

ERP SOFTWARE IN THE CLOUD

Your comprehensive guide to cloud ERP written by industry experts

GUIDE HIGHLIGHTS



Comparing cloud ERP types,
and on-premise ERP



Hidden cost elements
associated with cloud ERP



A look at the level of security
cloud ERP offers



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CLOUD ERP VS ON-PREMISE ERP

What method of ERP deployment should you choose: cloud or on-premise? The answer is...it depends. There are several key areas to consider when determining which ERP model would best suit you between cloud and on-premise deployment. Whatever option you choose, it should be chosen because it offers a clear strategic business advantage.

Cloud ERP has a list of oft-repeated strengths and weaknesses. It is not coincidental that most of the strengths align with small and mid-size companies; these are companies that can't easily afford to own and maintain their own ERP systems. ERP cloud computing also favors technology and service companies over heavy and process manufacturing. However, there is a question that receives too-little press in the ERP cloud discussion: what ERP technology infrastructure results in the best business practices? Like all software considerations, there are upsides and downsides that need to be weighed and evaluated.

SERVERS

Cloud ERP systems are deployed on servers managed by your ERP provider. You rent space for your data and the provider keeps it safe and secure. Your data is on the same servers as another client's but they are kept separate.

With on-premise ERP, your data is kept on your servers. Your IT people keep them running and manage security and backups. Only your data is on that server.

There's also an in-between choice. You can own the software license but keep the ERP and your data on a third party server. Amazon and others will rent you disk space and they manage much of the security. This cloud deployment is therefore not on the provider's server.

PAYMENT

If you choose a cloud ERP, you will agree to regular payments, usually monthly. Often there is no upfront payment required. Your payments go on as long as you use the cloud ERP.

If you choose on-premise, you will purchase a license to use the ERP and pay a single upfront payment. You will also pay annual support fees that cover system upgrades, bug fixes, etc. Access

to the provider's help desk is included too.

There is a break-even point where the higher initial cost of on-premise ERP becomes cheaper than an ongoing monthly subscription fee. Do the math yourself and make your choice. ERP providers that offer both types of deployment will always convert from cloud to on-premises and the license cost will be reduced. This could be a good choice for your business.

CUSTOMIZATION AND INTEGRATION

These options are available with cloud systems but can be limited in some cases. Talk to your provider and talk to partner businesses as well. The provider might want to provide the needed connections and limit outside links. Often there are third-party integrators available but they might not be easy to find.

For on-premise systems, on the other hand, integration and customization are as available as the money you want to spend. Your data is under your control in your own server. The potential downside is that as the ERP provider improves their core system, some of your customizations might be incompatible unless you also rework the software you added.

SUPPORT

Your cloud subscription fee will include easily available help desk support. Your ERP provider will keep your system at the most current revision at all times so you see immediate bug fixes and software improvements. You also will get a copy of your data for training or experimentation that is regularly refreshed.

If you choose on-premise ERP and choose to maintain your annual support agreement, you will have access to the same improvements and bug fixes, but your IT staff will need to load those upgrades. You can, however, defer revision upgrades when you find nothing in that upgrade applies to your business or there could be a problem with some customization.

Both cloud and on-premise ERP are excellent choices in the right circumstances. Understand those choices and how they apply to your business and you will have the power of ERP helping you.



MULTI-CLOUD VS HYBRID CLOUD ERP

As ERP-driven companies continue to globalize, the application of information driven by cloud-based systems have become critical to the successful execution of commerce. However, there are a couple of different ways to leverage cloud platforms, since every system is different.

When weighing up hybrid versus multi-cloud ERP, things tend to get more challenging since the two variants really represent different sides of the same coin.

HYBRID CLOUD

In hybrid cloud systems, all cloud operations result from an integrated information environment, derived by a complex of private and public computing environments. However, each discrete ecosystem provides different functions and operational yields that, in turn, are serially consolidated to create one or more final systems.

Business advantages include:

- Disparate cloud ERP providers can create integrated service values
- Disparate cloud ERP providers can extend end-to-end business values quickly
- Multiple ERP-driven enterprises operating private clouds can integrate with public cloud providers leading to larger, more sophisticated information infrastructures
- Rapid integration and scaling, thereby leading to enhanced information delivery on an ad hoc basis.

