RIPE Basics oder wie mache ich meine eigene LIR auf?

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Lightning Talk

Über Mich:

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Dienstleistungen

Peering Management
& Consulting

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Warum eine RIPE LIR? #1

- Liefert ein /24 IPv4 (Waiting List)

How Does The IPv4 Waiting List Work?

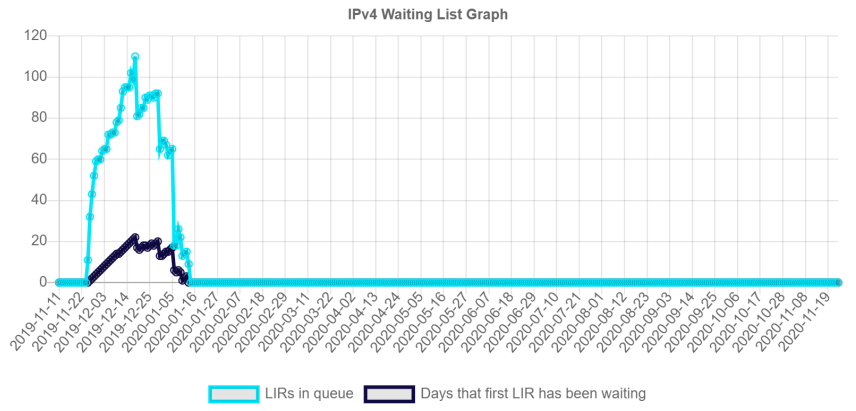
If you are a member of the RIPE NCC, you may be able to request a single /24 allocation from any IPv4 addresses that we recover in the future. A waiting list is used to process these requests in the order they are submitted.

Even though we have run out of IPv4, we will continue to recover small amounts of addresses for the foreseeable future. These are addresses that have been de-registered when members go out of business or are closed down, or that members have chosen to return. The RIPE community has agreed that we should allocate any recovered addresses to members via a waiting list, using a /24 allocation size (256 addresses). You can find more information in the IPv4 Policy.

Who Can Join the Waiting List?

In order to submit an IPv4 request, the following criteria apply:

- You must have completed the process to become a RIPE NCC member (LIR)
- The LIR requesting addresses must not have received an IPv4 allocation from the RIPE NCC previously (including via the waiting list)
- The allocation must be used to make assignments
- The address space must be used on a network with at least one active element in the RIPE NCC service region



How Does It Work?

- Allocations will be a /24 in size (256 addresses)
- Only one allocation per LIR account
- IPv4 requests are submitted in the LIR Portal and are added to the waiting list automatically
- We publish statistics showing the number of LIRs on the waiting list and the number of days that the LIR at the front of the queue has been waiting
- Members will be able to check their place in the queue via the LIR Portal

It is important that members understand they will only receive an IPv4 allocation "if and when" we have enough addresses. How long this takes will depend on the number of addresses we recover and how many request are on the waiting list.

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Warum eine RIPE LIR? #2

- Liefert ein /29 IPv6
  (Nein, IPv6 ist nicht die Ersatzlösung)
- Liefert ein ASN
- Notwendiger Landeplatz für Kauf von IPv4 (PA) Adressen

Achtung:

- 2 Jahre Transfersperre auf Ressourcen wie IPv4

Aktuelle Preissituation IPv4

- In etwa 25 € für kaufen
- Bedeutet: /24 = 25 x 256 = € 6.400
- Oder für /22 = 25 x 1024 = € 25.600

Kosten der LIR

- Setup: € 2.000 (+ ggf. Dienstleister)
- Kalenderjährlich: € 1.400 abzgl. „surplus“ im nächsten Jahr

Theoretische Rechnung: 2000 + 1400 + 1000 + 1000 = 5.400

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Achtung: Klassen von IP

- PA (Provider Aggregated) IP braucht eine LIR!
- PI (Provider Independent) IP ist selten – braucht einen sponsoring LIR!
- Legacy IP – noch seltener – braucht gar nichts

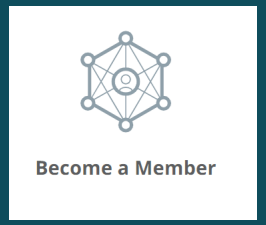
- Gekauft/verkauft wird zumeist PA!

