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Dear Appriss:

I am applying for the position of Software Engineer Manager.   Let me highlight my experience which may be of the most interest:

1. I have managed small and large groups of software engineers over several years. The largest of which was for Honeywell Information Systems where I managed 31 software developers while having oversight of a contracted remote group of an additional 21 developers in Calgary, Canada.

2. I have been principally responsible for the design and architecture of a number of systems. Among these:

    a. Large Operating System architected through a group of designers. Set a goal of each group boiling down their designs to an elegant two page description (offering the Declaration of Independence as example). Brevity requires clarity and clean structure.

    More recently:

    b. Carrier grade distributed telecommunications softswitch (the smarts behind the telephone system) which handles telecommunications in several cities around the US and Canada.

    c. Carrier grade Hosted PBX system. A highly scalable, highly reliable PBX system capable of handing tens of thousands of customers.

3. I have an entrepreneurial background with experience establishing three businesses and acquiring seven. I have managed as many as 50 employees of many kinds: developers, system administrators, technical support, sales, marketing, and accounting.

4. I have direct hands on technical experience: I won a city-wide programming contest in 8th grade and I have been programming ever since. I have programmed in many languages on all platforms, I am Java certified with enterprise experience in Spring MVC, Liferay Portal, and HTML to JavaScript/JQuery.

5. I long ago exceeded the hours requirement for a Project Management Professional certification and I expect to sit for the exam within the next few months.

6. I have a BS in Math, MS in Physics, with electives from graduate marketing to economics, from AI to electronics.

I have been aware of Appriss since the days when Doug Cobb became involved (a neighbor) and believe you have a very exciting future which I would enjoy becoming a part of and helping to build.

Sincerely,

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Management Summary

Development Manager, Honeywell, MA. Built, led, and managed a group of 31+21 OS developers.
VP Operations, Victory Technology, CA. Led development & operations for political consultancy.
President, Win.Net & related businesses, CA-KY. Founded and ran three telecommunications companies.
Presently working toward PMP certification.

Programming & Technologies Summary

Java Certification (SCJP)	JavaScript Certification	Spring (completed training)
Security+ Certification	JQuery Certification	SQL (MySQL & PostgreSQL)
Secret Security Clearance	Liferay Portal	Eclipse/NetBeans
R Programming (data science)	PHP	HTML5
C / C++/C#/VB - .Net	Cloud: Amazon EC2	CSS
Apple IOS 9 / Xcode / Swift	Linux & FreeBSD (use, install, admin)	DOM
Sh/Bash Scripting	Cisco Routers - extensive	AJAX/JSON
Python / Perl	Cisco Voice - extensive	Apache

Education

University of Louisville, Ph.D. program in Physics begun Spring 2013 (part-time).
Academic CV: astro.uofl.net/tague (view source for an intro to HTML I wrote)

University of Louisville, MS Physics, 2011
Electives in Marketing and Artificial Intelligence

University of Louisville, BS Math, minor Physics, 1984
(three years at Georgia Tech, major: Biophysics)
Electives in Biology, Chemistry, Economics, and Electrical Engineering

Career Highlights

Founded and ran a series of software and telecommunications related companies from 1990 to 2015 managing from five to fifty people and negotiated the acquisition and integration of seven additional companies. Led development and operations as V.P. of Operations at a San Francisco software and services company. Created and led a computer Operating System development project for Honeywell in Massachusetts with over 50 software developers. Rescued a troubled Operating System software project involving 20 software developers for Honeywell at the Cambridge Information Systems Laboratory in Cambridge MA.   Served as an examiner two years for the Kentucky Baldrige quality award process.

Experience

US Army/SAIC-Apex, Fort Knox, KY, 2015-Present
Senior Java Developer
Enterprise development in Java, Spring, and the Liferay portal (with some .Net in VB). Recent project have been security related including encrypted strings, encrypted DB passwords (extensions for C3P0 connection pooling manager), certs for Fedora Linux xrdp (Remote Desktop), and better integration for Juniper based VPN logout.   Between projects I have been working on a paper on REST which I hope will be helpful for a series of new APIs and also exploring use of Spring MVC Portlet with a slimmed down Liferay environment.

Prior Experience

In 1996 Congress passed a Telecommunication Act which enabled competition in local telephone services.   I established the following three companies to take advantage of opportunities created by this act.

