

## VOTER GUIDE

### **SLATE FOR**

ARIN BOARD OF TRUSTEES ARIN ADVISORY COUNCIL NRO NUMBER COUNCIL

## **VOTING OPENS**

6:00 PM EDT THURSDAY, 4 OCTOBER

### **VOTING CLOSES**

6:00 PM EDT FRIDAY, 12 OCTOBER

## TABLE OF **CONTENTS**

_		
L		7
•		
	V	

				-	•	
к	<b>na</b>	ra	ΛT	Irii	iste	Δς
ш	vu	·u	vı		IJLC	. – .

Paul Andersen, P. Eng	4
Cathy Chen-Rennie	8
Peter Harrison	13
Anna Valsami	21



## Number Resource **Organization Number Council (NRO NC)**

Michael Arbroue	t36
Louie Lee	37



## Advisory Council

Brad Gorman	.25
Kathleen Hunter	.27
Amy Potter	29
Kerrie-Ann Richards	30
Robert Seastrom	32
Alicia Trotman	2

Please note that ARIN publishes the candidate responses as they are submitted; they are not altered or edited in any way.



21 September 2018

Dear ARIN Member,

ARIN looks forward to your participation in this year's annual elections! At 6:00 PM EDT on Thursday, 4 October, the polls for the ARIN Board of Trustees and Advisory Council and the Number Resource Organization Number Council (NRO NC) elections will open and will remain open until 6:00 PM EDT on Friday, 12 October. As your organization's only designated Voting Contact, you are responsible for casting an online ballot on behalf of your organization in the annual ARIN Elections.

This year, ARIN seeks to fill two (2) of the six member-elected seats on its Board of Trustees. In addition, there are five (5) seats on its 15-member Advisory Council and one (1) ARIN representative to the NRO NC to be filled in this year's election.

In preparation for voting, I encourage you to familiarize yourself with each candidate — specifically, read the information made available in this Voter Guide or online at https://www.arin.net/participate/elections/candidate\_bios.pdf. Think about and focus on the policies and issues that are most crucial to you and your organization, including outcomes and actions you hope to see from each of the candidates. Take the time to read their biographies, answers to candidate questions, and Statements of Support from community members.

Remember — voting requires only a few minutes of your time and is a vital member and community responsibility. Your ballot can be cast online from the comfort of your office, home, or mobile device any time during the election timeframe. To access and cast your ballot, log in to your ARIN Online account and click on the "Vote Now" link located on your dashboard.

Thank you for being an ARIN Member and participating in ARIN's 2018 Elections! Please do not hesitate to contact our member services team at members@arin.net if you have any questions.

Sincerely,

John Curran President and CEO

American Registry for Internet Numbers (ARIN)

Bhe Carre



## Paul **Andersen**, P. Eng.



EGATE Networks Inc. http://twitter.com/pandersen http://www.paul.ca

#### Education:

Please list any undergraduate degree(s) you received, the institution and the date issued.

University of Toronto Bachelor of Applied Science (Computer Engineering) Issued 1999

List any graduate degrees you have received, the institution and the date it was issued.

While not a formal graduate degree I hold a Professional Engineering Licence (P. Eng) in the Province of Ontario, Canada.

#### **Board Member Job Requirements:**

Potential ARIN Board Members are expected to thoroughly review the Board Member Job Requirements found here as part of completing this questionnaire. Do you foresee any issues with fully executing those requirements and expectations? If yes, please provide specific details below.

I have read the requirements and do not foresee any issues executing those requirements. I am currently

the Board Chairman and have throughout my Board Career been able to attend all expected meetings and perform all duties.

#### **Present Job:**

Please provide the name of any company or organization you currently are employed by or receive direct or indirect compensation from. Please describe the business of each such entity and your current title, and the office address of the business.

My primary work is through EGATE Networks and EGATE Domains which provide networking and domain registration services respectively. I also receive a minor amount of compensation for work done for CIRA's Community Investment Program

#### **Not-for-profit Board Service:**

(a) Please identify any non-profit corporate board(s) you currently serve on, how long you have served and what offices, if any you have held.

American Registry for Internet Numbers (ARIN), 2010 – Present

- Board Chairman 2016 Present
- -Treasurer 2011-2015
- -Vice-Chair 2013-2016

Canadian Network Operators Consortium (CNOC), 2014 – Present

- Treasurer 2015-2017

CNOC is the trade organization representing independent service providers from a regulatory perspective throughout Canada.

(b) Similarly, please identify any non-profit corporate board you served on in the past 5 years that are not included in answer to (a).

Canadian Internet Registration Authority (CIRA), 2001-2006, 2007-2013

- Board Chair 2008-2013
- Vice-Chair 2003-2006
- Secretary 2002-2003

CIRA manages the dot-ca domain as a public resource on behalf of Canada. Since 2001 when CIRA took over the ccTLD, the registry has grown from 60,000 names to just over 2.5 million. CIRA also provides support and funding to projects across the country that further the development of the Internet in Canada.

Toronto Internet Exchange (TorIX), 2006-2010

- Chair 2006-2008
- Vice-Chair 2008-2010

The Toronto Internet Exchange is the largest Internet Exchange in Canada and the 5th largest in North America. With over 200 members connected, the exchange is fully managed by its member community.

Open-IX Association (Open-IX), 2014

## Please describe how service under (a) or (b) may have prepared you for service to ARIN.

I have been involved with several Internet infrastructure organizations in Canada and abroad over the past three decades. My service within the Internet community has given me a great deal of experience with, and the ability to navigate the nuances of, the multistakeholder model by which ARIN and these other organizations are governed.

#### **Required Biography:**

Please provide here your full biographical information (attached separate resume or Curriculum Vitae is an acceptable substitution) including, if you choose, any data asked for in this questionnaire, and provide a brief description highlighting your experience relevant to the duties of the ARIN Board of Trustees. You may also optionally include additional web links to external websites (e.g. social media) though that may not be substituted for the aforementioned required biography.

I currently serve as the Chair of the ARIN Board of Trustees and have been involved with ARIN in various roles for several years.

I am the President of EGATE Networks Inc. which is an Internet hosting and connectivity provider offering a variety of Internet and telecommunications services: consulting; MPLS Network connectivity; web application development; shared, dedicated and collocated web hosting; High Speed Internet access, domain name registration services, voice over IP services, and other related services. I have been with the organization since its inception in 1996.

I have worked in the Service Provider industry for over twenty years and have been very active in Internet industry governance. I was a member of CIRA's Board of Directors from 2001 - 2013 (both elected and appointed) and was actively involved in its various committees. From 2008 - 2013 I served as Chair of the Board, a period of tremendous growth for the organization. I was previously an elected member of the Board of Directors of the Toronto Internet Exchange, the largest open peering Internet exchange in Canada and served as its President and Chair. From 2004 to 2009, I served as a Member of the ARIN Advisory Council. I currently sit as a Board Member of the Canadian Network Operators Consortium (CNOC).

\* To view this candidate's resume, please refer to the end of this candidate's questionnaire.

#### **Conflicts of Interest:**

(a) Please disclose any conflicts of interest you may have that would impact your ability to perform your duty as a member of the ARIN Board of Trustees.

I do not believe I have any material conflicts of Interest. Organizations that compensate me hold address space.

## How do you propose to resolve any conflicts identified in (a)?

I do not believe I have any material conflicts. Where a concern has existed I disclose to the Board and General Counsel and as appropriate recuse myself from the discussion and/or meeting.

#### **Related Experience:**

Do you have any other industry related experience that you feel is relevant to your serving? What did you find the most rewarding from those experiences?

On top of my existing work with the organizations above I have also attended and been involved in the ICANN community for several years both as a Registrar and in my roles above. I have also attended the UN Internet Governance Forum on occasion.

I have had the honour to meet many smart and thoughtful individuals during my various Board services for Internet Infrastructure and co-ordination organizations. The ability to collaborate on challenging problems facing the industry has been a truly rewarding experience and as your Chair I hope to continue this outreach.

#### ARIN's Challenges:

What do you believe to be ARIN's greatest

#### challenges? How do you believe that your background and skills would help ARIN in addressing these challenges? (Maximum 200 words)

I would like ARIN and the community to continue to make efforts to ensure the registry data does not become stale in an IPv4 runout/IPv6 deployment world. Operators rely on this data to be accurate and resource holders will be obtaining subsequent IPv6 resources infrequently (if at all) while IPv4 transfers continue to occur. Through both operations and policy, we need to encourage resource holders to keep data accurate.

Most importantly, we need to continue to be customer driven and focused. During my previous tenure I urged the organization to begin an Engineering surge to ensure customer feature requests were being implemented in a more timely manner.

Looking forward, I want to see ARIN be a resource (and not a roadblock) for the community and its customers.

Above all, we need to ensure the organization remains cost effective to keep ARIN from being a barrier to Internet growth. During my time on the Board we have been able to make more services available online while lowering a vast majority of our members fees.

#### Paul Andersen, P Eng. Resume

#### **Board Experience**

## American Registry for Internet Numbers (ARIN) 2003 – Present

Applying the principles of stewardship, ARIN, a nonprofit corporation, allocates Internet Protocol resources; develops consensus-based policies; and facilitates the advancement of the Internet through information and educational outreach

Board Chair 2016-Present
Treasurer 2011-2015
Vice-Chair 2013-2016
Board of Trustees 2010-Present
Advisory Council Member 2003-2009
Member, Nomination Committee 2006, 2010, 2012
Member, Finance Committee 2010-Present
Member, Governance Committee 2012-Present

- Elected Chairman of Board by fellow trustees
- Member and a long-time volunteer of this highly respected organization trusted with the stewardship of the finite Internet Number Resources

- Elected each time by the membership to a three year term on the Board of Trustees
- Deep understanding and application of International Internet policies and cultural
- differences through participation in global industry conferences
- Appointed as Chair of Nomination Committee, Treasurer and Vice-Chair
- Leading member of a committee working to reform the policy development process to enhance and widen community representation

## Canadian Network Operators Consortium (CNOC) 2014 – Present

CNOC is a not-for-profit association comprised of competitive Internet and telecommunications service providers that own or operate telecommunications networks in regions across Canada.

Board Member 2014-Present Treasurer 2015-2017

- Founding member and long term participant in this industry trade association
- Selected by Nomination Committee for Board
- Modernized Financial Services aspect after assuming Treasurer role from founding Treasurer
- Lead Government Relations Strategy Development
- Appeared at hearings before Canadian Radio and Television Commission (CRTC) on several large files

## Canadian Internet Registration Authority 2001-2006, 2007-2013, 2014-Present

The Canadian Internet Registration Authority (CIRA) is a not for profit Canadian corporation that is responsible for operating the dot-ca Internet country code Top Level Domain (ccTLD) as a key public resource for all Canadians in a transparent manner and other Internet related activities.

Board Chairman 2008-2013
Board Vice-Chairman 2003-2006
Board Secretary 2002-2003
Member, Governance Committee 2007-2013
Member, Audit Committee 2008-2013
Member, Finance/Budget Committee 2004-2006
Member, Technical Oversight Committee 2007-2011
External Member, Board Community Investment
Program Committee 2015-Present
External Member and Chair, Board Nomination
Committee 2014-Present

Active participant in the organizations gover-

nance for several years and have served in a variety of leadership roles which delivered improved governance polices and more robust and scalable technology infrastructure

- Assumed the role of Board Chair for a three year term in 2008 with a unanimous reaffirmation of appointment in 2009
- Actively participated in the recruitment of a new executive team which resulted in improved member outreach and redevelopment of technical infrastructure
- Involved and lead several CEO and senior management performance reviews
- As a trusted advisor provide guidance on industry, technical, financial and governance issues
- Championed Community Investment Program, which laid the foundation for an increase in investment in Canada's Internet community.
- Lead a series of reforms to board process that has increased the efficiency and effectiveness of resolving long term key issues, greatly enhancing the directors' board experience

#### Toronto Internet Exchange Community (TorIX) 2006 – 2010

Established in 2001 the Toronto Internet Exchange is the largest open public peering fabric in Canada., As a not for profit exchange the organization is committed to serving the community in providing a cost effective means to keep Canadian Internet Traffic in Canada.

Board Member 2006-2010 President and Chair 2006-2008 Vice-President 2008-2010 Finance Manager 2006-2010

- Elected twice by members to represent the peering community in Toronto
- Oversaw the reform of finance system implementing proper financial reporting and procedures. Established a sustainable fee structure to increase revenue and create a reserve fund
- Oversaw legal review of various policies to work towards formal agreements with peers
- Also lead a by-law review of the organization which replaced the original stock by-laws with a set that reflected the way the membership interacted with the organization
- Conducted a legal review of the policies and formal agreements and created stainable procedures that would enable growth

#### **CAREER HISTORY**

#### **EGATE Networks Inc.**

An ISP serving the Ontario region offering niche services for businesses. We enjoy a trusted advisor relationship with our customer base that allows us to create unique solutions for their individual needs. Among our product offerings are connectivity, hosting, managed collocation, disaster recovery planning, managed phone systems, and a variety of other services.

#### President 1996 - Present

Over the past twenty years, I have built up a successful Internet company with a loyal customer base covering a diverse base of sectors.

- I have overseen the technical operations starting in the beginning with all hands on work to today managing our technical team to build a network that allows us to provide the highest degree of reliability to our customers giving us an edge over the larger players
- Along with technical operations a great deal of my role has involved financial operations leading to a profitable organization during the last decade.
- Also deal with all regulatory affairs including numerous CRTC filings.
- Participated in the Industry Canada Anti-Spam Task Force Technical Working Group

#### EGATE Domains Inc / Arctic Domains Inc. 2004 - Present Founder and President

As one of the largest domain name registrars in Canada Arctic Names provides wholesale domain name registration services across Canada through a network of registrars. Arctic Names is certified to provide these services as an ICANN Accredited Registrar and CIRA Certified Registrar. EGATE Domains provides retail domain name services to consumers and business.

