Zealanders are able to connect. Some connection installs will be delayed in the short term unless it is a contactless installation. Fixed wireless will also increase in the short term due to its contactless install process. Other key areas IDC has identified as impacting the New Zealand market include;

- **Chorus notes a substantial increase in internet traffic**. In lock down, people are working and completing classes from home. We are watching more streaming video and game-playing in lieu of going out. Chorus says it is 'comfortably' managing the demand for data. The larger broadband retailers have lifted data caps, enabling everyone to have unlimited broadband. The retailers won't disconnect households for non-payment for 6 months. This will mean deferral of some revenue collection. That's better than churning a customer. Once lost, the customer has around 100 broadband providers to choose from, when ready to reconnect.

- **The potential impact on mobile networks is a little more worrisome**. All three mobile network operators observed considerable congestion on their voice networks post lockdown announcements. IDC expects the mobile network operators won't have a huge amount 'headroom' to manage fixed wireless broadband data traffic increases. Congestion could drive some users to an alternative technology. This would be a boon to Chorus and the LFCs. For mobile users, little impact is expected in the short term. In the mid-term, IDC expects small revenue impacts. Families with several prepay mobiles (e.g. kids) may defer top ups while kids aren't at school or going out of the home on their own. These consumers will use OTT apps over Wi-Fi.

Forecast Impacts

COVID-19 has widespread implications for the outlook of the New Zealand telecommunications industry.

- **Uptake of telecommunications services is inherently tied to changes in the demographics in society**. Population growth is a key driver of mobile connection growth, in what is a mostly saturated market. Most of New Zealand's population growth is a result of positive net migration. With New Zealand's border closed for the foreseeable future, population growth is expected to slow. This will have a negative impact on the growth of mobile connections. It will also reduce the growth in households, a key driver for broadband connectivity. Household growth will also slow due to reduced investment in construction and New Zealand's nationwide lockdown. This will negatively impact growth in broadband connections. Additionally, the number of businesses in New Zealand will decline in the short term, as seen during the Global Financial Crisis (GFC) before returning to slow growth. This will reduce the number of business mobile and broadband connections in New Zealand

- **Mobile roaming (combined inbound and outbound) makes up approximately 4% of total postpaid mobile revenue in New Zealand**. With New Zealand's border closed and the

government expecting international travel to be curtailed for at least the next 12 months, IDC expects roaming revenue to decline to almost zero in the short to medium term.

- **The move from telcos in New Zealand to remove overage fees for customers will see a slight reduction in average revenue per user (ARPU) for customers on these plans**. However, most households in New Zealand are on unlimited data plans so this impact is expected to be limited. On the other hand, household broadband needs will increase due to higher data throughput requirements from working and studying at home as well as online entertainment during the lockdown period. This will lead to a slight lift in ARPUs as households move to higher speed fibre plans, such as gigabit fibre.

- **Fixed wireless will see a boost in connections in the short term due to the ease of install and increased Spark Jump connections**. However, some customers are likely to churn from fixed wireless to fibre once they can get it installed. This is because there will be some latent demand for high quality broadband connections. These households will want to secure a more reliable, uncapped broadband connection to meet requirements for working and studying from home. There will be less growth in standard fibre connections in the short term during alert level 4, as home installs are limited to those without any broadband connection or with an inadequate connection for home working. There will also be a hiatus in the government funded UFB build. However, there will be a short-term increase in ADSL and VDSL connections as Chorus & the LFCs offer free connectivity to households the Ministry of Education has identified as containing students with no connectivity . However, once the alert level reduces again the latent demand for fibre connectivity will be fulfilled.

- **Revenue from the sale of handsets, will decline**. This will be due to a combination of supply constraints and reduced demand due to low consumer and business spending. This is a major source of revenue for the telcos and is a channel for customer acquisition. Purchasing a new phone can be a reconsideration point for a consumer's mobile provider. This may result in a slight decline in customer churn.

- **Unified Communications & Collaboration services will see revenue growth**. With the increase in people working from home, the use of collaboration tools has skyrocketed. Businesses that previously did not use video conferencing solutions will now adopt these services.

