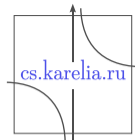




Petrozavodsk State University
Department of Computer Science



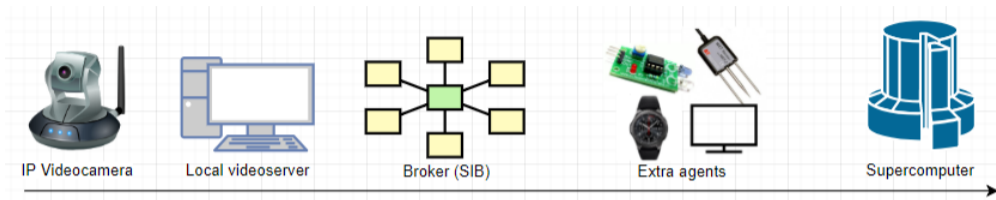
Nikita Bazhenov, Dmitry Korzun

A Mobile Application for Presence Detection based on Face Recognition

This research is financially supported by
the Ministry of Education and Science of Russia within project # 2.5124.2017/8.9
of the basic part of state research assignment for 2017–2019.
The work is implemented within the Government Program
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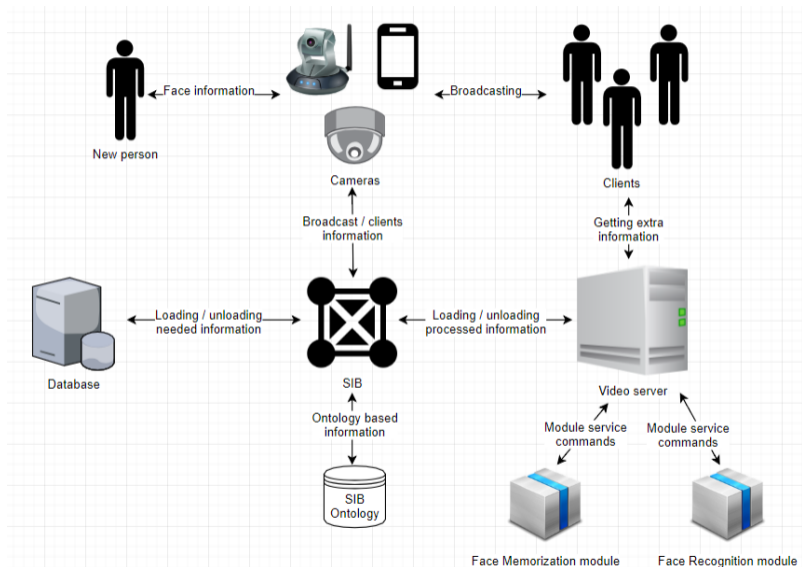
23rd FRUCT Conference
November 15, 2018, Bologna, Italy

Problem: An IoT-enabled distributed system

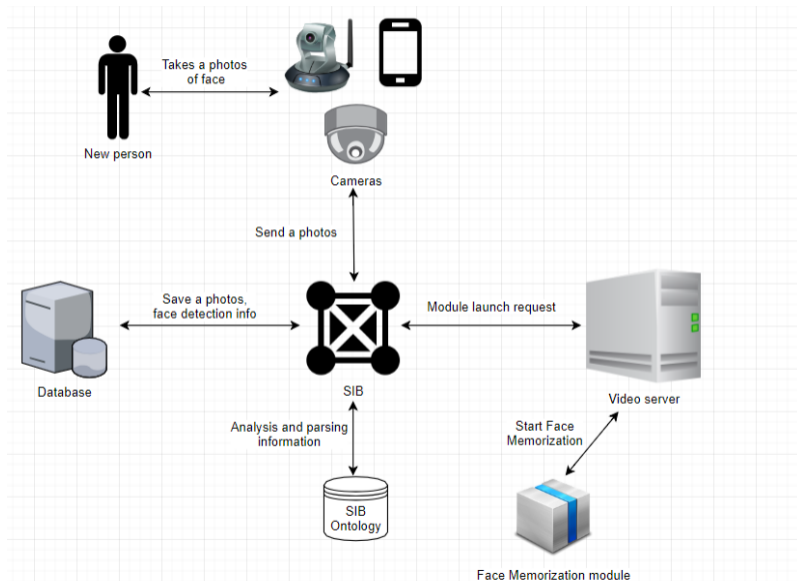


- Local video server implements traditional video data processing, such as Face memorization and Face recognition
- Semantic Information Broker (SIB) makes a shared integrated view on captured video, video processing resources, and computed results
- Agents run on surrounding devices to perform some part of data processing
- Supercomputer provides remote resources for complicated data processing

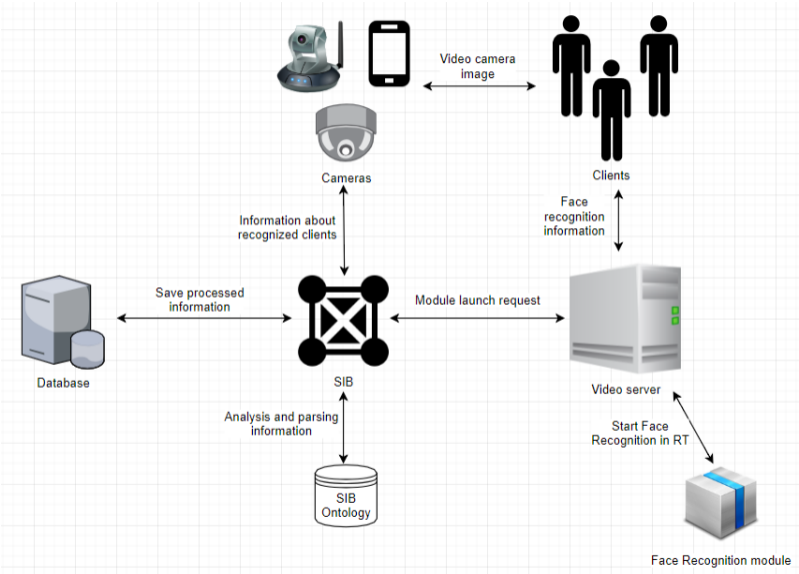
Prototype Architecture



1st phase: Memorization



2nd phase: Recognition



Implemented Demo

- Based on `github.com/ageitgey/face_recognition`
- Memorization module
- Recognition module

