

PLEDGER

Paving the way for next-generation
edge computing

USE CASES

Mixed Reality applications on the edge

Computation capacity for achieving high resolution graphics at the edge is imposing new requirements for performance, scalability and QoS. Industrial players are increasingly demanding applications of greater complexity which require a higher level of performance. Pledger will explore the possibilities of utilising edge computing, making the usage of remote rendering possible by outsourcing the demanding processes like calculations, application logic, or content rendering to other fog nodes or the cloud.

Edge infrastructure for enhancing the safety of Vulnerable Road Users (VRUs)

Ensuring the road safety for vulnerable road users (VRUs) in metropolitan areas is required in order to reduce the number of accidents and serious injuries or even fatalities. Pledger will evaluate how different types of sensors and radio technologies supported by the city infrastructure can be used to enable edge computing-assisted risk detection and mitigation for VRUs in an everyday scenario in the city of Barcelona.

Manufacturing the data mining on edge

Data recording in combination with self-learning algorithms allow modern production systems to precisely determine the condition of a machine, predict any pending maintenance and ensures complete component traceability. However - edge devices available today often cannot provide the desired performance for these computing operations. Pledger will explore, implement and test possible data and computation transfers to the cloud.

Pledger allows:

Edge Computing

Providers to enhance the stability and performance effectiveness of their edge infrastructures, through modelling the overheads and optimal groupings of concurrently running services, runtime analysis and adaptation, thus gaining a competitive advantage;

Edge Computing

Adopters to understand the computational nature of their applications, investigate abstracted and understandable QoS metrics, facilitate trust and smart contracting over their infrastructures and identify how they can balance their cost and performance to optimise their competitiveness and monitor their SLAs;

Third parties to act as independent validators of QoS features in IoT applications, enabling new decentralised applications and business models, thus filling a large gap in the emerging Edge/IoT computing market landscape.

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 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871536

