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White paper

How coronavirus is forcing companies to embrace a new way to work

The current coronavirus (COVID-19) outbreak is having a major impact on global business operations, with production stoppages, staff shortages, major event cancelations and concerns about supply chain stability.

This is forcing organizations to embrace a new way to work to ensure business continuity and minimize impact on company performance. Examples include empowering the remote worker, leveraging third party infrastructure services, and providing new ways to access and collaborate on information.

This paper will provide an overview of how cloud-based Information Management enables a new way to work during periods of business disruption and global crisis.

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The coronavirus is having a major impact on global business operations and is forcing companies across industry sectors to rethink how they operate. Businesses must remain secure, intelligent and connected, even (or perhaps, especially) in times of crisis.

A cloud-based Information Management environment provides the digital foundation required for all employees to have secure access to essential business information and systems, collaborate effectively with dispersed internal and external stakeholders, synthesize data into timely insights and maintain supply chain visibility.

Government-imposed lockdowns during the pandemic are leading to many employees working from home and needing remote access to business resources and information. As a result, companies need a new way to work that empowers employees to manage and collaborate on information anywhere, anytime and from any device. Even when the current pandemic is over, companies are likely to embrace work from home practices on a more permanent basis.

This paper discusses practical Information Management solutions that support organizations as they deal with significant disruptions to "business as usual." Regardless of the crisis, an Information Management environment delivers seamless business continuity to help organizations maintain productivity, weather the storm with agility and become resilient.

Global/Macroeconomic Impact

Disruption had already become the new normal in today's business landscape, from transformative new technologies to natural disasters such as earthquakes and wildfires. However, certain crises go above and beyond in magnitude and scope. We are now in the midst of one of these extreme disruptions, as the coronavirus epidemic spreads and brings with it serious implications not just for business operations, but every country and the entire global economy.

The global economy and, in particular, the manufacturing powerhouse of China, has been severely impacted by the coronavirus outbreak. With lockdowns and other measures in place all around the world, companies have had to fast track plans to enable employees to work from home wherever possible. With global production stoppages, many manufacturers are having to either lay off or furlough workers. In other cases, they are being asked by regional governments to diversify production and help produce personal protection equipment (PPE), ventilators and hand sanitizers for the healthcare sector.

As this paper is being prepared April 2020, the virus has spread through Asia, Europe and across to North America. Parts of China have recently emerged from lockdown and are starting to ramp up production once again—in a controlled way. Even though lockdown restrictions are still being imposed in Europe, the U.S. is desperately trying to get the economy moving again by opening up key manufacturing facilities and other services on a state-by-state basis. Whether on lockdown or returning to work, social distancing will be in effect for many months to come; therefore, companies have been forced to rethink how they not only manage remote employees, but more importantly, how they can provide their IT infrastructure and associated business applications so business operations can continue.

The Business Continuity Manager has never been so important. They perform multiple roles when disaster strikes, but the sheer volume of employees having to work remotely due to the coronavirus outbreak has changed their focus considerably. The Business Continuity Manager will become even more important as companies look to build more resilient organisations and try to ensure that businesses and supply chains recover quickly after a major period of disruption. From a supply chain point of view, the Business Continuity Manager will support the business in three different ways. Firstly, on the supply side, ensuring the delivery of goods to a retail store or factory are operating efficiently. Secondly, from the demand side working with Supply Chain Directors to ensure that the correct inventory is at the correct location at the right time. Thirdly on the liquidity or cash flow side of operations, ensuring suppliers get paid quickly and cash is flowing around the business in a timely manner.

China has powered the global economy for many years; now, this pandemic has seriously damaged their Global Domestic Product (GDP) and is affecting other countries worldwide. In fact, Bloomberg Economics estimates that the coronavirus outbreak could cost the global economy as much as \$2.7 trillion.¹ As you can see in Figure 1, key manufacturing-based economies around the world are being impacted, taking hits to their GDP and 2020 economic growth potential. Dun & Bradstreet released a recent study saying that nearly five million businesses could be impacted around the world.² But which industries are most vulnerable?

