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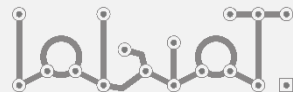
- The brand.
- Our skills.
- Our IOT architecture.

WEB SCADA CENTRALIZED
CENTRALIZED WIRELESS/CABLING BUS

- LobiOT One.

General description
Physical interfaces
Technical specification
Firmware specification

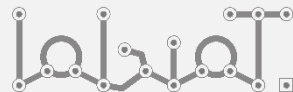
- Thanks.





The Brand

- **Lobiot** is a new **brand** created by **Lobo Brothers** company.
- **Lobo Brothers** is a **technology consultants** company situated in Madrid (*Spain-Europe*).
- **Lobo Brothers** is a young company but made up of **professionals** with a **lot of experience** and qualification in the sector.
- **Lobiot** is a new **brand** of **IOT** industrial products with the next focus:
 - Creating the **best** and **most competitive IOT** industrial **products**.
 - **Simplifying** the **configuration** and connection processes of IOT devices.
 - Using the **most common IOT protocols** and net **interfaces** (*API REST JSON, TCP-IP, Modbus, RS485, Wifi, etc*).
 - With a **database in each IOT controller** to get a **back up** all the **data** and securing it.
 - Using **Linux/Windows** based operating system to get all the power of the IOT devices.
 - With an all **configurable** firmware to **integrate** in it all possible future systems (*LoraWan, Mbus, etc*).

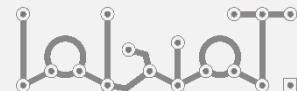




Our Skills

In the next table are our main skills:

Team	Skills
Comunications, Operating systems and security (Leader: Tomás Lobo)	<ul style="list-style-type: none">▣ Programming and architecture of all kinds of virtualization systems (<i>Proxmox, XCP-ng, Kvm, Vmware, etc.</i>)▣ Architecture all kind of networks (<i>structured data cable TCP-IP, wifi, LoraWan, Optic fiber, radiofrecuency, zigbee etc.</i>)▣ Consulting and programming of al kind of security systems (<i>routers, smart switches, anti hacking systems , firewalls, etc.</i>) and creating the most secured environments anti intrusions.▣ Customizing all kind of Linux and Windows operating systems, servers and workstations.
Industrial IOT (Leader: Jose Luis Béjar)	<ul style="list-style-type: none">▣ Designing of all kind of electronic unit shells, and all kind of pieces, using Autocad CAD/CAM/CAE software.▣ Selecting express mannufacturing process (<i>3D printing, stereolithography, etc.</i>)▣ Programming industrial devices and all kind of sensors (<i>TCP-IP to RS485, TCP-IP to RS232, Modbus, Mbus, RS485, RS232, etc.</i>).▣ Designing IOT industrial systems including all layers of the process (<i>IOT arquitecture, prototiping, modeling, manufacturing, testing</i>).▣ Designing and customizing all kind of electrical and electronical systems (<i>electromecanical distribution and control panels, water pumping systems, energy monitoring systems, sensor local and remote systems, all kind of industrial manufacturing systems, etc.</i>).

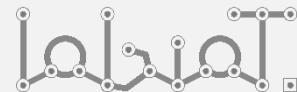




Our Skills

In the next table are our main skills:

Team	Skills
Firmware and software development (Leader: Santiago Lobo)	<ul style="list-style-type: none">• Programming in all kinds of languages (<i>C#, java, php, python, etc.</i>).• Programming for Windows and Linux operating systems (<i>Web management systems, hosted services, APIs, Docker microservices, etc.</i>)• Programming of all kinds of databases (<i>SQL Server, MySQL, MongoDB, etc.</i>).• Programming of all kinds of peripheral PCB systems (<i>GPIO ports, TTL interfaces, etc.</i>).• Programming of GPRS systems and GPS systems.• Programing custom IA algorithms
Technical advice and consulting (Leader: Raúl Pérez)	<ul style="list-style-type: none">• Always up to date on new web standards, modern best practices, the latest frameworks, improvements to the user experience, and other changes in technology. Constantly learning ... to help my team.• 2020 JAMstack, DRY “Don’t Repeat Yourself”, XaaS (<i>anything as a service</i>), IoT, Cognitive technologies, AI Adoption (<i>Bots, ChatBots</i>), Smart Automation, “AutoML” for “auto-machine learning, GraphQL, Microservices, Self service BI, Reactive Programming, TypeScript, PWA (<i>Progressive Web Apps</i>), Blockchain, Docker, Container• Demonstrated ability to multi-task in a dynamic and agile environment.• Excellent Time management, Organizational skills.• Technical design lead/developer as part of an IT Systems Engineering team or in IT Client Account Management



