# Portability, ink.

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## FCC Order Addresses Various Number Resource Areas

On March 31, the Federal Communications Commission (FCC) released its Number Resources Optimization (NRO) Order, thus meeting the timeline offered by Chairman Kennard to the U.S. Congress last year. While the NRO Order does not address all issues originally released for comment in the May 1999 Notice of Proposed Rulemaking (NPRM), it does address many major ones.

Issues addressed in the Order include: standardized number utilization reporting requirements and definitions of number category usage; revision of the current number assignment processes through administrative conservation measures, such as utilization thresholds; and thousand block number pooling, including the FCC's decision to select the Pooling Administrator through a competitive bid process.

The FCC codified definitions for six categories of numbering use: *Available, Administrative, Reserved, Intermediate, Aging, and Assigned.* The FCC also limited the period of time during which a number could be held in reserved status to 45 days.

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## NeuStar Developing Release 4.0

NeuStar is in the process of developing Release 4.0, the next major enhancement to the NPAC/SMS. On March 10, the NAPM LLC voted to formally request a Statement of Work (SOW) from NeuStar for the Release 4.0 requirements document. This request contained a list of NANC Change Orders, submitted from LNPA-WG via the LLC.

The SOW process for Release 4.0 will be different from SOWs which were produced in the past. This process will apply the SOW Development Team (SDT) concept, as defined in NeuStar's internal SOW Guidelines. The SOW Guidelines document is a new process improvement document developed as a framework to assist in providing a consistent, orderly, and complete description of work required.

The SDT is made up of all the functional groups within NeuStar to ensure all groups participate during the SOW process. Each functional group appoints a representative who is responsible for coordinating the

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## Thousands-Block Number Pooling Update

### Pooling Implemented in 3 NPAs

On March 18, thousand block pooling was implemented in California's 310 NPA. This is the first implementation of mandatory number pooling outside Illinois. NeuStar, in its role as the pooling administrator, had assigned 76 blocks over 16 rate centers to multiple carriers in the 310 NPA, as of April 6. The first block ported in 310 occurred April 3.

On April 1, New York added its first mandatory pooling trial in the 716 NPA to its already existing voluntary trials in the 212 and 718 NPAs. And on April 3, Illinois implemented pooling in the 708 NPA, the fifth NPA in which Illinois has implemented mandatory pooling since the original trial began in the 847 NPA in 1998. In light of the recent FCC decision to put National Pooling Administration out to bid, NeuStar has reaffirmed its commitment to the industry and states to implement pooling trials in California, New York, and Illinois.

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The NRO Order mandates the reporting of number utilization and forecast information to the North American Numbering Plan Administrator (NANPA) as a prerequisite to receiving numbering resources. Currently, the Central Office Code Utilization Survey (COCUS) is performed annually by NANPA, and collects only carrier forecasts at the NXX level. The FCC NRO Order specifies: "In pooling areas, forecast data shall be reported at the thousands-block per rate center level for pooling carriers and at the NXX level per rate center for non-pooling carriers. In nonpooling areas, forecast data shall be reported at the NXX per NPA level because carriers will receive their resources at this level." The data must be filed semi-annually (unless states determine that annually is appropriate) by all carriers with the NANPA. The NANPA is charged with evaluating the validity of the data and reporting to the states when a carriers' data is insufficient. Carriers that fail to provide COCUS data will be denied number resources. Those carriers must look for relief from state commissions, who will also have access to COCUS data.

The FCC also made changes in the numbering assignment arena. For initial code requests, carriers must provide proof that they are authorized to provide service in the area for which the numbering resources are requested, and will be capable of implementing it within 60 days of the numbering resources activation date. Utilization thresholds will be applied to all applications for growth codes filed by non-pooling carriers. The FCC is seeking further comment on the actual utilization percentage.

### Thousands-Block Pooling Administration

While the FCC mandated the implementation of thousand block number pooling, it decided to release the job of Pooling Administrator for competitive bid. In February, the NANC had recommended to the FCC that NeuStar be appointed as the Pooling Administrator, as an addition to its role as the NANPA. The timeline in the process to select a National Pooling Administrator was not detailed in the Order, but the FCC states that national pooling rollout will begin nine months from the date an administrator is selected.