- With my early involvement in the domain name industry and the experiences learned from the early years of operating an Internet Service Provider -- I have lead the creation of several domain name registration companies. We are an innovator in many areas with the organization's focus on dot-ca, providing lower costs for customers in the registration area and providing solutions in the growing secondary market.
- As Founder and President, built a profitable organization of highly motivated and skilled employees
- Created an environment which encourages lifelong learning that will enable the company to continue to provide leading edge technology solutions

- Designed and oversaw the implemention of the original automation system to allow customers to directly register and manage domains with the organization
- Acts as a liaison to various international providers of domain services (registries)

#### Resolution Canada 2001 – 2003 Consultant

Resolution Canada Inc. is one of two companies authorized by CIRA to conduct dispute resolution for registrations in the dot-CA domain in accordance with the CIRA Domain Name Dispute Resolution Policy and Rules.

 Provided advice and services to assist ResolutionCanada build its back end systems to electronically manage cases involving Domain Name Disputes of dot-ca domain names

## EDUCATION / PROFESSIONAL DEVELOPMENT

- Professional Engineering Licence (P. Eng) 2010
- Institute Of Corporate Directors Program Not For Profit Governance Essentials 2009
- BASc (Computer Engineering), University of Toronto 1999

## Cathy Chen-Rennie



Capriole Consulting Inc https://www.caprioleconsulting.com/ https://www.caprioleconsulting.com/cathy-chenrennie

#### **Education:**

Please list any undergraduate degree(s) you received, the institution and the date issued.

Bachelors of Science in Electrical Engineering Computer Science, University of California Berkeley, 1994.

List any graduate degrees you have received, the institution and the date it was issued.

Masters of Science in Information Technology, Capella University, 2004

Masters of Arts in Organizational Psychology, Teacher's College Columbia University, 2015

#### **Board Member Job Requirements:**

Potential ARIN Board Members are expected to thoroughly review the Board Member Job

Requirements found here as part of completing this questionnaire. Do you foresee any issues with fully executing those requirements and expectations? If yes, please provide specific details below.

I already have 2 weeks planned (1 conference that I'm running for 2019-2020 and a vacation in January 2019, so I might not be able to attend this "January in-person meeting (1.5 days)" depending on where and when it is.

#### **Present Job:**

Please provide the name of any company or organization you currently are employed by or receive direct or indirect compensation from. Please describe the business of each such entity and your current title, and the office address of the business.

Google, Inc.
2930 Pearl St
Boulder, CO 80301
Nature of Business: Software Company - (Search,
Apps, Cloud) I work as a Technical Program
Manager in the "Ads" part of the business.

Capriole Consulting Inc 21798 Mountsfield Dr Golden, CO 80401 Nature of business: Executive Coaching and Management Consulting

#### **Not-for-profit Board Service:**

(a) Please identify any non-profit corporate board(s) you currently serve on, how long you have served and what offices, if any you have held.

Secretary of the board Center for Study of Groups and Social Systems, Boston, MA served 2 years out of 3-year term (ends June 30, 2019)

(b) Similarly, please identify any non-profit corporate board you served on in the past 5 years that are not included in answer to (a).

Committee lead for the social media committee of the board Organizational Development Network

## Please describe how service under (a) or (b) may have prepared you for service to ARIN.

Both of these boards are virtual where board members meet monthly and take care of business on behalf of the board in-between meetings.

As part of the executive committee of CSGSS, I also manage our part-time (paid) administrator and manage our membership process. This initial interaction with members and introducing them to the membership is key to our gaining and retaining members.

#### Required Biography:

1 year (2016)

Please provide here your full biographical information (attached separate resume or Curriculum Vitae is an acceptable substitution) including, if you choose, any data asked for in this questionnaire, and provide a brief description highlighting your experience relevant to the duties of the ARIN Board of Trustees. You may also optionally include additional web links to external websites (e.g. social media) though that may not be substituted for the aforementioned required biography.

\*To view this candidate's resume, please refer to the end of this candidate's questionnaire.

#### **Conflicts of Interest:**

(a) Please disclose any conflicts of interest you may have that would impact your ability to perform your duty as a member of the ARIN Board of Trustees.

n/a

How do you propose to resolve any conflicts identified in (a)?

n/a

#### **Related Experience:**

Do you have any other industry related experience that you feel is relevant to your serving? What did you find the most rewarding from those experiences?

Work Experience on Resume: Network Engineering 1994 - 2006 and 2010-2012 Attended NANOG conferences 2001- 2006 Attended Peering BOF or conferences 2004-2005

Generally, I find the people connections most rewarding at those events. I still am in touch with people that I met at those conferences through the years. This nomination is a result of meeting some of those people.

#### ARIN's Challenges:

What do you believe to be ARIN's greatest challenges? How do you believe that your background and skills would help ARIN in addressing these challenges? (Maximum 200 words)

An issue that was raised in my nomination is that it seems to be hard to get women or people of color involved or elected.

I've been a network engineer, a peering contact/ engineer, and have done time in product management for networking software as well as left networking altogether (multiple times). I just spent nearly 2 years in HR and on the board of a psychology organization. Perhaps that's what ARIN needs. The research shows that companies with company boards with at least 3 women do better financially and influence the diversity in the company as well. In turn, that diversity in teams is also shown to allow those teams to be more innovative. If ARIN is hoping to balance its board with more equity, diversity, and inclusion then bringing in fully qualified people like me who have a background in, but not a lot of current context/relationship.

### Cathy Chen-Rennie Resume Employment History

#### Capriole Consulting Inc

San Francisco, CA (2014 - present) Lead Leaper (Dec-2014 - present)

- Provide executive coaching and leadership development for tech companies and startups
- Consultant/Administrator to group relations conferences in the Tavistock tradition for CSGSS and GREX (regional chapters of the AK Rice Institute for the Study of Social Systems)

#### S Rennie Design

New York, NY & San Francisco, CA (2012 - present) Co-owner/VP Business Development (Oct-2012 – present)

 Develop partnerships for design and build of custom furniture

#### Google, Inc

Cambridge, MA; New York, NY; San Francisco, CA & Mountain View, CA (2004-2008 & 2010 - present)

## Staff Program Manager | Payments Operations Center (Jul-2018–present)

- Determine strategy for Payments operations center
- The Payments product area processes credit cards and other payments for both Google products and external customers

#### Organizational Development Consultant | People Development (Learning & Development / HR) (Sep-2016 – July-2018)

- As a consultant, I worked with leaders in the business and their respective HR People Partners to develop individuals, teams, and facilitate on change management projects. (Process consultation, group dynamics, change process, new leader assimilation, manager training, diversity training
- Designed a 9-month development workshop for senior women in tech
- Coached senior leaders in engineering and sales
- Facilitated a 2-day coaching training for tech managers co-led with the Coaches Training Institute (CTI)
- Facilitated 2-3 day training in leadership for Executive Development and People Development learning programs

## g2g facilitator/coach (20%) | People Development (Learning & Development) (2007 – Sep-2016)

As an engineering leader at Google, I volunteered 20% of my time to work with people working on themselves. As a g2g (Googler to Googler) trainer, I have facilitated courses, developed trainings, program managed deployment of courses and designed offsites for groups ranging from junior level to executive teams.

#### Coaching:

- 2017-present Leadership Guru Ongoing coaching for individuals who want to work on their leadership skills
- 2017-2018 Career Guru One-time

- coaching (2x/mo) for individuals who need career advice
- 2015-present SAGE Guru Mentor/Coach non-executive individual contributors (6-month engagement, 6 times)

#### Facilitator for these courses:

- 2014-2017 Women's Leadership -Co-facilitated course aimed at mid-career women for over 100 learners.
- 2015- 2017 Bias Busting Co-facilitated learning lap to develop allies to help under represented groups. Personally trained over 200 learners.
- 2007 2017 EDGE Engineering Leadership— Co-facilitated (4 facilitators over 2-3 days)
   Lead Facilitator (2017) Topics ranged from leadership vs management, personality typing, team dynamics, and peer-coaching.
   Co-facilitated for over 800 learners.
- 2011 2017 Crucial Conversations -Facilitator for VitalSmarts communications class for 350+ learners and mentored other trainers in US, Israel, Ireland, England, Brazil & Mexico.
- 2010 2016 True Colors Facilitated True Colors personality identification mode around 1x/quarterl. These sessions can range from 1-hour to 4-hours with 8 to 90 people.
- 2007 2016 Custom Solutions facilitator Ad hoc engagements for team offsites (Six thinking hats, Influence and Team Leadership, etc.)
- 2011 2012 Presentation Skills Facilitator and coaching for presenting with confidence
- 2015 2016 Bias Busting Program lead for SRE - Organized training facilitators and co-facilitated course to develop allies to underrepresented groups. Personally trained over 200 learners since 2015. Program on-boarded over 30 facilitators who trained over 500 people in less than 9 months.
- 2012 EDGE advanced facilitator skills commit tee – created & facilitated a storytelling workshop
- 2011 Eng for Non-Eng program manager Launched program from pilot to global reach (Intro to HTML/CSS, Data Centers, Networking, & Production Network), recruited and trained facilitators, designed a course, and mentored facilitators.

#### Chief of Staff | SRE (Jan-2015 - Jun-2016)

 Create and track organization wide goals to be run by leaders within the organization such

- as better efficiency, consistent execution, and diversity/inclusion
- Manage executive communications
- Incubate new teams by managing and nurturing their role within the org

#### Senior Product Manager (Oct-2012 - Jan-2015)

- Created a new PM group for internal software to make software production more efficient, faster, and easier
- Representing user needs and requirements to a software engineering team developing tools for Network Operations

#### Manager of Technical Program Managers (Mar-2010 – Oct-2012)

As Regional Manager Americas Network Deployment, I managed three senior technical program managers who each manage 8-12 network engineers and technical program managers. These teams grew the Google optical and IP network in the US and South America.

 As the Technical Program Manager for Network Operations Onboarding program, I created and managed courses for new employees in Network Operations.

(Left Google for 1 year & 3 months, see Vindicia & The Rex Center, below)

#### Senior Program Manager Jul-2008 - Nov-2008

 Created and managed programs relevant to the relatively new San Francisco office engineering department culture, staffing, training and organization

#### **Senior Engineering Manager Jun-2006 – Jul-2008** Google Earth /Maps Geo Data team

This team produced and published the "glossy magazine" of Google Earth – the beautiful imagery and interesting content "layers" that our users loved to analyze and view.

- Managed a growing Geographical Information Systems (GIS) team of data processing specialists and data engineers who write software/scripting tools for those specialists. Directly managed teams in Mountain View and Bangalore, India
- Drove team to publish imagery monthly and layers every 6-weeks

### Network Deployment Manager Apr-2005 – May-2006

**Google Production Network Operations** 

 Created a new team and managed Network Engineers and TPM's install IP networking (Juniper, Cisco, Force10) and optical networking equipment in global Google network

## Acting Network Operations Manager Apr-2005 – Aug-2005 (Overlapping)

Google Production Network Operations (with Director of Site Reliability)

 Managed 20+ Network Engineers in US and dotted line management for EMEA Network Engineers

#### Network Operations Project Manager Oct-2004 – Mar-2005

**Google Production Network Operations** 

 Project managed network deployment: set schedule and priority,tracked equipment, vendor delivery of circuits, collocation, and scheduled travel for engineering team. Installed routers and equipment for new data centers in Google's global network.

## The Rex Center in Pacifica, CA Canine Swim Coach/Owner (2008 – 2013)

In 2008 I started my own company -- a dog swimming pool and training center to serve dogs who need water therapy and their owners.

- Taught dogs how to swim and/or did water massage with dogs
- I led 3-day classes in working with dogs in the water, workshops on massage - one trainee is now operating the center as the new owner
- Spoke at the San Francisco SPCA on aging and wellness

#### Senior Product Manager / Senior Engineering Manager Dec-2008 – Mar-2010 Vindicia, Inc in Redwood City, CA

- Developed new features for the financial services and payment processing products
- In June 2009, the CTO asked me to also take on management of the development team of 8 engineers. I worked with each individual to help prioritize projects on a release-by-release basis as well as helping more junior engineers get mentorship and technical assistance from senior engineers. In this role, I also work directly with the QA department to ensure that engineers are following unit testing and other testing procedures setup by the mutual teams.

## New Edge Networks in Vancouver, WA (2003-2004)

#### Manager Network Services (6m), Network Engineer (6m) Oct-2003 to Oct-2004

Managed Network Engineering and IP Support staff for small (OC3 backbone) ATM/Frame Relay/DSL provider with US Nationwide coverage

 Developed new VPN product with product manager and negotiated new contracts with Nortel Networks

#### **Training Activities at New Edge Networks**

- Developed curriculum (slides, labs, homework, tests) for New Edge Networks on the Nortel Shasta DSL platform
- Taught CCNA courses (12-week, 2 hours/week) for operations employees

## Student Jan-2003 to Apr-2004 (overlapping dates)

#### Capella University in MN

 Part-time and Full-time student for Masters Degree in Information Technology

## Summer Camp Director Jun-2003 to Aug-2003 GiantCampus in Portland, OR

 As the summer camp director, I managed two counselors and we helped kids ages 8-15 learn the curriculum of their choice ranging from robotics, game design, to digital photography and movie making. The curriculum was selfpaced, so we did a lot of helping with reading instructions and troubleshooting to see where kids had gotten lost.

