

To cloud or not to cloud... Here is the answer

The benefits of outsourcing an international switching hub to a cloud platform and the possible use cases

In the current environment, which is defined by declining voice traffic in many cases, stagnating revenue and squeezed margins, two key challenges present themselves to international operators and wholesalers: optimizing operational efficiency, while generating innovation and new initiatives - all this at minimal risk and cost.

Building or maintaining an international voice hub is a challenge at the best of times, but now it has become especially difficult, considering the funds available for investing and maintaining these types of facilities are very limited, to say the least. This is even more concerning for many retail operators for which international wholesale is not core to their business, but a necessity.

However, in a world where everything is expected to work at all times, on all devices and from everywhere, the need for efficient and flexible high quality international interconnection capabilities has never been so critical to operators' success.

Additionally, innovation and the expectation for new services is moving at an ever-increasing speed and operators therefore must completely reinvent the way they launch new services or solutions: with speed, agility, low cost and openness.

Outsourcing versus building and owning your own infrastructure, especially for international non-core network segments or services, is therefore worth serious consideration.

THE TRUE COMPLEXITY AND COST OF OWNERSHIP

When looking at the cost of ownership of such facilities, it is not only the expense of buying and maintaining switching and BSS platforms that are cash intensive. The required colocation and technical support needed on site adds a considerable amount to the operating cost of such platforms.

Dimensioning and scaling are additional issues to consider, especially if one doesn't know exactly how the business will grow or sometimes even how the business might decline.

In addition, the need for geographic diversity, or regional nodes for better quality of service, could essentially double the cost of owning international interconnect hubs, which adds further strain on operators' networking budgets.

On the other side of the coin, there is a cost of ownership that is rarely considered: the loss of revenue due to the time it takes to launch new services or innovations. When choosing to build and own their own international hub, either to address a new segment, launch a new service or reach a new geography, it can take operators and wholesalers many months to bring such projects to fruition.

This translates into a considerable loss of potential revenue, which could have been harvested much earlier if time to market was kept to a minimum. This is compounded by the fact that if the time to market is not rapid enough, the window of opportunity for this new service or solution may have been missed.

All this results in a significant Total Cost of Ownership (TCO), which goes well beyond just

the cost of buying and maintaining equipment and networks.

SIMPLIFICATION THROUGH HOSTED VOICE CLOUD PLATFORMS

One solution to consider to minimize cost, risk, as well as time to market for new products, is the outsourcing of the international hub function to a Cloud Platform as a Service provider such as Cataleya.

Business ready platforms, such as Cataleya's Orchid Cloud, enable operators to start interconnecting only days after signing up to the platform, while paying only for what they use. This translates into immediate time to market, ultimate flexibility in terms of traffic growth and business model, low cost and low risk.

Key Orchid Cloud benefits

Network flexibility: Orchid Cloud offers fluid scaling and therefore empowers operators to grow their business from zero to almost infinity, at the speed and increments that suits their business. Once interconnected, the platform grows with them in real-time.

In addition, short term volume increases or overflow traffic requirements, that would not warrant the upgrade of an existing owned platform, can be sent to the Orchid Cloud platform.

Finally, bridging migration periods caused by internal network upgrades or changes can also be handled very cost effectively by Orchid Cloud, rather than purchasing or deploying duplicate switching platforms during such periods.





Business model flexibility: The Orchid Cloud pricing structure is built to mirror operators' needs and business. Such a platform requires only a minimum monthly subscription commitment. From there, operators will only be charged based on actual minutes sent through the platform on a monthly basis. The higher the volume, the lower the platform cost per minute.

High carrier grade quality: Orchid Cloud is based on fully redundant Orchid One SBC nodes in high specification datacenters to ensure high availability. If, however geographic redundancy is required, or if other regional nodes need to be accessed to keep the call media in region and reduce latency, operators can simply subscribe to another partition in a different location, instantly.

All this while having the benefit of managing the cloud platform via one single management interface.

Comprehensive operational tools and near real-time reporting: In addition, operators will not lose any control or data information of the traffic running on the outsourced platform, as Orchid Cloud provides a vast amount of near real-time reporting, routing and billing features.

It also allows operators to push CDR's into their existing billing and routing platforms, if required. Real-time QoS reporting of signaling and media adds important operational information about service and network performance on top of the usual ASR and other quality indicators reported in the BBS.

Fast, easy and painless integration: The fast migration of existing interconnect profiles from an existing switching platform is supported by our API-based bulk upload feature, which

saves considerable time and planning effort when moving 50+ interconnects at a time. In addition, our rate sheet auto-upload feature removes the risk of rate gaps for breakouts and errors that can sneak in if rates are loaded manually.

THE PROOF IS IN THE NUMBERS

To better understand the financial benefits for operators to outsource their international hub to a cloud platform such as the Orchid Cloud, we have analyzed the difference in total cost of ownership of building and running an overseas switching hub versus using a hosted platform service for two main business cases.

