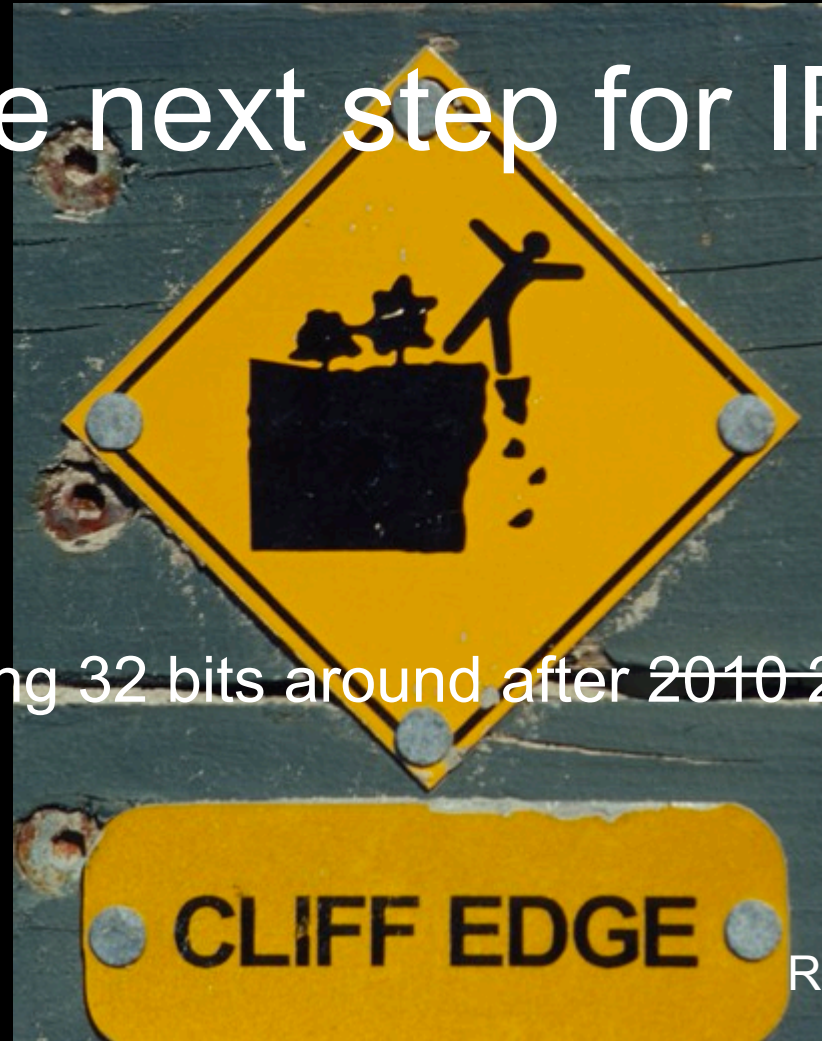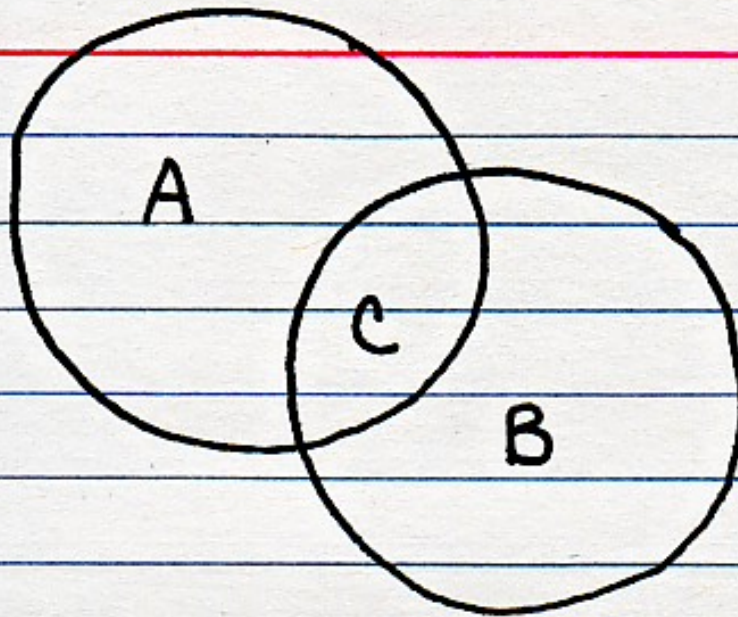# The next step for IPv4

Moving 32 bits around after ~~2010 2009~~ ????