## Information Technology Instructor Mar-2002 to Jun-2003

#### ITT Technical Institute in Portland, OR

- Taught Telecommunications and Cisco Router courses for Associates degree program
- Taught soft-skills courses such as 12-week"
   Preparing for the Workforce" developing a
   resume, preparing for interviewing, creating a
   portfolio to show interviewers the type of
   project work that they had done in school.
- Developed curriculum for the Bachelors degree program in network routing. I reviewed books, reviewed and revised lesson plans, wrote labs with ITT corporate
- Reviewed "IT Security" degree program curriculum for national deployment

## Global Crossing Telecommunications / Frontier Global Center in Sunnyvale, CA

Manager Interconnection Engineering, Network Architect, Backbone Planning and Implementation Project Manager May-1999 to Nov-2001

## Advanced Network Services (AOL or UUNET/MCI Worldcom) in Ann Arbor, MI

Install Engineering Project Manager, Supervisory Manager, and Engineer Jan-1996 to Apr-1999

**University of Michigan Telecom in Ann Arbor, MI** Telecommunications Project Manager Aug-1995 to Jan-1996

Ford Motor Company in Dearborn, MI Communications Analyst Jul-1994 to Jul-1995 AK Rice Training in Group Relations Consulting estimated completion 2018

CTI leadership training completed in December 2016

CTI certification in coaching (2015-2016) Certified Professional Co-Active Coach (CPCC) awarded in June 2016

MA Organizational Psychology, Teacher's College Columbia University with a specialty in "Change Leadership" May 2015

MS Information Technology, Capella University with a specialty in "Routing and Switching" 2004

BS Electrical Engineering Computer Science, University of California at Berkeley with a "Circuits and Systems" emphasis 1994

#### **Volunteer History**

#### Plato Mentor 2018 - present

• Offer free mentoring to tech startup managers

#### Center for the Study of Groups and Social Systems (CSGSS) Board Secretary 2016-present

- Serve on the board of a non-profit educational organization that hosts conferences and other opportunities to learn about group dynamics
- Lead membership and social media
- Manage a part-time paid administrator

#### Organization Development Network 2015-2016

- Lead the social media committee to represent ODN on Facebook, Twitter & LinkedIn
- Recruit & lead committee of 5 people

#### **Anderson Ranch National Council 2014-present**

- Fundraise for artist scholarships
- Develop business opportunities such as corporate retreats

#### Grey Muzzle 2014-2015

Volunteer executive coach to board members

## PAWS (Pets Are Wonderful Support) in San Francisco, CA 2007-2009

- Volunteer role to project manage the Architect volunteer teams for PAWS' premier fundraiser.
   This year, the event raised over \$250,000 for PAWS and featured 10 "habitats" custom built for the event.
- Project managed the silent auction for fundraising event 2007

#### Oregon Kitemakers Retreat – 2003 – 2005 Rockaway Beach, OR

• Organizing committee for 2005 retreat

#### **Education**

### Peter Harrison



Colovore LLC https://www.linkedin.com/in/colovore/ http://www.simiya.com/resume/

#### **Education:**

Please list any undergraduate degree(s) you received, the institution and the date issued.

Bachelor of Science in Electrical and Computer Engineering, Honors Graduate (1986) University of the West Indies, St. Augustine, Trinidad

List any graduate degrees you have received, the institution and the date it was issued.

Post-Graduate Diploma, Management Studies, With Distinction (1992)
University of the West Indies, Mona, Jamaica

Master of Business Administration (1994)
Ivey School of Business, University of West Ontario,

Post-Graduate Diploma, International Trade (1998) ICADE, Universidad Pontificia Comillas, Madrid, Spain

#### **Board Member Job Requirements:**

London, Ontario, Canada

Potential ARIN Board Members are expected to thoroughly review the Board Member Job Requirements found here as part of completing this questionnaire. Do you foresee any issues with fully executing those requirements and expectations? If yes, please provide specific details below.

None foreseen

#### **Present Job:**

Please provide the name of any company or organization you currently are employed by or receive direct or indirect compensation from. Please describe the business of each such entity and your current title, and the office address of the business.

CTO and Co-Founder

Colovore LLC 1101 Space Park Drive Santa Clara, California, 95054

Colovore is a carrier-neutral, high-density, retail colocation data center located in Silicon Valley. The facility minimally provisions each cabinet with a power circuit that can supply 20kW. The maximum power per cabinet currently provisioned is 35kW.

Typical customer applications focus on machine learning and artificial intelligence analysis using multi-GPU servers in, or using, Hadoop style big data clusters.

The facility provides an optional blended bandwidth product over redundant ISP feeds as a convenience service for our customers' out of band and sub 100 Mbps Internet requirements.

6 multinational ISP carriers on site.

#### **Not-for-profit Board Service:**

(a) Please identify any non-profit corporate board(s) you currently serve on, how long you have served and what offices, if any you have held.

Board Chairman and President (2016 – Present) The Palisadoes Foundation LLC P.O. Box 518 Cupertino, CA

Co-founded The Palisadoes Foundation 501(c)(3) non-profit organization dedicated to the promotion of technology creation in Jamaica. The signature program is the annual Calico Challenge, now in its third year, where Jamaican based university students work on open source projects under the guidance of an industry mentor. Stipends are paid upon the completion of predefined goals.

Calico has had 12 participants. One is pursuing PhD studies in Canada, another recently accepted a job offer from Lyft in San Francisco.

Calico is a student outreach program modeled on the Google Summer of Code where Google administers and funds the process. With Calico, funding is provided by private donations from the international Caribbean community, local companies and foundations. Jamaican entities such as the JPS Foundation, the NCB Foundation and the Joan Duncan Foundation have financed the program. Canadian company RealDecoy and the San Francisco restaurant chain, Back-A-Yard have been key corporate sponsors.

The Palisadoes Foundation collaborates with the Jamaica Computer Society which represents us in Jamaica and handles funding disbursement.

We also work closely with the faculty and staff of the

University of the West Indies and the University of Technology, Jamaica. In January 2018, the Palisadoes Foundation made a donation of a rack of servers to both institutions. We also provide Linux training to support the equipment.

Palisadoes also works with university student clubs to arrange webinars with international industry professionals. Speakers have included engineers from LinkedIn, Comcast, General Motors, Cisco, and IBM.

In 2019 the Calico Challenge will expand to other Caribbean islands.

This is an unpaid position. I do not receive direct or indirect compensation.

(b) Similarly, please identify any non-profit corporate board you served on in the past 5 years that are not included in answer to (a).

None

## Please describe how service under (a) or (b) may have prepared you for service to ARIN.

My experience working with nonprofit boards has made me appreciate how the work can be both impacting and rewarding, but also challenging. Corporations expand profits by providing a combination of services or products and pay people to achieve this goal. Corporate business development activities bring together organizations with similar core objectives.

In contrast, non-profits seek societal or socio-economic benefit for their broad and diverse constituency of individuals, companies and, other organizations; each with their own competing goal definitions. The challenge for experienced non-profit leaders is to ensure decision making is smooth, communicated clearly, and based on timely input from representatives of the constituent body

Leadership experience within non-profits also means understanding volunteer time must be respected. Their effort is often on an "as available" basis, volunteer turnover rates can be higher than desired for various reasons, and other issues can create delays. It is important to create a decision-making mechanism that isn't constrained by such issues while reducing the risk of alienating participation in decisions. This can be a challenge that may require altering processes over time to ensure the organizational mission can be achieved.

Preparing stakeholders for change is therefore very important in nonprofits. Surprises are frequently disruptive, and it is always important to lay the foundation for changes beforehand. You must talk to

stakeholders, understand perspectives, gather support evaluate feedback, provide persuasion and more. The Japanese call it "nemawashi", and I have found it a key skill in my work.

Nonprofits need to operate transparently because the diversity of its membership can easily cause misunderstandings. Decisions must address well defined issues, have predominantly objective evaluation criteria and the results must be published quickly. This clarifying openness must be a part of every activity and it is significantly different from corporations. These characteristics are fundamental of the nonprofit governance process.

Society holds nonprofits in high regard partly because their members have chosen to make sacrifices for the public good. When that trust is broken, the entire sector suffers. The expectation of transparency, which I mentioned before, also extends to the organization's decision-making ethics and probity.

Donors will only be encouraged to support successful nonprofit operations having clearly valuable products and services coupled with strong stakeholder awareness. As donations are not always obligations, revenue streams can be unpredictable, and budget prioritization can be challenging. Relevance encourages financial support and requires constant attention. On the surface this isn't germane to ARIN, as a large portion of inflows are predictable subscription-based registrations and the organization's great importance is obvious. However, ARIN's vitality could be diminished if its perceived relevance sags. Though this is not a current risk, it is something I'll consider during discussions.

These rough observations have been polished by my experience at the Palisadoes Foundation. The rewards of seeing students and industry professionals benefitting tremendously have been remarkable and deeply satisfying. It has made my participation enjoyable and meaningful.

I have had to work with varying companies, industry groups, and individuals each with competing goals to achieve Calico's success. We craft a message for each one to make their participation align with their missions and ours. Palisadoes volunteers regularly visit our stakeholders while on vacation to develop the required trust in our organization. I also make an annual trip there, at my expense, dedicated solely to this purpose. The in-person interaction helps to maintain the trust and longevity of our partnerships.

ARIN has made good progress toward ensuring its diverse constituency has participation from all members, and there is continuing work to do. For example, there are frequent interactions with the Caribbean Network Operators Group (CaribNOG), the Caribbean Telecommunications Union (CTU), the Caribbean Association of National Telecommunication

Organization (CANTO), governments, regulators, and law enforcement agencies. This requires frequent dialogue, consultation and outreach services for success: activities with which I'm very familiar.

My work with the Palisadoes Foundation has helped to hone the governance and collaborative decision making skills required for this role. Therefore I expect my involvement in ARIN to be equally rewarding and informative.

#### **Required Biography:**

Please provide here your full biographical information (attached separate resume or Curriculum Vitae is an acceptable substitution) including, if you choose, any data asked for in this questionnaire, and provide a brief description highlighting your experience relevant to the duties of the ARIN Board of Trustees. You may also optionally include additional web links to external websites (e.g. social media) though that may not be substituted for the aforementioned required biography.

I've been fascinated by computers and networking since the early 1980s. I was the founding president of PCJAM, Jamaica's first personal computer users' group, and was the principal systems engineer responsible for the computerization of the island's tax collection systems.

In later years I sought new opportunities as the western Caribbean representative for a Fortune 200 pharmaceuticals firm and became the international sales manager for a regional rum company. Before moving to Silicon Valley, I ran Trinidad and Tobago's first Panama based industrial trade office to Latin America.

I have since worked extensively in the Internet sector deploying large-scale data centers and web sites. This has included Google, where I helped manage global data center demand and capacity planning; the Google Fiber FTTH program and its initial data center infrastructure rollout; and YouTube's CDN server deployment and maintenance. Prior to Google, I was an Operations Director at eBay Advertising, where I managed the search engine grid infrastructure; and the Network Manager at Netflix, where I helped launch Netflix's streaming Internet Video technology.

I am currently the cofounder and CTO of Colovore, a high density, carrier neutral, retail colocation provider in Silicon Valley. Recently I founded the Palisadoes Foundation, a nonprofit organization aimed at promoting technology creation in the Caribbean via various educational programs.

Linux has been a part of my daily professional life

and some of that experience was published by Prentice Hall when I wrote "The Linux Quick Fix Notebook".

I was a participant in the IEEE HSSG working group that created the 100G Ethernet standard, and spoke on the topic at conferences. I'm also a Cisco CCIE Emeritus.

My undergraduate engineering degree is from the University of the West Indies (UWI), Trinidad and Tobago. I later did post-graduate management studies at the UWI, Jamaica and received an MBA from the Ivey School of Business at the University of the Western Ontario. I have also studied at ICADE, Spain and ITESM in Mexico. I speak Spanish fluently.

In my quieter moments, I enjoy the art and literature of the Caribbean and Latin America. Long road bike rides, and distance swimming are other guilty pleasures. I also like to enjoy the many attractions of the San Francisco Bay Area with my family.

My resume: http://www.simiya.com/resume/ LinkedIn: https://www.linkedin.com/in/colovore/

\*To view this candidate's resume, please refer to the end of this candidate's questionnaire.

#### Conflicts of Interest:

(a) Please disclose any conflicts of interest you may have that would impact your ability to perform your duty as a member of the ARIN Board of Trustees.

None known

How do you propose to resolve any conflicts identified in (a)?

N/A

#### **Related Experience:**

Do you have any other industry related experience that you feel is relevant to your serving? What did you find the most rewarding from those experiences?

Internet enabled devices and the data they produce have improved the lives of billions of people in recent decades. Now, in the 21st century socio-economic development depends on Internet development. This is true from the local to the global level

ARIN's heterogeneous membership represents every segment of Internet connected society in the region.

This means ARIN's decisions indirectly impact eco-

nomic growth and makes the governance provided by the Board of Trustees extremely important. The objectivity of any board is enhanced by a broad range of experiences and qualifications reflecting needs of all stakeholders.

My experience covers a range of environments that many of ARIN's members encounter daily. These include successful roles in a variety of SaaS, managed hosting, video streaming, ISP and colocation companies. These companies range in size from global, publicly listed firms to small startups. My roles have spanned from the entry level to the C-suite.

I have worked in government and private sector roles in both the Caribbean and Latin America. Though I am based in Silicon Valley my connection to the Caribbean continues through my philanthropic work with the Palisadoes Foundation promoting technology education in universities through public-private sector partnerships.

I'm proud to have been an active contributor to the large-scale Internet expansion that has occurred since Y2K. This has improved commerce, science and social interaction, lifting billions of people out of poverty, not just in my lifetime, but also in that of my children.

Therefore it would be inspiring to have the opportunity to contribute to the governance of a body that has had such a profound global impact.

Global Internet Services Experience

My network team helped to launch Netflix's video on demand service, at Google and eBay, I oversaw the deployment and repair of tens of thousands of Internet facing servers. Without question I understand the complexities of hyper-scale IT infrastructure that many in ARIN's membership face. I understand the massive challenges and rewards of successfully making this work globally and quickly. Hundreds, if not thousands, of people must be coordinated for what appear to be trivial changes to the end user, but which have significant impact on the profitability and competitiveness of their service providers.

