

# title

## Whitepaper

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Chorus Technology

**Abstract.** I am an abstract - pet me.

**Keywords:** keywords

## 1 Introduction

### Work-In-Progress

The remainder of this paper is structured as follows: Section 2 introduces supplementary literature and related work. Section 3 then outlines the vision of Chorus Technology as well as different use-cases. Afterwards, Section 4 analyses the requirements of the our system and outlines the resulting system architecture that we derive from the requirements. Afterwards, Section 5 expands on the system-engagement processes for the stakeholders, followed by Section 6 that introduces the Chorus prototype as well as feasibility evaluation. Section 7 provides an discussion and an analysis of related projects. Finally, Section 8 concludes this work and provides an outlook on future work.

## 2 Technical Background and Related Works

The following section provides background information and describes related works regarding previous ideas and concepts that focus on a blockchain-based VANET platforms. First, Section 2.1 introduces the general concepts of blockchain technology, terms and frameworks. Afterwards, Section 2.2 and Section 2.3 focus on the fundamentals of autonomous vehicles as well as vehicular ad-hoc networks. Finally, Section 2.4 focuses on related work.

### 2.1 Blockchain Technology

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maybe already cite unchained and whisperkey paper?

### 2.2 Autonomous Vehicles

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### 2.3 Vehicular Ad-Hoc Networks - VANETs

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### 2.4 Related Work

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## 3 Longterm Vision

Intro

### 3.1 Use Cases

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### 3.2 Human to Human

### 3.3 Human to Vehicle

### 3.4 Vehicle to Vehicle

### 3.5 Vehicle to Infrastructure

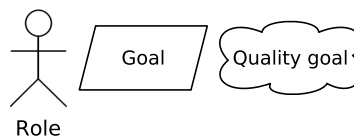
## 4 System Design and Architecture

Intro

### 4.1 Functional Goals, Quality Goals, Stakeholders and Requirements

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we leave out emotional goals here



**Fig. 1.** Selection of AOM notation elements.

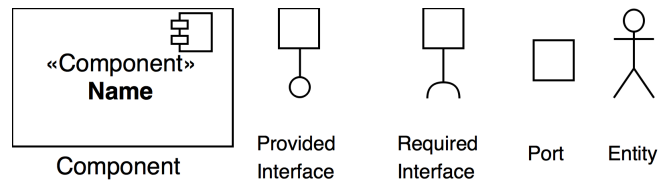
#### 4.1.1 Top-Level AOM Goal Model

#### 4.1.2 Refined AOM Goal Model

#### 4.2 High-Level Architecture

#### 4.3 Component Diagrams

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**Fig. 2.** UML-component diagram notation elements.

#### 4.4 Smart Contract Lifecycle Management

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#### 4.5 Library / API

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### 5 System Engagement Processes

Intro

#### 5.1 Sequence Diagrams — or BPMN representation of Processes

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#### 5.2 Auction Algorithm

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#### 5.3 Token Economics and Value Proposition

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### 6 Prototype and Feasibility Study

Intro

## **6.1 Prototype Scope**

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## **6.2 Evaluation**

**Work-In-Progress**

## **7 Discussion**

Intro

### **7.1 Critical Analysis**

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### **7.2 Related Work**

**Work-In-Progress**

## **8 Conclusion and Future Work**

We conclude ...

**Work-In-Progress**

## **References**