Power Tagging Technologies, Inc. Job Description

Position Title: Senior Embedded Firmware Engineer

Reports to: Director Hardware Engineering

Location: Boulder, CO, USA

Position Summary:

The Senior Embedded Firmware Engineer's focus will be on developing, testing, and integrating embedded firmware systems for advanced digital communications that enable communications over the power grid. Other responsibilities as a senior engineer will include spearheading projects, mentoring and providing general work direction to junior engineers, interfacing with various vendors and suppliers, and serving as a subject matter expert to resolve issues during development.

The position requires knowledge and experience in Embedded Linux systems, Board Bring up, Boot loaders, BSPs, and device drivers.

Reporting Functions:

- None at this time

Duties and Responsibilities:

- Develop, test, and integrate real-time Embedded Linux for Smart Grid products, architectures, protocols, and systems.
- Architect implement, design, and test real time Embedded Linux drivers, boot loaders, BSPs, hardware diagnostics, and communications protocols.
- Work closely with Digital Signal Processing, Hardware, and Software design engineers, architects, prospects, and customers to solve cross-functional design issues.
- Provide full product lifecycle support from product definition, architecture, design, implementation, verification test design and implementation, delivery, support, and retirement / replacement, including full lifecycle requirements.
- Assure appropriate system partitioning, architecture, technical performance, scalability, reuse, and DFX (including design for testing and design for maintainability).
- Work collaboratively with other Firmware Engineers and the rest of the Engineering and Operations organization to maximize the use of best practices and the identification, sharing, and reuse of architectures, specifications, methodologies, procedures, test cases, test systems, etc., to maximize success of the overall business.
- Protect the intellectual property produced by the company.
- Perform other reasonably related duties as necessary.

Travel:

Less than 25%

Qualifications and Skills:

- BSEE or BSCS from an accredited institution, with advanced digital communications focus highly desirable.
- 10+ years related product development experience, with a minimum of 5 years of extensive Embedded Linux experience.
- Demonstrated development experience with boot loaders, device drivers, BSPs, and kernel development.
- Strong understating of digital hardware systems with Board Bring up expertise in ARM, PPC, or MIPS like processors.
- Must be expert in C structural programming, proficient in C++, and comfortable with assembly programming.
- Strong understanding of RTOS concepts, including but not limited to, task / context switching, interrupt sub-routines, shared memory, non-volatile memory, multi-processor communications, inter process communications, power-on self-test diagnostics, communications protocol stacks, and resource management issues.
- Texas Instruments DSP / OMAP experience and DSP-BIOS highly desirable.
- Experience in FPGA development using VHDL or Verilog highly desirable.
- Demonstrated experience in protocol development, extending from layer 2 and layer 3 of the OSI model. Knowledge of layers above L3 requirements highly desirable**.**
- Working knowledge of TCP/IPv6. Knowledge of multi-access protocols such as 802.15.4, Zigbee, 6lowpan, and WiFi, is highly desirable.
- Demonstrated ability to quickly learn and master new technologies and techniques.
- High urgency, high energy level process oriented disciplined professional with excellent attention to details.
- Must be able to work effectively as part of a diverse highly skilled team and possess good verbal, written, and presentation communications skills.
- Start-up, small company, or small team experience with a track record of meeting deliverables.
- Must be authorized to work in the United States on a full-time basis for any employer.

The above qualifications are not to be interpreted as a complete and detailed description of all requirements of the job.