

## IS YOUR BUSINESS MANAGEMENT SOFTWARE ADDRESSING TODAY'S BUSINESS CHALLENGES?

### *IS IT COMPLETE, CONNECTED, INTEGRATED AND AGILE?*

*For anyone who still questioned the value of cloud, automation and digital transformation at the beginning of 2020, there should be no doubt now this is the direction in which you must head. Cloud computing and advanced technology that supports connectivity, collaboration, automation and agility step out of the realm of "nice to have" and become table stakes. Yet technology alone is not enough. You need to rethink business processes and seek new ways to achieve a competitive advantage.*

*Have day-to-day operations gotten in the way of taking crucial first steps toward digitally transforming your business?*

*Whether you call it digital transformation or business transformation (or both), for years now, most companies understood this was a necessary journey in order to survive and thrive in today's global, digital economy. Yet significant change and movement forward was sluggish at best. Day-to-day operations just got in the way of taking those crucial first steps.*

*Companies knew they needed to move to the cloud, have a more complete, integrated and agile solution, as well as a higher degree of connectivity, while also addressing new regulatory requirements and evolving business models. And yet... unwilling to cause any more disruption to their businesses than they already faced, they continued to "make do" with underperforming business management software solutions.*

*Then the unthinkable happened: a global pandemic. Every single business around the world was impacted, although in many different ways. Some industries were completely shut down while others could close offices and still remain quite productive. Manufacturers faced a broad range of diverse challenges, depending on what was being manufactured. Those producing, delivering and servicing essential products somehow needed to ramp up while still running safely. Others needed to pivot quickly from non-essential to essential production. Borders were closed and supply chains were disrupted. The construction industry faced a slowdown of available materials and non-essential projects were suspended. Event cancellations disrupted fund-raising efforts of nonprofits. Back and front offices were shuttered and office workers became remote, work-from-home workers en masse, virtually overnight.*

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*If you are still hanging on to a legacy Enterprise Resource Planning (ERP) system that limits your ability to adapt and respond, there is now a real case to be made for replacing it. If you have added solutions piecemeal,*

*with the assurance of integration that proved to be clumsy and far less seamless than promised, now is the time to course correct with an eye towards...*

- *A cloud-based solution to support remote working, better visibility, better productivity and efficiency*
- *A “full” and complete, seamlessly integrated solution*
- *... but one that lets you move forward incrementally by your own design*

## **WHERE TO BEGIN: CHOOSE A STRONG PLATFORM**

Every company's journey will be different, based on industry, existing solutions, current pain points and priorities. However, while destinations might look and feel different, ultimately, they should share some common characteristics: Enterprise applications, including ERP, should be modern, cloud-based, feature-rich, complete, and fully integrated.

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And therefore, the first step in transforming your business should be the selection of a strong platform. By “platform” we mean the architecture and the underlying tools and technology used to develop and operate the solution. Clearly developers benefit from using the services delivered with a platform, speeding the development process. But how does this translate to benefits to the business? The obvious answer is in delivering more features, functions and innovation in ways that help companies keep up with the accelerating pace of change – with less disruption. But not all platforms are created equal. Some simply deliver more value through more services, in a wider variety of ways... which only makes the choice of platform that much more important.

It is the platform that web-enables the solution (or not) and allows it to run in the cloud (or not). It is the platform that makes the solution extensible and configurable, allowing you to personalize and tailor it without invasive code changes. It is the platform that facilitates integration with other solutions (yours and perhaps your trading partners). It is the platform that enables the autonomous exchange of data (think Internet of Things or automated payments), supports “big data,” connectivity, collaboration and even artificial intelligence (AI). It is the platform that determines the ease of use and the entire user experience.

