PRIDE

Policy based Routing Implementation & Deployment in Europe

Final Report

Marten Terpstra

PRIDE

Overview

- introduction
- final status
  - PRIDE Tools
  - PRIDE Guide
  - PRIDE Course
- conclusion
- what now?

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Introduction

- Internet (routing) becoming more and more complex
- Routing Registry can help in many ways

promote the use of a European Routing registry

- provide tools that make use of the RR
- provide information about the RR
- coordinate with other RR projects

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PRIDE Tools

- staged in two releases, 1.0 and 2.0
  - prtraceroute
  - prcheck
  - prpath
  - prconn
  - prconfig

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Information

- PRIDE Guide
  - how to register in a RR
  - how to use the information in a RR
- PRIDE Course
  - 1 day course for Internet service providers
  - focussed around Guide and Tools

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Coordinate

- other RR type projects started at various places
  - kept in close contact with these projects
  - try and develop one “standard”
  - share work and development
  - provide feedback to each others’ project
  - specifically want to thank MERIT for input and coordination

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Coordinate

- RIPE-181 accepted as “de facto” RR standard
- many people using RIPE-181 and RIPE DB software or have expressed interest
  - MERIT / RA
  - MCI
  - CA*NET
  - APNIC
  - SURANET
  - DSI
  - ...

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Organisation

- Project carried out at RIPE NCC as joint RIPE/RARE project
- 2.3 FTEs for 1 year: Tony Bates, Marten Terpstra, Daniel Karrenberg (30%)
- Funders
  - Joint Network Team
  - UNINETT
  - UUnet Technologies, Inc
  - EUnet BV
  - RENATER
- Start Sep 1993 with 1 FTE, 1.3 FTE added Jan 1994

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Final Status

- Project has officially ended December 31st
- Tony worked 50% on the project during Oct and Nov 1994 and left the project Dec 15th 1994
- Marten and Daniel are finishing the remaining tasks during Jan 1995
- I will leave TERENA/PRIDE/NCC after this meeting
- Daniel will put his 30% back into NCC core
- not completely finished, but ....

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RR status

- existing “standard” for registering routing policies
  - RIPE-81
  - Tools, Guide and Course 1.0 based on RIPE-81
- much effort went into enhancing RIPE-81
  - RIPE-181
  - Tools, Guide and Course 2.0 based on RIPE-181
- RR implementation in the RIPE database
  - not mentioned in project plan
  - took a lot of time and effort
  - RIPE database supports full RIPE-181

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PRIDE Tools

- PRIDE Release 1.0 spring 1994, based on ripe-81
  - prtraceroute 1.0
  - prcheck 1.0
  - prpath 1.0
- PRIDE Release 2.0 (beta) January 1995, RIPE-181
  - prtraceroute 2.0 beta2
  - prcheck 2.0 beta
  - prpath 2.0 beta
  - prconfig (netlist) 2.0 alpha

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PRIDE Tools

- prconn + prconfig not finished
  - changing requirements (CIDR)
  - time constraints

ftp://ftp.ripe.net/pride/tools/pride-tools-1.tar.Z
ftp://ftp.ripe.net/pride/tools/pride-tools-2beta.tar.Z

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P R I D E   T o o l s

PRIDE Tools stats (Q4 1994)

```
29258 ( 4.5%) whois queries from PRIDE tools

24120 (82.4%) prtraceroute
 4241 (14.5%) prpath
  897 ( 3.1%) prcheck
```


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P R I D E   G u i d e

- PRIDE Guide 1.0 released May 1994
  - based on RIPE-81
  - used for one Course in Amsterdam
- PRIDE Guide 2.0 released January 1995
  - based on RIPE-181
  - used for 6 courses

ftp://ftp.ripe.net/pride/docs/pride-guide-2.0.ps.tar.Z
ftp://ftp.ripe.net/pride/docs/pride-guide-2.0.txt.tar.Z

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P R I D E   C o u r s e

- Course 1.0
  - one given in Amsterdam in May 1994
  - 12 attendees
  - > 90% satisfaction with course, slides and presentation
  - ~ 90% of material presented useful
  - 61% of material known beforehand

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P R I D E   C o u r s e

- Course 2.0
  - six given in Amsterdam (2x), Pisa, Vienna, London, and Washington DC in November 1994
  - 80 attendees total
  - > 90% satisfaction
  - ~ 80% of material presented useful
  - 50-60 % of material known

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C o n c l u s i o n

- we have done a lot of work
- things necessary but not planned in project proposal took more time than expected
- set a “standard” for registering routing policy information in a Routing Registry
- many others have adopted RIPE-181 and software
- PRIDE tools are being used

Thank you all for giving us support and guidance!!

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W h a t n o w ?

- project has ended
  - original team doing “other things”
- tools need maintenance and small development
- RR maintenance as part of NCC activity plan
  - needs still more attention and education
- perhaps continuation projects (PRIDE-2)
  - more sophisticated tools
  - development of RR itself
  - more education