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NP Overview

James Wild & Mike Williams
Providenciales, Turks & Caicos
09 – 11 January 2012

Turks and Caicos Islands
TELECOMMUNICATIONS COMMISSION

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Agenda

- Introduction
- Current status of NP in Turks & Caicos & Caribbean
- Pre-requisites for NP
- Different NP approaches
- Key elements of NP
- Key considerations around NP
- Fixed vs Mobile NP
- Selecting NP vendors
- Impact of NP on the market
- Best NP Practices – customer experience
- Cost of NP
- Regulatory Considerations/ Framework
- NP Journey
- Role of the Regulator

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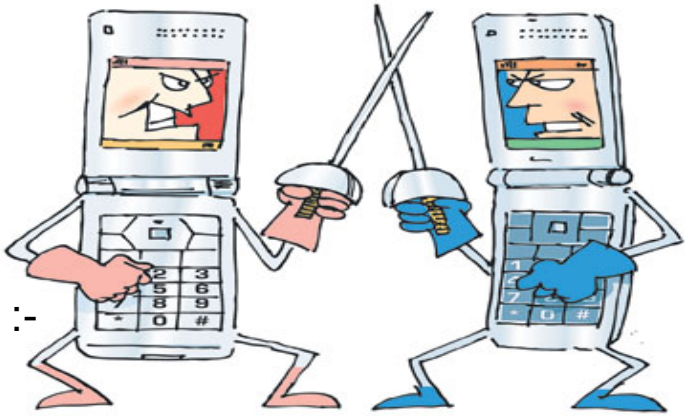
What is Number Portability?

"A process enabling telephone users to retain their telephone numbers when changing from one network operator to another"

NP is merely an enabler for competition. NP removes final barriers of customer choice and flexibility

Competition is driven by other factors, including :-

- Nature of competitor activity to offer attractive products and choice;
- Number of competitors;
- Level of regulation in a market;
- Cost of porting;
- Porting timeframes; and
- Complexity of porting



Successful NP implementations characterised by :-

- Active involvement of all parties;
- Planning and Readiness;
- Simple transparent processes;
- Low price (Free?);
- Competitive offers; and
- NP promotion & education

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Drivers for introducing NP

- Catalyse further competition
- Reduce market pricing
- Increase consumer choice
- Improve customer and network service and quality
- Drive innovation
- Drive efficiency
- Encourage new entrants

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Current status of NP in Turks & Caicos

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NP & Turks & Caicos

Population – 45,000 (plus over 1 million visitors)

GDP per Capita - $26,000

Telecoms

- Fixed
  - 3 operators
  - LIME – SMP
  - Digicel
  - TCT Express
- Mobile – 150% penetration
  - 3 operators
  - LIME
  - Digicel
  - Islandcom
- Number Portability
  - Being considered – but cost is hurdle

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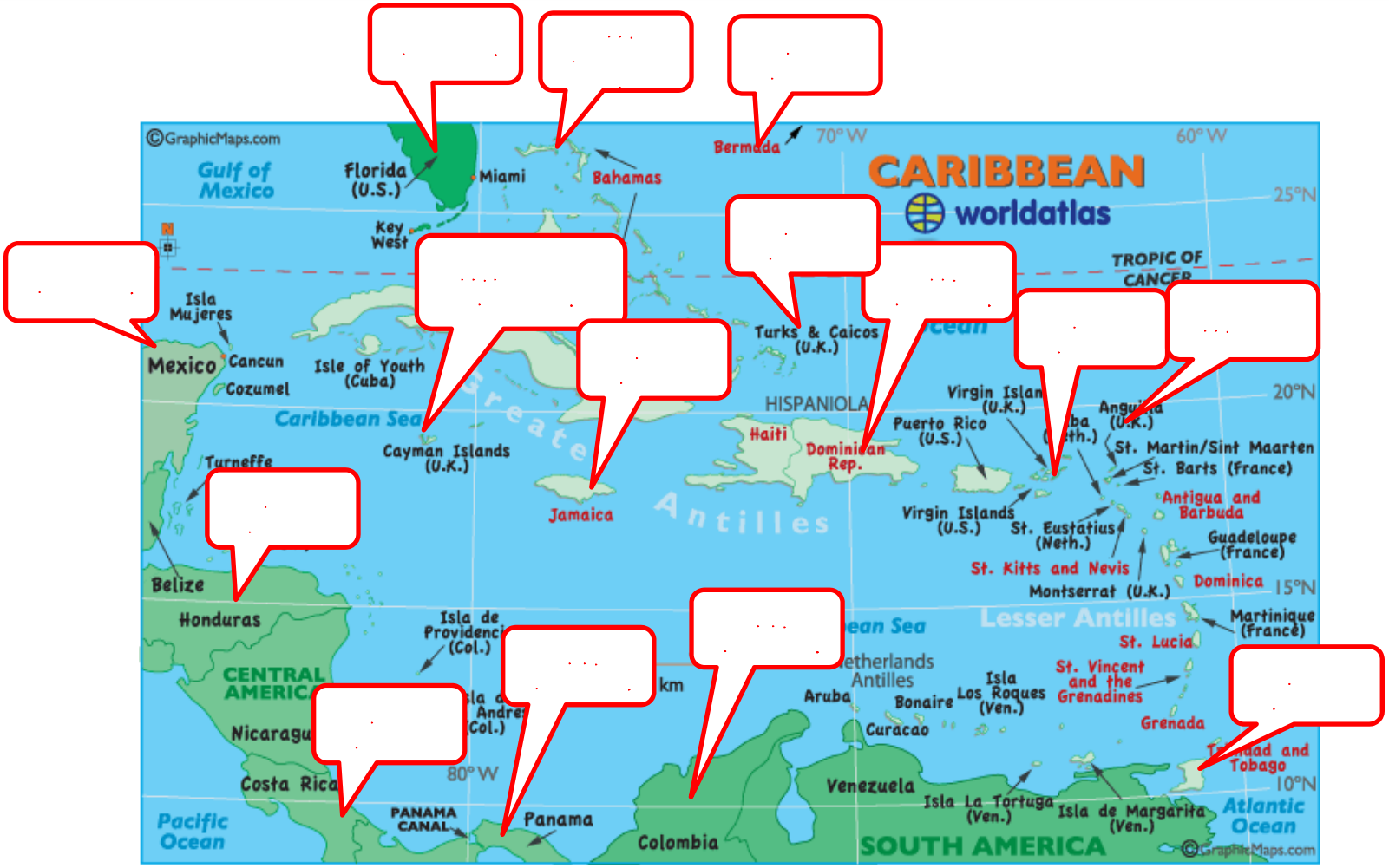
NP in the Caribbean



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NP – Comparison with other Countries

	Bahamas	Nigeria	Panama	Ghana	Kenya	Cayman	Gibraltar	Isle of Man	Channel Islands
Population	353,000	180 Million	3.5 Million	23 Million	38 Million	60,000	30,000	76,000	140,000
Telecoms Service Penetration	Fixed - 37%/ Mobile - 105%	Fixed 0.7%/ Mobile - 53%	Fixed 16%/ Mobile - 71%	Fixed 1%/ Mobile - 64%	Fixed 1%/ Mobile - 55%	Fixed 8%/ Mobile - 113%	Fixed 82%/ Mobile - 103%	Fixed 80%/ Mobile -101%	Fixed 87%/ Mobile -105%
Mobile Banking	No	Yes	No	Yes	Yes	No	No	No	No
Mobile Number Portability	Planned	Planned Q3 2012	Planned Q1 2012	Launched - July 2011	Launched May 2011	Planned Q1 2012	Planned Q1 2012	Launched June 2009	Launched Dec 2008
Fixed Number Portability	Planned	No	Planned Q1 2012	No	No	Planned Q1 2012	Planned Q1 2012	No	No
Premium/ VoIP Number Portability	No	No	No	No	No	No	No	No	No
Pre Pay/ Post Pay	TBC	99% Pre Pay/ 1% Post Pay		99% Pre Pay/ 1% Post Pay	99% Pre Pay/ 1% Post Pay	50% Pre Pay/ 50% Post Pay	60% Pre Pay/ 40% Post Pay	45% Pre Pay/ 55% Post Pay	55% Pre Pay/ 45% Post Pay
Number of Operators	3 Fixed/ 1 Mobile	4 GSM/ 12 CDMA	1 Fixed/ 4 mobile	6 mobile	4 mobile	4 mobile	3 Fixed/ 3 mobile	2 mobile	3 mobile
Porting System Vendor	TBC	Telcordia	Porting XS	Porting XS	Porting XS	Porting XS	Porting XS	Porting XS	Porting XS
Routing Approach	ACQ - Direct	ACQ - Direct	ACQ - Direct	ACQ - Direct	ACQ - Direct	ACQ - Direct	ACQ - Direct	ACQ - Direct	ACQ - Direct
Operators Responsible for Own Set-up Costs	Proposed	Proposed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Operators pay equal share of CdB Set-up & Operation	Proposed	Proposed	Yes	No Set-Up	Yes	Yes	Yes	Yes	Yes
Consumer Porting Transaction Charge	TBC	Free	TBC	Free	Free	TBC	TBC	Free	Free
Originating Operators pay International Incoming Transit Charge	TBC	Yes	TBC	Yes	Yes	Yes	Yes	Yes	Yes
On Net/ Off Net Transparency	Yes	No	Yes	Optional	Optional	Optional	No	Yes	Yes
Winback Prohibited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Onward Porting Restrictions	Yes - Within 2 years	Yes - Within 90 days	TBC	Yes - Within 30 days	Yes - Within 60 days	Yes - Within 60 days	Yes - Within 60 days	Yes - Within 60 days	Yes - Within 60 days
Porting Time SLA <5 working days - Fixed	TBC	N/A	Yes	N/A	N/A	Yes	Yes	N/A	N/A
Porting Time SLA <2 working days - Mobile	TBC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Validation Requirements	TBC	Yes - Photo ID & SMS	Yes - Photo ID & SMS	Yes - Photo ID & SMS	Yes - Photo ID & SMS	Yes - Photo ID & SMS	Yes - Photo ID & SMS	Yes - Photo ID & SMS	Yes - Photo ID & SMS
O/S Debt Prevents Porting	?	No	Yes	No	Yes	Yes	No	No	Yes - more than 1 month bill overdue
NP Development & Implementation Timeframe	TBC	10 months	9 months	11 months	9 months	18 months	24 months	9 months	10 months
Regulator Appointed Lead	TBC	Yes	No	Yes	No	No	No	No	Yes
Porting Rate	TBC	TBC	TBC	2%	<1%	TBC	TBC	5%	5%

