

The Business Case for SaaS Monitoring

My team and I recently worked with a company through an evaluation of LogicMonitor's SaaS-based infrastructure monitoring platform. Their goal was to determine whether our platform could serve as a full replacement for their existing on-prem monitoring solution. During the technical evaluation, the team drew 3 key conclusions:

- LogicMonitor could monitor all of their existing infrastructure out-of-the-box
- LogicMonitor could provide additional capabilities where they had gaps in their monitoring (Netflow, O365, Config Monitoring)
- LogicMonitor was extremely easy to deploy and to use

As is usually the case, a positive technical evaluation was not the only component of this project. There must be a business justification to adopt an entirely new strategy for monitoring critical IT infrastructure. One important component of that business case is an analysis of Total Cost of Ownership (TCO).

In the case of SaaS tools, the notion of ownership isn't exactly accurate. In fact, that's kind of the point - why would you need to own a piece of software when the *outcomes* of the software are what you need? That being said, because our customers are almost always switching from an on-prem monitoring solution (or several on-prem solutions) to LogicMonitor's SaaS solution, one of our tasks is to help them understand the true costs of ownership. This enables them to put the costs of subscribing to our SaaS solution into perspective.

The True Costs of Ownership

The first step in conducting a TCO analysis is to determine the true costs associated with the current solution. A good rule of thumb for driving a fair comparison between options is to develop a 3-year costing model. In other words, we're going to calculate the cumulative costs of running the on-prem solution over the course of 3 full years. We'll work through the example of the customer mentioned above to demonstrate how this is done.

Step 1: Organize your costs according to capitalized expenditures (CAPEX) and operations expenditures (OPEX). CAPEX are the one-time upfront costs that you must spend to set-up and host your on-prem monitoring software. OPEX are the ongoing costs throughout the year related to operating and maintaining the solution.

CAPEX

Hardware: Our customer had provisioned an HP DL360 server solely dedicated to hosting their on-prem monitoring software. The hardware cost them \$20,000.

Software licenses: Our customer needed to provision a Windows server OS to manage the monitoring server as well as Microsoft SQL server licenses to store the monitoring data. Sometimes these costs are hidden in an enterprise license agreement with Microsoft, so for the purposes of this exercise, we'll record this as zero. This will likely be different for you.

Multi-site monitoring: For those companies that require monitoring over multiple sites with geographic separation, they are likely facing additional costs related to the provisioning of a site-to-site VPN to allow for the extra traffic. Part of these costs will be CAPEX and should be recorded here. In our example, this was not relevant.

Monitoring licenses: Most on-prem monitoring solutions charge you an upfront costs for what is called a "perpetual license". This means you buy the license once and then you own it. There are other vendor-related costs to maintain or support these licenses, but those will be recorded in OPEX. In our example, the customer had purchased an "Unlimited" license which allowed them to provision as many monitored devices as they want (read "as many as that software can actually handle - which isn't much) for \$14,500.

Modules: For many solutions out there, buying the license for the monitoring software is just the first step. You also need to buy the modules that allow to actually do anything with the software. This can include network performance monitoring, server monitoring, virtualization monitoring, SAN monitoring, config monitoring, URL monitoring, cloud monitoring, database monitoring, etc.

Professional Services: The costs related to implement the solution using either vendor professional services or third-party provided professional services should be recorded here. Other costs related to ongoing projects can be recorded in OPEX. In this instance, our customer had implemented their existing solution themselves. The costs related to implementation will therefore be recorded in OPEX.

Total CAPEX: \$34,500

OPEX

Usually, the largest bucket of costs related to running an on-prem monitoring solution are in the on-going (and often hidden or overlooked) costs considered operating expenditures. These should be recorded and accumulated over the costing period.

