

FCC Required One-Day Number Porting

Impacts and Solutions

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Agenda

Neustar Overview

The FCC Ruling

Critical Dates

Process and System Changes

Current State of the Industry

Impacts and Opportunities

How Neustar Can Help

Question & Answer Discussion

About

- Nearly 900 employees worldwide
- Corporate headquarters in Sterling, VA (U.S.)
- Offices in North America, Europe and Asia
- 8,500+ customers, including 4,000+ network operators
- 2 major Network Operations Centers
- Nearly 150 network nodes worldwide
- Publicly traded (NYSE: NSR)
- FY 2008 revenue: US\$488.8M

Neustar Service Areas

- Number Management
- Converged Addressing
- Web Management / Optimization
- Mobile Message Networking
- U.S. Common Short Codes
- Domain Registry
- Legal Compliance/Fraud Management

The FCC Mandate - *Are You Ready?*

On May 13, 2009 the FCC adopted Report and Order and Further Notice of Proposed Rulemaking (FCC 09-41) requiring all carriers / communications services providers (CSPs) to meet a reduced number port interval of one business day.

“In this Report and Order (Order), we reduce the porting interval for simple wireline and simple intermodal port requests. Specifically, we require all entities subject to our local number portability (LNP) rules to complete simple wireline-to-wireline and simple intermodal port requests within one business day.”

- Applies to all carriers for:
 - » Wireline-to-wireline number porting
 - » Intermodal number porting (i.e. wireline-to-wireless ports; wireless-to-wireline ports; ports involving interconnected Voice over Internet Protocol (VoIP) service)
- Simple Ports initially with further rulemaking expected on other port types

Critical Dates – Aggressive Timelines

May 13, 2009 – FCC 09-41 adopted and released by FCC

Jul 02, 2009 – FCC 09-41 published in Federal Register

Aug 02, 2009 – Effective date of the Order

Oct 30, 2009 – NANC Implementation Plan due to FCC

Dec 1, 2009 – Jul 31, 2010 Design, development, testing

May 20, 2010 – FCC approves NANC Implementation Plan

Jul 31, 2010 – Implementation deadline for large CSPs

Jan 31, 2011 – Implementation deadline for small CSPs

NOTE: Small Communications Service Providers are defined as having fewer than 2% of the nation's access lines.

FCC 09-41 Process

NANC's LNPA Working Group was charged with developing Inter-Service Provider processes and flows to meet the order requirements

- The LNPA recommendation, with input from ATIS/OBF Committees, was submitted by NANC to the FCC on November 2, 2009
- On May 20, 2010, the FCC unanimously adopted the *Report and Order (R&O)* on Local Number Portability that standardizes the processes for transferring telephone numbers in one business day. The *R&O* concludes that **14 standard fields** be used to accomplish the simple porting process, and that the industry adhere to the NANC's revised process flows and its recommendation for counting one business day.
- Associated 'Industry Best Practices' were also developed and can be found at the NPAC website:
 - » <http://www.npac.com/cmas/documents.shtml>