Optimistic Scenario

The New Zealand Government's strategy to eliminate the virus is successful. After the four-week lockdown in New Zealand the domestic economy starts to return to a new domestic normal by late Q2. The economic recession is 'V' shaped, with a sharp downturn followed by a sharp recovery. International trade is still severely limited for the next 12-18 months, until a successful vaccine or treatment is developed, and New Zealand borders begin to reopen. The negative impact on telecommunications revenue is limited to 2020 and recovers by mid-2021.

Probable Scenario

The New Zealand Government's strategy to eliminate the virus is successful, but it takes longer than the four-week lockdown, extending towards late Q3. Parts of New Zealand will remain in lockdown on-and-off for some time until the Government determines the virus has been contained and the curve flattened. The economic recession is 'U' shaped, with a slightly longer downturn followed by a slower recovery. The domestic economy returns to relative normalcy in by the end of 2020, but international

trade is still severely limited for the next 12-18 months until a successful vaccine or treatment is developed. The reduction in telecommunications revenue extends through 2021, recovering from 2022 onwards.

Pessimistic Scenario

The New Zealand Government's strategy to eliminate the virus is protracted or, in a worst-case scenario, is unsuccessful. New Zealand remains in lockdown for prolonged periods of time and the domestic economy does not return to normal until early to mid-2021. The economic recession is 'L' shaped, with a sharp decline followed by an elongated and slow recovery period. Along with international trade, the domestic economy may return to normal once a vaccine or treatment is developed and deployed in 12-18 months. However, due to the extended downturn many businesses will have become unviable, unemployment is high, and the economy takes several years to recover. Telecommunications revenue is reduced severely for the medium-term beyond 2021.

Opportunities and Challenges

The largest opportunity and challenge will be the 5G network rollout progress. Progress could grind to a halt if field engineers become ill or if there are challenges managing COVID-19 health and safety aspects as normal work practices are curtailed. Supply chain issues for network infrastructure may be a challenge if offshore providers' production is curtailed for extended periods, sparse supply channels slow delivery of equipment or limited supplies are diverted to larger more profitable markets.

The demand for remote working, and potential for innovation in robotics, automated deliveries and contactless services, could drive demand for 5G use cases and connectivity. At the same time operators should be highly motivated to increase the pace of 5G rollouts. Their biggest opportunities lie in finding and monetising specific enterprise use cases with their launch customers.

Impact of the IT Services and Public Cloud Market

New Zealand organisations immediate reaction to COVID-19 has been to minimise the financial impact by rationalising services, reducing delivery of service costs and diverting spending to tools and services that facilitate the rapid changes required. While IDC is already forecasting IT services spending will follow other markets move into negative growth territory, many traditional IT services contracts are multi-year agreements. In a country dominated by SMBs it will be the smaller IT services providers that will be hurt the most especially those that run a low-cost contract-based structure and do not have strong partner ecosystems.

Therefore, unless a customer's existing contracts are up for review and renewal in 2020, the impact could spread beyond 2021, dampening some, but not all, of the impact on IT service providers (ITSPs) and their partner ecosystem. With the extreme speed and impact of the lockdown, IDC also expects some businesses will seek urgent contract reviews to meet their new needs and, where businesses are facing severe financial consequences, exit strategies for all but essential services. ITSPs must be prepared to work with customers to ensure their IT services portfolio is still the right fit. They must help customers who are under financial stress. For example, by offering contract flexibility, 'pausing' the contract, or offering alternative payment terms and models.

The lockdown and the period after the most stringent working restrictions are lifted, create working conditions that will make executing on existing contracts, particularly for on premise teams,

challenging for IT services providers. This will be particularly acute in the project-oriented market, and the support services market, where IDC is expecting the biggest declines in spending will occur, unless they are related to cloud migration, collaboration solution integration and network resiliency projects. The network performance issues will be assessed, and questions will be asked, about where the network begins and ends.,

Globally, IDC has already started to observe larger organisations affected by COVID-19 begin to delay scheduled spending on IT services. IDC is seeing this happen in New Zealand. For example, on March 30, the Ministry of Business, Innovation and Employment (MBIE) release a notice to its providers that agencies with active tenders would be reviewing existing plans and the likely impacts would be extension of time to respond to open tenders, reconsidering timing for approaching the market, and/or undertaking emergency procurements (Source: COVID-19 Notice to Suppliers, MBIE, 2020).

