Migration of non-geographic numbers to 8 digits for mobile networks - Background

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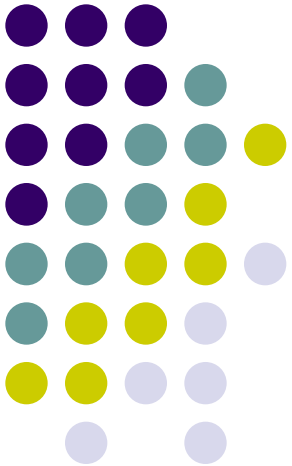
ICT Authority



Outline

- Duties of the Regulator w.r.t numbering
- Background
- Recalling the Reasons for a Numbering Plan Change
- Big Bang or staged migration
- Migration of different categories of numbers to 8-digits
- Objectives of the Workshop

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Duties of the Regulator w.r.t Numbering

- maintaining a long-term vision for the numbering scheme and resisting short-term pressures which may lead to dead ends. This means forecasting potential capacity shortages, instigating a review when necessary, and taking overall responsibility for the choice of scheme architecture;
- regularly consulting all interested parties, and acting as guardian of the user interest. This means ensuring that user views are solicited and taken into account; especially at review time; and ensuring the right notice periods and publicity for any changes.

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Background

- The ICT Authority has as function under section 18 (1) (q) of the ICT Act 2001 (as amended) to *"determine the numbering system to be used for every ICT services including telecommunication service, and manage, review, and, where appropriate, re-organise the numbering system".*

- Following the liberalisation of the telecoms sector, the ICT Authority took over the administration of the National Numbering Plan from the incumbent operator (Mauritius Telecom) in 2003.

- The numbering plan inherited from the incumbent was a **7-digit numbering plan** designed to serve a monopolistic telecoms environment. The Authority thus worked towards redesigning the numbering plan to make it more consonant with the liberalised multi-operator and multi-service environment.

- Solution :- The ICT Authority proposed in 2003 the migration towards an **8-digit numbering plan.** The new plan is expected to serve the country for at least the next 20 years.

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Background

- The implementation of the 8-digit numbering plan has been an ongoing project since 2004 but has been postponed several times due to technical and economic constraints. Several working sessions had been held with operators in the past; public consultations had been held in 2003 and 2008 respectively and a Decision (ICTA/DEC/02/2008) had also been issued by the ICT Authority regarding the said implementation.

- On 31st December 2008, the ICT Authority issued the Decision (ICTA/DEC/02/2008) according to which 8-digit numbering plan for mobile services was scheduled for 1st November 2009. However the implementation was postponed due to uncertainties associated with the global financial crisis at that time. The Decision was thus recalled.

- The Authority considers that the need for a new numbering plan has become even more significant today, thus the need for reviving the project of implementing an 8-digit numbering plan for the Republic of Mauritius.

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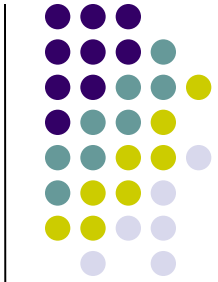
Recalling the reasons for a Numbering Plan Change



- The current numbering plan is not user-friendly since there is no coherent structure in the plan, e.g. numbers allocated for mobile services are interspersed with fixed numbers.

- Prior to liberalisation, numbers had been assigned in a non-uniform manner. New numbering plan is required to ensure equitable access to numbering resources so that access to numbers is not a limiting factor to fair competition.

- Number blocks have been opened in the whole range from 0-9 in the current plan, making it difficult to accommodate new services requiring new number ranges.

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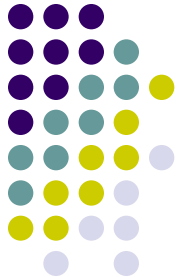
Recalling the reasons for a Numbering Plan Change (cont'd)



- With the scarcity of mobile numbers the quarantine period has been significantly reduced. This creates inconveniences for the consumers. Migrating to 8-digits will allow restoring the quarantine period to 24 months or more.

