

**Jeffrey Thomas Walsh**  
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## Objective

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Customer-facing engineering or technical business development role in the telecommunications or security industry where my extensive experience and depth of knowledge in both engineering and business will add value to the company's operations.

## Education

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**University of Houston Downtown**                      Houston, TX                      December 2006  
Bachelor of Science in Interdisciplinary Studies

**Texas Tech University**                      Lubbock, TX                      August 2000 to April 2006  
Coursework and accompanying labs in electrical and electronics engineering including analog and digital circuit analysis and design, fiber optics, telecommunications, programmable logic controllers, and project management. Fundamental science courses including physics, higher mathematics, and advanced atmospheric sciences. (129 hours total Texas Tech University undergraduate study)

## Work Experience

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**Stratos Global**                      Houston, TX                      December 2006 to Present  
Project Engineer

- Designed, patented, and marketed a distributed mobile surveillance system
- Led my department from negative to positive margins in less than one year
- Lead engineer for engineering, procurement, and construction (EPC) of the telecommunications and security systems for the largest liquefied natural gas receiving terminal in the United States
- Supervised and directed work of engineers, site managers, technicians, and subcontractors
- Performed detailed design for fiber optic and copper cabling plants, video surveillance and access control, Firetide wireless mesh networks, VSAT and BGAN satellite systems, paging & general alarm, Cisco CallManager, and electrical distribution
- Designed and presented technical solutions to customers for both pre-sales and post-sales
- Determined pricing, ROI, forecasting, and business analytics for products and services
- Calculated and prepared financials for client invoices, scope changes, and subcontractor and vendor payments

**Waltel Communications, LLC**                      Lubbock, TX                      June 2003 to April 2006  
Owner

- Built a profitable company by the boot straps with no outside financial support, sustained continuous double-digit sales growth every quarter, and negotiated final sale of company
- Consulted with both public safety entities and private companies regarding their communications goals including base stations, mobile voice and data, and fixed data solutions including multiple scenarios with cost/benefit analysis for each
- Performed propagation and link analysis and system design for two-way voice and point-to-point data communications systems using computer simulation software and hand analysis
- Designed and manufactured a custom miniature 900MHz spread-spectrum telemetry system for high-altitude atmospheric research
- Developed wide-area VoIP PBX solutions for both internal use and customers using the Asterisk software PBX platform and Digium, Polycom, Cisco, and Sipura hardware

- Built and installed mobile communications systems for public safety and private vehicles
- Designed and installed base station and repeater two-way communications systems
- Performed bench-checking, fault diagnosis, and component-level repair of voice and data communications equipment
- Performed all accounting functions including receivables, payables, and audits
- Managed all national and international logistics including air and ocean freight imports and exports utilizing a wide variety of domestic and foreign carriers
- Negotiated detailed contracts with vendors and customers
- Designed and maintained an internet website with integrated e-commerce ordering and a computer logistics management system for efficiently handling and tracking warehouse activities and product shipments in real-time

***Texas Tech University Atmospheric Science Group*** Lubbock, TX    October 2002 to April 2006

Research Assistant

- Wrote standards and specifications for data acquisition and instrumentation systems
- Designed and built complex data acquisition and instrumentation systems using hardware and software from National Instruments and Campbell Scientific
- Designed new instrumentation interfaces for the Wind Engineering Mobile Instrumented Tower Experiment (WEMITE) using both off-the-shelf and custom electronics hardware
- Designed a real-time satellite data acquisition system for obtaining live data from landfalling hurricanes using hardware and software of my own design
- Designed and built a system for classroom instruction of weather instrumentation systems using temperature, humidity, wind, and barometric pressure sensors and related computer interfacing equipment
- Troubleshoot and repaired sophisticated weather instrumentation including data loggers and ultrasonic anemometers for various research projects including the West Texas Mesonet
- Constructed detailed mechanical and schematic drawings using AutoCAD
- Performed repairs such as electrical and data acquisition wiring replacement, structural modifications, and metal fabrication and welding on field research equipment and trailers

