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Proposed policy principles for the Irish NGN regulatory framework

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Agenda

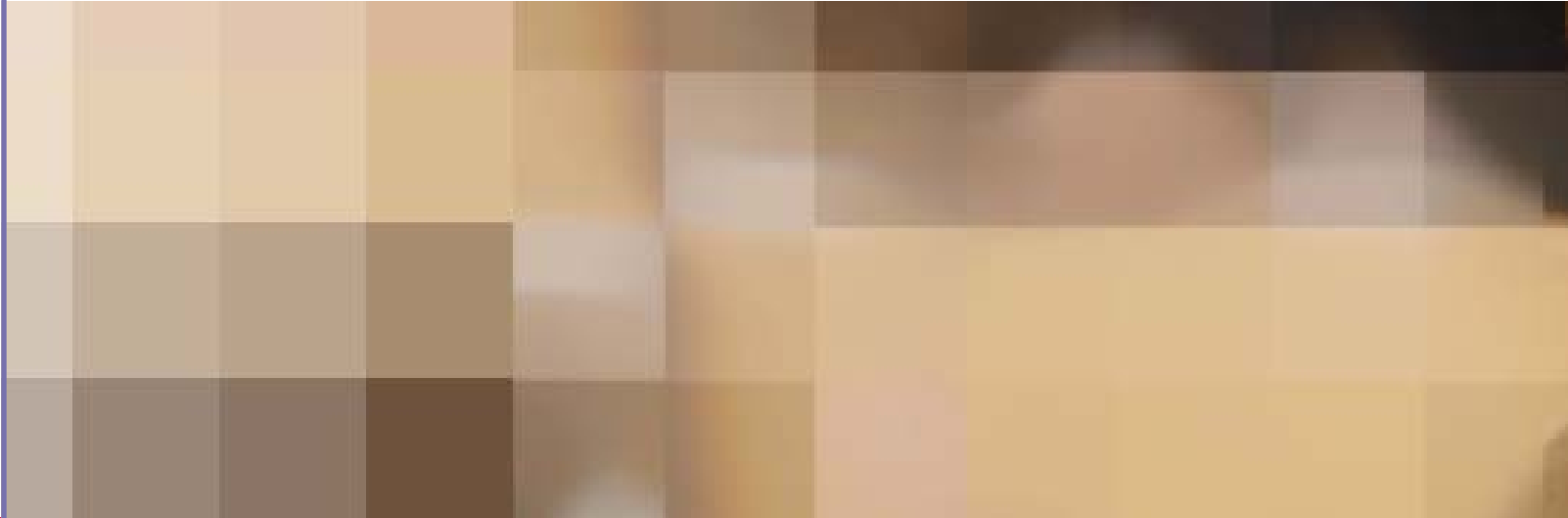
- Objectives of the study
- Methodology of the study
- Possible policy principles
- Key issues moving forward
- Next steps

Objectives of the study

- To develop a set of possible policy principles for the Irish NGN regulatory framework
- The framework must support ComReg's objectives to:
 - Facilitate efficient investment in NGNs while maintaining a competitive environment for infrastructure and services
 - Provide consumers with adequate protection and maintain consumer welfare so that a move to NGNs will not impact current service offerings and consumer rights.

Methodology

- Briefing paper to all stakeholders
- Interviews with: ALTO, BT Ireland, Blueface, Cable and Wireless, Chambers Ireland, eircom, eNet, Magnet, O2, Smart, UPC, Verizon, Vodafone
- Final Report



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Possible policy principles

Policy principles in five areas

- Current wholesale SMP products and migration issues
- Interconnect issues
- Consumer protection
- Future industry mechanisms
- NGN design and architecture

Current wholesale SMP products and migration issues

- There are three possible policy principles
 - Clearly defined processes for all stakeholders
 - Criteria for SMP product withdrawal
 - Continuity of existing wholesale products for a limited period

