T. Transition and Project Plan

NeuStar's proven program management methodology ensures the successful implementation of robust, high-availability mission-critical systems and operations. NeuStar has a long legacy of transitioning administration of public resources to next-generation, open-interface platforms and will effect a seamless, transparent, and low-risk transition through a thoughtful, deliberate transition plan.

HIGHLIGHTS

- **NeuStar has provided a detailed and thorough plan for the transition of usTLD, management and modernization of the locality-based space, and implementation of the expanded space**
- **NeuStar applies our proven Program Management methodology to ensure that implementation is on-time, on-budget, and well-communicated and that it lays the foundation for a successful business**
- **NeuStar uses mandatory quality assurance methods and reporting procedures in all functional areas to ensure that the highest level of performance is achieved**

A well-thought-out, proven program management methodology is a critical factor for implementing and running a successful TLD registry. Absent this critical component, the project could easily fail. At NeuStar, we believe, of course, that such easily avoided failure is unacceptable.

Another critical element for the successful implementation of the usTLD, is the need for a smooth, seamless transition from the legacy administrator to the new administrator. Indeed, from NeuStar's perspective, a successful transition is the most important aspect of this project for maintaining stability and integrity of the usTLD and the Internet and ensuring the highest degree of service to the United States Internet community. NeuStar has proven our capabilities in transitioning data and services from legacy systems to next-generation, open-interface platforms numerous times.

NeuStar has extensive experience in transitioning the administration of mission-critical public resources from multiple geographically dispersed entities to one central administrator. Our transition of the North American Numbering Plan Administration (NANPA) from the legacy operators to NeuStar is a particularly relevant example. In 1997, NeuStar was awarded the responsibility of administrating telephone numbers for the North American Numbering Plan. Prior to NeuStar's administration, ten large phone companies administered phone numbers across all fifty states. Each company had multiple local number administrators in each state. Part of NeuStar's responsibility was to transition the administration from over a hundred local administrators. This required an intensely coordinated effort involving site visits, coordination meetings, and progress reports. It was not uncommon to have to sift through file cabinets to find current and historical inventories. In many cases, the existing administrators could provide little support because they were new to the job or did not have historical data. Despite the difficulty involved, NeuStar was able to transition the administration well ahead of schedule. The NANPA registry of telephone number assignments is now a critical element of the U.S. telecommunications infrastructure.

A second example involves the transition of telephone number inventory from hundreds of telephone companies with hundreds of different databases to one central database. NeuStar has won number pooling administration contracts in over 12 different states. Number pooling involves transitioning unused telephone numbers from multiple telephone companies to one

central administrator. The unused numbers can then be redistributed to other telephone companies. This is a very difficult process, because it involves hundreds of phone companies with multiple administrators and different databases. There is also a public outreach effort that involves assisting the phone companies in taking inventory, and evaluating the inventory for usable numbers. NeuStar has to advise the individual companies on the format of the data and the process they need to undertake to transition the numbers to us. Once NeuStar has transitioned the inventory, we are responsible for redistributing it in a neutral, even-handed, yet conservative manner. Recently, NeuStar was awarded the contract to take on this responsibility on a federal level for all 50 states. This will involve over 3,000 different entities.

Because of our firm belief that effective transition is an indispensable part of our overall project plan for the usTLD, we are presenting a detailed Transition Plan and explanation of our comprehensive Project Plan. We are proud of our demonstrated ability to effect timely successful transitions of complex systems and are eager to apply our expertise to the usTLD.

T.1 Transition to New usTLD Administrator

NeuStar will leverage our experience in successfully transitioning other mission-critical resources to ensure a smooth and seamless transition of the usTLD administration.