American Softswitch, Louisville KY, 2006 – 2015
President, Principal Software Architect
American Softswitch is the developer of telecommunication Carrier grade telephone switching platforms.   Its two primary products are Infinity Switch and Infinity PBX.   Infinity Switch is a Java based softswitch that connects to the Signaling System 7 (SS7) network and provides control of Cisco media gateways which are connected via trunk circuits to other telephone companies in various locations.   Infinity PBX is a Carrier grade Hosted PBX platform that allows carrier service providers to deliver PBX (Cloud Telephone) services to their customers. American Softswitch operates the Infinity platforms as a service to clients in several states and in Canada.   Infinity platforms are designed to be highly reliable, fully redundant (parallel systems operating in two locations), and use the most up to date protocols including: SIP, SIGTRAN, SCTP, M3UA, IUA, and Q.931. Using an agile programming process the company introduced Infinity Switch early and added functionality iteratively; Infinity PBX is just now beginning alpha testing. In addition to starting and managing the company, I designed the switch architecture and developed key software components.

American CLEC, Louisville KY, 2004 – 2015
President, Managing Consultant (www.AmericanCLEC.com)
American CLEC builds Competitive Local Exchange Carriers (telephone companies) and provides related consulting services for companies wanting to become telephone companies. To date, American CLEC has created CLECs in more than 20 states and Canada. Projects typically take a year and are lead by an assigned Project Manager. The projects encompass everything from initial incorporation through regulatory approval to technical layout through physical turn up. I am the lead consultant for the company and usually handle sales which frequently involves visiting prospects, developing a 10 to 15 page proposal, and giving speeches and working a booth at Trade Shows.

Win.Net Telecommunications, Louisville KY, 2002 - 2015
President
Win.Net Telecommunications is a CLEC that operates in the Louisville, Central Kentucky, and the Southern Indiana area. The company was created to provide services at lower costs and over a wider area to its sister company, Win.Net Internet & Telephone. As a CLEC under the '96 Telecom Act, the company interconnects to exchange telephone traffic with AT&T and Verizon and also obtains low cost Unbundled Network Elements which are used to provide broadband services to customers.   I did the initial research, established regulatory approval, wrote the tariffs, setup the initial technical infrastructure to begin operations, and have managed since.

Win.Net Internet & Telephone, Louisville KY 1993 – Present; San Francisco CA, 1990 – 1993
President (www.win.net)
Win.Net is a provider of Internet and Telephone services primarily to business customers. Recent developments include the introduction of business telephone services: Could Telephone to replace existing customer telephone systems, ISDN PRI to provide high capacity (23 channel) telephone circuits, SIP Trunking to provide SIP/VOIP service for modern systems, and combination T1/PRI/SIP/Internet circuits to meet custom needs. Started as a software development company Win.Net developed the 1st software for Internet email for the Microsoft Windows platform: WinNET Mail. The software was sold around the world and licensed to others in the UK, Canada, and Germany (with a German language version). As the Internet grew and Microsoft built its own Internet software, Win.Net shifted to become a service provider focusing on Web Site hosting and Internet access. In 2002, with the creation of the Win.Net Telecommunications and the significant competitive advantage provided, Win.Net Internet began a period where seven other ISP's were acquired and integrated.

As President and founder, I created Win.Net, created the project to build the software, managed the business, set the strategy, and led the company for 24 years. Among the more significant events initiated by me are the development of telephone services, the creation of a CLEC subsidiary, acquisition and integration of seven other ISPs, development of the Louisville-NAP (Network Access Point), creation of the Get Wired marketing program with Greater Louisville Inc.

Victory Technology, San Francisco CA, 1988 – 1990
V.P. Operations
Victory Technology developed grass-roots political campaign software and provided database services to political campaigns of all stripes across the country.   I ran operations and software development which included a re-architecting of new versions of the product software, building the services business, and consulting with key political campaigns.

Honeywell, Cambridge & Billerica MA, 1984 – 1988
Cambridge Information Systems Laboratory, Cambridge MA 1984 – 1986
Hired as a college fresh-out software developer in 1984 to work on a Relational DB System, I moved up rapidly. In 1985 I

took over as Project Leader and de facto manager of a project which employed over 20 software developers that was in significant trouble due to management turnover, project delays, and an approaching last-chance deadline. I led the project to completion (rather triumphantly) within the deadline which resulted in certification of the large-scale Multics Operating System to a B2 level of security by the National Computer Security Center (a part of National Security Agency). This level of certification is the highest level yet achieved by a general purpose operating system (even still).

