Day 5 course

Vsat Equipment Procurement and Optimizing the Cost Factor Contracts

By NIAMEOGO W. Eric

1- Purchasing end-to-end services vs. purchasing component services

In order to use a VSAT, you will need to acquire both VSAT equipment and network services. Services can be divided into four categories.

You can purchase all the services together (end-to-end services) or individually (component services). The four categories are:

- Supply, installation and maintenance of VSAT equipment installed at your premises
- Satellite space segment or bandwidth
- Hub or teleport services
- Connection to public or Internet backbone.

1- Purchasing end-to-end services vs. purchasing component services

If you purchase end-to-end services, you will engage and deal with a single provider.

Acquisition of component services requires engaging several providers, but in most cases will involve dealing with two service providers:

one to supply, install and maintain your equipment and the other to provide network services (bandwidth, hub services and connection to public network).

1- Purchasing end-to-end services vs. purchasing component services

	Pros	Cons
Component Services	• You have full control of your network and can optimize it as you see fit- useful for large and complex networks	• Dealing with many providers increases administrative overheads • Risk and cost of integration of services is borne by you • Requires that you have highly skilled technical personnel or consultants for design and integration, who can be very expensive
End-to-end Services	• You do not have to deal with integration- risks transferred to provider • You have only one service provider to deal with, simplifying overall administration, monitoring and management of service provider • You do not have to engage expensive and highly skilled technical staff or consultants	• Service provider is responsible for optimizing your network- you usually will have no or little say. May not make the most optimal configuration for your needs

2- Evaluating proposals

This step involves the comparison of Proposals or Bids to determine whether the solutions offered by the Bidders meet your business, functional, technical and financial requirements.

There are a few points to note here:

- Evaluation is only meaningful if you use clear, unambiguous and measurable criteria
- You should determine, in advance, which criteria are mandatory and which ones are not. Mandatory criteria are scored on a pass/fail basis while non mandatory criteria are scored on a sliding scale, say using a range of 1 to 5, where 1 means the proposal does not meet the criterion and 5 means the proposal fully meets the criterion. A higher score translates into a better and more cost effective technical solution.
- All Bidders should be made aware of the evaluation criteria, including which ones are mandatory or not, upfront.

2- Evaluating proposals

Mandatory Criterias

Experience of the Bidder

You should select Bidders that have prior experience supplying VSATs of similar technical characteristics to organizations similar to yours or in the same industry and whose projects were comparable to yours in size and scope. The more experienced and knowledgeable about your region and industry the Bidder is, the higher the chances of fulfilling your requirements on time and within budget. Prior experience can be demonstrated with customer references which you should endeavor to check out

2- Evaluating proposals

Mandatory Criterias

Solid financial standing of Bidder

Bidders must have an annual turnover the previous two years of at least two times the total anticipated contract amount including recurring expenses. You do not want your service provider to fold over and leave you hanging three months into your new contract! You should ask Bidders to provide annual audited accounts or financial statements which your financial staff should examine carefully

2- Evaluating proposals

Mandatory Criterias

Lead company in joint venture

You should require that in case of a joint venture, the bidding firm have a majority in the partnership and you should evaluate it against the other criteria above. You should be especially careful of service providers and resellers who are just “fronts” for foreign based companies. You should require that the individual firms forming the joint venture clearly spell out what their respective roles are. Be careful to determine who will provide you with monitoring, technical support and maintenance.

2- Evaluating proposals

Mandatory Criterias

Space segment, teleport and equipment guarantees

For end-to-end service provision, you should ensure that the Bidder has secured access to space segment and teleport services and presents a letter to that effect. You do not want to sign a contract and discover that space segment is unavailable on the satellite proposed by the Bidder (and on which the technical evaluation was based) and that the Bidder will have to use a different satellite with different characteristics. This scenario derails the project schedule and can lead to provision of lower quality services. For purposes of ensuring the Bidder will provide warranty on equipment, you should ask for a letter from the equipment manufacturer stating that they will honor warranty on the equipment supplied by the Bidder. If the Bidder owns the satellite, teleport or is the equipment manufacturer, they should still provide a letter stating so.

2- Evaluating proposals

Non Mandatory Criterias

These criteria could include:

- Minimum availability and overall performance of satellite link
- Technical characteristics of the Hub including redundancy schemes, size of antenna
- Quality of preliminary project plan including implementation schedule that will meet your target dates for receiving services
- Quality of proposed project management team (from Curriculum Vitas)
- Quality of proposed acceptance testing and commissioning plan

2- Evaluating proposals

Technical vs Financial Evaluation

A proposal can be accepted on the basis of the technical solution proposed, or the financial proposition or a combination of the two.