Clearly defined processes for all stakeholders

- There need to be clearly defined processes to cover migration of current wholesale SMP products to their equivalent SMP products in an NGN environment
- Processes will cover requirements of all stakeholders and ensure equivalence for all migrated services with timetables and referral procedures which all stakeholders will follow during service migration to ensure no disruption to wholesale customers and end users
- *ComReg should work with the industry to:*
 - *Draw up new inter-operator processes learning from past mistakes*
 - *Facilitate processes which enable new databases to be managed effectively in a competitive environment*

Criteria for SMP product withdrawal

- The decision to withdraw SMP obligations resides with ComReg and would be taken after a market review
- The possible criteria for withdrawal of an SMP product include:
 - *No adequate customer base to create reasonable demand for an existing product thereby providing the service becomes uneconomic and disproportionate*
 - *If the SMP operator is found not to have SMP in the relevant market after a market review*
 - *When it is reasonable (for economic or technical reasons) to move to an alternative SMP product. The following criteria would include:*
 - *An alternative service is a suitable equivalent to that being withdrawn*
 - *The SMP operator will have held discussions (either bilateral or in an industry forum) with the OAOs affected to discuss the product evolution options prior to withdrawal*
 - *The majority of end users have been migrated from the legacy product to the NGN SMP product and a clear timetable has been established for the remaining customers to migrate*

Continuity of existing wholesale SMP products for a limited period

- The continuity of existing SMP products during the transition to an NGN will be important to all stakeholders. Equally it will be important for everyone to understand the rules with regard to future discontinuation of legacy SMP products at some point in time
- The notification to withdraw a service from the product portfolio depends on the service being withdrawn. The greater the impact of the change, the longer the notice period should be
- Given examples from the UK and the Netherlands we suggest the following:
 - *The minimum notice period for withdrawal of an SMP product or service should be set at 1 year (after the criteria have been met), but this suggested period should be tested by ComReg within the relevant industry working group or by consultation.*

Interconnect issues

- There are three possible policy principles:
 - NGN interconnect charges
 - Compensation arrangements for geographic rearrangement of points of interconnect
 - Quality of service

NGN interconnect charging

- Interconnect charges have to date been cost oriented however in a fully NGN environment a number of changes to cost structures and levels could take place.
- It is currently too early to know how these NGN changes will impact interconnect rates so to remove uncertainty for all parties ComReg is considering setting interconnect rates using a wholesale price cap mechanism applied over the period covered by the next interconnect market review and at the start of NGN deployment
- *The charging structure for NGN interconnection should evolve with the lead taken by ComReg and taking input from the relevant workstream.*

Compensation for geographic rearrangement of points of interconnect

- The factors to take into account when deciding if compensation is appropriate include:
 - The extent to which the rearrangement of a point of interconnect is a forced migration by eircom without discussion with OAOs
 - The benefits to be had by all parties as a result of the change
 - The length of time eircom has allowed OAOs with regard to formal notification of the change
 - The remaining useful economic life of the legacy interconnect equipment OAOs have in the site at the time of the change
- Unless eircom provides adequate notice of its network migration plans it should bear the cost of the impact on interconnecting OAOs either by continuing to provide some equivalent form of interconnect at the affected locations or by offering appropriate compensation.

Quality of service

- The quality of service (QoS) parameters (for example latency, jitter and packet loss) for current wholesale services should be clearly defined in terms appropriate to the service.
- The services should also have associated SLAs for provisioning and performance
- In an NGN environment, ComReg should:
 - *Confirm the principle that at least an equivalent level of quality of service should be offered in an NGN environment as in the current PSTN environment to enable the same end to end service to be provided customers*
 - *Review the QoS parameters for current services and performance of operators in meeting these requirements*
 - *Require the industry to define and agree appropriate quality levels for new services and existing services replicated in an NGN environment*
- *Mechanisms for monitoring QoS at the interconnect level should be agreed in the cross industry forum.*