MULTI-CLOUD

In the case of this architecture, all operations occur on the basis of multiple public computing environments interacting in parallel. All functions, operational yields, and process loads are shared, and all consolidated work products are available simultaneously.

Business advantages include:

- Multi-cloud can provide active and intrinsic recovery in the event of cloud ERP failure
- ERP systems relying on this architecture typically experience high performance

- ERP business continuity concerns are largely marginalized
- Immediate recovery in the event of omnibus-level systems failures

CLOUD ERP VALUES

In the case of multi-cloud ERP versus hybrid cloud ERP, there are four central value points that apply equally, including:

Scalability - hybrid and multi-cloud platforms offer demand-based scalability, with fewer operational barriers, since all resources are largely insulated by larger cloud infrastructures.

Cost efficiencies - hybrid and multi-clouds allow enterprises to leverage cost advantages by utilizing multiple platform partners.

Security - hybrid and multi-cloud models can provide end-to-end security, along with an ability to satisfy holistic business data handling and storage requirements at business control and regulatory levels.

Flexibility - hybrid and multi-cloud constructs offer intrinsic abilities to secure and scale public resource management processes, offering extended business values well into the future.

From an ERP perspective, either of these architectures can create a host of opportunities for enterprises to grow one or more data infrastructures without breaking the bank. However, like any other technology, identifying and implementing just the right solution, at just the right time, will continue to be a challenge. An ability to bring one's "A game" will have to be part of any decision-making mix for the foreseeable future.

WHICH ONE IS RIGHT FOR YOU?

You're probably wondering which way your company should lean when comparing these alternative views on the two cloud constructs. Well, the short answer is that it really depends on the scale of the enterprise.

In the case of hybrid cloud ERP, when considering enterprise private networks, ranging from small (FY \$100,000) to mid (FY \$50 million) scaled firms, it can be generally assumed that any previous network costs will have already been consumed and that some degree of operating infrastructure will already exist. This means that the only thing that a firm will have to do is generate the private/public integration and set up the extended framework.

In the event, then this approach allows 'smallish' to 'midish' enterprises to behave like larger competitors while avoiding the static ownership costs associated with a larger business

infrastructure. As a result, hybrid cloud ERP fosters extended operational flexibility while holding the overall cost curve down.

However, if a large-scale enterprise wants expanded and/or more powerful processes, increased operational stabilities, or a desire to globalize on-demand, multi-cloud ERP would seem to be the more logical choice. The advantage of employing highly-robust public networks like AWS, for example, can pay enormous dividends across any of the aforementioned areas of interest.

On the cost side alone, extended proprietary networks can consume enormous amounts of money, and considerations related to upscaling can be an even more daunting challenge from a bottom-line perspective. Cost concerns can be further exacerbated by the threat potential lost business continuity in the event that an infrastructure goes down.

Depending on the scale, either hybrid or multi-cloud can play nicely in today's business climate. However, as discussed earlier, every system is different, so ensure that you do your homework before you take your checkbook out.



HIDDEN COSTS OF CLOUD ERP

Cloud offers quick implementation with little or no money up front and easy payments afterwards based on what you use, not necessarily what you were sold. It sounds like a perfect picture with no coloring outside the lines, but there are a few hidden cloud ERP costs to consider. Be aware they exist and take them into consideration during your ERP selection process.

CUSTOMIZATION

Your cloud ERP vendor will tell you that all the screens and defaults can be set specifically for you. But nearly every ERP today has some customization so why expect a cloud implementation to be any different? Some would argue that, all too often, we think our business is unique and much customization could be avoided if we only recognized that many modern processes are common to subsets of businesses. Even if we take that leap, we all have existing systems that we will keep along with our ERP. Those systems will need to communicate with your cloud ERP and integration is just another form of customization.

DOWNTIME AND MAINTENANCE

You will give up some control over your operations. Your cloud ERP system will have problems and downtime and Murphy's Law guarantees it will hit at the worst moment. The same can happen with your internal ERP but there is some consolation in knowing your own IT people are sweating to get back in operation. Your cloud ERP vendor will be too, but you can't see them down the hall.