I've interacted with ISP and content provider stakeholders wanting to take advantage of the locally available Internet at nearby Internet exchange points to provide services that were affordable, instantaneous and universally available.

In my current role at a leading colocation startup, I work from the other side of the negotiating table providing services to multinational companies. I therefore understand the perspective of ARIN's smaller members who need to interact with an internationally focused clientele.

For the Internet, change may be constant, but speed

is always increasing. This rise in speed affects ARIN's member nations and territories whose pace of Internet improvement needs to exceed that of the global economy for the cyber-benefits to continue. Slowness to respond affects the region's enterprises and productive societies. I see the impact of slower access to global Internet services on remote learning and software development, and hence economic development, with my non-profit work.

I want to see the global Internet universally usable as it continues to improve my life and so many others. ARIN must work with both big and small organizations in international, regional and local contexts to achieve this goal. I have a first-hand appreciation of this in both my personal and professional lives. I will use this to promote ARIN's values and goals in my role on the Board.

North American Datacenter Startup Experience

Like many ARIN member organizations, Colovore which I co-founded, is an Internet services startup. There have been many challenges on the path to profitability but the most notable one has been the effort it has taken to develop trust in our ability to consistently provide what we promised.

We have had to be nimble, considering many non-traditional approaches, to be successful but we have been unfailing in keeping our original business plan in mind every step of the way. It has been challenging. Various stakeholders offer differing advice that we must weigh for relevance, practicality, cost, and strategic implications.

The stakeholders are not anonymous. They are much closer and concentrated than those in global Internet companies. They are personal investors and customers who you personally know. These are people who have taken a financial and professional risk in selecting our services.

Unlike software, it is difficult to "pivot" your plans when you depend on high priced fixed assets you own, not rent. Sound governance has been critical to our success. This has included open, frank discussions with our investors and Board. Our collaborations are measured in years, not by the hour, to make our permanence palpable.

It has been a grand achievement. I hope to apply the lessons of this governance in my role as a Trustee. A few years ago, when I on the team that launched Google Fiber, the challenge was to find consumer grade WiFi hardware that supported IPv6. Support for it is now assumed, however this is still not the case in heavy industry where equipment is often slow to evolve to technological change.

There is often good reason for this delay. The risks to

life and limb are real. Modifications need to be thoroughly tested, sometimes in a regulatory context. This results in IPv6 support in many electrical and mechanical vendor products being either non- existent or on distant roadmaps. The differences in the priorities of the modern industrial world and modern IT are a challenge for 100% IPv6 adoption in my colocation business.

ARIN's membership will have similar experiences, and as a Trustee, I hope to champion IPv6 adoption in both every day and mission critical systems.

#### Caribbean Region Experience

\_\_\_\_\_

Most of the countries and territories represented by ARIN are Caribbean. My life and work experience there has made me very aware of both the region's similarities and important nuances that color the priorities, expectations and reactions of its societies and leadership.

In my regional roles I have worked with various government agencies to set and implement policies in both technology and trade. In some cases, this has included participation in projects administered by multilateral organizations such as the European Union, USAID and the IMF. Similarly, ARIN has related experiences with regional public/private sector organizations, such as the CTU and CANTO. I look forward to understanding new Caribbean perspectives on Internet governance as a Trustee in the context of my experience.

The region is susceptible to economic uncertainty for many reasons. One cause is the weather. In 1986 in the aftermath of Hurricane Gilbert, the 20th century's most powerful hurricane, I was part of the team that ran the Government of Jamaica's primary data center on generator for over three months, while simultaneously restoring network connectivity between dozens of tax collection and water utility offices. Technological resiliency is a constant concern for Caribbean operators and governments especially in the wake of last year's Hurricane Maria. Through ARIN's governance I hope to continue efforts to support risk mitigation strategies.

Small nations don't offer economies scale. The silos of expertise that global organizations have differ in the Caribbean as the walls are often very porous or nonexistent with teams assuming multiple roles with much fewer resources. There is often a great breadth of expertise, but sometimes less depth in areas that a small economy may not often experience. Some may view this as a challenge, but it is also a great opportunity for mentorship and knowledge transfer. My recent impromptu colocation services presentation at the ARIN sponsored CarPIF 2018 is an example of this knowledge exchange.

These challenges evolve. As the Caribbean creates and supports more online content within its borders, data protection and residency laws, in addition to intellectual property rights, are becoming bigger public policy concerns. ARIN will be approached for guidance on core principles and policy implications by resource constrained public-sector organizations and its membership. This is often done by ARIN's Caribbean Outreach Liaison, but there may need to be occasional interactions at the Trustee level, where my experience will be valuable.

I look forward to contributing to regional Internet governance and capacity building as an advocacy pathway.

#### ARIN's Challenges:

What do you believe to be ARIN's greatest challenges? How do you believe that your background and skills would help ARIN in addressing these challenges? (Maximum 200 words)

ARIN's decisions, and those of its diversified member organizations, affect global industry and society. The issues reviewed are technically and procedurally complex. It will always be a challenge for Trustees to broadly represent the membership in perspective, experience, scope and depth. My background provides many important skills that could help ARIN expand its engagement with its datacenter community and its relevance to member nations.

Continuous IPv6 adoption and promotion are both technical and cultural challenges when faced with IPv4 inertia. I hope to be advocate for this essential transition in the ARIN community.

As the administrative overhead of IPv4 exhaustion subsides, ARIN's softer roles will gain prominence. Its long-term positions in societal safety namely cyber-security, education, transfers, privacy, regulation and law enforcement will be monitored internationally. This challenge isn't just technical as in RPKI or DNSSEC. It extends to ARINs Whois data governance.

ARIN's approach to its member nations in this area could be the model used in RIR and general global negotiations. My international experience will be useful here.

Weighing the immediate needs of the membership with longer term ARIN governance goals is challenging. Fostering additional strategic relationships with the Caribbean is an example in which I have experience.

#### Peter Harrison Resume

#### **EXECUTIVE MANAGEMENT PROFILE**

Entrepreneur • Global Management Experience • Large Scale IT Infrastructure • Software Design and Development

Builder of products, teams and great culture. Over 25 years of engineering leadership experience. Global cross-functional management for Fortune 500 companies. Extensive experience in leading largescale IT transition programs. Full market responsibility for several Latin American and Caribbean economies. Started multiple ventures in the private, government and non-profit areas.

#### **Core Competencies:**

- Serial International Entrepreneur
- Global Tech / DevOps Deployments
- International Nonprofit Boards
- Diverse Multinational Team Leadership
- High Volume Websites / ISP Peering
- Fluent Spanish Proficiency
- Strategic Planning and Policy Design
- High Density Data Center Architecture
- Caribbean / LATAM experience

#### PROFESSIONAL NON-PROFIT EXPERIENCE

THE PALISADOES FOUNDATION 2016 – Present Chairman and President

Overall responsibility for all outreach goals and corporate responsibility. The Palisadoes Foundation LLC is a registered 501(c)(3) non-profit organization registered in California. It was conceived by a group of Jamaican technology professionals interested in assisting in the continued development new and existing technologies in Jamaica.

- Creation of the annual Calico Challenge where Jamaican based university students work on open source projects under the guidance of an industry mentor. Stipends are paid upon the completion of predefined goals.
- Donated a rack of Linux servers to the University of the West Indies and the University of Technology, Jamaica.

PROFESSIONAL CORPORATE EXPERIENCE COLOVORE LLC 2013 – Present CTO and Cofounder

Responsibility for all engineering systems. Colovore is a high-density carrier neutral colocation data center provider located in Santa Clara, California. Investors include Digital Realty Trust, Pelio & Associates, and a variety of private individuals.

- Design and provisioning of all contracted customer security and networking services
- Coordination of the construction of 6MW of colocation space designed for supercomputing needs.
- Design and deployment of Colovore's real time, usage based billing system
- Capacity planning predictive modeling

#### GOOGLE 2009 - 2013

Senior Technical Program Manager

Global business oversight for a variety of programs. Coordinated the implementation of capacity plans, project execution, and software development based on external product planning, business analysis, and site reliability needs. Worldwide responsibility for integrating logistics, vendor and budget management, computer deployments, repairs, education and change management in support of this.

- Doubled SLA compliance for YouTube server repair in 2009
- Lead hardware operations program manager for the server upgrades required for the launch of "Google Instant" worldwide
- Founding member of the Google Fiber team.
   Lead the building of facilities to support national
   TV services
- Primary technical program manager responsible for compute resource allocation for the Google Search business unit.

SHOPPING.COM / (eBay Advertising) 2008 – 2009 Director of Operations

Ownership for the infrastructure to support shopping.com's comparison shopping service. Responsible for a 3,000 server, 200M daily query search grid, its data center facilities and supporting network interconnectivity. Included systems administration, networking, data center rack & stack operations as well as outsourcing vendor management. Staff of 12, \$12M budget.

- Lead strategic technology selection for multiple multinational data centers. NYC, San Francisco and Israel.
- Created IT capacity planning models used for corporate budgeting and business partner profitability analysis.
- Reduced non-staff IT costs by 20% while maintaining key metrics through virtualization, application rationalization, improved content delivery performance, legacy system retirement,

data storage consolidation and vendor contract renegotiations.

#### NETFLIX, INC. 2005 - 2008

Network Engineering Manager / Architect

Full operational responsibility for all video downloading, voice, and data networking activities supported by 500-seat call center, 50+ corporate offices and distribution centers, and customer web site. Developed company-wide IT strategic plans by projecting architecture needs based on customer, employee, and geographic company growth. Deeply involved with vendor relationship activities, including sales and support contract negotiations, and program management . Staff of 6, \$2M budget.

- Designed and implemented the content delivery network (CDN) used by the "Watch Instantly" video on demand (VoD) service.
- Built disaster recovery architecture that facilitated company's growth from 3 million to 7 million subscribers without the addition of team members. Transformed under-performing team into top-notch department respected throughout the company.
- Supported 24/7 computer automated fulfillment systems at 50 nationwide distribution centers

NAVISITE, INC. 2000 – 2005 Director of Networking

Managed 3,000 servers across multiple data centers and POPs (US/EU). Guided networking and security teams in operational and architectural activities. Managed technical communications with customers, vendors, consultants, regulatory entities, and senior management. Developed and implemented standards. Team of 15 engineers, \$10M capital budget.

- Led technical teams during merger and acquisitions during which the data center assets of Conexion, Interliant, Avasta, and Surebridge were migrated and integrated into the existing corporation and its IT infrastructure.
- Program Manager for Sarbanes Oxley / SAS70 upgrade of a 1,500 server disaster recovery data center.
- Established 24x7 Network Operations Center in New Delhi, India leading to round-the-clock customer support.

UNITED AIRLINES / E-FINITY MANAGEMENT 1999 – 2000

IT Consultant - Y2K

#### **CARIBBEAN EXPERIENCE**

TRINIDAD & TOBAGO TRADING CO. 1998 - 1999

#### Chief Executive Officer

Established the first Panama based Latin American trade facilitation company created by the government of Trinidad & Tobago and the Trinidad & Tobago Manufacturers' Association (TTMA). The primary focus was to increase non-oil manufactured exports from Trinidad to Latin America via the Colon Free Trade Zone (CFTZ) in Panama, the largest free zone in the Western Hemisphere. Managed private sector trade missions, produced client deliverables, and researched/identified market opportunities.

#### DR. IAN SANGSTER & COMPANY 1996 – 1997 Sales & Export Manager

Sales, marketing and distribution responsibility for 8 international markets in the Caribbean, Asia and Europe. Sales team of 10, US \$4.0 million in revenue. Participated in distributor contract negotiations. Managed all aspects of sales, marketing, advertising and promotion. Specific responsibility for branding, modified product positioning, new label design, product line streamlining, the production of print media and radio advertising, distributor selection, marketing surveys, customer newsletters, trade show sponsorship and the manufacture of promotional items. Frequent considerations had to be made for varying market conditions, cultural preferences, competitor strategies and customs duty regimes.

#### ELI LILLY (PUERTO RICO) SA 1994 – 1996 Pharmaceutical Marketing Representative

Western Caribbean market responsibility for US\$3.0 million in annual revenue for this multinational pharmaceutical company. Led sales of antibiotic, endocrine, central nervous system and cardiac medications through wholesale distribution channels. Directed professional education programs for medical staff in diabetic care, infectious diseases and depression. Team of 3.

#### ISLAND MICROSYSTEMS 1990 – 1992 Deputy General Manager

Technology leader for Jamaican arm of Caribbean value added reseller (VAR). Supported the full line of Acer computers and Xerox document processors in both pre and post sales functions. Team of 10 sales and support engineers.

#### FISCAL SERVICES (EDP) 1986 – 1990 IT Manager

Technical responsibility for the Government of Jamaica's primary front line IT initiatives. Managed 400 user computer network for the Government of Jamaica's (GOJ) revenue collection departments with over 20 locations characterized by poor communications infrastructure and physical environ-

mental conditions. In all cases, successfully aided in re-engineering engrained end user manual processes through automation in a highly regulated public sector framework. Supervised teams of up to 12.

Prior positions included an electrical engineering internship at the Alumina Partners of Jamaica bauxite mine.