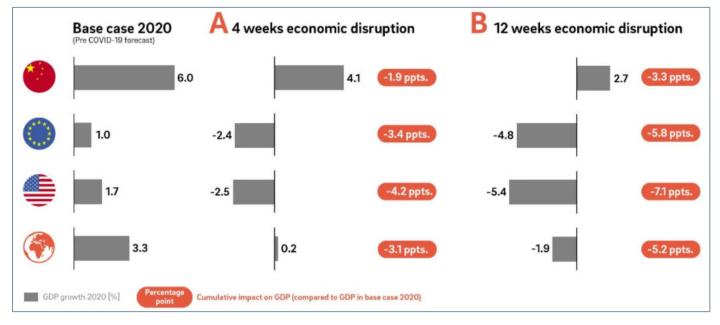


Fig 1. How coronavirus is impacting global GDP³

Business Impact

The consequences of the coronavirus have been felt across every industry sector, with the manufacturing sector being one of the most harshly affected across the world. A recent report by Deloitte⁴ described this as a "black swan" event, whereby the impact will be so severe that companies will be forced to completely restructure supply chains and embrace new technologies such as cloud-based solutions simply to recover and grow their business operations. This is an unprecedented disruption to global business operations, with manufacturers, suppliers, distributors, logistics carriers and financial institutions all being impacted. Any company that does not consider restructuring their operations to create a more resilient business will ultimately fail.

China has been described in the past as the factory of the world, housing the bulk of manufacturing centers for goods and parts for the automotive, high-tech and consumer goods sub-sectors. But even China's future as the manufacturing hub of the world is in doubt as companies look to near shore production back to western markets. Some countries, such as Japan, are offering financial incentives for Chinese manufacturers to relocate production to their country.

Fig2. Highlights how different industries have been impacted due to COVID-19 but how have some of the companies in some of these industry sectors been specifically impacted?

Categories affected by COVID-19	Banking, Financial Services & Insurance	Energy & Resources	Healthcare & Life Sciences	High Tech & Tele- communications	Media & Entertainment	Public Sector	Retail	Manufacturing	Universities & Colleges	Non-profits	Travel & Transportation
Personnel	0	•	O	•	•	•	•	•	•	•	•
Operations	0	•	•	•	•	•	•	•	٠	•	•
Supply Chain	0	•	•	•	O	0	•	•	0	0	•
Revenue	•	•	•	•	•	•	•	•	•	•	•
Overall Avasant Assessment	•	•	•	•	•	•	•	•	•	•	•
O Minor Impact O Moderate O Significant O Major O Severe											

RadarView[™]: Coronavirus Impact Index by Industry

Fig 2. How coronavirus is impacting different industry sectors⁵

Automotive Industry

Nearly every vehicle manufacturer around the world is reliant on parts manufactured by suppliers based in China. Over the last decade, China has become the largest car market in the world, resulting in many western car manufacturers establishing joint venture operations in the country. By law, any car manufacturer looking to set up production operations in China must form a joint venture with a domestic vehicle manufacturer.

In addition to establishing vehicle manufacturing plants along mainly the east coast of China, many of the world's Tier 1 automotive suppliers have created a manufacturing presence in the country. The suppliers are not only supplying parts to the joint venture companies but to car manufacturers in western markets.

Many suppliers have been impacted as their employees, especially in the Wuhan area of China, have been in a lengthy lockdown. Despite production now being ramped back up in China, global logistics networks are still in turmoil. Car manufacturers, for example, are still struggling with obtaining visibility into what is happening across their supply chain operations; coronavirus has made this visibility almost impossible to achieve. In fact,



the Institute of Supply Chain Management undertook a study in March 2020⁶ and found that 53% of companies said that they had experienced problems getting supply chain information from China.