Promoted to Multics Development Manager, I became involved in a joint study with Honeywell Information Systems to evaluate Honeywell's small systems operating system, Mod 400, as well as the division's software development practices. This led to a project to develop a new operating system to carry both Mod 400 and Multics onto a new hardware platform. The project became the Opus project. I became the manager in charge of Opus architecture and development.

My development group grew to 32 developers and I had additional oversight of another group of 21 developers at the Advanced Computing Technology Centre in Calgary, Canada. The project proceeded for approximately two years but was ultimately shutdown after the sale of Honeywell Information Systems to Bull, a French company. Significant milestones included the successful, on-time, completion of a PL/I cross-compiler, the completion of the system architecture and implementation roadmap, the completion of comprehensive migration studies of all Mod-400 subsystems, the development of significant advanced development tools, and the successful completion of two company-wide evaluation studies of our project. In the second evaluation study, the study leader stated that the Opus project was the best managed large-scale software development project in Honeywell's history – no significant technical project risks were found.

Skills/Training/Certifications
Oracle/Sun Java Programmer Certification (SCJP)
CompTIA Security+ Certification (verify.CompTIA.org # TMM6RY2BXPB4209N)
DOD Secret Clearance
Spring Framework Trained (SpringPeople)
ITIL Foundation Training (Skillport)
JavaScript Certification (W3Schools - www.refsnesdata.no/certification/w3certified.asp?id=6524792)
JQuery Certification (W3Schools - www.refsnesdata.no/certification/w3certified.asp?id=6524792)
R Programming, 2014 (certificate: coursera.org/verify/GT9PYBNSDN)
KY Quality Council, Governor's Award Examiner, 1999 & 2000
CEO Strategic Planning, through Greater Louisville, Inc., 1996 & 1997
A six month program in strategic planning.

Project Management
Currently working toward my Project Management Professional (PMP) Certification. A member of the Project Management Institute, I meet the 4500 project management hour requirement and am presently working to complete the 35 hour education requirement so that I can sit for the Certification exam.

Computer Science & Telecommunications
Programming. Experience in many languages and Frameworks: Java, Spring, JavaScript, JQuery, C/C++/C#, Swift, R, Perl, Python, HTML5, CSS, PHP, and Sh/Bash scripting. Scala, PL/I, Lisp/Scheme, Cobol, Pascal, Prolog, Fortran, Basic/VB, Matlab, and Mathematica.

Web. Enterprise Java with Spring, JavaScript, JQuery, HTML5, CSS, .Net, Apache, PHP and Perl for web purposes.

Data Science. Experience in R, Python, SQL, Perl, and Java, along with Matlab and Mathematica. I am currently enrolled in the John's Hopkins Data Science specialization offered through Coursera. Previously I have studied Computational Cognitive Science through UofL Speed School.

Databases. Extensive application work using SQL with MySQL and with PostgreSQL. Worked as a developer on the Multics Relational Data Store (MRDS) – the database software itself.

Networking. Very experienced with Cisco router and Voice networking – especially dial-peers. Much work with configurations of T1s, PRIs, and combinations for both TDM (traditional digital/analog voice) services and VOIP services.

Telecommunications.   Consultant level knowledge of 1996 Telecommunications Act, FCC rules and regulations, experience with many state Public Utility/Service Commissions, extensive knowledge of the technical and administrative workings of AT&T, Verizon, and other major Carriers as it relates to Telephony and Internet Access.   Knowledge of Cisco Routers and Voice networking, VOIP, SS7, ISUP, TCAP, M3UA, IUA, T1s, T3s, G.SHDSL, Copper & Fiber circuits. Knowledge of CAP and CLEC approval processes in many states and with the CRTC in Canada. Knowledge of Number Porting and other common administrative functions.

Finance.   Derived from first principles the amortization formula: $P = \frac{i*A}{1-(1+i)^{-N}}$. Derived a series of formulas for subscriber (rental) related business. Expected subscriber life: $Life = \frac{1}{Churn}$. Life revenue: $Life\ Rev = \frac{Mo\ Rev}{Churn}$. Asymptotic subscriber base size: $Size = \frac{Sales\ Rate}{Churn}$. Recognized that while referrals are often stated as a percentage of sales, e.g., our customer referrals represent 20% of our sales, the practice underplays the value of referrals. They should be stated as a percentage of the customer base and as such offset the churn: $Size = \frac{Sales}{Churn-Referral\ Rate}$. Direct sales grows linearly with efforts – twice as much effort, twice as much sales – while referrals grow with the customer base and can have an exponential effect on total size.