# Steven J. Ponessa

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## Professional Summary

Accomplished technology executive and industry leader with 32+ years of experience in developing world class products and transformational architectures. Has worked both internally at IBM and with external IBM clients and have a proven track record of conceiving, building, deploying, running, and maintaining scalable solutions that handle high volume with superior performance and availability.

25+ years experience with defining Enterprise level architectures working with stakeholders to develop architecture framework that aligns strategy, processes, and IT assets with business goals.

In-depth experience establishing best practices and guidelines for selecting, developing, & implementing information systems within an enterprise.

## Core Qualifications

- Enterprise and Service Oriented Architectures
- Agile Development / Continuous Deployment
- DB Design (3NF, Dimensional), DB2, PDA, IDAA
- J2EE, JAXP, XML/XSLT, REST, Data as a Service
- WebSphere, SQL-Repl, Q-Repl, DataStage
- Web 2.0, HTML5, CCS3, Dojo, JQuery, Bootstrap, Python, PHP, Scala
- Java, JavaScript, C, C++, VB, SmallTalk, PL/1
- Apache Hadoop, Hive, Spark, Loopback, Swagger

## Experience

IBM June 1984 - Present

**Current Position: Executive IT Architect**

**Lead Architect - IBM Services Information Warehouse** March 2002 - Present

Created a current & future vision architecture to enable services reporting and analysis while meeting the CIO's cost and risk reduction objectives. Established standardized IT models and patterns for deliverables, increasing the accuracy of implementation costs and reducing the cycle time for solution delivery. Collaborated with senior technical leadership and business experts across CIO to translate key strategic objectives into an architecture with actionable and governable roadmaps.

The IBM Services Information Warehouse (SIW) collects data from 26 heterogeneous sources and builds a multi-tiered data repository in DB2 zOS Parallel Sysplex, DB2 LUW, and the IBM Pure Data Analytics environments. The system contains over 5K tables and views, 5B rows of data, 12K worldwide users, feeds from 26 heterogeneous systems, runs 350K jobs/month, and 175K ad-hoc queries.

I defined the IBM Services Information Warehouse Framework and Architecture. This included a multi-tiered data architecture, robust service layer including a "Data as a Service" framework, Reference and Master Data Management systems, Meta-Data management and information catalog, object naming standards and the definition of a common glossary, and the publication of design patterns for data warehousing including database schema and ETL methods.

**PDA / IDAA Integration**

Designed and executed proofs-of-concept to integrate Pure Data Analytics (PDA) and IBM DB2 Analytics Accelerator into SIW capabilities, including building business case with costs, benefits, and efficiency measures. Led project to mirror SIW/BMSIW schema and data from the zOS DB2 system to a IBM PureData System for Analytics (PDA) system. The goal was to reduce SIW operational costs (by $1M/year) while delivering improved performance and progressing the SIW along its strategic direction.

**BMS Data as a Service (DaaS) infrastructure**

Developed and deployed a DaaS framework for delivering reference data as a RESTful web service. DaaS is the next logical extension of SOA. If data is needed, it is requested and delivered in a message based, language and platform independent method; without requiring an ETL process or reporting packages.

This framework allows both static and dynamic services to be defined. Data sources and SQL can to be dynamically added and configured as part of a DaaS solution. The data can be delivered in XML, JSON (JavaScript Object Notation), text (fixed length in DB2 load format), or CSV (Comma Separated Value) format or rendered to any format via an XML/XSLT transformation).

**IBM CIO Data Warehousing Strategy**

As part of a consortium of CIO technical leaders, I helped define a data warehouse framework and architecture to be used for the new Services IW and O2C Data Warehouse. Outlined current and future vision enterprise architecture, including traceability from business and IT strategies to suggested technologies. Worked with key members from the different fulfillment towers and the BT/IT Vice President of O2C & Marketing Transformation and Client Value Transformation to refine the framework and architecture.

**IBM Services – SAP Integration (BlueHarmony)**

I led a team of 12 through all phases of the successful integration of SAP Order to Cash fulfillment data into the SIW. This included 115 new entities from 6 SAP Enterprise Resource Planning Central Components (ECCs). Additionally, led the 2,104 member BH - BMSIW Integration Community and conduct a weekly Q&A session based on discussion threads entered within the forum portlet of the community.

**J2EE Web & Web 2.0 Applications and Java Frameworks**

Architected 40+ n-tier infrastructures for J2EE application development projects consisting of AIX, and Linux Servers, WebSphere Application Server, DB2, and web servers (IHS). These were J2EE thin web and single page clients, that used a myriad of open sourced toolkits and packages, with a DB2 zOS backend database that follows the single channel, self-service business pattern as defined in IBM Patterns for e-Business and exploits the J2EE Model 2 architecture. The model 2 architecture follows the Model-View-Controller (MVC) design pattern. A number of these applications also included Web 2.0 features such as Rich Internet Application and AJAX and frameworks that enable the application to read and write to an object whose structure is not known until run time.

