



Building Your Castle in the Cloud

Are you unresolved on moving your business operations to the cloud? We understand; it's a crucial decision and should be considered with care. You need the facts, the latest data, the success stories, and the basic lay of the land, or better yet, the lay of the sky. In this eBook series, we will discuss the pros and cons of moving your business, whatever it may be, to the cloud. But our predominant hope is that you see the cloud value and ultimately conclude that if you wish to continue growing your business in today's "land"scape, you will need to build it in the sky.

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1 Turning to the Cloud

Think of all the reasons your business hasn't moved to the cloud. Too difficult? Too costly? Too risky? Every industry has pockets of cautious executives who have yet to hitch their wagons to innovative concepts like cloud-based solutions, believing the risks still outweigh the benefits. Sticking with an on-premise solution may feel like an option free of risk, but that decision may slow down your company's progress. It's time to further investigate your reasons for holding back.

Too difficult?

Externally, many innovative, technological breakthroughs are happening across most industries, but internally, this innovative attitude does not always exist within the IT departments. In fact, some of the most technologically advanced products and services are manufactured and delivered using, ironically, outdated IT systems. Several benchmark statistics claim IT still overly relies on manual processes and the utilization of ERP systems that are anywhere from 7 to 15 years old. But that's not all; this technology disparity spills over into the deployment method as well.

Now, because the manufacturing industry is amid major disruptions (i.e. industry 4.0, COVID, work-from-home, etc.), a new emphasis on infrastructure and cost control is driving many decisions, including deployment options. Harsh budget cuts are forcing manufacturers, suppliers, and contractors to reassess their entire IT infrastructure, looking for ways to control costs, limit spending yet still provide the system access and capabilities required to run the business. Often, they overlook the idea that investing in a cloud-based ERP system could, in fact, provide more flexibility and be the easiest and most cost-efficient decision in the long run.

Too costly?

Probably not. The cost savings that comes with cloud solutions, as well as the predictability of the operating expense versus the capital expense, is gaining the attention of cash-strapped companies, especially those who need to upgrade or maintain their systems but don't have the money for a major investment. Given our challenging economic state, making or securing huge initial investments in equipment up front may not be the wisest course. In lieu of making these large capital investments, companies are pursuing innovative business models that cloud-

based solutions can deliver, such as variable subscription pricing (or pay-as-you-go user licenses) and agile implementation cycles. Given the current economic climate, investing in smaller chunks over longer periods of time seems the wiser course, a course that cloud computing can help chart.

Too risky?

Many organizations worry over how to secure valuable data, such as propriety specification of exclusive technology and FDA-regulated products. A data breach is one of the top five fears most companies name when switching over to cloud-based solutions, but cloud providers have quelled these fears by providing the most secure and strict technology solutions to protect data—even better than the company can with their current on-premise deployments.

What's to gain?

The better question to ask is, are you leading the charge and embracing new opportunities or trailing behind with a wait-and-see outlook? Cloud deployment offers companies the opportunity to reevaluate their approach to operations, workflows, and information sharing. Moving to the cloud is cost-efficient, safe, and effective. And given the right training and support, the cloud can even be easier. Where does your company sit in this continuously evolving spectrum of implementation and disruptive technologies, including cloud deployment of your ERP solution? If you're still on the sidelines, are you ready to jump in? If you still feel it's too risky to commit to the cloud, perhaps "the policy of being too cautious is the greatest risk of all."¹

The Copley Consulting Group can help. We have more than 30 years of experience helping manufacturers, suppliers, and contractors transform their businesses. Contact us to get started on your cloud deployment.

1. Quote by Jawaharlal Nehru.



2 Legacy vs. Cloud

Ready to upgrade or implement a new enterprise resource planning (ERP) solution? Your first decision will be whether you want to deploy the solution on-premises or in the cloud. Because The Copley Consulting Group offers Infor's Syteline ERP on premises and Infor's CloudSuite Industrial (CSI), we can provide key insights into the advantages and disadvantages of each option. So, which is best for your organization? First, let's learn the key differences in each method and how each should factor into your final decision.

