

## RIPE Database Status Report

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**ref.: ripe-40**

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### Summary

The database of RIPE network management information continues to grow exponentially. The number of entries has roughly tripled in the last 7 months with much of the increase due to the inclusion of domain information. The number of registered networks has about doubled in the same period.

	Nov 1990	<b>June 1991</b>
persons	643	<b>1270</b>
nets	670	<b>1053</b>
domains	0	<b>845</b>
<b>Total</b>	<b>1313</b>	<b>3168</b>

- Database usage by NOCs and individuals has noticeably increased. The database is a useful tool.
- Database information maintenance needs more attention in some parts of RIPE.
- The connectivity information about networks needs better definition in some areas.
- The human resources necessary to keep the database operational are increasing.
- Activities beyond maintenance of the current functionality progress very slowly due to lack of resources.
- A funded activity to take care of the database is needed before the end of the year.

## Maintenance and Updates

The quality of maintenance of the database information varies drastically. This can partly be seen by comparing the number of entries per country with the numbers one might expect due to the size of the respective country's networking activities.

Per Country Statistics		
Country	Networks	Domains
AT	12	0
BE	4	2
CH	192	16
CS	1	0
DE	219	149
DK	5	1
ES	4	0
FI	15	89
FR	314	114
GB	59	1
GR	2	0
HU	0	0
IE	3	0
IL	0	12
IS	1	31
IT	31	47
NL	75	143
NO	7	62
PL	2	0
PT	16	1
SE	84	176
TN	1	0
YU	6	0

I'd like to use this opportunity to remind you that all updates should be sent to <ripe-dbm@nic.eu.net>. Please use the current templates accessible by anonymous FTP from archive.eu.net in directory ripe/dbase. Those who cannot use anonymous FTP can request the templates by electronic mail from <ripe-dbm@nic.eu.net>. Pre-checked bulk updates from NOCs are preferred but information from any source will be accepted.

Currently there are about 10 updates or additions per day on average.

### Connectivity Information for Networks

The currently valid values of the "connect" field for networks can be seen in the table below. Many of these values have been defined ad-hoc. The set of well defined values currently is:

- LOCAL local network. No external connectivity. No routing information should be passed. It is recommended that international routers do not accept routing information for these networks.
- RIPE network has connectivity within RIPE. RIPE routers should allow non-transit traffic. It is recommended that international routers advertise European networks internationally only if they show this connectivity value.
- NSF network has connectivity with the NSFnet. This means the network is present in the NSFnet policy routing database at MERIT or a request has been submitted to include it.
- NORDU network is NORDUnet member.
- EU network is an InterEUnet member.

NOCs are encouraged to suggest more well defined values for this field which can be used to implement or verify routing (policies). There are currently two known international routes which filter outgoing routing updates according to the connect field. Good maintenance of the RIPE and LOCAL connectivity values becomes especially important as more international routers are going to filter routing updates based on this value.

Connect Statistics	
Connectivity	Networks
ALT	0
EU	161
FNET	1
FUNET	2
ICS	103
LOCAL	470
NORDU	106
NIKHEF	5
NLNET	4
NSF	373
RIPE	539
SARA	18
SURF	18
WCW	4
WIN	23

## **Miscellaneous**

The SRI-NIC and NSFnet database subsets are again available from the RIPE whois server. NSFnet has made the necessary input files available. The SRI-NIC portion only has information about networks with "connected status". It has been brought to the attention of US agencies that it is desirable to have information about *all* assigned network numbers readily available.

## **Planning**

The current central effort to maintain the database is between 5 and 20 hours per week depending on the amount of updates and software development going on<sup>†</sup>. This is rather more than originally expected. Much of this is due to the quickly increasing number of database entries and the corresponding increase in the number of updates. These activities are not funded and occur mostly in time donated by individuals. This means there is a natural limit on what can be done. A funded activity (such as the NCC) is needed before the end of the year if the RIPE database is to remain useful.

There are also a number things considered useful but which currently cannot be done:

- Add new object types as defined by last RIPE meeting (see appendices).
- Develop more stringent consistency checks both inside the RIPE database itself and with other databases such as SRI-NIC and MERIT.
- Investigate and correct inconsistencies. Missing person entries is currently a major problem area.
- Verify the accuracy of older data and correct if necessary.
- Compile a new distribution of database software. Especially the refined tools to check format and consistency need to be made available to the NOCs.
- Make performance improvements for database updates.
- Test & deploy the distributed update software so that bulk updates by NOCs can be done with less manual intervention.

## **Acknowledgements**

I would like to thank all NOCs for their efforts to maintain the RIPE database as a useful tool for everyone within RIPE and elsewhere. Special thanks go to Piet Beertema who has helped a lot with this work in the last few months. Marten Terpstra and Arnold Nipper have helped with software and collecting domain information respectively. We also thank EUnet/EurOpen who provide the machine which houses the database.

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<sup>†</sup> The rate of updates somehow increases dramatically in the week before RIPE meetings :-).