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"Route Server Project" Overview and Progress Report

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Overview

- Update from last time
- Concepts
- Goals
- Route Server
- Routing Registry
- Plan
- Status

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Update from last time

- November 1992, Washington D.C. IPEG
  - Implementation plan tabled

"Internet Routing in a Multi Provider, Multi Path Open Environment"

--> "(ripe-82)" <--

by Bates, Karrenberg, Lothberg, Stockman and Terpstra

  - Consensus on plan and pilot.
- March 1993, Columbus, Ohio, IEPG
  - Deployment plan and status report
- RARE/RIPE project as part of RARE Technical Program being carried out at RIPE NCC funded by SURFnet through RARE

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Concepts

- Three main components for the project
  - The physical **"GIX"** itself
  - The **"Route Server (RS)"**
  - The **"Routing Registry (RR)"**

Main Goals

- Establishing a route server on the GIX itself
  - RS aspects as opposed to transport
- Making it possible to document European routing policies to make RR viable

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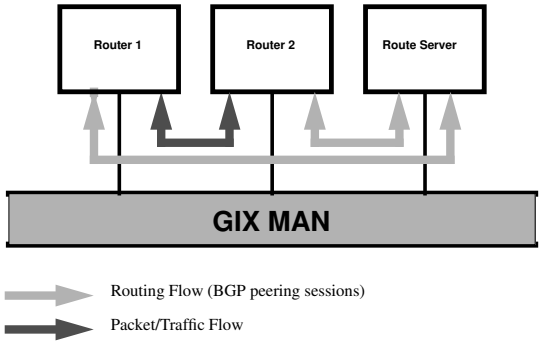
Route Server



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Routing Registry

- Neutral run registry (RIPE NCC)
- Would manage routes for a region or domain (model used -- Geographic)
- Registration of routing policy information
  - Proposal for a format for documenting routing policy

"Representation of IP Routing Policies in the RIPE Database"

(ripe-81)

- Generic guidance document as well as having direct relevance to European Route Server work

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Routing Registry

- Database and objects must be easily derived for use by the route server
- Creation of tools for routing policy
- Information/debugging tools
  - "prcheck" -- consistency checker
  - "prpath" -- extract AS-path information
  - "prconn" -- display connectivity
  - "prtrace" -- policy derived traceroute
- Configuration tools
  - Network-based lists generator
  - Interactive Configurator
- RS/RR interaction tools

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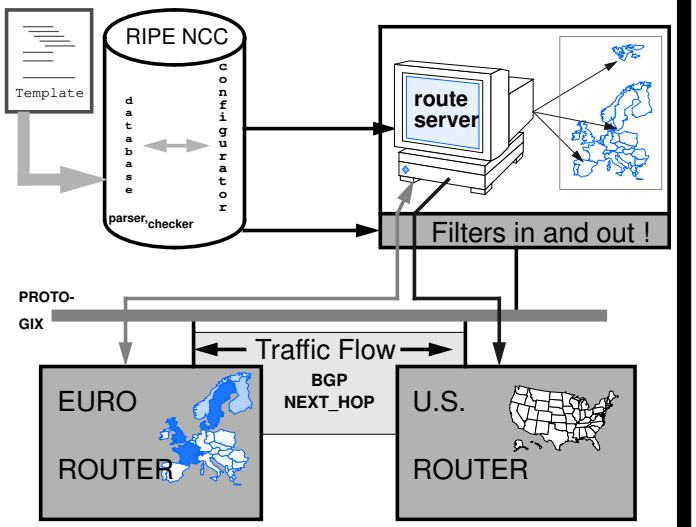

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Plan

- 12 point plan produced (work in progress)
- Ongoing plan of course
- Key points (refer to paper for timescales)

-- Routing Registry

-- New database objects in RIPE database

-- Modification of software

-- Impact document for providers

-- Development of database software

-- Development of Tools

-- Development of update and transition procedures

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Plan

-- Route Server

-- Install Route-Server on the Proto-GIX itself

-- Test and possibly enhance route server software (keep focus of initial RS ideas of ripe-82)

-- Work in collaboration with the NA route server and any future route servers

-- Clear and smooth transition with the providers at the GIX

-- Use the RS for operational traffic **(ULTIMATE GOAL)**

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Status

Route Server

- Route Server installed at Sprint POP
- Many thanks to **Sprint, SUNET and AlterNET**
- Up and running !!
  - SUN IPC running “gated” alpha
- Initial testing done using some test-networks in Amsterdam and Stockholm
- Currently peering with ENSS and ICM-DC-1 as a test doing third party routing correctly
- Generated European list could be used today or a combination of RR information plus use of other databases

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Status

- Development RS installed in Amsterdam on IBR LAN (Ebone Amsterdam DMZ)
- Test cisco installed **(thanks to SURFnet)**

General

- Good response from Providers at the GIX
- On Schedule with proposed time-scales
- **Going Well !!!!**
- **CIX association will use tools and ripe-81 for their own Route Server on the GIX**

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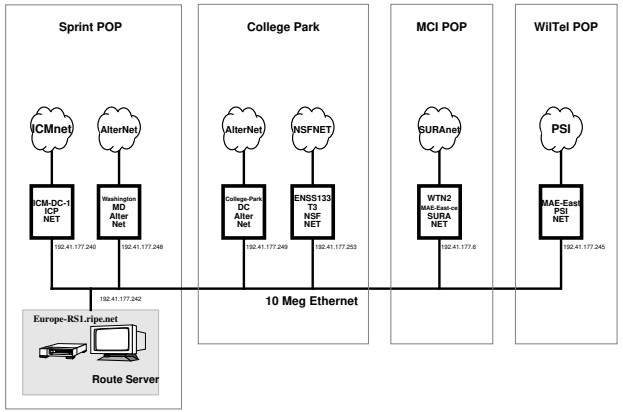
Sprint POP
College Park
MCI POP
WilTel POP
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NSFNET
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PSI
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NSF
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