In-House vs.
Software as as Service (SaaS)

A Lifestyle Cost of Ownership Comparison

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In-House vs. SaaS

A common decision facing users of mission-critical software is whether to opt for an in-house solution, or to go with a SaaS provider. The trade-offs are complex, and go beyond mere comparisons of the price column in vendor proposals. A diligent study of costs and benefits over the lifecycle of solution use can yield a more informed perspective. Presented below are the key issues for consideration.

Up-front versus variable cost. Most in-house software solutions come with an initial license price and annual maintenance fees. In some cases the initial outlay can be significant. Annual maintenance fees range from 15% to 20% of license. Thus, the in-house solution can represent a large up-front investment, and non-trivial annual expense. SaaS options are typically priced based on usage- in other words, "pay by the drink". Other SaaS pricing models include monthly subscriptions, usually tied to usage, plus a very modest implementation fee. In emerging and growing areas like remote deposit cap-

ture (RDC), the ability to scale cost in proportion to solution adoption by customers, gives financial institutions considerable flexibility.

Hidden costs of hardware. While it is true that hardware costs have come down significantly, there are concealed challenges to managing hardware infrastructure. For example, maintenance costs and server upgrades are often overlooked. And, most small and medium sized financial institutions have limited information technology (IT) resources. The task of managing hardware and communications associated with a distributed capture network may need incremental expense and training. It is also not uncommon in an in-house scenario, to have the solution provider and financial institution "finger pointing" at each other in times of system malfunction. "It's your network!" or "No! It's your server", are heard far too often. The key point is that valuable time (and thus cost) elapses while the finger pointing is sorted out. A SaaS provider, on the other hand, services multiple customers and has to ensure that hardware and communications have high up-time and availability. A SaaS provider has no room for error in ensuring high up-time and availability.

Fragile disaster recovery.

Most in-house solution providers are software companies with limited expertise and resources in providing business continuity and disaster recovery. The movement of money is about as mission-critical as it gets. Lack of business resumption procedures has financial, customer service and credibility impact. Financial institutions will be well served to examine proposed continuity and recovery options very carefully. Consider the cost of the distributed capture and clearing infrastructure being down for an hour, half a day, a day. The numbers mount fairly quickly. Catastrophic failure is simply not an option for a SaaS provider. Failed infrastructure impacts the entire customer base immediately, and is an existential threat to the SaaS provider. With that kind of consequence in the balance, most SaaS providers have robust business continuity and disaster recovery capability in place.

Clearing competency and training.

Very large financial institutions have large organizations that manage and operate check capture and clearing infrastructure. Smaller financial institutions considering in-house options face a dilemma. What is the right level of capture and clearing capability to have resident within the organization, keeping in mind the specialized training and expertise required? Even if minimal capture and consolidation is brought within, careful thought needs to be given to handling exceptions due to image quality, "can't reads", image correction and balancing. If entire clearing capability is implemented within the institution, the cost and complexity of managing image exchange, on-us inclearing, returns, archives and adjustments, have to be considered. How much of a competency in check capture and clearing does it make sense for an institution to have available within the organization? This is an area worthy of caution as headcount can mushroom suddenly as transaction volumes grow. SaaS and clearing service providers offer turnkey services where skilled resources serving several institutions are available to help smaller financial institutions. This lets the Financial Institution focus on their core competency of providing financial services instead of checking processing operations.

Stretched implementation lead times.

Solution implementation is an area where the difference between in-house and SaaS options is marked. In-house providers have to schedule personnel to implement solutions. It is not uncommon for financial institutions to wait in queue for their turn while solution providers free personnel from other implementations to stage hardware, load and configure software correctly and (sometimes) travel to an institution to complete implementation. What is the cost of being late to market- in lost revenue, competitive position and customer satisfaction? Even more difficult is dealing with solution providers who pull personnel out of one implementation before completion to work with another (perhaps more demanding or lucrative) customer. It is not uncommon to have solutions that are "forever 95% complete". The Saas world does not suffer from the disadvantage of "starting from scratch" for each implementation. The implementation challenge in a Saas environment is one of configuring shared software correctly for security and efficiency. Lead times are thus typically much shorter.

Who's your DBA? Arguably the most important parts of check capture and clearing systems are databases. Now, databases can be difficult to manage and support, particularly as the number and type of capture points, and associated transaction volumes grow. With in-house implementations, it is sometimes not clear where the responsibility for database administration (DBA) lies- another area where there can be "finger pointing". It is difficult for smaller financial institutions to gain mastery over complex databases. Even if solution providers undertake the DBA responsibility, it makes sense for an institution to determine the number of skilled DBAs the solution provider has on staff, and the number of customers supported by these resources. In Saas situations, databases are logically partitioned while sharing a common physical infrastructure. In this scenario, issues related to databases usually affect multiple customers at one time. Most SaaS providers, therefore, invest in skilled DBA resources to ensure database integrity and efficiency at all times.

What happened to my bug? Closely related to the DBA issue discussed previously is the subject of software support in general. With in-house scenarios, customers are often on various release levels, sometimes with customizations that are unique to them. Software bugs can also appear to be unique to specific customers. A common area of contention with in-house implementations is the triage and resolution lead times for software bugs. Because it is possible to isolate bugs to specific customers, resources are sometimes applied to resolve problems for the most demanding customers. This can mean that some bugs can get left behind in "forever tri-

age" mode. The shared infrastructure of SaaS means significantly less variation in operating environment between customers. The bugs that affect one customer, more often than not will affect others. The path to software problem resolution, therefore, is often more smooth in the SaaS world.

Releases and upgrades. When managed with well defined version control processes, implementing new software releases to many in-house customers is not difficult. Robust controls include concise definitions of all customers' operating environment, including release levels, customizations and configurations. New releases are best put through test servers, before implementation in a production environment. There are situations when these practices are not followed, and new release implementation escalates into a series of custom patches that are tweaked to get each customer's environment working. There is a huge cost to the loss of productivity during the disruption. Financial institutions will do well to do a thorough examination of a solution provider's software lifecycle development process before opting for in-house alternatives. The Saas mileau, by definition, cannot afford large variability in customer operating environments. New releases are examined thoroughly in multi-tenant test scenarios before implementation in production environments. Since problems cannot be compartmentalized to a customer easily, Saas providers have to get it right the first time.

Risk management and best practices. A particular benefit with the Ensenta SaaS offering, is the continuous monitoring and mitigation of risk. The Ensenta system has over a hundred real-time risk filters that monitor remote deposit transactions from all types of deposit points, and across all customers. The continuous learning offered by this capability ensures that risk related (and other) best practices are made available to all customers rapidly. It is difficult for in-house solution providers to offer similar self-adapting feedback loops.

A clear best option. It is clear that SaaS offers affordability, lower risk and greater flexibility throughout the ownership lifecycle. Financial institutions are sure to benefit from considering the compelling case for SaaS over in-house delivery alternatives.

Summary

Attribute	In-House	SaaS
Up-front Investment	$$$	Modest
Hidden Hardware Cost	$$$	None
Disaster Recovery	Often Poor	Standard
Training Needs	High	Low
Implementation Lead Times	Often Long	Short
Database Administration	Challenging	Transparent
Support Lead Times	Often Long	Short
Release Management	Often Problematic	Streamlined
Risk Management & Best Practice	Very Little	Standard

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Agile Risk Management - A Remote Deposit Imperitive.

In a rapidly evolving, competitive landscape, financial institutions need to include agility as a competitive differentiator in translating strategy to action. They need to balance service delivery and risk management in a winning combination. Read more at: www.Ensenta.com/arm.

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