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Summary of URCA NP requirements for Bahamas

- ☺ FNP – 2013 & MNP 2014
- ☺ CBA Not Required – NP is a key enabler for developing competition
- ☺ NP applicable to local and national levels depending on demand
- ☺ Hybrid NP not allowed – Fixed to Mobile – Causes confusion/ chaos
- ☺ NP to be based on Centralised Database & All Call Query Direct Routing – single solution for FNP & MNP
- ☺ Centralised Database can be locally based or hosted
- ☺ NP should Recipient Led
- ☺ **Winback prohibited – 2 years!**
- ☺ NP should be delivered against fixed timeframes
  - ☺ Fixed <5 days & Mobile <2days
- ☺ Cost Recovery based causation
  - ☺ Suggest all operators responsible for set-up costs
  - ☺ Central Database costs should transaction based & charged to Recipient
  - ☺ Consumer porting should be free
- ☺ **URCA** is responsible for making key NP decisions
- ☺ NPWG ToR – Clear & Appropriate

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Pre-requisites for NP

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- Stable numbering plan
- Viable competition
- Equal access to fixed and mobile products across the population
- Effective and appropriate wholesale access product framework
- Robust interconnection between operators
- Clearly defined NP requirements from the Regulator
- Appropriate commercial NP model

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Different NP approaches

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NP.. . Different flavours?

- Customer or Operator Friendly
  - Recipient Led
  - Donor Led
- Porting Administration
  - Structure
    - Centralised
    - De-centralised
  - Approach
    - Automated
    - Manual
- Routing
  - Indirect
    - Call Forwarding
    - Onward Routing
    - Query on Release
  - Direct
    - All Call Query

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Donor vs Recipient Led Number Portability?

Donor Led Number Portability – Operator friendly?

- Driven by consumer
- Persuading Donor to port out
- Complex process – involving generation of porting codes
- Extended porting timescales
- Service disruption

Recipient Led – Customer friendly?

- Driven by Recipient Operator – End-2-End co-ordination – Customer delegates via Power of Attorney & initial validation
- Processing of Porting transactions simplified between operators
- Customers proactively advised of porting progress
- Porting timescales reduced
  - Mobile – less than 2 days
  - Fixed – less than 5 days
- Service disruption minimised and coordinated between parties

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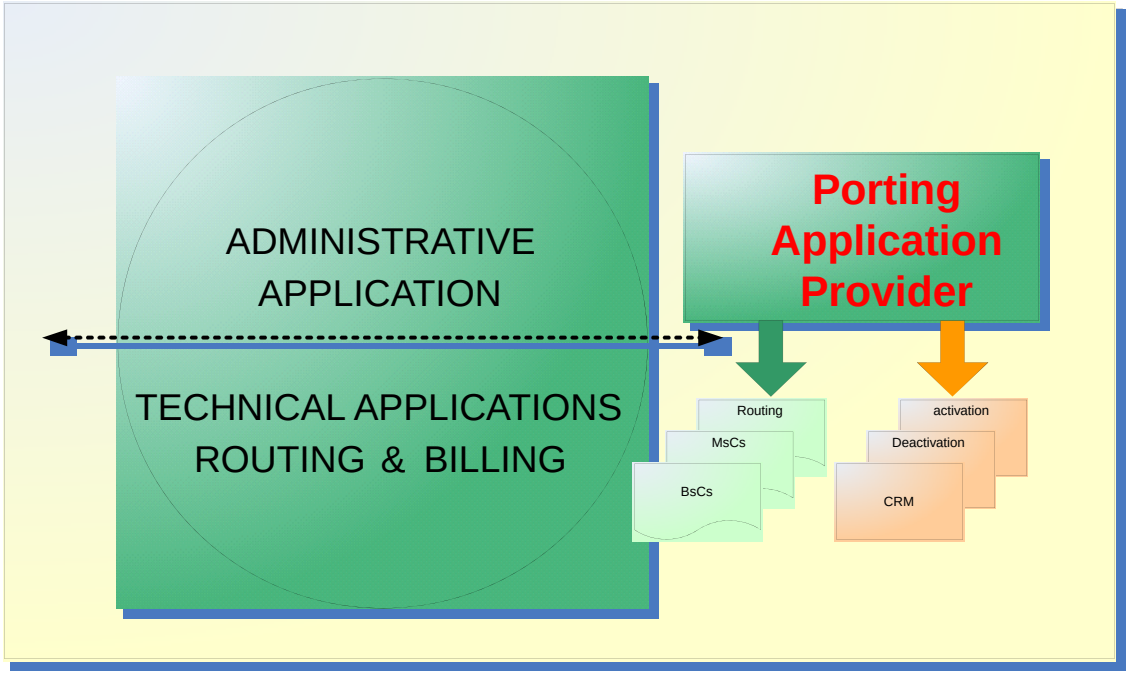
Technical LNP vs Administrative LNP?

Porting Applications typically ONLY manage :

Processing of porting orders

Management of ported numbers

Does NOT provide routing function



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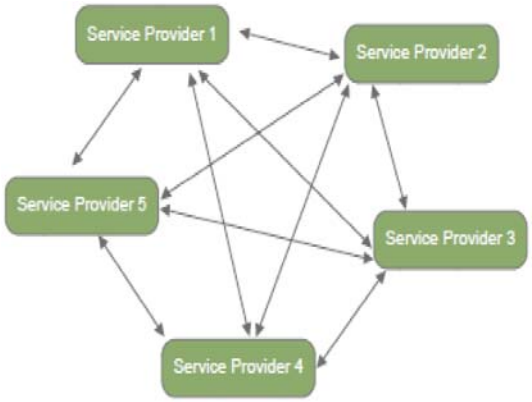
Porting Administration - Centralised vs Decentralised?

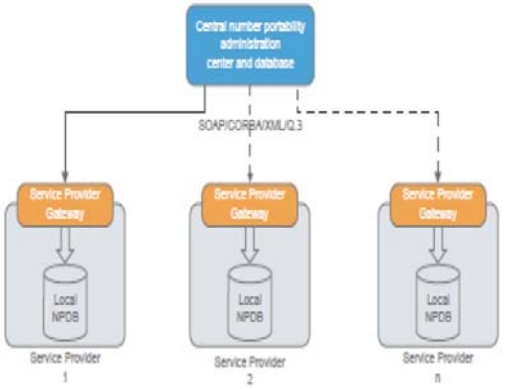
Decentralised

- Peer-2-Peer/ Bi Lateral agreements between operators
- Non-Standard NP process
- Complex to manage



Centralised

- NP managed through central NP platform
- Standard NP process & delivery
- Requires operators to interface with central NP platform



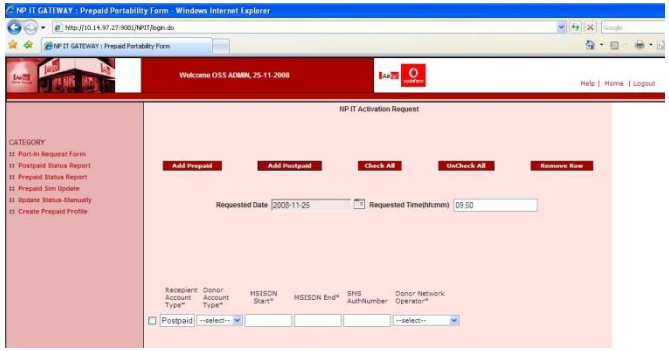
Porting Administration - Automated vs Manual?

Drivers

- Porting volume
- Porting timeframe
- Porting complexity
- Cost – Set-up vs Operating
- Business System Capabilities

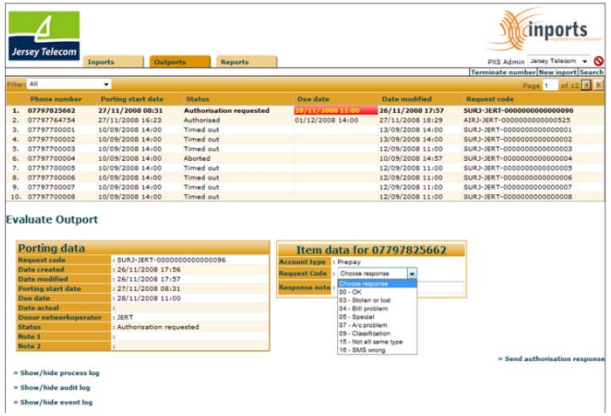
Automated

- Requires system development & investment & time to set-up
- Low operating costs
- Consistent & Fast NP experience
- Flexible to meet fluctuating demand



Manual

- Low system investment
- Quick & inexpensive to set-up & launch
- High operating costs
- Increases porting timeframe
- Inflexible to meet dynamic porting demand
- Complicates NP process
- Risk of inconsistent NP experience



Which Routing Approach?

