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SUMMARY

Hands-on Engineering Management experience including Software Architecture, System Architecture, Software Engineering, Systems Engineering, Integration Test, and Configuration Management. Managed teams of engineers as small as five engineers and as large as 72. The Software Engineering organization spanned Applications, Embedded, and Infrastructure/Platform areas. Management of project development with PMI, RUP, and ISO principals across local and geographically distributed teams.

Core Competencies

- Development and Architecture experience with CORBA, RMI, MQSeries, RPC, JDBC/ODBC, J2EE/EIA, UNIX (HPUX, Solaris, Linux), VxWorks, .NET, Microsoft Windows (NT/2000). Extensive architecture and design experience with High Availability (Local and Disaster Recovery) including database design considerations in Real-Time systems.

Skills

- Extensive Programming and Design experience in C++/C, Java, OMG's CORBA IDL, HTML/XML, C#, SQL and PL/SQL, UML (including Use Case elaboration), and many scripting languages.

EDUCATION

Master of Science in Computer Science, *Magna Cum Laude* 1992
 Temple University, Philadelphia, PA.

Bachelor of Science in Computer Science, *Magna Cum Laude* 1990
 Trenton State College, Trenton, NJ.

PROFESSIONAL EXPERIENCE**COMPANY XYZ****2004 - PRESENT****Implementation Manager**

Managed four geographically dispersed development teams responsible for database and file-system management/access, security and other information assurance functions, policy based operations, and search/mining of data and text. Worked closely with senior management to specify and implement a commercial product approach for the program, including spiral development, requirements collection and specification, product management, functional release packaging, system testing, and CMM principals. Additional duties included design and implementation oversight (including EVMS tracking), staffing, technical architecture, development direction, and maintaining cohesion of service areas.

Presented status and design/architecture briefings, as part of the formal Critical Design Review, to Army and Government program management. Ad-hoc networking, session initiation (including SIP), mobile communications, service discovery, database replication (with Extended Virtual Synchrony) were major design considerations for these product teams. Multi-Language/Environment development: J2EE, Linux, VxWorks, .NET, Java, C/C++, and Ada.



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COMPANY XYZ**1998 - 2004****Director, Software Engineering** - *Optical Network Systems*

- Managed a group of 72 software engineers through second tier of five technical managers. The areas managed include Infrastructure Development, Embedded Systems, NE Applications Development, Network Management, Integration Test, and Systems Engineering. This position also required the management of lab resources, test equipment, system models, development tools and equipment, and a budget in excess of \$15M. A significant job function included interfacing to Product Management to define requirements and coordinate Project Management (PMP reflected the best practices as given by the Project Management Institute (PMI) across all product lines. Implemented a variation of the Rational Unified Process (RUP) as part of the Software Development Process (SDP) at Company XYZ. Introduced a structured configuration management process including ClearCase and ClearQuest, and Rose UML modeling into the development environment. Fostered a CMM level three environment.
- Managed all software designs/implementations for Company XYZ's management and control systems. Software development supported custom hardware using Windows NT/2000, Lynx OS (RT UNIX), HPUX, Solaris, and the VxWorks RTOS on MC68360, MPC8260, MPC750, Scout (750 w/8260 slave), MPC860/T, and MPC603e processors. Embedded real-time development included Board Support Packages (BSP), bootstrap protocol development, OAM&P features, configuration management features, and hardware abstraction using object-oriented principles. Managed the design of system software support for SONET OC3, OC12, OC48 and OC192 transceivers (including SONET monitoring functions and performance data collection and reporting), Ethernet blades, and High Availability (for five nines). This position required extensive coordination with hardware engineering to satisfy software requirements.
- Managed a team of 10 embedded software engineers in the design and development of Company XYZ's product. Participated in the design and development of closed-loop control of MEMS (Micro Electro Mechanical) mirrors in an all-optical switching application using DSPs to implement a PID (Proportional, Integral, Derivative) control system. Managed the Network Management System (NMS) development team and guided the selection and deployment of an Object/Relational database solution for deployment in a Network Element and NMS.
- Lead Software Architect for Company XYZ's products. This included significant interaction with hardware engineering on system design items (CPU selection, bus architecture, and FPGA functionality) as well as overall system design conformance to requirements. Designed and developed a Clos Switching Algorithm for provisioning of electronic circuits in a three-stage switch. Significant design and development work for the management communication-plane involving CORBA in a real-time environment. Participated in the architecture and design of Company XYZ's proprietary MESH network restoration algorithms. Filed a patent application on fast protection switching via alarm flooding.

COMPANY XYZ**1995 - 1998****Senior Technical Staff Member, System Lead** - *Operations Technology Center*

- Led the Operations, Administration, and Maintenance (OA&M) team in the Expert Systems group developing network maintenance software for the surveillance of network elements and mediation devices. Used object-oriented approaches (in C++ and Java) to solve Company XYZ network maintenance problems. OA&M design included interfaces to Hewlett Packard's high availability

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software M/C Service Guard, user and application administration, Oracle RDBMS development including embedded SQL and PL/SQL, and modeling of a project-wide database schema and process architecture.

- Led a team to architect and develop a complete solution for Security Dynamics` ACE/Server integration with existing RADIUS databases. Co-Lead the preparation of a Data Warehouse request for proposal (RFP) to manage 30TB of call detail information. This included hardware and software evaluation, coordination of vendor participants as well as co-authoring of the response documentation detailing system architecture and cost structures.
- Led the development of a Web based solution for a Dashboard & Data Warehouse using Microsoft ActiveX technology, XML/HTML, and Java. Architected and developed a complete software solution for mapping relational database schema onto a specified Object Model. A patent application has been filed for various aspects of this solution.

COMPANY XYZ**1993 - 1995***Integrated Systems Division***Computer Programmer/Analyst (Team Lead)**

Served as the technical lead for the A5 area of JCALS. Developed distributed applications and utilities using C/Ada (Mil Std 2167A), MOTIF, Oracle Secure RDBMS, Embedded SQL, and stored procedures for use by Joint Services under the Joint Computer aided Acquisition and Logistic Support system (JCALS).

COMPANY XYZ**1992 - 1993****Systems Programmer/Analyst**

Developed customized applications to support accounting department functions. Work was done in C on the HPUX platform as well as the MAI IV system. Responsible for the migration and porting effort, which took the existing MAI system software onto the UNIX platform. Performed full-lifecycle development including design, coding, unit testing, and continuing software improvements. Implemented an automated processing system, which used expert rules to export system events.

ADDITIONAL INFORMATION**Publications**

- Currently authoring a book entitled Advanced CORBA Programming for Prentice Hall. The book explores the programming complexities and challenges readers encounter when developing in a CORBA environment. Advanced CORBA topics such as CORBA services and Dynamic Interface programming are examined.
- Rational User`s Conference paper entitled Using Object Oriented Technologies in Embedded Systems Development.