

CableLabs

Hardware Engineer

OpenCable Specifications

SUMMARY

The Hardware Engineer, OpenCable Specifications, serves as the hardware specification technical lead in the development of requirements to deliver advanced video and data services to OpenCable devices and their extensions.

The Hardware Engineer will participate in the definition and execution of projects that include advanced video delivery techniques, conditional access systems, content security domains and residential LANs in support of OpenCable initiatives. The individual will participate in interdepartmental technical teams to manage the incorporation of IP data networking and advanced communication services into the OpenCable space. The individual will participate in and/or lead technical working groups consisting of staff members and subject matter experts from the vendor and member community in order to drive consensus on new technical requirements.

This position may require participation in standards activities and presenting on issues of interest to departmental staff and member companies.

FUNCTIONS

- Responsible for technical requirement assessment, spec development, technical consulting, and communications of project accomplishments to member companies and industry.
- Leads the development of hardware extensions and the incorporation of advanced technologies into the OpenCable Host Core Functional Requirements (CFR) using internal and external resources as needed to effectively satisfy business requirements.
- Collaborates with the Senior Architect team and hardware test developers to incorporate traceable and testable requirements into core OpenCable Platform specs to facilitate next-generation digital cable platforms such as OCAP on PC.
- Act as primary technical representative to other departments (Broadband Network Services, PacketCable, CableHome) in the area of IP data networking to migrate new protocols into the OpenCable device space to support cross-project functionality.
- Manages the migration of data networking components, such as embedded Cable Modems, embedded MTAs and embedded Residential Gateways into OpenCable Host device specs and provide guidance to the OpenCable Platform (true2way) team on issues relating to cross-project specs (DSG, eDOCSIS, etc.).
- Manage and support maintenance and updates to the OpenCable Host CFR and its extensions based on project plans, evaluate and author engineering changes, provide technical support and clarification.

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OTHER

- Plan for and produce work product of very high quality.
- Set, gain approval for and meet goals and objectives for area of responsibility making appropriate use of the Company's planning, budgeting, accounting, and project management systems and policies and procedures (See Employee Handbook) to increase overall efficiency and meet corporate financial goals.
- Make appropriate use of CableLabs safety policies and procedures (See Safety Manual).
- Help other CableLabs departments meet goals and objectives. Share knowledge and cooperate with other departments.
- Promote and enhance the Company's image.
- Exhibit advanced organizational, communications and interpersonal relations skills. Exercise initiative in areas of responsibility.
- Maintain, update and improve job knowledge.

REPORTS TO

Senior Hardware Engineer, OpenCable

QUALIFICATIONS

Bachelor's degree with 3 - 4 years of experience or equivalent combination of education and experience.

Experienced professional in STB architecture, RF digital communication concepts, MPEG - 2/4 compression and transport, analog and digital video interfaces.

Knowledge and experience in the core UPnP Device Architecture specification and its extensions, UPnP AV and QoS Architecture, and DLNA Interoperability Guidelines.

Demonstrated working knowledge of PHY/MAC networking layers including Ethernet, USB, 802.11a/b/g; network layer protocols including IP, ICMP, IGMP; transport layer protocols including TCP/UDP and application layer protocols and mechanisms including HTTP, DHCP, SNMP, SIP, SDP, SOAP, SSDP, GENA, RTSP, RTCP and RTP as they relate to current specs and future versions.

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Knowledge of Public Key Infrastructure methods, symmetric and asymmetric cryptographic algorithms, key exchange protocols, message digests and message authentication codes.

Sufficient knowledge of the Java programming language to understand the core class libraries of the MHP API and the OCAP API as they relate to current and future hardware specs and extensions.

Demonstrated ability to work individually as well as part of a team. Proven ability to estimate project timelines and deliver to commitments. This individual must be an excellent communicator with solid technical writing skills. Is an experienced professional capable of handling projects with well defined objectives that have a mid-term to long-term focus. Strong problem solving skills and ability to articulate complex technical issues to both technical and non-technical audiences.

Willing to travel as needed.