ARIN 32

PHOENIX, AZ • 10-11 OCT

First Timers' Breakfast

Richard Jimmerson
Chief Information Officer

First Timers' Breakfast

- Brief introductions
- ARIN and the Internet registry system
- Policy development at a glance
- What's ahead and how to participate
- Q&A at your table

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Self-introductions

Regional Internet Registries (RIRs)

- The system began in 1992

- There are five RIRs:

➢ RIPE NCC, APNIC, then ARIN

➢ LACNIC formed in 2002 out of ARIN region

➢ AFRINIC formed in 2005 out of ARIN and RIPE NCC regions.

RIR Structure

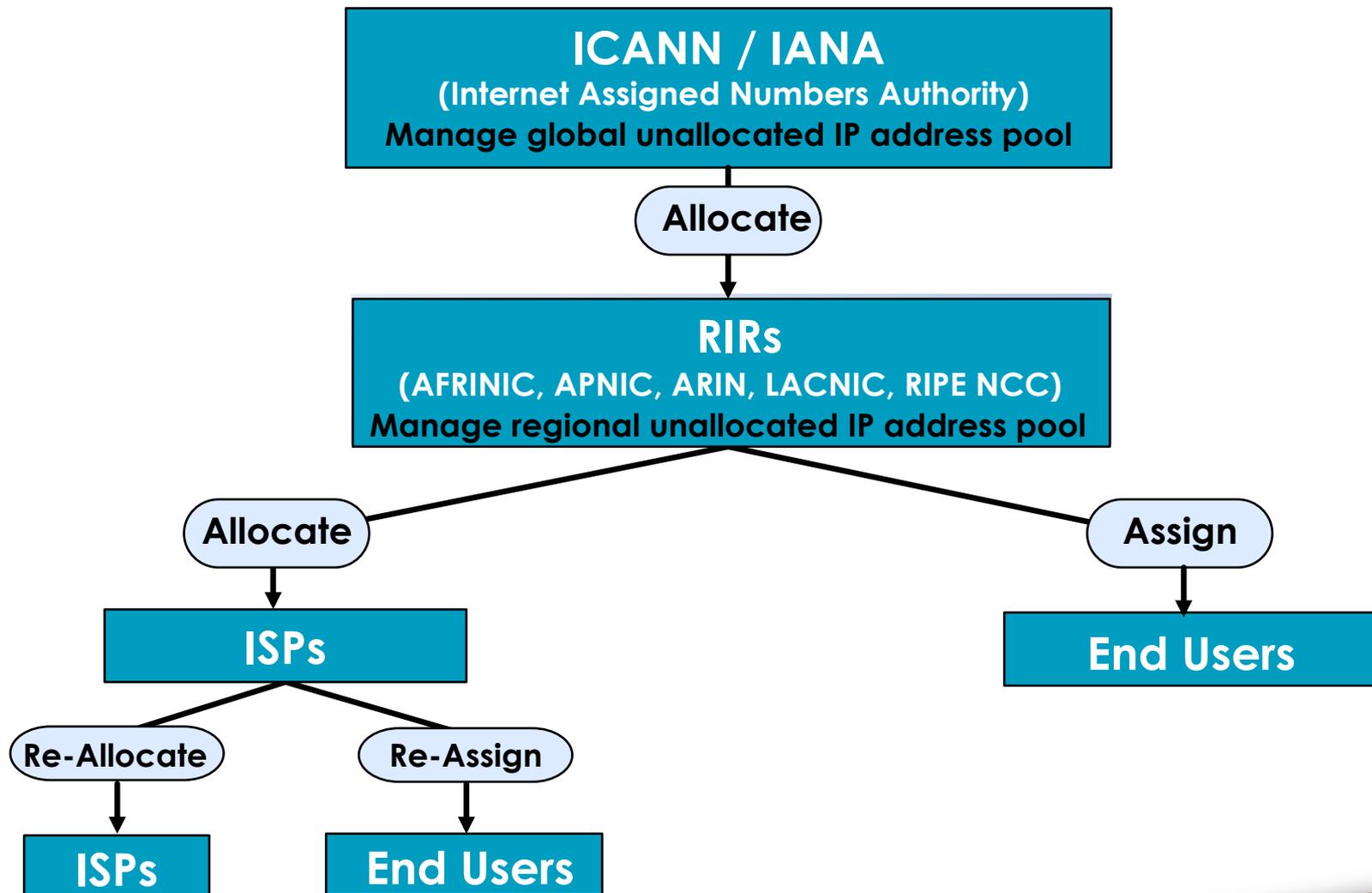| Nonprofit	Membership Organization	Community-regulated
• Fee for services, not number resources • 100% community funded	• Broad-based - Private sector - Public sector - Civil society	• Community developed policies • Member-elected executive board • Open and transparent

