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Some say that cloud computing, or "the Cloud," is one of the most transformative technological advances in human civilization. This category puts the Cloud right up there with, say, the wheel. In fact, Pulitzer Prize-winning author Thomas Friedman, in his recent book, Thank You for Being Late, refers to the Cloud as "a supernova that has forever changed our world." Time will tell.

It's a shame that such an important technological breakthrough is so widely misunderstood. The very term "cloud" seems purposefully invented to sow confusion. For HR leaders facing technology investment decisions, this confusion can be costly. Therefore, every HR leader, regardless of technical expertise, should understand what cloud computing is and isn't, and how it impacts their world. This paper aims to answer these questions.

Cloud is Just a Metaphor

In the late 1990's two computer technologists at Compaq needed to come up with a more catchy phrase in place of "a vast network of internet-connected data servers." They landed on the term "internet cloud." since to them that vast network conjured the image of a cloud. Thus, cloud computing can be understood as simply accessing software and data residing on servers that are part of the vast network of servers connected by the internet.

Cloud Computing Passes Over Client-Server

According to Cedar-Crestone's
2017-2018 HR Systems Survey, more
than 50% of HR technologies are
deployed in a SaaS environment.
Associated with this trend, there has
been a significant drop in major
HR technology transformations while
there has been a a shift toward
deploying tools that enhance the
employee experience and human
capital management insights.

Cloud Jargon

Contributing to the Cloud confusion is the invention of new jargon. In fairness, when something entirely new comes into existence it's necessary to give it a name. But once names become buzzwords, misuse and confusion are inevitable. There are tons of acronyms. We won't cover them all, but let's focus on the few that matter most with HR technology.

Software-as-a-Service (SaaS)

SaaS stands for Software-as-a-Service and is the most common form of cloud computing. SaaS customers use software owned and maintained by the software provider on its server(s). Because the software is accessed via the internet, it's said to be "in the Cloud." But, of course, the software resides on physical servers, most likely on a "server farm," in places like Des Moines, IA or Las Vegas, NV. Data farms dot the globe; on land, not in the clouds.

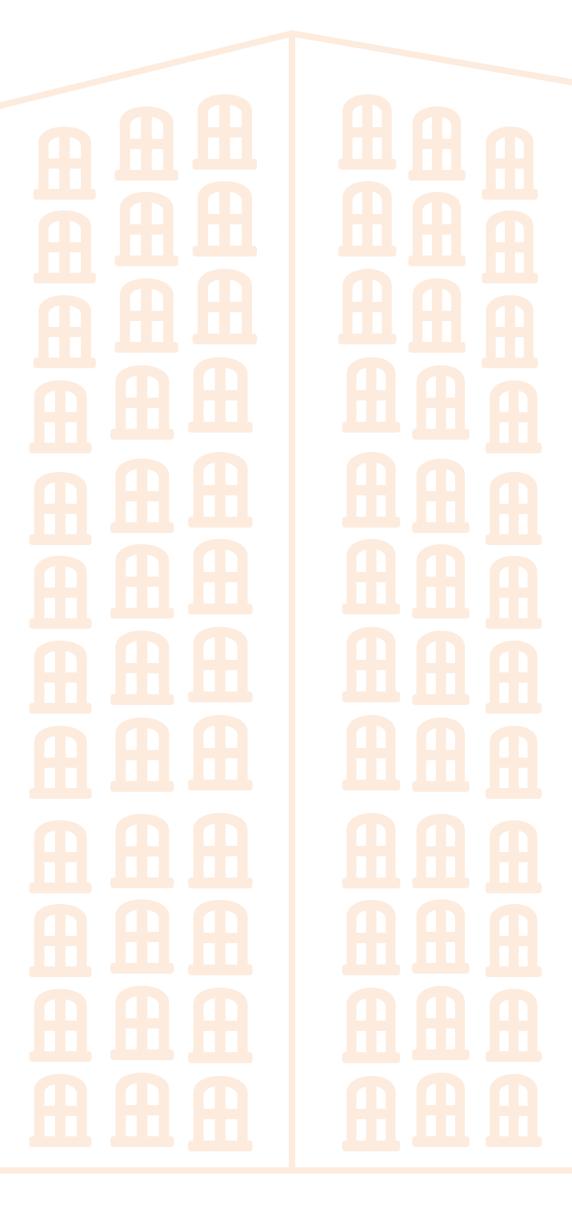
Hosting (Not SaaS!)

