

PROFESSIONAL EXPERIENCE

**Senior Director,
DNS Infrastructure Group (DIG)
Data Analytics Group (DAG)
Afilias USA, Inc. [2001 – Present]**

Responsible for the stability and performance of the Domain Name System (DNS) for the Top Level Domains (TLDs) that are operated (either primary or secondary) by Afilias. These include generic TLDs such as .AERO, .ASIA, .INFO, .MOBI, and .ORG; country code TLDs representing Antigua and Barbuda (.AG), Belize (.BZ), Bermuda (.BM), Gibraltar (.GI), India (.IN), Mongolia (.MN), Montenegro (.ME), Niue (.NU), St. Lucia (.LC), the Seychelles (.SC), and Sweden (.SE); new TLDS such as .RED and .LAMBORGHINI; and Internationalized Domain Names like .*移动* and .*संगठन*. There are also several industry related zones that we provide DNS service for, including ietf.org, dlv.isc.org, iab.org, iesg.org, irtf.org, isoc.org, and AS112 addresses. In all, over 55 million resource records. We operate an F root instance, as well as several RIPE probes and anchors.

My customer SLA is to provide 100% DNS resolution, and the service has never been offline.

I was instrumental in securing the .ORG zone in 2009 with DNSSEC before the root zone was signed. At that time, it was the largest deployment of DNSSEC to date. I continue to provide technical guidance to the Public Interest Registry (which runs .ORG), including working with ICANN in RSTEP requests, devising DNSSEC key management procedures, and working with the DNSSEC Coalition on deployment issues and concerns.

I was responsible for the creation of the dedicated DNS team (now called DIG) at Afilias - a group whose sole purpose is to build out and maintain the Afilias DNS platform. Once created, my team and I designed our DNS node hardware and software architecture, which is now deployed at several node locations worldwide.

In my role as senior director of the DAG, I am also responsible for maintaining and revising the way customers receive and view data from Afilias.

I devise and maintain annual multi-million dollar budgets for my groups, as well as maintain vendor relationships and contracts. I provide career mentoring for my direct reports, as well as for many individuals within other Afilias groups. I was one of the management team responsible for reorganizing the entire Technology group within the company. I am instrumental in providing technical content for successful multi-million dollar bid proposals.

I have facilitated many root zone changes on behalf of my customers through the IANA function (both before and after the advent of the RZM tool).

CONTACT

USA

INTERESTS

- Family and Friends
- Mazing
- Cattle Ranching
- Swimming
- Skeet Shooting

MEMBERSHIPS

- IT Sector Coordinating Council
- IT Information Sharing and Analysis Center
- Infraguard
- American Homebrewers Association
- Texas Carboys

PROFESSIONAL EXPERIENCE *(CONTINUED)*

Successful Highlights of my 15 years at Afilias:

- Early in 2002, I helped design the new registry for Australia (.AU) for the newly formed AusRegistry. This project also involved helping Australia (AUDA) with TLD policy decisions, providing hardware architecture scrutiny, and even aiding in hiring the development team.
- I designed and coordinated the migration plan that moved all 2.6 million .ORG domain names from Verisign to Afilias in 2003. This migration involved several facets, including migrating WHOIS data from the registrars to the registry (thin registry to thick registry model), moving registrars from the RRP protocol to EPP, and moving the DNS without resolution interruption.
- Also in 2003, a colleague and I migrated nine country code TLDs from Register.com to Afilias. This involved designing and creating a separate code base for running multiple country codes in the same instance. This was completed in three months.
- In 2005, the city of Mumbai, India suffered a catastrophic monsoon. The data center which housed the name servers running hundreds of government zones was underwater. A colleague and I migrated all of these zones to our name servers, bringing them back online in a matter of hours. After their physical recovery was complete, we migrated these zones back in-country, then flew to New Delhi to provide DNS training to the government.

Founder and President

Information Technology Enterprises, Inc. [1996 - 2001]

Provided web design, web hosting, and colocation services to customers. Furnished customers with network design and implementation, hardware and software procurement, and UNIX system administration. Grew the business from inception to a staff of eight and over \$1 million per year in revenue.

Contractor

Resource Solutions International [1994 - 1996]

System Administrator, Infonautics [1995 - 1996]

Responsible for the continuous operation of a \$14M production data center. Ensured 24x7 availability by managing around the clock coverage staff. Performed system and network administration for high-end SGI systems, and developed disaster/recovery and growth/scalability plans.

