



**ALLSEEN  
ALLIANCE**

## **AllJoyn.js Feature Proposal Presentation**

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# Project Description

- Introduction

- Embedded systems programming is hard and requires specialized skills and tools. For IoT to really take off it needs to be much easier and faster to program IoT devices.
- This project enables the development of AllJoyn™ IoT applications on embedded microcontrollers in JavaScript™, the programming language of the world wide web familiar to hundreds of thousands of software developers.

- Description

- AllJoyn.js combined the AllJoyn thin core library (AJTCL) and base services with a small-footprint ECMAScript 5.0 compliant runtime engine. A set of JavaScript APIs provide an easy to use abstraction layer over the AllJoyn core, base services, and the device IO peripherals.
- The combined implementation is targeted at microcontrollers having a minimum of 128K RAM and 500K flash but is also designed to run on Linux and Windows.

# Scope

- Integrate AJTCL with Duktape embedded JavaScript engine
  - Integrate
    - AllJoyn onboarding
    - Events & Actions
    - Config
  - Provide for OTA installation of script files
  - Enabled remote debugging
- Abstraction layers for the following functionality:
  - AllJoyn core
  - Control Panel Service
  - Notification Service
  - IO (GPIO, ADC/DAC, etc.)
  - Timers
  - Interrupts

# Dependencies

- AllJoyn 14.06
  - For initial contributions
- AllJoyn 14.10
  - For experimental release
- Duktape embeddable JavaScript engine
  - <http://duktape.org/>

# Project Name

- Proposed name for the project
  - AllJoyn.js
- Proposed name for the GIT repository
  - alljoyn-js

# Proposed Working Group

- Proposal for this project to be a part of the following working group
  - CORE

# Committed Project Resources

- Maintainer
  - Greg Burns, Qualcomm Connected Experiences
- Committers
  - Peter Krystad - Engineer, QCE
  - Greg Burns - QCE
- Contributors
  - Sunvir Gujral, QCE
  - James Prestwood – QCE
  - Jessica Bahr, QCE
  - Sami Petteri Vaaral - Independent (Duktape maintainer)

# Proposed Release Schedule

- Initial contribution
  - Shortly after project approval
- Initial release aligned with 14.10
  - Will be marked experimental
  - Supported on Linux for evaluation
    - Embedded platforms to follow





# Thank you

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