Public Cloud: Infrastructure as a Service (IaaS)

IDC expects the current COVID-19 situation to have an overall positive impact on the public cloud market as New Zealand organisations move quickly to ensure they can operate and deliver, from anywhere, at any time, while reducing business risk. IDC expects that local cloud services providers will be proactively working with customers seeking to urgently migrate services to the cloud as IT departments are curtailed or delivery from offshore providers is no longer tenable. In healthcare in particular, cloud solutions will play a key role in New Zealand providers in identifying virus transmission patterns, effectiveness of the Government's mitigation and lockdown directives and whether it is viable or premature to reduce alert levels.

In the long-term IDC expects IaaS spending to increase, focusing first on the quickly reconfiguring and provisioning platforms for technologies required for a longer period of employees working remotely of the businesses, which is likely to continue into the forseeable future. Once these areas are addressed businesses will move their focus to business continuity, resilience and addressing the risk on on-prem infrastructure as their core platform. COVID-19 is also expected to create infrastructure supply chain constraints that will put pressure on organisations with plans to deploy its own infrastructure or private cloud models.

Optimistic Scenario

The COVID-19 outbreak is limited to 2020H1. During this period there is a reduction in spending on IT services, however, this reduction is constrained to 2020H1. Throughout this period, critical IT services contracts continue to be executed with minimal disruptions. Spending on public cloud services will accelerate strongly as businesses seek to reduce costs and deploy solutions quickly. While some may pause public cloud deployment, most will continue with deployment plans in 2020H1, further bolstered by a new wave of organisations rushing to adopt cloud services. Large scale projects will go into hibernation, but few will be completely abandoned, resulting in a return to spending growth in the second half of 2020 and early into 2021. Projects that were planned prior to the COVID-19 lockdown will undergo rigorous reviews. Many will be re-tendered or replaced with projects more relevant to the changed markets and opportunities for growth.

Probable Scenario

The COVID-19 outbreak lasts through to 2020H2 and into early 2021. There is a much deeper reduction in spending on IT services spending, particularly around project-based services and deployment services, in all but the most critical areas. As restrictions are relaxed businesses will

review their IT services portfolio and ecosystems, with the intention to rationalise and simplify IT environments for greater resiliency. Once the New Zealand lockdown is lifted and the country returns to the Level 2 restrictions businesses in a position to resume operations will cautiously return to public cloud deployment plans focusing on the core essential services and critical infrastructure. Projects that go ahead will be challenged by periodic disruptions associated with onsite execution and continuing restrictions on workforce conditions. IT services contract renewals will be deferred until early 2021, and many large-scale resource heavy projects leveraging external support may be postponed indefinitely. During this period, public cloud services continue to be adopted for specific functions.

Pessimistic Scenario

The COVID-19 outbreak continues into 2021, and most projects that were put on hold in 2020 are either cancelled or drastically downsized. New initiatives will also be put on hold as organisations redirect spending to internal rebuilds and employee retention programmes. IT services providers which are unable to recognise and adapt to their customers' rapidly changing needs will be faced with the decision of whether to downsize, form new partnerships or reduce their portfolio of offerings to focus on the most profitable service offerings. Those ITSPs without an offering in areas customers will focus, such as collaboration services/integration, cloud migration/brokerage and business continuity and risk management, will likely cease trading by the end of 2020.

Opportunities and Challenges

IDC believes that COVID-19 creates an opportunity for IT services providers to differentiate themselves on capabilities, resiliency, customer engagement, contract fulfilment and trustworthiness. IDC has identified the following key challenges for New Zealand's ITSP market;

- **ITSP resilience will come under scrutiny**: Organisations that manage IT internally will be watching how IT services providers cope during the outbreak to determine whether to move to an IT service management (ITSM) model or retain services inhouse. Those providers that maintain customer engagement and business continuity throughout the pandemic will be the ones that survive, if not thrive after the pandemic restrictions are lifted.

