

# Paper Outline / Road Map

LIG - Verimag

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## 1 Abstract

we will keep it to the end.

## 2 Introduction

### 2.1 General introduction

- IEEE 802.15.4 overview (1 paragraph).
- TSCH Table Structure.
- 6top protocol and cell reservation.

### 2.2 The project objectives and Results

- Randomity of cell selection in 6 top.
- Identifying the problem.(collision in the Dedicated cells of the TSCH tables between neighbor nodes)
- The suggested solution. (local mutual exclusion while reserving cells using 6top protocol)

## 3 Background

### 3.1 6top cell reservation

- The rule of 6top.
- 2-step 6top Transaction
- 3-step 6top Transaction
- The communication of the cell reservation and deletion in the shared slot.

### 3.2 filtering of the RX at the mac sublayer

currently reading for This section *to be updated soon*

### 3.3 The concept of collision, hidden and exposed terminal.

(collision only occurs at the reception)

## 4 Proposed Mechanism

- The new created structure that will reserve the cells taken by the neighbors.
- The use of the cell reservation Response to update the created structure.
- An schematics to explain the problem and the solution.
- Why we need to buffer the reserved cells , and how it's going to improve our approach.
- The calculation of the buffer length.
- The used value and why it fits the topologies.

## 5 Results

*to be discussed with the supervisor, I will supply many options for the representations to choose the best fit for us*

## 6 Related Work

- The work done by Muraoka et al (the simulator creators), "*6 Top House-keeping*"
- The work done by Phan Duy et al , a paper published in 22/03/2017 dealt with the same problem we are trying to solve.(I will supply you with the paper)
- Compariasno between Housekeeping and our approach.

## 7 Conclusion

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## References

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