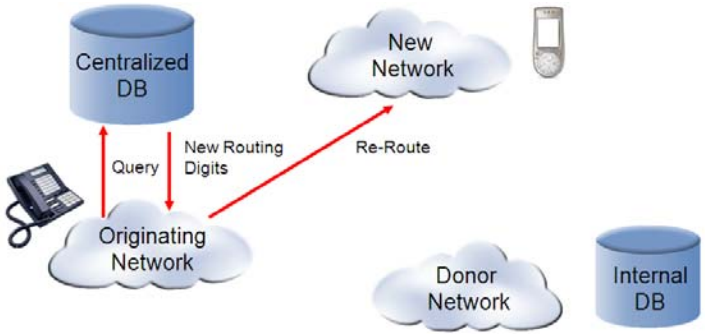
Operational/ Efficiency?

Complexity?

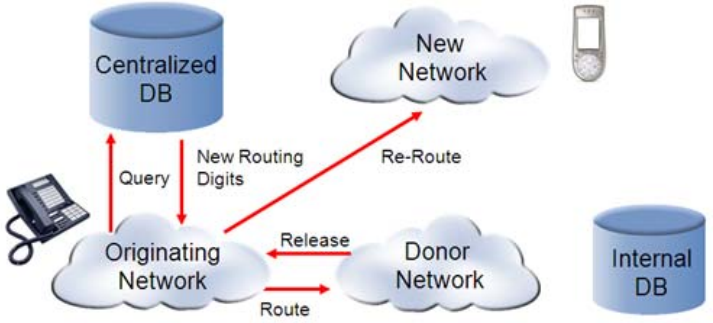
Cost/ Investment?

Impact on the Subscriber?

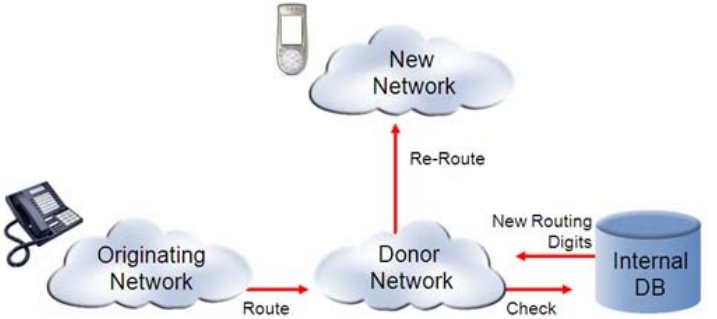
DIRECT ALL CALL QUERY



QUERY ON RELEASE



INDIRECT ONWARD ROUTING



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Key elements of NP

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Number Portability – Key Elements

- Central Porting Order Process/ Admin Platform
- Central Ported Number Database
- Cross Operator Routing Approach
- Operator Porting Process/ Admin Approach
- Porting Framework/ Rules – Inter Operator & Consumer
- Commercial Terms – Porting Charging, Transit Charging etc

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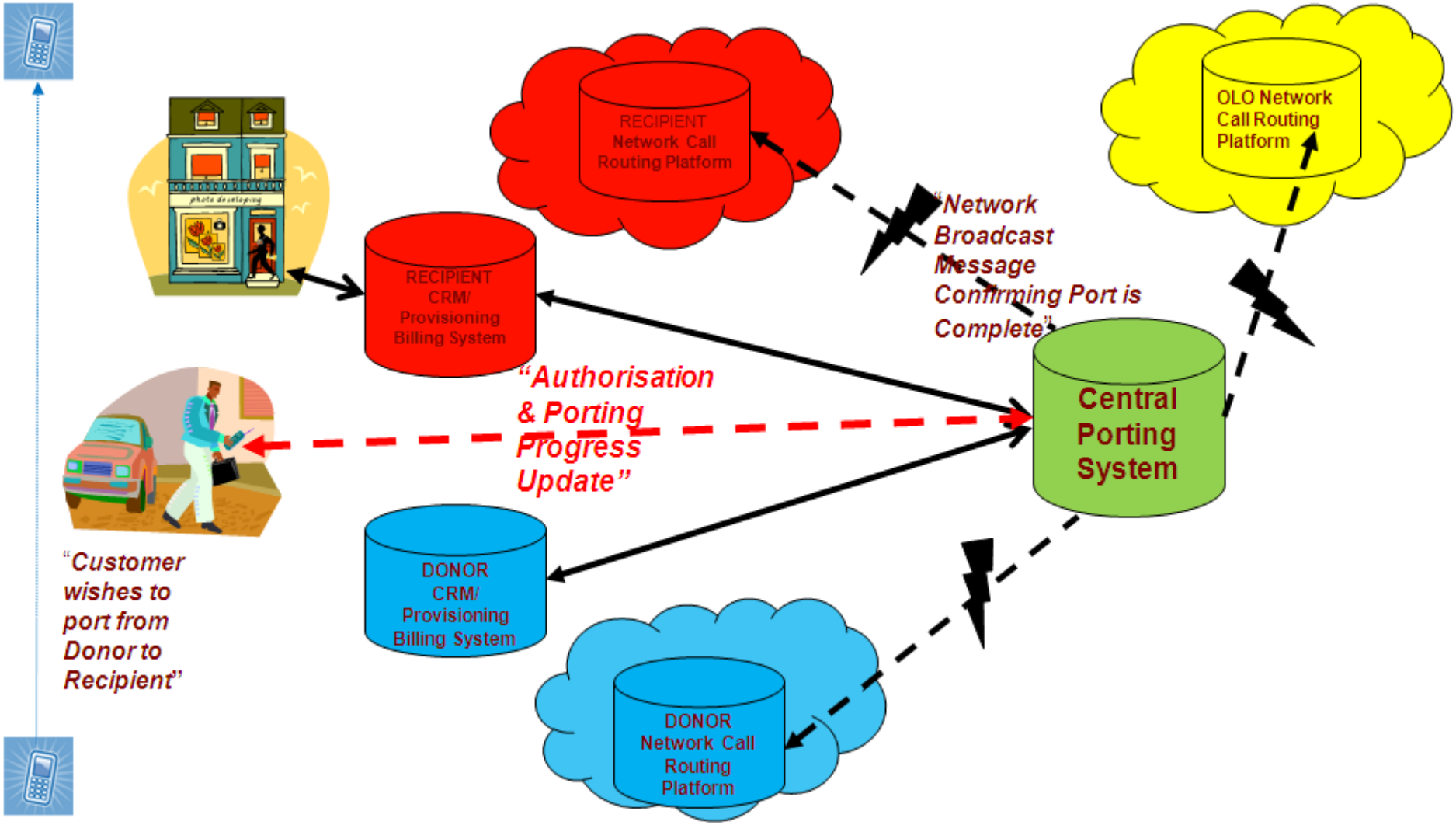
NP - Centralised Porting Process



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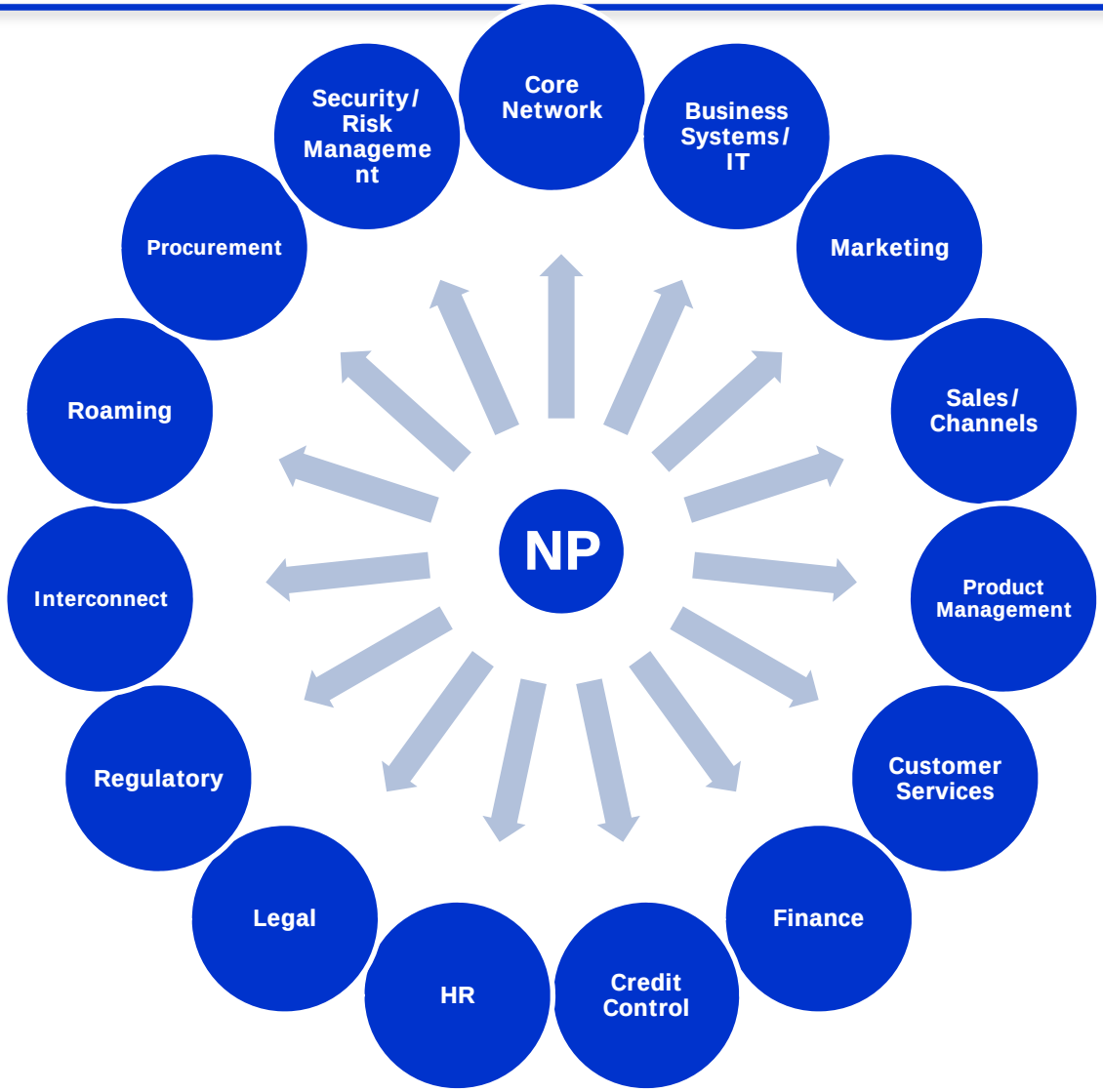
Number Portability Impacts Every Part of the Business/ Operations