These applications include, BMS Revalidation Framework and Dashboard, ICLA Account Delegation, ILC Mnemonic Registration, FMS “Black Box” cost redistribution, On-Line Services Signings, BMSIW Explain Tool, and SSO Knowledge Management Application.

**Productivity Tooling using Java, XML, and XSLT**

Built and deployed a number of Java and XML/XSLT based tools that automated laborious and tedious processes such as the of compiling and publishing an information and mass updating database objects. These tools rely on XML's ability to separate content from presentation. By applying a different stylesheet to the same document, an XML document can be rendered in different formats. Along with delivering higher quality deliverables by eliminating human error, these tools have saved 1000s of hours and are still actively used today.

These tools include Information Catalog Compiler & Viewer, Logic Representational Framework, Wiki publishing standards and tools, zOS Batch Choreographer, SSO MVS Community Site.

**BMSIW Application Owner** April 1999 – Feb 2002

Managed requirements through lifecycle support of the decision support environments and business metrics applications that support IBM's project based services business. Managed and tracked $3M budget, split between development and maintenance, following the Business Transformation Operational Process (BTOP).

Upon taking over the BMSIW in 1999, customer satisfaction was at 48%, it grew to 70% in 2000, and to 90% in 2001. At the same time the user base increased 56%, data volume increased 44%, the amount of jobs processed more than doubled yet, the average job's performance improved 87%. This was achieved by applying targeted enhancements and tracking the results for input for the next set of targeted enhancements.

**IBM CSO EDI Strategy** Jan 1998 to March 1999

Defined and established technical infrastructure and oversee technical direction of applications in support of IBM's Customer Service Organization (CSO) Electronic Data Interchange strategy and Order Backlog Management process. Technologies include Java and Lotus Notes.

**IBM Technology Service Solutions Information Warehouse** Dec 1995 – Dec 1997

Defined and established technical infrastructure and oversee technical direction of four applications in support of the TSS business. These applications include an Information Warehouse with batch report generation and distribution to Lotus Notes via SMTP, Human Resources application, Financial reporting system, and Employee incentive program (HR subsystem).

**Project Manager - State of Connecticut's Department of Labor RFP** Aug 1995 to Nov 1995

Project Manager for team of professionals preparing a proposal for the state of Connecticut Department of Labor. The proposal to design and develop new unemployment insurance system systems, and assume operational support. My responsibilities included liaison with IBM's Client Executive for the State of Connecticut and members of Governor Rowland's Staff, and manage the contract development team.

**Manager Application Architecture - 1995 Special Olympics World Games** Sept 1994 to July 1995

Led teams of professionals from corporate sponsors as well as volunteers in the development of sixteen supporting software applications (e.g. Scoring, divisioning, medical, athlete tracking, inventory, venue development, radio frequency data transmission, and information services).

The 1995 Special Olympics World Games were the largest sporting event in the world in 1995. Competing in these events were approximately 7,000 athletes representing over 140 countries, and approximately 3,000 coaches and support personnel. All computer related support was architected, designed, and implemented in under one year.

**Project Manager – EUOP** July 1993 to Aug 1994

Negotiated for and received development contract for Enhanced Order Upgrade System Processing (EUOP). Subsequently, appointed as project manager for EUOP development, a co-operative processing system written in C++ and C.

**Project Lead IBM's Enterprise Digital Library** March 1990 to June 1993

Led architecture and design for the implementation of the Enterprise Digital Library. A cooperative processing system written in C, with an OS/2 2.0 client and one to many OS/2 and/or MVS/ESA server(s). The system features client/server architecture, asynchronous processing with interprocess communications and synchronization, distributed relational database technology, Advanced Peer-to-Peer Communications, National Language Support, and a GUI following the Object Oriented Workplace Model. Led team of 18.

**Database Administrator** Nov 1998 to Feb 1990

Designed, developed, installed, & tested several business applications and databases, based on IBM's relational product family.

**Project Leader - Common Intracompany Billing System** June 1984 to Oct 1988

Advanced to project leader for the Common Intra-Company Billing System, an IMS/VS non-conversational online and batch financial application. Led team of 9.

## Awards, Patents, and Affiliations

**Awards**

- 2015 IBM CIO Eminence & Excellence Award
- 2014 IBM CIO Outstanding Innovation Award
- 2013 Patent Issue Award
- 2011 IBM CIO Eminence & Excellence Award
- 2011 IBM Outstanding Contributor Award
- 2009 IBM CIO Eminence & Excellence Award
- 3Q2008 IBM GTS US Leadership Award
- 2008 Patent Issue Award
- 2006 IBM Outstanding Contributor Award
- 2005 IBM 100% Club Award
- 2004 Invention Achievement Award
- 2003 IBM Outstanding Contributor Award
- 2000 IBM Outstanding Contributor Award
- 1996 Market Driven Award (Divisional)
- Aug 1995 Divisional Award - Special Olympics World Game

**Patents**

- **US7359909B2** Generating an information catalog for a business model
- **US8555333B2** Identifying and resolving separation of duties conflicts in a multi-application environment

**Affiliations**

- The OpenGroup Master Certified IT Architect
- IBM TLE Member since 2003
- IBM CIO Technical Leadership Council