

M. Craig Weaver
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S U M M A R Y

Software Engineering professional with extensive experience in the design and development of system networking software and layered network architectures. A team-oriented communicator with the ability to solve complex problems using strong analytical skills. Effectively analyzed, designed and developed global networking software products on platforms ranging from micro, server, and mid-range to mainframe computers.

Core strengths:

- Software design, specification, and programming
 - Software Quality Assurance Testing
 - Software problem analysis and solution
 - Complex protocol design and implementation
 - Team Management
 - Network troubleshooting and problem solution
 - Burroughs Network Architecture expert
 - Networking and layered network architectures
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T E C H N I C A L S K I L L S

LANGUAGES

JavaScript, C++, C, ALGOL, FORTRAN, HTML, Intel Assembler, Pascal, and others.

PLATFORMS

UNIX Systems; Microsoft Windows based systems (WINNT/WIN2000/WINXP); Unisys A-Series; Unisys V-Series; Unisys Clearpath; Unisys ES7000; Burroughs Large Systems; Burroughs Medium systems; Intel Processor based communications processor cards; Burroughs CP9500/B900.

P R O F E S S I O N A L E X P E R I E N C E

Society for Worldwide Interbank Financial Telecommunication (SWIFT)

2008 – 2014

International Member Owned Banking Cooperative
Manassas, Virginia

SENIOR SOFTWARE ENGINEER – CONTRACT

FIN Renewal Project – Moving the SWIFT financial application software from Unisys machines (ALGOL) to HP UNIX machines (C++)

- Tested ALTOS conversion tool. Created test cases from canonical ALGOL forms, converting them using ALTOS, then comparing the ALGOL and C++ test results. Diagnosed discrepancies and either designed solutions or required changes to the tool.
- Converted Unisys ALGOL into UNIX C++ code. Tested, debugged and maintained the converted C++ code.

Developed and maintained high security, high availability network application software, as well as network test utility software and network management software. Created and documented test plans for proposed changes to the overall network structure and protocol selection.

- Designed, implemented, and maintained high security, high availability network application software. Analyzed problems in the financial network software and corrected them. Implemented a solution that allowed the SWIFT global network to expand.
- Designed and developed, in ALGOL, a network test utility used for throughput measurement, testing of varying bit and character patterns, testing of networking software and hardware, stress testing of hosts, switches, routers and protocols. Used for testing all levels of the SWIFT Financial network.
- Developed Enhanced Session Control and PKI Login portions of emulation software by performing investigative analysis of proprietary protocols and software, allowing comprehensive testing of the new protocols.
- Wrote inquiry modules in the G2 language by Gensym for automatic network diagnostic expert system running on UNIX OS. This resulted in more easily understandable network status information being available to operators.
- Devised test plan to evaluate potential usage of BNA over IP protocol and was responsible for testing. Conceived test plan to test CISCO Data Link Switching (DLSw) and assisted in testing. This resulted in the acceptance of DLSw, allowing SWIFT to decrease costs and modernize the global network.

M. Craig Weaver

page 2

Unisys Corporation

Worldwide Information Technology Company
Malvern, Pennsylvania

1981 - 2008

SENIOR SOFTWARE ENGINEER

1994 - 2008

Architected, developed and supported system and network software. Technical lead on a variety of projects. Specialized in layered network architecture.

- Designed and developed, in the NEWP language, the outbound data path, fragmentation routines, IPv6 specific Operator Interface commands, and other portions of the IPv6 implementation on Clearpath MCP systems.
- Lead Clearpath Appliance team reporting directly to project manager, provided direction to the team members. Delivered NX Network Services (NNS) including any new features on all new hardware platforms. Supported all NNS software on all existing hardware platforms. Supported Windows NT embedded and Windows XP embedded on those platforms. Lead the design and implementation of NNS, in C language, for any new Operating Systems. Established schedules and milestones. Assisted with testing activities. Interacted with external organizations such as the platform development team, manufacturing, and hardware development.
- Designed and implemented Operations Interface Router with interfaces to multiple modules that constitute BNA. Implemented portions of the BNA Router (network) layer of the Networking Architecture.

CRITICAL ACCOUNTS MANAGER

1992 - 1994

Tracked critical accounts for all A-Series Networking products and coordinated resolutions for these accounts. Responsibilities: monitored World Wide Alert activity and actively intervened to ensure that issues were resolved as quickly as possible; Clearly identified problems, devised an appropriate action plan and involved the necessary managers and engineering experts; provided emergency support, carried a pager 24 hours a day seven days a week.

- Communicated with, often angry, customers, field representatives, and salespeople, and conveyed information to Unisys engineering and management to facilitate problem resolution, this resulted in saving many accounts and multi-million dollar orders.

SECTION MANAGER SUPPORT TEAM

1989 - 1992

Managed an engineering support team handling customer trouble reports for a number of networking software products.

- Managed 10 to 15 people that corrected software bugs on a variety of projects reducing the trouble report backlog for these products by 75%.
- Performed personnel reviews, handled the budgeting of hardware and equipment needs.

SOFTWARE ENGINEER

1981 - 1989

- Supported multiple portions of Burroughs Network Architecture. Responded to customer trouble reports and queries, interacting with customers and field representatives, making corrections in the software in NEWP and Pascal.
- Designed and implemented Operations Interface Router with interfaces to several modules that constitute BNA. Implemented portions of the BNA Router (network) layer of the Networking Architecture.
- Developed overall communications plan for Unisys V Series mainframes. Planned and designed BNA Network Controller software. Designed and implemented software for the V-Series Inbuilt Communication Processor, an embedded device. Ported the processor executive, networking software, and 802.3 LAN software into the new ICPV hardware, allowing V Series mainframes to communicate with A Series mainframes over BNA.
- Implemented Burroughs Network Architecture on the B900/CP9500 mini-computer. Implemented the Burroughs Integrated Adaptive routing System layer. Designed and implemented the Operations Interface command parser.

Additional Experience

ROME RESEARCH CORPORATION FORTRAN PROGRAMMER (INTERN POSITION)

- Rewrote entire data formatting system, changing turnaround time from days to hours. Required a U.S. Government Security Clearance. RRC was under contract with Griffiss Air Force Base.

E D U C A T I O N

State University of New York College at Potsdam

Potsdam, New York

BACHELOR OF ARTS IN COMPUTER INFORMATION SCIENCES

Graduated Cum Laude

Computer Science Honor Society; Mathematics Honor Society