## **YOUR OWN PATH, AT YOUR OWN PACE**

Platforms are important regardless of your chosen path. Even if you are running a legacy ERP solution, how and how quickly you go about replacing it can vary tremendously. Will you do a complete replacement, pulling the trigger with a “big bang,” or implement a new solution more incrementally? If you proceed incrementally, where do you start? Do you first work on replacing what you have now, establishing a strong core foundation that is modern, cloud-based and more agile, before you think about addressing new

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*In today's global, digital economy, where the pace of change is accelerating, rigid, monolithic structures are the dinosaurs of the enterprise software world.*

requirements? Or do you start on the periphery, perhaps beefing up your front office with Customer Relationship Management (CRM)? Or perhaps a construction company's first priority is project management. Maybe eCommerce has become your new lifeline. Satisfying currently underserved requirements might be your most immediate need.

Regardless of where you start, you need to proceed with your final destination in mind. And that destination should be a complete, end-to-end solution that can adapt and grow along with your business. This doesn't necessarily mean all the components, especially industry-specific features and functions, are developed by your ERP solution provider. The stronger the ecosystem that surrounds that vendor, the more likely your ultimate solution will serve all your needs.

Deciding what must be included in your end-to-end solution is critical. More on that later. In the meantime, your choice of architecture and platform will determine how and how well all the different pieces will work together, not only in the end, but also in the interim, as you progress in building a complete solution.

This is reminiscent of the age-old question of choosing a fully integrated suite or a "best of breed" approach. Many ERP vendors have been preaching the benefits of a complete, end-to-end solution and arguing against the proliferation of disparate applications for almost as many decades.

Traditionally a key element of that decision was weighing the trade-offs between full integration and depth and breadth of functionality. In days gone by, those embedded within an ERP suite tended to provide "light" functionality. That's often not the case today. Also, in days gone by, this necessitated starting with a full-scale ERP implementation. But with the right underlying architecture, that too may not be the case today. That is largely because the way ERP systems were constructed in the past and the way they are constructed today are vastly different.

### **COMPONENTS REPLACE THE MONOLITHIC STRUCTURE**

In the past, a suite was always a monolithic structure. It was likely comprised of modules (e.g. general ledger, accounts payable, inventory management, purchasing, order management, accounts receivable). Certainly, some were optional, but none could stand alone. And therefore, in the past, even though something like field service management or project management might be your most immediate and critical need, you couldn't start there without first embarking on a full-blown ERP implementation. Look for more flexibility today.

In today's global, digital economy, where the pace of change is accelerating, rigid, monolithic structures are the dinosaurs of the enterprise software world. But unlike the dinosaur, they are far from extinct. They live on in legacy

solutions – those same solutions you are most likely (hopefully?) looking to replace with one built on a modern architecture and a strong platform.

While early ERP solutions were rigid, monolithic structures, today's modern solutions are more component-based. This is often referred to as a microservices architecture. Every technologist in our audience knows a microservices architecture is defined as an architectural style that structures an application as a collection of [loosely coupled](#) services. For those nontechnical readers, think of it as constructing a solution from a set of Lego building blocks. Purists hate this analogy, and yes, it is an over-simplification. But it is an effective analogy that resonates with most business users that don't have the expertise or inclination to dive deep into technical jargon.

Think about how you build a structure from Legos. Each Lego block is made of the same kind of material and is attached (connected) to the other Lego blocks the same way. In many ways they are interchangeable. You can start small and add on incrementally. By choosing different colors and sizes, and connecting them with a different design, you can make a structure that is unique. And once constructed, if you want to change it, decoupling some of the blocks and replacing them doesn't destroy the parts that are not affected. There is far less disruption introduced than if you had constructed it with a hammer, timber and nails.

And so, it is important to not only look for a complete solution, but also flexibility in implementing it incrementally. Has the solution provider constructed it in a way that allows you to proceed in the sequence that addresses your most immediate needs, but won't compromise your ultimate solution?

Of course, selecting a single "suite" to meet all your needs is not the only way to go. By definition, ERP is an integrated suite of modules that forms the transactional and operational system of record of your business. But ERP doesn't necessarily address the needs of engineering, sales, service, project management or marketing. These pieces might come from your ERP vendor, but they also might not. If they come from partners in the ERP vendor's ecosystem, they are far more likely to be seamlessly integrated. Those built on the same platform as your ERP are the most likely to provide that kind of seamless integration.