The DOC faces a challenge in selecting a vendor that not only is qualified to build a robust registry system, but also is qualified to transition mission-critical operations and resources, such as the existing locality-based usTLD. The usTLD domain structure is part of the Internet critical infrastructure, and many U.S. citizens rely upon its being a zero-downtime operation. NeuStar has faced the challenge of transitioning these kinds of resources and has succeeded in all of our transition and implementation operations. NeuStar submits that no other potential respondent to the RFQ has the kind of critical transition experience required by this RFQ.

The key requirements for safe transition are careful planning; phased incremental transition stages, and the allocation of sufficient resources to oversee the process, achieve necessary changes, and recover promptly from any difficulties that may arise. Absolutely crucial is the cooperation of the previous administrator. Our experience as the NANPA and LNPA have proven that nonresponsiveness from legacy operators hinders progress and is detrimental to both the system and its customers.

The DOC must ensure that it does not select a vendor for the usTLD that underestimates the importance of potential complexity of the transition process. The transition process that we present here is comprehensive and sufficiently detailed in its incremental approach to transition of an operation involving critical infrastructure, to ensure a seamless and stable transition.

T.1.1 Requirements for Successful Transition

Transition for the usTLD entails a number of different processes.

- The first is transitioning existing administration and operation activities without making any policy changes.
- The second is reviewing and enhancing that existing structure.
- The third is expanding the structure with new names and services.

Because the first two steps form the framework for the third step, this section focuses on these formative processes. The expansion and further enhancement of the usTLD is addressed elsewhere in this proposal. Changes to the existing usTLD administration first require the

compliance investigation and report that is correctly mandated by the DOC. This is because enhancements cannot be intelligently specified without having much detail as possible about the current base of delegees and users, and changes need to be pursued as a collaborative effort with the existing usTLD community.

To initiate the transition process immediately upon award, certain information will be required:

- **The master database** -- comprises contact and registration details for delegees and, where appropriate, registrants. During normal operation of a registry, the DNS zone file and Whois file are derived from this master database.
- **Operations information** -- refers to data that are available as part of the daily operation of the Internet, namely the DNS zone files of names and addresses and the Whois file that contains essential delegee and registrant contact information.
- **Historical information** -- is necessary for evaluating the rights and obligations of delegees and registrants, relative to changes made in the usTLD administration as of July 1, 1997.

The specific information items required to initiate the transition process are:

Requirements for a Successful Transition

NeuStar Needs From Current Administrator	Why/Benefits
All contact information for current delegees	This information is needed to begin the required compliance investigation and report.
Historical information including delegations and re-delegations made after July 1, 1997	Historical data can put current situation in context. Delegation and re-delegation done after July 1, 1999 requires written proof.
Copy of zone file as of award date	Needed as a development tool to permit production testing prior to operational commitment.
All registration data, including but not limited to: • Up-to-date list of all delegees including dates of delegation • Agreements with delegees • Agreements with registrants • Registration information for direct registrants • Policies and understandings, written or otherwise (generally understood) • Previous contracts, understandings, and agreements • Whois information • DNS zone snapshot at transition event	The complete set of registration data is needed in two phases. The first allows awardees to gain familiarity with the registrations and to prepare registration software. The second permits the awardees' operations databases to be current at the time of handoff. Information about delegees and agreements with them are essential for permitting awardees to make contact and understand existing arrangements with delegees. Information about direct registrants and agreements with them is essential for the same reason. Copies of existing policies allow NeuStar to continue operations and then introduce changes incrementally. The same is true for obtaining copies of existing databases.
Current, internal operational policies and procedures	Familiarity with existing practices is necessary to continue them and ensure that changes are incremental
Data formats	Essential for automated incorporation of existing data
Database administration and query volumes history	Historical operations data establish the scale of systems and operations to be provided by NeuStar.
Final change requests for existing registrations	New registrations will not occur during transition, but changes to existing registrations may occur
Transition assistance from the current administrator	Assistance from the current contractor is at the core of all transition requirements, since it holds operational data, procedures, and registration agreements.