Consumer protection - 1

- We identified three critical issues for consumers:
 - QoS to the consumer must be maintained during the migration period with no break in service regardless of the network over which the traffic is carried
 - All current mandatory services such as access to emergency services and number portability must be maintained during the transition and in the NGN environment
 - Communications with customers and maintaining tariff transparency of tariffs will be important as tariffing grows in complexity in an NGN environment

Consumer protection - 2

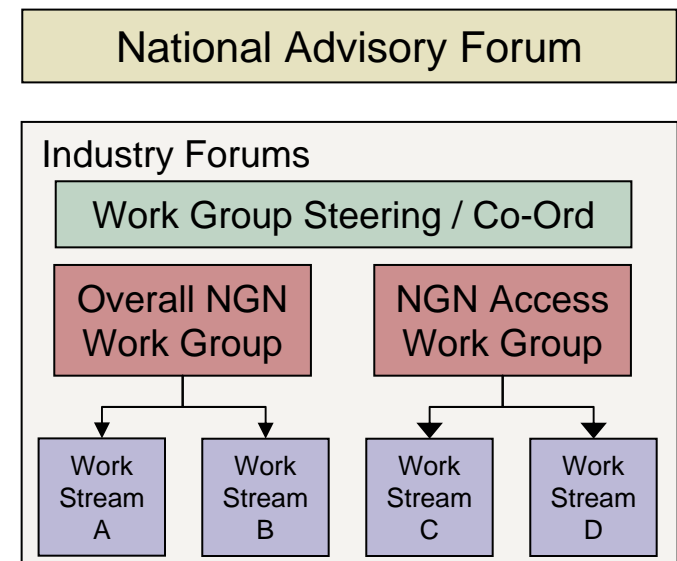
- The associated possible policy principles are as follows:
 - The quality of services and range of services provided to consumers during the migration to NGNs should be equal to their existing basic voice services.
 - The consumer must be made aware of any changes to their existing service. There should be an agreed notification period of intention to withdraw any service.
- Consumers should not unwillingly or unknowingly experience a degradation in service quality as a result of migration to NGNs.

Future industry mechanisms

- In the UK there are three major bodies involved in NGN activities
 - Consult21 – the industry body set up by BT to discuss and disseminate plans on BT's NGN 21st Century Network (21CN)
 - Network Interoperability Consultative Committee (NICC) – technical implementation of standards
 - NGNuk – developing the technical and commercial framework for interconnect and examining network intelligence capability
- These three bodies demand between them a large amount of all stakeholders time. For example
 - Consult21 on a monthly basis may have 8 working group and 25 expert group meetings
 - NICC groups meet every 4 – 6 weeks with 6 – 12 attendees
 - 20 people actively involved in NGNuk

Facilitation mechanisms in Ireland

- The Irish situation is much less complex than the UK, a simpler industry forum should meet the Irish needs, but any structure should be periodically reviewed and revised to meet changing needs
- An advisory forum to assess the long term direction of the industry and link policy, regulation and commercial interests could guide the direction of industry forums, which are more focussed on implementation. This forum could also ensure co-ordination with broadband stimulation projects in Ireland.
- Working Groups to be co-ordinated and established as needed, initially to cover the introduction of NGN and NGN Access networks
- Work groups / streams should cover, as needed:
 - NGN architecture and design
 - Technical standards/interoperability
 - Commercial issues i.e. product definition, ordering, fault reporting etc
 - Public interest and consumer issues



NGN design and architecture

- There are two possible policy principles
 - No foreclosure on network design
 - Adequate notice regarding unbundled network access and network migration

No foreclosure on network design

- The development of an NGN and the decisions taken on its network design will have some impact on all operators
- It is in the national interest to ensure that networks inter-work seamlessly to provide competition at the network and service levels and choice of services, applications and content to customers
- Therefore it is in everyone's interest that eircom's NGN plans are discussed within industry prior to the network design being finalised
- *There should be a minimum period of six months during which eircom and OAOs discuss the high level network and service architecture prior to finalisation.*