LEGACY WORKAROUNDS

Your bill for the cloud ERP will start with all the agreed-upon options. ERP is a complex set of tools and your people will require some time, often months, to really master those tools. ERP includes a set of fifty different wrenches. Your people will continue using the adjustable crescent wrench they are already comfortable with. Until they buy-in to the new cloud ERP, you might be paying for more than you get.

ONGOING TRAINING

There will be a period of training and support provided for a time when you begin using your cloud ERP. The people on staff then will probably be well trained. But what happens eight months later when you hire someone new? Who will train them? The cloud folks will be training some new client. You will have to take on training the new person.

These are just a few of the potential 'hidden' costs associated with cloud ERP. Make sure you don't get blindsided, and account for these extra payouts in your 'savings' from implementing cloud ERP.



GAINING C-SUITE BUY-IN

You've been sold on cloud ERP; you've weighed the advantages and disadvantages, and now your business is in the market for a new cloud ERP. But, in most businesses, this is rarely a single person decision. For most, this will involve pitching your case to C-level, and securing that vital executive buy-in to proceed. When presenting your cloud ERP business case, there are some of critical areas, listed below, to consider to gain senior management backing.

ENSURE IT MEETS ALL YOUR NEEDS

An ERP system must fit your business and meet the requirements you have defined. This is true whether the ERP runs in the cloud or downstairs in the IT department. The people in your C-suite are there because they have experience and training. They aren't going to back your ERP proposal only because it runs in the cloud. Take care of the important points first and then think about proposing a cloud implementation.

EMPHASIZE THE CASH FLOW BENEFITS OF CLOUD ERP

These will be very important to your C-suite occupants. Cash flow is one measure and likely will put the cloud ERP in the lead. Often a business can start using ERP with a first month payment and no other cash output. An on-premise ERP will need a payment for all the software and any servers and network equipment needed before the ERP is available.

On the other hand, that cloud ERP payment goes on forever and the payments never end. Once an on-premises ERP is running, the ongoing cost is limited to annual support fees and some personnel costs in the IT department. Another measure such as net present value or payback period could point to a different winner. Make sure you have clear figures about a 'break even' point and emphasize the benefits of continued payments - maybe a clunky on-premise ERP will be completely out-of-date within four years, meaning another expensive selection project.

Each of us has critical factors to consider within our businesses. Some combined strategy such as starting in the cloud and switching to on premises later could be the best bet. Money talks in the C-suite so be sure you speak their language.

VET THE VENDOR

Be sure to know the vendor's track record. How well have they served other customers? How long have they been in business? What kind of financial condition are they in? Conservatism reigns in the C-suite. They will want to be careful to select an established cloud ERP vendor who will be around a long time to improve and maintain their product.

SHOW THAT YOUR PROPOSED ERP WILL INTEGRATE WITH CURRENT SYSTEMS

You might plan to integrate this cloud ERP with other systems. Cloud ERP systems, particularly multi-tenant setups, require strict security to keep your data safe from other customers whose data is in the same cloud. Integrating other systems means passing data to and from the cloud to the other system and that door in the firewall could expose other customers' ERP data to your integration. Your other system to be integrated could reside in its own multi-tenant cloud. The desired integration can still work but it can be much more complex and time-consuming to implement. Your C-suite people will want to know you have solved this problem.

Gaining senior management approval for your ERP project may seem daunting, but the above criteria should provide a decent starting point to start constructing your pitch. Do it right, and you'll end up with a shiny new ERP system which delivers a good ROI. Your efforts might even make you some friends in high places.



SELECTING CLOUD ERP FOR SMALL BUSINESSES

Enterprise resource planning software sounds out of reach for most small businesses. A system reserved for big multinationals with thousands of users and pots of cash lying around. Perhaps it's because of the name? In fact, more and more small businesses are adopting ERP. Cloud ERP has brought new levels of productivity at lower costs to businesses of all sizes.

These efficiency-boosting tools aren't out of reach anymore. But choosing the right ERP for your business is a challenge. The steps outlined below will help steer you in the right direction.

