Project Proposal

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1. Description

We want to use AADL to model a wireless router system. A wireless router is a router for users to access the Internet with wireless coverage. It can be viewed as a repeater that forwards the broadband network signals from the home wall to nearby wireless network devices (laptops, WIFI phones, tablets, and all devices with WIFI) via the antenna.

2.Milestones

Date	Content
Mar 13th	Submit project proposal
Mar 20th	Submit software logical architecture
Mar 27th	Submit physical properties model
Apr 3rd	Add nominal mode
Apr 10th	Add error models
Apr 17th	Complete AGREE verification
Apr 24th	Complete Resolute verification
May 1st	Submit final project

3.Measures of qualities

Quality	Measure
Efficiency	It should take less than 1 minute from completing the configuration to setting the available WIFI.
Availability	When user completed configuring and restarting the router, it should provide an available WIFI which can be used.
Error tolerance	If user's configuration is wrong, the router will not be broken. And it can be reset and use again.
Ease of learning	Users can configure it by themselves according to the handbook.
Correctness	When the users do the right configuration, the router can provide an correct WIFI according to the configuration.

4.Outcomes

An AADL model for wireless router including software logical architecture, physical properties model, nominal mode and error models. We will complete AGREE and Resolute verifications. And test the qualities of the system.