RIPE57, Oct 28th 2008

Remco van Mook

(no hats)

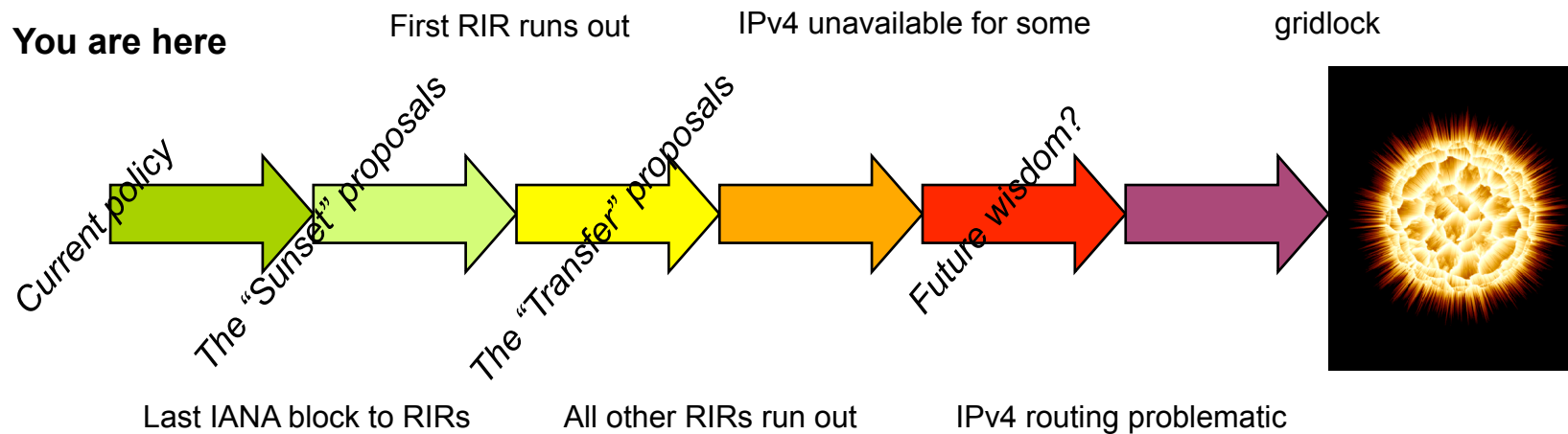# Reality check

A = The way things are

B = The way things will be

C = Smaller than you think

Future of IPv4

You are here

First RIR runs out

IPv4 unavailable for some

gridlock

Current policy

The "Sunset" proposals

The "Transfer" proposals

Future wisdom?

Last IANA block to RIRs

All other RIRs run out

IPv4 routing problematic

None of the proposals will be able to save the world, rescue kittens from trees, cure the common cold or even save us from eventual doom with IPv4. Get IPv6, already.

Recap from RIPE55, 56

Highlights from original proposal

- Allocated space can be moved directly between ONLY LIRs within one RIR

- Either temporary or permanent

- RIPE NCC to function as clearing house

- Don't get involved in conditions

- Don't regulate the LIRs

More additions and changes

- Much improved proposal text
(Thanks again Filiz!)

