Proposal of Policy for Mirroring on IRR

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Junichi Matsumoto

Japan Telecom Co., Ltd.
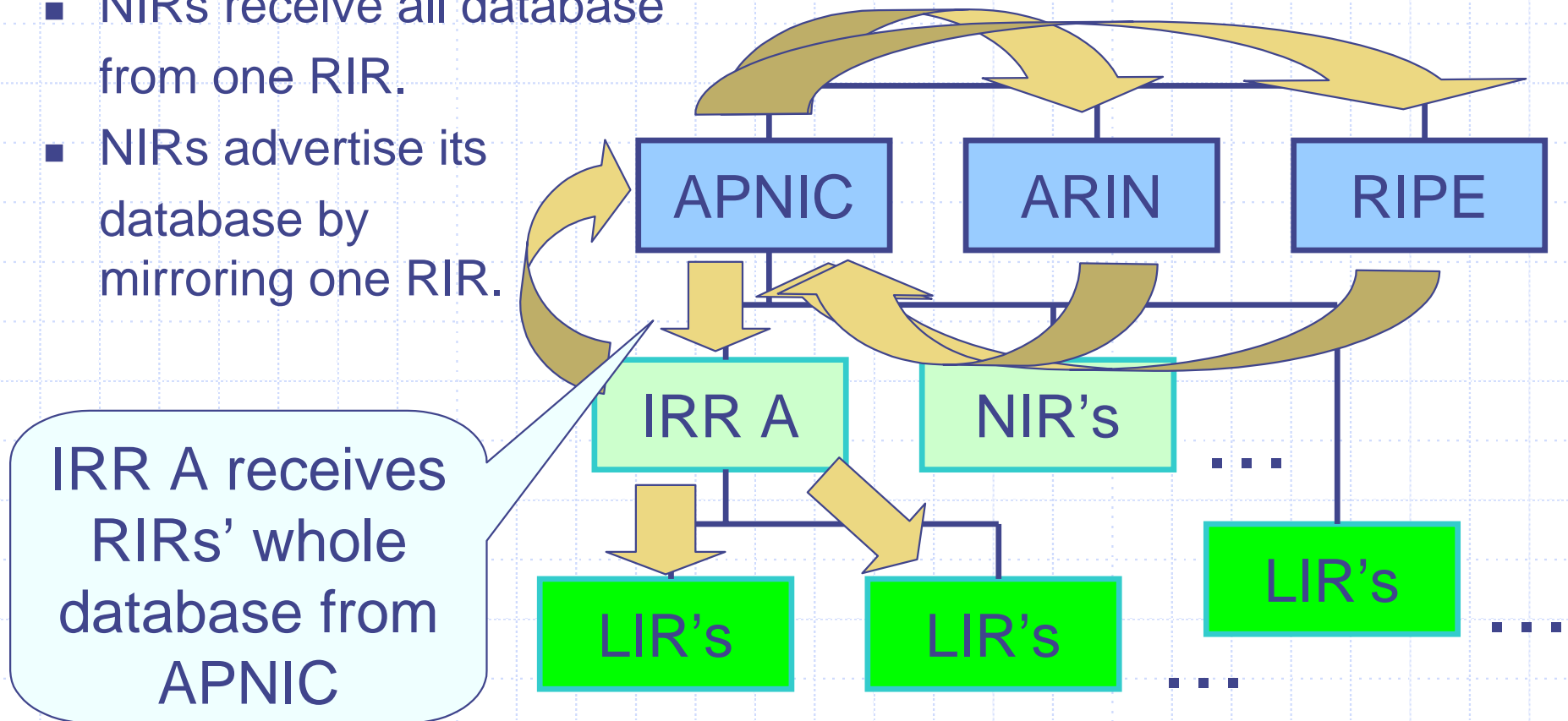
JPNIC IRR-Planning Team