It is advisable to conduct an evaluation of both the proposed technical solution and the financial proposal of the Bidder, and the final award made on the basis of a combination of both technical and financial evaluations.

3- Negociate and award the contract

Negociation

Negotiations are an art of their own, acquired through extensive experience and training.

This section is not meant to make you an expert negotiator but rather to provide you with a few pointers that may help you obtain a better deal. Negotiations also involve clauses of the contract and culminate in signing the contract. Because of the contractual implications, you should plan to involve your lawyer or provide for some legal consulting in your budget for the negotiation and contracting stages. You should ensure that your lawyer is familiar with your intended business objectives and that he or she can advise you in context.

3- Negociate and award the contract

Negociating prices

You should note that most competitive bidding procedures do not allow you to haggle over *unit* prices on the assumption that competition should give you the best possible market price in the first place.

You should also be wary of extremely low prices that appear to be much lower than regular market prices. This may be due to a compromise of quality, for example, a high contention ratio.

3- Negociate and award the contract

Negociating prices

In any case, you should be aiming at getting more out of the Bidder for the quoted price. Where the Bidders quotes are way above your budget, you can reduce on the total contract price by varying quantities (of equipment or bandwidth) or other inputs such as human resources. For instance, you could opt to use a local installation company instead of flying in the Bidders engineers from overseas. You should be careful not to significantly alter the scope or even technical solution of the project during negotiations or else you stand to be accused, rightly,of being unfair to the other Bidders

3- Negociate and award the contract

Types and length of contracts

If you do not have your own standard contract template, you may have to use the Bidders own contract format. In fact, it is not advisable to try and draft your own contract as legal fees can be very high. It is far cheaper to have a Lawyer review the Bidder supplied contract.

A major question usually arising during contracting is how long the contract should be. The answer is not very simple- it should not be too short or too long. A good contract length is 2 to 3 years with a provision for an extension usually of no more than 1 year.

3- Negociate and award the contract

Types and length of contracts

Contracts more than 5 years should be avoided because:

- Technology advancement is rapid and a new and more efficient or cheaper technology may arise during your contract period and so you need some flexibility to be able to switch

- Prices of technology reduce over time either due to newer technologies, competition or maturation. You do not want to be saddled with a high cost contract when prices are reducing.

- There is a high turnover of companies in the technology industry because of cut throat competition and you want to guard against your provider going under and still holding you hostage to your contract (creditors may want to collect and continue running the company with reduced quality of service!)

3- Negociate and award the contract

Types and length of contracts

On the other hand, you do not want a very short contract of say 1 year because:

- The process of finding another provider can be very lengthy and resource intensive as the steps above may have revealed. You therefore need a good lead time.

- Switching costs can be very high as switching may require changing the equipment.You do want to incur another huge capital cost so soon after your first contract.

- VSAT networks can take a while to “settle” of up to 6 months in which period they need constant monitoring and fine tunning to provide optimum performance.

3- Negociate and award the contract

What to include in the contract

Your lawyer should advise you on the standard clauses that a commercial contract should have, as well as any other clauses to cater for your particular set of circumstances. We shall simply point out a few issues that are important in regard to VSATs and that you should capture in your contract. In any case, you should review each and every one of them with your lawyer to ensure that they reflect your particular set of circumstances.

3- Negociate and award the contract

What to include in the contract (Start Date)

Start dates, especially in regard to payment of the monthly recurring bandwidth costs for VSAT contracts can be quite tricky. You should therefore scrutinize and understand these. Start dates can be tied to:

- Date of signature of contract
- Date of start of service provision

Whichever way it is defined, you should make sure that you start paying for services- bandwidth only *after* your equipment is installed, tested, commissioned and you have formally signed off.

This is critical as there could be a significant time lag between signature of contract and provision of services, as equipment has to be ordered, shipped and clear customs and be installed and commissioned before services can begin. This time lag can be several months long for which you do not want to incur bandwidth charges simply because you have signed a contract!

3- Negociate and award the contract

What to include in the contract (End Date)

End dates should be very clear. It is not enough to state “one year”- you should provide reference e.g. one year from start of services or from contract signature.

You should reference the end date from start of services, rather than from date of contract signing because there could be a significant delay between the two as the service provider mobilizes and sets up the service.

3- Negociate and award the contract

Service Level Agreement

The SLA is a collection of measurable performance metrics that ensures that you are getting the service you are paying for all or most of the time. The following metrics are common:

Availability- you should ensure that the service provider commits to providing you with a service that you can use at least 99% of the time in the worst month. This is known as the availability. If you take a month to be on average 30 days or 720 hours, then 1% unavailability or downtime is 7.2 hours in a month or almost an entire working day. In a year, this translates to about 12 working days or 3 full days. As you can see, do not be fooled by the small percentages.