- 2 Year moratorium on new allocations

- Cleared up the relation with current certification efforts

- **Demonstrate need to RIR!!**

We don't call it liquidity for nothing
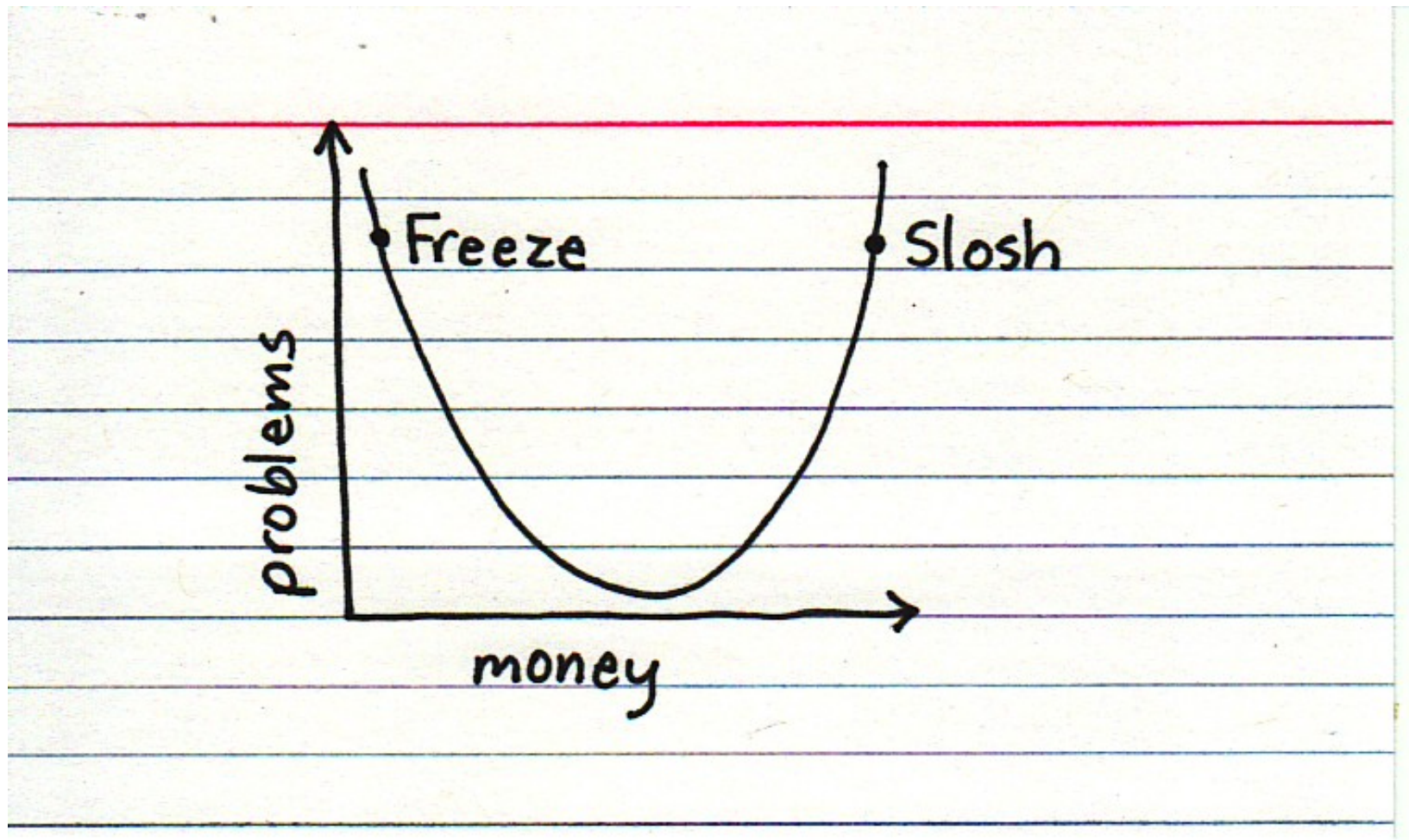
The IPv4 Addressing "Market"
RIPE 57
Dubai, U.A.E

Martin Hannigan
Remco van Mook

Disclaimers

- **No IPv4 address space was harmed, transferred, delegated, hijacked, or otherwise utilized in a way that would be non conforming to current RIR community policy in the creation of this presentation.**

- **The documented conversation was initiated by the "broker", and discussions ensued only to provide documented proof that there is undeniably an operational market, regardless of the legal issues, for IPv4 address space.**

- **No NDA's or other legal agreements are being broken. An NDA was never signed with the "representative of the buyer" or anyone else for that matter.**

Content

- Disclaimers
- Market Evidence
- Discussion Notes
- Process
- Cost Analysis
- What's the point?
- References
    - (1) Headers for "Market Evidence" email
    - (2) Transfer statistics for ARIN
    - ....