Simple Port Determination



- **A single line on one account**



- **Does not involve unbundled network elements**

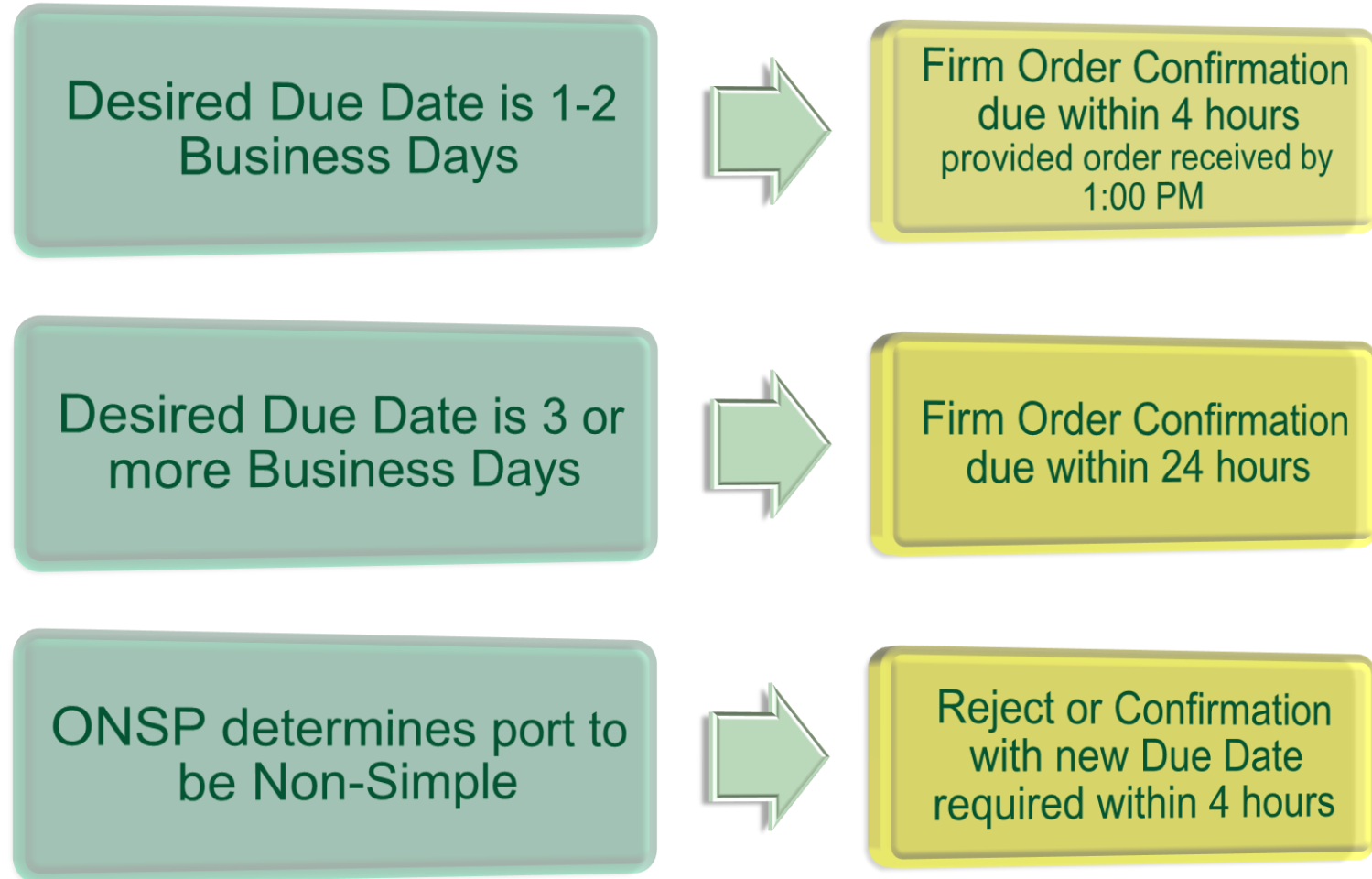


- **Does not include complex switch translations (e.g. Centrex, ISDN, AIN services, RCF, etc.)**



- **Does not include a reseller**

Confirmation Timing



LSR → FOC → PORT Example

Accurate / Complete LSR received	FOC Due back by date/time (See Footnote 1)	Ready-to-Port Day/time (see Footnote 2)
Mon 8:00am through 8:59am	Mon 12:00pm (noon) through 12:59pm	Tues 00:00:00
Mon 9:00am through 9:59am	Mon 1:00pm through 1:59pm	Tues 00:00:00
Mon 10:00am through 10:59am	Mon 2:00pm through 2:59pm	Tues 00:00:00
Mon 11:00am through 11:59am	Mon 3:00pm through 3:59pm	Tues 00:00:00
Mon 12:00pm (noon) through 12:59pm	Mon 4:00pm through 4:59pm	Tues 00:00:00
Mon 1:00pm	Mon 5:00pm	Tues 00:00:00
Mon 1:01pm through Tues 7:59am	Tues 12:00pm (noon)	Weds 00:00:00
Tues 8:00am through 8:59am	Tues 12:00pm (noon) through 12:59pm	Weds 00:00:00
Tues 9:00am through 9:59am	Tues 1:00pm through 1:59pm	Weds 00:00:00
Tues 10:00am through 10:59am	Tues 2:00pm through 2:59pm	Weds 00:00:00
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Tues 12:00pm (noon) through 12:59pm	Tues 4:00pm through 4:59pm	Weds 00:00:00
Tues 1:00pm	Tues 5:00pm	Weds 00:00:00
Tues 1:01pm through Weds 7:59am	Weds 12:00pm (noon)	Thurs 00:00:00