Even if you are not starting out by replacing your ERP, taking a long, hard look for a complete solution is strongly recommended. But, if you decide to use the more traditional "best of breed" approach and piece together your own solution from multiple solution providers, the ability to "play well with others" is even more critical. We would encourage any company in search of any kind of solution to look for a philosophy of "openness." The kind of loose coupling described above, as well as modern APIs ([application programming interfaces](#)), significantly reduce the need for generating and maintaining custom code for integration.

#### ERP Defined

*Mint Jutras defines ERP as an integrated suite of modules that forms the transactional and operational system of record of your business.*

*This is a rudimentary definition, covering the basics of required functionality, and allows for flexibility in the various needs across different industries. Most ERP solutions today do much more.*

#### Data Source

*From 2011 through 2019 Mint Jutras conducted an annual Enterprise Solution Study. Throughout those years this annual study investigated perceptions, goals, challenges and status of software used to run a business, as well as the impact of these solutions on the enterprise.*

*These studies typically collected responses from 400 to 850 participants, from companies of all sizes from very small to very large, representing a wide range of industries.*

*You don't need to be a technologist to look for some red flags. The most seamlessly integrated solutions are those where all the different components have been built using the same platform (technology) and share a common data model. So, ask that question.*

## HOW COMPLETE IS "COMPLETE?"

Looking for a new ERP solution is not something you do every day. The most recent Mint Jutras Enterprise Solution Studies found the average age of ERP implementations is approximately 7.75 years. If you've implemented a new solution within the last five years, hopefully you are not looking again quite so soon. Therefore, it is safe to say that (unless you've recently changed jobs), anyone looking today hasn't done so in the past eight to ten years, or even longer. And a lot has changed, both in terms of the software and your business.

Whereas fit and functionality once drove most decisions, basic and even not so basic features and functions are table stakes today. While an 80% fit used to be acceptable, today's flexible and technology-enabled solutions should get you much closer to 100% than ever before, without the need for invasive customization. Of course, you still need to perform due diligence and confirm robust functionality, including industry-specific features and functions, but if you haven't looked around for a while, expect to be pleasantly surprised.

No software vendor can be successful in trying to be all things to all businesses. But it is still possible to get "last mile" functionality today with a strong platform and microservices to make ERP more "extensible." That is, to make it easier for the vendor (and possibly its partners with deep domain expertise) to add specialized features and functions to a solid code base, with minimal disruption.

This is really the (not so) secret sauce behind any solution provider's ability to deliver "last mile" functionality, not just for major industries like manufacturing, distribution or service industries, but in more vertical areas like engineering & construction firms, process manufacturers, or manufacturers that also provide installation, repair, and maintenance services.

However, as you consider adding this last mile functionality, it is important to look under the covers. We just scratched the surface of platform technology in our previous section. If you don't have the technical expertise to dive deep into the underlying technology, it may be worth engaging with some (independent) experts. But you don't need to be a technologist to look for some red flags. The most seamlessly integrated solutions are those where all the different components have been built using the same platform (technology) and share a common data model. So, ask that question. If a solution provider has expanded its portfolio through acquisition, unless the vendor acquired a partner, very often the acquired add-on product has not been developed using the same platform and has its own separate data model. If that is the case, you will be passing data back and forth between your ERP and the "extension." Some vendors do a better job of that than others, but it still leaves open the possibility of data being out of sync.

*Look for connectivity and collaboration tools and analytics embedded in the core product.*

*Look for an intuitive user interface that is easy to navigate and personalize. Some have even learned to "listen" and "speak."*

*Also look for automation. Sometimes the best user interface is no user interface at all.*

## **MORE IS LESS**

And so, we encourage you to ask more from your solution provider and its ecosystem. Don't be limited by what ERP and other complementary extensions were able to do in the past. Look for connectivity and collaboration tools and analytics embedded in the core product.