Meanwhile, the FCC stated that it will continue to delegate authority to petitioning states to implement pooling trials. State trials will need to conform with the national pooling framework detailed in the Order. The participation of wireless carriers in number pooling, once they become LNP capable, was released for further comment. The Pooling Administration contract will coincide with the term of the current NANPA contract, which runs through February 2003.

The FCC Order stated that national pooling rollout will begin in the top 100 MSAs at the rate of three area codes per NPAC region per quarter. However, the FCC required area codes on the rollout schedule to be prioritized in order of:

- NPAs that were initially pooled or scheduled to be pooled pursuant to the FCC's delegations of pooling authority to state commission
- Jeopardy NPAs in the largest 100 MSAs, which have a life of one year or more
- New NPAs.

The actual national roll-out schedule has not yet been drafted. According to the Order, it will be drafted by the Pooling Administrator seven months prior to the start of rollout.

## **Carrier Cost Recovery**

The NRO Order outlined the three categories for carrier cost recovery:

- 1. Shared industry costs, costs incurred by the industry as a whole (including NANP administrator costs, and enhancements to the number portability regional database)
- 2. Carrier-specific costs directly related to thousands-block number pooling implementation (such as enhancements to carriers' SCP, LSMS, SOA, and OSS systems)
- 3. Carrier-specific costs not directly related to thousandsblock number pooling administration.

However, it did not specify the final cost recovery mechanism due to a desire to collect more information on actual costs and savings from the implementation of number pooling.

The FCC reiterated its belief that neither unassigned number porting (UNP) nor individual telephone number pooling (ITN) are ready for national implementation. They did, however, adopt the use of sequential number assignment where carriers must assign the numbers within one thousand block before assigning numbers in another block. **NEUSTAR** 

# Profile On: NeuStar's Technical Operations Group

Based in Chicago, IL, Washington DC, Tarrytown, NY, and Concord, CA, NeuStar's Technical Operations Department is comprised of five functional groups: network and infrastructure, system, database, application, and web management. The Tech-

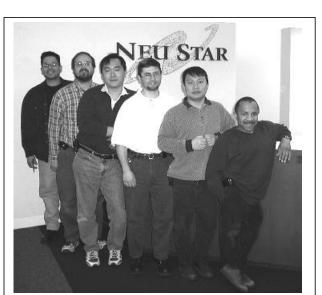
nical Operations' mission is to provide world-class, 7x24 operations and technical support for all NeuStar infrastructure, telecom, security, network, systems, databases, applications, internet, intranet, development, billing, reporting, testing and certification functions.

The Tech Ops group supports all business functions and units at NeuStar, and directly interfaces with external and internal customers, vendors and partners.

The group's main focus is Local Number Portability (LNP), Number Portability Administration Center

(NPAC) and Service Management System (SMS), responsibilities related to those functions include:

- Deployment, installation, testing, troubleshooting, support, maintenance, and administration of NPAC/SMS infrastructure, network, servers, systems, databases and applications, SP circuits and dial-up connections, NPAC web site, NPAC Call Center ACD and IVR system
- Enterprise Resource Center (ERC) Internal IT and technical support for NPAC operations, pooling, and other LNP functional groups, LNP-related initiatives and tasks
- Network Operations Center (NOC) 7x24 monitoring and problem response for NeuStar's NPAC/SMS service
- All NPAC/SMS Service Level Requirements (SLRs) associated with performance credits and monthly SLR reports
- Development and maintenance of NPAC/SMS ad-hoc reports
- Internal and external NPAC/SMS system integration, testing, acceptance, and certification; coordination of LNP industry testing and certification process



NeuStar's Application Team within the Technical Operations Group: (from left) Luis Melecio, Greg Liput, Ky Quan, Phil Moncel, Chung Tran, and Eric McGee

- NPAC/SMS release installation, testing, deployment and administration
- Tier 2 technical support to User Support Analysts (USAs); initiate and coordinate tier 3 support
  - Customer relations and account management efforts
  - Coordination and maintenance of NPAC Disaster Recovery Plan (DRP)
  - Development, maintenance and administration of NPAC security policies
  - Support NPAC/SMS Performance and Capacity Planning
  - Support NPAC/SMS Billing and Collection function.

