



Route-Server implementation @ VIX presentation and LIVE-demo

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Why a route-server and what

- big advantage if many peers are present
 - for connected ISPs
 - for IXP
- good for stability if properly implemented
- many examples for successful implementations out there
- re-invent wheel?
 - normally not
 - in this case yes?



Features of route-server

- service started as release candidate on april 19th 2010 currently ~25% participating (increasing)
- based on BIRD (<http://bird.network.cz>)
 - runs in xen environment
 - one daemon per protocol on each site
- one rib per peer-ip
 - no global rib
 - bidirectional pipes between ribs
- traffic is kept site local whenever possible
- peering starts only if both parties agree

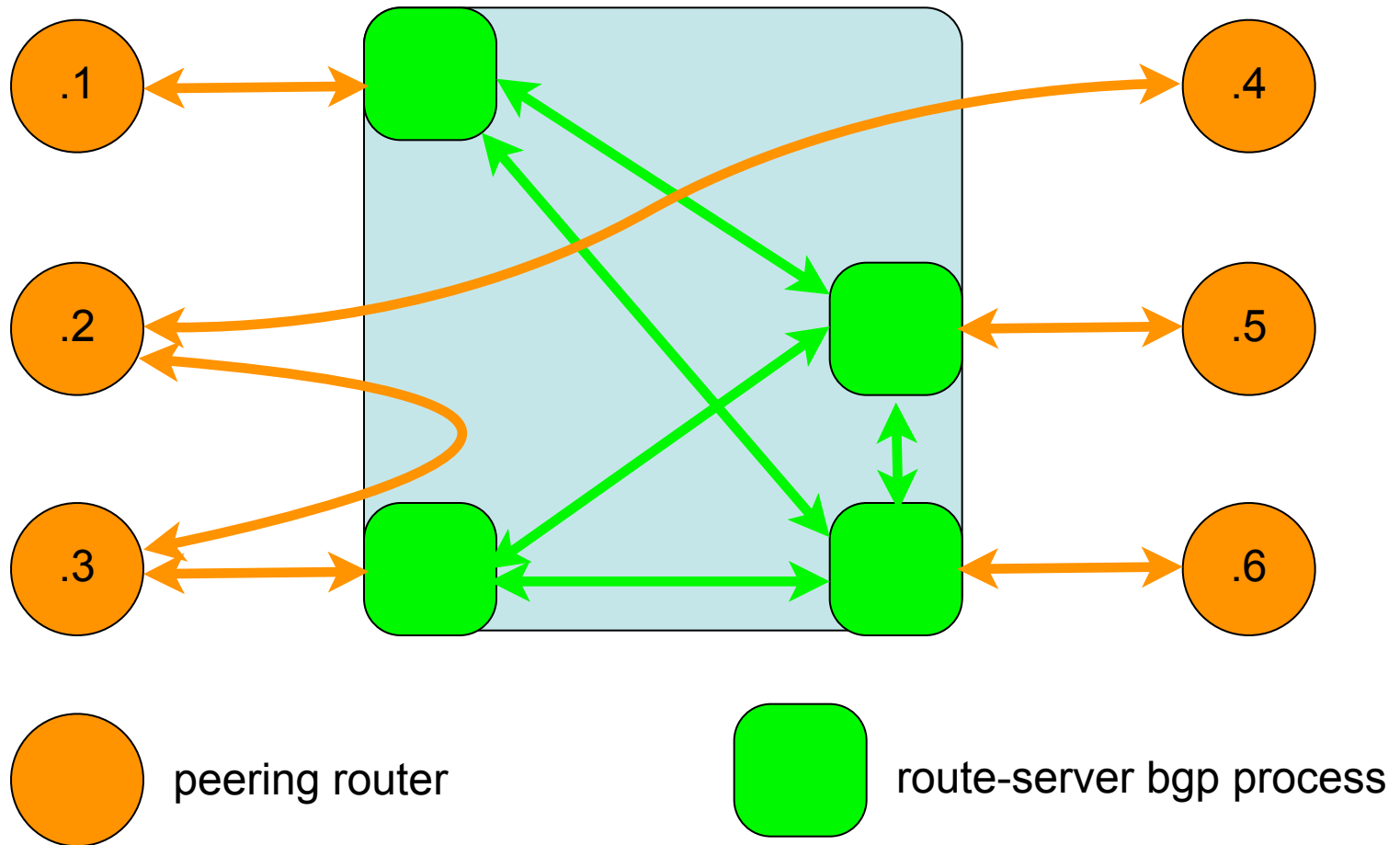
Features of route-server

- configured through web-interface
 - no bgp communities necessary
 - no additional configuration on own router
- routes are filtered
 - according to provided as-macros per protocol
 - non matching prefixes get marked
- IPv4/IPv6 feature equivalent
- 16/32 bit as-numbers feature equivalent (in release)