Requirements for a Successful Transition

NeuStar Needs From Current Administrator	Why/Benefits
Transition of the www.us Web site from the current administrator to NeuStar	NeuStar will publish our own Web site for the usTLD, and needs Web site users to be able to easily find the new registry information.
Transition Assistance from IANA	Root server changes will be required to delegate .us to NeuStar

We believe that the above required information is reasonable and necessary for a seamless transition that is transparent to registrants and delegees and that will ensure the overall stability of the usTLD, it operations, and the DNS and the Internet as a whole.

T.1.2 Time Line for Transition

The schedule listed below gives a synopsis of the transition tasks and expected timing of these tasks starting from the award date. Although a quicker process is possible, the timeline provided is ideal for the proposed transition.

Transition Timeline

Schedule	Tasks
Award Date	NeuStar requests: • Current DNS TLD zone file • Whois contact information file • usTLD registration database • Outreach to delegated managers begins • All information regarding delegees • Notify IANA of award
2 days post-award	NeuStar receives copies of existing: • Zone file • Whois file
7 days post-award	NeuStar receives copies of existing usTLD registration database NeuStar receives contact information for all delegees, and information as to which delegees have signed a post-1997 delegee agreement Development begins
21 days post-award	Development complete Testing begins
28 days post-award	Testing complete Begin live operations transition
35 days post-award	Complete live operations transition IANA Delegates .us to NeuStar

T.1.3 Implementation

As shown in Exhibit T-1, NeuStar will follow these phases for the successful transition of administration and operations of the usTLD registry:

- **Initiation and familiarization**—NeuStar and the previous administrator must meet to arrange the delivery of necessary data and information, as defined above. NeuStar must become familiar with the existing registry information and data formats in which it is transferred and will use this phase to prepare its own systems for entry of the registry data.

NeuStar has already begun this process by using standard DNS queries to build a database of zone information for the usTLD including the zone files of delegated managers.

- **NeuStar System Initialization**—NeuStar will load the provided data into its registry system and commence blind operation and testing.
- **Parallel operations**—Once NeuStar receives and loads all necessary data for operation of the usTLD, NeuStar and the current administrator will run parallel operations for a period of time to ensure that the transition has occurred correctly. For this phase, NeuStar will run parallel DNS and Whois operations but will not make any changes to current registrations or delegations or accept new registrations or delegations.
- **Parallel administration**—Both the current administrator and NeuStar should receive any requests to changes in registrations or delegations, but neither should accept new registrations or delegations during this time.
- **Hand-off of administration**—The current administrator does not perform any changes to registrations or delegations. At this point, NeuStar is the sole administrator of these functions, but the DNS and Whois operations remain in parallel.
- **Sole administration and operations**—IANA delegates .us to NeuStar, the current administrator ends its DNS and Whois operations, and NeuStar becomes the sole administrator and operator of the usTLD.

T.1.4 Resources

NeuStar's implementation team, discussed in-depth in Section A, will include an dedicated transition team as an integral part of its operations. This team will have significant experience in transitioning services and will work with the current administrator, delegees, and registrants to ensure that the transition is transparent to all users and that the stability and integrity of the registry and the Internet is maintained.

T.2 Project Plan

NeuStar's project plan explicitly addresses critical tasks to ensure successful implementation of the usTLD systems and operation.

A well designed project plan will ensure that the usTLD project stays on schedule, management will anticipate necessary changes, strong team communications will be maintained, and delivery will be on time. NeuStar's usTLD Project Plan outlines all phases and associated tasks required to successfully implement the usTLD systems and operations.

Exhibit T-1 provides a high-level Transition and Implementation Timeline.

We will work to a detailed project plan to ensure all objectives are met. This project plan will include all major tasks/subtasks, duration, resources, and dependencies.

