

EARN EXECUTIVE

Proposal for an EARN project on ASTRA service development and maintenance

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ASTRA SERVICE DEVELOPMENT AND MAINTENANCE

1 Function

ASTRA (Application Software and Technical Reports for Academia) is a system for the dissemination of information available on databases distributed over the EARN network.

2 History

ASTRA was born as IBM-CNR study contract in January 1988 and has a 2 years duration. The ASTRA system software has two major part: the ASTRA User Interface and the ASTRA-Server System, both developed by the ASTRA team under Giuseppe Romano (CNUCE - CNR) directives and as required by the study contract recommendations.

Current state:

- ASTRA User Interface available for users at IBM/VM nodes;
- ASTRA Server developed only to interface Host Data Bases System STAIRS/CMS;
- ASTRA Server logical network:

MASTER Server at ICNUCEVM CNUCE CNR Pisa Italy

SLAVE Server

- 1) at IFIIDG IDG Istituto Documentazione Giuridica CNR Firenze Italy
- 2) at IFIBDP BDP Biblioteca per la Documentazione Pedagogica Firenze Italy
- 3) at IRMKANT PBI Polo Biologica Integrato CNR Roma Italy

- 24 databases available through the ASTRA Server logical Network

3 Problem Description

The current ASTRA system is at a good level of the implementation phase but new features needs to be added in the next months to make the system ready to be distributed as an EARN service. An effort is really needed to make available a great number of databases on the network especially installing ASTRA Server System in every EARN nodes where some Host Databases System and/or Data Bases Management System are running.

New requirements follows:

- 1 Develop the ASTRA-User interface under VAX/VMS (prototype);
- 2 Make ASTRA-Server able to interface different Host Data Base System
 - Information Retrieval System ISIS-UNESCO (prototype)
 - Data Bases Management System SQL/DS VM (prototype) FOCUS (under study);
- 3 ASTRA system accessible from users at node non-EARN in network connected to EARN through RFC822 mail-gateway (prototype);
- 4 Design the ASTRA service based on ASTRA-Server logical network (under study).

4 Proposed EARN Project

An "ASTRA +" system has to be developed to make available a new EARN service to all academic research community: the "ASTRA +" will be the result adding the above new features to the present ASTRA system.

To provide a new service to EARN user, "ASTRA +" needs a management structure at central level to:

- control and manage the whole ASTRA-server logical network;
- distribute the ASTRA Server Software to the nodes where databases are available;
- maintain the information about the databases distributed, interfacing the Database ADministrators;
- distribute the ASTRA User Interface, and support the user;
- control the quality of the distributed data.

The man-power estimated for the development of new features are (we refer to technical people already involved in ASTRA environment):

o 1 year/man

The man-power estimated for start up new EARN service (we refer to technical people already involved in ASTRA environment):

- o 1 year/man

The man-power estimated for the maintenance of ASTRA Service in EARN are:

- o 2 year/man

A detailed project plan is available. Such request should be addressed to Giuseppe Alberto Romano <ROMANO@ICNUCEVM>.