- **New areas of growth will emerge**: IT Services that will lead regrowth in the months after the pandemic has passed will be collaboration services, business continuity and crisis management consulting, cloud migration and network management services. Integration services will get a reboot as businesses seek to integrate technologies rapidly deployed prior to and during the lockdown.

- **Pandemic restrictions on offshore services and the insource / outsource model will become more polarised as customer experiences reshape views about the delivery risk**: ITSPs workforce are not only curtailed by the New Zealand lockdown, but also by restrictions imposed in offshore markets where partners - such as call centres - fulfil local services. For example, lockdowns in India, Philippines and Malaysia will not only affect delivery during the lockdown, but customers will review the offshore resilience of their outsourcing partners, post crisis. Customers will also realise how leveraged the provider call centres are and this will create greater operational costs driving the potential for a focus on AI based solutions.

- **Traditional face to face IT education and training (ITE)**: Because of the New Zealand lockdown spending on these services will be the first area of IT services to feel the impact of COVID-19. However, this will be mitigated by the growth of online and digital training modules.

Employers may also use the lockdown period to help employees take on online training or development for redeployment into new roles when the lockdown ends or to help in personal skills development as part of employee's wellbeing.

- **Business continuity and crisis risk management**: Early indications are that very few businesses have a business continuity plan in place that accounts for pandemics. In previous events where business continuity has been tested, there has been an upswing in investment around business continuity and risk management strategy development.

- **Security services for remote working**: The security issues that will emerge and face deeper interrogation over the next six months will be identity (resulting in an acceleration of investment in identity access management), home security and remote working solutions. The massive shift to working at home in a short space of time has exposed a number of security weaknesses for organisations that will need to be addressed urgently. Security solutions will be sought, even before the crisis has lifted, to overcome security issues related to mobility including mobile device management, collaborations tools and data, VPNs, and end-point encryption. There will also be an increased need for collaboration tools, requiring associated services, to minimise business disruption.

- **Delays and cancellations in the hardware deploy and support (HWDS) market**. COVID-19 is causing hardware and infrastructure supply chain constraints and many customers will either delay deployments or even cancel projects, electing to move to cloud infrastructure and device as a service option. The New Zealand government publicly warned government agencies they are likely to face delays in acquiring new IT hardware. However, the government has also taken steps to minimise hardware deployment disruptions, such as, announcing that it will extend the IT hardware procurement contract which is due to expire in September.

- **Organisations which migrated to the cloud solutions quickly during the lockdown period will seek to strengthen cloud management and integration with core services**. These customers will be seeking to engage with cloud service providers for a longer term more robust cloud strategy when business resumes to relatively normal conditions. Accelerated adoption of the cloud will put pressure on IaaS providers to ensure that they hold the capacity to deliver to the increased market demands. The service providers themselves will lean more towards global solutions such as IaaS and SaaS.

Impact on the Software Market

Despite the COVID-19 lockdown severely impacting New Zealand businesses, IDC expects the local software market to be quite resilient in part due to the country's high maturity in the adoption of software as a service (SaaS) and a strong local independent software vendor (ISV) ecosystem. Software products, unlike hardware, are also often developed locally and many do not have a logistical component in delivery, which should soften the impact of COVID-19.

IDC expects the small to medium business (SMB) segment to be negatively impacted to a greater degree than the enterprise segment. SMBs generally have less resources at their disposal and may need to rearrange their spending to support employees so they may still carry out business as usual from home. The New Zealand Government business/wage subsidy packages may help alleviate some of these difficulties, but the benefit provided will diminish if the crisis extends beyond 2020.

On the other hand, the enterprise segment will likely be more resilient than SMBs. Large enterprise organisations are often further through their digital transformation (DX) journeys and as a result will be

better equipped to handle the varying working environments of employees, partners and clients alike. Companies in this segment will also have stronger collaboration and communication tools along with better support to working from home such as remote networks and VPNs. This said, IDC expects larger entities to be more conservative in their business strategies which would decrease purchasing sentiments amongst enterprises.

To minimise risks, many New Zealand companies have reduced spending to core and system critical areas, focusing on trying to maintain usual business practices. This will negatively impact some parts of the software market more than others. For example, spending on pilots for transformative technologies which are resource heavy to implement, will be deferred, but probably not cancelled. Those contracts and projects that are deferred there will be an acceleration to get to the business outcomes associated with the issues which arose during the crisis or anticipated in the recovery phase.

