Assessing value, every job needs the right tools

By Jon Kenton

For many years, the telecom value chain was simple and well understood. Deployed services depended on what was available from the world's few telecom equipment manufacturers; thus the buying criteria focused on a relatively low/deep technological level.

A new competitive landscape has now changed the procurement debate. A key question today is: "How will any given solution provide maximum competitive advantage?"

In this article Jon explores how traditional approaches for selecting a computing platform rarely capture all costs or evaluate all potential benefits and introduces a new evaluation tool that assists Telecom Equipment Manufacturers (TEMs) in choosing between preintegrated network-ready platforms and integrating modular building blocks in house. In turn, this tool will allocate a monetary value to factors such as time-to-market, ability to redeploy resources, and reduced risk, enabling the user to make a more informed decision.

"The times they are a'changin." Bob Dylan's words ring true as much now as in 1963 when he first sang those immortal lyrics. In the telecommunications world it's been a time of drastic change and they are still "a'changin." These changes include:

- Incumbents no longer have monopolies
- The Internet is here to stay
- Wireless subscribers overtake wireline
- Consumers have multimegabit data pipes to their homes
- You can make voice calls over those data pipes, and for "free"
- Search engine companies are getting into the telecom business

The list goes on and on, and these things are not going away. Competition in every segment is now rampant and global. Services can be deployed hundreds or thousands of miles from subscribers and the wars over subscriber capture and revenue retention are significantly more complex. The key to unlocking these puzzles comes back to the fundamentals of marketing – differentiation and value.

The new dynamic

Both old and new generations of TEMs now exert the majority of their energy on building service-based solutions that provide their customers with rapid time-to-deployment and more importantly time-to-profit. For example, some TEMs have effectively stopped manufacturing equipment, and prefer to be referred to as "Telecom Solutions Providers."

For this shift to happen requires that the underlying systems and infrastructure are highly leveraged and cost efficient and that the software service layers above the computing platform provide tangible value from a consumer perspective. Service providers want to see business models that make sense, where the return on investment and payback periods are aggressive. Less focus is maintained on the specific internal architecture of a solution, other than it should be "open" and offer related freedom of choice and potential for configurability and options as well as flexible repurposing for maximum reuse.

Value in differentiation

This shift in the value chain, which is well underway, also requires a change in mindset as solutions and propositions are evaluated.

The questions today should be evaluating how any given solution will provide maximum competitive advantage, that is, differentiation and edge. As discussed, what is vital is getting the right computing platform, ready for service deployment to an operator, with the right functionality, at the right time. Therefore the TEMs' supply chain must be capable of delivering optimal time-to-market benefit along with technologies that allow for maximum leverage of design and manufacturing, which in turn leads to maximum reuse.

This then leads to what the return on investment will be on such platforms and internal investments. With competition and risk at all time highs, this needs to be factored in to assess how the various alternatives would affect the chances of achieving the desired end goal.

Assessing value beyond cost

The costs involved in creating, building, and maintaining any infrastructure platform are many and as mentioned, extend far beyond a simple costs comparison. Table 1 highlights how using only a simple cost comparison will miss significant contributors to the equation.

Value below the surface

While detailed financial comparisons certainly form a crucial element to such an important decision, company and brand value attributes also come into play. Selecting the lowest cost solution when the supplier may not be around in six months time would not be a sound choice. Attributes such as market leadership, experience, and presence along with technology innovation, stability, and financial security provide indications of a company's longevity and likelihood of making a sound partnership. It is also worth evaluating a company's ability to construct computing platforms to specific customer requirements, beyond its standard off-the-shelf products.

