



Senate Select Committee Hearing

Art Price - Axia NetMedia Corporation - August 5th
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For Discussion Purposes Only

Fundamentals of NGN Fibre “Wholesale” Networks

Incumbents have all the short term advantages:

- They already have the customer and a bundle of services.
- Current “complexity of technology” is a barrier for end-users to change networks.
- NGN first; compelling services second.
- No start-up capital challenges in risk adverse capital markets.
- Their network was created under a monopoly environment and then “deregulated”.
- Does not depend on any other party to deliver retail services.

Wholesale “no-customer conflict” NGN’s:

- Start without customers and never have bundled services.
- Depend on the evolution of new compelling services for end-users and a change in the way end-users buy.
- Depend on the evolution of a vibrant, competitive retail services sector that provides easy to adopt high value services. (The end-user is no longer the “technology integrator”.)
- Have the advantage of network performance but end-users only understand that through experiencing new services that are not available over legacy networks.
- Must survive long enough to allow the development of new players and new services.
- Success depends on new capital.
- Have similar transformational change challenges that are driven by all new basic infrastructure.

Fundamentals of NGN Fibre “Wholesale” Networks

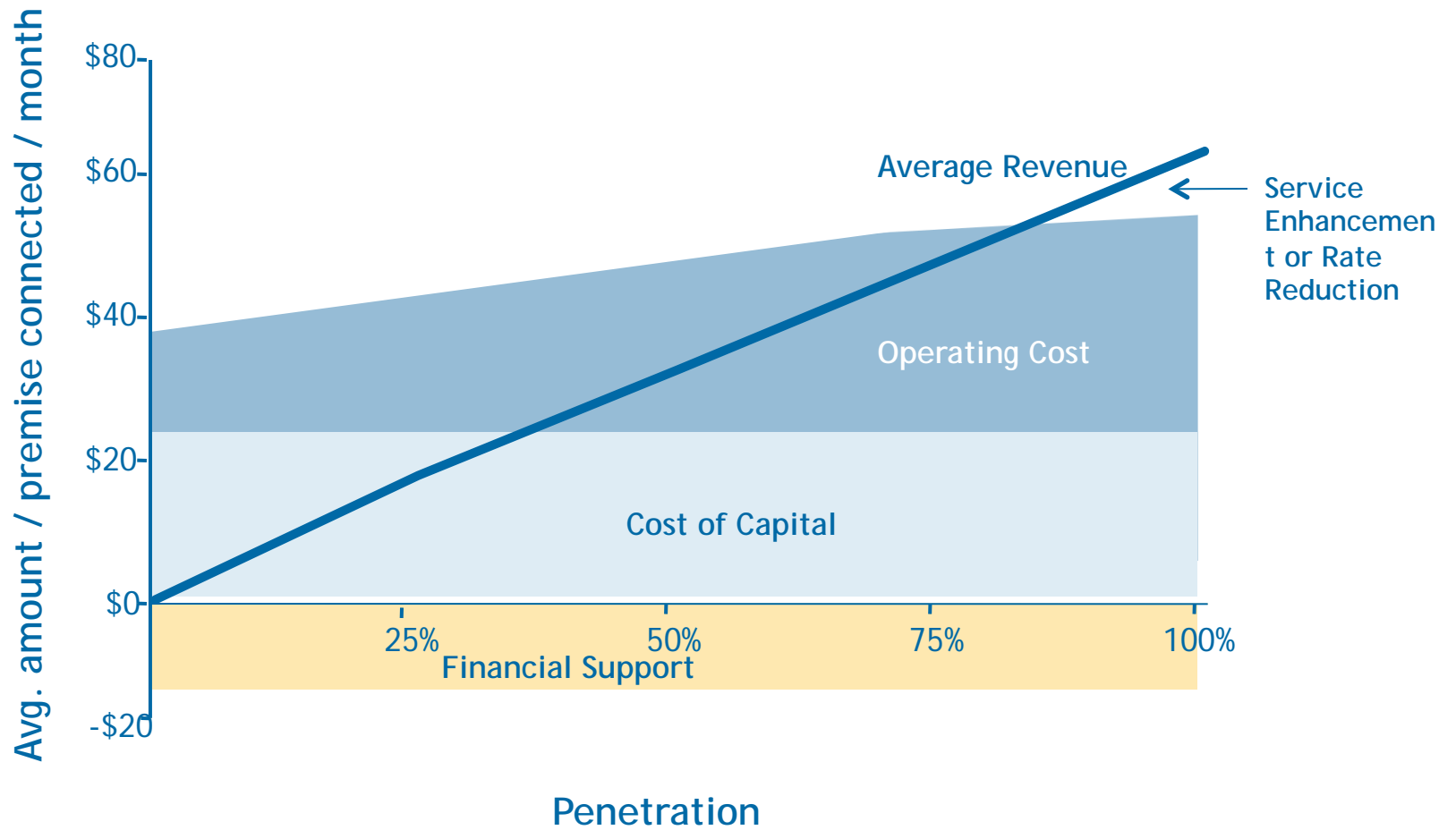
Community Interconnect Grid (Backhaul Networks):