The Technical Operations team's goal is to provide the highest level of technical support and customer service for NeuStar's external and internal customers.

## NeuStar Hosting Cross Regional Meeting in DC

The next NPAC Cross Regional Meeting will be held April 27 in Washington, D.C. at the Washington Marriott Hotel and will be hosted by NeuStar, Inc. Because this is the first meeting to be hosted by NeuStar since its transfer from Lockheed Martin late last year, the company will also host a reception on April 26, also at the Washington Marriott Hotel.

A draft agenda for the meeting can be found on <u>www.npac.com/</u> <u>meetings</u>. Proposed items of discussion for the meeting include updates on action items, NPAC defects, Release 3.0, performance measurement and performance study; the Release 4.0 schedule, multi-platform testing, and interim pooling implementation. Additional items can be submitted for addition to the agenda, if there's an issue important to customers that needs to be addressed. To add an item to the agenda, submit an issues request form from <u>www.npac.com</u>. Requests will be reviewed and the agenda will be finalized the week of the meeting.

The Cross Regional Meeting has been a quarterly event since April 1997. Originally implemented at the request of NPAC customers, it is designed as an open forum for all NPAC users to discuss technical and operations issues associated with number portability and the use of the NPAC services provided by NeuStar. It is also an opportunity for service providers to exchange ideas and identify future enhancements that evolve through the NANC LNP Working Group.

## A Tribute to Roger Marshall

#### By Joe Franlin Senior Vice President Operations,

NeuStar, Inc.

On Friday, March 10, 2000, Roger Marshall, a friend of NeuStar's, passed away. Many of us at NeuStar worked closely with Roger as he led his company – Ameritech – and the entire US Telecommunications Industry in a series of historic firsts in the pursuit of local competition.

Roger's legacy in local competition goes back to 1994 and the embryonic discussion at the Industry Numbering Committee (INC) concerning Local Number Portability (LNP). But, Roger came into his own when Ameritech took the point position and strategically committed to making LNP a reality in the Chicago MSA. He was the man who had to make it happen. And, happen it did.

The following are just some of the "firsts" that emanated from the working groups that benefited from Roger's leadership:

- The selection of the National LRN Architecture
- The development of the first LNP system functional requirements
- The development of the first LNP system Request for Proposal
- The selection of Lockheed Martin (now NeuStar) as the first provider of LNP services
- The creation of the first Limited Liability Corporation (LLC) the LNP LLC and the selection of Roger as the first president
- The development and negotiations of the first LNP Master and User contractual agreements
- The successful oversight of the first and only FCC-certified trial in September 1997
- The positioning of the Midwest LNP LLC to be the first region ready for production and operation

All of these firsts represent the bedrock upon which all who have followed have built. And, as if these accomplishments weren't sufficient, Roger provided his guidance in the framing of discussions on thousand-block number pooling. This led to yet another first, the initial national trial of number pooling in Chicago, which has become the template for the rollout of pooling throughout the country.

I know that Roger would be quick to share this praise with all his friends and co-workers without whom such success could not be possible. But, we all know that in order for initiatives of such magnitude to be so wildly successful, it takes people like Roger Marshall to clear the way of obstacles: someone who possesses the clarity of thinking; who deftly brings opposing positions together; a decisive, practical negotiator who talks and walks win-win solutions; a demanding leader who can be empathetic and sensitive to the needs of the moment. Roger could do all that – and laugh – in his booming voice – at himself, as well.

Oh, yes, that voice. One cannot reflect on Roger without commenting on his stentorian tones. I suppose he could have done radio, if he so chose. I'm sure the children he worked with at the Harriett Gifford Elementary School shaped up when he commanded. And we, at NeuStar, remember being on the receiving end of that voice as pointed questions came our way. But, in the end, Roger's voice was always one of reason, focused on accomplishing the task at hand, and he did it so very well.

We at NeuStar will miss him. The Industry will miss the promise of future accomplishments that would have been expected given such an auspicious beginning. Nonetheless, we all are better for having shared the opportunity of knowing, working, laughing, and anguishing with Roger.