Wozu noch IPv4

- IPv4 Abschaltung passiert wohl nicht vor 2050 (?)
- Keine Abhängigkeiten vom ISP / Umziehbarkeit der IP Adr.
- „sauberes“ Multihoming ist möglich
- Neue Dienste wie z.B. „Microsoft MAPS“ oder „Closed User Group“ bedingen z.T. BGP und IP des (Enterprise) Kunden
- Eigene Teilnahme an Peering um Traffic Engineering zu „richten“

Also: wie mache ich eine LIR

Variante 1: www.ripe.net



Alternative: jemanden bitten/beauftragen

Hinweis: die „Komplexität“ kommt nach dem Vertrag

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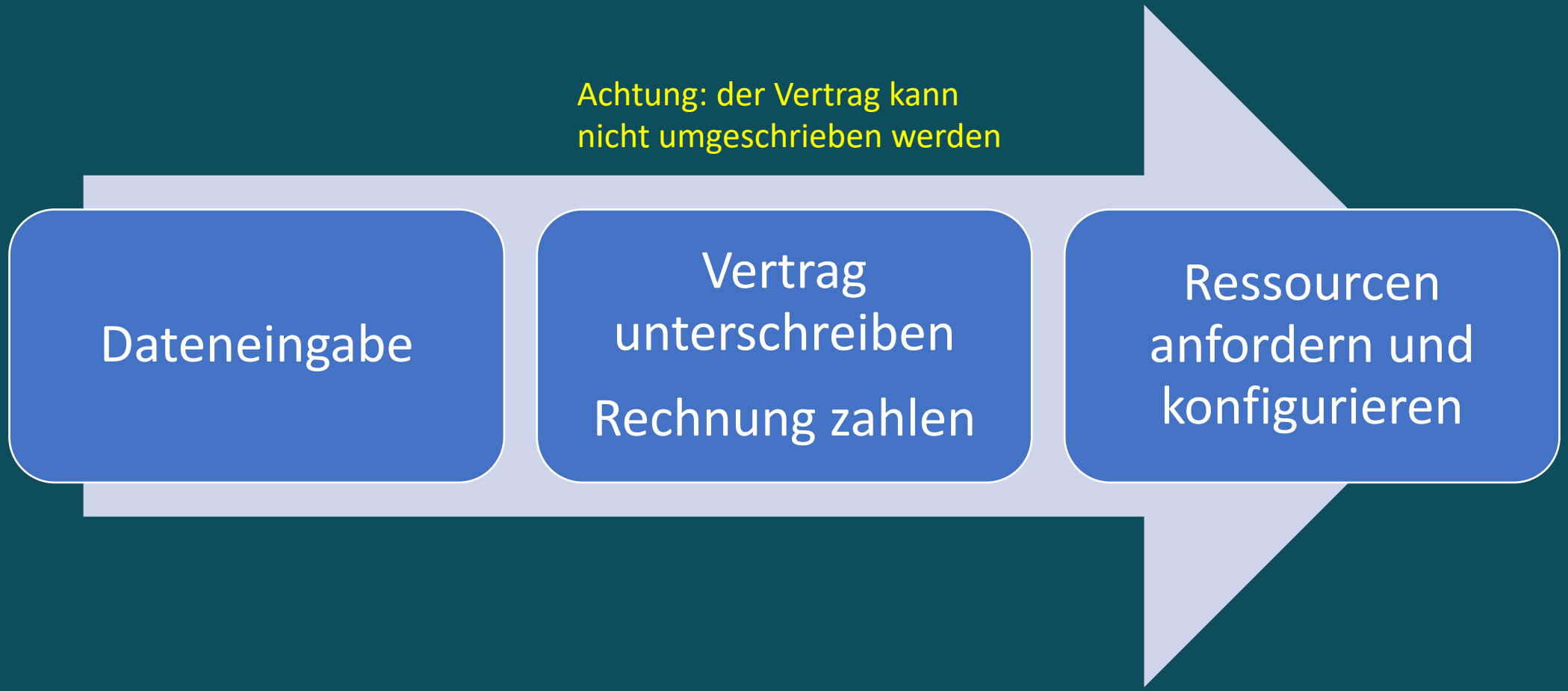
Prozess und Dauer: ~ 2 Wochen