On the other hand, IDC expects investment in collaboration and productivity software, customer engagement and network management software tools. These will be at the centre of growth opportunities for software vendors and partners as businesses adapt to employees, partners and clients all working from home. Applications are the easiest category of software to deploy; this category includes collaboration and communication tools. This category of software is expected to perform at an unchanged level throughout the lockdown period as companies increase their adoption rates of collaboration and support software.

Application Development and Deployment and Systems Infrastructure Software markets are expected to decline as deployment of software in these markets often require expert knowledge on the ground at the time of deployment or hardware support, neither of which is possible during the lockdown. Software in these categories are also often deployed to improve business practices for DX purposes. This is something that has taken a backseat in favour of software/solutions which better support business-as-usual during times where employees are working remotely.

Public Cloud: Software as a Service (SaaS)

The SaaS market will experience strong growth as organisations act under urgency to enable application access for remote workers . Collaborative SaaS solutions were already experiencing rapid increases in adoption, prior to the COVID-19 pandemic. IDC expects this growth will accelerate into 2021. Industry specific or short-term solutions will also be a big driver behind the growth of SaaS.

Optimistic Scenario

The COVID-19 outbreak is limited to 2020H1, and the market begins to recover over 2020H2. During the outbreak period, there is a significant increase in adoption of quick to implement software products addressing urgent areas such as collaboration tools to support remote workers and enabling quick deployment of telehealth. There will also be investment in analytics as part of the COVID-19 response and mobile apps for quick access to information. In this scenario the market fully recovers by 2020Q3 and returns to a sufficiently stable, business as usual capacity, with a resumption of many of the deferred software deployments by the end of 2020.

Probable Scenario

The COVID-19 outbreak continues through to late 2020H2, and the market only begins to recover over 2021H1. During the outbreak period, the market remains stable as despite an increase in adoption of collaboration tools in order to support employees working from home and mobile apps for consumers.

Deployment of analytics solutions will continue in pockets as the healthcare sector and government ramps up analysis of data to curtail the spread of the virus, such as the custom development of contact tracking solutions and analytics. However, most of the software market will experience a decline as organisations employ conservative business strategies during the lockdown period. The market fully recovers by mid-2021 and starts the journey back to business as usual.

Pessimistic Scenario

The COVID-19 outbreak continues well into 2021 with the possibility of a second wave of infections, and the market only begins to recover late 2021/early 2022. During the outbreak period, the market initially remains stable, despite an increase in adoption of collaboration tools in order to support employees working from home. But it begins to decline significantly as those solutions reach saturation and businesses in shutdown are unable to resource more sophisticated and permanent solutions. The rest of the market begins to decline at an increased rate as organisations employ conservative business strategies during the lockdown period, which eventually leads to substantial job losses, more business closures (particularly amongst SMBs) and a protracted L shaped recession. The market is severely affected and only begins its return to usual from 2022.

Opportunities and Challenges

The COVID-19 outbreak acts as a strong disruptor to the New Zealand software market. Software vendors with collaboration, communication and resource management tools can vastly increase their customer-base in the market, of which most are expected to remain contracted as clients well past the lockdown and outbreak. The more interactive and innovative the solution, the more popular it will be with clients that wish to simulate its office working environment as much as possible using strong communication and resource management software. This provides the opportunity for smaller vendors with transformative solutions to shine in a top-heavy market.

As remote working becomes the norm and businesses ramp up workspace transformation, SaaS solutions will increase in popularity, with end-users who are digitally mature leading the way for those which still rely on traditional on-premise licensing models of software deployment. As a result, end-users good at adapting to change, likely further along in their DX journey with a culture of common remote working already in place, will thrive in this environment relative to their peers. If vendors position themselves correctly during this time, the software market and overall digital maturity across the New Zealand business landscape should both experience significant growth.