#### **EDUCATION & CREDENTIALS**

Stanford Certified Project Manager 2010
STANFORD ADVANCED PROJECT MANAGEMENT
PROGRAM, Stanford University, Palo Alto, California

Post-Graduate Diploma, International Trade 1998 ICADE, UNIVERSIDAD PONTIFICIA COMILLAS, Madrid, Spain

International Exchange Program, International Business and Commerce 1998
INSTITUTO TECNOLÓGICO Y DE ESTUDIOS SUPERI-

ORES DE MONTERREY, Monterrey, Mexico

Master of Business Administration 1994 UNIVERSITY OF WEST ONTARIO, IVEY SCHOOL OF BUSINESS, London, Ontario, Canada

Post-Graduate Diploma, Management Studies, With Distinction 1992 UNIVERSITY OF THE WEST INDIES, Mona, Jamaica

Bachelor of Science in Electrical Engineering, Honors Graduate 1986

UNIVERSITY OF THE WEST INDIES, St. Augustine, Trinidad

**High School 1983**CAMPION COLLEGE, Kingston, Jamaica

#### **Scholarships and Awards:**

Spanish Agency for International Cooperation (AECI) Scholarship 1997 Canada Jamaica Training Project Scholarship (Administered by CIDA) 1992 Commonwealth Fund for Training and Cooperation Scholarship 1985

#### **PUBLICATIONS & PRESENTATIONS**

- Author, Linux Quick Fix Notebook. Prentice Hall: ISBN 978-0131861503
- Co-Presenter, "Real World Disaster Recovery Enhancements Case Study," International Alliance of Avaya Users"
- Co-Presenter, "Understanding the Impact of 100G Ethernet", DesignCon 2008

#### **AFFILIATIONS & CERTIFICATIONS**

#### Affiliations & Activities:

- North American Network Operators' Group 2000 - 2008, 2018
- Jamaican American Association of Northern California 2001- Present

#### Certifications:

Cisco Certified Internetworking Expert (CCIE)
 Emeritus #8710 2004 - Present

### Anna **Valsami**



Telstra Inc. https://www.linkedin.com/in/annavalsami/

#### **Education:**

Please list any undergraduate degree(s) you received, the institution and the date issued.

BSc Computer Science - TEI of Athens, Greece - June 1999

List any graduate degrees you have received, the institution and the date it was issued.

MSc, Data Communication Systems - Brunel University London - June 2002

#### **Board Member Job Requirements:**

Potential ARIN Board Members are expected to thoroughly review the Board Member Job Requirements found here as part of completing this questionnaire. Do you foresee any issues with fully executing those requirements and expectations? If yes, please provide specific details below.

I have reviewed the Board Member job requirements and expectations and I do not anticipate any issues with fully executing them.

#### **Present Job:**

Please provide the name of any company or organization you currently are employed by or receive direct or indirect compensation from. Please describe the business of each such entity and your current title, and the office address of the business.

I work for Telstra, Australia's leading telecommunications and technology company, which offers a full range of communications services across Australia and internationally and competes in all telecommunications markets. After 7 years with the company in the London office in the UK focusing on the EMEA region, I moved to San Francisco in 2016 to work on the Asia, Australia and US regions.

My role is Senior Solutions Architect for the OTT and Enterprise sectors in the Americas, working out of Telstra's office at Suite 1650, 575 Market Street, San Francisco, California.

#### **Not-for-profit Board Service:**

(a) Please identify any non-profit corporate board(s) you currently serve on, how long you have served and what offices, if any you have held.

I am currently not participating in any nonprofit corporate boards.

(b) Similarly, please identify any non-profit corporate board you served on in the past 5 years that are not included in answer to (a).

Although not a formally defined board, while living in the UK, I was the founder and organizer of two very active non-profit social meetup groups of a total of 1500 members. I organized events, raised funds and planned the groups' activities and budget. The first group was a social group for people in their 30s and 40s ("The Thirsty Thirties"), promoting outdoor experiences and social interaction through diverse activities, whereas the second one was for spanish-speaking people in the UK ("The Cambridge UK Spanish speaking group"). The aim of that group was to exchange cultural information between the UK and hispanic-speaking countries around the world, as well as practice both english and spanish languages in a laid back environment outside the school class.

Please describe how service under (a) or (b) may have prepared you for service to ARIN.

Although my past experience has not been on non-profit boards specifically, in my everyday job, I manage important, high value projects, deal with multiple stakeholders, make decisions and weigh their risks on a daily basis. I make and contribute to strategic decisions, oversee projects and make sure everything stays within budget. I believe this 20+ years expertise matches perfectly the ARIN's Board requirements.

#### Required Biography:

Please provide here your full biographical information (attached separate resume or Curriculum Vitae is an acceptable substitution) including, if you choose, any data asked for in this questionnaire, and provide a brief description highlighting your experience relevant to the duties of the ARIN Board of Trustees. You may also optionally include additional web links to external websites (e.g. social media) though that may not be substituted for the aforemen-

#### tioned required biography.

I have been in the Internet Industry for more than 20 years and my involvement with the Regional Internet Registries started around the same time.

While finishing university with a BSc in Computer Science and a MSc in Data Communication Systems, I concurrently started my professional life as a network engineer and later worked as core network designer for one of the biggest ISPs in Greece, Hellas on Line (HoL). As an engineer, I got significant experience on Internet routing and peering but I also got the opportunity to be its sole LIR administrator and representative to RIPE for 10 years. Working on both internal infrastructure and the customers' IP addressing and ASN needs, I participated extensively in RIPE policy formation and operational processes in Europe and was also the host of RIPE43 meeting in Greece. Through my participation in multiple RIPE community events and trainings since 1999, I started following closely the policies and policy-development processes of ARIN and APNIC and have been actively using them since.

In 2007 I moved to the UK and continued working as a network designer but changed to a more public-facing role when I joined Telstra in 2009. There, as Solutions Architect I continued to be involved with the Internet community and Internet resource management by administering part of the Telstra LIR in Europe (ex PSINet Europe). In 2016, I moved to Telstra's office in San Francisco and I am still engaged with NANOG and continue consulting with internal and external customers on the current policies of ARIN, RIPE and APNIC.

Working in a corporate environment and in a customer facing role as a Senior Solutions Architect now, I am continuously involved with the management of multiple, large-scale, global, customer projects, making decisions on technical and financial requirements on a daily basis, in both public and private sectors. I am very comfortable with attending and participating in large public meetings, I have a great skill in effortlessly and genuinely engaging, listening and connecting with people of all professional levels and cultural backgrounds and I am a great believer in the multi-stakeholder Internet governance model and in working together for the good of the global Internet community.

\*To view this candidate's resume, please refer to the end of this candidate's questionnaire.

#### **Conflicts of Interest:**

(a) Please disclose any conflicts of interest you may have that would impact your ability to perform your duty as a member of the ARIN Board of Trustees.

I have no such conflicts of interest

## How do you propose to resolve any conflicts identified in (a)?

If any conflict arises, I will inform the Board and recuse myself from the conflict.

#### **Related Experience:**

## Do you have any other industry related experience that you feel is relevant to your serving? What did you find the most rewarding from those experiences?

I have many examples throughout my 20-year career in the industry that demonstrate leadership skills, experience in governance, management of projects and budgets and strategic decision making. My most memorable experience however is outside the industry: for 5 years while living in the UK, I was the founder and organizer of two very active non-profit social groups of a total of 1500 members. This was undoubtedly a deep dive experience in leadership, governance and people management and the most rewarding aspect was the ability to help create friendships and experiences between people who under other circumstances would have not even left home.

#### ARIN's Challenges:

What do you believe to be ARIN's greatest challenges? How do you believe that your background and skills would help ARIN in addressing these challenges? (Maximum 200 words)

I have been following ARIN for several years and I believe the greatest challenges are:

- Increasing member participation and engagement
- Need for faster IPv6 transition, management and awareness
- Keeping ARIN relevant compared to other industry forums (NANOG etc) and the rest of the regional registries, especially as the IPv4 exhaustion continues and IPv6 takes over
- Determining whether additional services would be of benefit to members
- Collaboration with the other Regional Internet Registries directly and through NRO participation
- Representation of ARIN's diverse service region on the Board and in ARIN member participation

My skills in bringing people together, critical thinking, acceptance of all opinions and a holistic view of

the ARIN's actions and policies, will definitely help address these challenges.

#### Anna Valsami Resume

#### **EDUCATION**

**2002: MSc in Data Communication Systems**Department of Electronic & Computer Engineering Brunel University, UK

#### 1999: BSc in Computer Science

Department of Computer Science Technological Education Institute (T.E.I.) of Athens, Greece

#### PERSONAL SKILLS

- Strong leadership and excellent communication skills
- Ability to work under structured methodologies and procedures
- Interest in new Internet Technologies
- Commitment to the company's principles, goals and vision
- Ability to work under pressure both individually and in team groups
- Solid consulting skills, analytical mind and attention to detail
- Ability to articulate complex technical concepts to non-technical people

#### PROFESSIONAL EXPERIENCE

## January 2016 – now: Senior Solutions Architect, OTT Americas – Telstra US

Develop global networking solutions between APAC, US and EMEA for existing and new customers. Design of high-speed (10Gbps) and ultra-high-speed (10Gbps) transport and IP transit solutions for customers who require inter-country connectivity.

## August 2009 – December 2015: Technical Consultant (Presales) – Telstra UK

Provide consultancy and technical guidance to customers, sales and bid management teams. Design high and low level technical solutions and diagrams, respond to RFPs, RFIs and RFQs and develop presentation material to facilitate discussions with existing and prospect customers. My focus was on IP routing, managed IP Services, MPLS VPNs, optical networks, terrestrial, satellite and submarine connectivity, global IP transit and peering, DDOS mitigation solutions,

global data centres, NNIs, Quality of Service (QoS), VOIP and SIP, SLA Management.

#### Sep 2007 – July 2009: Network Architect – Neos Networks (now SSE Telecom) / Scottish & Southern Energy (SSE)

SSE is one of UK's biggest Utility companies with one of the most comprehensive fibre networks running along power cables. My role was to design the national LAN and WAN of SSE Corporate, power plant and on/off—shore wind farm connectivity and to respond to RFPs.

## August 1997 – August 2007 – Hellas On Line, Greece (now merged with Vodafone Greece)

For 10 years I worked for Hellas On Line (www.hol. gr), one of the three biggest ISPs in Greece. I got extensive hands-on experience on Cisco Routers, internal and external routing protocols, network design architectures, managed IP services, converged networks and VPN solutions.

More specifically, my roles were:

#### Feb 2007 – August 2007: Senior Presales Engineer / Team Leader

Team leader for 7 people, technical manager of all major and key customer accounts, staff recruitment, technical advisor to the Product Management team, handle the team's workflow, distribute daily tasks and report to the Presales Manager.

#### Jan 2005 – Jan2007: Presales Engineer – Presales Unit

Provide Technical Consultancy for the company's Sales team, analyze customer's requirements (private and public sector), respond to RFPs, RFQs and RFIs (technical and financial), produce high and low level network designs, liaise with the Product Management and Network Design teams, attend high and middle management meetings at customers premises.

#### Jan 2003 - Dec. 2004: Senior Network Engineer -Corporate Customer Care Unit

Technical account manager of the two major company accounts, SLA management, support specialist, service provisioning, asset management and reverse provisioning.

#### June1999 - Dec2002: Senior Network Engineer – NOC Unit

Design and Network Operations (Access / Distribution / Backbone), capacity planning and monitoring of all the network resources.

#### Aug 1997 – May 1999: Junior Network Engineer -Corporate Customer Care Unit

Small server / router installations and support, installation and troubleshooting of structured cabling, dialup support engineer.

#### AWARDS AND ACHIEVEMENTS

### July 2015: "GES-I Solution Consultant of the Year – EMEA"

This award was given to me at Telstra's Leadership Kick Off conference event in Melbourne, Australia in order to recognise my contribution in bringing on board the world's leading B2B live casino supplier and the first ever EMEA OTT customer, as well as providing a DDOS mitigation solution for a global travel company.

## August 2009 – December 2015: IP administrator for LIR uk.psinet

Handling of all IPv4 related requests (PA, PI and ASN), RIPE database entries and communication with the RIPE hostmasters.

## Nov1998 – August 2007: IP administrator for LIR gr.hol

Handling of all IPv4 related requests (PA, PI and ASN), RIPE database entries and communication with the RIPE hostmasters.

Sep2002: RIPE43 Meeting – Rhodes, Greece I personally invited RIPE NCC and hosted the RIPE43 meeting in Rhodes, Greece. This was a very successful event and RIPE NCC publicly thanked me for the support I offered. (http://www.ripe.net/ripe/meetings/ ripe-meetings/ripe-43/meeting-report)

#### **MEETINGS/CONFRENCES**

Since joining the Telstra team in the US, I attend and actively participate in most NANOG meetings, which is a community event for Internet engineering, architecture and operations. For over 15 years and while living in Europe, I was also regularly attending RIPE meetings, focusing on technical and policy issues affecting the global Internet administration. This has allowed me to network heavily in the Internet industry globally which has been beneficial to me personally but also to all the companies I've worked for.

#### **LANGUAGES**

Greek Native Speaker/Mother Tongue Fluent

English Cambridge Certificate of Proficiency in English Fluent

French Sorbonne II Fluent

Spanish Diploma de Español Nivel Intermedio

Italian Advanced understanding / limited speaking Poor

German Beginners level Poor Mandarin Chinese Beginners level Poor



## **Brad Gorman**



Verisign, Inc.

Bearing in mind that you run and serve as an individual, rather than as representing an organization, please provide the name of any organizational affiliation you consider relevant.

The Estates of Forest Ridge HOA board of directors. Served as President/Vice President from 2010present

Please provide a brief CV highlighting experience relevant to the duties of the ARIN Advisory Council.

Verisign Inc. - 2/2017 - present. Focused on peering relationships, with both circuit providers and PNI connectivity. The purpose of such peering is to provide the peer organizations protected access to all the Verisign Root DNS and TLD resolution services rather than across public internet exchanges or transit.

Time Warner Cable/Charter communications - 2008-2017 - member of Engineering and Architecture organization duties included Vendor interface discussing current and future hardware and software feature sets. Evaluating testing certifying and documentation of installation requirements and best practices. Designed and operation of engineering lab used by team of 300 engineers for certification and troubleshooting of all facets of MSO productions networks and service offerings.