Manufacturing Complexity:

What style manufacturing do you perform? Many organizations of all sizes do well with cloud-based deployed solutions which offer extensive capabilities and built-in best business processes, so they require little to no customization. Cloud deployments, then, make it easier to stay current and not worry about future upgrades. For some specialized manufacturers with distinctive products and processes, however, on-premises deployments offer more flexibility in performing extensive customization and access to key code to modify. Ironically, this flexibility limits your ability to stay current, forcing you to ante up again for new system upgrades and customizations. If your company can operate using the out-of-the-box cloud system with some extra configuration as opposed to more extensive customizations, then deploying in the cloud will be more than adequate to suit your purposes.

Security:

Is security one of your top priorities? Cloud-based systems offer a more mobile and accessible solution, as many companies need to access files from personal devices such as smart phones or tablets, especially in today's work-from-home environment. The good news is that cloud-based ERP solutions have been quick to employ better security standards, especially Infor's CloudSuite Industrial, which provides services such as data encryption at rest and in transit, dynamic password management, and vulnerability and penetration testing. These services are included with your subscription fees and backed by Amazon Web Services for Infor's CloudSuite solutions.

Capital Investment v/s Operational Expense:

What part of your budget is available for your new ERP solution? Will you draw from capital or from operational expenditures? On-premises software requires a significant capital investment up front for a one-time license fee (based on the number of users and the size of your business) and implementation fees. This does not include recurring fees for support/maintenance, training, custom modifications, and future updates. On-premises solutions also require an infrastructure such as servers, databases and operating systems; therefore, you may need to invest more capital up front for an on-premises deployment. Cloud solutions, on the other hand, are more of a pay-as-you-play service and operating expense. In the cloud, you typically pay a monthly per-user subscription fee which includes all infrastructure and security, support and maintenance, and future releases. But, just like with on-premises, you're still on the hook for implementation and training and any configuration or desired customization. Cloud software has continued to garner more popularity and can be more cost-effective up front, but in some cases, on-premises costs can even out over time.

Can You Have a Little Bit of Both?

Theoretically, yes. There is a third deployment option known as a "hybrid," where some solutions are deployed and accessed via cloud subscriptions and others deployed in an on-premises style. Cloud-based platforms like Infor's CloudSuite Industrial have evolved to allow for integration with applications designed, and sometimes better suited for on premise deployments.

Choosing an ERP Consultant

Thoroughly confused? Just remember, a one-size-fits-all is not an option when it comes to manufacturing ERP solutions. The Copley Consulting Group knows there are several factors to determine the right fit for your organization. When working to implement your ERP solution, Copley can provide the technology and support needed for your specific industry and business when choosing between cloud ERP or an on-premises one.



3 FDA/Regulated? Don't Be Scared of the Cloud

Most FDA/Regulated industries have taken a conservative approach to adopting innovative technologies, and given the high-demand environment in which they operate, their concerns are valid. But cloud-based software has come a long way in meeting the rigorous demands of regulated industries, and as a result, moving to the cloud can prove to be one of the best decisions you make for your company's future.

Meeting the Challenges of Title 21:

To comply with Title 21 of the Code of Federal Regulations; Electronic Records; Electronic Signatures (21 CFR Part 11) the FDA recommends the following:

“We suggest that your decision to validate computerized systems, and the extent of the validation, take into account the impact the systems have on your ability to meet predicate rule requirements. You should also consider the impact those systems might have on the accuracy, reliability, integrity, availability, and authenticity of required records and signatures. We recommend that you base your approach on a justified and documented risk assessment and a determination of the potential of the system to affect product quality and safety, and record integrity.”