NPAC / SOA / LSMS

New NPAC T1 and T2 timers (Medium Timers) added (NANC Change Order 440):

- Will run for 3 NPAC business hours each
- Apply only to Subscription Versions, not to Number Pool Blocks
- Timer setting based on a combination of information provided by both SOAs (New SP and Old SP) and SP Profile settings of both SOAs

Two new SOA attributes (NANC Change Order 441):

- New SP Medium Timer Indicator
- Old SP Medium Timer Indicator

LSOG

- The Simple Port Service Request (SPSR) will be retired
- In order to accomplish a Simple Port, the OBF has agreed to changes in the LSOG and WICIS to implement standard data exchange for both Wireline-to-Wireline and Intermodal Simple Ports which is comprised of 14 required data elements:

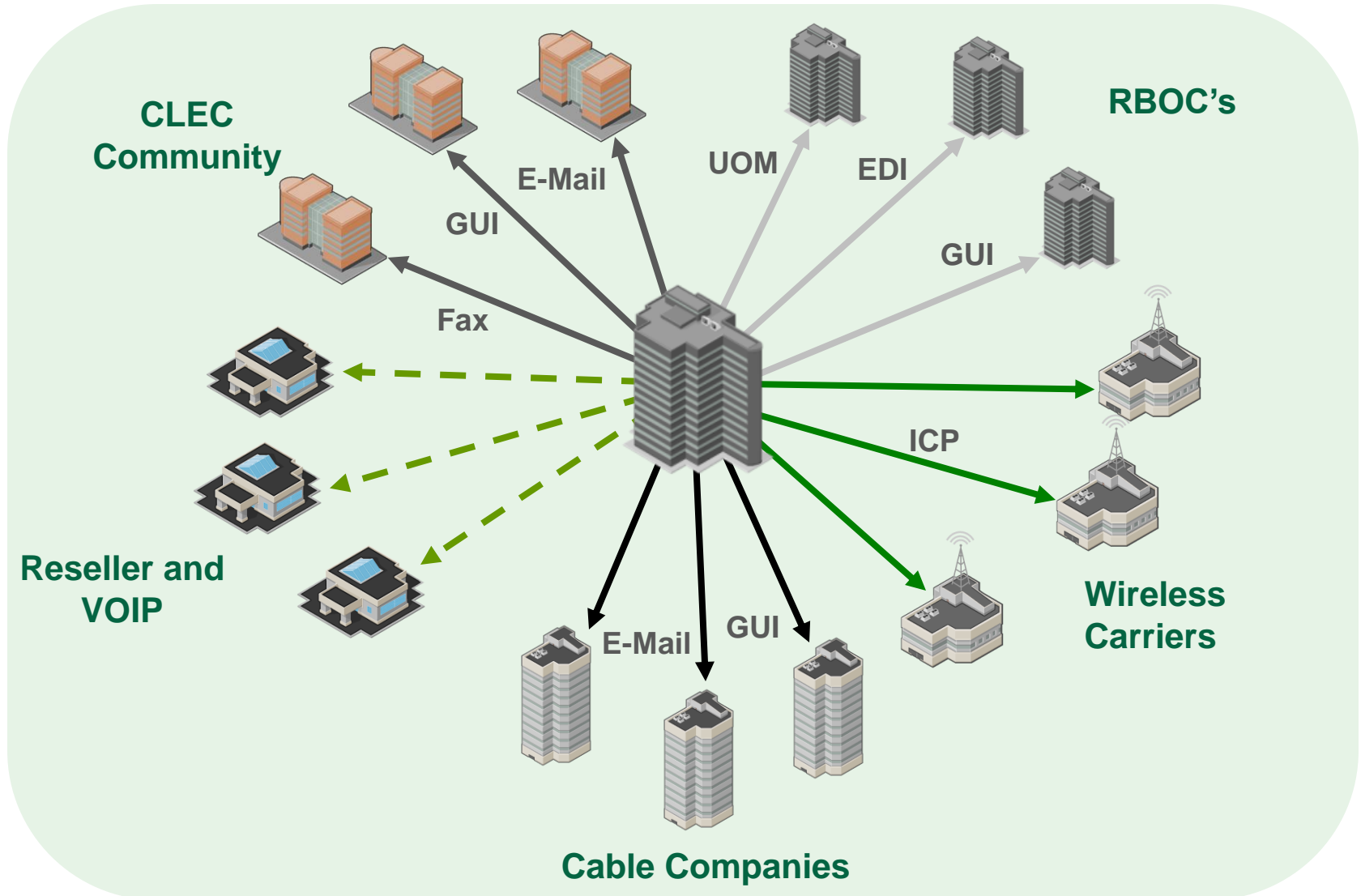
CCNA	REQTYP	AGAUTH	PORTED NBR
PON	ACT	NPDI	VER
AN	CC	TELNO (INIT)	
DDD	NNSP	ZIP (END USER)	