Please disclose any conflicts of interest you may have with doing your duty as a member of ARIN's Advisory Council. How do you propose to resolve such conflicts?

I have no conflicts.

Describe any limitations on your ability to attend Advisory Council and Public Policy Meetings in person or to serve the entirety of a three-year term.

No limitations.

In my current employment I already attend ARIN and RIPE and one APNIC meeting (in conjunction with Apricot) Conference. In addition, I attend all three Annual NANOG meetings. As well I attend three peering focused conference that do not conflict with any of the scheduled policy meetings.

Have you attended ARIN meetings or otherwise participated in ARIN procedures in the past? What did you find the most rewarding from those meetings or procedures? What suggestions for improvement might you have?

I have attended ARIN meetings and followed the the discussions on the mailing lists with a focus on the direction of policy and it's potential impacts on the ARIN community and the RIRs as a whole.

The public comment period where community input is invited to discuss policy in the last steps prior to accpetance should be timed and limited in the interest of allowing for all members of the community to provide their input. The number of times an individual can return to the mic for follow up on the same topic should also be limited for the same reason.

## How do you think ARIN's function, scale, or role should change?

ARIN policy is generally accepted in the RIR community as the cornerstone for internet policy. As noted that policy is sometimes even mirrored by other RIRs in their written policy. ARIN should strive to expand it's role as a globalyinfluencing organization to assure the continued success of the Internet.

## What differentiates you as a candidate or makes you uniquely suited to the post?

two years Experience working at a DNS operator that runs two root servers and the largest TLDs

9 years working MSO Core engineering experience in a multiple vendor environment with testing design architecture and documentation responsibilities

12 years at the World's largest ISP that was the de-facto acces to the internet for 30 million people (back in the day)

#### How do you separate your personal opinions from those of your organization and those of the community? What areas of policy, if any, need more attention and why?

I believe the role of the AC is to listen to the opinions and requests from members of the ARIN community. Then to compile this information in a manner where it best meets these requests that benefits the community and the internet as a whole. While decisions of the AC could have impact on my organization or head in a direction that differers with my personal opinion, It's my belief that the greater good of the community is more important. If a topic/policy seems to be directly impacting my organization, there's to option of obtaining from any vote that could be perceived as a conflict of interest.

## What are your thoughts on the rights and responsibilities of legacy IP address holders?

The greatest responsibility of legacy IP holders is keeping their database information updated and accurate. Inaccurate information increases the time and effort of the ARIN staff to maintain this data.

Adherence to best practices with regards to announcing addresses/routing in order to avoid impact to the global network.

## What are your thoughts on needs-based justification for the receipt of IP addresses?

In the earliest days of ARIN and IPv4 there was little justification or explanation of the needs for blocks.

IPv4 addressing was handed out in larger blocks with less requirements and scrutiny attached to the request. The case with IPv6 assignments today is similar to the way IPv4 was handled early on. I do not view the heightened scrutiny placed on current IPv4 assignments is the best way to manage the remaining blocks. Holding back blocks of IPs solely for the fear of run out only delays the inevitable switch to native-IPv6 being widely accepted. Having a reserved block held for emergency allocations for critical infrastructure is warranted, but I feel forcing the hands of those clinging to IPv4 as being absolutely necessary to make the internet go around should happen. The reseller/brokerage market for IPv4 addressing is right place for that.

## What do you believe to be ARIN's greatest challenges?

I believe the greatest challenges is changing the mindset of the internet community and get them to put IPv4 in the rear view mirror and providing the guidance and policy that will help the transition. That being said ARIN needs to not forget the lessons learned as we have grown the internet and the policies that brought us to where we are today. ARIN must not fall into the trap of

## If you could improve any aspect of the ARIN AC, what would it be?

Limit the number of consecutive terms a member can serve. Recent additions that include individuals from more diverse geographic locations that provide but only to fill gaps where AC members have stepped down before the end go their term. If I were to be elected to the board, I am sure there are internal improvements that can be made that are not immediately apparent to one not currently serving.

# The role of the Advisory Council is to advise the ARIN Board of Trustees on Internet number resource policy and related matters. Describe a similar experience you have had in such an advisory role.

My experience with similarities is the time spent on my community HOA. In this role it's more of a mirror of the Board of Trustees perspective, but being on the receiving end of guidance if feel is just as applicable. Whether it's taking input from our management company that has responsibility to know all the local laws and how they apply to the actions the HOA board is taking on behalf of the community. As a board member, we must listen to the homeowners (members) as they submit requests to change the HOA documentation. We negotiate disagreements between homeowners can take action when the rules that are set by the community are broken.

Even though this is not from the perspective of the AC and more of the Board, having the experience in this kind of advisory / policy implementation role is certainly applicable.

### Kathleen **Hunter**



Comcast LLC https://www.linkedin.com/in/kathleen-k-hunter/

Bearing in mind that you run and serve as an individual, rather than as representing an organization, please provide the name of any organizational affiliation you consider relevant.

Senior Engineer - Comcast Cable LLC TechWomen Philadelphia

#### Please provide a brief CV highlighting experience relevant to the duties of the ARIN Advisory Council.

For the last 14 years I have been an active member at ARIN meetings and participate in voting and open discussions. I have been attending ARIN meetings in person since 2004. I interact daily with ARIN's WHOIS database and occasionally staff to add and remove customers as requirements change.

In addition, I manage the number resources for voice, video, and data for both the commercial and residential areas of Comcast to ensure IPv4 space is recycled within the organization while we deploy IPv6. Our team has had an all emcompassing approach in ensuring appropriate utilization of space while managing the needs of the business and customers. I have both a technical and business view of all areas of business. I feel my broad yet technical view of a large ISP down to our end customers will give me the information and technical requirements I need to make inclusive decisions while working on policy.

I have also spent time as Communications Chair for TechWomen Philadelphia in which employees are given a voice and important time with executives while also receiving beneficial training. My experience in bringing the right people together will be an effective tool as an advisory council member.

Please disclose any conflicts of interest you may have with doing your duty as a member of ARIN's Advisory Council. How do you propose to resolve such conflicts?

I have no conflicts of interest.

Describe any limitations on your ability to attend Advisory Council and Public Policy Meetings in person or to serve the entirety of a three-year term.

I have no limitations on my ability to serve my full term in-region or out-of-region.

Have you attended ARIN meetings or otherwise participated in ARIN procedures in the past? What did you find the most rewarding from those meetings or procedures? What suggestions for improvement might you have?

I have been attending ARIN meetings since 2004. I have participated on the mailing list as well as participated in open discussions at meetings both at the microphone and in offline conversation. I have also attended the women's lunches.

My involvement with ARIN has been extremely rewarding. It is encouraging to see businesses, customers, law enforcement, and ARIN staff come together and collaborate on policy that impacts all of us. The ability to work together as a cohesive team has always made me proud to be a member of ARIN. Recent changes in newcomer inclusion has been very beneficial for newer members to get started right away.

One improvement I'd like to see is the inclusion of highlights from the mailing list. This may shed new light on the topic at hand and spark more conversation at the microphones. During each policy discussion, it might be helpful to include some of these important discussion points. While everyone

should try to be part of the mailing list, there are work days that are very busy for people so some points may get missed. It would be a nice refresher during discussions for everyone.

## How do you think ARIN's function, scale, or role should change?

ARIN is already starting to change to accommodate the depletion of v4, the growth of v6, and an ever growing transfer market. As attendees of policy meetings and as AC members, we should continue to look at cleaning up unnecessary policy and adapt to the transfer market needs. Record keeping has become increasingly important as the monetary value of v4 continues to rise. Cross referencing of other RIRs is important as there may be issues with security and ownership of IP space. ARIN needs to improve the validity of its records, resources, and members.

If ARIN is going to continue to use the mailing lists as a means to discuss internet policy, there should be some focus on encouraging everyone to speak up if they feel they have an idea without aggression coming from others in the mailing list. The mailing list should be a place for discussion and allowing new ideas to be shared. There is nothing wrong with counterpoints, but it should be beneficial to the topic without hostility.

## What differentiates you as a candidate or makes you uniquely suited to the post?

While I do work for a large ISP, I have a unique view of both large ISPs down to the end users for voice, video, and data. I can easily separate my employers and personal views from community needs. I have been part of the ARIN community since 2004 and am very familiar with the NRPM and policy process. I feel I would have a easy transition to start work on the Advisory Council.

## How do you separate your personal opinions from those of your organization and those of the community? What areas of policy, if any, need more attention and why?

My personal opinions are based on 14 years of experience, both in my daily job and attending ARIN policy meetings. ARIN policy is and should continue to be community driven. Over the years that I have attended and have been involved in policy discussions, the community has manged to get the policy written in a way that works best for most parties involved. If we find something is not right, that policy is revisited. My decisions will focus on what is best for the community as this has been beneficial for most.

In terms of policy, section 4 should continue to be

simplified as we are in a depletion state with IPv4 addresses.

## What are your thoughts on the rights and responsibilities of legacy IP address holders?

The legacy IP address holders are not subject to ARIN RSAs as they should not be since these legacy address holders existed before the formation of ARIN and helped to promote the creation of the internet. While accuracy of the registry has gained importance and I'd like to see legacy holders have more accountability, the current policy in place for legacy IP holders seems to be appropriate at this time. (https://www.arin.net/resources/legacy/services.html)

#### What are your thoughts on needs-based justification for the receipt of IP addresses?

I don't believe the flow of business should be impeded, but some justification should be required so a few large companies or firms do not end up with all of the IP addresses. Recipients should show at least some evidence that the space will be utilized.

IPv6, while not a scarce resource, should still show some justification for similar reasons. There should be a good faith effort by business to at least show they have requirements to use the space. However, because we have a larger pool, I believe we can be slightly more lenient when it comes to size requirements. Space should be given based on multiyear need not monthly because of the complexity of IPv6.

## What do you believe to be ARIN's greatest challenges?

Participation by end users and smaller communities seems to be a hurdle that ARIN has issues overcoming. ISPs, brokers, law enforcement, and telecoms all seem to understand the importance of participation, but there needs to be more effective outreach to end users. Many of them don't realize they can participate, even if it is just being part of discussion on the mailing lists. Those end users are important in creating true policies for everyone.

## If you could improve any aspect of the ARIN AC, what would it be?

From an outside and non advisory council member perspective, it would be beneficial to voters to understand the track record of candidates that have served on the AC. A starting point could be consolidated attendance records made available to the community. This would be a helpful start as a member could have great opinions on policy, but if they only show up for a handful of meetings, they lose their effectiveness if their ideas are not shared.

The role of the Advisory Council is to advise the ARIN Board of Trustees on Internet number resource policy and related matters. Describe a similar experience you have had in such an advisory role.

I have served as Communications Chair for Tech-Women Philadelphia. TechWomen Philadelphia gives a voice both men and women at a staff level while promoting diversity. I reported to the Directors of TechWomen Philadelphia monthly, ran social media platforms, and provided a quarterly report to members with upcoming networking events and training. My reports were then sent to the national chapter.

## **Amy Potter**



Bearing in mind that you run and serve as an individual, rather than as representing an organization, please provide the name of any organizational affiliation you consider relevant.

N/A

Please provide a brief CV highlighting experience relevant to the duties of the ARIN Advisory Council.

I graduated from Notre Dame Law School in 2011, where I focused on Intellectual Property and legal issues surrounding technology and the Internet. I went on to build and help run the IPv4 brokerage business at Hilco Streambank. I left Hilco Streambank in the Spring of 2018, and now act as a consultant. I am currently finishing up my first full term on the Advisory Council.

Please disclose any conflicts of interest you may have with doing your duty as a member of ARIN's Advisory Council. How do you propose to resolve such conflicts?

I provide consultant services to organizations

participating in the IPv4 address market. During my first 3 years on the AC I was an IPv4 address broker. I have always been transparent about this background so that my fellow AC members and members of the community can evaluate any arguments I might have in favor or against any particular policy proposal in light of these affiliations. I will continue to abstain from any voting where a conflict of interest might bias my assessment of community support for a policy proposal.

Describe any limitations on your ability to attend Advisory Council and Public Policy Meetings in person or to serve the entirety of a three-year term.

None

Have you attended ARIN meetings or otherwise participated in ARIN procedures in the past?
What did you find the most rewarding from those meetings or procedures? What suggestions for improvement might you have?

I have been attending ARIN meetings for several years, and am currently finishing up my first 3 year term on the Advisory Council. I find the sense of community and working with the ARIN community to create good policy to be the most rewarding aspects of attending ARIN meetings. I think that we should continue to work on bringing in and welcoming new participants to ensure that we are considering the needs of all relevant parts of the ARIN community as we craft policy.

## How do you think ARIN's function, scale, or role should change?

ARIN's role has already shifted in recent years towards primarily handling IPv4 transfers and handing out IPv6 space. ARIN needs to adapt to focus on the issues that each of these roles present. The increasing value of IPv4 addresses has also resulted in an increase in fraudulent attempts to take over space registered to members of the ARIN community. I think ARIN's role in IPv4 transfers should be focused on preventing fraudulent transfers and Org recoveries.

As IPv6 adoption increases, organizations will be returning to ARIN less often for space. This decrease in engagement will pose an issue to maintaining accurate and meaningful information in the ARIN database. I think ARIN's role in mainting an accurate registry containing meaningful information needs to become much more of a priority to ensure ARIN's continued relevance in the future.

## What differentiates you as a candidate or makes you uniquely suited to the post?

Over the past 3 years working on the AC, I've found

my legal background and experience working in the IPv4 market extremely helpful. These are both unique skill sets that contribute to a well-informed and well-rounded Advisory Council. I have been able to provide useful insight into crafting and evaluating the potential impact of transfer policy proposals. My interactions with a wide variety of ARIN members also allows me to bring in the experiences and concerns of different types of stakeholders.