The first use case discusses the establishment of an international hub in comparison to using a hosted platform service for an existing business or service. This could be for example for the decommissioning of a hub to be replaced by an outsourced solution or for a group wanting to aggregate its Opcos' operations within a central outsourced hub. In these two cases the business and traffic is already ongoing.

While the second use case discusses the introduction of a new switching hub for a new business or service altogether, where traffic will be ramped-up from zero.

Use case 1: Existing business use cases

a) New interconnect hub

When choosing to outsource your international switching hub function instead of building your own, we found that in the first year (when based on a running rate of 100 million/month), the total cost of ownership when owning the international switching hub amounted to



US\$290,500, compared with US\$182,500 with a hosted solution such as Orchid Cloud. This equates to a cost difference of US\$108,000 and savings of 59%.

When looking at the total cost of ownership savings for longer periods of operation, cost savings amount to US\$289,000 and US\$470,000 over the course of 3 and 5 years respectively.

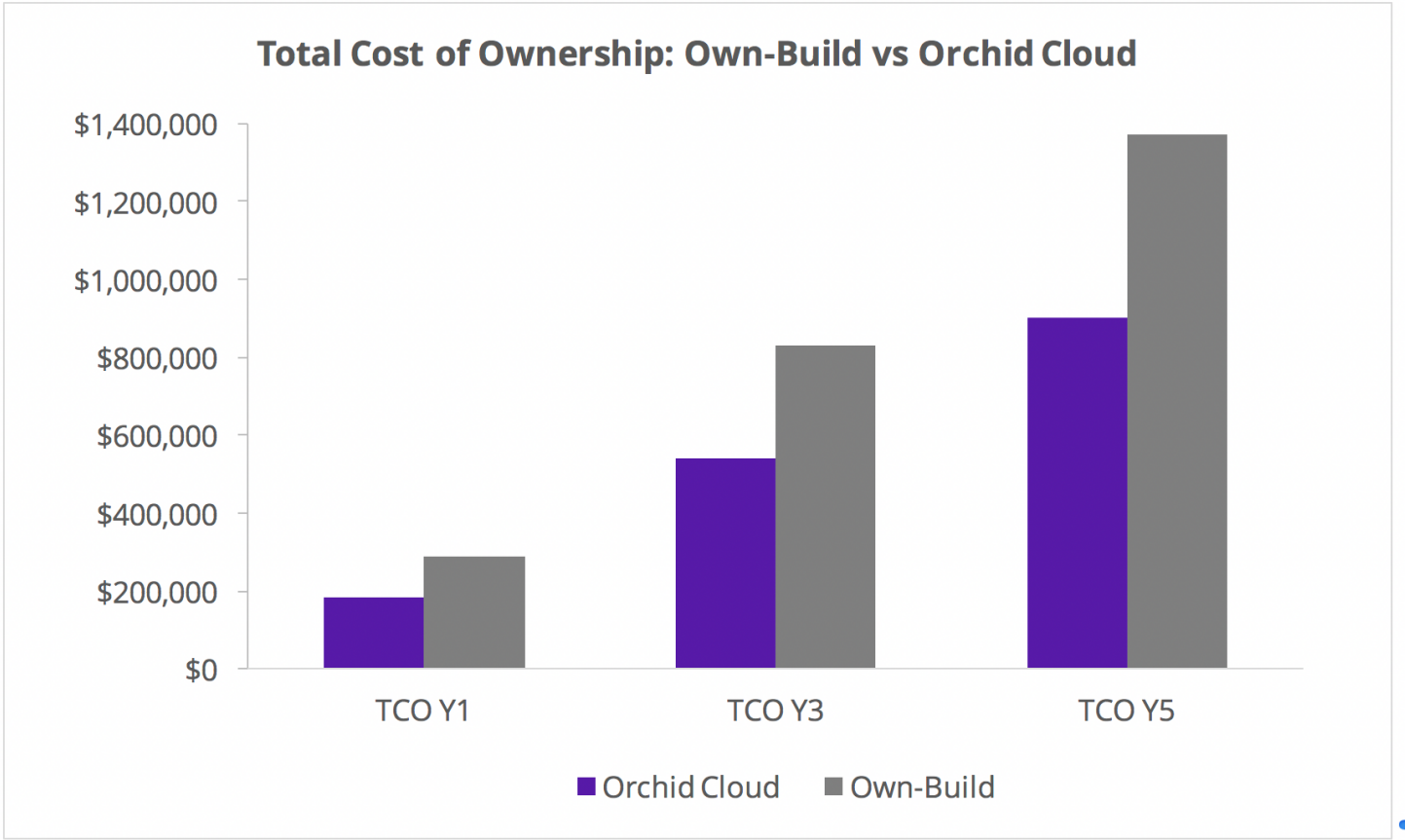


Table 1: Total Cost of Ownership scenario: Existing business – Own-Build vs Orchid Cloud