On the other hand, if the outbreak continues to extend, budgets will be curtailed and upgraded deferred for a much longer period. Although IDC expects only minor negative impact to the software market in the short term, businesses will already be devising long term strategies to deal with the possibility of an extended lockdown and recessionary period. IDC expects there will be a lack of willingness for companies to grow digitally, shifting software and services spend into business maintenance, shutting down all but vital spending activity.

Therefore, any of the opportunities for the New Zealand software market over the next 6-12 months will revolve around mitigation and solving of immediate business, government and healthcare sector challenges associated with the COVID 19 pandemic. For example;

- **Collaboration applications will experience massive growth**: It will not only be about video conferencing applications. Telehealth applications will also see substantial investment as remote consultations become the norm and temporary stop gap solutions quickly implemented

prior to and during the lockdown, are upgraded to more robust integrated solutions. Zoom is one solution that is being used by health providers which is supported by Telehealth Leadership Group (TLG) as an interim solution.

- **Big Data and analytics around people movements using mobile devices**: Big data and analytics, often combined with other technology such as internet of things (IoT), artificial intelligence (AI) and mobile network traffic data, is becoming a big area of focus, particularly for government agencies and healthcare providers. For example, the Ministry of Health and the University of Otago released a report in March, *Supporting the COVID-19 pandemic response: Surveillance and Outbreak Analytics*, emphasised the important role of analytics in New Zealand's COVID-19 response planning. There is also growing demand for contact tracing solutions which will incorporate analytics around the use of mobile device data, instead of relying on patients recall of movements prior to and after transmission.

- **Explosion of COVID-19 related mobile applications**: As New Zealand went into COVID-19 lockdown, a number of local specific mobile apps have come online. These include a virtual queue app which Foodstuffs is trialing a text-to-queue service at New World Kumeu and Pak'nSave Royal Oak, an app from Auckland Transport that shows when approaching public transport is effectively full based on coronavirus distancing rules, and Hawke's Bay ISV Webfox's app to help with contact tracing, the 'Covid-19 Register'.

- **Local recovery through economic and business support of local ISVs**: As the New Zealand government seeks to rebuild the economy, one of the areas that will be targeted are local tech companies and their role in the 'new' digital economy. Already New Zealand ISVs are developing tools for use in the fight against COVID-19 such as a tool developed by *1000minds* which is being used for clinician decision-making, and trialing in Italian hospitals, with plans to roll out in New Zealand next across intensive-care units.

- **IDC expects PaaS solutions to be utilised as a tool that can help organisations increase their speed to recovery.** PaaS provides a way for organisations to increase their speed to market for new applications as the infrastructure layer and management is abstracted, and pre-built application components, e.g. code libraries, are accessible. PaaS also streamlines the associated application management once it is up and running. This means that an organisations application strategy, whatever this looks like post COVID-19, can be pursued with less internal resources. This will be attractive for businesses who cut staff resources due to COVID-19 and will contribute to the PaaS market continuing to grow throughout the COVID-19 outbreak.

Impact on the Devices and Hardware Markets

IDC estimates that, according to the IDC Worldwide Quarterly Personal Computing Device Tracker, overall personal computing device shipments will decline in 2020. The lead times on physical product have already doubled. These imply a greater focus on shipping rather than air freight which could potentially be tied to CSR / environmental messaging. The Impacts of COVID-19 are expected to dampen growth in New Zealand. As a smaller economy dependent on SMBs, exports and tourism, the economic damage of the current pandemic is predicted to strongly affect demand for devices.

This coupled with supply disruptions, component shortages, factory shutdowns, and New Zealand likely not being a supply chain priority, means that New Zealand's devices market is expected to be negatively impacted by the effects of COVID-19. Additionally, vendor activity with unveiling of new

models and planned product launches later in the year will be disrupted in the medium- and even the longer-term. Other key trends include:

- **Home office set-ups created a short-term spike in sales**: Prior to the lockdown, many retail stores saw flurries of purchasing of monitors, PCs, and tablets in preparation for forced work at home scenarios for businesses and students. This may well continue when the lockdown ends if businesses are still recommending people work from home, or if there are expectations of a second wave of COVID-19 cases. This may cause boosts through the online retail and e-tail channels with people wanting to avoid going into brick and mortar stores.