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THE PLEDGER PROJECT

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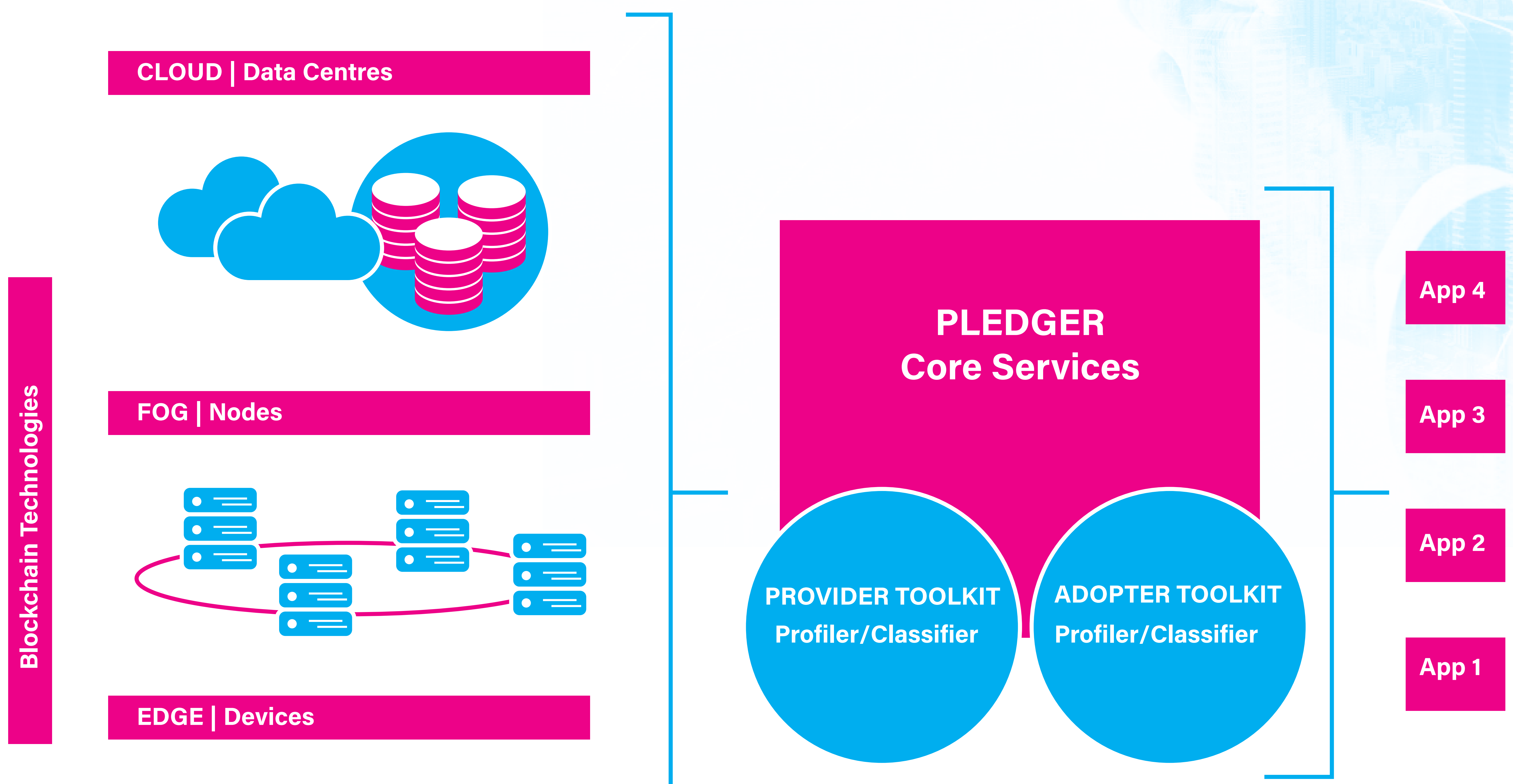
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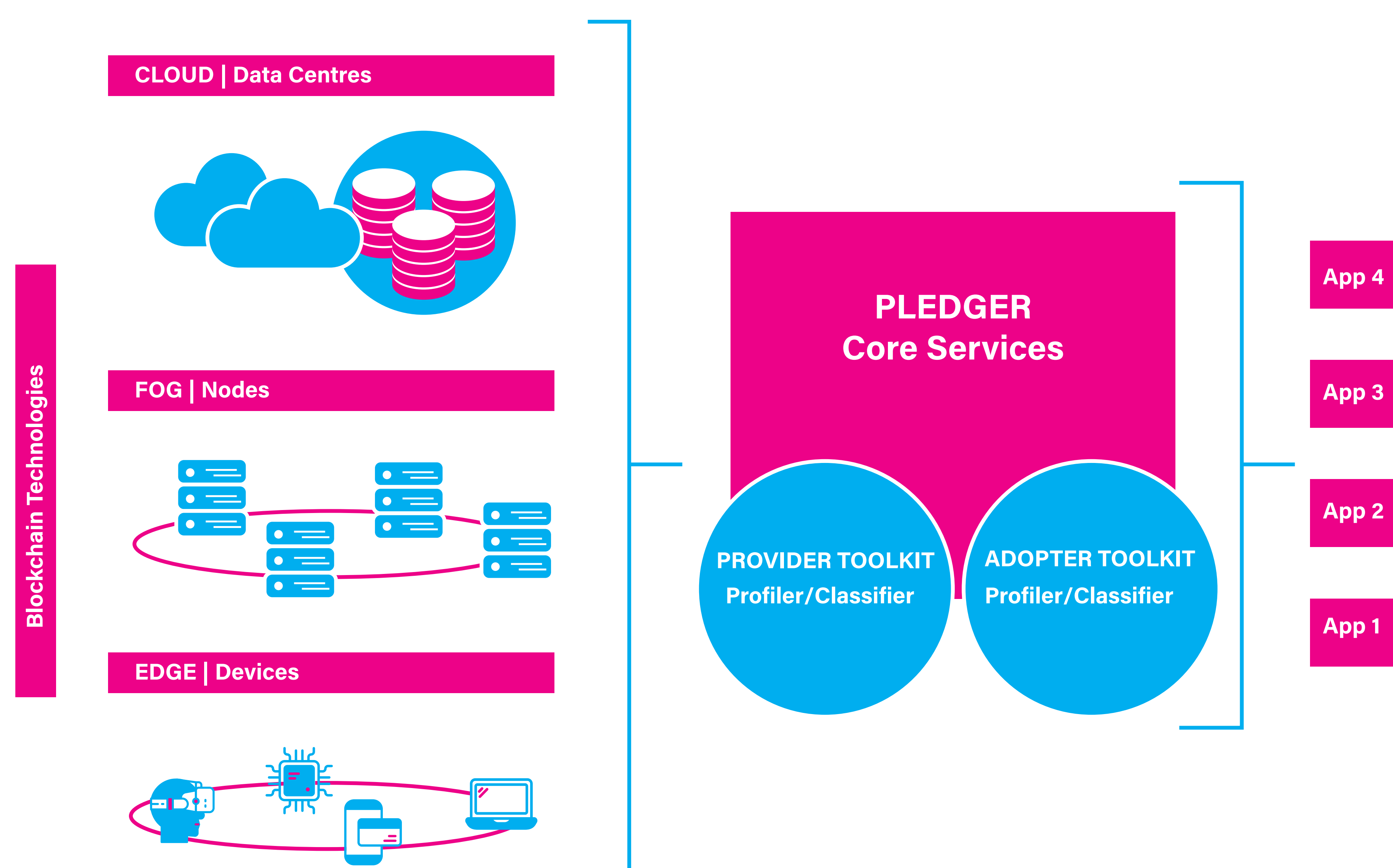
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