The business case behind moving your ERP to the cloud and choosing MT cloud deployment

Cloud deployment of business software, including enterprise resource planning (ERP) solutions, has been steadily increasing over the last decade as enterprises recognize the benefits of always modern, highly flexible systems. CEO reports that the **unusual business pressures** caused by the COVID-19 pandemic helped cloud computing reach a tipping point, surpassing on-premises sales.

This executive brief examines the business case behind the move to the cloud, particularly multi-tenant (MT) versus single-tenant (ST) cloud, and offers guidance for enterprises ready to evaluate their own software strategies.

Analysts interpret the data

A report from Synergy Research Group found that cloud infrastructure spending surpassed on-premises spending for the first time in 2020—**and did so by a wide margin**: "Enterprise spending on cloud infrastructure services continued to ramp up aggressively in 2020, growing by 35% to reach almost $130 billion. Meanwhile, enterprise spending on data center hardware and software dropped by 6% to under $90 billion."

IDC's Jyoti Lalchandani, Group Vice President & Regional Managing Director for the Middle East, Turkey, and Africa (META), **explains the shift**:

"The widespread disruption caused by the global COVID-19 outbreak has reinforced the critical importance of businesses being agile enough to scale up or down with fluctuations in demand." He adds, "A public cloud platform provides enterprises with an agile, scalable, and cost-effective IT infrastructure that supports their business processes."

Rick Villars, Group Vice President, Worldwide Research at IDC, **provides more details on the influences**, saying, "Access to shared infrastructure, data, and application resources in public clouds played a critical role in helping organizations and individuals navigate the disruptions of the past year." He goes on to predict the future impact of cloud computing. "In the coming years, enterprises' ability to govern a growing portfolio of cloud services will be the foundation for introducing greater automation into business and IT processes while also becoming more digitally resilient."

CEO.digital draws a conclusion for its readers on the topic and **offers advice**, writing, "The market has embraced cloud technology. We've reached a tipping point and there's no going back. CIOs and CTOs must take this as a message to reinforce the pressure on adopting more cloud-based IT infrastructure to maintain competitiveness."

What are the essential distinctions between single-tenant and multi-tenant?

Let's review the key differences between ST and MT options. Even highly experienced IT professionals can benefit from refreshing their knowledge on the topic and drilling into the details. Here are the basic definitions:

- **Single-tenant architecture** provides software as a single instance per each client on the software as a service (SaaS) server, giving the enterprise more control, but requiring more effort and investment. Organizations can lift their legacy system with all its existing strengths and shortcomings and put it in the cloud. However, the organization often remains responsible for several functions, such as security and back-ups. These add significantly to the cost of maintaining the solution. In addition, a single-tenant architecture is typically built on a static set of servers. As business activities increase, system performance can suffer until the system is redeployed on new servers, requiring downtime and potential business disruption.

- **A multi-tenant environment** gives several clients the use of the application within the same operating environment on the same hardware. This shared-cost model reduces investment and provides the benefits of using standardized processes, maintenance, and security. In addition, well-engineered cloud applications enable personalization without compromising upgrades by using extensibility and platform tools rather than code modifications.

Pinpointing the extra work and costs of single-tenant deployment

The difference between single-tenant and multi-tenant involves more than how many companies are on a particular cloud. The responsibilities retained by the organization also differ. This chart shows some key areas and the impact.

Single-tenant vs. multi-tenant: Key areas and impact

	SINGLE-TENANT	MULTI-TENANT	RESULTS
Routine maintenance and back-ups	You are responsible and will need highly skilled technicians or the vendor provides them, resulting in higher costs.	The vendor takes care of routine maintenance and back-ups for you.	In MT platforms, the vendor's experts focus on maintenance for you, applying best practice standards.
Full redundancy and disaster recovery	In ST, this kind of back-up could more than double your costs because you need duplicate hardware, replication software, and testing processes, all of which must be in sync.	In MT, you can easily have a redundant version as a back-up in case of a disaster and scale across data centers when required.	Confidence comes with MT deployment.
Security	You are responsible for the security of your solution in your cloud or outsourced at a higher cost.	In MT, security is managed for you by experts who stay on top of new types of threats.	In ST, the costs and skills required in providing your own security can add up.
Updating features and functionality	Responsibility for upgrades rests with you unless you pay extra for a service contract. Postponing upgrades puts you at risk of becoming outdated, and innovation is harder.	The vendor provides monthly updates that are easy to consume and activated on your timescales.	In MT, monthly updates are consumable and less disruptive. In addition, business users can be trained on new features as they are rolled out.
Scaling for fluctuations of high traffic or innovative workloads	You must invest in extra capacity to prepare for peak periods, whether you use it or not.	The elastic capacity of MT cloud means you expand automatically as needed and only pay for what you need.	MT offers more flexibility and savings.