3- Negociate and award the contract

Service Level Agreement

Latency- Remember that Geostationary satellites are about 36,000 km above the earth. A signal sent up from one VSAT to the satellite and down to another satellite or the Hub will traverse about 72,000 km. If you recall, signals are electromagnetic waves and therefore travel at the speed of light (300 million meters per second), the time taken to travel to the satellite and back to earth, from the basic formula time equals distance divided by speed, is about 240 ms or about a 1/4 a second. That means that the round trip from transmitter to receiver and back is 1/2 a second. For a double hop, the round trip is almost 1 second.

Mean Time to Restore (MTR) - this is a measure of the average time it takes to bring your services back on line in case of a failure. If you define the availability, then there is no need to define MTR.

3- Negociate and award the contract

Service Level Agreement

Because SLA involves measurements, you need to be prepared to measure the availability and latency of the service you are getting. For VSAT systems, the most common tools used are software based and include What's up Gold and the open source Multi Router Traffic Grapher or MRTG. You should require that your service provider monitor and measure the level of service you are receiving and provide you with regular (say monthly) reports which you should compare against your own.

Some providers also avail you with access to their monitoring and measuring tools typically through a standard web browser. You should also clearly state whose measurements will be used to determine availability and latency. You should not rely wholly on the service provider for obvious reasons.

3- Negociate and award the contract

Enforcing Service Level Agreement

You should not draw up and negotiate the SLA for the fun of it. You should be prepared to exact penalties on the service provider in case they do not provide the service to your expectation. There are two ways of penalizing the provider:

- Money back- for any outage outside the agreed unavailability, the provider should refund some of your monthly payment in cash. Most service providers will not agree to this proposition.

- Service credits- any outage outside the agreed unavailability, the provider should deduct an amount on the next month's service charge by providing you with a "credit". This is the usual approach undertaken. You should be careful to define how the service credits are calculated (usually pro-rata) and exactly when you start earning credits. This is usually captured in the Bidding Document and you should have bidders agree to it as part of their submission.

3- Negociate and award the contract

Escape clause

You should plan for "escape" clauses that let you get out of or terminate a contract if the provider is not performing to your expectation or if the provider runs into financial difficulties. However, you want to ensure that you receive services up until the last minute. The following escape clauses are useful to negotiate and have included in your contract:

- Consistent or frequent violation of SLA. You can make provision that if your provider violates the agreed upon level of service more than a certain number of times, you are granted the right to terminate the contract without incurring liabilities.
- Mergers, Acquisitions or Liquidation. Because of high turnover of companies in the technology industry, you should ensure that you have a right to automatically terminate the contract without incurring any liabilities if and when your service provider merges with another company, is acquired by another company or goes into liquidation.

3- Negociate and award the contract

Escape clause

You should also beware of the provider's escape clauses. These are usually "hidden" in the Force Majeure section of the contract. You should have your lawyer scrutinize the contract for the provider's escape clauses, as well as your own escape clauses.

3- Negociate and award the contract

Acceptance testing

It is advisable to explicitly define how and when you will perform acceptance testing in your contract. As noted above, your services start date and start of payments should be linked to acceptance testing and not to the date when the contract is signed.

We could not belabor this point more as it can be a cause of contention with your service provider

3- Negociate and award the contract

Contract termination

You should be aware of one important fact- unlike most other commercial contracts, VSAT contracts usually have a termination clause that requires you to pay off the remainder of your bandwidth costs through the life of the contract if you decide to terminate the contract.

You should therefore consider this fact carefully when signing long contracts. Nevertheless, you should try to negotiate for contract termination “with no cause” provided you give ample notice of 3 or 6 months without incurring costs for the reminder of the contract portion.

3- Negociate and award the contract

Review the Preliminary Project Plan

You should insist on receiving and reviewing a draft project plan from your potential service provider during negotiations, and before contract signing.

The draft project plan should include the implementation plan, schedules and proposed or anticipated roles and responsibilities including the capabilities and qualifications of the service provider's staff.

You should be aware of or negotiate how long it will take to begin receiving services, how the service provider will approach implementation and what your obligations are. All these should be agreed upon prior to contract signature.

3- Negociate and award the contract

Signing the contract

Once you are happy with all the contract provisions and clauses, it is time to sign the contract.

You should normally ensure that you have written clearances from your lawyer or legal department if you have one, and of course from your top management to sign the contract. You should also ensure that you follow any special procedures for contract signing imposed by your institution's.

At least two original copies of contracts should be signed, one each for you and the service provider

End of Day 5 course

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