

White Paper: Why am I charged for the hardware, the software and the bandwidth?

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Problem statement



Value based pricing has a different connotation for the operators than for the vendors. We encounter these pricing philosophy differences in all RFPs. How can an operator navigate through this maze of pricing strategies and come out favorable at the end? With the major network transformation happening in the cable industry – pricing plays a significant role in technology of choice. This white paper introduces some of the basic pricing topics and their inter relationships in selecting your next generation technology. Knowing where the incentives are for the vendors and navigating through what is acceptable without giving away too much margin are essential in any RFP negotiation.

Key takeaways

- ✓ Pay as you grow can be very expensive if not negotiated carefully
- ✓ One needs to optimize the cost of high volume deployment scenario(s)
- ✓ Pay attention to the licensing pitfalls

Key words

Pay-as you grow, kit price, licensing, pricing strategies



Problem in detail

How better to explain the problem than with an example!

We were helping an operator with a major next generation access technology RFP. We gave vendors multiple deployment scenarios to price. This included a couple of centralized architectures, a couple of distributed architectures and a virtualized architecture. What does commonsense tell us? The centralized architecture should cost slightly more than the distributed architecture which in turn should be way less expensive than the virtual architecture. However, what we have seen is that a distributed architecture is ~ *two – three* times more expensive than centralized and the virtualized architecture is another ~ *two - three* times more expensive than the distributed architecture. **This did not make sense what so ever!**

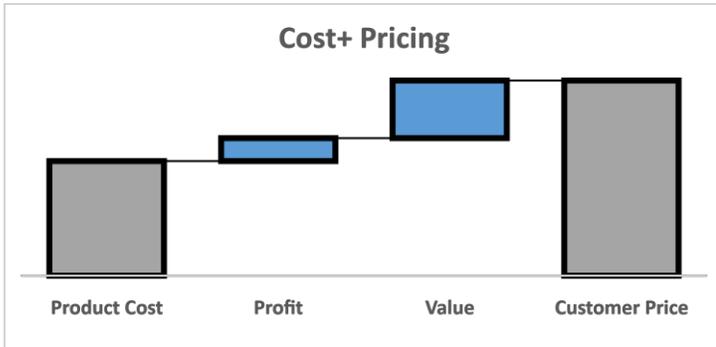
Getting to the bottom of the analysis, the culprit is **the value based pricing on steroids**. It so happened that the cable equipment vendors and operators have been used to the so-called pay-as-you-grow pricing. This pricing methodology may be reasonable (if you say so) in a centralized architecture as the operators are deploying. The more distributed and virtualized networks become, this concept can work against the overall cost. This is a disadvantage for both the operators and for the vendors¹ in turn.

Understanding what is value? – A vendor's perspective

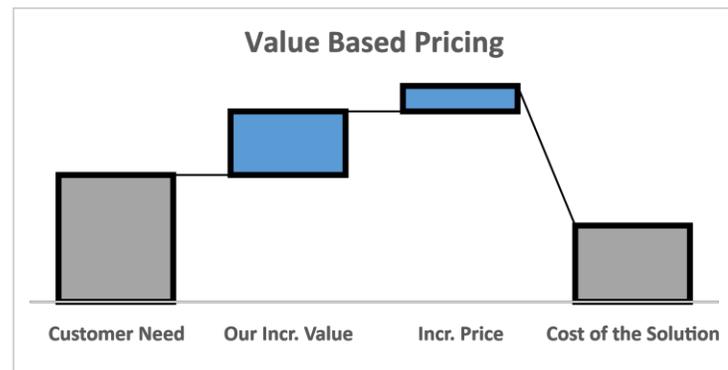
What is value based pricing?

Simply put - charge what vendor thinks that the operator can bear (and is willing to pay of course). Let us take a simple waterfall review of how value based pricing is calculated.

¹ Why vendors? If the operators do not buy equipment or choose alternative access technologies – you have to close the development divisions!



In a typical **cost+ based pricing** the vendors will focus on profit margin as a minimum target and add customer value as an additional margin from the pricing point of view. This incentivizes the sales and the engineering teams to **focus on cost reduction as a primary target** rather than value creation for customers.



Value based pricing on the other hand, **encourages the organization to create value in the product** (that the customer appreciates) and start putting a price tag to the value. So it goes like this – understand the market price, add incremental value added by the product and finally include any incremental price (due to other offering such as professional services etc.). This rigor forces the vendor organizations to start thinking in terms of what value can be offered by the product.

Now you will agree (as an operator) – yes this looks like the right way to price and think – right! Well it is not that simple. Let us peel the onion.

