

Statement of Interest for RSSAC Caucus

- **Name**

Zhiwei Yan

- **Affiliation and current position**

China Internet Network Information Center (CNNIC), Vice Director of Lab.

- **Relevant qualifications**

I received my Ph.D. degree from National Engineering Laboratory for Next Generation Internet Interconnection Devices at Beijing Jiaotong University. I started working at CNNIC in 2011 and is the Associate Professor of Chinese Academy of Sciences. Since April 2013, I am an Invited Researcher of Waseda University (Japan). My research interests include DNS, IPv6 and ICN technologies. I have published more than 50 academic papers on these areas.

- **Motivation for membership in the Caucus**

Discussing and researching the optimized management architecture of DNS root service, to make it more secure, stable, distributed and efficient. Besides, I also hope to broadcast the DNS root server and zone file management and operation model accurately and fairly in China.

- **Indication of availability**

I was in charge of the governance of DNS abuse in CNNIC for three years, including the Rustock and Conficker domain name handling.

I am in charge of the monitoring and evaluation of DNS operation in CNNIC, and the researches on extensions of DNS protocol, such as DNS root service and DNSSEC.

As the expert member of CDNC and CGP, I am also in charge of the IDN project in CNNIC.

- **Formal roles and interests in the work of RSSAC**

I continually take part in ICANN meetings (sometimes remotely), focuses on the activities of RSSAC and Caucus, such as the Workshop on Root/DNS and Caucus public meeting.

Besides, I am involved in the standardization work of DNS root service model in IETF.

- **Links where appropriate**

Some representative publications are listed below:

Academic papers:

- 1) **Zhiwei Yan**, Jong-Hyook Lee, Xiaodong Lee, and Yong-Jin Park, Utilizing the Domain Name System for Scalable and Secure Content-Centric Networking, Springer WPC Journal, DOI 10.1007/s11277-015-2537-5, April 2015.
- 2) **Zhiwei Yan**, Hwang-Cheng Wang, Yong-Jin Park and Xiaodong Lee, Performance Study of the Dual-stack Mobile IP Protocols in the Evolving Mobile Internet, IET Networks Journal, Vol. 4, No.1, Page(s): 74-81, 2015.

- 3) **Zhiwei Yan**, Sherali Zeadally and Yong-Jin Park, A Novel Vehicular Information Network Architecture based on Named Data Networking, IEEE IoT Journal, Vol. 1, No.6, Page(s): 525-532, 2014.
- 4) Xiaodong Lee, **Zhiwei Yan*** and Ranganai Chaparadza, Scaling the number of DNS root servers with Internet, IEEE Globecom 2014, Austin, Texas, USA, December 8-12, 2014.
- 5) Cuicui Wang, **Zhiwei Yan*** and Anlei Hu, An Efficient Data Management Architecture for the Large-scale Deployment of RPKI, CECNET 2014, Beijing, China, December 12-15, 2014.
- 6) **Zhiwei Yan**, Ning Kong, Ye Tian and Yong-Jin Park, An Universal Object Name Resolution Scheme for IoT, IEEE iThings 2013, Beijing, China, Aug 20-23, 2013.
- 7) **Zhiwei Yan**, Jong-Hyook Lee, Sean Shen and Chunming Qiao, Novel Branching-Router based Multicast Routing Protocol with Mobility Support, IEEE Transactions on Parallel and Distributed Systems, Vol. 24, Issue 10, Page(s): 2060-2068, 2013.
- 8) **Zhiwei Yan**, Hua-Pei Chiang, Yong-Jin Park, Xiaodong Lee and Yueh-Min Huang, Scalable and Secure Information-Centric Networking, Journal of Internet Technology, Vol. 14, No.6, Page(s): 1-14, 2013.
- 9) **Zhiwei Yan**, Anlei Hu and Wei Wang, A Cache-splitting Scheme for DNS Recursive Server, IEEE CCIS 2012, Hangzhou, China, Oct.30-Nov.1, 2012.
- 10) **Zhiwei Yan**, Anlei Hu and Wei Wang, Botnet Domain Detection based on DNS Traffic Features, IEEE CCIS 2012 Hangzhou, China, Oct.30-Nov.1, 2012.

IETF contributions:

- 1) Wei Wang and **Zhiwei Yan**, A Survey of the DNS cache service in China, draft-wang-dnsop-cachesurvey-00.txt, February 24, 2015.
- 2) Warren Kumari, **Zhiwei Yan** and Wes Hardaker, Returning multiple answers in a DNS response, draft-wkumari-dnsop-multiple-responses-00.txt, January 11, 2015.
- 3) **Zhiwei Yan**, Jong-Hyook Lee and Xiaodong Lee, Home Network Prefix Renumbering in PMIPv6, draft-yan-dmm-hnprenum-01.txt, April 12, 2015.
- 4) Xiaodong Lee, Paul Vixie and **Zhiwei Yan**, How to scale the DNS root system? draft-lee-dnsop-scalingroot-00.txt, July 3, 2014.
- 5) **Zhiwei Yan** and Jong-Hyook Lee, DNS update for MIPv6, draft-yan-mext-dnsmip-00.txt, October 24, 2011.

Other publications:

- 1) **Zhiwei Yan**, Performance Measurements of the DNS Root Service in China, <http://www.circleid.com/>, April 28, 2015.
- 2) Xiaodong Lee, **Zhiwei Yan** and Guanggang Geng, Study on the Development of the DNS Root System, Journal of Computer Research and Development, (Under review, Chinese Version), 2015.
- 3) Lanlan Pan, **Zhiwei Yan**, Anlei Hu and Xiaodong Lee, An Evaluation Method for DNS Root Service Quality, Application Research of Computers, (Accepted, Chinese Version), 2015.