Goal

One of our goals to improve IRR's utility is:
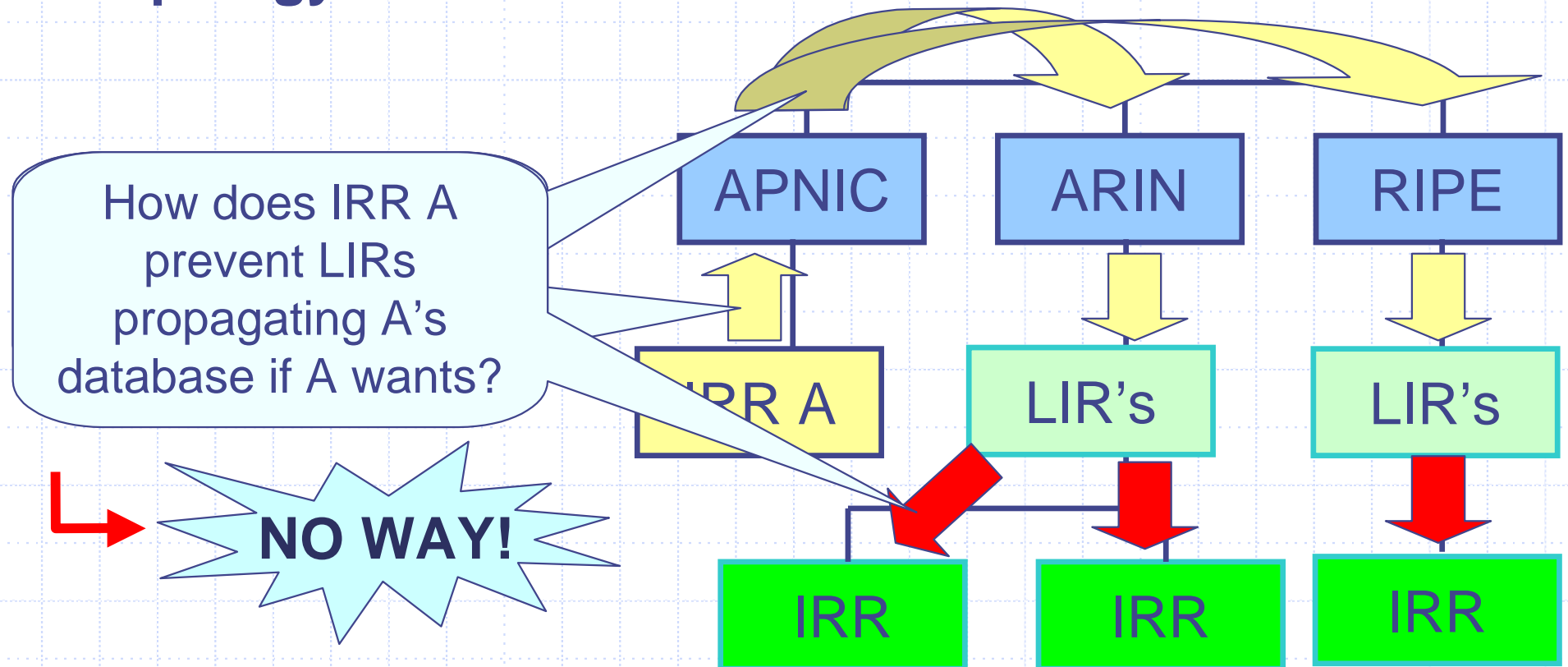
◈ **To realize hierarchical mirroring topology**.

- NIRs receive all database from one RIR.
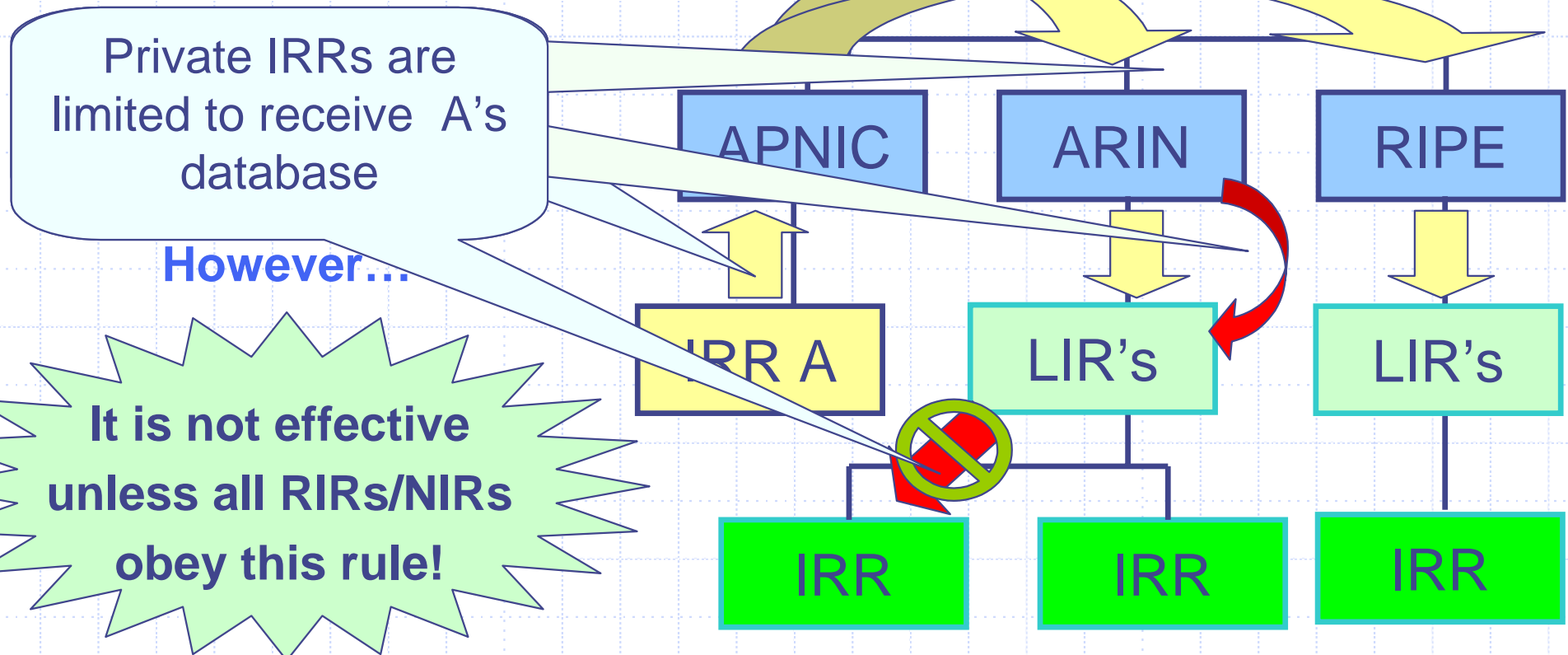- NIRs advertise its database by mirroring one RIR.