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What does NP involve?

- Central Porting Order Process/ Admin Platform - Interworking/ Interfacing
- Central Ported Number Database – Interworking/ Interfacing
- Cross Operator Routing Approach – All Call Query, Onward Routing, Query on Release etc?
- Porting Framework, Process & Rules – Winback, Debt treatment, rejection reasons, timeframe etc
- Consumer Education – Code of Conduct, Porting Forms, Porting Locations etc
- Commercial Terms – Porting Charging, Transit Charging etc
- Operator porting process/ admin approach – manual or automated?
- Operator routing and business system requirements
- Operator retail/ channel approach & requirements
- Financial/ credit management implications
- NP Retention/ Acquisition approach
- NP product, proposition and marketing approach
- NP training requirements
- NP internal and external communication requirements
- Regulatory, HR and Legal implications

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Key considerations around NP

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NP – Before the Journey begins

Complex Cross Functional Programme – Not just a technology project – NP impacts every part of the business

Only implement NP once – Important to get it right first time – Life will never be the same after NP is launched

All parties can benefit from an efficient & well implemented NP process & facility

Regulator driven and monitored – Pressure to work with multiple parties and meet joint deadlines

Secure a realistic implementation timeframe – challenging but realistic

Start preparations early – Thorough Impact Assessment is key – Get Advice

Clearly identify strategic business objectives from NP and corresponding tactical NP process/ functional levers

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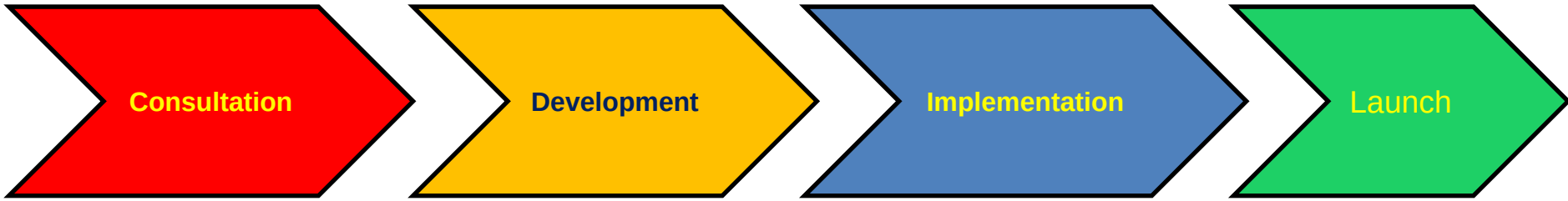
Number Portability – Phased Journey



6 months – 2 years

- Led by Regulator
- Complete benefit assessment
- Define NP Approach/
- Consult with Stakeholders
- Implement licence/ regulatory changes

6 – 12 months

- Defined NP milestones
- NPC vendor selection
- Define NP requirements & business rules etc
- Establish stakeholder commitment and support
- Establish NP Pre-requisites

Mobile – 6-15 months
Fixed – 9-18 months

- Inter-Operator Working Group
- Develop & implement NP changes :
  - Routing
  - Provisioning
  - Porting Admin
  - Retail process
  - Regulatory
- Complete testing

1-3 months

- All
- Complete final readiness testing
- Progress NP promotional activities
- Complete operational handover

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Selecting NP vendors

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NP Vendor Selection Process

- Vendor Selection Process – Government procurement rules?
  - Phased approach
  - Identifying & approaching potential vendors
  - Vendor selection criteria and evaluation framework
  - Stakeholder/ Operator involvement
- Contracting approach
  - Licence or Contract?
  - Contracting parties? Regulator/ operators?
  - Licence duration
- Comprehensive tender documentation
  - NP functional & process requirements
  - Technical requirements for central NP platform
  - Security/ data protection specifications
  - Operational service delivery requirements
  - Performance/ SLA requirements & penalties
  - Commercial terms – qualification requirements, commercial model/ pricing approach/ ESCROW
- NP Central NP platform Vendor Selection takes at least 6 months
  - Development of Tender Documentation – 2-3 months
  - Issuing tender notifications and awaiting vendor submissions – 2 months
  - Assessing vendor selections & determining short-list – 1 month
  - Detailed assessment of short-listed vendors – 1 month
  - Licencing/ Contract negotiation – 1-2 months

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NP Central Porting Platform
Vendor Selection

Central Number Platform

- NP service handling – Fixed/ Mobile/ Hybrid/ VoIP/ enum etc
- System Flexibility/ Configurability
  - Process steps
  - Timers
  - Reject reasons etc
  - System/ validation checks
- Processing capacity & speed
- Customer validation/ communication mechanisms
- Interfacing/ access options
- GUI – Quality/ Ease of Use
- Ancillary functions
- Locally located vs Hosted (Offshore)?
- System Security & Redundancy
- Data management/ protection
- System availability/ reliability
- Reporting capabilities

Vendor Characteristics

- References/ Track record – Similar NP markets
- Understanding of Turks & Caicos market & requirements
- Location & Resources
- Partner/ Consortium arrangements
  - Nature of consortium – roles etc
  - Capabilities of local partner
- Support/ Help Desk facilities
- Keenness/ Willingness
  - Contract/ Licencing approach
  - Technical support
  - Implementation support
  - Post launch engagement
  - Risk approach
- Commercial model
- Costs
  - Set-up
  - Service Charges
  - Transaction Charges

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Fixed vs Mobile NP

URCA Utilities Regulation and Competition Authority

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NP – Fixed vs Mobile ?

- **Service availability between Operators - Key Pre-requisites**
  - Direct Interconnection – Fixed to Fixed & Fixed to Mobile
  - Network Access – Fixed – LLU etc – need for pre-order audit etc
- **Operational delivery**
  - Mobile – transfer/ provisioning completed at core network level – simple & quick
  - Fixed – transfer can be complex, involving audit, exchange jumpering, Wholesale Access Product Framework (LLU/ WLR etc) customer premises line provisioning & engineer co-ordination
- **Porting Timescales**
  - Mobile – less than 2 working hours
  - Fixed – typically 2 to 5 working days (aligned to existing provisioning timeframes)
- **Porting Windows**
  - Mobile – aligned to retail opening hours
  - Fixed – extended since business customers require out of hours porting to minimise disruption to business activities

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NP – Fixed vs Mobile – Key Differences?

- **Due Diligence versus Porting Efficiency – Porting can open opportunities for fraud**
  - Validation
    - Proof of ownership/ ID verification – local forms of acceptable ID – corporate/ block porting?
    - Customer authorisation
      - SMS (Mobile)
      - IVR or CdB generated PIN(Fixed)
- **Local regulatory/ market requirements :-**
  - Treatment of ported services within integrated single customer billing? Winback protection/ Data Protection?
  - Debt impact – porting of individual services from a bundled/ integrated account?
  - Local Directories ?
  - Separate porting of DSL and Voice services – re-provisioning new line for retained DSL services
  - Transit charging of incoming international traffic
  - Local no prefix dialling – Routing changes?
  - Differential billing/ ring tones?
  - Reservation of number blocks for future expansion?

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Impact of NP on market

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Commercial Benefits of NP?

What are the drivers for implementing NP?

- **Stimulating further competition and value in the market?**
- **Opening up Consumer Choice & improving network service quality?**

Implementing NP is costly and rarely can be justified through conventional CBA (Cost Benefit Analysis)

- **Typical implementing NP costs between $1 & $10 million + PER OPERATOR**
- **Justifying NP should be focused around the qualitative competition and tangible consumer benefits**
- **Critically important to assess the suitability and readiness of the local market for NP**

Critical Roll of Regulator is to set Porting charges to drive consumer demand for porting

- **Porting costs and charges are benchmarked and set against comparable markets and best practice**
- **Inter-Operator administration charges set at the lowest level to drive efficiency**
- **NPC porting charges set to enable NPC provider to make reasonable margins**
- **Mandate the NPC & operator cost recovery mechanisms and rules**

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Market impact of NP?