- **Online sales of essential technology eases sales pressures**: As of 31st March, the New Zealand Government announced the option for non-essential businesses and consumers to order 'essential' tech online, such as laptops and tablet devices for remote learning and working. These are available from key retailers including Noel Leeming, The Warehouse, and PB Tech. Outside of devices necessary for work/study at home scenarios, economic uncertainty and low consumer and business sentiment will likely limit spending.

- **Online education initiative launched in April**: Ahead of the announcement of the nationwide lockdown, the New Zealand government worked with schools to source devices for low-decile areas in anticipation of widespread school closures. As well as working with the telco industry for the provision of home internet for families without connectivity, the government is also prioritising laptop and tablet deliveries for students not able to access devices at home. In some cases, students can borrow devices belonging to their school for the duration of the shutdown. The Ministry of Education announced April 8 that it will supply 17,000 laptops and chromebooks for students without e-learning devices. This will likely drive up education buying in the short term, as schools tap into government funding to expand their fleets of devices to cope with new levels of demand for at-home learning.

Optimistic Scenario

COVID-19 will cause short-term damage to shipments and purchases of devices. However, the virus and economic damage will be quickly contained, and consumer markets will recover by late 2020. Commercial markets will be slightly slower to recover as some small businesses struggle to stay afloat. Boosts provided by remote working purchasing will offset declines leading to minor declines in shipments. Some shortages occur through 2020, but disruptions to Asia Pacific (APAC) supply chains and manufacturing are quickly resolved as key distribution countries such as China and Hong Kong manage their outbreaks and recover quickly.

Probable Scenario

A global economic recession will extend to consumer markets into mid-2021. Commercial markets will sustain more significant damage, with recovery delayed into 2022. New Zealand's economy, which is heavily SMB, exports, and tourism driven means local impacts will lag recovery of global markets. Production is impacted across Asia Pacific, with manufacturing hubs across numerous countries key to component manufacture being impacted. Many units destined for New Zealand are shipped through China and Hong Kong. While these countries are being to recover from earlier COVID-19 outbreaks, other links in the supply chain (such as India, key in component manufacturing and some shipping) will created a protracted supply challenge for New Zealand customers. Reduced freight frequency between New Zealand and supply chain partners will also negatively affect supply. This will cause supply chain disruption in New Zealand throughout 2020 and well into 2021.

Pessimistic Scenario

COVID-19 will severely damage the global and local economy, causing a sustained global recession as recurring outbreaks result in intermittent and unpredictable lockdowns and manufacturing closures. Unemployment and business uncertainty will rise and many companies, particularly in the SMB sector will close permanently, unable to sustain the stress of multiple market closures. Damage to device shipments and demand will extend until 2023/2024 when commercial markets finally begin the road to recovery. New Zealand business spending will not be able to bounce back to pre-COVID-19 levels until the economy stabilises and business/investor confidence returns to normal. Consumer markets will be faster to recover, returning to normal levels by 2023. Hardware shortages will occur due to prolonged impacts to worldwide supply and production. As a smaller market, New Zealand is unlikely to be a supply chain priority, causing further issues on the supply side as supply chains break down.

Opportunities and Challenges

Opportunities for the tablet, PC, and monitor markets lie in the boost in devices required for working remotely.

- **Remote working forced many workers and students to purchase monitors and laptops in order to maintain productivity at home**. Tablet devices such as Microsoft's Surface Pro range are alternatives for companies unable to deploy laptops and have long been popular as cost-effective devices for education. However, the challenge remains sourcing devices now that lockdown has commenced, and with supply chain disruptions to markets across APAC.
- **Lower consumer and business spending contributing to heavily reduced demand will be the main challenge for the smartphone market, particularly in high-end devices**. Consumers and businesses will be looking to hang on to what disposable income they have at this time – both will be reluctant to invest in a new device and will rather want to extend their refresh cycles as long as possible. This reduction in spending extends to New Zealand's 5G-enabled devices. Supply constraints on devices being shipped into New Zealand and low demand for expensive new phone purchases will present a wider challenge to New Zealand's 5G roll-out.
- **Opportunity for devices with specifications modified to optimise gaming experiences**. Although more expensive, gaming-branded or -specified devices may see greater popularity as those in lockdown or self-isolation spend more time on gaming. AR/VR-based entertainment is also a likely area of growth, as movement, large scale events and travel is restricted for sustained periods of time.
- **New hardware and innovations will emerge from this crisis, as economies adjust to new ways of working**. Contactless payment and delivery technologies will naturally see significant growth and investment. Devices that support facial recognition/gesture controls over thumbprint/physical controls are predicted to take off, as the trend towards 'contactless' technology is promoted due to virus transmission concerns. In terms of services specific to devices, IDC also expects to see the development of enterprise mobility and device management markets. This comes as fleets of devices are deployed to teams, and entire businesses, working remotely.

