



### **Declaration of Candidacy**

Board of Directors and Committee Members will be required to commit significant time to achieve the objectives of NANOG. Please limit your response to one page.

Please complete the attached form and forward by E-mail to [elections@nanog.org](mailto:elections@nanog.org)

#### **Due:**

- **Board of Directors:** No later than October 1, 2012
- **Committees:** No later than October 23, 2012

**PLEASE NOTE:** Only NANOG Members can run for leadership positions. All candidates must be willing to serve for a one or two year term, to be determined by the membership during the ballot process.

Each candidate must declare any and all affiliation(s) relevant to NANOG, which will include his or her main employer, as well as any other major relationships (for instance, if a candidate's primary employer is a nonprofit entity which is sponsored by a vendor, the candidate would declare both the nonprofit and the vendor as affiliations).

- Full Name: Amogh Dhamdhare
- Title: Research Scientist
- Company: CAIDA, University of California, San Diego
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- Phone Number: 858-822-0882

The Candidate should complete the declaration and as relevant, provide his or her answers to the questions outline below. The form should then be returned to NANOG via e-mail by the date given above. Faxed or mailed copies will not be accepted.

#### **Declaration**

I hereby signify my willingness to stand for office as candidate for:

### **NANOG Program Committee**

I agree, that if elected, I will adhere to the Bylaws and Policies and Procedures of NANOG currently in force and as may be amended by the membership from time to time.

- 1) Provide a brief biography of recent experience, associations, and affiliations relevant to serving on the NANOG Board of Directors or NANOG Committees. Please be as specific as possible.**

I am a Research Scientist at the Cooperative Association for Internet Data Analysis (CAIDA), based at the University of California, San Diego. I

obtained my Ph.D. in Computer Science from Georgia Tech in 2009, and a bachelor's degree in Computer Science from Mumbai University in 2002. My research interests spans several areas of interest to the NANOG community, particularly Internet topology, interdomain traffic, economics, and network troubleshooting. I have engaged with the NANOG community on several occasions to disseminate results from our work, solicit ground truth, and conduct surveys.

My primary research concerns measurement and modeling of Internet topology, traffic and economics. In a paper titled "Twelve Years in the Evolution of the Internet Ecosystem" (published in the IEEE/ACM Transactions on Networking in 2011), we measured evolutionary trends in the Internet AS-level ecosystem over the last 12 years. I have worked on models of interdomain interconnection (named ITER and GENESIS) grounded in empirical measurements of traffic patterns, peering, and pricing/cost structures. I have used the ITER model to study the transition to a "flat" Internet, and to develop a value-based framework for Internet peering agreements. I presented this work at NANOG 49.

As part of CAIDA's research efforts on measuring IPv6 deployment, I recently led a measurement study of IPv6 deployment trends in topology, routing and performance. The resulting paper will appear at the Internet Measurement Conference, Nov 2012. We are also working on a quantitative model for the IPv4-IPv6 transition for which we conducted a survey of NANOG participants in April 2012. I am involved in CAIDA's AS rank project, which will be presented at NANOG 56 in October 2012.

A further area of my interest is network operations, focusing on network management and troubleshooting. My work has resulted in two tools for network management and troubleshooting: NetDiagnoser (published at ACM CoNEXT 2008) can diagnose interdomain reachability failures using end-to-end measurements and routing data. FlowRoute (published at the Internet Measurement Conference, 2010) can be used to detect forwarding table updates from passive netflow measurements.

I have authored over 20 papers in reputed networking conferences and journals, and my work has been cited more than 500 times. I have served on the Program Committee of the Passive and Active Measurement Workshop 2011 and 2013, COMSNETS 2013, and as a reviewer for the IEEE/ACM Transactions on Networking, ACM Computer Communication Review, and various other journals. I am co-PI on an NSF-funded research project to study interdomain interconnection and economics, and PI on a Cisco-funded project to study transit pricing models in the Internet. I would like to serve on the NANOG Program Committee to promote empirically grounded research on practical problems faced by network

operators, and to facilitate better communication between the operator and researcher communities.

The following questions are to be answered by Board of Directors Candidates ONLY

**2) Describe the relevance of your technical and professional experience to serve on the position you are interested in.**

**3) What Internet-related services do you or your current employer or organization provide?**

**4) Are there any conflicts, real or perceived that might arise should you be elected as a NANOG Board of Directors or Committee member?**

**5) What contributions do you plan to make to NANOG over the next year? What are your personal objectives should you be elected?**

**6) What advantages does and will NANOG gain by your contribution of resources, contacts or influence in the industry?**

**7) Describe any concerns or limitations on your ability to participate or travel to attend Board or Committees Conference Calls or, Meetings, and NANOG Meetings in person or to serve the entirety of your term.**

**8) Board and Committee experience, if applicable:**

Signature: Amogh Dhamdhere

Date: 10/5/2012