NOVA QC
Quality Communications

Interconnect Solutions from Nova^{QC}

International telecoms engineering consultancy Nova^{QC} helped a large Middle East incumbent operator to solve a variety of interconnect related projects that were preventing it from developing their interconnect portfolio.

Background

A Broadband Installation contractor had experienced a breakdown in its relationship with its main customer – a global telecoms operator. The operator had ceased deploying the contractor after having lost confidence in the organisation's ability to deliver an effective

"Using our knowledge of similar issues in the European and other markets, we were able to provide accurate, timely and relevant data to the operator. This enabled the client to make appropriate decisions on various aspects of Interconnect and provide better service to customers."

Challenge

Nova^{QC} had to be able to provide accurate, timely and relevant data to the operator to enable appropriate decisions to be made on a wide range of interconnect aspects, including:

- traffic migration to IP
- transiting interconnect traffic
- connection and interconnection of internet traffic
- interconnect planning - international data and VoIP.

Working closely with the incumbent client, the interconnect projects were prioritised and our Nova^{QC} consultant developed the appropriate solutions for each issue.

A Range of Interconnect Solutions

- **Traffic migration to IP**

A number of possible solutions were devised to allow the migration of IP traffic to a dedicated IP network. The selection criteria were based on a previous leading major European incumbent's experience in implementing migration to IP and the implementation solutions were then considered against the client's telecommunications environment and commercial considerations. The final solution agreed with the client was twofold, depending on where the costs would be incurred. However, in each case, a proposal was generated that would prevent any substantial capital cost to the client.

- **Transiting interconnect traffic**

The solution to the question of carrying interconnect traffic on a dedicated network, separate from the existing network, was based on several caveats.
Following a review against a major world-leading incumbent, these caveats were identified as:

1) Whether all operators are pure IP (carrying pure IP services) or converting to IP (carrying pure IP services) in line with the operator's plans to remove PSTN TDM POIs, or whether:

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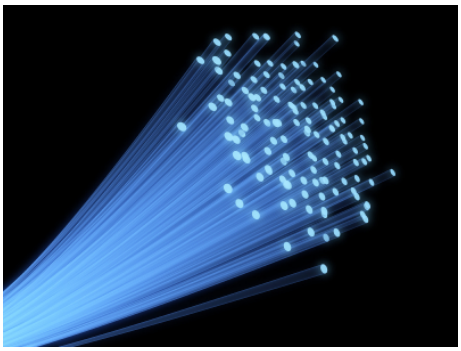

"We were able to bring and share our experience with many major telecoms operators across the globe and that gave our client tangible results to measure against."

2a) All operators are running different technologies, and have no plans to convert to IP (carrying pure IP services); OR
2b) There is a requirement to terminate interconnect links from fixed, mobile, legacy (TDM) and NGNs and offer protocol conversion and interoperability between all (different technology) operators.

Where the first caveat was in play, it was recommended not to implement a separate National Gateway Layer but to continue to route all 'transit' traffic via the PSTN. However, with caveat 2a or 2b, then the recommendation was to implement a separate National Gateway Layer to route all 'transit' traffic.

Whichever solution was chosen, the client was offered further Nova^{QC} support to help scope the work. The scoping included detailed planning of any proposed transit product, including capacity and route planning, a building rationalisation review and detailed migration planning, performance.

Additional Interconnect Solutions
The remaining three solutions for 'Connection and interconnection of internet traffic', 'Interconnect planning' and 'International data and VoIP' all resulted in a commonality of solutions. They were based on the following investigations:

- **Points of Interconnect** - a full review of the existing points of interconnect into other operators' networks; resulting in a rationalisation programme,leading to a financial saving.
- **Route Utilisation** - a full review of the existing interconnect route utilisation, exposing under and over utilised routes, leading to rationalization of routes between operators. Once again, this will lead to significant savings in all financial budgets.

Interconnect Liaisons - the results

In the client's incumbent environment, the government had not yet imposed any regulations on the need to interconnect and provide interoperability.
Nova^{QC} introduced the client to a large European incumbent's regulatory regime and the technical body assigned to ensure interoperability. Nova^{QC} persuaded the client that it would be to their financial advantage to develop such a body on a voluntary basis and encourage other operators to participate. By doing this voluntarily, it would have the following beneficial effects for the client:

- reduce the need for regulation by showing a willingness to interoperate
- develop interoperability standards that will meet the incumbent's designs
- expand the interconnect market
- increase the financial bottom line of the client

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