

SITA



Proof of Concepts Reports
Phase 0, Phase 1 and Phase 2
Period: December 18, 2001 – March 18, 2002
Date issued: 10 June 2002

1. Concept: Procedures for Maintaining Stability and Fairness in Launch of a Sponsored TLD ("sTLD")

1.1. Phase 0 Effectiveness

- 1.1.1. A list of all domain names inserted into the .aero zone during Phase 0.

Insertions made during the Phase 0:
registrar.aero, registry.aero, information.aero, nic.aero;

Further insertions made later in Phase 2:
registry.aero, worldtracer.aero, aircom.aero, airlineinbox.aero, airportinbox.aero, airportvision.aero, fleetwatch.aero, test-sita.aero, sitainc.aero, sitasc.aero, sitatex.aero, cute.aero, strategy.aero, typea.aero, typeb.aero, sita-sc.aero, sita-inc.aero, satellite-aircom.aero, whois.aero
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- 1.1.2. A summary of complaints and comments received by Sponsor regarding the initial Domain Management Policy.

The .aero Domain Management Policy was developed in close co-operation the members of the Dot Aero Council. The DAC members contributed significantly in definition of Registrant Groups, the timing of registry opening for sectors of the Aviation Community and identification of proofing document required for members of each sector.

The .aero Domain Management Policy was published on December 18, 2001. Comments received through www.information.aero web site (formerly aero.sita.int) included:

- questions regarding the definition of groups, in particular where would consulting entities into what group they would belong;
- questions regarding the proofing documents required for particular registration groups; and
- questions regarding the timing of registry opening for different groups.

The Sponsor also received some requests for names registration and pre-registration before the opening date, which had to be denied.

The .aero Domain Management Policy was revised and updated before the registry launch on March 18 to reflect the above comments. Further development can be expected.

Registrars

During this and subsequent phases, number of organizations enquired about how to become a .aero Registrar. About 50 inquiries were received regarding the possibility to become .aero registrar, significant part of them from non ICANN accredited entities, members of the aviation community. 4 Registrars were selected and signed an agreement with SITA before the launch of the .aero.

- 1.1.3. A description of significant technical difficulties, if any, encountered during Phase 0.

Almost 10 months delay in signing of the ICANN agreement had significant impact on the amount of resources spent by the Sponsor as well as the amount of re-work required due to changes required by ICANN compared to original SITA proposal. For

example the requirements to use only ICANN accredited registrars in the registration of .aero was not foreseen in the original proposal.

Council of Registrars (CORE) was appointed by the Registry operator SITA INC to act as an outsourcing partner for the Registry development and operation.

The registry design team spent a considerable time and effort in developing a solution, which would allow partial automation of control over the compliance of domain name registrations with the Policy and make the Eligibility and Name Selection (ENS) Services provided by the Sponsor more efficient.

The design team developed two key concepts:

1. A concept of Aviation Community Membership Ids, which would be issued to eligible registrants prior to domain name registration and would imply the privileges of a particular registrant within .aero; and
2. Automated verification of all domain name registration requests for the compliance with the Policy, based on a table of regular expressions (ENS Rules) and a using available registry data from database for verification (IDs issued, reserved names, industry codes etc .)

Although there were no major technical difficulties encountered at this stage and the concepts were successfully converted into so ENS functions of the registry system, both concepts are new and it is yet to be seen whether and how the Registrars and Registrants accept them.

1.2. Phase 1 Effectiveness

- 1.2.1. A report detailing the effectiveness of the Sponsor's comprehensive testing of the registry system:

The Registry System is implemented using 3 computer systems:

- a development system used only by the software development team;
- a test system, used for testing and validating completed developments and for testing the registrar's readiness to access production system. The test system is accessible both to registrars and to Sponsor's technical staff and as such provides a valuable tool for double and triple checking of
- a production system

Most of the new developments were located around the ENS functions. Consequently, testing of ENS functions was most demanding and the design as well as the code had to be refined and tuned during the testing. However, data driven implementation of ENS functions has proven to be very flexible.

A test tool, called Rule Check, originally used for testing of ENS functions, was later implemented in the Registry web Gateway. This allows registrars to test whether a given domain name with a given Aviation Community Membership ID would pass successfully through the ENS verification modules if submitted for live registration.

All the User Interface functions and the data exchanged between Registrars and the Registry (called data Payload) were tested and validated both by the registry and Sponsor's technical staff before converting the system to production.

The testing took place in the test system and the registrars were invited to take part.

Performance testing of the Registry system in terms of number of registrations per hour, who-is performance and response time of TLD servers was also performed. The testing indicated a capacity of several thousands registrations per hour and performance of both who is and TLD servers above ICANN specified performance requirements.

A pilot test was conducted directly in the production system before the commencement of live registrations. This was to ensure that all modules are correctly integrated in the live system and the flow of information is complete (i.e. that a domain name registration appears in the zone file, who is and is correctly recorded in the accounting system). Both SITA and registrars took part in live test registrations.

- 1.2.2. A summary of the complaints received by Sponsor regarding comprehensive testing of the registry system during Phase 1.

Several requests for more information and explanation about the data Payload were received and explanations were provided to Registrars. Sponsor did not receive any specific complaints regarding the system testing.

- 1.2.3. A summary of the complaints received by Sponsor regarding the registration procedures adopted during Phase 1.

Not applicable. There was no registration procedure involved in testing of the system.

1.2.4. A description of significant technical difficulties encountered during Phase 1.

Same as for the testing period of Phase 1: exchange of information with potential Registrars continued, no major difficulties were found, although the ENS functions are new. Due to the knowledge and experience of the Registry sub-contractor (CORE) chosen by SITA, most of the difficulties could be resolved before becoming problems.

Implementation of the 5th top-level domain name server was delayed due to inconsistent entries in a databases outside SITA's control. The 5th server was put in place in April 2002.

1.3. Phase 2 Effectiveness

1.3.1. A summary of the complaints received by Sponsor regarding the attribution of names during Phase 2.

Aviation Community Membership IDs were generated for members of .aero partner associations and distributed by mail or email. Corresponding industry codes were pre-allocated using the ENS functions of the registry system. No complaints were received regarding the issue or distribution of IDs..

Semi-manual system for issuing Aviation Community Membership IDs involving data entry on www.information.aero site was introduced before the commencement of the name registrations. In that context several complaints were received regarding the availability of the fax line for receiving proofing documents to issue Aviation Community Membership IDs as well inquiries regarding the choice of the registrant group, registry opening and proofing documents to issue IDs.

Some of the domain names described in the attachment 13 of the ICANN agreement were registered in the system. ENS functions were configured to prevent registration of other reserved names as per attachment 13 or .aero Domain Management Policy. No complaints were received during the Phase 2 regarding the attribution of names.

1.3.2. A description of significant technical difficulties encountered during Phase 2.

Although no major technical difficulties were encountered during the Phase 2, it was apparent that registrars to learn the new system opted to start with for semi-manual processing of domain name registrations.