# Pyramid Probabilistic Content **Reconciliation and Prioritization** for V2V Communications

#### ABSTRACT

- In this paper, we propose PYRAMID, a multi-layer probabilistic abstraction framework, to efficiently abstract and approximate contents with different granularity.
- Using the multi-layer Pyramid data structures, a vehicle is able to quickly get an impression of the contents on the other vehicle before the costly massive content exchange process starts.
- Particularly, the coarse-granularity layer estimates the contribution from potential transaction partners so that tasks could be prioritized accordingly.

#### **EXISTING SYSTEM**

- Emerging vehicle-to-vehicle communication technologies, such as Dedicated Short Range Communications, offer unique opportunities to realize wireless peer-to-peer systems for vehicles.
- A critical component in a vehicular peer-to-peer system is an efficient content reconciliation mechanism, which guides two communicating vehicles to match their interests, prioritize task execution, and ensure redundant contents not to be exchanged.

#### **PROPOSED SYSTEM**

- PYRAMID abstraction provides a probabilistic representation of contents with different granularity.
- Using PYRAMID abstraction, two communicating vehicles should exchange sketches and summaries of content items before engaging costly content exchange process.
- Our in-lab experiments re-veal that our enhanced Z-Smallest Sketch is indeed the best option for coarsegranularity sketches, while Bloom Filter is a reasonable fine-granularity summary solution for membership tests.

### HARDWARE REQUIREMENTS Intel core 13 Processor RAM 2B• 20 GF Hard Disk

## SOFTWARE REQUIREMENTS

: LINUX

• Operating System

- Tool
- Front End

- : Network Simulator-2
- : OTCL (Object Oriented Tool Command Language)

#### REFERENCE

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