RIR Services

Number Resources	Organization	Policy Development

• IP address allocation & assignment
• ASN assignment
• Directory services
   • Whois
   • IRR
• Reverse DNS
	• Elections
	• Meetings
	• Information dissemination
	   • Website
	   • Newsletters
	   • Roundtables
	• Training
		• Facilitate policy development process
		• Maintain email discussion lists
		• Conduct public policy meetings
		• Publish policy documents

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Who Provisions IP Addresses and ASNs?

ICANN IANA	• Top level technical coordination of the Internet Names, Numbers, Root Servers • Manage global unallocated IP address pool • **Allocate number resources to RIRs**

RIR	• Manage regional unallocated IP address pool
	   • **Allocate number resources to ISPs/LIRs**
	   • **Assign number resources to End-users**

ISP/LIR	• Manage local IP address pool for use by customers and for infrastructure
	   • **Allocate number resources to ISPs**
	   • **Assign number resources to End-users**

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Number Resource Provisioning Hierarchy

ICANN / IANA
(Internet Assigned Numbers Authority)
Manage global unallocated IP address pool

Allocate

RIRs
(AFRINIC, APNIC, ARIN, LACNIC, RIPE NCC)
Manage regional unallocated IP address pool

Allocate

Assign

ISPs

End Users

Re-Allocate

Re-Assign

ISPs

End Users

ARIN's Mission

ARIN, a nonprofit member-based organization supports the operation of the Internet through:
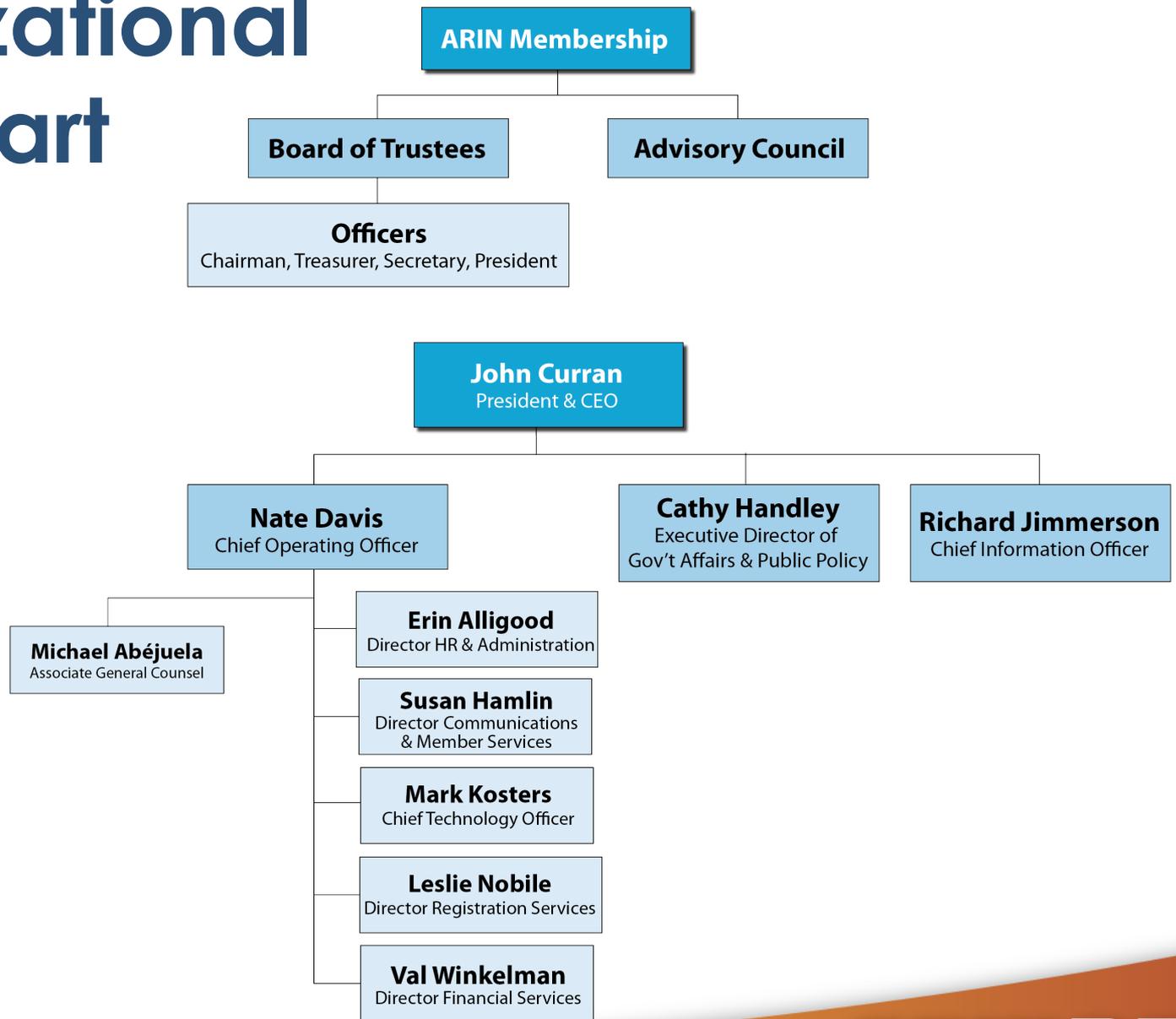
- **the management of Internet number resources throughout its service region;**

- **coordinates the development of policies by the community for the management of Internet Protocol number resources; and**