Adequate notice for unbundled network access and network migration -1

- Adequate notice must be provided on eircom's network migration plans once the network design and service architecture are established
- With regard to eircom's plans to upgrade its network at a particular location, there are 2 issues:
 - If an eircom local exchange is being removed or relocated to another site or the MDF position changed then an OAO should be able to recover some of its investment in LLU DSLAMs, voice interconnect and switching etc based on typical depreciation periods. *Depending on the level of investment and degree of change, a notice period of up to 5 years may be considered appropriate.*
 - An OAO may be planning investment in a site, but with no infrastructure yet in place, and their plans may change on notification by eircom of network migration at that site. *A notice period by eircom of 3 years is suggested for advanced plans and a 2 year notice period for implementation.*

Adequate notice for unbundled network access and network migration -2

- *Guideline notice periods should be set by ComReg after discussion with industry. These guidelines should take account of the OAO's sunk investment, the remaining depreciation periods on the assets, the extent to which the asset could be stranded and the investment risk that a new entrant may reasonably be expected to bear. Typically we would expect notice periods to be up to 5 years.*



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Key Issues for the Irish Market

Key issues moving forward

Key issues can be considered at two levels:

- Infrastructure development and competition
- Wholesale products in an NGA environment and the impact on services

Infrastructure development and competition

- How will the new 'digital divide' be addressed in Ireland? Issues of loop length and access supply (fibre, cable, MANs, other).
- Will there be economic / network bottlenecks to deploying competitive access infrastructure?
- What is the sound economic approach for geographic coverage: population density, social policy, demand for services?
- How will NG Access impact the development of new infrastructure-based competition (LLU; infrastructure - ducts, fibre, etc)? And how should existing access / LLU investments be handled?
- What are the appropriate incentives to encourage the development of NGAs given the relative risk/ reward profile; and what is the correct balance between competitive supply, market demand, regulatory policy and government intervention?

Wholesale products in an NGN environment

- NGN will require a new set of wholesale products and services
 - 'Traditional' voice and VoIP
 - Service-based products with delay, jitter, packet loss, bandwidth suitable for different applications
 - Flexibility of product configuration to meet market demand
- How will infrastructure competition impact the development of next generation access products:
 - What form of wholesale access products are needed for the copper access network: voice over IP, broadband, QoS-based products?
 - How does the introduction of fibre in the local loop impact these service offerings, and what additional products will be needed? New bitstream products; Sub LLU products – fibre lease; duct lease etc?
- How should the industry make the transition to NGN whilst still protecting the interests of the consumer?
- Is the principle of equivalence appropriate in Ireland?

Policy principles for NGN wholesale products

The associated policy principles are:

- *That there should be no retail service without an associated wholesale SMP input:*
 - *Whenever eircom introduces a new retail product which is based on the provision of access in an SMP market, it would need to ensure that the SMP access product / service is made available to OAOs*
 - *The SMP product would also need to be made available with enough time for OAOs to offer a competing retail product at the same time as eircom*

In summary

- We have looked at possible policy principles in 5 areas:
 - Current wholesale SMP products and migration issues
 - Interconnect issues
 - Consumer protection
 - Future industry mechanisms
 - NGN design and architecture

- We have raised a set of key issues for further thought in the areas of:
 - Infrastructure development and competition
 - Wholesale products in an NGA environment and the impact on services

Next steps

- Therefore the proposed next steps are:
 - To create the mechanisms to facilitate industry discussions including:
 - a National Advisory Forum to provide future direction and link policy to implementation
 - a Work Group Steering body which will define the mandate for Work Groups
 - To identify the issues which will need further deliberation and research to ensure the smooth and successful introduction of NGN / NGA in Ireland e.g. the economics of sub-loop unbundling
 - Confirm the need for consultation on the NGN regulatory framework



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Thank you.