**Real Time Communication in Web-Browsers**David Komissarov, Mohamed Abdelfattah

***Abstract***: *(Optional, usually 120-150 words)*

1. **Motivation**

The reason why we chose this topic, was how important this standard is for the applications we use. Real-time communication is a valuable tool that many may take for granted. We would like to shed some insight, on something that is used by nearly everyone. I believe this will be a good topic considering the IFS program. Our peers should already have decent understanding on basic concepts that may be used to implement this standard. Hopefully, this will make it easier for us to communicate any new information. In order to extend the class’s knowledge on web browser communication.

1. **Methodology/Approach**

We plan to make a short video, in order to brush up any information that the class should know. Like any related protocols and procedures. We also plan to use Prezi to organize our information in a nice visual presentation.

1. **Topic Outline**

Introduction:  
- Provide a quick summary, and examples too help understand web-based real-time communication  
- Discuss the history of WebRTC IETF workgroup , like important developments, and uses.   
  
Overview:  
-Provide a run-through of related RFCs (RFC5245, RFC7478, and RFC7675) like their purposes, and usages  
-Using RFC use cases for web applications, and explain in detail the purpose for each RFC, and how they are related to WebRTC

Security Concerns & Solutions  
- Talk about security issues, and concerns relating to WebRTC, and provide solutions. RFC7675, which describes a new consent mechanism using ICE( Interactive Connectivity Establishment ) providing a new usage for STUN. Could provide Wireshark examples.  
  
Importance  
- Give examples and explain using RFC use cases for web applications, and explain in detail the steps taken to establish real-time communication between web applications.

1. **Timeline**

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| **Week No.** | **Milestone** | **Deadline** |
| 2 | Select project topic and create a group | July 18, 2016 |
| 3 | Finish the reference readings | July 19, 2016 |
| 3 | Discuss the research topics with group members | July 20, 2016 |
| 4 | Create notes for reference readings, Which will later be used to write the report |  |
| 4 | Brainstorm any presentation ideas, or methods of explaining topics |  |
| 4 | Work on presentation content |  |
| 5 | Start project report, try to finish majority of the report |  |
| 5 | Finish project presentation slides | August 3, 2016 |
| 6 | Finalize report |  |
| 6 | Submit report | August 12, 2016 |

**5. Expected Results**

We would like to learn more about what IETF structure and standards.   
-Learn more about the processes that go behind WebRTC related applications.  
-Learn the security issues related to usages.  
-Be able to create an informative and easy to follow presentation

**References**

[*https://datatracker.ietf.org/doc/rfc7478/*](https://datatracker.ietf.org/doc/rfc7478/)

*<https://datatracker.ietf.org/wg/rtcweb/charter/>*[*https://datatracker.ietf.org/doc/rfc7675/*](https://datatracker.ietf.org/doc/rfc7675/)

*Note: (1) replace the description and example given in this document with your contents. (2) you might be contacted to revise your proposal after you submit it. (3) I recommend you put enough details in this 2-page document.*