R I P E

Task Forces

RIPE tasks are structured in two ways: time frame and task group.

The task groups will be assigned to task forces, which are groups of individuals having a vital interest to achieve the tasks. The task forces will designate a coordinator whose responsibility it is to make sure progress is made and results will be achieved within the time frame the task force has agreed on.

Each task will be assigned to a number of task force members. A date for completion and for a first report will be set and agreed by the task force and especially by those to work on the task. Reports are used to monitor a tasks progress and keep other RIPE members interested in it informed. Reports can be very informal. It is important that the task gets done, not the reports.

Note that the name task force implies that tasks are clearly defined and should be achievable within a set time frame.

The time frames for RIPE tasks are:

- short term (a few weeks to two months)
- long term (a few months)
- ongoing (this is something that needs to be done continuously, in this case the task force's task is to define a way to do the ongoing activity, get it started and monitor it's progress)

The task groups are:

1. Connectivity and Routing
2. Network Management and Operations
3. Domain Name System

4. Formal Coordination
5. Statistics and Performance

The outcome of a task force consists of a report with recommendations. The recommendations will be discussed in the RIPE framework, and when consensus has been reached will be implemented.

Task Force 1: Connectivity and Routing

IP connectivity in Europe is not based on a strong backbone network such as NSFnet or EARN. It is not clear whether such a backbone will be feasible in the forseeable future. This makes IP connectivity problems much harder to solve technically, operationally and politically. This task force will be assigned all the tasks relating to the technical and design problems of achieving optimum connectivity.

Quite some input should be generated to task force 2 (Network Management and Operations) so that it can plan how to master the operational problems and can give feedback about problems that can be overcome by a different design.

Also input should be generated to task force 4 (Formal Coordination) on the necessary formal agreements for the use of infrastructures owned by the RIPE member organisations. How to get these agreements is a task of TF 4.

Task 1-1: Maintain an inventory of international IP connectivity in Europe and from Europe to other continents.

Task 1-2: Maintain an inventory of national IP infrastructures not yet interconnected.

Task 1-3: Coordinate connectivity between IP networks of RIPE members, and to other continents.

Task 1-4: Design a routing scheme to be used on the international infrastructure coordinated by RIPE (EGP, BGP ....).

Task 1-5: Monitor RIPE coordinated routing and adapt the design if necessary.

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Task Force 2: Network Management and Operations

European IP traffic is carried by a multitude of different infrastructures. The resulting pan-European IP infrastructure needs to be well managed in coordination with the managements of the underlying infrastructures. Currently this works well enough. With the expected growth a generally agreed management coordination is needed.

This task force should develop a managament framework and collect the necessary management information.

Coordination with all other task forces activities is needed.

Task 2-1: Maintain a ('whois') database about RIPE IP networks and their management information.

Task 2-2: Maintain an infrastructure of operational contacts via various means of communication.

Task 2-3: Create a procedure for notification of security relevant problems assuming that the networks itself are unusable.
Term: June 91

Task 2-4: Maintain procedures for common network operations. These can be loosely agreed and need not be formally specified. Topics: Use of SNMP, reciprocal logins for testing purposes etc.

Task 2-5: Set up a European NIC which makes available the results of tasks 2-1 to 2-4 to all interested parties.
Term: End90, first rep Mar90

Task 2-6: Maintenance and distribution of sets of common utilities, needed for the execution of the tasks 2-1 to 2-4.

Task 2-7: Create and maintain centers of expertise in certain areas: router hardware and software, NSS, IBM software, etc.
Term: ongoing.

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Task Force 3: Domain Name System

Europe needs a set of well coordinated name servers. Europe also needs a set of name servers that is resistent to partial loss of connectivity, especially with the US.

Task 3-1: Maintain a database containing name space administration data: who administers top level domains and first level subdomains. This is for management purposes.

Task 3-2: Coordinate backup name servers (secondaries) within RIPE and within the Internet.

Task 3-3: Design a framework of DNS backup servers within RIPE and get backup for root name service to Europe.

Task 3-4: Maintain a list of recommended DNS software and known bugs.

Task 3-5: Study mailrouting and MX records.

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Task Force 4: Formal Coordination

To make IP in Europe work we need formal agreements between the different networks. We also need to represent the RIPE activity to the outside world.

This should be done by a separate task force but in *very* close coordination with the other RIPE task forces.

Task 4-1: Propose a template agreement on IP cooperation.

Task 4-2: Maintain contacts with CCIRN and FNC directly.

Task 4-3: Start formal contacts with other organisations as necessary.

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Task Force 5: Statistics and Performance

This task force deals with gathering data concerning statistics and performance of RIPE backbones. Relevant issues are methods and means of gathering relevent data of network traffic flow and network performance. Presentation techniques will be tackled also.

Task 5-1: Development, evaluation and use of statistical collecting tools for network traffic flow. The aim is to have adequate tools for all involved technologies. Examples of currently used tools are snmp, nnstat, CISCO ip-accounting, ad hoc X25-tools, ad hoc scripts for automated logging on to console ports on connected network hardware and like.

These tools could certainly be enhanced in functionality, their output streamlined into formats usable for a limited set of data analysis and presentation tools.

Task 5-2: Development, evaluation and use of presentation tools for network statistics and network performance data.The aim is to investigate different ways for presentation of traffic flow and performance data.A related subject is the knowledge of which measurements are interesting and relevant with respect to performance and traffic flow. Another subject is the working out of simple and efficient methods of presenting performance and traffic flow in a complex network.

Task 5-3: Development,evaluation and use of tools for evaluating performance and estimations of possible congestion situations within the RIPE backbones and main connected links. The aim is to build a throughout knowledge of performance criteria and congestion risks for involved protocols mixes and hardwares. Related to this is the collecting of adequate benchmarking tools and by the use of these get a knowledge of available user bandwidths.The output from these efforts will act as guidelines for topology and routing decisions.

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Amsterdam
20 February 1991