ILEC Implementation Highlights

	AT&T	Qwest	Verizon
Implementation Date	August 2, 2010	August 2, 2010	August 2, 2010
LSR submitted with 14 fields & 1-2 day Due Date, but is found to be non-simple by ONSP	FOC Reject	FOC will be returned with revised Due Date	FOC Reject
LSR submitted with more than 14 fields and a 1-2 day Due Date, but meets simple port criteria	Order will be processed as simple port	Order will be processed as simple port	Order will be processed as simple port
LSR submitted with 14 fields and 4 day Due Date, but meets simple port criteria	Order will be processed with requested Due Date	Order will be processed with requested Due Date	Order will be processed with requested Due Date
LSR submitted as simple port but NNSP does not yet support simple port processing themselves	Order will be processed with requested Due Date	FOC will be returned with a 3 day Due Date	Order will be processed with requested Due Date

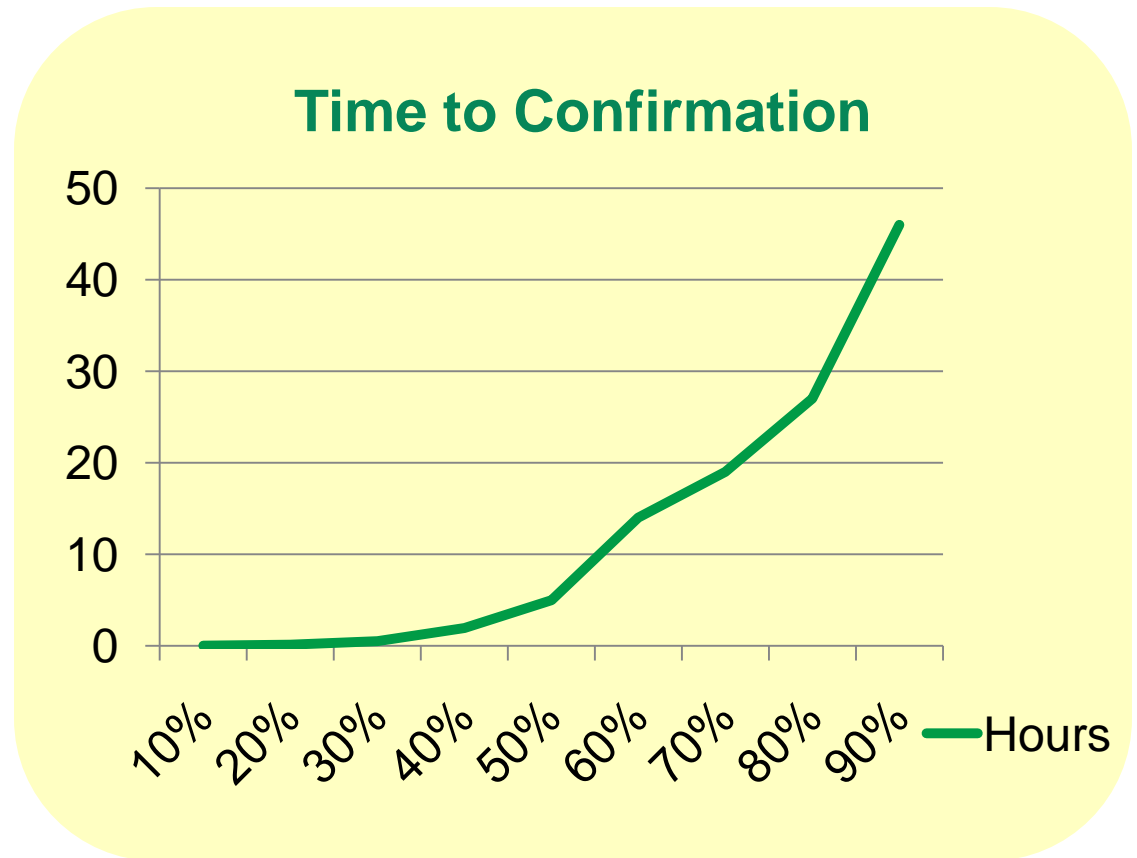
NOTE: Status as of 6/29/2010 - ILEC websites and release notes should be consulted for any updates and/or modifications.

Current State...



Current Intervals...

- Confirmation timing for manual interfaces varies greatly



Current Penalties

- In 2008, the FCC reported 1,225 Number Portability inquiries¹
- Each complaint can lead to a Letter of Inquiry (LOI) that kicks off an FCC investigation. The LOI can lead to a Notice of Liability, then Notice of Violation (Fine) or Consent Decree (Fine), or Cease and Desist Order
- **Non-compliance Penalties Are Steep:** Fines are based on internal FCC guidelines and are currently capped for Common Carriers at \$150k per violation, or each day of a continuing violation, or a total of \$1.5M per single act²



Source:

¹ FCC Quarterly Reports on Informal Consumer Inquiries and Complaints

² FCC 08-154 Adopted and Released June 13, 2008

The CSP Business Challenge

CHALLENGES

- The Challenge for CSPs is two-fold:
 - » **Compliance** – ensuring that your company’s internal processes and systems can meet the requirements set forth by the FCC mandate
 - » **Faster Customer Activation** – guarantee that you are able to increase your revenues and market share in the most expedient and cost-effective manner

Compliance – Port-Out Processing

Keys to faster intervals:

- Efficient means of receiving orders
- Validation processes to ensure order quality
- Auditable order process
- Ability to integrate with back office systems
- Timely reporting and analytics to refine processes



Customer Activation Advantages – Port-In Processing

Leveraging the benefits of the order:

- Fast and accurate order generation
- Up-to-date processes for porting from a variety of carriers
- Efficient response processing
- Fully auditable order history
- Accurate reporting and trending data
- Ability to automate ordering through activation