Across Europe, car manufacturers started to experience parts shortages at the end of February 2020, which resulted in car manufacturers closing production lines in March. Car manufacturers have spent years establishing just-in-time production systems that rely on a steady and predictable flow of parts from suppliers all over the world. They could not predict the impact of coronavirus on their supply networks. Going against what they have been doing for many years—namely leveraging lean manufacturing principles to reduce costs and drive efficiencies across their operations—many car manufacturers will start increasing their inventory levels for key vehicle parts and sub-systems when they begin to ramp up production again. As a result of the global lockdowns, even automotive retail networks have been impacted; for example, vehicle sales in China dropped 92% during the first half of February.⁷

As the pandemic grabbed a stronger hold on global economies and, more importantly, the global healthcare sector, manufacturers were asked to answer government requests to help produce medical equipment, gowns, masks and hand sanitizer. Many automotive manufacturers, including GM, Ford, Jaguar Land Rover and even the Formula One race teams in Europe, reconfigured parts of their production operations to manufacture critical medical equipment.

The impact of coronavirus is significantly greater than the many natural disasters that the manufacturing sector has faced over the years. It has physically stopped production for an extensive period of time and brought entire end-to-end supply chains to a halt.

High Tech Industry

China is also the global manufacturing center for high-tech consumer electronics goods. This industry, like the automotive industry, is truly global in nature. Many high-tech brands such as Apple have their goods manufactured in China and do not have their own manufacturing plants, instead leveraging a network of contract manufacturers, like Foxconn, to manufacture devices on their behalf.

KGI Securities estimates that production levels at Foxconn during the early stages of the lockdown in China would have been operating at 30-40% of capacity.⁸ Since Foxconn's Chinese plants produce a high proportion of the world's iPhones, this will cause product shortages across Apple's retail network and impact Apple's quarterly earnings. Other high-tech companies are also expected to see profits decline, such as Dell Technologies, NVIDIA and AMD.

The high-tech sector also runs more conferences than most other industries, many of which are now being canceled. For example, the Mobile World Conference (MWC) back in February was canceled—this is the world's biggest conference serving the mobile device market. Facebook's global marketing summit in March and Cisco Live Melbourne were also canceled. At OpenText, we took our annual Enterprise World Europe virtual, in lieu of a live event in Prague as originally intended. In fact, all major conferences have been cancelled and are having to find ways to use digital platforms to reach their intended audiences.

The high-tech sector also has a higher proportion of workers who travel for business. With global lockdowns and airline routes closed, companies have been forced to find different ways to communicate and collaborate with stakeholders across their global business ecosystems. Needless to say, video conferencing and collaboration tools have seen exponential growth in usage, so much so that remote working could become the new norm for many companies, especially in the SMB sector.

Consumer Product Goods Industry

The retail sector is supplied with various products from the consumer product goods (CPG) market. Global retailers are dependent on goods manufactured in Asia, and other sectors such as transportation and logistics generate much of their profits from supporting the global retail sector. All of the industries connected with global retail will be impacted by factory shutdowns across the world.

At the beginning of the pandemic, a leading CPG manufacturer said that 17,600 products could be affected, which highlights the supply chain risk that many retailers are grappling with.⁹ For example, Home Depot in the U.S. faced product shortages, as it sources 30% of its products from China. Many governments around the world, led by North America, are now trying to force companies to source goods from their domestic markets. This will ultimately result in much shorter supply chain networks.

In the early stages of global lockdowns, only essential retail stores such as grocery and pharmacy were allowed to remain open, with strict social distancing in place. As consumers did not know how long the lockdowns would last, they panic-bought certain goods such as toilet paper, hand sanitizer and non-perishable food products. This had a significant impact on the supply of these products, and CPG companies had to increase production to meet the demand. Even global brands such as Coca-Cola were not immune from disruption, as they experienced a shortage of the artificial sweetener that goes into many of their drinks.¹⁰

Online shopping is, logically, seeing significant growth as consumers around the world are unable to visit retail stores. For example, in China, online sales of disinfectant produced by the Reckitt Benckiser-owned Dettol rose 643% year-on-year between February 10 and February 13 on the Chinese e-commerce website suning.com.¹¹ Walmart's grocery delivery also continues to see a surge in demand as lockdowns force consumers to purchase their weekly shopping online. The download of their app, Walmart Grocery, have reached an all-time high, even surpassing Amazon by 20%. As of early April 2020, the Walmart Grocery app saw a 460% growth in average daily downloads in comparison with its January 2020 performance.¹²

Other Industries

In addition to manufacturing and retail, travel and tourism have also been hit hard. The International Air Transport Association (IATA) warned that travel restrictions and closing down airlines would cost the airline industry \$250 billion in lost revenues this year.¹³ This has a cascading effect on businesses such as package holiday companies and cruise ships.