Market Evidence*

Hello Martin,

Through a colleague I have come to understand that you might have access to
unused or underutilized IP blocks (indirectly if not personally).

I represent a prospective buyer who is in the market to acquire several
blocks. Class-B /16 would be preferred, but we're willing to consider
whatever assets might be available.

Please let me know if you can assist us in identifying relevant
opportunities. Thank you!

[signature redacted]

--
[Author title redacted]
[Address redacted]
[Contact data redacted]
[Website redacted]

Confidentiality Statement

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proprietary information, and may be used only by the person or entity to
which it is addressed. If the reader of this e-mail is not the intended
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you have received this e-mail in error, please notify the sender by replying
to this message and delete this e-mail immediately.

Reference 1

Meeting Notes

- Legal services to be provided and paid for
- Would "buy" as many legacy /16's as possible
- No worries about ICANN, IANA, IETF, or RIR's
- Not concerned with filtering
- Not concerned with registration agreements
- Uninterested in testing route-ability or reach-ability
- Verifiable company, verifiable individual, not a scam
- Simple process typically completed in < 60 days from contact to wire transfer

Process

- Execute NDA and related agreements
- Setup ORG holder in "holding company"
- Initiate transfer request
- Address RIR questions
- Complete the transfer of the ORG to the holding company
- Wire funds to "seller" to complete execution
- Update POC to new owner

Cost Analysis

	US	EU
Base Cost (/16)	$175,000.00	€ 137,795.88
Legal Fees	$5,000.00	€ 3,937.03
35% Markup	$63,000.00	€ 49,606.52
5% Referral Commission	$9,000.00	€ 7,086.65
10% Cost of Capital	$25,200.00	€ 19,842.61
Gross Cost (/16)	$277,200.00	€ 218,268.67
Unit Cost (/32)	$4.23	€ 3.33

What's the point?