- **advances the Internet through informational outreach.**

ARIN's Service Region
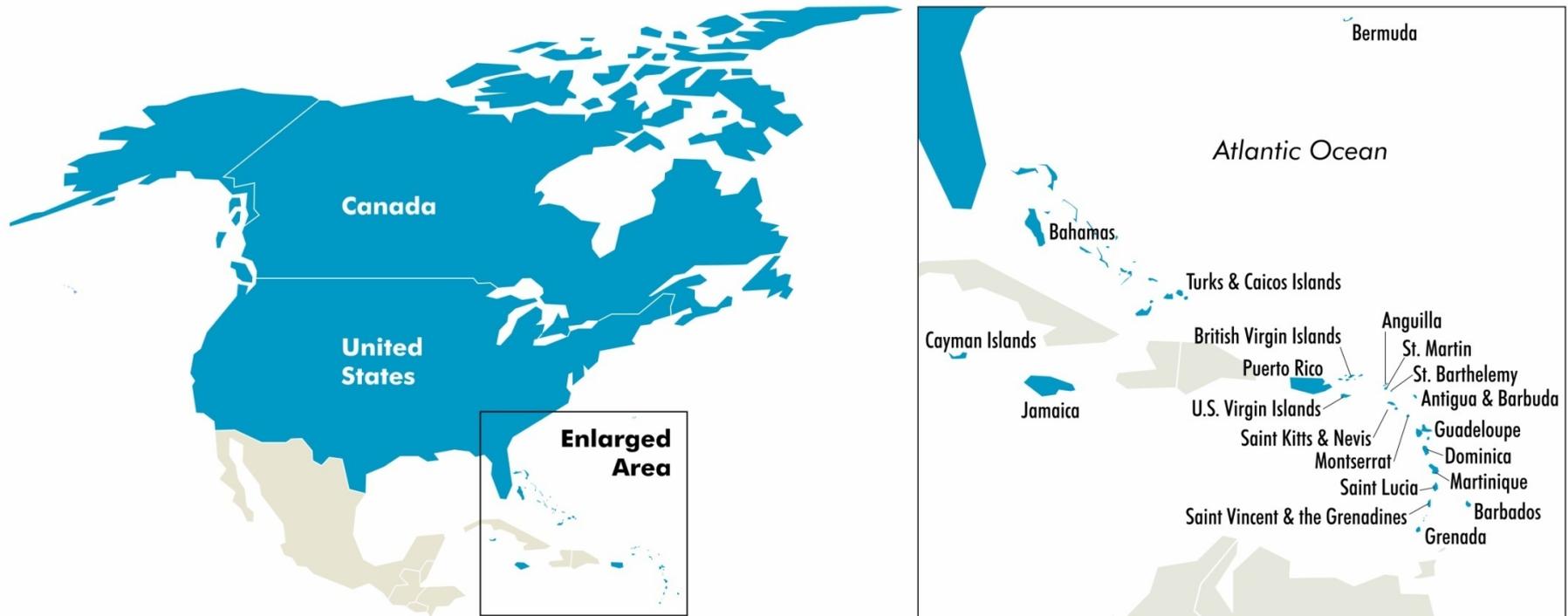
ARIN's region includes Canada, many Caribbean and North Atlantic islands, US Minor Outlying Islands and the United States.

Organizational Chart

ARIN Membership

Board of Trustees

Advisory Council

Officers
Chairman, Treasurer, Secretary, President

John Curran
President & CEO

Nate Davis
Chief Operating Officer

Cathy Handley
Executive Director of
Gov't Affairs & Public Policy

Richard Jimmerson
Chief Information Officer

Michael Abéjuela
Associate General Counsel

Erin Alligood
Director HR & Administration

Susan Hamlin
Director Communications
& Member Services

Mark Kosters
Chief Technology Officer

Leslie Nobile
Director Registration Services

Val Winkelman
Director Financial Services

Registration Services

- Coordination & management of Internet number resources

- Internet number resource transfers

- Directory Services

- Registration transaction information (Whois)

- Record maintenance

- Routing information (Internet Routing Registry)

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Technical Services

- ARIN Whois/Whois-RWS

- ARIN Online

- Internet Routing Registry

- Reverse DNS Services

- DNSSEC

- RPKI

- IT support for organization

Organization Services

- Information publication and dissemination
- Education & outreach
- Elections (Board, AC, NRO NC)
- Policy development process
- Public Policy and Member Meetings

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Policy Development Principles

Open
- **Developed in open forum**
  - Public Policy Mailing List
  - Public Policy Meetings
- **Anyone can participate**

Transparent
- **All aspects documented and available on website**
  - Policy process, meetings, and policies

Bottom-up
- **Policies developed by the community**
- **Staff implements, but does not make policy**

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Who Plays a Role in the Policy Process?

Community

- Submits proposals
- Participates in discussions and petitions

Advisory Council (elected volunteers)

- Facilitates the policy process
- Develops policy:
  - Enables fair and impartial resource administration
  - Technically sound
  - Supported by the Community
- Determines consensus based on community input

Roles...