Verpflichtungen

- Die Rechnungen zahlen!
- Ggf. Communityarbeit / GM Abstimmungen / Mailingliste
- Daten aktuell halten
- IP Verwendung dokumentieren

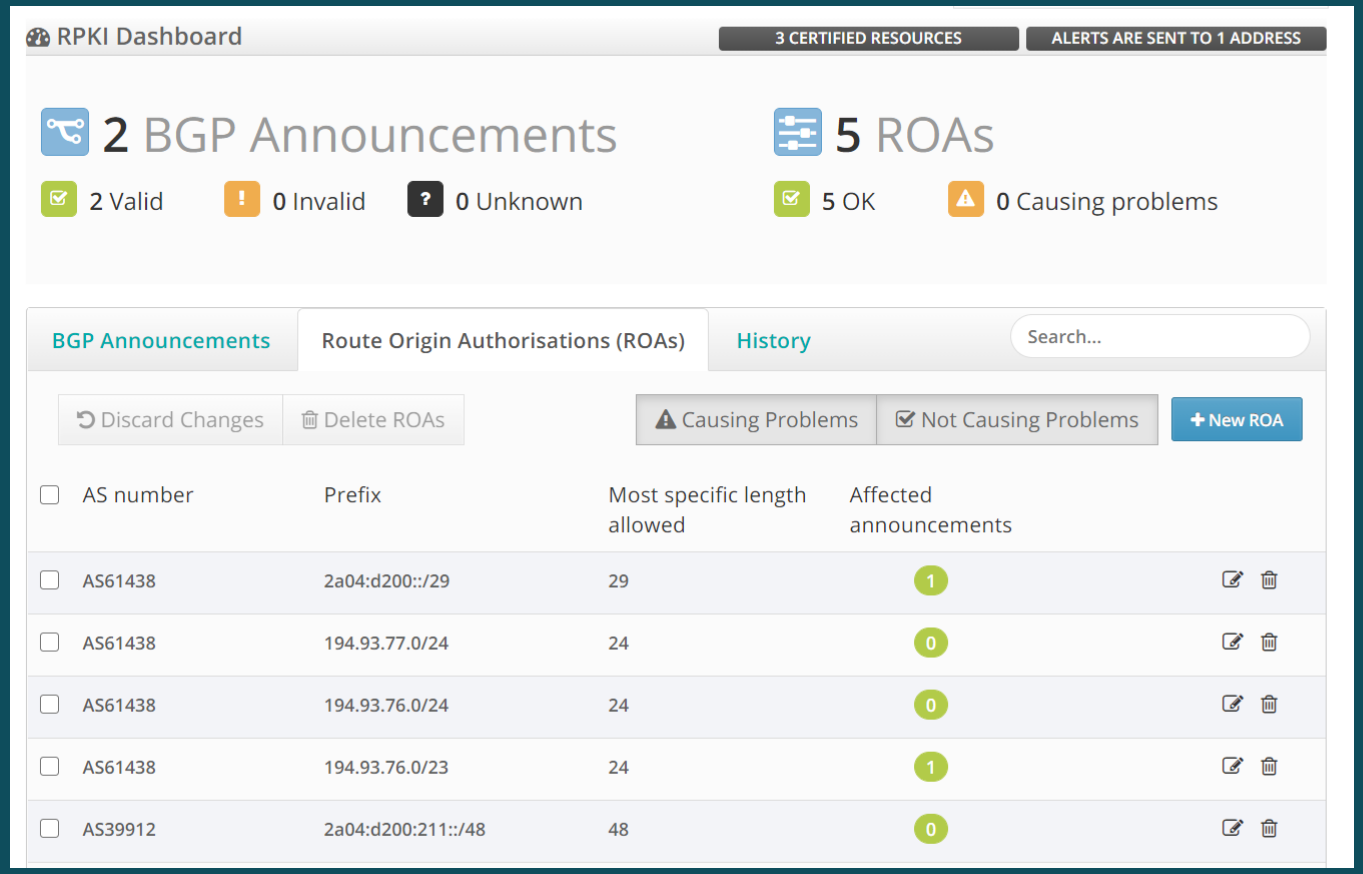
Kurze Liste von Ressource Records

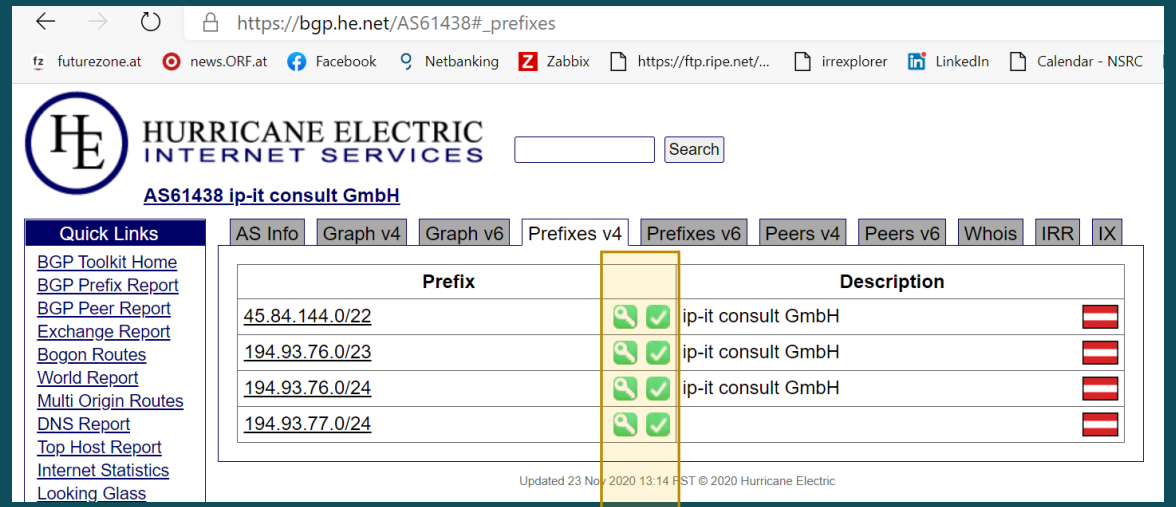
- Route Objekte => saubere IRR / funktionale Filter!
- AS-SET => saubere IRR => gehört in peeringdb.com
- ASN (aut-num) => saubere IRR => gehört in peeringdb.com
- Reverse DNS Objekte
- Saubere role objects / Kontakte => sonst nicht MANRS.org konform!
- RPKI Assistent => sonst hijacking Gefahr

RPKI Dashboard

- Das hier bekommt JEDER hin!

Sieht dann so aus (https://bgp.he.net)





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Einige Dramatische No-Go´s

- Falsche IRR Daten
- Keine peeringdb Verwendung
- Keine oder falsche RPKI ROA
- Kein reverse DNS

Weitere Hinweise:

- Atlas Anchor Measurement
- https://atlas.ripe.net/anchors/map/
- Zertifizierungsprogramme
- https://www.ripe.net/support/certified-professionals
- LIR Konsolidierung!

Earn Your Digital Badge

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at-wsl-as21013	6686		quattroSEC GmbH QA172-RIPE	Wels

Automated invoices will be corrected for valid requests processed after 31 December 2020. But we kindly ask you to complete closure requests, policy transfers and notifications of changes in business structure in time so we avoid sending the automated invoice in Q1 2021. This reduces unnecessary administrative burden for ourselves and for members.

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