- An IPv4 market exists, legal or not
- Legacy address blocks are being transferred out from under us while we debate transfer policy that needs to reflect Internet trends, evolution, and needs for the 21st century and for *the end of IPv4 allocation as we know it*
- Money is indeed changing hands as a result
- Transfer statistics need improvement to provide us with a better picture of overall
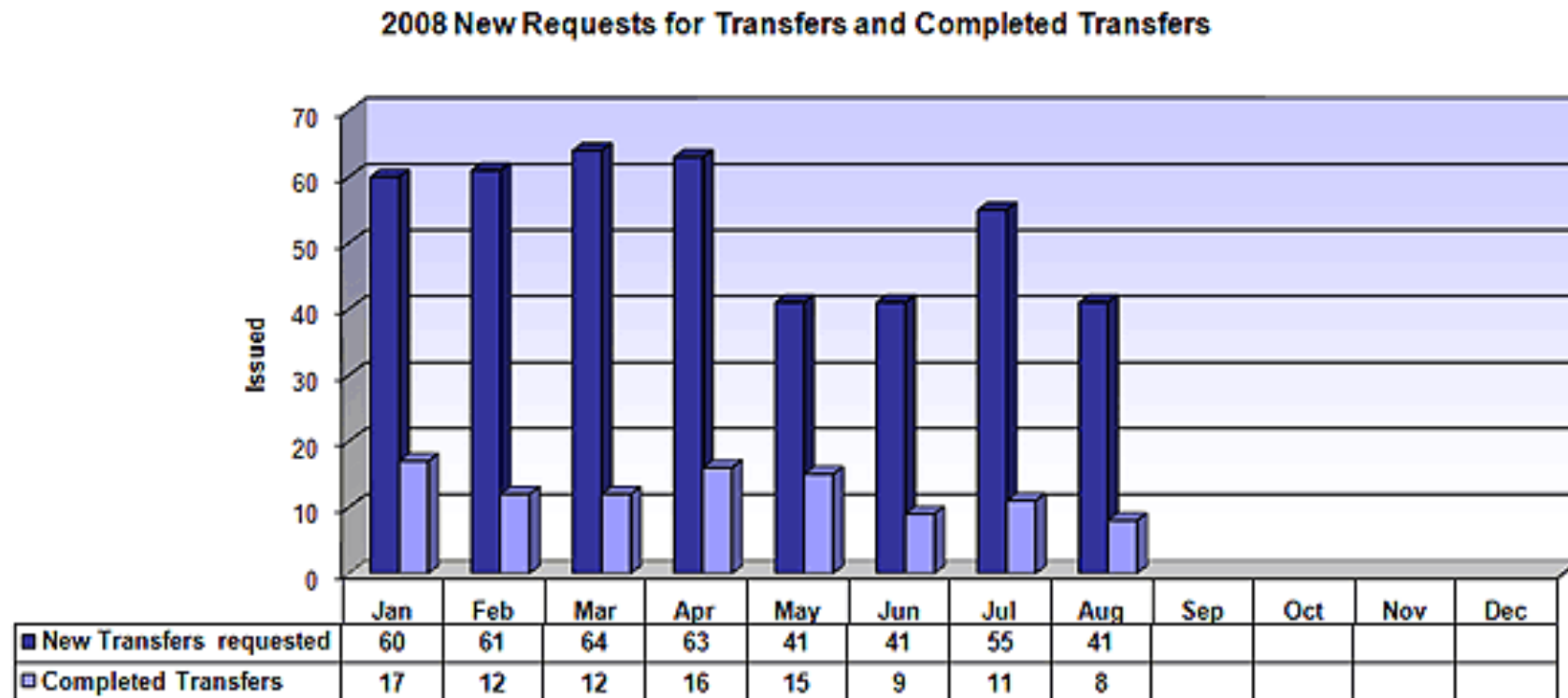
Ask your local RIR

- IP transfer requests received
- IP transfer requests completed
- IP transfer requests abandoned

Reference 1

```
Delivered-To: hannigan@gmail.com
Received: by 10.141.43.16 with SMTP id v16cs571886rvj;
        Mon, 26 Nov 2007 15:58:12 -0800 (PST)
Received: by 10.82.160.19 with SMTP id i19mr8828929bue.1196121491435;
        Mon, 26 Nov 2007 15:58:11 -0800 (PST)
Return-Path: [redacted]
Received: from [redacted])
        by mx.google.com with ESMTP id z34si2530098ikz.2007.11.26.15.58.10;
        Mon, 26 Nov 2007 15:58:11 -0800 (PST)
Received-SPF: neutral (google.com: [redacted];
Authentication-Results: mx.google.com; spf=neutral (google.com: [redacted]
Received: from [redacted] with ESMTP (Nemesis)
    id 0ML31I-1Iwnq52Gjs-00031z; Tue, 27 Nov 2007 00:58:10 +0100
Reply-To: [redacted]
From: [redacted]
To: <hannigan@gmail.com>
Subject: New Business Request
Date: Mon, 26 Nov 2007 18:58:28 -0500
Organization: [redacted]
MIME-Version: 1.0
Content-Type: multipart/related;
    boundary="----=_NextPart_000_0150_01C8305E.553317D0"
X-Priority: 1 (Highest)
X-MSMail-Priority: High
X-Mailer: Microsoft Office Outlook, Build 11.0.5510
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.3198
Thread-Index: AcgwiD0Oa5rvho0yQUeqNWvtQDN16A==
Importance: High
Message-Id: <0ML31I-1Iwnq52Gjs-00031z@[redacted]>
```

Reference 2

- Current ARIN transfer statistics

2008 New Requests for Transfers and Completed Transfers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
New Transfers requested	60	61	64	63	41	41	55	41				
Completed Transfers	17	12	12	16	15	9	11	8				

Reference 3