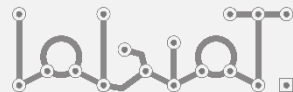


WEB SCADA CENTRALIZED

Hardware: CENTRALIZED LINUX / WINDOWS SERVER
Software: CENTRALIZED WEB SCADA

FEATURES OF THE WEB APPLICATION "CENTRALIZED WEB SCADA":

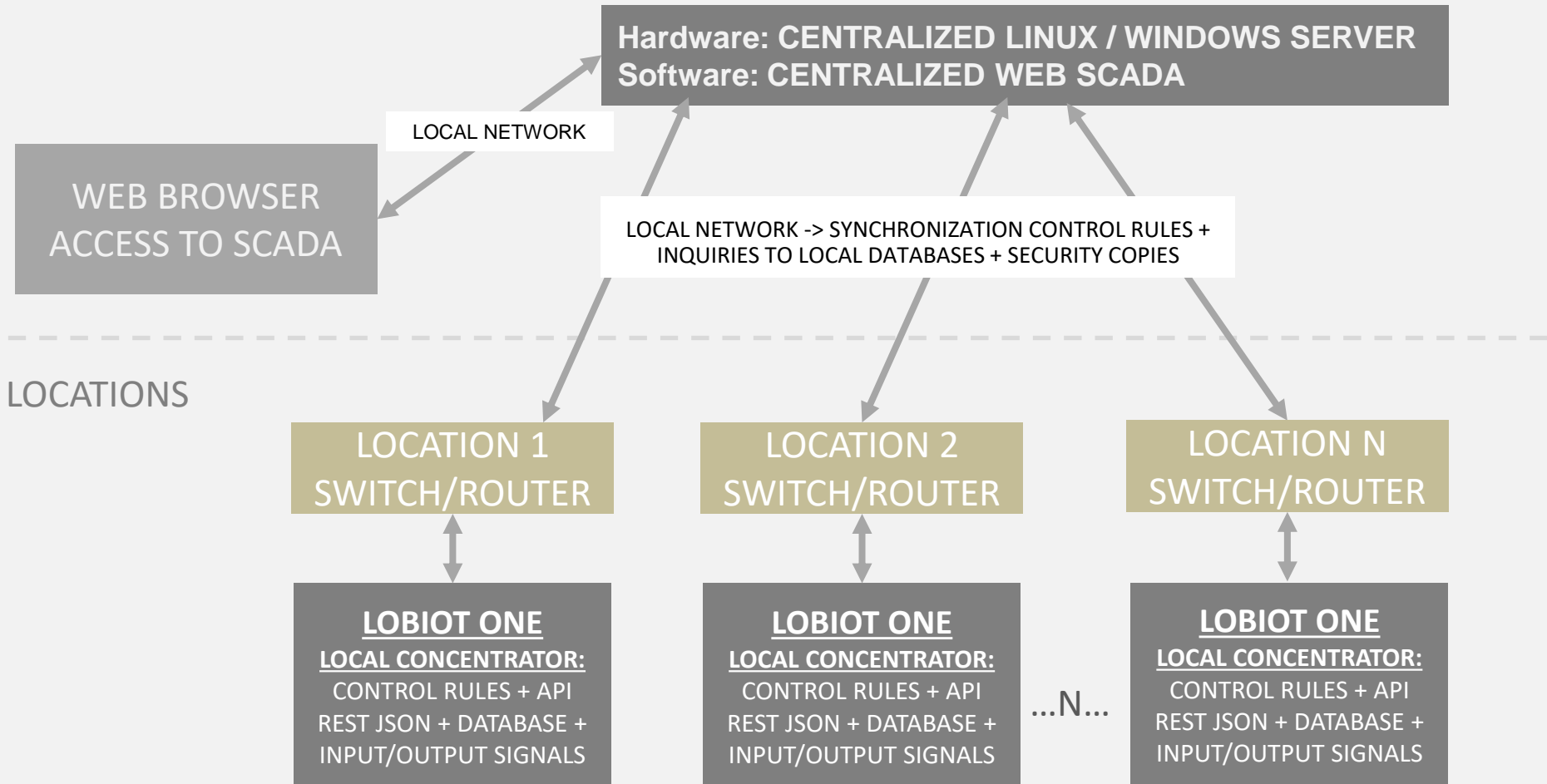
- Authentication by user and password. By default a "god" user will be created (*with total powers*). From such user we will create the new environment of hierarchies and users.
- Creation of users according to different hierarchies. Total management of users. Possibility to apply any level of hierarchy to each element of SCADA.
- Creation of "control rules", of each concentrator / s, independently or together, through the use of simple "graphical schemes". This will give us the possibility to "program" each LobiOT One as needed.
- Immediate synchronization of the control rules in each concentrator of the network, to which changes apply.
- Display, in real time, of all the "field variables" and "states" of the field devices (temperatures, humidities, on / off states of digital inputs and outputs).
- Generation of alarms via email, SMS.





