



# Industrial Use Cases for In-Network Computing

<https://www.ietf.org/id/draft-kunze-coin-industrial-use-cases-04.txt>

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Was:

This document discusses selected **industrial** use cases to demonstrate how COIN can be applied to the **industrial domain** and to point out essential requirements of **industrial applications**.

Is:

This document discusses some use cases to demonstrate how real applications can benefit from COIN and to showcase essential requirements that have to be fulfilled by COIN applications.

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- 5. Immersive Devices . . . . . 11
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Will be moved from *draft-sarathchandra-coin-appcentres-03*
  - 5.2. Edge AR/VR . . . . . 11  
Could be moved from *draft-montpetit-coin-xr-03* (expired)  
Other sources: *draft-geng-rtgwg-cfn-req-00*
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Does this approach make sense?

- **Short motivation that describes the general setting/scenario**
  - ▶ 3.2: CPSs increasingly complex; local control not sufficient; central control might help
- **Concise definition of the use case + key requirements**
  - ▶ 3.2.1: Simple control loop; different factors influence it; requires low & stable latencies
- **Existing/Envisioned ways how use cases could be realized + research questions**
  - ▶ 3.2.2: Put approximated, imprecise control into the network for fast response; slower response from afar; how can the approximations be derived?

## 7. Taxonomy ..... 12



Goal: Classify the use cases and find common building blocks

- **Analyze the use cases**

- ▶ Requirements
- ▶ Algorithmic properties
- ▶ ...

Get in touch if you have additional use cases !

- **Generalize use cases**

- ▶ Find common requirements/combinations of requirements/...
- ▶ Find common enablers/building blocks/...

- **We need more use cases for that 😊**

- **Status: RG adoption?**
- **Need: Input on our approach to describe/include use cases**
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  - 3.2.2. Approaches . . . . . 6
- **Need: New contributors with new use cases**
  - ▶ We will add the draft sources to the RG github to facilitate text contributions
- **Plan: Move use cases from *draft-sarathchandra-coin-appcentres-03***
  - ▶ Follow the use case classification examples
- **Plan: Start with a rough analysis as soon as new use cases are included**