***Southwest Telecom Consultants, Inc.***    Lubbock, TX    September 2001 to August 2002

Communications Analyst

- Worked with small and rural telephone companies to modernize their networks and achieve their communications goals including implementation of DSL services, microwave-to-fiber network transitions, and related equipment such as DSLAMs, SLCs, and carrier switches
- Designed and installed telecommunications systems for school districts using Panasonic, Nortel, and Adtran hardware
- Performed administration, maintenance, and cutovers on Nortel DMS-10 switches
- Designed, implemented, and installed wireless data communication circuits from site planning to tower construction to network turn-up using Proxim, Western Multiplex, Cisco, and Alvarion equipment
- Performed communications link analysis using PathLoss software and drive-testing of two-way and cellular communications systems to verify expected coverage
- Administered computing and network operations of the Lubb.Net ISP
- Wrote customer billing and management software systems for internet service providers using PERL, CGI, C++, and Bash in Linux and Windows
- Managed day-to-day operations of the corporate local and wide-area networks

**Occidental Petroleum**

Brownfield, TX

April 2001 to September 2001

## Telecommunications Technician

- Repaired and maintained all equipment pertaining to voice and data communications networks in the West Texas and Eastern New Mexico area
- Planned and implemented wide area wireless data networks using Cisco Aironet equipment
- Maintained Rolm CBX and 9751, Nortel SL-1, Meridian Option 11, Norstar MICS, and Lucent Definity G3 telephone systems
- Designed and supervised installation of premise wiring systems and aerial fiber optic long-distance backbones including fiber optic cable splicing and termination
- Monitored, diagnosed, and repaired communications backbones in a mission critical environment including a land-line T1 and frame relay circuits, multiple VSAT earth stations, Motorola trunked and conventional radio systems, and a multi-state DS3 microwave backbone using Harris Constellation and Adtran equipment

**Hayes Industries, Ltd.**

Sugar Land, TX

June 1999 to August 2000

## Assistant Manager of Technology

- Designed, installed, and maintained pre-stress/post-tension cable cutting machinery automation systems using state of the art programmable logic systems and circuitry of my own design using Opto/22 and Omron programmable logic controllers
- Administrated corporate network as well as sensitive financial databases and CAD systems including Windows 95/98/NT, Visual Manufacturing, AutoCAD R14, and Pro/Engineer
- Supervised installation, maintenance, and day to day operations of all telecommunications systems including Comdial FXS, Keyvoice Voicemail, Datavox Telephony Applications, Lucent Partner, Lucent Merlin, frame relay, and BRI/PRI ISDN circuits
- Maintained CNC machine tools such as 5-axis mills, lathes, and EDM in a downtime-critical production environment

**Strake Jesuit College Preparatory**

Houston, TX

November 1996 to February 1999

## Assistant Network Administrator

- Troubleshoot and administered campus-wide computing systems including Linux and Novell servers and Cisco routers, managed switches, and fiber optic backbone hardware

**Skills**

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- Public speaking, especially technical sales presentations
  - Industrial security systems including analog and IP video surveillance and analytics, access control, and various intrusion detection technologies
  - Financial analysis and business accounting
  - HF/VHF/UHF, microwave, and cellular communications equipment and systems
  - Antenna design, analysis, and computer simulation
  - Electrical and electronics circuit design, diagnosis, and repair, especially in RF communications equipment
  - Communications tower design, construction, and climbing
  - PBX and VoIP telephony systems including Nortel Meridian, Cisco Call Manager, and Asterisk
  - Data acquisition systems, especially National Instruments hardware and LabView
  - PERL, C++, Visual Basic, and LabView programming languages
  - Linux programming, system administration, and network integration
  - Carpentry and metal fabrication including MIG and arc welding
  - Industrial automation with Allen-Bradley, Omron, GE Fanuc, and OPTO 22 Programmable Logic Controllers as well as relay ladder logic

## Patents, Professional Organizations, and Certifications

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- U.S. patent pending on a distributed mobile surveillance system
- DVTel: Latitude IP Video V5, Longitude Access Control V5
- Pelco: Troubleshooting Video Surveillance Systems
- Institute of Electrical and Electronics Engineers, IEEE Antennas and Propagation Society, IEEE Communications Society, IEEE Microwave Theory and Techniques Society
- FCC Licensed Amateur Radio Operator since 1994
- Treasurer, Amateur Radio Society at Tech (2001-2006)