In the pharma industry, drug makers that focus on new medications are "unlikely to encounter material global supply disruptions," because they do not have a heavy manufacturing presence in China. However, a more tangible threat from the coronavirus for innovative drug developers is the potential slowdown in sales in China, which has been repeatedly cited as a major growth driver for foreign pharmas.¹⁴ The aerospace sector also experienced plant shutdowns and Airbus was the first aircraft manufacturer to close a plant related to the production of their new A320 aircraft in Tianjin.¹⁵ Finally, in the government sector, public services have being impacted due to a lack of staff, and most public amenities, sports facilities, schools and other non-essential services are closed in a sustained effort to control the spread of the virus.¹⁶

This is not an exhaustive list, but a taste of the coronavirus outbreak's widespread repercussions across industries. Secondary to its health ramifications, the disease is acting as a financial economic virus as it infects multiple global sectors. Governments around the world have been forced to dig deep and provide economic recovery packages so that when lockdowns recede, economies will be in a better position to recover quickly.

How can companies be better prepared and how can they leverage their information in a different way to maintain business continuity and build more resilient operations?

New Ways to Work—Maintain Business Continuity with Information Management Solutions

Coronavirus changes everything. It changes the business priority to building "The Resilient Organization"—an organization with the ability to survive and thrive despite evolving needs and rapidly shifting circumstances.

The coronavirus is different from other business disruptions in recent years. While companies have been impacted by natural disasters, coronavirus is operating on a global scale with unpredictable speed and longevity. The magnitude of the disruption is forcing companies to focus on resilience and adopt new ways to work that minimize exposure, preserve business continuity and increase productivity through Information Management and digital technologies. This includes solutions to better support customers, maintain business operations, and enable employees to securely access, retrieve and collaborate on business information remotely.

The coronavirus outbreak is placing digital transformation and cloud-based solutions front and center. CIOs must re-evaluate their IT infrastructure to ensure it can cope with longterm disruptions—now, and in the future. The cloud allows companies to be run from literally anywhere in the world.

Business continuity management has never been so important. It is not just external supply chains that are impacted when disaster strikes. Leveraging cloud-based Information Management technologies empowers the organization to:

- · Securely access remote business systems and continue working as normal
- · Collaborate and share business documents across a common portal
- Leverage a notification service that determines whether business partners have been impacted, and even assist emergency responders with their work
- Employ external trusted partners to manage the IT infrastructure in the cloud so that you can focus on getting other business operations back online as quickly as possible

During periods of business disruption, an Information Management platform should enable organizations to be connected, intelligent and secure. Four key capabilities, as highlighted below in Figure 3, are essential: 1) Flexibility in terms of how information is accessed and retrieved, 2) Secure collaboration between internal, external and remote workers, 3) Visibility of end-to-end information flows, and finally 4) Insights that can be evaluated and actioned on with speed and agility.

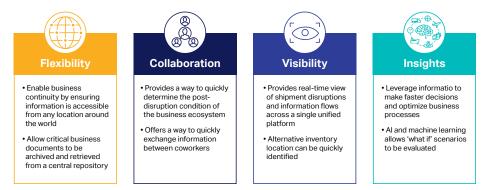


Fig 3. Four key capabilities for an Information Management platform during a period of business disruption



1. Resiliency during Economic Turmoil

Organizations with the strongest core fundamentals are best positioned to weather economic storms and emerge unbowed. Cloud-based deployment and storage has become essential to managing costs, resources and risk while not sacrificing competitive advantage, product innovation and customer satisfaction.

Cloud-native information management benefits IT as well as the business. In an economic downturn, it is important to look at how the business can cut costs while also creating opportunity to create new innovative growth areas.

