### **Overview**

IBM Distinguished Engineer with 20 years of hardware and software development in R&D and 15 years in customer facing positions. Experienced in the telecomm, finance, distribution and public sector industries. Skilled in cellular technologies, BSS, OSS, Customer Care, Analytics, Cognitive Computing, Cloud and Unified Messaging solutions. Leads complex solution development requiring collaborating across divisions, business partners and customers.

### Skills

# Solution Architect

- Customer Care (Call Center, Self Help, Digital Assistant)
- Cognitive computing
- Social Media Analytics
- Networking (SDN, Assurance, Optimization)Mobile and Unified Messaging Applications
- Carrier Services
- Enterprise and Mobile Applications

### Manager

- Motivated, organized and experienced in management of complex solutions and technical teams.
- Sets goals and guides team members to higher levels of responsibility.
- Creates accurate, timely and complete development plans, schedules, and user documents.

## **Engineer**

- IC and board level design.
- System and subsystem design.
- Full product test cycle, early manufacturing and product engineering.

### Programmer

- Operating Systems: Windows, Linux, AIX, UNIX, Java, Eclipse, ASP
- IBM Software families: Websphere, Lotus, DB2 and Tivoli

#### **Projects**

## Network Analytics

Large telco solution to capture data at the edge of the Radio Access Network and extract value from this data. Solution uses the IBM Now Factory to collect control plane, user plane and subscriber data, Oracle and PureData for Analytics (Netezza) and Couldera to warehouse and analyze the data. Use cases include network monitoring, RAN problem identification and diagnoses, call flow analysis and customer care. Working on architectural issues to support a large expansion of capacity.

### Next Best Action

Extend IBM Advanced Analytics Platform at a large telco, using plan details, CRM data, customer experience data, customer care and insights from Social Media Analytics history to match offers to individual customers during store, call center and online transactions. Transform Marketing campaigns from static offers to a closed loop system that adjusts offers using feedback from precious transactions.

## c-SON (Centralized Self Organizing Networks)

Architect for c-SON solution spanning 3 spectrum ranges, 5 technologies and 4 vendors. Leveraging the analytics platform The solution deploys c-SON instances, databases, console servers and reporting/dashboard servers in a centralized cloud environment rather than individual servers in the regional data centers. This is made possible by leveraging the analytics platform we deployed last year. One function of the platform is to processes all per

call data. Using streams it delivers per call data to a central location with latencies as low as 5 minutes.

Additional advantages the analytics platform provides are enrichment of per call data with subscriber information and the ease with which new technologies (e.g. small cells) can be integrated. Integration only requires a c-SON instance in the cloud and adding an additional streams operator. The solution avoids the cost, complexity and maintenance of co-locating a data server per OSS (each with a different configuration based on the number of sectors managed) with every OSS in the regional data centers.

### Customer Care Transformation

Worked with large Telco Customer Care and IT organizations to enhance customer experience and reduce costs. Work Streams included use of cognitive computing, deflection of calls to self-help channels, Mobile First strategy (customer initiative to drive transactions to a mobile app), enhance mobile app with a Digital Assistant and proactive care using the IBM Advanced Analytics Platform.

Work included developing a first of a kind Watson pilot in conjunction with IBM research. The pilot used a corpse derived from the customers care knowledge warehouse (manuals, errata, procedure documents, service notes, etc) and extended Watsons capabilities to add procedural responses (step by step directions) and filtering to limit responses to a domain based on the customer's device, service plan and contract cycle.

### Enterprise Collaboration

Responsible for proposing and implementing the next generation of voice services to allow enterprises to connect to a carrier's core and the integration of these new capabilities and APIs to integrate voice with IBM's Sametime Unified Telephony. For the user the solution provides a single phone number for mobile, office and home office locations and call management based on availability (time of day, location, calendar and callerid). For the enterprise it significantly reduces voice expenses by consolidating services, implementing least cost routing, toll bypass and allocation of service.

### **Work History**

- RRock Consulting, consultant (2016-present)
- IBM Distinguished Engineer, Sprint Account (2012 2016)
- Executive IT Architect and Senior Technical Staff Member, Sprint Account (2005 2012)
- Executive IT Architect and Senior Technical Staff Member, Wireless EBO (2002 2005)
- Senior Technical Staff Member, Technology Group (2001 2002)
- Senior Engineer, xSeries Development (1997 2001)
- Senior Engineer, pSeries (1994 1997)
- Manager & Advisory Engineer, Graphics EBO (1983-1994)

## **Service**

- A Place at The Table (2015-present) Lead Volunteer & founding member, A Place at the Table provides community and good food for all regardless of means.
- **Mentoring** mentor in both the IBM Technical Women and Diverse Men programs. These programs aim to diversify IBM's technical community by encouraging and assisting people in these groups to continue in technical career paths. Individuals are paired with Distinguished engineers who mentor them and guide them through the certification processes.
- Stop Hunger Now, CHEF (2011 present) Certified Hunger Event Facilitator, run 2-3 events per month each packaging 10,000 100,000 meals for schools and orphanages around the world. Vision "To End Hunger in Our Life Time"
- Love Wins (2012 present) Street Ministry serving the Raleigh homeless community, building relationships through coffee, biscuits and a day center where ANYONE is welcome.
- United Methodist Volunteers in Mission (2002-2008)
  - Trip to El Salvador and four trips to the Quesaltenago area of Guatemala working with local Volunteers in Mission teams on construction projects, including replacing homes lost to Hurricane Stan.
  - Katrina Early Response Team in 2005 and a rebuilding team in 2011
  - Youth Mission Leader(2002-2010) Group leader/team leader for middle school and high school teams going to Guatemala, Eleuthera(Bahamas), Washington D.C. and rural NC

### **Education**

- Microsoft Certified Professional, Microsoft 1998
- Master of Computer Science, National Technical University, Fort Collins, CO, some courses.
- IBM Management Education, IBM, Armonk, NY, 1988.
- Basic Programmer Education, IBM, Kingston, NY, 1982.
- Bachelor of Science, Engineering, Brown University, Providence, RI, 1978.

### **Patents and Awards**

- 12 Patents
- 10 Formal IBM Awards
- 11 Informal IBM Awards

### <u>Languages</u>

- English
- Italian