Software "hosting" preceded Software as a Service (SaaS) offering and has shrunk dramatically as a result. In a true hosting arrangement, the vendor "hosts" and maintains the client organization's software on the vendor's server(s). Once SaaS became a buzzword the two terms were sometimes conflated, hence the need to clarify here.

Tenancy

SaaS is to software licenses as renting is to home ownership. Hence the "tenancy" concept came to be used. Single tenancy means only one client uses a given instance of the software that resides on the software provider's server, while multi-tenancy means multiple clients use the same instance of the software on the vendor's server.

Platform-as-a-Service, or PaaS, came onto the market to give SaaS clients a way to create custom functionality without customizing the core software itself. PeopleSoft users are familiar with the PeopleTools platform that serves the same purpose in a client-server environment. PaaS is the Cloud's version of a development platform on which clientspecific solutions can be developed. Because the customizations are developed on the vendor's platform, they automatically integrate with the core SaaS offering. It should be noted that while it is tempting to think of PaaS as an easy way to avoid SaaS customization restrictions, buyers should be aware that PaaS customizations have much the same downside as customizing clientserver software packages, when it comes to upgrade/update. The extra complexity may be slightly less with PaaS, but this is offset by the frequency of SaaS updates. For absolutely necessary customizations PaaS may be a viable option, but staying within the SaaS vendor's delivered configuration options remains the easiest path. Some things never change.



"In a way, we don't have a finished product, we have a customer relationship involved with a product."

IT Team Leader at Uber

Designed "for" the Cloud vs. existing "in" the Cloud

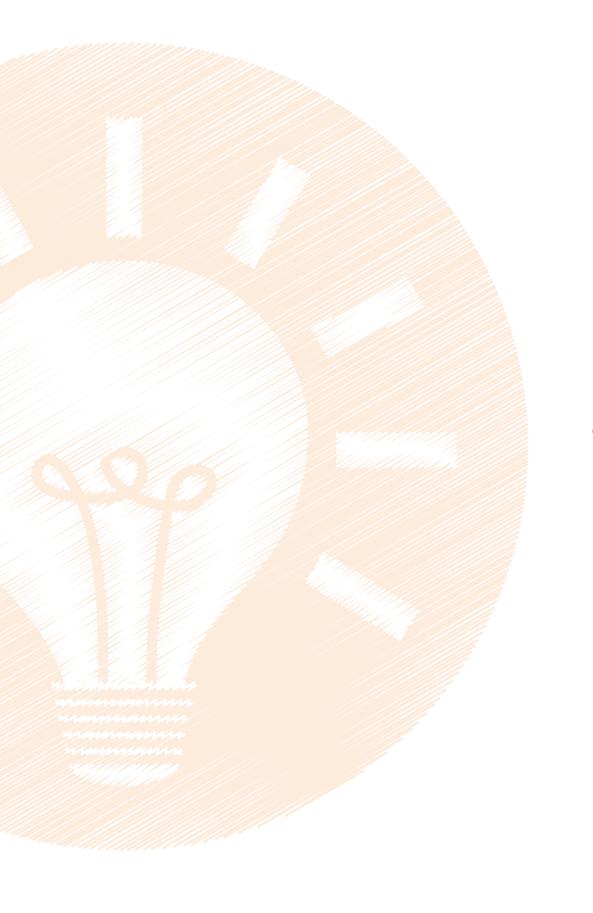
As the buzz around "cloud" took off, many traditional software vendors rushed to port their desktop or server-based software onto servers that they hosted. They basically put their existing software "in" the Cloud. While this allowed their users to access the software via a browser, the software was virtually the same.