Enter OpenText Cloud. Moving to the cloud can help eliminate capex and shift spend to operating budgets. Outsourcing application management with Managed Services in the cloud means vastly simplified upgrades. Users have access to current technology while IT managers are able to redirect resources to other priorities.

These benefits are measurable and real. OpenText customers see an 18% reduction in support tickets when running in the cloud compared with on-premises deployments. Operational expenses fall an average of 30% in the cloud as compared to on-prem. And with 24x7 support, concrete SLA commitments, and guaranteed disaster recovery, the cloud enables a higher level of accountability back to the business than most customers can deliver themselves from behind the firewall.

2. Quarantines Encouraging Remote Working

A logical first step to curtailing the spread of contagious diseases is limiting the exposure of those who may be infected and those who are at risk. As we have discussed, this means many employees are now working from home—a reality that can make it difficult to collaborate, perform tasks and make informed decisions without a proper framework.

Having secure access to the right information at the right time when and where it is needed is imperative to both business continuity and emergency preparedness. In today's digital world, much of the workforce already consists of a geographically diverse network of users, customers and partners that need timely, secure access to information delivered across regions and time zones.

A new generation of productivity tools, seamlessly accessible though cloud hosting and built on easily adopted content services technology, are empowering workers to be productive in any location. Process and task administration, information access and unstructured collaboration are performed with the same efficiency as office-located staff.

And, just as importantly, content services technology embeds comprehensive governance ensuring security, compliance and privacy adherence, regardless of where information is accessed or used.

The cloud creates an opportunity for a virtualized approach to Information Management, providing the ability to access and manage content on a global scale. With this approach, customers and businesses can collaborate and innovate—anywhere, anytime. The cloud delivers scalability and elasticity, allowing applications to grow or shift with new business models while minimizing costs. Moving to the cloud creates opportunities to form new alliances with technology partners, customers and suppliers. It enables frictionless collaboration and connection of information flows with ecosystem partners while businesses gain new insight into value chains and ensure faster co-innovation.

Here at OpenText, we are a diverse company that operates in over 40 countries through a combination of global sites and remote workers. The key to business continuity for us during these volatile times has been to enable and encourage flexibility by reinforcing the importance of using digital collaboration tools.

3. New Corporate Policies Related to Travel and Customer Meetings

For much of the world, one of the most noticeable impacts on business has been limits on business travel to certain locations. This is a hinderance to building relationships, progressing initiatives and managing staff. Companies are looking for ways to support virtual internal and customer meetings and keep dispersed teams connected when they cannot physically travel to meetings.

With cloud-native digital collaboration tools like OpenText Core Share, businesses can create a virtual office that is flexible and easy to use, allowing them to securely share and store information assets (from existing on-premises applications or new projects) in the cloud while maintaining the integrity of their content. When employees can easily collaborate both inside and outside the organization, better ideas germinate, and outcomes are more successful. And, with a seamless integration into OpenText ECM solutions such as OpenText Content Suite, OpenText Documentum and OpenText eDOCS, Core Share extends robust content collaboration and information management capabilities outside the firewall to remote colleagues, external partners and other third parties.

Our new Core Signature add-on also accelerates document workflow with integrated digital signature and approval capabilities. There is no need to see anyone in person to get a signature!

4. Marketing and Lead Generation Impacted by Conference Cancelations

Conferences and events are a central pillar of lead generation and nurturing activities for many organizations. They also involve significant investments in terms of content creation and customer communication. When they are canceled, demand generation and customer engagement can be jeopardized.

In these unfortunate scenarios, organizations can turn to the cloud to safely bring the innovations and vision from the canceled event to their customers and partners. Although conferences are a unique way to build momentum and foster relationships in an uplifting context, well-orchestrated digital channels can help overcome the absence of physical meetings and events. This can also be a great opportunity to reach more customers, as these tools are not limited by space or location.

OpenText Customer Experience Management (CEM) solutions help promote and develop engagement via highly personalized content delivered through customers' preferred digital channels: web, portals, mobile, etc. By using common repositories and generating native omnichannel content and communications, CEM enables business users and marketing teams to react swiftly to changing circumstances.