IRR A receives RIRs' whole database from APNIC

Problem

A problem of this topology is:

= An IRR's database spreads unlimitedly under this topology.

How does IRR A prevent LIRs propagating A's database if A wants?

NO WAY!

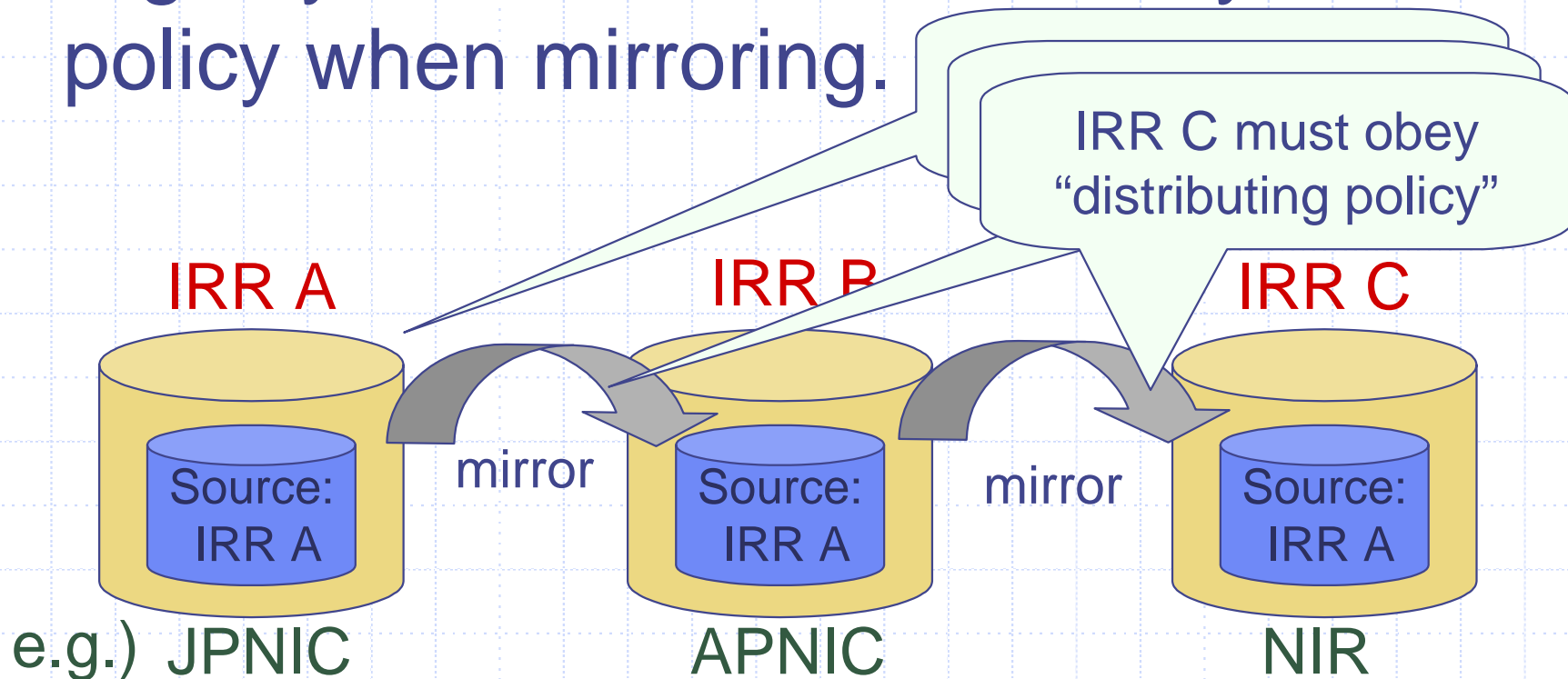| APNIC | ARIN | RIPE |

| IRR A | LIR's | LIR's |

| IRR | IRR | IRR |

Solution

Therefore…Making a new rule to limit spreading of IRR database

→**RIRs'/NIRs' IRR limit LIRs' to transfer their databases!**

Private IRRs are limited to receive A's database

However…

It is not effective unless all RIRs/NIRs obey this rule!