#### How do you separate your personal opinions from those of your organization and those of the community? What areas of policy, if any, need more attention and why?

I identify where there may be a conflict of interest and make an extra effort to seek out and listen to the opinions of others. I view my role on the AC as representing the interests of the community.

Policy issues surrounding registry accuracy need more attention. As IPv6 adoption increases, ARIN will have fewer interactions with members, and fewer opportunities to update information.

## What are your thoughts on the rights and responsibilities of legacy IP address holders?

I think it's a legal grey area, but that practically speaking legacy address holders should be treated as if they have full rights to their space.

What are your thoughts on needs-based justification for the receipt of IP addresses?

Transfer policies should be focused on preventing fraud, preventing speculation by financial intermediaries, and serving the interests of members of the ARIN community in obtaining IPv4 resources. I believe that needs-based justification should be used only in so far as it achieves these goals, and that we should be cautious about creating unnecessary burdens for our community.

## What do you believe to be ARIN's greatest challenges?

ARIN needs to stay relevant. We need to figure out how to ensure the ARIN database contains accurate and meaningful information, both now and in the future. We need to protect against fraudulent activity. We need to maintain our role in the broader ecosystem.

## If you could improve any aspect of the ARIN AC, what would it be?

I think we can make more of an effort to be accessible to the community.

The role of the Advisory Council is to advise the ARIN Board of Trustees on Internet number resource policy and related matters. Describe a similar experience you have had in such an advisory role.

I have been serving on the ARIN Advisory Council for 3 years.

## Kerrie-Ann Richards



VFJ Codina Ltd.

https://www.linkedin.com/in/kerriearichards/

Bearing in mind that you run and serve as an individual, rather than as representing an organization, please provide the name of any

#### organizational affiliation you consider relevant.

Vision for Jamaica - Director Business Growth Rocket - Founder

Please provide a brief CV highlighting experience relevant to the duties of the ARIN Advisory Council.

**Current Service:** 

Director of Communications and Marketing, Manchester Chamber of Commerce June 2018 -Present

PTA President, El Instituto de Mandevilla Prep School January 2018-Present

ARIN Advisory Council Member Nov 2017 – Present (9 months)

Business Growth Rocket - Founder Jul 2017 – Present (1 yr 1 mo)

Vision for Jamaica (VFJ Coding) - Director 2015 - Present (3 years)

#### Past Experience:

Branson Centre of Entrepreneurship - Caribbean -Entrepreneurship Development Manager (Coach) 2013 – 2017 (4.5 yrs)

National ICT Advisory Council - Council Member 2013 (1 Year)

ICT4D Jamaica - Executive Director 2012-2015 (3 yrs)

I hold degrees in Marketing and Business IT from the London Metropolitan University, Certifications in Internet Governance and Data Protection and Privacy from the University of Malta as well as from the Institute of Leadership Management (London) in coaching and mentorship. I hold other qualifications in business as well

## Please disclose any conflicts of interest you may have with doing your duty as a member of ARIN's Advisory Council. How do you propose to resolve such conflicts?

No known conflicts

## Describe any limitations on your ability to attend Advisory Council and Public Policy Meetings in person or to serve the entirety of a three-year term.

Having been on the AC for the last 9 months there have been a few hiccups but the team has worked with myself and my fellow Caribbean AC member to find suitable workarounds. I do not foresee any issues with meeting my 3 year obligation should I be successful.

# Have you attended ARIN meetings or otherwise participated in ARIN procedures in the past? What did you find the most rewarding from those meetings or procedures? What suggestions for improvement might you have?

My first in-person ARIN meeting was in April 2017 (ARIN 39). At that meeting, I realized that community participation in the policy development process was not just talk. I was able to see it in action. My past experience with policy development was that it was a closed-door process. Seeing it in action at ARIN has been refreshing to see. All internet users that fall under ARINs remit have a voice and their views, concerns, recommendations will be taken into consideration. The entire policy development process (PDP) is a simple process to follow and getting a policy on the docket is relatively easy as the framework exists and the support is great. The word just needs to be spread far and wide.

#### How do you think ARIN's function, scale, or role

#### should change?

As it stands I think that ARINs function, scale and role are serving the region well. That is not to say that periodic reviews aren't required to be sure that all constituents are being served.

## What differentiates you as a candidate or makes you uniquely suited to the post?

I am based in the Caribbean and what many may find interesting is that some of the issues being faced in deep rural areas in Canada and the USA are also being faced in the Caribbean. I am an ICT4D consultant and was the first Executive director for ICT4D Jamaica. That along with my business coaching practice means that I understand the community development issues, technical issues and commercial implications of certain policies.

Here in Jamaica, I sit on a number of boards and I also see myself as a mentor. I would like to think that I am paving the way for a greater Caribbean voice at various levels of ARIN operations. As a past ARIN Fellow, I have been able to make valuable connections with persons from other Caribbean Islands. This means that cascading information throughout the region is smoother.

## How do you separate your personal opinions from those of your organization and those of the community? What areas of policy, if any, need more attention and why?

I have always been able to remain objective in decision making and take into consideration all points of view. At the decision table, I am the voice of the community and I will represent without personal bias. If I feel that the views of the community are not being heard or are not fullsome then I have been known to request brainstorming sessions to get as much input as possible.

The main areas of policy requiring more attention are:

Transfers: Mergers, Acquisitions and Reorgs - due to the implications for business that are growing in an inorganic way

The WHOis: as it relates to law enforcement (As a parent/community leader/woman/end-user this very important to me)

## What are your thoughts on the rights and responsibilities of legacy IP address holders?

It is important to continue to prod legacy IP address holders to sign Legacy RSAs. However, I also think that Legacy address holders can self-regulate the use of current space and transfer through the market. They also have the right to return unused or underused space to ARIN to redistribute. In the Caribbean, there is a massive amount of unused space and the word needs to be clear on what the rights and responsibilities of legacy IP address space holders have.

## What are your thoughts on needs-based justification for the receipt of IP addresses?

Based on IPv4 exhaustion I support that allocations should continue to be justified on the grounds of needs. However, if a business case can be made for a greater than permitted allocation, in cases on M&A or other parameters then special permissions should be an option as well.

## What do you believe to be ARIN's greatest challenges?

I think that one of the greatest challenges of ARIN is actually being combatted now, that is increasing participation of the community. Many end users in the Caribbean and most employees of ISPs have no clue what ARIN is or what it does or that there is a very inclusive and open policy development process that they can all be apart of.

Another area that great strides are being made in is diversity. The ARIN AC and BoT have a great gender ratio and the other diversity matrices are on the rise as well. As a relatively small organisation it will take

time for full diversity but as the work or ARIN reaches the far corners of the community more willing and able persons will step up to join the decision making process.

## If you could improve any aspect of the ARIN AC, what would it be?

As a currently serving member of the AC, I think it is a well-oiled machine. This is my first time on the AC and I have been fully supported. The team has been able to work around the "peril of the tropics" (inconsistent internet and power) to ensure that my colleague from Barbados and I are able to fully participate in all face to face and virtual meetings, arranging brainstorming sessions at our request. I can't think of any way that my journey could have been any better.

# The role of the Advisory Council is to advise the ARIN Board of Trustees on Internet number resource policy and related matters. Describe a similar experience you have had in such an advisory role.

I am presently serving on the ARIN AC until December 2018. I have also served on the National ICT Advisory Council (NICTAC) where I represented The Caribbean ICT Virtual Community (CIVIC). Whilst no longer serving on NICTAC, I am still an active member of the virtual forum of Caribbean ICT stakeholders. I also sit on various community development and business interest boards and committees.

### Robert **Seastrom**



ByteGrid

Bearing in mind that you run and serve as an individual, rather than as representing an organization, please provide the name of any organizational affiliation you consider relevant.

Chief Architect at ByteGrid (day job), ClueTrust (very small friends and family ISP/colo), ICANN Crypto

Officer for signing the DNSSEC root.

## Please provide a brief CV highlighting experience relevant to the duties of the ARIN Advisory Council.

Robert Seastrom is Chief Architect at ByteGrid, a managed services company focused on compliant hosting and cloud for the biosciences and health care sectors. His industry experience spans a quarter century of engineering and management positions at small and large ISPs, hosting providers, and maintaining critical Internet infrastructure. Robert has held positions at Neustar, Time Warner Cable, Afilias, Neutral Net, Inter.NetGlobal Ltd., Akamai Technologies, AboveNet Communications, and Digex, and built pioneering ISPs in Japan and the Republic of Georgia. His nonprofit service includes serving as a Trusted Community Representitive (Crypto Officer) for signing the DNSSEC root, cofounding and serving as first president of the Cambridge Bandwidth Consortium (a cooperative ISP in Massachusetts), the NANOG Board of Directors, and board positions with educational organizations related to amateur radio

and firearm safety.

#### Please disclose any conflicts of interest you may have with doing your duty as a member of ARIN's Advisory Council. How do you propose to resolve such conflicts?

No conflicts of interest. For the sake of full disclosure, I personally hold number resources (a /23 and an ASN) that predate ARIN

## Describe any limitations on your ability to attend Advisory Council and Public Policy Meetings in person or to serve the entirety of a three-year term.

No limitations; I have full support of my employer and family.

# Have you attended ARIN meetings or otherwise participated in ARIN procedures in the past? What did you find the most rewarding from those meetings or procedures? What suggestions for improvement might you have?

Yes; I have been on the ARIN Advisory Council for 15 years.

## How do you think ARIN's function, scale, or role should change?

With the exhaustion of the IPv4 free pool, it has become possible to simplify and relax policies, setting aside austerity measures that were intended to delay IPv4 runout. For instance, M&A activities no longer trigger a complete review of a company's number resources. Removal of this obstacle has a salutary effect on database accuracy. I predict further loosening of requirements to qualify for IPv4 space transfers (already the case since section 8.3 transfers, the only way to get IPv4 space in quantity today, offer a much longer runway than section 4 allocations/assignments). I believe that the AC and the community should champion policies that streamline the IPv4 transfer process, while continuing to spotlight the importance of supporting and deploying the current version of the Internet protocol, IPv6.

## What differentiates you as a candidate or makes you uniquely suited to the post?

Experience on the AC and diversity of experience as a member of the ARIN community - I've worked for very large organizations, very small organizations, a couple in between. Culturally, my roots as a "little guy" ISP show, particularly support for startups and small organizations trying to engage ARIN for the first time.

#### How do you separate your personal opinions from those of your organization and those of the community? What areas of policy, if any, need more attention and why?

My responsibility is to the community. My management understands that what is good for the Internet writ large benefits our Company, and I enjoy their unreserved support. My personal views and experiences color my perceptions, as they do for us all, but I have a solid history of listening and being persuaded by well-formed arguments from others. We need to work on adapting policy to today's post-IPv4-runout realities (more on that in other sections) as well as eliminating systemic IPv4- thinking biases in policy (for instance, favoring conservation over simplicity).

## What are your thoughts on the rights and responsibilities of legacy IP address holders?

I was recently engaged by a colleague who said "I don't need ARINs approval or a need to justify anything to them if I'm buying address space on the open market". My response was as follows: "It is certainly possible to find folks who purport to sell you address space without justification, but if the registry doesn't reflect it you may have more difficulties than you might otherwise getting transit providers to route it for you. There's also less of a guarantee of uniqueness if the assignment is not shown in the registry, and if the rights to the block have been sold to more than one organization your recourse is open to debate. Should neither of these concerns be particularly important to you, by all means skip the ARIN paperwork and get the checkbook out. ;-)"

Clearly the value of address space lies in uniqueness; uniqueness comes from consensus among community and all its stakeholders. The social contract is clear - legacy number resource holders not only must abide by policies promulgated by the community via the PDP, but they are heartily encouraged to participate in crafting them.

## What are your thoughts on needs-based justification for the receipt of IP addresses?

We have always had needs-based justification for number resources, even back to the days of SRINIC. What has changed over time is what supporting information one must supply in order to get the resources that one is seeking. In early days, a simple assertion coupled with "no, I don't intend to connect to the ARPAnet" (this was long before RFC1918) was sufficient to get a nominal amount of address space. We tightened requirements and reviews in a successful effort to ensure orderly and predictable run-out of the free pool. Now that there is no free pool to protect, I have supported, and continue to

support, relaxing the supporting documentation requirements

## What do you believe to be ARIN's greatest challenges?

Continuing to maintain our tradition of community-led, consensus-driven policies in the face of the evolving Internet Governance landscape.

## If you could improve any aspect of the ARIN AC, what would it be?

The AC as a body is great, and my colleagues have my full respect individually and collectively. Our diversity of experience and accessibility to the community is our strength. Our weakness is our workflow and latency - in a business that runs on Internet-time, the delay in moving good policy proposals forward can seem interminable while we often find ourselves with policy proposals that seem

like they may be a good idea but suffer from indifferent or entirely missing community feedback on PPML.

The role of the Advisory Council is to advise the ARIN Board of Trustees on Internet number resource policy and related matters. Describe a similar experience you have had in such an advisory role.

I've served on the ARIN AC for 15 years. Outside of ARIN, I've helped perform technical due diligence for M&A and new management teams. I've served on an FCC CSRIC working group to document approaches to improving the reliability of time and frequency transfer.

## Alicia **Trotman**



Bearing in mind that you run and serve as an individual, rather than as representing an organization, please provide the name of any organizational affiliation you consider relevant.

N/A

Please provide a brief CV highlighting experience relevant to the duties of the ARIN Advisory Council.

#### **TECHNICAL SUMMARY:**

8 months experience on ARIN Advisory Council Advanced expertise in Telecommunications regulations with specific focus on small island developing states Accomplished and effective Telecommunications professional with over a decade of expertise in providing ICT development, regulatory and monitoring policies; mechanisms to promote and

maintain a competitive Telecommunications environment Expertise and trusted advisor in developing programs to promote cyber security awareness, with special interest and experience in youth programs

Skilled in developing policies and best practices to increase an organization's security consciousness Exceptional results in learning new skills and managing various projects Proven ability to work as part of a team of professionals delivering quality service to enhance organizational net worth and meeting customer's expectations.