- Improved tariff and product choice
- Reduction in unit call rates by upto 30%
- Data charges dropped by upto 60%
- Innovation in service delivery – international voice services, enhanced broadband performance
- Innovative offers – free weekend calling, recharge bonuses, friends & family offers, roaming promotions
- Increased bundle content – inclusive voice/ sms/ data
- Free SIMs with introductory recharge bonuses/ tariffs
- Promotional offers, ie handsets, competitions – cars/ holidays, cash back

- New service introductions – 3G/4G, mobile money
- Network/ service quality improvements
- Greater focus on high profile event sponsorship
- Increased more visible differentiation on pricing, value & quality

- Active subscriber numbers may fall as operators target multi-SIM customers
- Active subscriber numbers may rise as operators target organic growth through new customers
- Call & SMS may rise as customers enjoy better value through competition
- Porting demand can quickly outgrow new additions
- Dominant & proactive operators may grow market share

- Beneficiaries – Consumers
- Operators – changing market share, reduced revenues & margins, increased promotional costs

- *Remember – some market changes occur before launch as operators vie to optimise their market positions*

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Likely Demand for NP?
Developing vs Developed Markets

- Every market is unique – difficult to forecast due to variety of local factors
- Developed Markets (>80% penetration) – 5% to 8% average
  - Turkey – 28%!
  - Belgium/ Channel Islands – 5%
  - Brazil 3% mobile & 4.9% fixed
- Developing Markets (<80% penetration) - 0.5% to 2% average
  - India – 4%
  - Ghana – 2%
  - Kenya – 0.8%
  - Dominican Republic – 0.4%

Country	Operators	Penetration	Competition	Awareness	Porting Time (d)	% porting
Hong Kong	5	125%	V High	High	1.5	14.6%
Finland	3	105%	High	High	5	10.6%
Spain	3	105%	High	High	6	7.8%
Australia	4	80%	High	High	0.3	7.5%
Ireland	3	102%	High	High	0.2	6.5%
Sweden	4	113%	High	High	5	6.1%
Belgium	3	86%	Medium	High	2	4.6%
Malta	2	80%	Low	Medium	0.5	3.6%
UK	5+	111%	High	Low	7	2.5%
France	3	78%	Low	Low	30	0.6%
Germany	4	91%	Medium	Low	6, was longer	0.4%

Factors driving NP demand ?

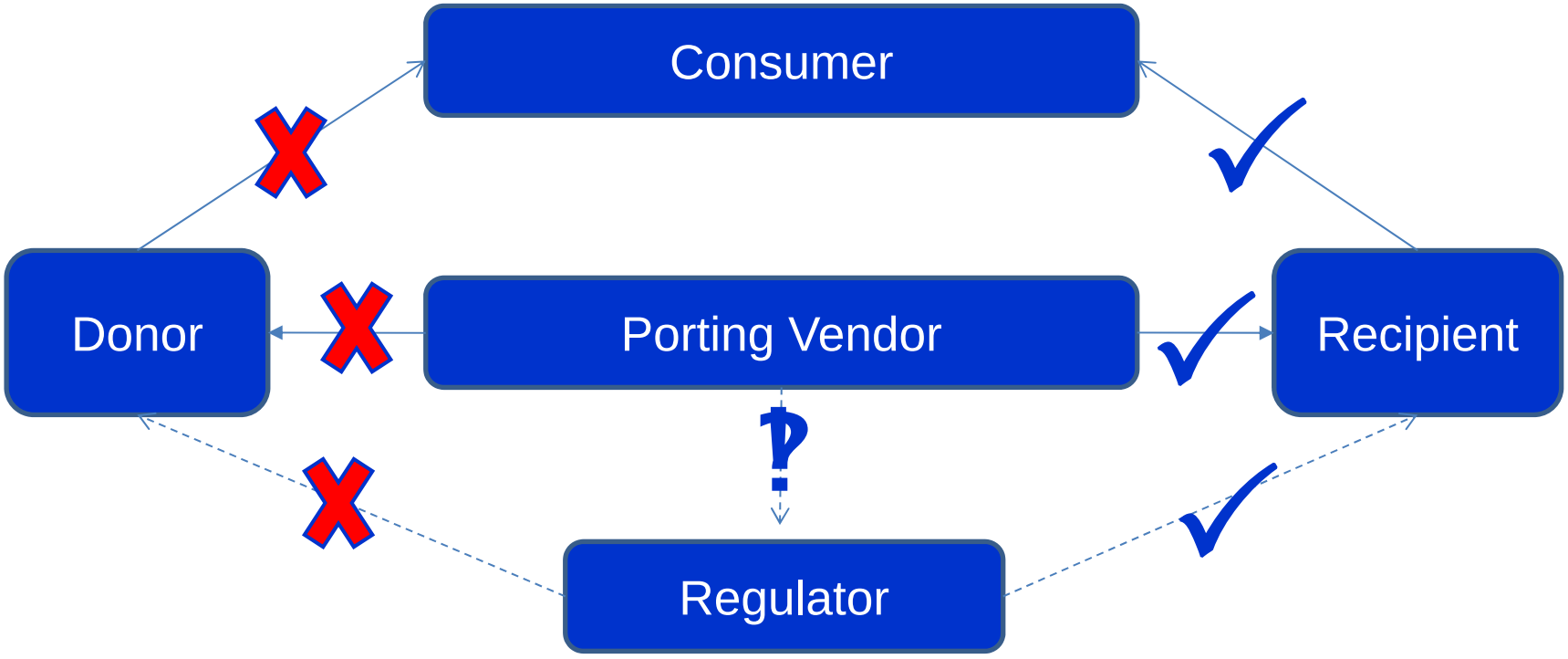
Market Factors

- Price to Port
- Ease of Process
- Level of Competition
- Consumer NP Awareness
- Availability of Porting facilities
- ARPU
- Price Elasticity
- Prepaid v. Postpaid
- Corporate v Consumer use
- Service Availability
- Service Penetration
- Smartphone usage
- Churn
- Cultural Factors
- Geographic Factors

Operator Factors

- Brand
- Market Position
- Coverage – Local & International
- Quality of Service
- Perceived Value
- Loyalty?
- Handset Subsidies & Range
- Marketing differentiation & positioning
- Target Sectors/ Segments
- Innovation
- Value-Added Services (esp. mobile banking)

NP Charging Options



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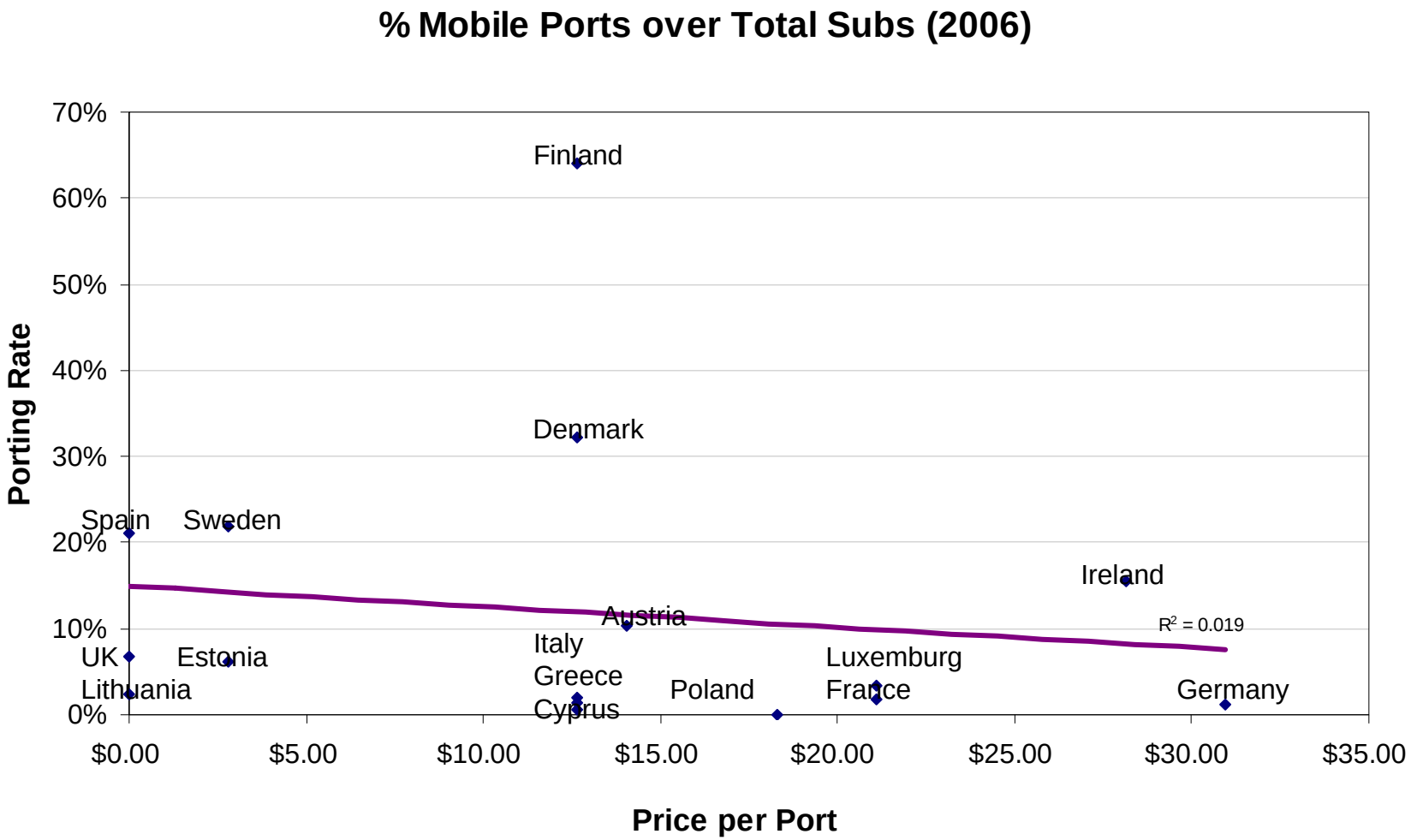
Impact of Consumer Charging on NP Demand