Look for an intuitive user interface that is easy to navigate. Over the past decade, solution providers have applied significant resources to improving the whole user experience. New software is developed with an entirely different paradigm than in the days of "green screens." Look for a user interface that looks familiar, one that mimics your interaction with your favorite consumer app. You should be able to tailor it to your needs and personalize it to your preferences and your role in your organization.

Not only have user interfaces become more intuitive, making systems easier to use, some have even learned to "listen" and "speak." Several different solution providers have introduced digital assistants to the market, changing the way users interact with solutions. While they vary in function, these virtual assistants tend to have one common element. You can speak to them, and they understand what you are saying – for the most part. And they can even answer you. These solutions make use of natural language processing (NLP), a form of artificial intelligence (AI). While not long ago these were considered pretty far-fetched, they are no longer the stuff of science fiction. They have become quite pervasive in consumer technology. We regularly "speak" to our smart phones and even our televisions. It's time to start talking to your enterprise software.

Also look for automation. Sometimes the best user interface is no user interface at all. Can you record user actions that might be performed repetitively and turn those recordings into Robotic Process Automation (RPA)? Get creative and think about other ways to automate processes.

More embedded technology translates to more automation, less customization, easier maintenance and ultimately less work for you.

## **GETTING TO THE CLOUD**

In our introduction, we noted that companies know they need to move to the cloud. For anyone who still questioned the value of the cloud at the beginning of 2020, there should be no doubt now this is the direction in which you must head. Last year cloud computing (along with advanced technology) eased the burden for some, while others struggled amidst shelter-in-place orders that caught many flat-footed. Even as we emerge from this crisis the value of cloud and software as a service (SaaS) remains. Let's take a look at a few of the ways.

## Cloud versus SaaS

**Cloud** refers to access to computing, software, storage of data over a network (generally the Internet.) You may purchase a license for the software and install it on your own computers or those owned and managed by another company, but your access is through the Internet and therefore through the "cloud," whether private or public.

**SaaS** is exactly what is implied by what the acronym stands for: Software as a Service. Software is delivered only as a **service**. It is not delivered on a CD or other media to be loaded on your own (or another's) computer. It is accessed over the Internet and is generally paid for on a subscription basis.

Using these definitions, we can confidently say **all SaaS is cloud computing, but not all cloud computing is SaaS.**

## SAAS PROVES ITS VALUE

Let's start with the obvious. The capability to access anytime, from anywhere is inherent in software solutions that are accessed via the cloud and delivered as a service. Mint Jutras has been extolling the benefits of cloud computing and software as a service (SaaS) for many years now, but despite all the hype associated with cloud and SaaS, we still see evidence that many don't fully understand the difference between the two or the benefits SaaS can bring. Whether you run a solution on your own premises or in a private or public cloud, the ability to access anytime, from anywhere is a significant advantage and web-enablement opens the door for the kind of connectivity you need as workers work from home. The ability to connect is critical, but **how** you connect is equally important.

This issue surfaced when suddenly office workers became remote, work-from-home workers en masse. Workers in companies using SaaS solutions were able to start working from home almost immediately. Employees were able to take their laptops and mobile devices or just sit down at their home computers and have full and immediate access to the same data and systems they had in their offices.

Those using on-premises solutions had a far different experience. It likely took several days of frantic work to support remote workers. They needed access through a VPN, which often was a significant pain point, especially for those employees who had never been issued a laptop (having no need for one). Many companies were scrambling to purchase new portable devices. It is far too risky to simply open your corporate network up to unsecured machines, so those employees needed to be using company equipment.

And then there's the issue of network performance. Few companies had the necessary bandwidth, and their networks did not have the elasticity of SaaS solution providers.