#### PRINCIPAL AREAS OF EXPERTISE:

Telecommunications Regulations
Spectrum Management
Interference Mitigation
Data Privacy and Protection Policy
Internet Governance
Domain Name Administration
Girls In ICT Development
IXP Development
Cyber Security Awareness
Cyber Bullying Awareness
Incident Response Team Development

Please disclose any conflicts of interest you may have with doing your duty as a member of ARIN's Advisory Council. How do you propose to resolve such conflicts?

No conflict

Describe any limitations on your ability to attend Advisory Council and Public Policy Meetings in person or to serve the entirety of a three-year term.

No limitations

# Have you attended ARIN meetings or otherwise participated in ARIN procedures in the past? What did you find the most rewarding from those meetings or procedures? What suggestions for improvement might you have?

I Have been an Advisory Council member for the past 8 months. Before my tenure on the Advisory Council, I previously attended two ARIN meetings. The most rewarding experience has been the ability to be apart of of process that facilitates and ensures the contribution of the community in the Internet number resources policy, as well as the networking opportunities with industry professionals and leaders.

I would suggest one ARIN fellowship slot for an individual outside the ARIN region.

## How do you think ARIN's function, scale, or role should change?

ARIN's should continue to manage the internet number resources as required by the internet community it serves, however ARIN should consider investing in the education/training, research, capacity building for Information Communication Technology (ICT) development.

## What differentiates you as a candidate or makes you uniquely suited to the post?

My experience on the Advisory Council gives the advantage of knowing the procedures and culture and work ethic of the Advisory Council. In addition I bring a unique perspective from the Caribbean ICT landscape.

This is coupled with my over 10 years in the Industry and participation in global and regional Internet Governance issues.

#### How do you separate your personal opinions from those of your organization and those of the community? What areas of policy, if any, need more attention and why?

I would continue to value my duty to provide advice which is objective, independent and impartial. In addition I would ensure a continued commitment to honesty, fair and respectful engagement with the community. The policy area which needs more attention is the management and administration of

the WHOIS database.

## What are your thoughts on the rights and responsibilities of legacy IP address holders?

Legacy IP Address holders have the right to practice self-governance over the addresses assigned to them, however with rights comes responsibilities. Legacy IP address holders must be careful not to be seduced by the lure of financial gain to reassign "sell" or lease their IP addresses to criminal entities who may offer large sums of cash. It is a good initiative to have an option for Legacy IP address holders sign a LRSA (Legacy Registration Services Agreement) with ARIN, this exhibits a level of trust and cooperation.

## What are your thoughts on needs-based justification for the receipt of IP addresses?

I still believe needs-Based justification is the best approach for allocation of a very scares resource such as IPv4 addresses. Due to its depletion one should have to give a compelling reason to acquire this resource.

## What do you believe to be ARIN's greatest challenges?

One of ARIN's greatest challenge is the IPv4 to IPv6 transition especially in the Caribbean region. Equally important is gathering the opinion of the community based on responses submitted online and opinions voiced during the ARIN meetings. In addition to this ARIN also has the mammoth task of keep its growing WHOIS database up-to-date and accurate.

## If you could improve any aspect of the ARIN AC, what would it be?

It would be a great contribution to the internet community if ARIN would participate in social development such as Education/Training, Women in Tech. The inclusion of Caribbean candidates has brought much needed diversity to the ARIN Advisory Council, this movement should be continued.

#### The role of the Advisory Council is to advise the ARIN Board of Trustees on Internet number resource policy and related matters. Describe a similar experience you have had in such an advisory role.

Since January 2018 I have served on the ARIN Advisory Council, this coupled with my experience as a regulator advising high level government officials prepares me for this role.



## Michael Arbrouet



https://www.linkedin.com/feed/

Bearing in mind that you run and serve as an individual, rather than as representing an organization, is there an organizational affiliation you'd like to state?

Haiti Cyber-security Conference

Are you available to serve the entirety of a three-year term?

Yes

Describe any limitations on your ability to travel to attend ARIN and ICANN meetings in person or participate in scheduled teleconference calls.

no limitations

ASO AC conference calls are held once a month, historically at 11:00 AM UTC. Would this present an issue?

NO

Why do you want to serve on the NRO NC, and what goals do you want to accomplish?

Being able to help revise and create policies and procedures that can propel ARIN to meet demands (privacy) from the international ARIN community and members.

What, if any, conflicts of interest might arise for you as an NRO NC member? Specifically, do you serve in what could be perceived as any Internet governance roles, provide any services directly or indirectly to ARIN, or represent any significant interest from the community?

No conflicts of Interest.

## What is your record of serving the Internet community in the ARIN region?

I am fully involved in the Caribbean businesses related to ARIN and has contributed to growth in bringing awareness to cybersecurity issues in the region.

What participation do you have within ICANN, in the past or currently? Are you a member of any other ICANN AC or SO?

None

What differentiates you as a candidate, or makes you uniquely suited to serve on the NRO NC?

I am fluent in other languages and a qualified security professional (CISSP) with in depth involvement in collaboration with international entities to bring awareness in cybersecurity issues for the Caribbean region.

Provide a brief biography of recent experience, associations, and affiliations relevant to serving on the NRO NC, including names of organizations, positions held, specific duties, and dates of service.

I am a polyglot, business owner, cyber-security conference co-founder, and a Certified Information Systems Security Professional (CISSP) with over 10 years of experience in problem solving and making companies profitable. Experience includes, cyber-security & information assurance, managing information systems security engineering for networks and applications. System/Application Security Analyst AppRiver

Co-Founder of HaitiCyberCon (Cybersecurity Conference for Haiti and the Caribbean region) Board Member of the Propeller Club of Pensacola In light of the ongoing transition from IPv4 to IPv6, do you have experience you wish to share with the community that is noteworthy in terms of IPv6 adoption?

Not at the moment

What is your view of the existing bottom-up, self-governance model and structure of the Regional Internet Registry (RIR) system? Do you believe there are other models or structures that would work better?

I have no objection with the current structure however, more transparency should always be given priority.

### Louie **Lee**



Google Fiber https://www.linkedin.com/in/louienet/

Bearing in mind that you run and serve as an individual, rather than as representing an organization, is there an organizational affiliation you'd like to state?

Google Fiber and NANOG community member

## Are you available to serve the entirety of a three-year term?

Yes, I am available to serve the entirety of the three-year term.

Describe any limitations on your ability to travel to attend ARIN and ICANN meetings in person or participate in scheduled teleconference calls.

I have no limitations on my ability to travel to attend ARIN and ICANN meetings in person or participate in scheduled teleconference calls.

## ASO AC conference calls are held once a month, historically at 11:00 AM UTC. Would this present an issue?

This does not present a problem. I have already demonstrated over the past decade my commitment in this regard.

## Why do you want to serve on the NRO NC, and what goals do you want to accomplish?

I plan to continue my active participation on the NRO NC by leading the Qualification Review Committee this year and the Interview Committee next year on the ASO Address Council in our effort to make the appointment for Seat 10 on the ICANN Board of Directors. I will also continue my role as an ARIN representative of the IANA Numbering Services Review Committee and contribute my time and effort to producing the next annual IANA/PTI Number Resource Performance Report.

In performing my duties, I would be careful to guide the ASO Address Council to conduct activities only as defined within the scope of the ASO Memorandum of Understanding as signed between the RIRs and ICANN as they relate to the Numbers community and the development and execution of the global numbering policies. As ICANN's own governance model evolves, the ASO AC may be compelled to over-extend ourselves into various working groups that are only tangentially related to our core duties. We must be careful to represent the Numbers community only in areas that we are chartered to do so when we are elected or appointed.

What, if any, conflicts of interest might arise for you as an NRO NC member? Specifically, do you serve in what could be perceived as any Internet

#### governance roles, provide any services directly or indirectly to ARIN, or represent any significant interest from the community?

While my employer Google Fiber and the parent company Google LLC are ARIN members, I have no conflict of interest nor do I expect there to be any that might arise for me as an NRO NC member. All Internet governance roles that I have served on, and would continue to serve on, are defined as the duties of an elected NRO NC member from the ARIN region. My employer does hold IP allocations and ASN assignments from ARIN.

## What is your record of serving the Internet community in the ARIN region?

As a member of the ARIN community, I've actively participated in the discussion and development of various ARIN draft policies (FKA policy proposals) since ARIN V in April 2000.

And in serving the Internet community in the ARIN region, I supported Equinix in the sponsorship and network infrastructure delivery for the joint NANOG35 + ARIN XVI meeting in October 2005.

I have been a member NANOG ever since membership was offered.

#### What participation do you have within ICANN, in the past or currently? Are you a member of any other ICANN AC or SO?

In my time of carrying out the functions of the Address Council on the ICANN Address Supporting Organization as the ARIN representative since 2004, I have had specific roles over the years:

2007: ASO AC Co-Chair

2010: ASO AC NomCom for ICANN BoD Appointment 2010: ICANN Accountability & Transparency Review Team

2008-2016: ASO AC Chair 2017: ASO AC Vice Chair

2018: AC Interview Committee for ICANN BoD Appointment

I also participated as an ASO AC member in the following activities...

Appointments to the ICANN Board:

Akinori Maemura Ron da Silva Kuo-Wei Wu Raimundo Beca Ray Plzak

#### Global policies:

Internet Assigned Numbers Authority (IANA) Policy For Allocation of IPv6 Blocks to Regional Internet Registries Internet Assigned Numbers Authority (IANA) Policy for Allocation of ASN Blocks to Regional Internet Registries Global Policy for Post Exhaustion IPv4 Allocation Mechanisms by the IANA

## What differentiates you as a candidate, or makes you uniquely suited to serve on the NRO NC?

I have been a member of the NRO Number Council since the formation of the group. I have been performing the duties of the ASO Address Council longer than any other member except for one other person. While I have no problems navigating in the international theater with respect to global Internet policies, I have also been an Internet operator since 1994 performing leadership roles for residential and business Internet service provider and Internet infrastructure with backbones and IXs.

# Provide a brief biography of recent experience, associations, and affiliations relevant to serving on the NRO NC, including names of organizations, positions held, specific duties, and dates of service.

In 1994, I began working my way up from tech support to network engineering at Netcom (AS2551), one of the first US national Internet service provider. By the time I left in 2000, I was managing the senior network engineering team.

When I joined Equinix in 2000, I migrated our ATM-based IX to the Ethernet-based IX that is widely in service today. Over the next 15 years, I helped grow our network engineering team from 2 engineers to over dozens of engineers across various functions while we built the network to new datacenters across the US, turned-up new IXs and did forklift upgrades, and integrated other companies in our expansion first into Asia and then into Europe and South America.

I've returned to my ISP roots in 2015 by making the move to Google Fiber in my effort to support the deployment of gigabit fiber Internet service to the homes, libraries, communities, and small businesses in cities across the US. My role began as the Numbers Administrator, and has since expanded to include Peering Coordinator, and Network Capacity Manager.

## In light of the ongoing transition from IPv4 to IPv6, do you have experience you wish to share with the community that is noteworthy in terms of IPv6 adoption?

The idea of IPv6 adoption should be framed as a case of business continuity. The end of the growth on the IPv4-only Internet is imminent. While we will continually see churn in the v4-only Internet for probably decades as unused v4 address space is sold

and resold, the expansion will be in the IPv6-capable portion of the Internet.

If you are a service provider (cloud, gaming, etc.), having your service operational in IPv6 means that your customers who won't be able to afford the increasing price of an IPv4 address will be able to buy your service.

If you are an enterprise, it may be enough for now to enable IPv6 on just your customer interfacing systems such as your webserver, mailserver, and nameserver to continue growing your customer base.

If you are a hardware or software vendor, this is the way to beat your competition who will fall behind because they have not started the years of development to make sure that all features operate equally well in v4 & v6.

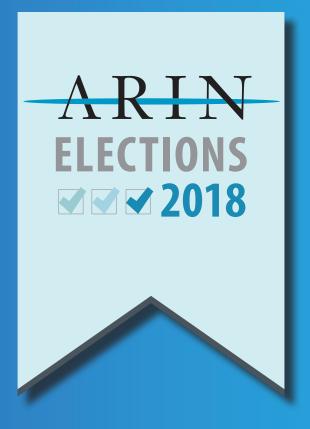
What is your view of the existing bottom-up, self-governance model and structure of the Regional Internet Registry (RIR) system? Do you believe there are other models or structures that would work better?

The current model works about as well as it can today.

Various mechanisms and procedures can benefit from some updating now that we have had several years to gain experience to see the intended and unintended consequences.

The global policy development procedure rides on top of, and is necessitated by, the Regional PDPs. As much as this may seem "clunky" on the surface by some individuals who would prefer a single global approach whereby a global policy proposal can be discussed in a single forum rather than across 5 different sets of discussions, the current approach does have the feature that regional differences can be highlighted and fully considered instead of getting lost in the global discussion. The nature of the regional discussion actually allows for wider participation by the stakeholders.

The recent idea of forming a "Virtual" Internet Registry has faded. But it was useful to remind everyone that while there are 5 RIRs, they—no, WE—jointly maintain a SINGLE registry. There is no overlap in this registry as each RIR has agreed to manage their portion. And it is in the cooperation of the number community with each other within each service region and across service region where we will continue to support the RIR system for the benefit of today's Internet and the Internet of our future.



VOTING **OPENS** 6:00 PM EDT

6:00 PM EDI THURSDAY, 4 OCTOBER

**VOTING CLOSES** 

6:00 PM EDT FRIDAY, 12 OCTOBER Watch for an email on Thursday, 4 October at 6:00 PM EDT with instructions on how to vote.