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Best NP Practices – customer experience

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Background - Customer Perceptions about NP

Good

- Opportunity to try other networks
- Intense competition between networks to the advantage of the consumer
- Service improvement and hence smooth communication
- There will not be much need to carry many phones.
- No lost contacts when changing networks
- No need to inform contacts when changing networks
- It will be easier to keep other people's contact numbers as they may not keep giving you new numbers when they change networks.
- Customers would no longer be 'captives' to networks because of their number
- Better value due to intense competition
- Easy switching to network that offer that perceived quality of service

Poor

- Time/ complexity to change networks
- Can't easily tell which person is using which network
  - difficult to keep track of which rates are being charged
- Can't benefit from intra-network schemes such as credit sharing
- Call costs may go higher because of the possibility of inadvertent cross network calls
- If the process takes too long, may be out of reach to contacts.
- Awkward to carry over contacts saved on the SIM.
- If new network performs badly, may need to remain until end of new contract.
- May be difficult to explain
- Need to get a new SIM
- No longer able to be associated with a particular network by the phone number

NP – What the Customer Wants?

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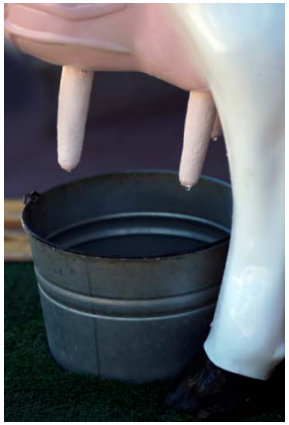
NP Efficiency vs Functionality

- Balancing Efficiency/ Consistency/ Security & Flexibility?
  - NP Process steps
  - Reasons to Reject
  - Treatment of Debt
  - Customer Validation
  - Cancellation – Point of No Return
  - Winback
  - Cooling Off
  - Onward Porting
  - Block Porting
  - Deferred Porting
  - Return to Block Operator
  - Quota Management
  - Telephone Directories



" Throw in a few bells and whistles and this baby will ***sell***. "

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Background - Good Practice Guidelines

- Donor v's **Recipient** led
- **Centralised Number Clearing House**
- Routing
  - Indirect
  - **Direct**
    - **All Call Query (ACQ)**
    - Query on Release
- Porting Administration Approach
  - Manual
  - **Automated – Real Time**
    - **Completed within 24 hours**
    - **Minimal rejections and failure rates**
    - **Limited rejection reasons**

- **Cheap or preferably FREE to the consumer**
- **Debt is not a reason to block porting**
- **Winback prohibited**
- **Cancellation is NOT allowed when in progress**
- **Real-time porting not deferred**
- Implementation order
  - Mobile to Mobile
  - Fixed to Fixed
  - Mobile to Fixed or Fixed to Mobile

NP – Best Practices

- Recipient Led
- Centralised Number Portability Clearing House
- Direct Routing - ACQ
- Quick – porting completed within 24 hours or less
- Simple porting process - automated – real-time
- Minimal rejection/ failure rates – limited rejection reasons
- Cheap or preferably FREE to the consumer
- Debt is not a reason to block porting
- Winback prohibited

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Cost of NP

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Implementing NP – Cost drivers and considerations

Number Portability is Expensive – typically between $1 million and $10 million per operator to set-up & launch

NP drives complex costs and commercial impacts

- Set-up costs
- Operating costs
- Inter-Stakeholder Porting Transaction costs
- Promotional Costs
- Customer Acquisition/ Retention Costs
- Product/ Service Market Value/ Pricing Impact

Implementing NP involves significant resourcing – internally & externally – typically 50 & 80 man months

Balancing Automated vs Manual Approach – CAPEX vs OPEX

Benchmark vendor costs – optimise value & insist on fixed priced deliverables to avoid cost escalation

Cleary define and monitor costs directly attributable to NP implementation & incremental NP activity

Formal budget management and reporting should be a core element of the NP programme management framework

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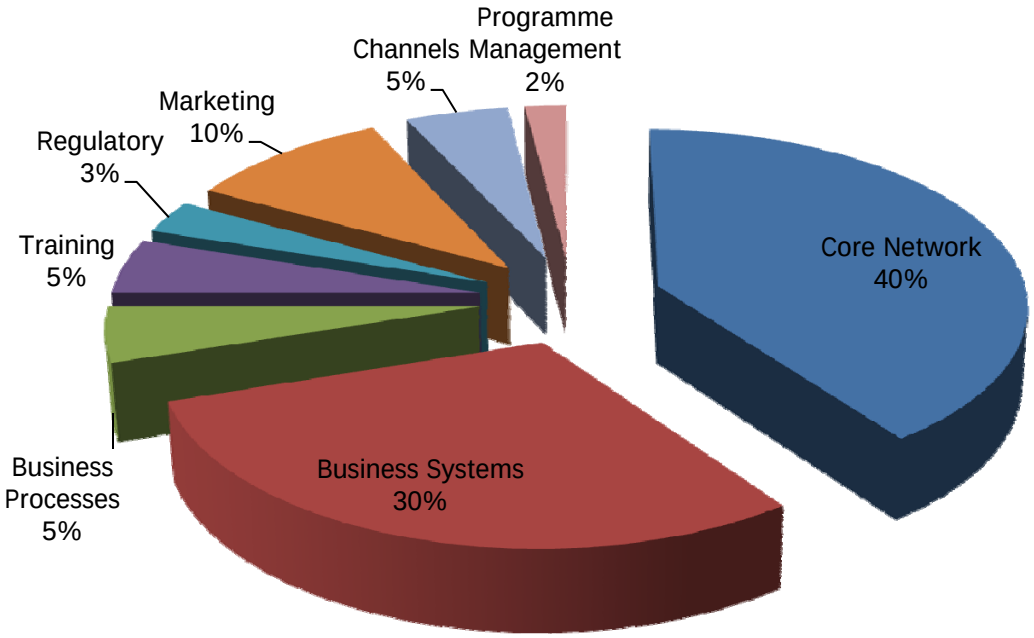
Indicative NP Implementation Costs



- Routing solution - $300k to $5 million
- Billing system upgrade - $50k to $2 million
- Interconnect system upgrade - $50k to $250k
- Provisioning system automation - $50k to $300k
- Programme Management – upto 6 man months
- Business Process Development – upto 30 man months
- Regulatory support – upto 5 man months
- Routing & Porting Testing – upto 10 man months
- NP Training – 1-8 hours per employee