Joseph Dimini

## Thousands-Block Number Pooling Update

(Continued from cover)

## Florida Orders Pooling in 3 NPAs

On March 16, the Florida Public Service Commission (FL PSC) released an Order on number conservation. Among the issues addressed in the order was the mandated implementation of thousand block number pooling in NPA 954 by May 1 and NPA 561 by July 1, using software Release 1.4, and in NPA 904 by October 1, using Release 3.0. Because there were objections to the Order filed, all dates in the Order are pending the results of a hearing set for May 18.

#### New York Orders Pooling Statewide, Defers Wide Area Rate Centers

Following a December 2, 1999, Order implementing wide area rate centers, the New York Department of Public Service (NYDPS) issued an Order on March 17, suspending the implementation of wide area rate centers and ordering thousand block number pooling in 12 NPAs throughout the state. The implementation schedule laid out in the March 17 Order would have all of New York's NPAs pooling by August 31, 2001. On April 1, New York added its first mandatory pooling trial in the 716 NPA to its already existing voluntary trials in the 212 and 718 NPAs.

The following schedule would apply for pooling rollout:

NPA	Roll-out Date	NPA	Roll-out Date	NPA	Roll-out Date
516	7/1/00	845	4/30/01	631	6/30/01
518	9/15/00	646	4/30/01	212	8/31/01
315	2/01/01	347	4/30/01	718	8/31/01
914	4/30/01	607	6/30/01	917	8/31/01

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# **NPAC to Issue Customer Survey**

In mid-April, NeuStar will begin conducting a periodic survey of NPAC users to gauge their satisfaction with the service provided by the NPAC Help Desk. The goal of the survey is to measure the Help Desk's response to customer issues and to assess their ability to meet customer needs. NeuStar will use the responses to identify potential areas of improvement in the numerous services provided by the Help Desk. Strict procedures are in place to ensure that the survey is conducted on an impartial basis and that all NPAC customers are given the same opportunity to respond.

To facilitate the process, NeuStar will contact NPAC users with the Customer Survey, which will be issue-specific, relating to a particular issue and trouble ticket. For a two-month period, running until mid-June, NeuStar will solicit one response from each NPAC customer via a phone call. The process will not be timeconsuming; it should last approximately two minutes, but may run longer if the customer so chooses. The preferred method of administering the survey is via a telephone conversation with the customer. An alternate method of administering the survey is via email. The survey will also be accessible on the NPAC web site at <u>www.npac.com/secure</u> under the feedback button and may be used at any time by a customer to provide feedback to the NPAC regarding a specific issue.

Throughout the two-month trial period, NeuStar will assess and analyze the results and develop any corrective actions necessary. The goal is to then conduct the survey every two months, beginning in July. Results will be included in NeuStar's corrective action system with the overall goal of continuously improving our service to the customer. New Hampshire.



Due to the nature of Local Number Portability (LNP), testing is a critical and ongoing function of the NeuStar Number Portability Administration Center (NPAC). As transactions flow between the NPAC/SMS and Service Provider's SOA/LSMS, it is required that their SOA/LSMS respond accordingly during software testing. There are various levels of testing for a NPAC/SMS Release, including the timing when each phase of testing will take place, the duration of each phase, and how testing is coordinated.

Release 3.0 will be the latest software upgrade to the NPAC/ SMS. The following overview highlights each level of testing between NPAC personnel and Service Providers and the timelines for Release 3.0:

**Interoperability (ITP) Testing**—This level of testing is designed to ensure each Service Provider meets the technical and operational processing requirements to exchange porting transactions/information with the NPAC/SMS during major software releases. It will also be necessary to complete ITP when Service Providers change their existing software functionality.

#### Release 3.0 Timeline:

- ITP Testing is scheduled for April 17 through May 26, 2000.
- AGCS, ATT, MCIWorldcom, BellSouth, DSET, ESI, InLogic, Lucent, Tekelec, Telcordia and TTI must register by emailing an ITP registration form to Arvind Rao at DSET (<u>arvind@dset.com</u>) with a copy to Toni Hopkins (<u>toni.hopkins@neustar.com</u>), Ky Quan (<u>ky.quan@neustar.com</u>) and Dianne Black (<u>dianne.black@neustar.com</u>).
- For a copy of the ITP registration form, please contact Toni Hopkins at 312-928-4681.