While this crisis created a sense of urgency in moving to the cloud, it left unanswered the question of how to get there. There have always been a variety of different strategic paths available, and this decision is impacted directly by decisions noted above about where you start on your digital transformation journey. However, transitioning to the cloud tends to boil down to three different strategies:

- Lift and Shift
- Surround Strategy
- Replacement Strategy

## LIFT AND SHIFT

You may in fact be able to lift and shift your current solution to the cloud. If this is a pure "lift and shift" you will be taking your current solution to the cloud in its current state. Some vendors, particularly those that cloud-enabled previously on-premises (only) solutions, are offering this as the simplest cloud

*By lifting and shifting your current solution, you aren't transforming anything. Think of it as a digital transfer rather than a digital transformation.*

enablement strategy. It is (the simplest), but it may not bring you the most benefit. You will probably be relegating the care and feeding of your solution to the solution provider, or one of its partners, but you will be dragging along all the limitations of your current solution. Think of it as a digital transfer rather than a digital transformation. If it is a relatively new solution and you simply chose to install it on your own premises, that might be fine. But if it is an older legacy solution, you really aren't solving the bigger problem. At best, it is a temporary fix.

### **SURROUND STRATEGY**

A "surround strategy" is the strategy where you keep your current solution in place and surround it with cloud and/or SaaS solutions. You may very well take this approach even as you lift and shift some of your existing core solutions to the cloud as described above. While this hybrid approach is quite popular, it too is very likely to be a temporary solution as you transition to the cloud over time. Just make sure your existing solution and any new cloud/SaaS solution that you add to the mix can play well together. Oftentimes the existing solution that you lift and shift (or not) is the limiting factor here. The best new cloud-enabled solutions are built to interoperate and integrate easily. Older solutions... probably not.

### **REPLACEMENT STRATEGY**

And finally, perhaps the simplest decision to make would be to replace your current solution. The decision might be the simplest, but execution is anything but. However, as noted previously, a replacement strategy doesn't necessarily mean you have to tackle everything all at once. With a good platform and a component-based architecture, you should be able to get to a complete, end-to-end solution incrementally.

And full replacement also provides you significant advantages in that it encourages (forces?) you to re-evaluate your current business processes. Digital transformation is more than just operating in the cloud. It means transforming your business to connect and collaborate in the global, digital economy. It means continuously innovating and evolving to meet the rapidly changing business environment within which you operate.

Not everyone will take the same approach. Some will race to the cloud finish line, while others will ease into it over time. If you are currently running your business on legacy solutions that limit your connectivity and interoperability, adding some peripheral and complementary cloud solutions might selectively help you connect to trading partners and customers, but ultimately you will need to replace that old software or run the risk of putting yourself at a significant competitive disadvantage.

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## SUMMARY AND KEY TAKEAWAYS

For at least the past decade, most companies have understood the need to digitally transform their businesses in order to successfully compete in our global, digital economy. But actual progress was slow. Then the world was plunged into a pandemic that was unprecedented in its rapid spread and subsequent impact on business globally. For anyone that still questioned the value of cloud, automation and digital technology at the beginning of 2020, the past year has wiped out any doubts as to the urgency of moving in that direction.

Cloud computing and advanced technology that supports connectivity, collaboration, automation, and agility have stepped out of the realm of “nice to have” and become table stakes. One thing has become frighteningly clear: Legacy business management software needs to be modernized, extended, web-enabled or ultimately replaced with...

- A cloud-based solution to support remote working, better visibility better productivity and efficiency
- A “full” and complete, seamlessly integrated solution
- ... but one that lets you move forward incrementally by your own design

Now is the time to get moving.

**About the author:** *Cindy Jutras is a widely recognized expert in analyzing the impact of enterprise applications on business performance. Utilizing over 45 years of corporate experience and specific expertise in manufacturing, supply chain, customer service and business performance management, Cindy has spent the past 15+ years benchmarking the performance of software solutions in the context of the business benefits of technology. In 2011 Cindy founded Mint Jutras ([www.mintjutras.com](http://www.mintjutras.com)), specializing in analyzing and communicating the business value enterprise applications bring to the enterprise.*