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NP Journey

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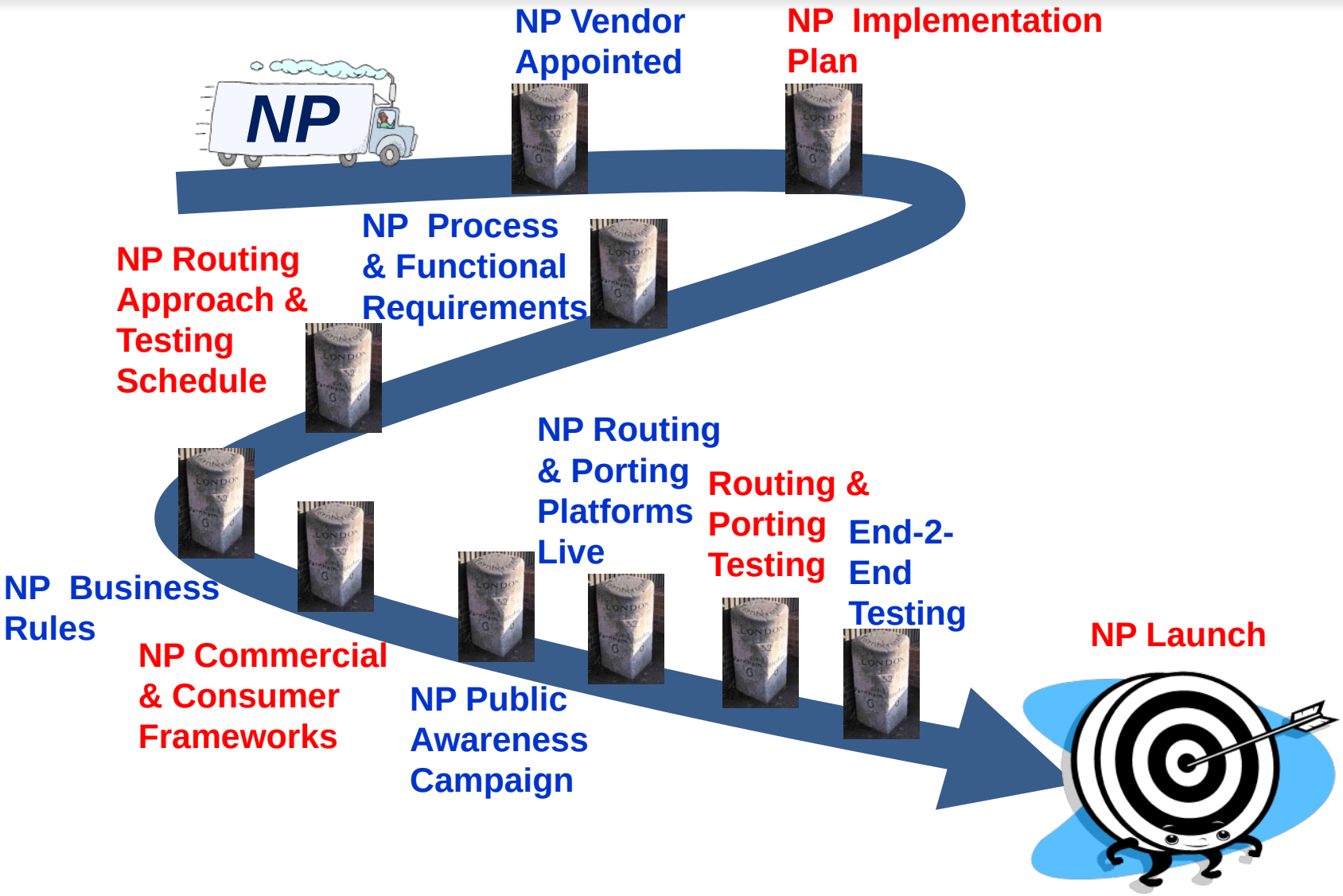
Cross Stakeholder NP Journey



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Simple & Clear NP Programme Framework is Vital

Senior management commitment from Regulator and Operators is key – overseeing & agreeing key issues via a Steering Group

Single Working Group is most effective – depends on complexity & number of stakeholders

- Single senior & experienced attendees from each operator
- Seconded full-time for the MNP programme
- Bringing in functional experts/ sub teams AS REQUIRED

Keep the Working Group structure simple and avoid multiple workstreams – leads to confusion, delay & conflict

Regulator/ Consultant acting as central facilitator to drive, facilitate, mediate & advise ensures progress & momentum are maintained

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Effective Cross Stakeholder Collaboration is Key

- Clearly defined work streams with roles/ scope
- Key milestones & deliverables defined and agreed early
- Strong programme management framework
- Regular reporting & progress tracking
- Issue control discipline
- Provide effective problem & dispute escalation avenues
- Expect the unexpected & don’t blame, be honest & open

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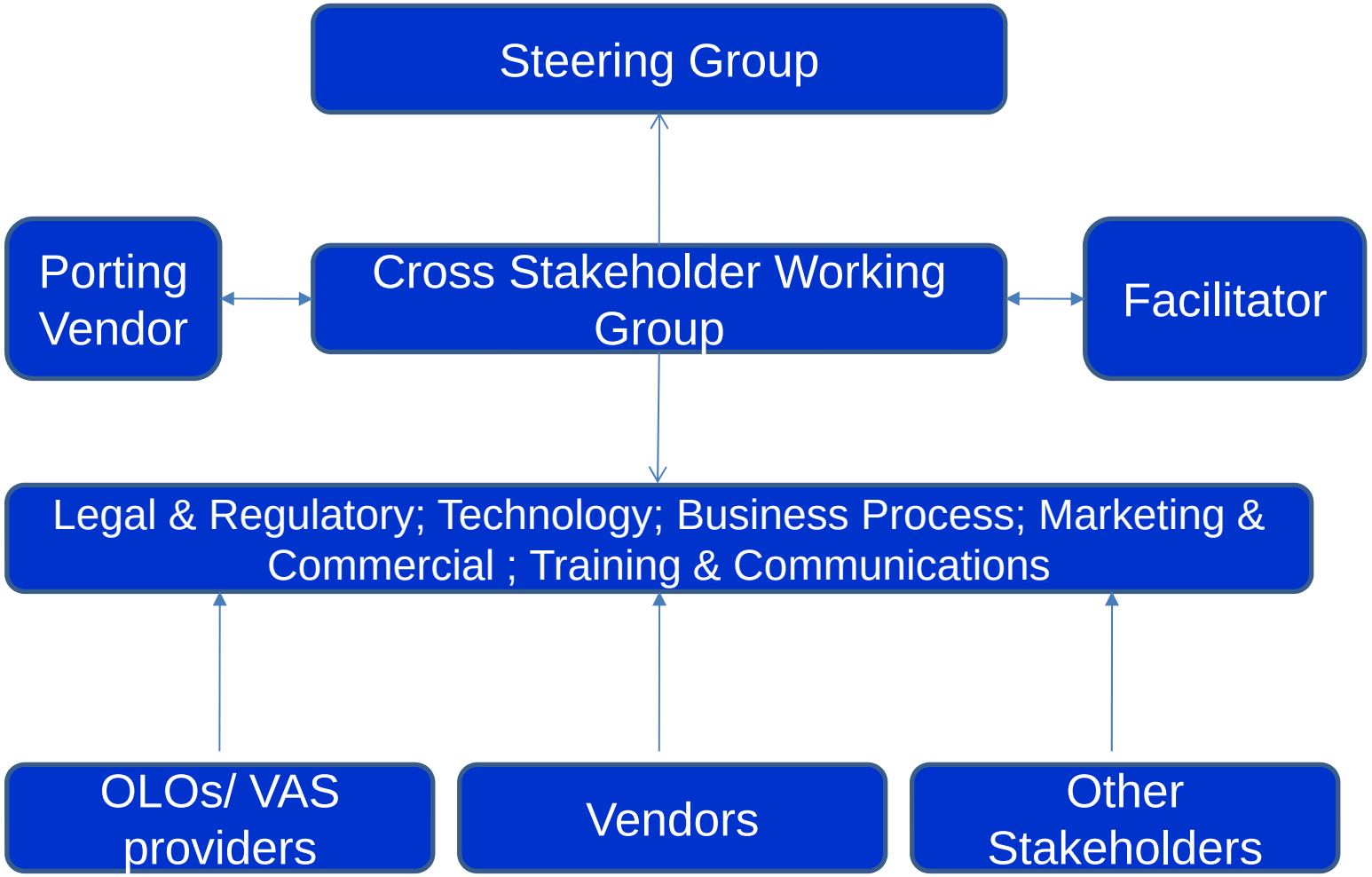
NP Implementation Programme Structure



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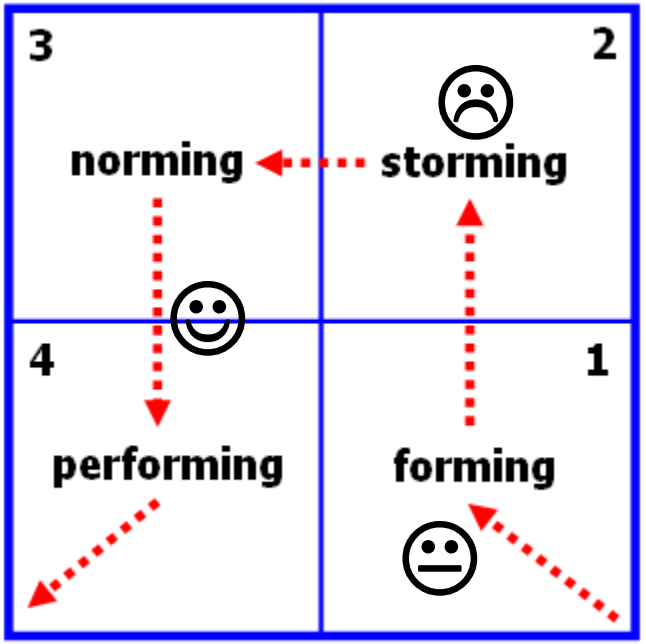
Drive through Storming as a key priority

- Effective NP Implementation demands strong understanding of group behaviours
- Understand different Stakeholder agendas and viewpoints
- Identify potential conflict touch points early
- Build consensus where possible, but in the end strong direction may be inevitable



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Managing NP does NOT stop after launch

Operational Working Group – different people to implementation team – handover is key

- **Review Porting Vendor Performance**
- **Review NP demand & Operator Performance**
- **Identify & address operating and process issues**
- **Consider improvements and scope evolution**

Dealing with Consumer Complaints & Queries – Set-up Consumer Helpdesk or refer to Operators?

Monitoring Stakeholder Performance & Behaviours

- **Mediating & resolving issues and escalations**
- **Investigating NP issues and driving resolution**
- **Punishing inappropriate behaviours and performance non-compliance**

Promoting NP to the public & media to drive awareness & demand – Regulator or Industry?

Evolving/ expanding NP

- **New market sectors & technologies & services**
- **Refining and improving the NP efficiency and experience in line with best practice**

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Regulatory Considerations/ Framework

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NP – Legislative/ Regulatory Considerations

Does existing Telecoms legislation & licencing allow or support the introduction of NP? – SIM registration/ Data Protection?

Do existing licencing frameworks compel operators to work the porting vendor and each other to implement NP?