Theory and reality, as is often the case, can be difficult to align. Assigning a monetary value at a base component level is relatively easy. Even at a "raw" system level one can apply similar logic. The world becomes significantly more complex when software is added and a fully integrated system is the desired result. With potentially numerous hardware

	In-source costs	Outsource costs
Simple cost comparison	Direct costs to design and manufacture	Cost to purchase
More detailed comparison	Direct and indirect costs to design Cost to maintain over the life cycle Cost to manufacture Cost to test/verify the integrated system Cost to manage complex supply chain (for example inventory management, many suppliers) Opportunity costs Life-cycle costs Cost of time to market Risk	Cost to purchase Cost to manage a simple supply chain (less inventory for shorter periods; fewer suppliers at higher level of integration)

Table 1

and software interactions, bringing everything together creates a multiplication factor that could extend logarithmically. The bottom-line equation would state that the more complex the system/issues, the higher the ultimate value is in sourcing an integrated solution.

With so many attributes to compare, contrast, and consider it can be a daunting task to evaluate all possibilities and make an informed decision. As with any job, using the right tools helps significantly. With such a decision some basic financial comparisons can be made using tools found in standard spreadsheets. As previously discussed, cost comparisons can be easily constructed, and including net present value calculations to ensure long term value and benefit is recognized. Return on investment tools are fairly common, however accurately capturing the investment part can be very tough. This is especially acute when much of the investment relates to indirect costs and intangibles. The bottom line is that rarely – if ever – do standard tools or approaches accurately capture all costs or evaluate all potential benefits.

Tools that capture value

Motorola has recognized the difficulties of accurately capturing all costs and evaluating all potential benefits, as well as the pain that most of our customers suffer as they conduct complex evaluations. The company considered how to solve the problem and provide a win-win.

We wanted a tool that could be used easily by our customers and one that would encompass all the attributes needed for a realistic assessment of any solution. The result was the creation of not one, but two complementary tools:

- A highly detailed sourcing benefits calculator
- A simplified online estimator

The calculator tool, shown in Figure 1, allows significant granularity and definition of all related attributes with multiple inputs required across topics covering development and manufacturing costs:

- Selling, General, and Administrative expenses (SG&A)
- Overheads
- Sustaining commitments
- Time-to-market

The online estimator provides a quick view and order of magnitude based on only a few key variables.

As with any detailed financial analysis it is important that all elements are clearly understood and accurately captured. The calculator tool represents such a detailed analysis, and Motorola works hand-in-hand with customers to conduct the analysis as a collaborative consultation. Customers have found that the details provided are a significant help in identifying internal costs and justifying the shifting of resources to more value-added activities. There is certainly an investment involved related to the time it takes to complete a full analysis with the calculator, however the value it brings is well worth the effort.

For those that want to get a "rough order of magnitude" assessment, the online estimator is the place to go. With only

