Motion Detection And Local Decision Making

Detecting motion at the gateway level on an encrypted video stream coming from security cameras

FENTEC

Objective

Guaranteeing the **compliance with complex regulations or requirements** without compromising the functionality and security of the whole system.

Target

Security industry and companies interested in:

- **Security camera systems** with strict confidentiality and privacy requirements
- **IOT systems** in general, when an edge device must send encrypted data through a complex network architecture to a backend.

Previous work

- Implementation of **efficient motion detection on video streams** obtained from previously recorded video files.
- Optimization of motion detection using less bandwidth than initially.
- **First version of the prototype**!

Challenges

- The **video processing** is CPU intensive.
- **Small objects** are more difficult to detect using a naïve motion detection approach.

Next steps

- Implementation of the **Functional Encryption** using the FENTEC library and evaluation of its usability in practice.
- Further refinement of the **motion detection settings**.

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