Does the Telecoms legislation provide effective tools to discourage inappropriate behaviours and non-compliance?

- Effective Punitive/ Financial measures vs “Nuclear” deterrent?

Are additional legislative instruments required to establish key LNP principles?

Could implementing NP open-up third party objections or legal action?

How to determine and manage operational SLAs and Penalties with legislative/ regulatory framework?

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Contracting/ Licencing Models

Option A	Porting Service Provider contracts with operators individually – under framework agreement
Option B	Porting Service Provider licenced by Regulator to provide NPC service & charges Operators for usage etc
Option C	Porting Service Provider contracts with JV formed by Operators
Option D	Porting Service Provider contracts with Regulator & Regulator recovers costs from Operators

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NP Licencing/ Contracting Models - Assessment

Contract Model / Option	Advantages	Disadvantages
OPTION A - Porting vendor contracts directly with individual Operators	Low risk to Ministry/ Regulator Simplifies engagement model	Complex porting vendor contract negotiation & management Complications from future mergers, new entrants, liquidation Increased risk to porting vendor Requires volume/ payment commitment from operators Lacks regulatory/ legal obligations on the Operators to work with the porting vendor
OPTION B - Porting vendor is licenced by Regulator to operate NPC	Low risk to Ministry/ Regulator Simplifies engagement model Provides regulatory mandate to ensure operators are obliged to contract with the porting vendor	Complex porting vendor contract negotiation & management Complications from future mergers, new entrants, liquidation Increased risk to porting vendor Requires volume/ payment commitment from operators
OPTION C- Porting vendor contracts with MNP entity/ JV formed by operators	Low risk to Ministry/ Regulator Simplifies engagement model	As above, but Relies on operators' collaboration/ & commitment towards MNP entity/ JV Lacks regulatory/ legal obligations on the Operators to work with the porting vendor
OPTION D - Porting vendor contracts with Ministry/ Regulator	Low risk to Porting Vendor Simplifies porting vendor contract negotiation & management	Increased risk & commercial responsibility for Ministry/ Regulator Increased operational and cost recovery management for Ministry/ Regulator Requires volume/ payment commitment from Ministry/ Regulator

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Role of the Regulator

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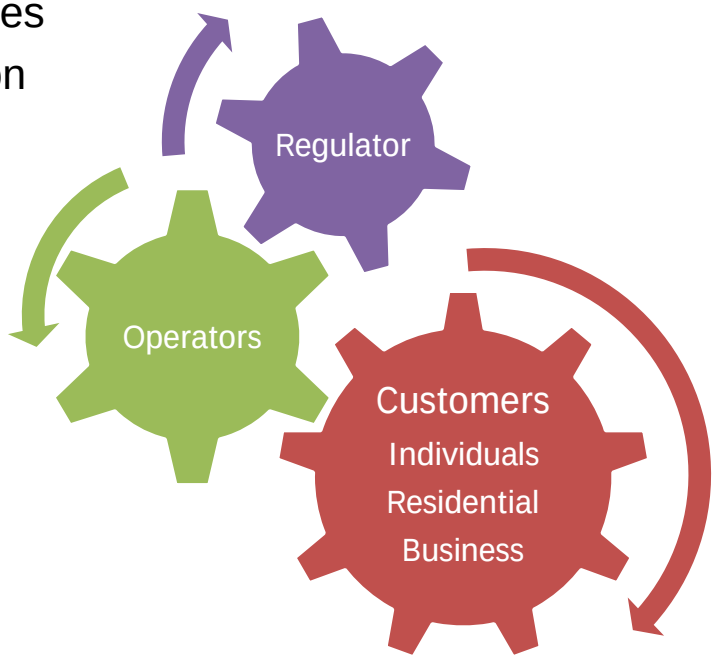
Regulator Involvement

- Regulator sets the framework for efficient and successful porting
  - Simple, Quick, Cheap, Reliable
  - Set clear rules for fair competition
- Regulator pulls the operators together to
  - Overcome Technical, Process, Commercial issues
  - Provide leadership for implementation & direction
- Champions Consumers
  - Drives public awareness and education of NP
  - Develop aligned and effective communication messages

ESSENTIAL:
Regulator and all operators must work closely fully for NP to succeed



Implementing NP – Role of the Regulator?

What are the possible roles Regulators can adopt ?

- Leader – Actively Directing ?
- Passive Participant?
- Observer?

Responsibility to safeguard consumers and ensure NP supports development of competition – Regulators are the KEY stakeholders in delivering NP

NP process & business rules align with best practices & is appropriate for the local environment

NP is delivered in a timely yet effective and appropriate manner – assessing & monitoring stakeholder readiness

Take account of differing interests and tactics of the various stakeholders

Benchmark against other similar jurisdictions and take advice from experts

NP is only implemented once – critical to get IT right first time

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Role of The Regulator – Food For Thought?

Stakeholders have very different interests in NP

- Supporting
- Do Not Understand
- Constraining/ Delaying

NP is complex and has numerous levers which can radically impact consumer demand

Very few NP programmes are delivered on time – Realism is key in setting & maintaining public and industry expectations

Leaving NP to operators is likely to result in delays, more delays and sub-optimal NP delivery – Successful NP programmes are driven by Regulators

Regulators should set clear & detailed NP requirements, engagement frameworks and milestones – monitor, probe and drive!

Implementing takes time – Never RUSH it – only launch when all parties are ready

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Laurasia Associates & NP

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Laurasia Associates & NP

Laurasia Associates has provided and is providing NP specialist consultancy support to a range of regulators and operators across the world, including:-

Ghana – Programme managing the implementation and launch of MNP for challenger operator, Vodafone Ghana;

Nigeria - Working with the Nigerian Communications Commission (NCC) to :-

- manage the selection of the Nigerian Mobile Number Portability (MNP)Administration System provider;
- support the implementation of MNP with the Nigerian mobile operators ; and
- design the initial NP business and operational processes;

Cayman Islands/ Jamaica - Developing and advising on regulatory, commercial and marketing strategies and tactics related to Number Portability for LIME;

Gibraltar - Providing consultancy and programme management support to incumbent operator, Gibtelecom, to develop, implement and launch LNP (both fixed and mobile);

Kenya – Provided consultancy and programme management support to incumbent operator, Safaricom, to develop and implement MNP;

Qatar – Advised challenger operator, Vodafone on the impact of MNP and the effective implementation of MNP in Qatar;

Bermuda – Consulted with the Keytech Group to assess the impact of launching Local Number Portability (both Fixed and Mobile) and supporting the engagement with the local regulator, METEC;

Isle of Man – Implemented and launched NP for incumbent operator, Manx Telecom

(Telefonica); and

Channel Islands (Guernsey & Jersey) – Implemented and launched NP for new entrant operator, Airtel-Vodafone (Bharti Airtel)

Laurasia Associates has advised regulators and operators across the world on NP, including:-

- **Kuwait**
- **Panama**
- **Sri Lanka**
- **Papua New Guinea**
- **Bahrain**
- **UK**
- **Uganda**
- **Moldova**
- **Tanzania**
- **Trinidad & Tobago**
- **Albania**
- **Costa Rica**
- **Montenegro**
- **Georgia**
- **Sudan**

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Laurasia Associates - Consultancy Services

Number portability

Advising and supporting regulators and operators

- develop, implement & launch NP to best meet their strategic & operational needs;
- End-2-End Number Portability Development and Implementation Programme Management;
- Specialist Network, Business System, Process, Retail and Regulatory Consultancy;
- Operational and Regulatory Impact Assessment; and
- Regulator Engagement

Spectrum Utilisation and Realignment

Advising regulators and operators on the most efficient and appropriate use of spectrum resources;

Interconnection/ Unbundling

Advising operators on the most appropriate interconnection/ unbundling technical and commercial framework & contracts;

Statutory regulated accounting

Separate regulated accountancy frameworks for Operators & Regulators;

MVNO

Advising and supporting operators and MVNO partners assess feasibility of MVNO business opportunities and setting up and launching successful MVNO operations;

SMS Hubbing

Advising operators and VAS providers on the appropriate commercial and technical frameworks for setting up and operating successful SMS Hubbing operations;

Roaming/ International Traffic Management

Advising operators and VAS providers on the appropriate commercial and technical frameworks for setting up and operating successful international roaming and traffic management operations;

New business set-up

Advising and supporting operators establish new business/ technical mobile/ fixed and broadband operations, including technical network design, vendor selection, site acquisition (including site share), network roll-out, site safety, site planning, network optimisation, facilities procurement, staff recruitment, management systems/process design, product/ proposition development, Wholesale product and commercial framework, Termination and transit charging, stakeholder engagement/ management and launch/ operational handover etc;

Licence application

Licence Acquisition Advising regulators on the pre-requisites and licencing frameworks for efficiently negotiating, securing/ appoint new telecoms licencees and licences; and

Technology and Business Strategy Development

Advising on market, operational and technological developments in the mobile, data/ broadband, IP and media sectors.

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Thank you

For further information, please do not hesitate to contact:-

James Wild
Director and Principal Consultant
Mobile +44 7920 428834/ +44 7793 814824
Office +44 1295 758661
email james@laurasia.co.uk/
jamespwild@hotmail.com
Skype james.wild

Mike Williams
Director and Principal Consultant
Mobile +44 77606 69456
Office +44 1608 811977
email mikew@laurasia.co.uk/
mikejkw@aol.com
Skype mikejkwilliams