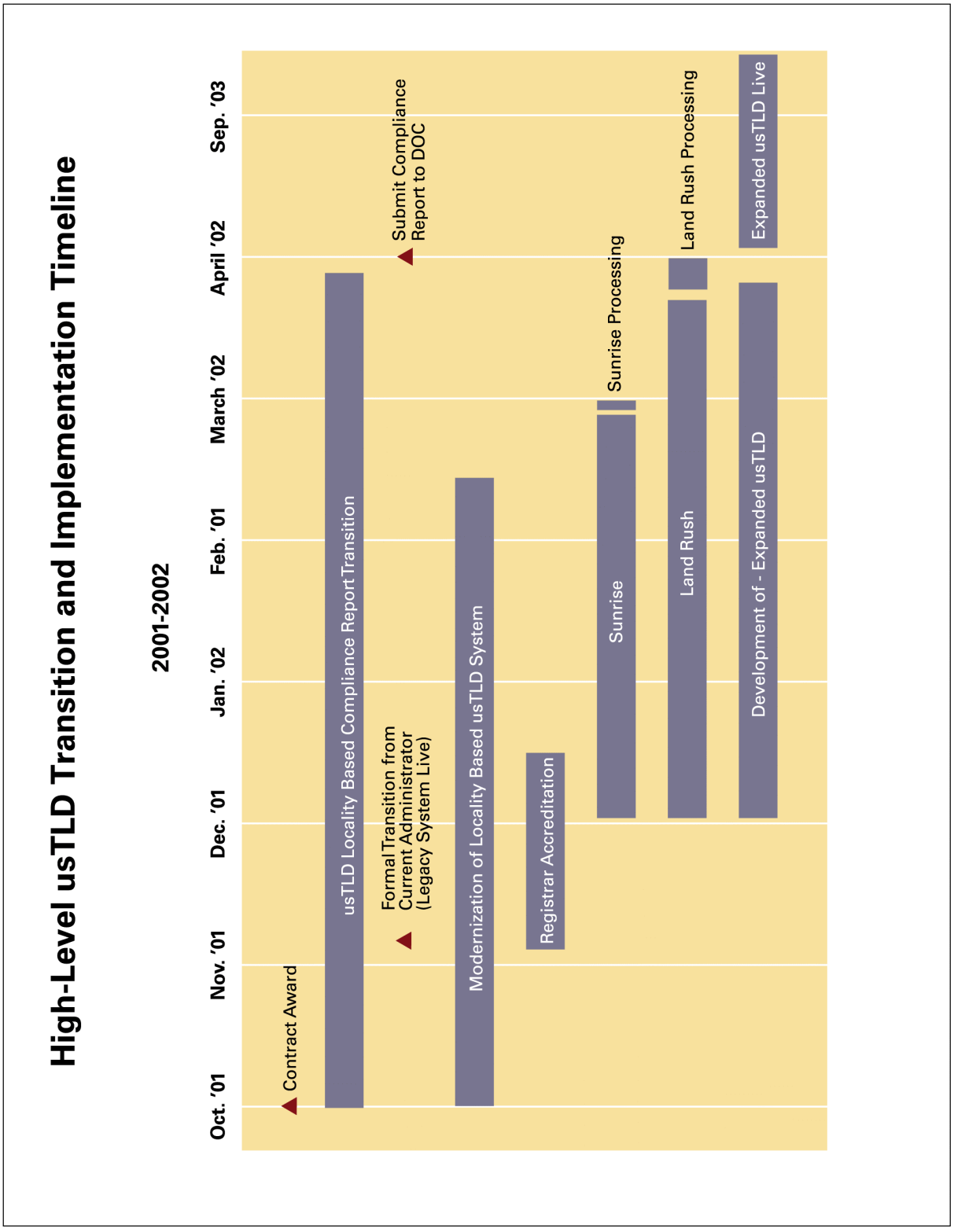

Exhibit T-1. *NeuStar will leverage a proven program management approach and detailed project plan to ensure a seamless transition and implementation of the expanded and enhanced usTLD.*

T.2.1 High-level Task Descriptions

The following table provides overview descriptions of the major program responsibilities that NeuStar must successfully perform to meet the usTLD objectives.