Companies can also engage with customers through bi-directional online communications. With Voice of the Customer solutions, teams can track customer reactions on all channels (voice, web, mobile, chatbots, etc.) and make data-driven decisions for better follow-up.

These tools help organizations create personalized and compelling digital experiences to build and maintain relationships with customers and partners despite the cancelation of major global tradeshows.

5. Ensuring Access to Information during a Time of Crisis

The sheer sprawl of global organizations cannot help but result in isolated pools of information. Take, for example, regional customer data stored in a field office. Or collaboration on product development siloed in an R&D facility. Or, more pertinently, the personal information for a territory's entire staff sitting on a server in the local HR department.

What happens when the knowledge workers who provide both the access to and maintenance for this information are forced to work remotely or are in crisis management themselves?

One of the central tenets of modern Information Management is utilizing content services technology to integrate, manage and provide access to previously isolated pools of information. Content services applications such as OpenText Extended ECM connect central content management platforms with the lead applications—think SAP, Oracle, Microsoft and others—that underpin business processes. Silos are bridged, information stored within can be analyzed, classified and made accessible to those who need it.

Productivity-oriented content services applications can also accelerate the distribution of this information by creating and supporting collaborative workspaces focused on individual business objects. Driven by metadata applied automatically to information in connected processes, these workspaces can source and aggregate information housed in remote locations. Instead of head office HR staff struggling to contact, manage and ensure the well-being of staff on the other side of the world, personnel files are readily available to those with permissions, regardless of location. It can even be delivered to them automatically based on contextual analysis of their communication in the workspace.

6. Lack of Visibility into Disrupted Supply Chain Operations

Global supply chains are like finely tuned machines, but when something goes wrong, it can have a severe impact on the end-to-end business ecosystem. For many years, companies, especially those located in Japan, have had to deal with countless natural disasters and interruption of supplies to their production operations. Manufacturers operate complex production processes such as just-in-time and just-in-sequence operations which are dependent on the timely supply of parts from external suppliers. The retail sector operates similarly complex replenishment processes such as Vendor Managed Inventory, whereby the external supplier manages inventory levels on behalf of their customer. Due to the uncertainty of how long the coronavirus will last, companies are beginning to stockpile parts to avoid interruptions to supplies; however, with warehouse space at a premium and inventory costs rising, this will eat into profitability as we go through 2020.

During times of disruption, companies need a flexible and scalable cloud-based integration platform that can connect to suppliers anywhere in the world and support production operations in different locations. OpenText Trading Grid provides a seamless way for companies to integrate between internal business applications and the external digital ecosystem. This "digital backbone" helps connect suppliers around the world and provides the foundation onto which companies can execute their digital transformation strategies. Global Partner Directory can allow a Supply Chain Director to quickly choose second source suppliers based on specific search criteria. Many companies are starting to implement dual sourcing strategies.

Furthermore, when information is flowing electronically, companies can derive powerful insights. OpenText Magellan can provide those critical insights into end-to-end supply chain operations, from analyzing supplier performance to analyzing the effect on suppliers and shipments during a period of disruption. OpenText Magellan in partnership with OpenText Internet of Things (IoT) and other technologies helps enable next generation supply chain control towers that will help Supply Chain Directors and Business Continuity Directors minimize the disruption caused by natural disasters or epidemics.



Conclusion

The coronavirus outbreak is an unprecedented, severe health emergency impacting a huge number of people around the world. It is our sincerest hope that effective treatment and vaccines can be developed to cure those who are ill and stymy the spread of the disease.

As medical science seeks solutions to reduce the implications for human health, we are doing our part to minimize the economic and business impacts. The economic effects of coronavirus will be felt around the world over the next several quarters, and the magnitude of those effects is not yet clear to anyone. There is no silver bullet, but having an Information Management strategy in place will allow organizations to respond with agility and resiliency as we face this crisis together.

OpenText empowers The Resilient Organization to be prepared, flexible and innovative able to transform to survive and thrive in times of both business disruption and abundance.

OpenText Information Management solutions can provide your business with resilience and new ways of working. For more information on any of the solutions referenced in this white paper, please visit www.opentext.com.

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