CE in a Connected World
Project Proposal
Grading Criteria 2017

The objective of the proposal is to help you think in a formal and structured manner about your project. You should think not only about the ultimate goal of your project, but also about the approach you will take to reach that goal. This involves thinking about the tools you will need to use, the way you need to break down and compartmentalize your project into manageable tasks, the milestones you will need to set for yourself along the way, documentation, testing, and finally the deliverables of your project.

Remember that we don't much care for the aesthetic properties of projects in this class – only that they are deeply technical projects showing how you have mastered a topic. For instance by showing how you either changed existing methods (such as adding encryption to a cleartext communication protocol), or have created your own protocol to uniquely address an existing challenge. With this in mind, and with the outline which follows, you can chart out a course that ensures your project's successful completion by the end of the semester.

Title & Team Information	Title of the Project & email addresses of team members
Introduction (20) ***2-3 paragraphs***	Introduction and background to the project and the problem you are trying to solve. Indicate the scope of any prior artwork, such as having worked on this project in a different class or at your place of employment. Think about the problem you are trying to solve -- accessibility, confidentiality, availability, reliability, etc., and show how you intend to solve the issue plus what specific areas of course content it draws upon (AES, OAUTH, etc.).
Resources (10)	A complete outline of the required resources for this project. Resources are not just limited to "Wireless" or "Linux", they are a detailed list of the components you need to use for your project. For example, a software project may require the use of a compiler, debugger and programmer, a protocol analyzer, licenses, administrator privileges, network access (private LAN), etc. Be specific. Don't just list "Linux", say which distro you will need to use. Similarly, a hardware project may require all of the above, plus bread boarding equipment, specific development boards, lab equipment (solder, scope, etc.), etc.
Technical Risk Areas & Risk Management (20) ***4-6 major risks***	Most times a project fails not for lack of time or effort, but rather for unanticipated and unaccounted factors. It is therefore important to think about issues which are not directly related to your project but which will nevertheless impact it. As a very simple example, you may need to use a tool which has a learning curve but if you don't foresee its use, or discount its learning curve, it may negatively impact your project timeline. This section

	should outline half a dozen potential problem areas and show that you are adequately aware of these challenges.
Technical Approach (40) ***2-3 pages***	Outline the technical approach from beginning to the completion of the project (an 8 week runway). Describe how you intend to modularize your project and explain your thought process and approach, detailing specific tasks and the order in which they need to be completed. For teams, also list each team member's exact responsibilities and contribution towards the project in separate sections.
Milestones (10)	Weekly milestones for each Monday starting with Monday March 20, ending Monday May 1st. (7 Mondays, including the Patriots Day holiday). The Milestones should show progressively what will be accomplished, and it will have to match up to corresponding Git commits for the week ending on Monday. You are required to commit your code on a weekly basis for these 7 weeks. Note that this section needs to be both *reasonable and detailed*, not a simple statement to the extent that "[you] will have encryption working by Monday March 20th".

This assignment will be graded out of 100 points and count towards 20% of the Final Project grade. Team members will receive the same grade for each team member on this assignment.

Assignments are due in PDF format, uploaded to Blackboard by midnight of Monday March 13. Please make sure to follow the strict file naming standard for naming your PDF file:

Individuals: ProjectProposal-FirstnameLastname.pdf (e.g. ProjectProposal-BabakKia.pdf)
Teams: ProjectProposal-FirstnameLastname#1-FirstnameLastname#2.pdf
(e.g.ProjectProposal-BabakKia-ElonMusk.pdf)

We will have 10 minute presentations of projects (5 minutes project, 5 minutes Q&A). Presentations will take place Monday March 13 with a pre-determined ordering of presentation. Depending on the number of projects we may use more than one class day to cover them.

Note that your Final Project & Report will be on the order of 40 pages long (regular character and line spacing, no code snippets). The material above can be used as part of the Final Report. Individual team members will receive individual Final Project grades.