How vendors use value based pricing? – A Telecom use case

The Strategic Pricing Pyramid*

Ok – let us see what is in this value creation business. Everything in this world can be seen through the eyes of a pyramid. Here is a pricing pyramid.

If a vendor is thinking of value based pricing first they need to create value in the product. Then they need to create a price structure.



(* Source: *The Strategy and Tactics of Pricing* – Thomas T. Nagle, John E. Hogan

This value based price structure in the telecommunications world is called “**Licensing**”. We will get to this in a minute. The next step is to create a value communication mechanism through tools. Again, in the telecom world this is typically done through “**Licensing Granularity**” as a selling unit and “**Licensing Auditing**” as a monitoring tool. OK, if the pricing policies and levels are not clearly articulated – you know what happens – especially when the sales folks are incentivized for revenue not for profit! Hence the procedures and rules are set.

In summary, *value based pricing in the telecom world is managed through the licensing constructs*. Let us pay serious attention to this value based pricing in the rest of the article, as you need to understand how this magic works to analyze its impacts on your bottom-line.

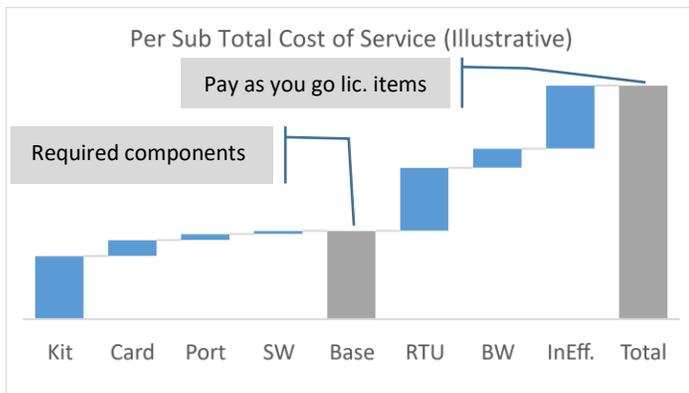
What does value based pricing mean to the operators? – A Telecom use case

Let us go back to the example I gave you at the beginning and analyze it a bit. So, if I am a vendor, how do I want to communicate the value of my product? There are few different ways –

- Basic one – sell the **hardware** – router, line cards, controller cards, SFPs etc.
- Not so basic but understandable – sell the **software** – major releases, minor releases, new features etc.
- Now comes the fun – license the **right to use** – software, hardware, features/functionalities etc.
- Here is a kicker – sell the same thing a few more times using the licensing – sell the **bandwidth** with technology 1, again with technology 2 etc.
- Here is where we have some fun – cashing in on inefficient **licensing use** – so the vendor can charge for the inefficiencies of the operator’s usage.

Yes – I might be exaggerating a little to get the right effect – but the bottom line is licensing is the carrier for the value based pricing, and it can be used to extract every penny (economic rent) that the vendor thinks that they deserve.

Let us see how this translate into cost.



The stuff that an operator can touch and feel are to be paid of course (This includes the hardware – Kit, Cards and Ports etc.). The stuff that allows the hardware to work – the software – shall be paid. Note that some of these hardware components can be pay-as-you-grow.

Now comes the value based pricing part – namely the *licensing* or the **right-to-use**. The right-to-use could be applied for the features, ports, security hardware, software packages, type of bandwidth etc. The consolation part here is that these fees do not kick-in until they are used. But there are few of these can be very expensive. For example, as the title says, you paid for the hardware, you paid for the software – and additionally you are paying for the bandwidth. The question is - is this fair? Let us say the same hardware supports multiple technologies, is it fair to ask to be paid twice? Let us also say if the hardware can support more bandwidth (enable additional bandwidth as needed), is it fair to say to pay more? Now you can see how your per subscriber cost can blow up if attention is not paid to these costs

Well there is another gotcha here in this whole scheme of licensing. Namely, efficient licensing granularity.

Let us say you buy a piece of hardware and you paid all your dues. For some reason, you need to move or obsolete the hardware. How efficiently can the RTUs paid for the equipment be reused?