That's a weighty recommendation. Regulators in the life science industry require strict compliance standards for a software provider's ERP solutions, plus additional validation for the company using the solution based on their extensions and business processes. This additional company-level validation can make professionals hesitant to move to a multi-tenant cloud ERP and either remain with or pursue an on-premises or hosted/single-tenant cloud deployment. At least that way, they can control the timing of installing updates or performing an upgrade as well as oversee their extensive validations cycles throughout the process. But this thinking can cost more time, money and labor than if they moved their ERP solution to a multi-tenant cloud solution that supports regulated industries. With its proven security models and a high reliability rating, cloud-computing has now become widely accepted across many industries, and more life sciences firms are beginning their journey.

ERP Vendor Compliance:

First and foremost, you need to work with an ERP vendor who provides a solution with both the development processes and product features that meet or exceed the needs of Food and Drug Administration (FDA)-regulated customers. Having a fully documented Quality Management System (QMS) that adheres to GAMP / FDA / GMP guidelines and ISO 9001 standards as well as having full documentation and testing procedures as part of their standard development and product release process should be considered table stakes for any ERP Vendor. Software vendors should provide this level of compliance and validation for either on-premise or multi-tenant cloud deployments to start you on your cloud journey.

Company ERP Validation:

Traditionally, FDA/Regulated companies have opted for an on-premise deployment for ERP solutions, hoping to reduce security and compliance risks. During an initial implementation, validations of software extensions and business processes and operating procedures could take anywhere from six to eight months to complete. This deployment then allows the company to decide when to install updates or perform an upgrade because they manage and own all aspects of the solution. More importantly, it also provides the flexibility on the timing of doing additional validation work required to accompany the upgrade, new software version, and features.

Cloud ERP Option for FDA/Regulated

By deploying a cloud-based system, companies have seen a greater value to their ERP solution in terms of labor and cost. Cloud vendors now shoulder the burden of operating the system with resources and procedures to drive efficiency. And another big win for companies is the ability to allocate the cost as a monthly operating expense as opposed to a capital investment.

In a single-tenant or hosted cloud environment, FDA companies can again choose when to install updates or do an upgrade and manage their validations in the same way they have on-premises deployments. But they lose out on the value of staying current with monthly updates and releases of the software.

In a multi-tenant deployment, the ERP vendor typically provides updates monthly, making the timing of updating validation tricky. This is one of the key reasons why companies have shied away from cloud deployments. FDA/regulated companies need the ability to preview these application updates, such as new versions, features and other application changes, before they are deployed to a production environment. Some ERP vendors provide this ability in a “pre-production environment” to perform this preview and validation.

Yet, FDA companies still aren't sure how to manage and perform the necessary validation monthly to check on their extensions and ensure their business processes are still aligned with the monthly update or release. To answer that need, some ERP providers offer testing as a service (TAAS), a testing automation platform that confirms the implementation and configuration (including extensions and external interfaces) still perform in accordance with applicable standards.

Resolve Today to Move to the Cloud.

The multi-tenant cloud, that is. Eradicate those years waiting to do an ERP upgrade and the days or months of manually overseeing extensive validations cycles throughout the implementation or upgrade process. By managing the laborious procedure of testing and validating new features and upgrades with your cloud-based vendor, you'll free up your time to pursue other lofty company goals for the upcoming year.



4 Moving Your Business Intelligence to the Cloud

According to Forbes magazine, “in the next 18 months or so, we’ll continue to see a huge acceleration in deploying or migrating databases to the cloud, reaching 75% by 2022.” Business intelligence solutions in the cloud represent the merging of two key trends—the progression of cloud computing as a cost-effective, agile platform for business applications and the use of BI technology to gain insight and improve the quality and speed of decision making. To make the most of cloud BI, the chosen solution should have features that are easy to use, quick to deploy, and scalable as data and user demands grow. To find the best solution, each business must consider its own unique needs for multi-source data capability, data discovery, analytics, reporting, scalability, automation, and flexibility.