UNIX Engineer, AT&T Federal Systems Div. [1994 - 1995]

Responsible for software engineering with large-scale integration teams in preparation for Live Test Demos to the military, as well as project management and technical support for other Department of Defense contracts. Responded to government requests for product and complete technical support for Global sales organization. Involved with Customer Focused Team planning and direction.

CONTACT

[REDACTED]
[REDACTED]
[REDACTED]
USA

SKILLS

- IT Crisis Management and Mitigation
- DNS Operations
- DNSSEC Operations and Policy
- Management of Remote Technical Teams
- Risk Assessment and Mitigation
- Data Migration and System Transitions
- System Design and Architecture
- Departmental Budgeting
- Software Design
- System Integration
- Team Building and Enthusiasm

PROFESSIONAL EXPERIENCE *(CONTINUED)*

System Administrator and System Programmer Marketing Force [1992 - 1994]

System Administrator - Responsible for several Prime mainframes, 5 UNIX servers, and 400 PCs connected to a Local Area Network. Implemented client/server technology using IBM PCs and Sun UNIX systems. Redesigned entire network addressing and routing scheme to incorporate the Internet. Helped ensure data security and connectivity across all platforms. Highly involved with user education, through teaching training seminars and speaking at MIS staff knowledge-enhancement meetings. Promoted to this position after only 100 days on the job.

System Programmer - Wrote programs on Prime mainframe using a fourth generation language for use by a major automotive company. Researched, designed, developed and implemented a PC LAN software system for telephone operators to receive calls for the Chevrolet-Geo Information Center. Solely designed a menu compiler and run-time system in C for the UNIX operating system.

Systems Analyst Datamatic Processing [1989 - 1992]

Ensured that over 200 NCR Tower systems running UNIX across the country were constantly operational. Independently designed and wrote a windowing terminal user interface in C to front-end COBOL applications. Wrote low-level code for transporting data between computers. Developed software to interact with Automated Teller Machines over serial connections. Actively involved in crisis management and disaster recovery both locally and at user sites, including extracting data from a crashed Oracle database with zero data loss in 24 hours. Converted financially sensitive Credit Union data from other systems to ours.

CONTACT

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
USA

SUNDRIES

- I have over 30 years experience in IT.
- I am Afilias employee #3.
- Promoted four times at Afilias: Senior Technology Architect, Manager, Director, Senior Director.
- My first NIC Handle was 'HJE'.
- Awarded first programming contract at the age of 14 to design graphics for a Commodore 64 educational program.
- As a high school co-op, I wrote database code for Dow Chemical World Headquarters, and helped digitize chemical warning icons which were published by SIG-GRAPH.

INDUSTRY INVOLVEMENT

**Information Technology Sector Coordinating Council
Risk Assessment Working Group Co-Chair**

I have been involved with the IT-SCC since 2008. I was a Subject Matter Expert for the DNS Critical Function for the authoring of the IT-SCC Baseline Risk Assessment, as part of the Sector-Specific Plan under the National Infrastructure Protection Plan. I was recognized for my efforts in this project by the Assistant Secretary of the Office of Infrastructure Protection. I am currently co-chair of the working group responsible for updating the DNS section of the risk assessment.

IETF Participant

I have attended several IETF meetings, and was acknowledged for my work on RFC 5910.

**IT Information Sharing and Analysis Center
Board of Directors**

Having been a member for several years, I served a year on the IT-ISAC Board of Directors in 2011. I have also given presentations on DNS threats and attack analysis.

DNS Security, Stability and Resiliency (SSR)

I was an active participant in the first two DNS SSR meetings in Atlanta, Georgia (2009) and Kyoto, Japan (2010).

**2009 Strategic Homeland Infrastructure Risk Assessment
DNS Subject Matter Expert**

This work involved analyzing vulnerabilities, threat, and consequences to the United States due to cyber attacks.

EDUCATION

Michigan State University

Bachelor of Science in Computer Science
With minors in Telecommunications and Economics

Industry Certifications

LEAN IT Foundations Training [2016]
Oracle Masters DBA Training [1994]
Focus Database Training [1993]

COMMUNITY INVOLVEMENT

Within my Property Owners Association, I have been on the Board of Directors (2x), the Architectural Review Committee, the Deer Management Committee, and was asked to create (and currently chair) the Information Technology Committee.

CLEARANCES

US DHS Secret Clearance - current

CONTACT

[Redacted]
[Redacted]
[Redacted]
USA