FTE Man Hours: This is the most critical costing measure in OPEX. FTE Man hours are the costs related to the number of hours engineers dedicated to maintaining an on-prem software solution. These are tasks such as hardware provisioning, configuration, troubleshooting, updating; software provisioning, configuration, troubleshooting, updating; updates, patching and troubleshooting of the monitoring software; manual provisioning of infrastructure in the monitoring software; manual configuration of agents; manual reporting development and dissemination; manual maintenance of monitoring templates, etc. Your experiences will vary here depending on the type of on-prem monitoring solution(s) you have in place.

To calculate, find the sum of the engineers that maintain the monitoring solution; then find the mean salary of those engineers and then find the approximate percentage of their time dedicated to maintaining the on-prem monitoring solution. Then multiply all three values together. In our example, the customer had a team of 5 engineers with regular tasks related to

maintaining the on-prem monitoring solutions with a mean salary of \$83,000. Roughly 20% of their time was dedicated to the tasks listed above. The total value of their FTE Man Hours on an annual basis is $5 \times \$83,000 \times 20\% = \$83,000/\text{year}$

Of note, there is another hidden value related to eliminating the number of FTE Man Hours dedicated to maintaining an on-prem solution. Calculating the value of the productivity potential opened up by repurposing those hours to other critical tasks (or even revenue-generating tasks) can prove difficult and the impact can vary from company to company, industry to industry. However, this is where a qualitative review of this analysis will come handy.

Hosting costs: Often times on-prem monitoring solutions incur ongoing hosting costs. This may be due to your infrastructure model. For example, you may have your monitoring infrastructure sitting with a hosting provider. In this case, you'd want to find out the ongoing costs of hosting that infrastructure from your hosting provider (or your own accounting department). In our example, while the monitoring server mentioned above in CAPEX was a standalone server in the customer's datacenter, the 23 collectors the solution required to collect monitoring data were hosted in their virtualized environment. Since they had an unlimited enterprise license from their virtualization vendor and from Microsoft, their ongoing hosting costs were calculated by understanding the costs of the resources dedicated to those 23 collectors. In this case, those costs were determined to be around \$35,000/year.

Maintenance: Most on-prem monitoring software companies will sell you perpetual licenses and then they will sell you an ongoing maintenance and support package to provide for regular maintenance, updates, patches, and technical support of those licenses. These costs are usually about 20% of the license costs on an annual basis. In our example, these costs amount to about \$10,000 on a 36-month basis, so roughly \$3,333/year.

Cloud monitoring: Cloud infrastructure and services are consumed much the way SaaS services are consumed, so many on-prem monitoring companies will charge you on an ongoing basis for monitoring. As a result, these costs should be recorded under OPEX. This was not relevant in our example, but the value of being able to monitor our customer's *future* use of Azure cloud resources was noted in the qualitative analysis.

Step 2: Total up the total CAPEX and OPEX costs over a 3-year period.

Your calculation may look something like this:

TCO Analysis - CAPEX and OPEX - 36 Months				
	CAPEX	OPEX - Year 1	OPEX - Year 2	OPEX - Year 3
HW	\$ 20,000.00	\$ -	\$ -	\$ -
SW	\$ -	\$ -	\$ -	\$ -
VPNs	\$ -	\$ -	\$ -	\$ -
Licenses	\$ 14,500.00	\$ -	\$ -	\$ -
Modules	\$ -	\$ -	\$ -	\$ -
PS	\$ -	\$ -	\$ -	\$ -
FTE Man Hours	\$ -	\$ 83,000.00	\$ 83,000.00	\$ 83,000.00
Hosting Costs	\$ -	\$ 35,000.00	\$ 35,000.00	\$ 35,000.00
Maintenance & Support	\$ -	\$ 2,900.00	\$ 2,900.00	\$ 2,900.00
Cloud Monitoring	\$ -	\$ -	\$ -	\$ -
	\$ 34,500.00	\$ 120,900.00	\$ 120,900.00	\$ 120,900.00
Total Cost of Ownership			\$	397,200.00

Step 3: Compare

The final step is to analyse the results of the above exercise. Remember, the purpose here isn't to try and create a situation where the TCO assigned to SaaS solution is less than the TCO assigned to the on-prem solution. As mentioned above, there must also be a qualitative component to this.