Term	Own-Build	Orchid Cloud	Saving Own vs Orchid Cloud	
TCO Y1	\$290,500	\$182,500	\$108,000	59%
TCO Y3	\$831,500	\$542,500	\$289,000	53%
TCO Y5	\$1,372,500	\$902,500	\$470,000	52%



b) Decommissioning of an interconnect hub

Operating existing international switching nodes can also be considerably costlier than outsourcing to a cloud provider. The hosting cost alone, plus the 24/7 technical support required to ensure high uptime and fast response times in case of system failures, plus the management time to deal with the hosting provider and the support company, represent a significant cost year after year.

The depreciation of the platform over its lifetime also needs to be factored in. Even more costly is when operators have their own dedicated engineering support team in each overseas location.

Therefore, the decommissioning of an international switching hub, to be replaced by an outsourcing solution such as Orchid Cloud, is something to consider to minimize the cost of operation of your network, while continuing to ensure similar or better functionalities and high quality.

When looking at the savings, again based on a platform that caters for around 100 million minutes per month, we found that in the first

year, the total cost of ownership when owning the switching hub amounted to US\$270,000, compared with US\$182,500 with a hosted solution such as Orchid Cloud. This equates to a cost saving of US\$88,000 or 48%.

When looking at the total cost of ownership savings for longer periods of operation, cost savings amount to US\$269,000 and US\$450,00 for a similar platform over the course of 3 and 5 years respectively.

It is important to note, that there are a number of unquantifiable benefits attached to outsourcing switching hubs to a solution such as Orchid Cloud.

For example, people, time and money spent to maintain, upgrade and manage such a hub can now be focused on the core business or even on innovations and new services in segments other than voice.

This solution therefore enables operators to continue running their voice business (as long as it lasts) as efficiently as possible, without the time and effort required to do so.

Table 2: Total Cost of Ownership scenario: Existing business - Decommissioning vs Orchid Cloud

Term	Own-Build	Orchid-Cloud	Saving Own vs Orchid-Cloud	
TCO-Y1	\$270,500	\$182,500	\$88,000	48%
TCO-Y3	\$811,500	\$542,500	\$269,000	50%
TCO-Y5	\$1,352,500	\$902,500	\$450,000	50%



Use case 2: New business, service or solution use case

Now if we look into the launch of an entirely new service, with traffic ramping up from zero to 100 million over 6 months, the above analysis does not take into consideration the lost revenue and margin when choosing the build option.

Based on 100 million minute (after a 6-month ramp-up), and an average revenue per minute of US\$0.04/minute, if a 6-month delay occurred

in the time to market of a new voice product, this could represent a loss of revenue of US\$24 million over the course of the year. Further on, based on a margin of 5%, this would represent a potential loss of margin of US\$1.2 million.

This means that in the first year, an operator's net profit could be improved by US\$1.2 million, if choosing a hosted voice platform option such as Orchid Cloud.

Definitely not a small sum!