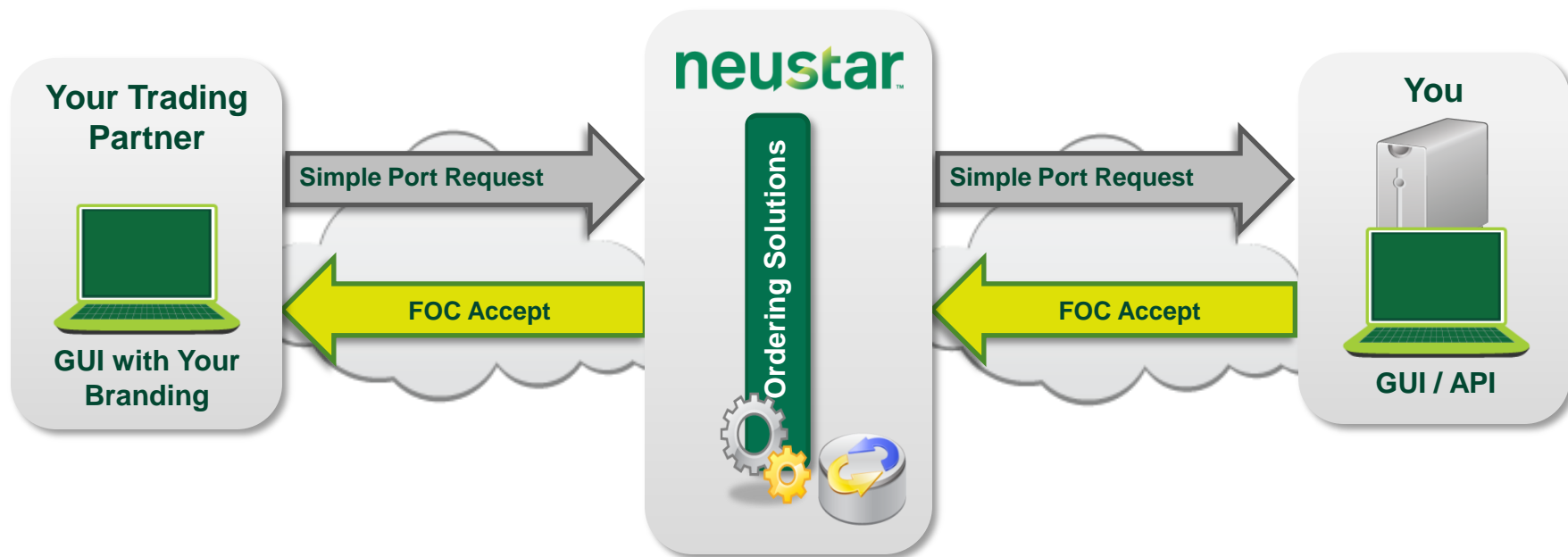


Neustar Solutions

Neustar offers a wide breadth of ordering solutions enabling you to interface with any U.S. carrier and quickly and efficiently meet the requirements of this FCC order.

- Neustar offers robust industry compliant solutions handling all porting modalities and catering to carriers in all market tiers
- CSPs may send and receive Port requests using a Portal, a GUI or an API
 - » **Simple Port Portal**
 - Suited to smaller carriers with low porting volumes who desire a pay-as-you-go model
 - » **LSR Send and Receive GUI or API Solutions**
 - For medium to large-sized carriers desiring a more robust solution with a highly competitive pricing model
 - Out-of-the-box implementation
- Neustar platform modules can be utilized as stand-alone or integrated and automated to each CSPs desired level of interoperability (e.g., with current back-office ordering/provisioning processes/systems)

Lifecycle of a Simple Port Request & Response



- Trading partners use a GUI (can be branded with your logo)
- You can use a GUI or your own system connected to Neustar via API.

Simple Port Portal Highlights

In direct response to FCC Order 09-41, the portal would offer a 'Simple Port' capability for those carriers whose current business model does not warrant a full-blown integrated solution

PORTAL

- Users would register on line by filling out a registration form and agreeing to simple on-line terms and conditions
- Users may select a Trading Partner from a drop-down menu, send a simple port LSR, send a Supp to Cancel and receive a Response
- Orders will be validated against Built-in LEC and industry business rules; proactive change management
- Both order status and order history reporting capabilities available
- Billing through multiple e-pay options
 - » based on volume/type of transactions (i.e. Tier 1 vs. Tier 2 carrier ports)

Enables efficient management and oversight of all port-in / port-out activity.