Features of configuration interface

- set defaults for
 - peering yes or no
 - accept only documented routes or all routes
- configure exceptions per peer
 - peering yes or no
 - accepting only documented routes or all routes
 - prepend own routes to peer 0-4 times
- status of (potential) peering partner is displayed + contact information

scheme of BIRD implementation @ VIX





status of route-server

It's a new developement
Please give us feedback!



Live Demo

https://www.vix.at/vix_login.html



Demo screenshots

The screenshot shows the VIX Web Portal home page. At the top left is the VIX logo. To its right is the text "Deutsche Version" and a set of accessibility icons. Below this is a navigation bar with links for "Home | FAQs | Contact & Imprint | Sitemap". A secondary navigation bar contains tabs for "Organization", "Technology", "Services", "News", and "Extras", followed by a search box with a "GO" button. The main content area features a breadcrumb trail "YOU ARE HERE: VIX HOME". Below this is the "VIX Web Portal" section, which includes a description of the portal's services for participants, a "User login" section with a form for entering a username and password, and links for "Forgot your username / password?" and "No login?".

VIX Vienna Internet eXchange

Deutsche Version

Home | FAQs | Contact & Imprint | Sitemap

Organization Technology Services News Extras

Search

LOGIN as User

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YOU ARE HERE: VIX HOME

VIX Web Portal

The Web Portal offers additional services exclusively for VIX participants.

User login

Enter your username and password here in order to log in on the website:

Login

Username:

Password:

Login

Forgot your username / password?

In that case please contact us via [webmaster\(at\)vix.at](mailto:webmaster(at)vix.at).

No login?

VIX participants have the possibility to request a personal account for the web portal. For more information please visit [portal account](#).

Demo screenshots

Organization Technology Services News Extras

Userprofile Network Event Manager

Search

YOU ARE HERE: VIX HOME | NETWORK | **ROUTESERVER IPV4**

Routeserver

Please choose the participant:

Activation

As soon as the route servers are activated they will try to establish a BGP peering to your routers. Turn on the VIX route servers:

AS Set for filters: AS-ACONETTOVIX

MDS Password (required):

Peer with all participants by default: Peer Do not peer

Default prefix import policy: Import only prefixes found in the RIPE-DB Import all prefixes

Sort order: Participant names AS Numbers Peering

Routeserver IPv4 >

IPv4 Prefixes

AUT-Num Object

Help

Routeserver IPv6

Peering Traffic

Layer 2 View

IXP-Watch

Network Monitoring

Port Statistics

Smokeying



Demo screenshots

Peers

Participant	Peer settings	Your peering options
Service.ACO.net (AS1120, 13 prefixes from RIPE-DB) http://www.vix.at/vix-services.html noc@aco.net noc@aco.net AS-Set: AS-ACOSERV	X	<input type="radio"/> Peer <input checked="" type="radio"/> Do not peer <input type="radio"/> Peer like default
NIC.at (AS30971, 2 prefixes from RIPE-DB) http://www.nic.at noc@nic.at AS-Set: AS-NICAT	X	<input type="radio"/> Peer <input checked="" type="radio"/> Do not peer <input type="radio"/> Peer like default
I3B (AS39912, 705 prefixes from RIPE-DB) http://www.i3b.at peering@i3b.at noc@i3b.at AS-Set: AS-I3B	X	<input type="radio"/> Peer <input type="radio"/> Do not peer <input checked="" type="radio"/> Peer like default
GTS CE (AS5588, 16852 prefixes from RIPE-DB) http://www.gtsce.com peering@gtsce.net eng@gtsce.net AS-Set: AS-GTS-CE	✓	<input type="radio"/> Peer <input type="radio"/> Do not peer <input checked="" type="radio"/> Peer like default
empirion (AS21360, 57 prefixes from RIPE-DB) http://www.empirion.at noc@empirion.at AS-Set: AS-EMPIRION	✓	<input type="radio"/> Peer <input type="radio"/> Do not peer <input checked="" type="radio"/> Peer like default
CPSNet (AS15498, 4 prefixes from RIPE-DB) http://www.cpsnet.at peering@ip-v.net noc@ip-v.net AS-Set: AS-CPSON2VIX	✓	<input type="radio"/> Peer <input type="radio"/> Do not peer <input checked="" type="radio"/> Peer like default
APA (AS5403, 12 prefixes from RIPE-DB) http://www.APA.at/ net-admin@apa.at AS-Set: AS-APA	✓	<input type="radio"/> Peer <input type="radio"/> Do not peer <input checked="" type="radio"/> Peer like default