ARIN Board of Trustees (elected volunteers)
– **Provides corporate fiduciary oversight**
– **Ensures the policy process has been followed**
– **Ratifies policies**

ARIN Staff
– **Provides feedback to community**
  • Staff and legal assessments for all proposals
  • Policy experience reports
– **Implements ratified policies**

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Basic Steps

1. Community member submits a <u>Proposal</u>
2. AC works with submitter to ensure clear problem statement and suggested policy change
3. AC puts <u>Draft Policy</u> on PPML for community discussion/ feedback (possibly presented at PPC/PPM)
4. AC decides: continue work or abandon
5. AC recommends fully developed Draft Policy (fair, sound and supported by community) for adoption
6. <u>Recommended Draft Policy</u> presented at PPC/PPM
7. If AC still recommends adoption, then Last Call and review of last call
8. Board review
9. Staff implements

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Number Resource Policy Manual
http://www.arin.net/policy/nrpm.html

Policies Covered:
IPv4 Address Space
IPv6 Address Space
Autonomous System
Numbers (ASNs)
Directory Services (WHOIS)
Reverse DNS (in-addr)
Transfers
Experimental Assignments
Resource Review Policy

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Draft policies at this meeting:

- ARIN-2013-4: RIR Principles

- ARIN-2013-6: Allocation of IPv4 and IPv6 Address Space to Out-of-region Requestors

- ARIN-2013-7: Merge IPv4 ISP and End-User Requirements

How to monitor and not be overwhelmed?

Once a month:

- Front page of the website leads to proposals and draft policies under discussion
  - New proposals need feedback for the AC's initial decision
  - Web site can help you focus on what's important to you and your company

Twice per year:

- Check the ARIN Public Policy Meeting site in the weeks leading up to the meeting
  - Proposals/Draft Policies on Agenda
  - Discussion Guide (summaries, text, staff assessments)
  - Attend in Person/Remote
- AC meeting last day: Watch list for AC's decisions, Last Calls – State your opinion, are you For or Against?

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What's Ahead this week
Akimel Ballroom

Today:

ARIN Public Policy Meeting 9:00 AM – 5:00 PM

ARIN social – Octane Raceway

Buses leave starting at 6:00 PM

Friday:

ARIN Members Meeting (open to all), 9:00 AM – Noon

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Ways to participate this week: Membership is not required ☺

- Meet your fellow attendees at meals and during breaks

- Join a lunch table topic discussion today led by an Advisory Council member

- ARIN Board, Advisory Council, NRO Number Council and Staff all have ribbons on our name tags – seek us out and ask questions

- Go the floor microphones in the meeting room, be sure to state name and organization upfront

- Raise your hand to voice your opinion when votes are taken during policy discussions

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Don't Forget Your Survey

Please complete the survey form and drop it in the bowl.

Be present in the meeting room this afternoon for the drawing – you might win a $100 Think Geek gift certificate.

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Questions?

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Reference Material

Historical Timeline

Government Oversight

1993 — IR function contracted by NSF to NSI; InterNIC formed, DoD oversight ends. APNIC formed.

IANA → RIPE NCC · APNIC · InterNIC → Registrant

1992 — RFC 1366: Regional IRs established; RIPE NCC formed

IANA → DDN NIC · RIPE NCC → Registrant

1991 — RFC 1261: DoD IR function contract moved to Network Solutions, Inc.

IANA → DDN NIC → Registrant

1990 — Internet Registry (IR) function contracted by DoD to SRI International

IANA → DDN NIC → Registrant

1980's — NSFNET/ARPANET - Jon Postel managed addressing via DoD contract; this was called the Internet Assigned Numbers Authority (IANA)

→ Registrant

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Historical Timeline

2005 **Regionalization complete; AfriNIC formed**

IANA → RIPE NCC · APNIC · ARIN · LACNIC · AfriNIC → Registrant

2002 **Regionalization continues; LACNIC formed**

IANA → RIPE NCC · APNIC · ARIN · LACNIC → Registrant

1998 **ICANN formed by US Gov't (top level technical coordination)**

IANA → RIPE NCC · APNIC · ARIN → Registrant

1997 **IR regionalization continues; ARIN formed. USG oversight of IR function ends.**

IANA → RIPE NCC · APNIC · ARIN → Registrant

Community Oversight