LSR Port-Out Highlights



LSR Receive has two distinct components - one for receiving requests and one for viewing requests/sending responses:

- Receiving requests: Your trading partners use a graphical user interface (GUI) to send requests to you.
 - » Labeled with ***your*** corporate logo (aka “Branded” GUI)
 - » Offers full industry compliant LSR request types including the simple port request option
 - » Robust feature set (e.g. templates, cloning, order status)
- Viewing requests/Sending responses: You can send responses via a GUI or your API-enabled order management system (OMS).
 - » Automated notifications of pending requests with ability for unique workgroup assignment
 - » Robust feature set (e.g. order status, reporting, etc.)
 - » Ability to notify trading partners of order completion

LSR Port-In (Pre-order / Order) Highlights

- LSR Preorders
 - » Validates key service information prior to submission of LSR order
 - » Address Validation, Customer Service Record (CSR), Loop Qualification...
- LSR Orders
 - » Enables the ordering of wholesale service elements associated with a local service
 - » Integration with preorder responses to increase accuracy and save time
 - » Number Port/Simple Port, Loop, Directory Listing...
 - » Robust feature set (e.g. templates, cloning, order status)
 - » Optional fulfillment services (e.g. DL, SOA, E911, LIDB, CARE)

SOA Highlights

Supports all **Request types, Notifications, Acknowledgements** and **Error messages** to and from the NPAC for TNs, Ranges of TN and Number Pool Blocks including:



- **Additional capabilities:**
 - » SV Management and tracking; instant access to historical data
 - » Account Management – group and manage TNs by business level account
 - » Sub-Domain capability – manage and segregate data by reseller or market
 - » Number Pooling Management
 - » NPA Splits
 - » Network Data Management
 - » Bulk Data Downloads
 - » Optional Data (Alternative SPID and URI fields)
 - » Single sign-on for all NPAC regions
 - » Advanced reporting capabilities
 - » NPAC Queries and Auditing
- **All functionality supported via GUI and API**

Neustar Porting Products

Feature	Benefit
Support for common LSR preorder and order types <ul style="list-style-type: none"> • Simple port utility 	<ul style="list-style-type: none"> • Immediate ability to meet FCC mandate • Flexibility to expand your offerings
Robust API, GUI and Portal platforms	<ul style="list-style-type: none"> • Branded GUI maintains your market presence • Lower connectivity expenses associated with multiple trading partner interfaces • Quick time to production and value realization
Maintenance and upgrades managed by Neustar	<ul style="list-style-type: none"> • Reduced IT & Industry Change Management costs enable you to focus on your core business • Fewer operational issues to manage
Built-in industry and corporate business rule support with robust request/response validation	<ul style="list-style-type: none"> • Less fallout due to improved order accuracy • Faster order completion • Lower training costs • Risk mitigation
Full-featured, intuitive GUI <ul style="list-style-type: none"> • Search, Order History, Message Detail • Data auto-populated in selected fields • Multiple views of data 	<ul style="list-style-type: none"> • Multiple modes of accessing data • Efficient management of orders • Automatic Trading Partner notifications
Secure log-in and user roles for distinct levels of access	<ul style="list-style-type: none"> • Protects your assets by ensuring that only authorized individuals have access to your data • Customer-managed user administration allows control by your organization
Data extracts	<ul style="list-style-type: none"> • Facilitate internal data analysis
Analytics and Reports	<ul style="list-style-type: none"> • Work flow management • Precise order tracking and management

Why Neustar?

- Deep industry knowledge and expertise in interconnection ordering processes and systems
- Industry leader in time to market deployments and time to order completion rates
- Proven record with all market segments (Wireline, Wireless, Cable, VoIP)
- Fully staffed industry change management team
 - » Hold numerous leadership positions with relevant industry standards bodies
 - » Continuously monitoring and incorporating industry and corporate business rule modifications
- Highly competitive pricing model
- One-stop shop for all your ordering needs so you can easily activate additional ordering capabilities as your business expands
- Strong corporate financials backing your investment

Neustar can get you up and running quickly and cost-effectively!

Questions and Answers.



Thank you!

For more information about Neustar One-Day Porting Solutions:

Email: SolutionsTeam@neustar.biz

Web: <http://www.neustar.biz/solutions/solutions-for/order-management>