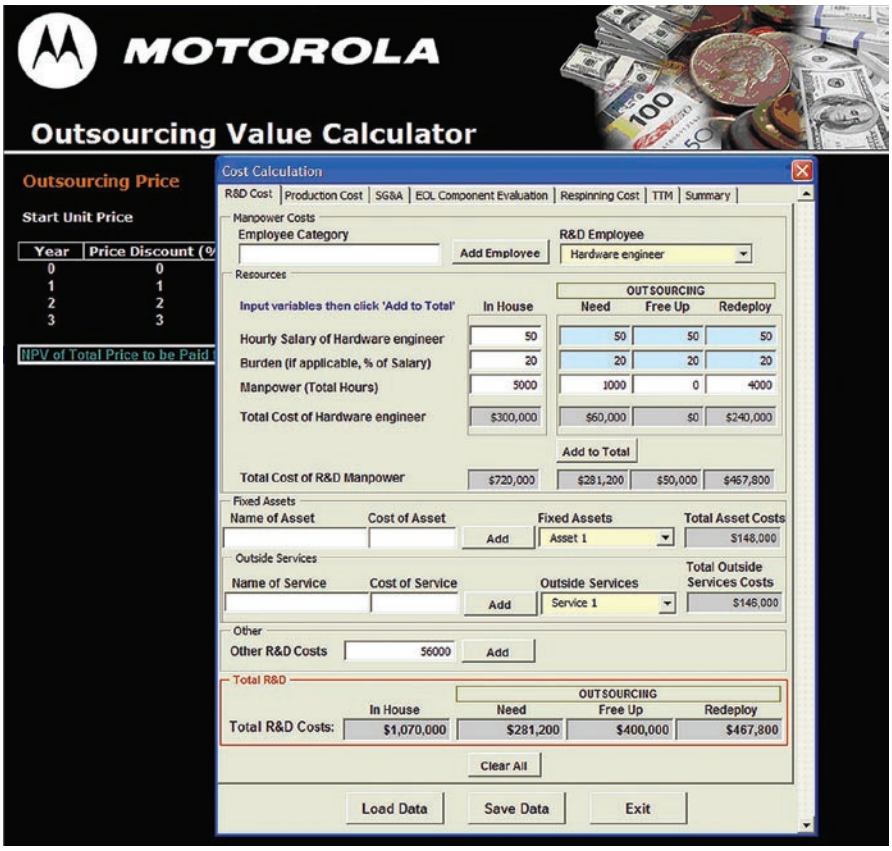

Figure 1

a few variables it is possible to gain a view of the magnitude and source of the benefits that may be derived from an outsourced relationship with Motorola. For some, this may be enough to justify moving forward, others may then choose to embark on a more detailed analysis working with one of Motorola's specialists. To enable its customers to easily reach the rough order of magnitude assessment stage, Motorola makes the estimator tool available online at www.motorola.com/computing. The interface is simple, and clear instructions and a help function are available. Various examples illustrate typical scenarios. Customers have the ability to adapt these scenarios and save them to their own profiles.

The online estimator will illustrate a total value benefit and break this down into four constituent parts:

1. Directly attributable cost savings
2. Time-to-market benefit
3. Resource redeployment benefit
4. Risk reduction benefit

In most cases the benefits will all be positive. However, there are scenarios where it would seem that the direct cost calculations might indicate that it would be cheaper to not select an externally sourced solution. When all the other benefits are considered, virtually all scenarios will show a positive value that can be achieved through an outsourced decision.

Using the tool there would be a huge number of potential variations and scenarios. Figure 2 illustrates three fairly typical scenarios. The examples range from outsourcing a simple single board through to outsourcing a complex fully configured and integrated system platform. The results indicate that as the level of complexity increases, so does the level of benefit. Across our scenarios this ranges from approximately $5 million to over $33 million.

In the current business climate, clearly recognizing both strengths and weaknesses is crucial to long-term success. Likewise, partnering with others – where the combination is greater than the sum of the parts – offers opportunities. As all businesses strive to achieve a unique value proposition and create differentiation, being able to associate the value that each function within an organization contributes towards such differentiation is essential.

	Board	Basic Integrated Platform	Advanced Integrated Platform
Results			
Customer's estimated cost to produce in-house	$7,600,000	$31,000,000	$92,800,000
Estimated benefits			
Cost savings (increase) from outsourcing	$975,000	$7,000,000	$22,800,000
Time-to-market benefit	$3,600,000	$3,600,000	$3,600,000
Resource redeployment benefit	$410,000	$1,830,000	$5,090,000
Risk reduction value	$806,000	$1,080,000	$1,990,000
Estimated overall benefit	$5,790,000	$13,500,000	$33,500,000

BENEFIT LEVEL INCREASES

Figure 2

While cost consciousness and control is fundamental to good business, decisions surrounding an external sourcing strategy can be counterintuitive. Simply examining – in minute detail – the cost of every last resistor or silicon component along with each step of the manufacturing chain will miss major contributors or detractors to creating value. Not assessing potential opportunity costs and long term life cycle and sustaining commitments can dangerously bias any analysis. Similarly, businesses need to consider whether saving five percent on basic costs or underestimating project risk is worth missing a market window.

The value chain has irreversibly changed and the fundamental decision is, "where do you want to play in this new structure?" Once you have established what position to take and what constitutes differentiated value, efficiencies will dictate that all other nonvalue components should be ceded to those in the value chain who can provide the specialization required. Essentially this represents the switch from vertically integrated organizations where the whole value chain was controlled internally, to a horizontal approach with companies providing unique products and services that match the requirements of each step through the chain.

The bottom line, therefore, to ensuring that any company finds the road to success comes back to the fundamentals of marketing: Differentiation and value.

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