Understanding cost differences between Identity as a Service (IDaaS) and On Premise Deployments



Background:

Usage of the cloud has become more and more prevalent, even for areas that were classically on premise deployments. For example, the cloud Identity as a Service (IDaaS) market has grown substantially over the last few years. A major reason for the cloud adoption is that organizations have started to understand the true costs of maintaining an on premise identity deployment.



Historically organizations didn't realize the true cost of maintaining the solution until after it was purchased and deployed. Once deployed, employees needed to be trained and become "experts" to be able to fully support and maintain the environment and unfortunately many identity management deployments are complicated. Over time organizations have started to realize that by leveraging cloud solutions they can effectively outsource these deployments to organizations that specialize in certain areas.

For example, Optimal IdM's cloud solution, the OptimalCloud™,is being leveraged by our clients who recognize that we are federation experts and can more easily deploy, maintain and monitor their federation infrastructure. This allows their staff to focus on what they are doing now and not have to become Federation experts.

"Optimal IdM's cloud solution allows your staff to focus on what they are doing now and not on having to become Federation experts."

This whitepaper will breakdown some of the real costs of on premise vs cloud deployments. You, the customer will also have to factor in the intangibles. A good example of this is the fact that while federation is built on open standards, not all vendors adhere to the actual standard.

Optimal IdM has created federation connections to hundreds of applications (relying parties) and we have had to make many tweaks along the ways. For example, one cloud application that we have integrated with is case sensitive in their URL's, even though the federation specifications call for case insensitivity. Another application did not properly deflate their SAML2 authentication request.

It is difficult to identify the actual cost in terms of man hours that your staff will deal with each and every one of the applications that you integrate with, but in our experience there will be many hours spent troubleshooting and debugging. Using The OptimalCloud means that your staff spends no time on configuring or troubleshooting any of these applications.

[1] "SAML requests or responses transmitted via HTTP Redirect have a SAMLRequest or SAMLResponse query string parameter, respectively. Before it's sent, the message is deflated, base64-encoded, and URL-encoded, in that order. Upon receipt, the process is reversed to recover the original message."

Cost Comparison - Cloud vs On Premise

- Up Front - One Time Costs

UP-FRONT COSTS	ONPREMISE	CLOUD	EXPLANATION
Server Hardware	$60,000	$0	Cost of the server (hardware) (10,000 per server @ 6 servers)
Server Software	$9,000	$0	Typical cost of Windows Server OS and Client Access Licenses ($1,500 X 6)
Backup Hardware & Software	$2,000	$0	Typical cost of a backup solutions and backup software
Ancillary Server Equipment	$1,500	$0	UPS (battery backup), Switch, Rack, etc.
SSL Certificates	$400	Included	SSL Certificates*
On Premise Identity Management Software	$100,000	Included	No need to purchase on premise software.
Professional Services To Deploy Software	$20,000	$8,500	One time setup fee
TOTAL UP-FRONT COSTS	**$192,900**	**$8,500**	

*IF VANITY CERTS ARENEEDED THERE WILL BE A COST

Cost Comparison - Cloud vs On Premise

- Monthly Costs

MONTHLY COSTS	ONPREMISE	CLOUD	EXPLANATION
Proactive Maintenance & Monitoring	$9,375	$1,000	75% of the cost of 1 Full time employee ($150K a year). This is blended as the service would need to be available 24 x 7 x 365. For the cloud there is a $1,000 per IdP/SP setup. This assume an average of 1 per month
Offsite/Online Backup Costs	$300	$0	Typical offsite or online backup costs
Energy Costs For 6 Georedundant Servers ***see footnote***	$365	Included	
Cloud Hosting Costs	$0	$4,000	Monthly Base Service Charge
Monthly Support & Maintenance For On-Premise Software	$1,667	$0	Annual support and maintenance
EST. TOTAL MONTHLY COSTS	**$11,707**	**$5,000**	

- Total Estimated Costs - Over a 3 Year Period

(One-time Costs Plus 3 Years of Estimated Monthly Charges)

TOTAL COSTS	ONPREMISE	CLOUD	EXPLANATION
TOTAL COST OVER A 3 YR PERIOD	**$714,340**	**$188,500**	Total Cost of Ownership over estimated life/analysis period

As you can see when comparing the cost of doing an on premise to our Cloud Identity as a Service offering, the organization will save a substantial amount of time and money.

- Detail of the 3 Year Cost

MONTHLY COSTS	
On Premise	**Optimal Cloud**
$11,707	$5,000
YEARLY COSTS	
On Premise	**Optimal Cloud**
$140,480	$60,000
UP FRONT COSTS	
On Premise	**Optimal Cloud**
$192,900	$8,500

- 3 Year Costs

	On Premise	Optimal Cloud
3 Years Of The Monthly Charges	$140,480 * 3 = $421,440	$60,000 * 3 = $180,00
On Premise	$192,900	$8,500
Total	**$614,340**	**$188,500**

Cost Comparison - Cloud vs On Premise



Other Factors To Consider

Lost Revenue due to downtime

Information Week shed light on a 2011 study done by CA Technologies which attempted to provide an estimate of what downtime costs businesses on a broad scale. Of 200 surveyed businesses across the USA and Europe, they found that a total of $26.5 Billion USD is lost each year due to IT downtime. That's an average of about $55,000 in lost revenue for smaller enterprises, $91,000 for midsize organizations, and over $1 million+ for large companies.

You can see how important uptime is when it comes to production level systems, and why considering downtime costs is a hidden factor which shouldn't be skimmed over.

Providing a 24 x 7 x 365 fully Geo Redundant Service

Optimal IdM's cloud service is a fully managed 24 x 7 x 365 service that has guaranteed Service Level Agreements (SLA's). Each day millions of users depend upon Optimal IdM's solutions for the authentication and security needs. This is our core business and competency and we excel at providing the best service at the best possible price.

Cost of Identity and Access Management as a percentage of Total IT budget

The article http://www.csoonline.com/article/2129591/metrics-budgets/10-identity-management-metrics-that-matter.html explains that "Within the IT security community, identity- and access-management (IAM) initiatives are considered high value, but are notoriously problematic to deploy. Yet despite IAM's complexity, it represents 30 percent or more of the total information security budget of most large institutions, according to IDC (a sister company to CSO's publisher)."

With the OptimalCloud, the costs are significantly lower with a quicker adoption time as well.



- Energy costs estimated from this article

According to this reporter's numbers, which use an average kWh cost for energy from

the US Energy Information Administration as of January 2013, she figures that an average in-house server in the USA (accounting for both direct IT power and cooling) sucks up about $731.94 per year in electricity.4

The OptimalCloud vs On-Premise Solutions

