

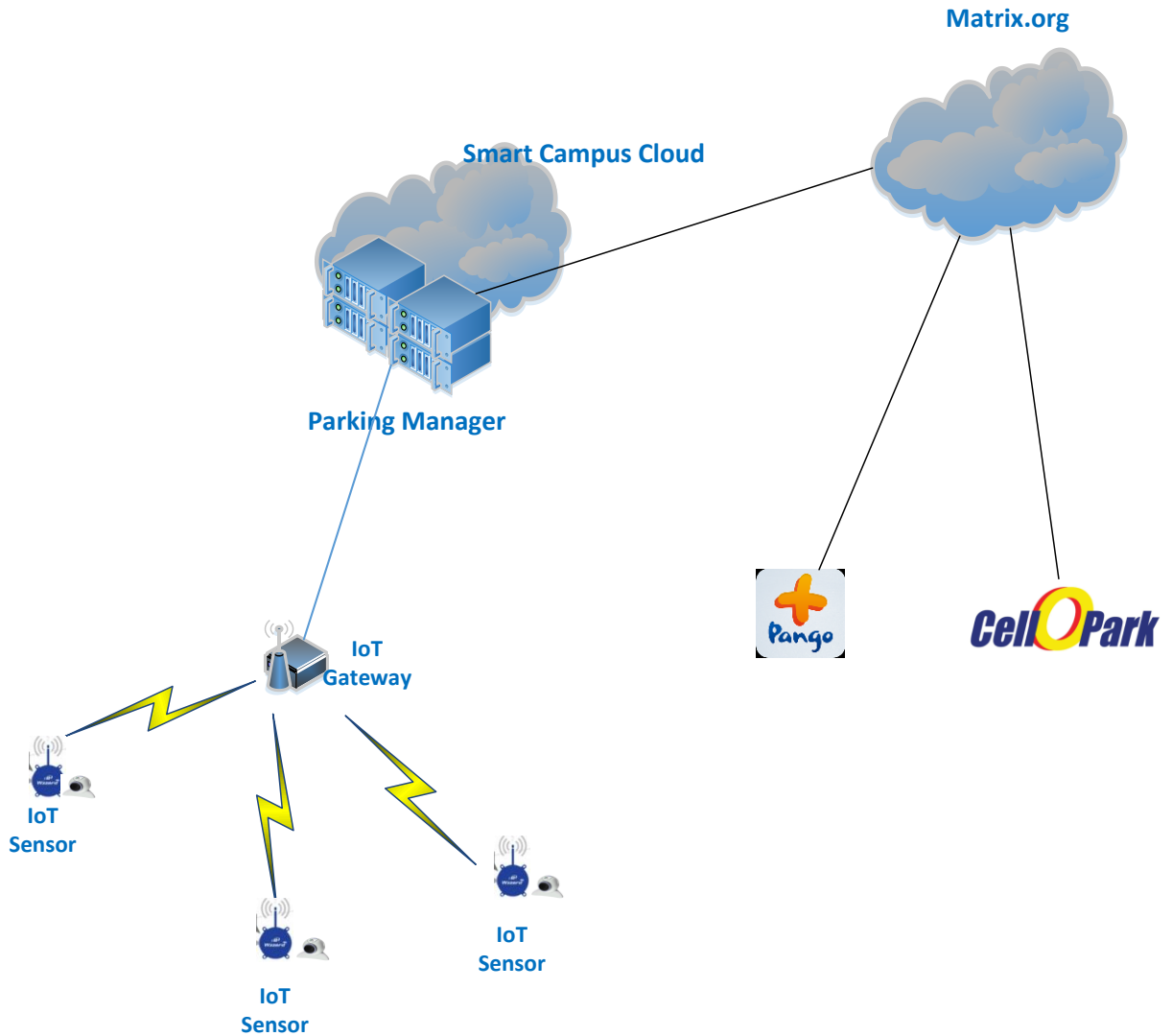


## **Billing For Smart Parking Project – Using Matrix.Org**

### **Abstract:**

One of the fundamental requirements from a Smart Parking implementation is its ability to perform billing for the parking usage. This can be achieved by connecting the Smart Parking Manager (SPM) to private parking applications such as Pango or CelloPark.

The connection between PSM and the applications can be done using Matrix (<http://matrix.org/>). Matrix is an open standard for interoperable, decentralized, real-time communication over IP. Matrix defines the standard, and provides open source reference implementations of Matrix-compatible Servers, Clients, Client SDKs and Application Services to allow anyone to create new communication solutions or extend the capabilities and reach of existing ones.



## Goals:

- Join the matrix community of topnotch open source programmers
- Design, develop and deploy a new bridge between Matrix and the following: PSM, Pango, CelloPark
- PSM should be able to communicate with Pango or CelloPark via Matrix – and update regarding the parking usage
- Cellopark API: <http://dev.cellopark-il.com/Help/Api/POST-api-Authorization>



- Pango API : TBD

**Requirements:**

Web programming, web services

**Guided By:**

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