Changing from Reactive to Pre-Active²:

In a world where data flows at a dizzying speed, decision makers are pursuing every available opportunity to garner a competitive edge, which means they keep an eye on what’s trending in the data world. With cloud-based solutions, you can empower all company employees to be savvy decision makers. No longer does an employee need to be a data analyst or an IT professional to translate business intelligence into actionable results. Access to accurate data in a simplified language allows users to feel not only more proficient in data literacy but also more confident in making well-informed, data-driven decisions. As a result, users will have a faster speed to answer, especially when data identifies crucial issues that could cost your company time and money.

Sharing the Power

Cloud applications are deployed with the intent that users can easily share data with others, both inside and outside their organization. This makes it easy for users to collaborate and share insight with remote offices, suppliers, field sales organizations, partners, and customers. Also, since these applications can leverage data from anywhere in the world, users can integrate data from multiple, geographically dispersed data sources.

Rapid Return on Investment (ROI)

Cloud BI solutions are quick to deploy and easy to change and/or upgrade. Unlike traditional BI implementations, which can take a year or longer, cloud BI solutions can typically be up and running in a few weeks. With no additional hardware to install, no database to set up, and no software to install and configure, cloud solutions allow companies to start earning a return on their investment more quickly. Ongoing maintenance and configurations are also faster

and easier to manage. Since the vendor controls the hardware and infrastructure, all software upgrades and changes are delivered to the customer automatically. Your personalizations and changes to the reporting and analysis tools can be handled by end-users with limited use of IT resources.

Lower Implementation Costs

With cloud solutions, like Qlik’s, customers are not hit with set-up costs involved in having an on-premises BI solution deployed. The platforms can be set up in a fraction of the time of traditional solutions, and the resources required to deploy a finished solution are dramatically reduced. Therefore, up-front costs for installation, setup, and implementation are significantly less than those for traditional solutions, meaning they are less risky to deploy and easier to budget. The subscription cost is typically based on the number of users, the volume of data analyzed, and a support plan. Subscription pricing ensures that customers pay only for what they need when they need it. Cloud solutions are paid for as subscriptions; the monthly cost is a regular, predictable operating expense and not a large, up-front payment as with conventional software. Another hidden “cost” you save? Time. Instead of heavily investing your time in the install, setup and deployment process, you can redirect it to fine tuning the reports and metrics you want out of the platform.

Scalability & Agility

Cloud solutions are designed to support many customers simultaneously. As organizations grow, BI cloud solutions can scale to meet the needs of more users and increased data demands. Unlike on-premises solutions, customers can expand their cloud solution without having to buy and deploy more hardware or install different, larger software servers. Unlike traditional solutions, cloud BI solutions can be modified easily, so non-technical users can quickly add new reports and dashboards, new data sources, and new analyses. A cloud BI platform can provide both easy-to-use data preparation capabilities for self-service data prep as well as the powerful data integration technologies.

Low Risk with a High Reward

As a subscription service, cloud solutions are a low-risk way to acquire business intelligence without the usual high costs, heavy commitments, advanced technical skills, or high resource requirements. The rewards of deeper business insights, improved efficiency, higher productivity, and lower costs make this a winning strategy for companies of all sizes. There’s a reason that most experts believe three-fourths of the business world will migrate to the cloud by the end of this year. If you are wary of being one of the 25% who are left behind, contact Copley to see if cloud solutions are the future for your company.

2. <https://www.qlik.com/us/-/media/files/resource-library/global-us/register/ebooks/eb-2021-data-and-bi-trends-en.pdf>



About the Copley Consulting Group:

For nearly 30 years The Copley Consulting Group has delivered consulting and business analytics, to more than 400 enterprises. From Fortune 1000 companies to start-up operations, Copley has provided education, training and technical services melded with a focus on best practices. As one of Infor's premier Gold Level Channel Partners and a Qlik Elite Partner, Copley has assembled a team of dedicated professionals committed to increasing the productivity and profitability of our customers.

For more information about our Infor CloudSuite Industrial (SyteLine) or our Qlik Analytics Solution, contact a Copley Consultant at [855.884.5305](tel:855.884.5305) or sales@copleycg.com.

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