ERP REQUIREMENTS FOR SMALL BUSINESSES

The abundance of choice can make ERP selection mind-boggling. For small businesses with limited resources, the majority of research and decision-making rests on a small number of shoulders. Defining what exactly you need your ERP to do is the first step. Every business is unique in its challenges so you'll need to align your strategic goals with your ERP requirements:

- Map the processes you need to streamline and prioritize features accordingly
- Look for system features specific to your industry and look for vendors who fit
- Calculate your budget and forecast your ROI
- Decide if you have enough in-house experience or need an independent consultant

INFRASTRUCTURE CHALLENGES

One of the biggest challenges for small businesses looking to invest in new software has been infrastructure. Traditionally, if you didn't have the right environment or enough hardware to support it, an upgrade would require serious investment. Even if you did have the capital to get enough hardware and on-premise storage to handle an ERP system, your time to ROI could make the whole project untenable.

Luckily, the cloud has come to the rescue. Small businesses can store more data and implement new business apps without killing the bottom line. Cloud services are typically sold as a subscription service, making it easier to get underway without huge upfront costs. Cash flow is king for small businesses so fixed costs are preferable to spikes in investment that can leave you vulnerable.

Cloud subscriptions remove barriers for small businesses that want to invest in ERP. But that doesn't mean you should jump in with both feet. Compare vendor prices and models carefully. Look at your growth projections and contract durations on offer. If you expect to grow your user base, make sure you choose a plan that gives you plenty of breathing room. Most plans are priced per user (or on a range of users). You might think that 10 or 20 users are enough today, but what happens in one, two, or five years time?

SHORTLISTING CLOUD-BASED ERPS

Now you know what problems you want your ERP to solve, that cloud is the most likely route and how to create a selection process, it's time to put the wheels in motion. It probably won't take long to whittle your options down into a shortlist. Once you have a list of requirements, it's time to start the process of requesting proposals from the best-fit vendors.



HOW SECURE IS CLOUD ERP?

This guide wouldn't be complete without mentioning the S-word. Detractors of ERP cloud computing have always pointed at ERP security as being questionable in that arrangement. The objective truth is that cloud ERP services are probably better at security than most on-site ERP installations for a number of reasons:

1. In general, they have more up-to-date hardware and software
2. Their facilities are manned 24/7, and are designed to control limited physical access
3. They spend more money on security, as a percent of revenue, than most on-site IT departments
4. They hire security professionals, who work full time on security

But if an ERP user is truly trying to understand the question of “is cloud ERP security sufficient for me?”, then they are likely dealing with too big of a question to start with. Breaking down security into its smaller components, and testing a proposed vendor's strengths against those smaller components is the best approach to take in your cloud ERP strategy.

DATA SECURITY

Is your data highly sensitive, or realistically, do you simply just treat it that way because it's a good practice? If your data contains the credit card numbers of 300,000 customers, or even a list of the food deliveries to a major army base, then your cloud ERP vendor better show pretty high competence at data security.

TRANSMISSION SECURITY

If someone intercepted emails, or business transactions, would they obtain data that might embarrass company officials, or are they likely to obtain a histogram of women's shoe size demand in Topeka, Kansas? If the former, you want to understand their encryption capabilities and its effect on processing speeds.

APPLICATION SECURITY

What would happen to your business in the event of an application disruption? Is your business effectively shut down in that event? Where is your cloud ERP provider located, and what are the threats – hurricane, earthquake, tornado, blizzard – to that location? Is your cloud prospect stronger or weaker than you would be in-house at making sure you could continue to run in the event of a natural disaster?

PHYSICAL SECURITY

How accessible is/would your in-house IT area be, and what controls would be placed on it for ERP security purposes? Most cloud providers are actually better with physical security, because they don't have a large complement of salespeople, accountants, and executives hanging around the facility, and fiercely control physical access to various parts of the office space.

ACCESS SECURITY

You probably know more about access security – who can get through the firewall, and what they can do when they get there – than a cloud ERP vendor will ever know. How you construct your ERP security roles is almost always handled more effectively internally.

The point is, don't paint the term "security" with only one brush. Some of these issues will be more important to you than other issues, and some cloud vendors will be stronger with one type of ERP security than another. Ask questions, require written documentation, and choose wisely when deciding if cloud ERP is for you.

This guide was written by Tom Miller, Rick Carlton, Helen Peatfield, and Richard Barker, ERP Focus Columnists, with contributions from Megan Meade, ERP Focus Editor

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