On the other hand, several newer vendors, and more and more legacy vendors, built or re-engineered their software "for" the Cloud. Things like security, system scalability and extensibility, redundancies and data back-up, were all built-in to the original software design.



Although the Cloud doesn't change the fact that it's all just software, the Cloud delivery system, itself, has transformed the way software evolves. Like all software, no two cloud solutions are created equally. Here are a few benefits and things to consider when considering cloud HR solutions.

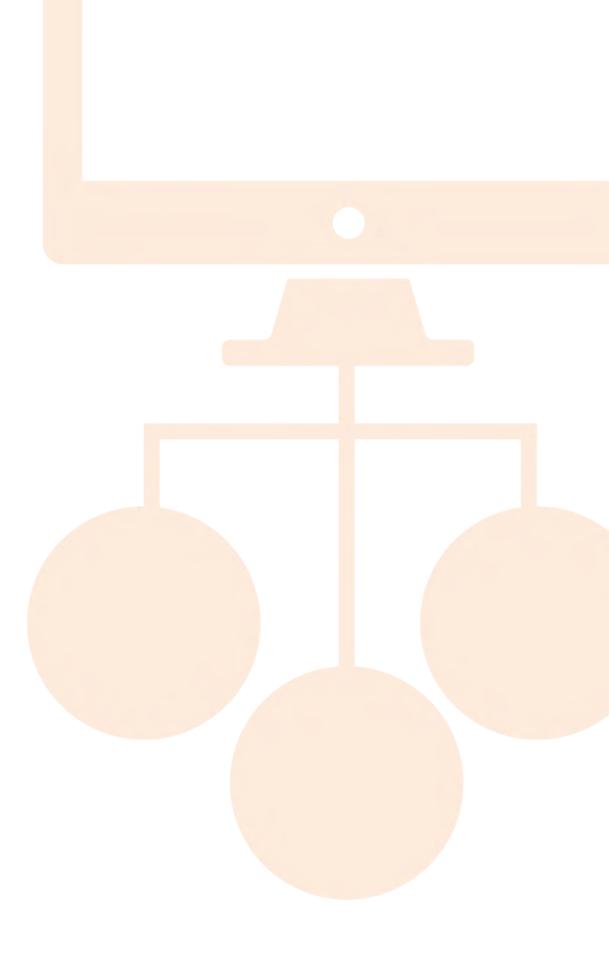
Innovation Cycle Acceleration. Because cloud software vendors don't physically distribute their software, they can implement fixes and enhancements by modifying the code in the instances of the software maintained on their own servers. Thus, the vendor retains complete control over this process, rather than being at the mercy of local IT support.



To manage changes on the client side cloud vendors typically schedule "releases" or "updates" on a set schedule, so as to allow clients to plan accordingly. But compared to software version upgrades, the frequency of SaaS updates is far greater, thereby enabling dramatic acceleration in the pace of innovation. As a result, the Cloud is a leapfrogging paradise. To borrow Mark Twain's famous quote about the weather in New England, if you don't like today's functionality, just wait a little while, it'll change.

Innovation and Disruption. As we've seen across many industries, internet startups have disrupted markets and even become industry leaders, seemingly overnight. The HR technology industry is no exception. The single fact that SaaS vendors are free from the burden of manufacturing and distributing software through traditional sales channels makes it much easier for startups to get into the game and outmaneuver the incumbents.

Nowhere is this more apparent than at annual HR technology conferences. In the shadows of the major vendor displays, stretch row after row of up-and-comers competing for the rays of light that manage to find their way through. It is safe to say that each and every one of these booths houses a cloud vendor. But even more revealing is the fact that some of the big vendors whose logos dominate the entrance of the hall were once occupants of small booths in a back alley. Today they're out front because someone had the right idea, the resources to put behind it, and the Cloud to make it all possible.



Consumerization. Ever since customers began accessing HR technology via the internet, the technology itself has been on a steady path toward consumerization, spurred by the look and feel of consumer-based web applications. HR technology providers began using techniques that previously had been reserved for marketers and web site designers. Today's state-of-market HR technology platforms are more akin to web sites with computing power than software applications with a web front end.