**Turn-up Testing**—This level of testing verifies a Service Provider's SOA/LSMS will function and communicate properly with the NPAC in a normal operating environment. Dependent upon the complexity of the release, number of test cases and complexity of the test cases, this phase of testing can take from 3-7 weeks to complete.

#### Release 3.0 Timeline:

- Turn Up Testing will take place in two phases:
  - Region 1 scheduled for July 5 through August 18 for the North East region

- Super Region scheduled for August 12 through October 13 for the Mid-Atlantic, Mid-West, South East, South West, West Coast and Western regions
- Currently, there are 36 Service Providers with a SOA and/or LSMS who must complete testing.

**Regression Testing**—This level of testing is performed during major NPAC/SMS or Service Provider software releases. Regression testing ensures software changes do not adversely affect the existing system functionality currently in production. It also tests new functionality that is included within a NPAC or Service Provider release. Again, dependent upon the nature and complexity of the release, testing can take from 1-10 weeks to complete.

#### Release 3.0 Timeline:

- Group (Regression/Round Robin) Testing will also take place in two phases:
  - Region 1 scheduled for August 12 through September 22 for the North East region
  - Super Region scheduled for October 16 through November 17 for the Mid-Atlantic, Mid-West, South East, South West, West Coast and Western regions

**LTI Testing**—Customers with a Low Tech Interface (LTI) should also ensure their dial-up connections properly interfaces with the NPAC. LTI customers can contact the NPAC Help Desk at 888-672-2435 for further details and scheduling of LTI testing.

#### Release 3.0 Timeline:

- LTI customers are not required to test.
- An explanation has been sent to the Project Executives.

**Test Cases**—ITP and Regression test cases for Release 3.0 can be found on the secure web at<u>www.npac.com/secure</u> under Documents, Release 3.0 Testing. Turn-up test cases (applies to new mechanized customers) for Release 3.0 can be found on the public web at <u>www.npac.com</u> under Documents, NANC 3.0. **NEUSTAR** 

> Would you like to contribute a story suggestion to Portability, ink.? Please send story ideas to rebecca.barnhart@neustar.com

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## USAs Handle First Customer Contacts

When customers contact the Number Portability Administration Center (NPAC), the first impression they develop



is from the User Support Analysts (USAs), who must ensure that it is a positive one.

Among their many tasks, USAs are responsible for opening trouble tickets and tracking the customers' problem to closure. The USA will take the information from the customer and either resolve the customers' issues themselves or pass the trouble ticket to the Technical Operations team. Approximately 95% of all trouble tickets are solved within the USA group. In the 5% of cases that are sufficiently technically advanced to be forwarded to 2<sup>nd</sup> level support, the USA issues the customer a trouble ticket number and informs them that a member of the Technical Operations team will be contacting them.

If this is a service affecting issue, the ticket will be assigned a High Priority. The Trouble Ticket system will then page the appropriate individuals on the Technical Operations group to inform them that immediate resolution is needed. For these types of issues, the customer will be contacted within the hour. If the issue is not service affecting, the USA will open a Medium, Low, or Cosmetic ticket. The appropriate group will receive an on-screen alert and an e-mail message informing them that there is a ticket open that needs to be resolved in a timely manner. All non-service affecting tickets are to be updated and the customer contacted within a 24-hour period. The customer now has a ticket number and will refer to it in all subsequent contact with the NPAC.

Over the past couple of years, the USAs have become a highly effective, self-managed team that has met 98% of its service levels (see chart below). Listed below are the NPAC USAs and their areas of responsibility:

- Andy Ibarra, Senior USA: NPA Split Coordinator, Mass Update coordinator, Interconnect plan admin. (Entering new customer in GUI - work with Tech Support, Upkeep of lists (Disaster, Contact for US and CA), Back-up to SecurIDs
- Kim Johnson, Senior USA: USA Schedule, LTI Testing Coordinator, Daily Call Summaries, Month End Reports, On Call Scheduling, Vacation Scheduling, LTI Training for USAs
- Stephanie Williams, Senior USA: SecurID cards, Regression testing, Mass Update coordinator
- Martha DelRio: Recently promoted to USA
- Shavonne Hudson: LTI testing
- Nicole Meziere: New USA
- Shelon Morgan: Authorized List, New customers (entering profiles, key exchanges), Cross Regional USA organizer
- Bryant Onojeta: LTI testing
- Deborah Rucker: LTI testing NEUSTAR