Demo screenshots

<p>Microsoft Corporation (AS12076, 0 prefixes from RIPE-DB) http://www.msn.com peering@microsoft.com ioc@microsoft.com</p>	<p>not participating</p>	<p> <input checked="" type="radio"/> Peer <input type="radio"/> Do not peer <input type="radio"/> Peer like default <input type="text" value="AS-Prepends"/> AS-Prepends <hr/> <input checked="" type="radio"/> Import all prefixes <input type="radio"/> Import RIPE prefixes <input type="radio"/> Import like default </p>
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Demo screenshots

Organization Technology Services News Extras
Userprofile **Network** Event Manager

Search GO

YOU ARE HERE: VIX HOME | NETWORK | ROUTESERVER IPV... | **IPv4 PREFIXES**

Routeserver IPv4 >>
IPv4 Prefixes >>
AUT-Num Object
Help
Routeserver IPv6
Peering Traffic
Layer 2 View
IXP-Watch
Network Monitoring
Port Statistics
Smokeping


IPv4 Prefixes

762 Prefixes

Please choose the participant: Submit

AS Set for filters: AS-ACONETTOVIX

prefix	autogenerated	greater or equal	less or equal	generated at
27.0.0.0/24	✓			2010-03-19 10:27:09
27.50.0.0/22	✓			2010-03-19 10:27:12
27.255.0.0/16	✓			2010-03-19 10:27:10
41.223.236.0/22	✓			2010-03-19 10:27:11
46.0.0.0/16	✓			2010-03-19 10:27:09
46.1.0.0/21	✓			2010-03-19 10:27:13
46.1.24.0/24	✓			2010-03-19 10:27:10
62.93.32.0/19	✓			2010-03-19 10:27:11
62.108.160.0/20	✓			2010-03-19 10:27:12
62.108.176.0/21	✓			2010-03-19 10:27:13
77.47.128.0/17	✓			2010-03-19 10:27:13
77.47.128.0/24	✓			2010-03-19 10:27:14
77.47.129.0/24	✓			2010-03-19 10:27:09
77.47.130.0/24	✓			2010-03-19 10:27:10
77.47.131.0/24	✓			2010-03-19 10:27:13

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Demo screenshots

Organization	Technology	Services	News	Extras	<input type="text"/> <input type="button" value="GO"/>
Userprofile	Network	Event Manager			

YOU ARE HERE: VIX HOME | NETWORK | ROUTESERVER IPV... | **AUT-NUM OBJECT**

Routeserver IPv4 >

IPv4 Prefixes

AUT-Num Object >

Help

Routeserver IPv6

Peering Traffic

Layer 2 View

IXP-Watch

Network Monitoring

Port Statistics

Smokeping

AUT-Num Object

Please choose the participant:

This section is a copy and paste list of participants that peer with you. You can put this into your AUT-Num Object.

```

remarks: -----
remarks: Route-Server Peerings at the Vienna Internet Exchange (VIX)
remarks: -----
import: from AS1267 accept AS-INFOSTRADA
export: to AS1267 announce AS-ACONETTOVIX
import: from AS3248 accept AS-SILAT
export: to AS3248 announce AS-ACONETTOVIX
import: from AS5403 accept AS-APA
export: to AS5403 announce AS-ACONETTOVIX
import: from AS5588 accept AS-GTS-CE
export: to AS5588 announce AS-ACONETTOVIX
import: from AS8447 accept AS-PTA
export: to AS8447 announce AS-ACONETTOVIX
import: from AS8596 accept AS-ROTEE
export: to AS8596 announce AS-ACONETTOVIX
import: from AS9002 accept AS-RETN
export: to AS9002 announce AS-ACONETTOVIX
import: from AS12301 accept AS12301:AS-ROUTES
export: to AS12301 announce AS-ACONETTOVIX
import: from AS12605 accept AS-LIWESTAT
export: to AS12605 announce AS-ACONETTOVIX
import: from AS15427 accept AS-EDVG
export: to AS15427 announce AS-ACONETTOVIX
import: from AS15498 accept AS-CPSON2VIX
export: to AS15498 announce AS-ACONETTOVIX

```



VIX contact information

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