



## **STARTUPS**

### **Chief Risk Officer for Layer 2 Communications, Perth, 1999-2003:**

Primary focus on integration of BS 7799 Part 2 into Layer 2 business processes.

### **Chief Technical Officer, FM2Go LTD. Perth. 2012-2014;**

Provided telecommunications planning for the Wheatstone field development in WA.

## **Research Staff**

### **USC Information Sciences Institute, 1994-2011:**

Project manager for the NSF Routing Arbiter team, building the framework for the Internet as we know it.

Member of the IANA activity, responsible for country code TLDs and the Root Server System. Selected and trained the initial 246 ISO-3166 country code TLD operators and qualified four additional Root operators, Verisign, RIPE-NCC, WIDE, and ICANN.

Project manager for the TBDS project for DARPA.

Created and ran the longest running DNSSEC test bed (1998-2007), with 78 global companies and 2850 delegations.

Operations manager for one of the DNS Root Servers. Developed secured channel transmission of root zone data between servers. In conjunction with DoD and NIST, developed and ran bi-annual system audits of the DNS root system. Was the primary point of contact for the Y2K event and the DHS CWIN deployment post Y2K.

Oversaw 600 engineers and operators in the creation of the first native IPv6 network and coordinated the global deployment of both the 6BONE overlay network and its multicast predecessor, the MBONE.

### **Lead Engineer, Rice University. 1987-1994**

Operations manager NSF Regional networks SESQUINET and MIDnet.

RFC Author and IETF working group chair.

COREN founding committee, the precursor to the Internet2 network.

### **Design Engineer, Texas Instruments, Semiconductor Division 1978-1987**

Design engineer for the 802.5 chip design team.

Part of the team that migrated the worldwide corporate network of 180,000 nodes from VTAM to the Internet Protocol and consolidated 18 data centers into 2.

## **ACADEMIC STANDING**

Keio University, 2013 PhD – Internet Media and Governance

## CERTIFICATIONS

CSSIP – 552578 exp. 20190630

## Selected Publications

1. **DNS Caching**, B. Manning, The Internet Protocol Journal, Volume 12, No.2, June 2009,

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2. **Scaling the Root** Report on the Impact on the DNS Root System of Increasing the Size and Volatility of the Root Zone, Prepared by the Root Scaling Study Team, J. Akkerhuis, L. Chapin, P. Fältström, G. Kowack, L. Liman, B. Manning, Version 1.0, September 2009

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3. **Domain Name System (DNS) IANA Considerations RFC2929** D. Eastlake 3rd, E. Brunner-Williams, B. Manning
4. **Domain name resolution system and method, US 20040039798 A1, Hotz, S. Joffe, R, Manning, W.**

## SYNERGISTIC ACTIVITIES

Bill Manning has served on the program committees for NANOG, APRICOT, and RIPE, and he has been an invited speaker and lecturer for ICANN, ISOC, SANOG, NZNOG, RIPE, AFRINIC, and others. He is a member of IEEE and ACM and participates in the ITU-T/SG-17. He has been a technical advisor to SRI-International, MITRE, Nautronix, Verizon and several other companies. He served on the advisory council for ARIN and then as Trustee for ARIN. He served on two ICANN committees and has provided coordination for EDUCAUSE on technical direction.

Root Server operator (1994-2015), designed and implemented root server renaming based on DNS compression - giving us 13 unique servers instead of 9. Defined and coded the DNS extensions for ISO-NSAPs. Was the IETF WG co-chair for the Internet Renumbering WG. Ran the first series of DNSSEC workshops (1996-2003). Documented and tested one the first distributed routing security registries <[http://www.isi.edu/div7/publication\\_files/novel\\_use.htm](http://www.isi.edu/div7/publication_files/novel_use.htm)>>. Founding member of RSSAC, one of the Root Scalability Study members.