- The new numbering plan will make available adequate numbering capacity for existing as well as new services. Today the capacity reserved for mobile services in the current numbering plan has been depleted. New services such as Mobile Virtual Network Operator (MVNO) which have been adopted in various parts of the world require additional mobile numbering capacity, which is currently unavailable.

- A numbering plan should sensibly allow for at least **three usable geographic numbers per person** and at least **five non-geographic numbers per person.** This is not the case with the present numbering plan. The new numbering plan would significantly increase the numbering capacity to serve the numbering requirements for the country for at least the next 20 years.

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Big Bang v/s Staged Migration

- **The choice has already been made** for a staged migration rather than big bang migration
- Big Bang implies changing all numbers, fixed, mobile, toll free, special numbers at once.
- Staged migration has been preferred as the change of all numbers at once is considered complex and may be difficult for people to assimilate.

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Why Staged migration has been preferred over Big Bang

- the two-phased approach will simplify the information campaign as only one network type will be targeted at a time;
- it is expected that this approach will create less confusion for the consumers;
- migration of the fixed numbering plan will also entail the migration of toll-free and special numbers to 8-digits, this may have the effect of confusing the population to a larger extent;
- In case of a hard cut-off (i.e. where there would be no transition period during which 7-digit calls would be allowed), the two-phased migration may provide a communication alternative by allowing callers who cannot reach their correspondents on their new 8-digit mobile numbers, to still reach the latter through the 7-digit fixed numbers.

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Migration of different categories of numbers to 8-digits

Within the national numbering plan there are several categories of numbers. Whereas the current exercise concerns numbers used in mobile networks only, the objective of the Authority is to migrate all the following numbers to 8-digits eventually

- Migration of non-geographic numbers for mobile networks

Addition of leading digit **5** to mobile numbers e.g. 742 xxxx to become **5**742 xxxx

- Migration of geographic numbers for fixed telephone networks (PSTN)

Addition of leading digit **6** to fixed numbers, e.g. 242xxxx to become **6**242xxxx

- Migration of other non-geographic numbers

Addition of leading digit **3** to special service numbers, e.g. 320xxxx to become **3**320xxxx;

Addition of leading digit **0** to toll free numbers, i.e. 800xxxx to become **0**800xxxx

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Non-geographic Number change for mobile networks

- Non-geographic numbers are those that do not convey geographical information on the caller or callee
- Mobile networks are now also used to:-
  - Provide mobile voice, SMS and data services under the PLMN licence;
  - Provide Internet services under the ISP licence
  - Provide fixed-wireless voice services under the PSTN licence

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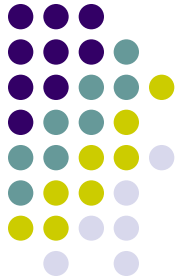
Non-geographic number change for mobile networks



- The number change for mobile networks intends to cover all services provided using mobile networks;
- The number change has insignificant incidents on data and Internet services
- As for fixed-wireless services provided using mobile networks, special care may be required to inform subscribers accordingly

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Non-geographic number change for mobile networks

Old Number Range	New Number Range
25x-xxxx	5 25-xxxxx
29x-xxxx	5 29-xxxxx
421-xxxx	5 42-1xxxx
422-xxxx	5 42-2xxxx
423-xxxx	5 42-3xxxx
428-xxxx	5 42-8xxxx
429-xxxx	5 42-9xxxx
44x-xxxx	5 44-xxxxx
471-xxxx	5 47-1xxxx
49x-xxxx	5 49-xxxxx
87x-xxxx	5 87-xxxxx
7xx-xxxx	5 7x-xxxxx
9xx-xxxx	5 9x-xxxxx

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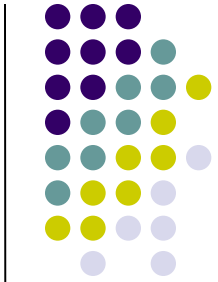
Objectives of this Workshop



- Decide on the migration method – Hard or Soft Cut-off
- Identify any technical and communication issues
- Decide on the migration date

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Thank You