- Rely on a customer (local access service provider) to connect end-users.
- Are subject to predatory competition by incumbent in isolated “local” markets.
- Have been viable when specializing in serving customers located between and within the CBD of major metropolitan centers.
- When targeting rural / remote markets, NGNs depend on **committed revenue** typically from Government (ie. Alberta).
- When targeting regional, higher density markets, NGNs can be viable based on one-time **financial support** (ie. France).

FTTP “within the Community” :

- The passive component of FTTP is simply long term civil infrastructure:
 - Cost of capital for initial installation and use of compatible existing infrastructure are the dominant drivers of cost for FTTP.
 - FTTP has low reoccurring maintenance costs and activities.
- For wholesale FTTP investments to be viable, the key criteria is to ensure **market penetration covers the cost of capital** for the implementation of FTTP and associated infrastructure. (This was also true of the copper network when it was implemented.)

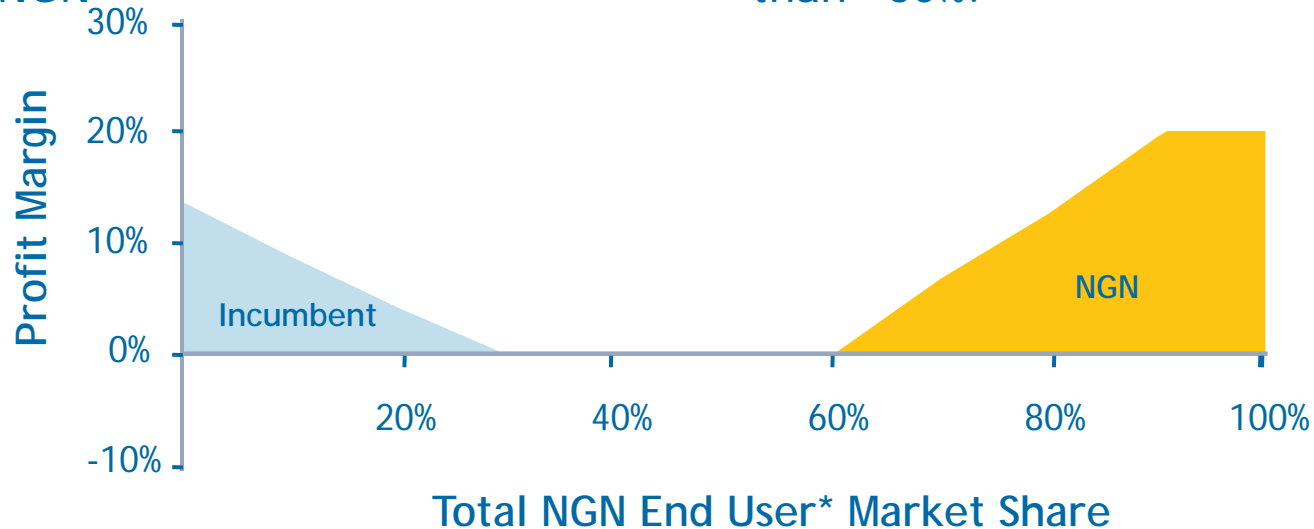
Typical NGN FTTP Network Economics



FTTP NGN Head to Head with Legacy Network

Incumbent's profitability is not sustainable in competition with an FTTP NGN

FTTP NGN depends on ongoing financial support if its market adoption is less than ~60%.



**A mix of Wholesale and retail market share*

- An incumbent will lose the vast majority of their wholesale business revenue to a NGN's compelling wholesale prices.

Legacy Copper vs. FTTP NGN's: Cost & Performance

