

## NSB Services – Geoff Semler

items purely for broadband

These items are for the core build and operation of the network

| Area of provision                |   | Provision<br>(us/other/either) | Notes   |
|----------------------------------|---|--------------------------------|---|
| Hardware Installation            | Required  | Tendered                       |   |
| Minimum speed of 30Mbps          | Required  |                                | We can set a higher min and might want a min top tier speed               |
| 100% coverage                    |   |                                | We may have to argue over this  |
| Contention ratio                 |   |                                | Requirement of 15Mbps (2:1) at peak times so that will need to be in mind |
| Hardware Maintenance             | Required  |                                |   |
| Internet Service                 | Required  |                                | Sweetener for the tender (levels and caps tbd later)                      |
| First line Support               | Required  |                                |   |
| Second line Support              | Required  |                                |   |
| Third line Support               | Possibly Optional                                     |                                |   |
| Emergency Hardware Support       | Required  |                                | Needs to be local and 24/7  |
| Billing                          | Required  |                                |   |
| Customer Installation Initial    | Required  |                                |   |
| Customer Installation Continuous | Required  |                                |   |
| Legal                            | Required  |                                | We will get copyright letters   |
| Static IP Addresses              | May be easier to include as default                   |                                |   |
| IPv6 Addresses                   | Possibly forced upon us depending on service supplier |                                |   |
| Sales                            | Optional  |                                | Part of support?  |

**Add on services** -These are optional add on items that people will find useful

|                      |          |  |   |
|----------------------|----------|--|---|
| Phone Service        | Optional |  | Sweetener for customers (no need for BT)                                  |
| A/V service          | Optional |  | Could be good as a proof we can provide speed                             |
| Parental Controls    | Optional |  | Liked by customers (required for larger providers, may be an expectation) |
| Email                | Optional |  | Useful for customers  |
| Web hosting          | Optional |  |   |
| Internet/IT training | Optional |  |   |

At the highest level we are looking for a technical proposal and price for the design, installation, operation, maintenance, repair, upgrade and management of a Broadband service to all residences in the project area. The high level performance parameters are a minimum of 30 Mbps up to unlimited (say 1 Gbps) capable of supporting full duplex voice, data, and video concurrently and with no material delay. The architecture and underlying design needs to be capable of supporting up to at least 50 times the number of residences defined and extensible to any area in Scotland.

**Proposal and pricing is required broken down by the following functions:**

Design

Installation

Operation

Maintenance

Repair

Upgrade

Management

**For each of the following elements:**

Residence

Residence to PoP

PoP

PoP to Backhaul

Backhaul

Management Centre

Elgar Finlay's thoughts

The requirements will most likely be based around how dirty the Board / Steering group want to get their hands in managing the network, service and the operations of the company.

"My" vision of NSB is a locally operated and managed network provider which provides superfast reliable broadband." In my mind the more "local" control the organisation has the more credibility it will have with our customers.

On the basis of this my suggestions would be

Minimum speed 30Mbps

100% coverage

1:1 Contention ratio (I don't see why not)

In terms of support the next three points I feel are extremely important...

**We will provide 1st and 2nd line of support - This means we will be on the end of the phone locally as the 1st line of contact for our customers and we will be the local voice for sales and issues.**

**We will provide 2nd line of support (I see us having to contract out a local supplier who will attend masts, turn up and fix any issues with equipment etc.)**

**Customer Installation will and always should be through NSB.**

Third line support - Network Provider - I would assume this to be network management software failure / core network / back haul issues unless we have the skills locally this should be outsourced with a view to training NSB staff to manage the network locally into the future.

Legal - I am not sure what this entails but as a rule of thumb I would never outsource any legal agreement to a service provider. We could certainly use a template but I would suggest we instruct our own legal team to manage and be responsible for any legal work.

**Sales - Totally Retained with NSB**

Additional services -

Are an added bonus and should only be considered as a potential vertical market at this stage. Offering these in a phase 1 roll out will simply muddy the waters in terms of our initial offering lead to additional points of failure in customer expectations and possibly put too much stain on the operational resources of NSB.

Phone Service - not really fussed at this stage

A/V will be completely dependent on content providers and would be far too complicated to include at this stage.

Email Web hosting and training - same, resource intensive and a distraction from the core offering at this stage.

**Geoff Semler on Nialls Paper**

Using your paper:

H/W Some elements of this may be something we can do for ourselves. Particularly at and to the premises, and likewise for maintenance.

Speed: Max should be unlimited (say 1Gbps).

Contention Ratio: I do not understand the impact of this but would prefer no contention at least at the 30 Gbit level.

Support: Don't know what each of these are, but would think we may want to provide some level of it ourselves as that is a primary customer interface and we should want to own that.

Billing: The system needs to be highly versatile so we can construct all sorts of packages for sale possibly even at an individual level.

Customer Installation: Obviously desirable if practical, but will have to offer an installation service (possibly at a price).

Legal: Don't understand what you are asking for here

Addresses: Do not understand the implications of these

Sales: Absolutely needs to be our ownership, we have to manage the primary customer interfaces, and certainly do not want a 3rd party out selling for us.

I think we should be able to offer all the add on services, so from a supplier perspective they are required. Whether we actually offer them from day one is a different matter.

Finally we should be looking for pricing and specification of all aspects of the supply and operation even if we decide to do some things ourselves. That way the bidder is discouraged from pricing cheap for a specific element (e.g. Cheap installation cost without taking maintainability into account).

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I tried to write a very high level requirement (see above) which could maybe be used to check that we have covered everything we need (i.e. everything we have in our requirement should fit in one or more slot in the implied matrix).

#### Mo Scobbie

Just one point on the 'add-on services' however; I do like the idea of us being able to provide training, particularly for community groups. It would be the sort of service that could be provided with any profit that is made - investing it back into the community and, potentially, creating new customers.