Early providers of employee and manager self-service tools offered two interfaces, typically referred to as the "front end" and "back end." The front end was designed for employees and managers who required greater simplicity and visual appeal, while the back end was for the hard core users, professional processors who received a week or more of navigation training, typically specific to the module of their specialty, followed by months of on-the-job skill building (i.e., learning by error). By contrast, more evolved cloud applications have a more consumerized interface for all users. While the transactions enabled for employees and managers are typically less complex, the user interface is not.

Extensibility. Unlike server-based software, which often operated in total isolation, modern cloud systems are extensible and easily connected with other systems. For example, more advanced HR technology systems or platforms often provide connectors or Application Programming Interfaces (APIs) into financial management systems. The advantage of course is that payroll and benefit cost data can be mapped directly to the general ledger, eliminating data re-entry and providing real-time, up-to-date financials.



This is critical as workforce costs are often the single largest cost area for organizations. The degree to which and ease at which solutions do this varies greatly, but "connecting" systems with minimal help or support from IT is becoming increasingly more important.

Mobile has been a major driver of this trend. As mobile devices propel the replacement of the laptop as the primary computing device, HR technology vendors recognize that to remain competitive their software must be mobile responsive to ensure the compatibility of mobile devices.

HR Catching Up to the Cloud

Throughout human history, technological advances have been followed by periods of delayed assimilation, a phenomenon sociologist William Ogburn in 1922 termed "cultural lag." It seems that as long as humans have invented new tools, human culture has needed time to figure out how to use them. Sometimes, we never truly do.

Observing this, there are numerous examples of cultural lag in the assimilation of cloud computing in HR technology. One obvious example is the physical centralization of HRMS users. The early developers of client-server ERP platforms, such as SAP, PeopleSoft and Oracle, didn't actually envision users being corralled in what would be called "shared services" centers.



Quite the opposite - they envisioned HR staff across roles, functions and physical locations interacting with the software in real time as part of their jobs, just as workers on the factory floor used their manufacturing and inventory management modules in day-to-day work. But because the software proved difficult for casual HR users to master, organizations formed teams of expert processors and put them in "shared services" centers (no doubt to the consternation of the software vendors who set their eyes on a much higher number of user licenses). Even though new cloud software applications are much more intuitive, organizations have been slow to break this mold. Instead of distributing usage, as the first innovators envisioned, more often than not the new consumerized software is simply replacing old technology in the same centralized environment.

Some adopters of the new cloud-age platforms are even foregoing the consumerized self-service interfaces being offered, in effect putting them two technology generations behind. In these organizations, the same employees who in their personal lives purchase goods, conduct banking transactions and buy airline tickets online are excused from updating their own personal data at work. Various reasons are given, but it still comes down to the same thing - cultural lag.

Negotiating in the Cloud

After more than a decade of buying software as a service, we HR professionals still think and behave like we're buying software rather than a service. One way to shift this mindset is to consider that a SaaS subscription is essentially an outsourcing arrangement, in which the customer is buying an outsourced technology service rather than software licenses.



Selection. In the days before cloud, software selection was primarily driven by functionality, hardware compatibility, licensing costs and support costs. Fit-gap analysis was the analytical process of the day, aiming to determine the extent to which the software's functionality matched that of the legacy system.

In the Cloud era, functional capabilities are table stakes. The bar has been raised to be not just about what the software does, but more importantly how the user experiences it, which includes but is not limited to functionality. Today's user experience must be "frictionless," meaning the user is able to accomplish a multitude of tasks without getting stuck or requiring any unnecessary effort, let alone frustration. One way to think about the frictionless experience is that a novice user should be able to navigate the system with the same ease as an experienced user. This is indeed a high bar, but nonetheless the new expectation set by consumerbased websites like with shopping on Amazon (multiple, complex systems delivered together in an intuitive user experience).

This is not to say that functionality never differentiates between SaaS products. But thanks to the rapid pace of innovation enabled by the Cloud, functionality based advantages can disappear quickly. In this atmosphere, it's crucial to understand the vendor's development vision, priorities and timeline.