Benefits of multi-tenant deployment

1. **Security expertise:** Leverage the continuous scrutiny of experts who are vigilant to new attack approaches. Most companies can't afford to hire an entire team of highly experienced IT security specialists. In some regions, those skills may be hard to find in the available talent pool.

2. **Continuous upgrades:** Always stay modern. You don't have to schedule big bang events every two to three years where you pause and upgrade. Instead, take bite-size updates as they are released and avoid making your own changes that can break future upgrades. In addition, you will always be on top of changing regulations, even across multiple regions.

3. **Control costs:** Save on resources. You can save on the costs that go towards staff, security, and paying for excess capacity for peak periods and space for full redundancy/back-up.

4. **Agility**: Support growth and change. Because the solution is always modern, it will have the localizations needed for new regions. In addition, you can easily adjust capacity for mergers or new branches.

5. **Innovation:** By freeing your IT team of maintenance tasks, they can focus on more strategic issues. Also, MT provides elastic storage capacity, the type needed for advanced technologies relying on large amounts of data, like the Internet of Things (IoT), artificial intelligence, and machine learning. You can also test concepts without significant commitment or risk.

6. **Platform as a service (PaaS):** MT architecture offers no code/low code tools so business users can create reports, personalize interfaces, and more without altering the code. Modern MT solutions provide tools to support extensibility and offer the ability to personalize without the backlash of cumbersome modifications.

7. **Top-quality, sophisticated solution:** For the software to be viable in an MT environment, it must have met rigorous testing and quality control standards. You can be confident that the solution has been and continues to be highly scrutinized.

A customer story

Z Nautic Group, well-known worldwide for producing inflatable boats, recently upgraded to Infor CloudSuite™ Equipment, a multi-tenant cloud ERP system specifically designed for equipment manufacturers, dealers, and rental companies.

Anthony Chapeltegui, Z Nautic's IT manager, says the company had three main reasons for moving to the Infor® multi-tenant cloud, including:

- **Built-in last-mile functionality**. "Infor's ability to offer us standard business functionalities that were perfectly adapted to our equipment sales (including rental), spare parts management, procurement and stock management issues," Chapeltegui says.

- **SaaS features**. "It offered greater configuration for security, scalability, simplicity and reliability," he adds.

- **Embedded analytics**. "The built-in BI modules give our users control over the production of tables and reports, particularly by geographical area and by product."

Chapeltegui concludes: "We were impressed by the user-friendly interface offered by Infor. It has won over our teams, taking them from the Stone Age to the Digital Age, with customized settings and displays to meet individual needs."

8. **Opportunity to streamline:** An upgrade to an MT environment provides the ideal opportunity to adopt proven best practices and get away from processes that have prevailed simply because, "We've always done it this way." This is the chance to change attitudes, workflows, and priorities. For example, you can put the customer at the center of your enterprise or focus on product innovation. Eliminating modifications will help keep your teams focused on new accomplishments rather than preserving familiar methodology. It also provides discipline for the future, providing a barrier to add-on projects that could impact the ERP code.

9. **This is the future:** Digital transformation builds upon these benefits. These points provide the basis for a long-term strategy and operational action plan. Multi-tenant deployment makes the vision possible. It's the last major ERP implementation you will ever have to do because it will continue to adapt as technology changes.

The wrap up

While industry analysts sometimes squabble over the pros and cons of single-tenant versus multi-tenant and many try to sit on the fence, ultimately there is one clear best choice for organizations that want to modernize their operations: multi-tenant deployment. MT is the true cloud, the one that brings the benefits typically associated with cloud computing, such as vast storage, speed of implementation, and advanced security.

For more information about the benefits of cloud solutions, visit **www.infor.com**.

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