

Calculating Value

What is Total Cost of Ownership?

The term “cost of ownership” is getting a lot of airplay these days. Diminishing demands, which are driving the pricing pressures on network infrastructure, are forcing a more comprehensive set of pricing metrics. While the standard capital measure of network efficiency (cost per unit of capacity per distance measure) still applies, service providers are focusing more on how a technology impacts (read *lowers*) operations cost as well.

Service providers have the luxury of shopping around as they fill the idle capacity on their networks, translating into longer sales cycles for the vendors. However, there are ways to accelerate the sales process if the equipment vendors are willing to undertake two principle challenges:

1. Showing a lower cost of ownership over the life cycle of the system; and
2. Showing a faster return on assets (ROA).

The bottom line - equipment vendors that can present realistic, verifiable business cases proving their technology has a lower total life cycle cost *and* the capability to generate revenue for the customer will have the advantage.

Without clear insight into the accounting structure and organization of a targeted customer, equipment vendors historically struggle with creating viable business cases. There are ways, however, to place fact-based numbers in front of the customer. By creating a baseline economic model of the total cost of ownership, equipment vendors can accomplish two things:

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- Open doors to accelerate sales, or
- Discover key reasons why they are not getting traction with their target market

The rules for creating the model are simple:

1. Go with the averages.
2. Categorize features
3. Quantify.

The baseline model is critical – it shows the customer they are dealing with a company that understands the carrier environment, buying criteria and fundamental economic structure. Those equipment vendors still attempting to differentiate on the basis of technology will be shut out. Those equipment vendors who focus on the realities of today's telecommunications market know that buying decisions are driven not by how great their technology is, but how well the vendor translates physics into dollars – in terms of either savings or revenue generation.

Rule 1 – Go with the averages

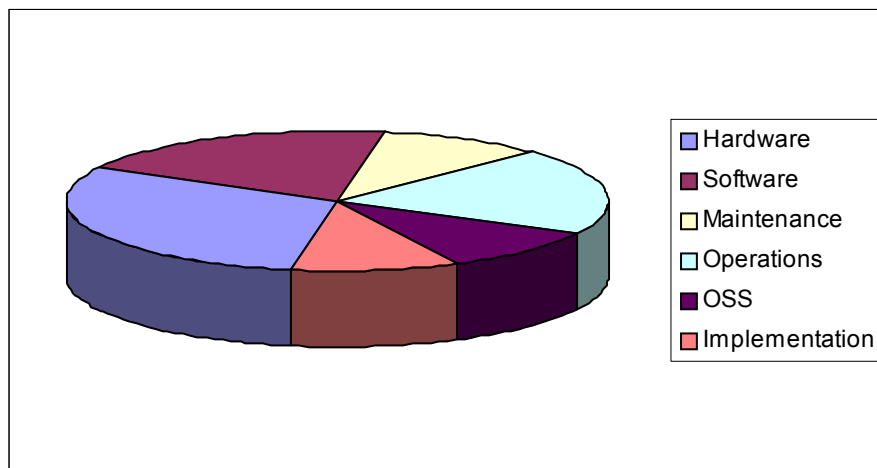


Figure 1 - Cost of Ownership Breakdown

Figure 1 shows an average percentage of each of the key categories constituting cost of ownership. The model was derived based on multiple data sources, and is an average across many service providers. Note hardware constitutes only 30% of the cost of ownership. The remaining costs outweigh price by a factor of two. This should drive equipment vendors to focus on areas such as:

- Lowering or eliminating pricey software upgrades
- Providing services to reduce operations and maintenance expenses
- Providing logistics infrastructure to minimize the cost of sparring

- Showing how the equipment can be more rapidly provisioned for advanced services

While first costs are not out of the equation, eliminating a large part of the remaining 70% of the cost of ownership demands more attention.

Rule 2 – Categorize Features

Features should do one of two things – lower operations cost (via either true cost reduction or in cost avoidance) or improve revenue generation capability. Equipment vendors should map the feature set of their systems into a matrix similar to the one below, and classify the features as cost saving, revenue generating or both.