No.	Procedure	Service Commitment Level	Service Affecting/ Non-Service Affecting	Report Frequency/ Performance Credit Calculation Intervals
12	User Problem Resolution	Minimum 90% calls during normal business hours answered by live operators within 10 seconds	Non-Service Affecting	Monthly
13	User Problem Resolution	Less than 2.0% abandoned call rate	Non-Service Affecting	Monthly
14	User Problem Resolution	99.0% callback within 30 minutes for requests made during other than normal business hours	Non-Service Affecting	Monthly
15	User Problem Resolution	A minimum of 99.5% of all commitments to get back to the User after the initial contact will be met	Non-Service Affecting	Monthly
20	NPA Split/Mass Changes	Notify Users within 10 business days of receipt of notification of the need for an NPA split/mass change	Non-Service Affecting	Per Event
22	Unscheduled Service Unavailability Notification	Notify User within 15 minutes of detection of an occurrence of unscheduled service unavailability	Non-Service Affecting	Per Event
23	Unscheduled Service Unavailability Notification	Provide 30-minute updates of NPAC status following an occurrence of unscheduled service unavailability through recorded announcement and client bulletins	Non-Service Affecting	Per Event
27	Document Order Administration	Mail to requester within one (1) business day	Non-Service Affecting	Per Event



Jeff Ganek

## A Word from NeuStar's Chairman and CEO

When NeuStar, Inc., was formed in December 1999, our mission was then – and continues to this day – to provide the highest level of neutral, third-party services to the telecommunications industry. Included in our commitment are the service providers, with whom we work closely every day.

While the FCC's recent order puts the function of the National Pooling Administrator out for competitive bid, NeuStar remains focused on and committed to the states where we are working as the Number Pooling Administrator, and we look forward to opportunities with additional states in this capacity, as well.

As the North American Numbering Plan Administrator (NANPA), we were disappointed with the FCC's decision in not naming NeuStar as the National Pooling Administrator. As noted in paragraph 146 of the FCC NRO Order, in July of last year the NANC recommended that the NANPA (NeuStar) be the national Pooling Administrator. The NANC had

concluded that having a separate entity serve as the Pooling Administrator would lead to a more costly and less efficient arrangement, and likely delay the implementation of a thousands-block number pooling rollout. As further noted in the Order, of the states given authority to implement pooling trials, all having made a decision on a pooling administrator have chosen NeuStar.

Nonetheless, the states and the industry must continue to move forward, and NeuStar remains committed to support all parties in the process. We are excited about the ongoing activity within the states and industry in the various number-pooling trials throughout the country. In addition to Chicago's 847 NPA, NeuStar also serves as the administrator for trials in four other NPAs in Chicago (312, 630, 773, and 708), California's 310 NPA, and New York's 212, 718 and 716 NPAs. NeuStar has also been appointed as the pooling administrator for additional trials in California, Texas, Maine, and New Hampshire.

The 847 number pooling trial – the first of its kind in the country – has successfully delayed the implementation of the 224 overlay for almost two years. The 310 number pooling trial in the Los Angeles area began on March 18 and has already saved over 64 CO codes in its short life. We anticipate more successful activity throughout the country in the weeks and months ahead.

As always, please contact me as issues arise and decisions are made that impact the entire industry. The future is bright and there are many changes in front of us. No matter what happens, NeuStar's commitment to the industry is unwavering.  $\tau_{TS} q$ 

## Release 4.0

(Continued from cover)

input within that functional group and communicating these inputs to NeuStar Product Management. Vehicles employed to capture input include standard templates and generic plans. NeuStar Product Management compiles all the inputs from the functional groups into one concise package. This package enables NeuStar to derive a definitive SOW in a timely manner.

The complexity of defining requirements, developing responses, capturing costs and maintaining customer confidence has increased significantly over the past year. Due to this, it is imperative to NeuStar that responses to customer requests be timely, yet the attention to detail not lost in the rush to meet aggressive deadlines. The implementation of the SOW Guide-lines and SDT concept will vastly improve customer satisfaction and will increase SOW quality with each subsequent customer request. **NEUSTAR** 

# Portability, ink.

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