ADVICE FOR THE TECHNOLOGY SUPPLIER

- **Empathy and support for your customers must be your top priority**: This is not the time to be tone deaf and be seen as profiteering from COVID-19. COVID-19 is first a human issue, and the services industry will be judged in part on how it protects people: its employees, its clients' employees, and the communities they live in.

- **Take a community collaboration approach**: A successful reboot of New Zealand's economy and getting businesses back on their feet quickly will rely on the local ICT ecosystem coming together with industry and public sector organisations to solve the big problems and remove roadblocks to recovery. Recognise that innovation opportunities are everywhere, and competition is often relative to a specific economic climate. Businesses must adapt their approach to competition, understanding there is a time to compete and there is a time to collaborate.

- **Develop ecosystem focused engagement models**: The opportunity in the recovery phase will need to be ecosystem focused in terms engagement models and there will be new ways of looking at customer value (and risk) and prioritisation. Digital will accelerate and the board functions must change to be more responsive and dynamic in terms of capabilities.

- **Risk mitigation should be a top priority for every business**: Ensure that your customers' have the tools and capabilities to allow their business to flex dependent on market conditions and fluctuations. Many business's risk management and contingency planning only covers short term disruption – COVID 19 has already proven that this is woefully inadequate - it must span quarters as opposed to a month-long event.

- **Look forward, not backwards**: Your customers' priorities at the start of March 2020 will have vastly changed by the start of April. The future of work, team collaboration solutions, cloud migration, virtual customer engagement and post crisis integration must be incorporated into your growth strategy.

- **Help your customers identify where their priorities should be focused to get them back on their feet as quickly as possible**. Where should they be redirecting spending to ensure business continuity over the coming months?

- **Don't complicate things for customers**. Now is not the time for complex, expensive or long run activity. Getting your customers back on their feet quickly and providing them with the tools to rebuild should be first on the list of things to do.

- **Bolster your hybrid cloud migration capabilities or partner if this is not an area of expertise**: Businesses who had not moved to public cloud prior to the COVID-19 lockdown, will likely be taking steps towards moving at least some workloads to cloud platforms to ensure business continuity and resiliency is maintained in future business crises.

LEARN MORE

Related Research

- *The Impact of COVID-19 on the Australia and New Zealand Cloud Markets* (forthcoming)
- *Impact of COVID-19 on A/NZ Telecoms: Operators Act to Curtail Churn and Control Costs*, IDC #AP46190020, April 2020.
- *COVID-19 Will Forever Change Our Ways of Working*, IDC # AP45981020, April 2020
- *Leading by Example: What Services Companies Should Do in the COVID-19 Crisis*, IDC # US46164220, March 2020

Synopsis

This IDC Market Perspective takes a look at the impact of New Zealand's response to the COVID 19 crisis and the possible outcomes for the ICT market over the next year and beyond. While the is still a lot of uncertainty, indications of spending trends are already emerging as technology plays a role in the reaction to and economic recovery

"Digital devices, cloud computing, collaboration tools and new workplace models adopted prior to the outbreak have enabled the speed of change to remote working and education in a way that would have not been possible five or so years ago", says IDC New Zealand Country Manager and Research Director, Louise Francis. "One thing that is certain, is that the pandemic it is forcing the local ICT industry to adapt and evolve at a pace that requires decisions to be made quickly and decisively."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

IDC New Zealand

Level 11, 203 Queen Street
Auckland, New Zealand
649.377.0370
Twitter: @IDC
idc-community.com
www.idc.com

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