Licensing Granularity	Inefficiency
Port based	Highest
Line Card Based	
Chassis Based	
Market Based	
Enterprise Level Based	Least

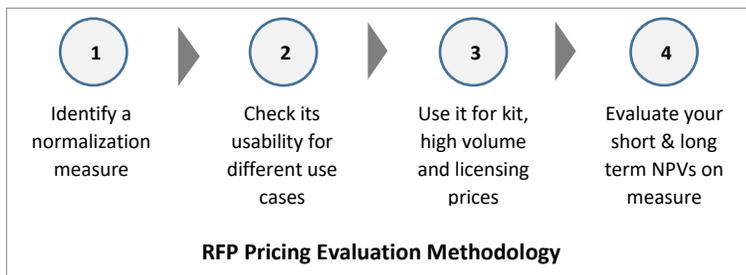
So, the deal is, if the licensing is transferable across the enterprise that gives the best efficiency. On the other hand, if the RTU is tied to a port level, then that is the most inflexible licensing granularity. As shown in the table above the inefficiency levels change.

But, there are costs to build hardware, develop features and the operators needs to spread the risk (using pay as you grow). The operator needs to pay for some of the travails faced by the vendors in the name of licensing.

In summary, the operator needs to decide what level of licensing costs are acceptable to them without letting the costs go through the roof!

How should the operators evaluate the pricing anyway? – Continuing the example

Here is a proposed and vetted methodology (refer to the figure “RFP Pricing Evaluation Methodology”).



Firstly, the operator needs to know what they are paying in the name of the RFP in unequivocal terms. The properties of this soul searching should be able to –

- assess current technology payment structure
- compare costs across different vendors in the RFP and their price structures
- compare the costs across alternative technologies
- communicate crisply to the senior leadership

Let us call this a normalization **measure**. In telecom RFPs, this could be cost per port, cost per sub, cost per Mbps etc. Pick your measure early in your RFP process.

Secondly, use this measure across all the comparisons that you need to do. These comparisons typically go across –

- Old technology and new technology
- Competing technologies that you can deploy
- Different vendors in the RFP race
- Different solutions that the vendors are pricing

Thirdly, evaluate the value based pricing nuances carefully with the measure. Some of the comparisons that you may have to measure include the impact of –

- Baseline price (ala kit price)
- Pricing of the high-volume deployment components
- Different deployment scenarios
- Different licensing structures proposed by vendors
- Different licensing granularity methodologies

Now the final fun part. Consider following different questions (not exhaustive by any means) objectively and get to the conclusion.

- What are my short-term payments?
- What are my long-term payments?
- What is my NPV by using vendor 1 vs 2?

- What is my NPV with technology 1 vs 2?
- How can I avoid different licensing inefficiencies?

Note that this is just a pricing discussion. There are many other factors such as vendor capabilities, commitments, risks etc. that need to be analyzed in addition to the pricing.

At the end keep in mind, you as an operator have the responsibility to keep the vendors in the market for many reasons – be it to lower pricing, to compete with the other types of providers or to keep the lights on in the installed base. A healthy competition can be created only when there is decent margin in the business. Yes, yes, yes – I know that you know it. But again, please do not take the complete margins (economic rents) out of vendor’s business in the name of negotiations. But at the same time do not fall victim to value based pricing.

Key Takeaways

Here are some key takeaways.

- Licensing is synonymous to value-based pricing
- Licensing can burden the overall cost if proper attention is not paid
- Inefficient licensing granularity could be an unknown burden at a later time – if care is not taken early
- Finding a proper normalized measure that can be used for comparison across different scenarios is essential
- Clearly evaluate the economic rents for the vendor and decide how much are you willing to pay
- Of course, you need a good negotiation team to get you there

Good luck!

Want to further explore your thoughts along these lines? Reach out to the author at sudheer@duketechsolutions.com

About the Author

Sudheer Dharanikota has more than 25 years of experience in the telecommunications industry as a strategist, product line manager, architect, development lead, and standards contributor and worked for many established and startup telecom equipment vendors. He is known for a strategic application of his technology know-how and business acumen to execute successfully large transformations in multi-billion-dollar revenue companies. During his career, he has managed \$400+ million telecom accounts around the globe, including AT&T, Bell Canada, Telefonica, Telemex, Telstra, and Telus, and has assisted with multi-billion dollar transformation activities. He is known for his strategic, technological, and product execution activities in the areas of FTTH, GMPLS, protection and restoration, and IP Video areas. He holds five patents in the area of quality of service, service assurance, and access technologies. As a managing director at DTS, he has been working in access transformation strategies and new technology introduction strategies for large cable operators. He is responsible for driving the strategic guidelines, technology decisions, budgetary-need analysis, and roadmap decisions for the cable operators.

Sudheer earned his MS in electrical engineering from Indian Institute of Science, PhD in computer science from Old Dominion University, and Executive MBA from Duke University. He and his wife live with their two children in Cary, North Carolina. When he is not talking geeky stuff, he enjoys photography. Check out some of his photographs at Dharani Photography on Facebook.



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