The interoperability of functions is also very important. Vendors that have moved to the Cloud through acquisitions must find ways to create a seamless, integrated user experience. Otherwise, frictionless will not be achieved. Finally, and in some ways most importantly, the vendor relationship must weigh heavily.

Learning to Love Trade-Offs

Software Selection Priorities	SaaS Selection Priorities	Universal Priorities
Functionality Customizability	User Experience & Functionality Configurability Innovation Roadmap Functional Interoperability	Customer-Vendor Compatibility Security Data Privacy
Licensing Hardware Compatibility Maintenance & Support	Open Integrations Mobile Responsiveness	Time-to-Value Total Cost of Ownership Total Cost of Rental Customer Service / Successes Workforce Experience

Today's SaaS products are functionally very rich with a great deal of configuration flexibility. But no tool will do everything your organization needs, exactly how you'd like it to. Learning to embrace trade-offs is part of moving to the Cloud.

Organizations that cannot make the shift will encounter higher dissatisfaction and lower returns on their investment. Moreover, organizations that successfully deploy SaaS solutions must recognize that a holistic solution deployment entails changes in people skills and/or behaviors, organization and processes.

Love the One You're With

When asked in the 2017-2018 Cedar-Crestone HR Systems Survey the extent to which their current HR technology meets business needs, repondent organizations with high levels of SaaS utilization were more likely to answer "always meets our needs" than those with low SaaS utilization. One possible interpretation is that SaaS-savvy organizations have learned to adjust business processes to leverage delivered SaaS functionality.

Negotiating and Contracting

It should be no surprise that negotiating a SaaS deal is different than negotiating for software licenses. One obvious difference is that SaaS pricing is based on the size of the user base rather than the number of licenses. The secret to negotiating, in any contest, is understanding what the other party values in the exchange.

It's important to validate that you own the data and won't be charged to extract data at any point in time. In the world of the Cloud you're not just buying software, you're buying a relationship, which hopefully will be long and mutually rewarding. Buyers must look beyond functionality and price to evaluate all aspects of that potential relationship. Taking care up front will yield richer rewards in the long run.

Looking Ahead

If those who see the Cloud as transformative in human history are correct we should hold onto our hats, because we're in for a wild ride. Although the future is impossible to predict, if history promises anything it's that today's pace of change is the slowest it will be for the rest of our lives.

Cloud technology will expand outward from transforming mere transactions and interactions to helping transform the workforce experience itself. A recent study published by Bersin points to a measurable trend away from hierarchical pyramids toward more network-centric organization models. The clear reason is that today's organizations must find ways to be more agile in the face of accelerating change.

Be agile in the face of accelerating change - That's the opportunity that cloud technology affords HR. As mentioned earlier, working with a cloud provider allows HR leaders to take advantage of those vendors' capabilities (e.g., hosting, development, interoperability). This, in turn, delivers value in the form of faster innovation and a better digital experience. But most importantly, it allows HR to focus on what really matters - serving the needs and expectations of a digital workforce. To meet these expectations and bolster their organization's employee value proposition. HR must reimagine how work happens using increasingly important competencies such as human centered design, data analysis and agile project management. And working with true cloud providers enables them to do just that. HR's time is now!

About Jason Averbook

Jason Averbook is a leading analyst, thought leader and consultant in the area of human resources, the future of work and the impact technology have on that future. He is the Co-Founder and CEO of Leapgen, a global consultancy helping organizations shape their future workplace by broadening executive mindset to rethink how to better design and deliver employee services that meet the expectations of the workforce and the needs of the business. Prior to founding Leapgen, Jason served as the CEO of The Marcus Buckingham Company (TMBC). In 2005, he cofounded Knowledge Infusion LLC and served as its CEO until 2012, when the company was sold to Appirio. Earlier in his career, he served as the Chief Business Innovation Officer at Appirio Inc., where he led the HCM business. He has also held senior leadership roles at PeopleSoft and Ceridian Corporation. Jason has more than 20 years of experience in the HR and technology industries and has collaborated with industry-leading companies in transforming their HR organizations into strategic partners.

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