Feature	Cost Saving	Revenue Generating
Parallel backplane architecture	X	
GigE capability	X	X
TL1 Network Management	X	

Table 1 - Sample Feature Matrix

One caution – make sure that each declaration can be substantiated. This takes knowing the customer and understanding the carrier network environment. Having a CORBA interface for network management means a direct cost to a carrier whose management architecture and OSS are based on TL1. A metro carrier without designs on the burgeoning data market will probably not consider a Gigabit Ethernet interface as a revenue-generating feature. The bottom line here is that this type of presentation requires work – there can be no shortcuts.

Rule 3 - Quantify

The final rule involves translating equipment capabilities into a cost of ownership model. This means putting a dollar value to every feature listed in the Feature Matrix. It may mean “opening the kimono” to the customer to show out-year upgrade costs. Regardless, the more realistic and factual the business case, the better.

While the accuracy of the data is important, how the data is displayed can also provide an advantage. One of the best formats for displaying cost of ownership is the waterfall chart. A waterfall chart can incorporate both the cost savings features and revenue generating features available from a system, and show how these costs and revenue streams play out over time.

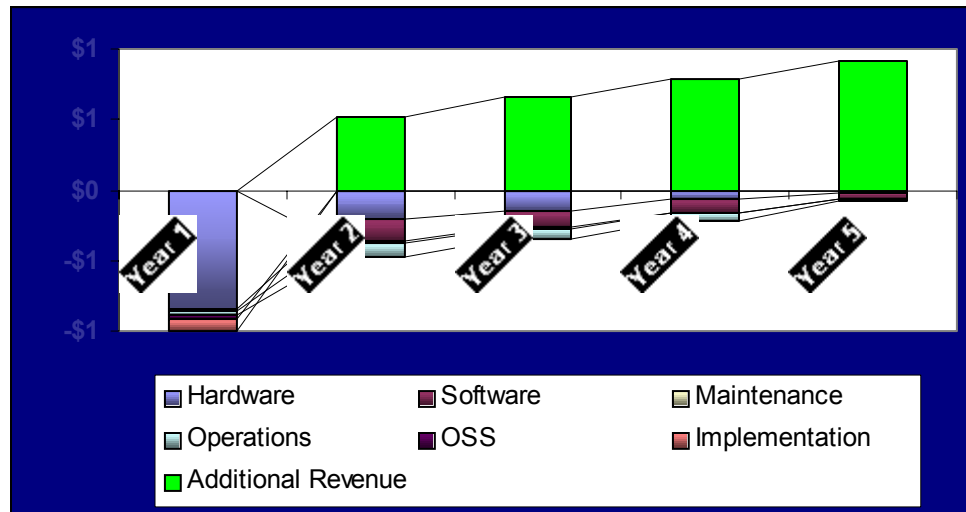


Figure 2 - Waterfall Chart

Conclusion

The baseline model is not the final product. Equipment vendors must work collaboratively with the customer in fleshing out the details (both good and bad). Again, this takes time and persistence – but shows a willingness on the part of the vendor to understand the customer and the carrier business.

Today's market is tough. There are no longer two or three equipment vendors who can satisfy carrier requirements – for every opportunity, there are twenty or thirty competitors. It's no longer all about advanced backplane architecture, density or data rates. It's about the ability to extrapolate how the technology translates into money – with the goal of maximizing return on assets. Service providers cannot afford to recover capital investments after five years – the real target should be twenty-four months or less. The net is given the right technology, features *and analysis*, equipment vendors can show their customers that cost of ownership does not have to be a long-term proposition.

Glow Networks Research Series

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About Glow Networks

Glow Networks is a research, consulting and engineering firm in the business of delivering financial value to their telecommunications Clients. The Glow Networks Research Series is designed to highlight key trends within the telecommunications industry to prepare the players to compete in tomorrow's market.

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