APNIC

ARIN

RIPE

IRR A

LIR's

LIR's

IRR

IRR

IRR

Proposal

◆ A registry managing database should have "Distributing Policy," and the registry makes other IRRs obey the policy when mirroring.

IRR C must obey "distributing policy"

IRR A

IRR B

IRR C

Source: IRR A

mirror

Source: IRR A

mirror

Source: IRR A

e.g.) JPNIC

APNIC

NIR

Distributing policy

- The right of distributing IRR's database is limited by RIR/NIR. RIR/NIR require LIR to obey this policy when mirroring.
- This policy is applied if and only if the source of database's IRR wishes.
  - Some IRRs do not care the limitation of spreading database

Process

IRR A(APNIC)   IRR B(JPNIC)   IRR C(LIR)

Source:
IRR A

Source:
IRR A

New

Source:
IRR A
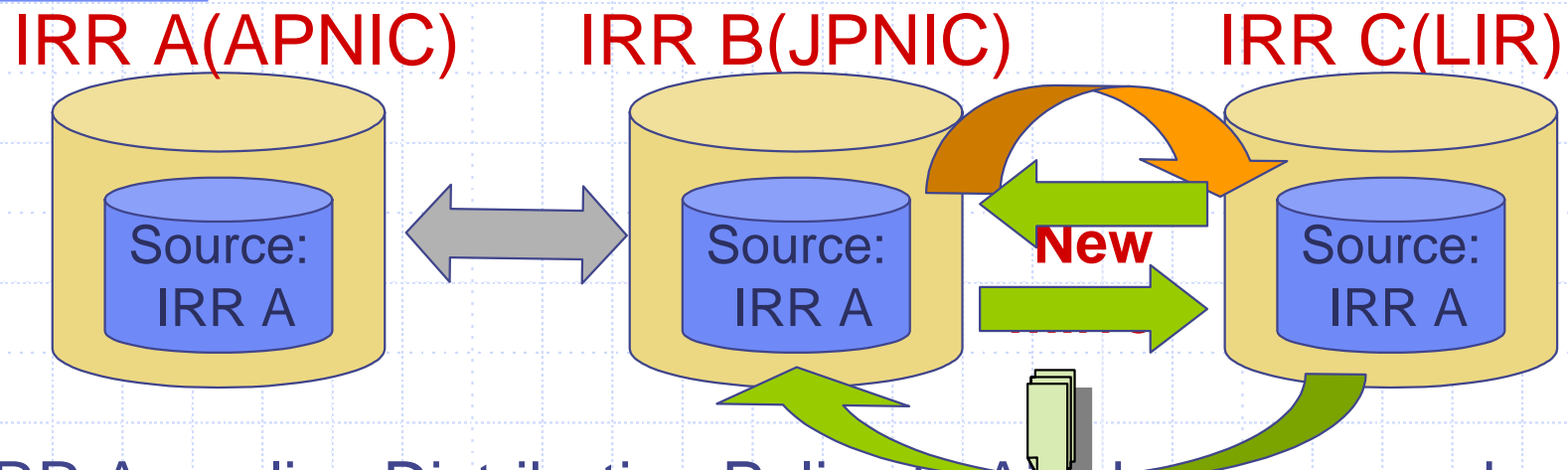
(IRR A applies Distributing Policy to A's database, and IRR B obeys A's Distributing Policy.)

1. IRR C asks IRR B to mirror and transfer A's database.

2. IRR B informs IRR C that IRR A applies Distributing Policy

3. IRR B requires IRR C to obey Distributing Policy. At this time, IRR B might require IRR C to submit the agreement.

4. IRR B allows IRR C to get A's database by the new mirror.

Sample Policy

JPNIC policy

- JPNIC applies "Distributing Policy" to JPIRR database.

- JPNIC requires JP region's LIRs' to submit a letter to obey this policy when mirroring with JPNIC.

- For details:

http://www.nic.ad.jp/en/ip/irr/

jpirr-mirroring-policy.html

Implementation

- This proposal will be implemented until 2nd Quarter 2004 if we reach a consensus.
- This proposal implemented by all RIRs/NIRs.
  - Do we need to travel other regions' policy meetings to recognize this? ☺

Question?

Mirroring in AP region

Get JPNIC's database via APNIC!