NeuStar Program Responsibilities

High-Level Tasks	Subtasks
Project Management Project Initiation	• Create project charter • Create project notebook • Assign project sponsor • Obtain budget approval • Create staffing plan • Define roles and responsibilities • Conduct initial team and project kickoff meetings • Determine metrics for testing and production environments
Project Management Project Planning	• Define scope • Develop Work Breakdown Structure (WBS) and initial project schedule • Create communications plan, risk management plan, stakeholder plan, quality plan, procurement plan, resource management plan, and change management plan • Define usTLD product marketing plan • Define usTLD business requirements • Define usTLD outreach program • Attend industry forums • Define legal and policy requirements • Define finance and budget plan • Define administrative and facilities plan
Project Management Execution and Control	• Implement locality-based usTLD operation and transition from the current administrator • Modernize locality-based usTLD • Implement expanded usTLD space functions • Registrar accreditation and certification • Sunrise • Landrush • Live expanded usTLD • Deliver Monthly Progress Reports to COTR (For the 1st 2 years and quarterly thereafter) • Deliver six-month Compliance Report
Project Management Closing	• Customer acceptance • Project turnover
System Development	• Develop and finalize functional specifications • Develop and finalize high-level design • Develop and finalize detail design • Conduct coding and unit test • Data Migration/Population
Testing	• Develop system and user test plans • Establish test bed • Develop integration test plan • Perform system test • Conduct interface testing

NeuStar Program Responsibilities

High-Level Tasks	Subtasks
	• Perform connectivity testing • Perform volume/load testing • Perform end-to-end testing • Perform User Acceptance Test (UAT)
Training	• Develop training materials • Conduct internal training sessions • Conduct external training sessions
Production and Rollout	• Conduct production readiness review (go/no go) • Roll out April 1, 2002

T.2.2 Staffing and Organization

The usTLD management team will ensure that its experienced, motivated team and knowledgeable staff are available for successful implementation. It will utilize work breakdown structures, historical information, and understanding of scope and resource descriptions in determining resource needs. Appropriate staffing for implementation will ensure that personnel resources are used effectively and efficiently. Periodically, NeuStar Program Management will evaluate the staffing levels and augment resources as necessary to meet the usTLD project objectives.

NeuStar Program Management will assist with the identification, documentation, and assignment of project roles and reporting relationships. The usTLD project team will provide status updates on deliverables and resource changes to the Program Management Office.

T.2.3 Monitoring, Control, and Change Management

NeuStar's project monitoring and control processes will be established to ensure that high performance standards are met at both participant and project levels and to rapidly identify and address any issues or concerns that may arise during the usTLD project. Through strong schedule performance monitoring and control, unnecessary schedule slippage and cost overrun will be mitigated. In addition, recognizing the occasional need for changes in project parameters, NeuStar will follow a strict change control process to ensure that necessary change does not undermine project progress. NeuStar's monitoring and control objective will be to ensure that the activities of all participants are focused on achieving the usTLD project goals and requirements.

NeuStar's change control process follows the major steps in submitting, analyzing, approving, and completing a change control request. All change requests are documented and logged into a tracking system. Appropriate parties will be notified of the impact analysis and NeuStar's recommendation for action.

T.2.4 Quality Assurance

NeuStar recognizes quality as an ongoing and evolving process that facilitates our commitment to continuous improvement by meeting the demands of our customers and the ever-changing marketplace. Through education and training opportunities, we promote teamwork,

empowerment, leadership, strategic planning, and personnel development. The quality performance measurement system attributes managed by our staff include reliability, interoperability, availability, responsiveness, effective communication, accuracy, security, and one of our strongest value-added trademarks—neutrality. Please see Section Q for more details on NeuStar's Quality and Performance Management process.