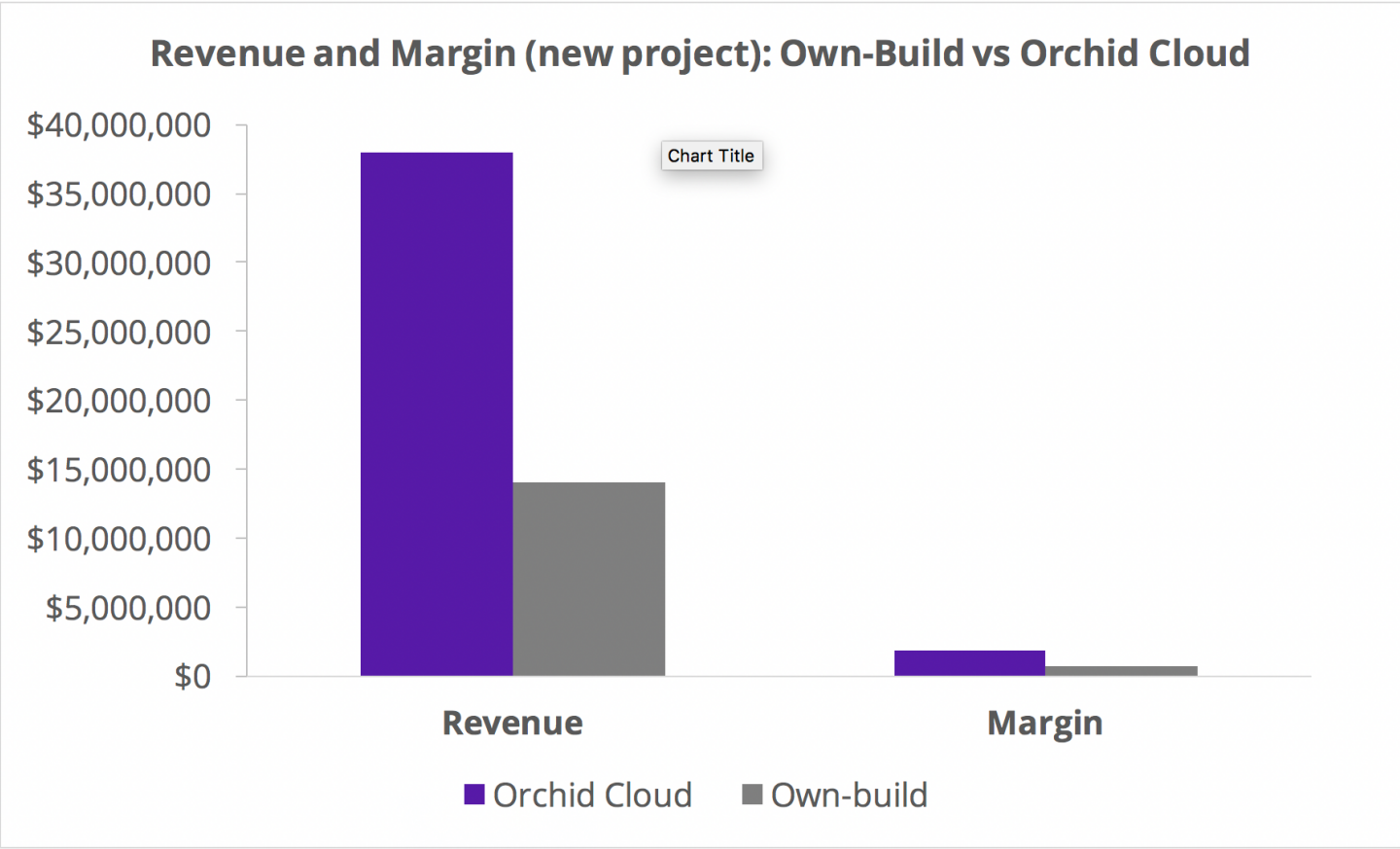




Table 3: Potential increase to the bottom line using Orchid Cloud

	Own-Build	Orchid Cloud	Difference between Own and Orchid
Service launch month	Month 7	Month 1	6 months
Total minutes transported	350 million over 12 months	950 million over 12 months	600 million over 12 months
Average revenue per minute	US\$0.04	US\$0.04	-
Average margin %	5%	5%	-
Total cost of the hub (Year 1)	\$145,250	\$182,500	(\$37,250)
Total minute revenue	US\$14 million	US\$38 million	US\$24 million
Total minute margin	US\$700,000	US\$1.9 million	US\$1.2 million
Total profit	US\$554,800	US\$1.7 million	US\$1.2 million

TO CLOUD OR NOT TO CLOUD?
AND THE ANSWER IS...

The above use cases clearly show that outsourcing international switching hubs should deliver substantial savings and/or improved business results. Even though individual scenarios may vary, we believe that exploring the option is a must and good business practice.

Learn how Cataleya’s Orchid Cloud platform can enable service providers to outsource their international voice business to a hosted environment with less hassle and at a fraction of the cost, this with many additional benefits gained at the same time.

[Visit our Orchid Cloud page>>](#)



ABOUT CATALEYA

Cataleya provides the most tailored, reliable and easy to integrate real-time communications switching, service creation and analytics platforms in the industry. Our solutions are aimed at communications service providers, mobile operators and unified communications companies looking to offer cutting edge IP services.

Our portfolio ranges from build-your-own SBC or class 4 switch for interconnect and access solutions to built-in analytics and fraud detection. We also offer a fully-fledged voice wholesale business platform as a service.

Service and application enablement for SIP-trunking, call recording and many other features allow our customers to put their customers in control when it comes to service creation.

For more information, please visit www.cataleya.com

ABOUT ORCHID CLOUD

Cataleya’s Orchid Cloud is an integrated switching, rating, routing and billing solution that enables you to start operating your voice business within a matter of days and enjoy a feature rich and highly scalable wholesale voice business platform on a pay-per-use basis.

This wholesale as a service platform is built and operated by Cataleya through a secured high-quality network of connected Orchid One SBC pairs around the world. You only need to commit to a minimum of minutes per month and then pay for the actual minutes sent through the system.

This end-to-end wholesale platform packs a powerful portfolio of features and services to support your growing wholesale voice business without the need for procuring your own switching and BSS solutions. Besides the saving on capital expenditure, you also save significantly on cost of operations and maintenance, as Cataleya takes care of that.

For more information, please visit <http://cataleya.com/product-orchid-cloud-cpaas-for-wholesale-voice-business/>