Our IOT Architecture

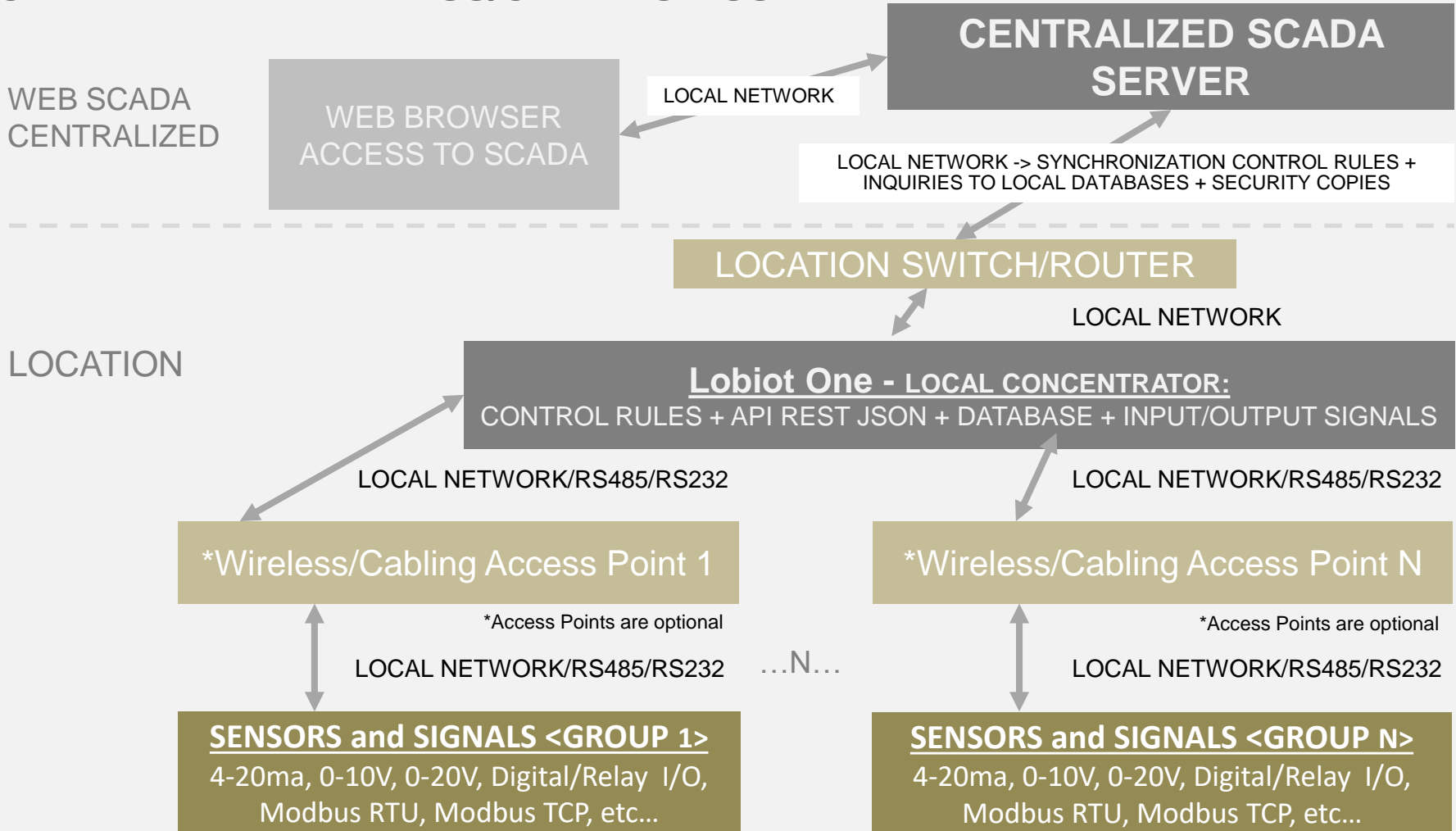
WEB SCADA CENTRALIZED





Our IOT Architecture

CENTRALIZED WIRELESS/CABLING BUS





General Description

- ▣ **Lobiot One** is the IOT signals concentrator of Lobiot.

- ▣ Our purpose doing the **Lobiot One** is **include** in one unit the **best** of the next **concepts**
 - **Easy management** of the unit with a secure and captive **HTTPs** web manager.
 - Easy and **secure data accesibility** (*API REST JSON*).
 - **Easy conection to industrial interfaces and protocols** (*Modbus, RS485, etc.*).
 - **Easy auto back up** and accesibility of the data (*relational database*)
 - **Enought memory** for all the unit life (*maximum 32GB, up to 25 life years*).

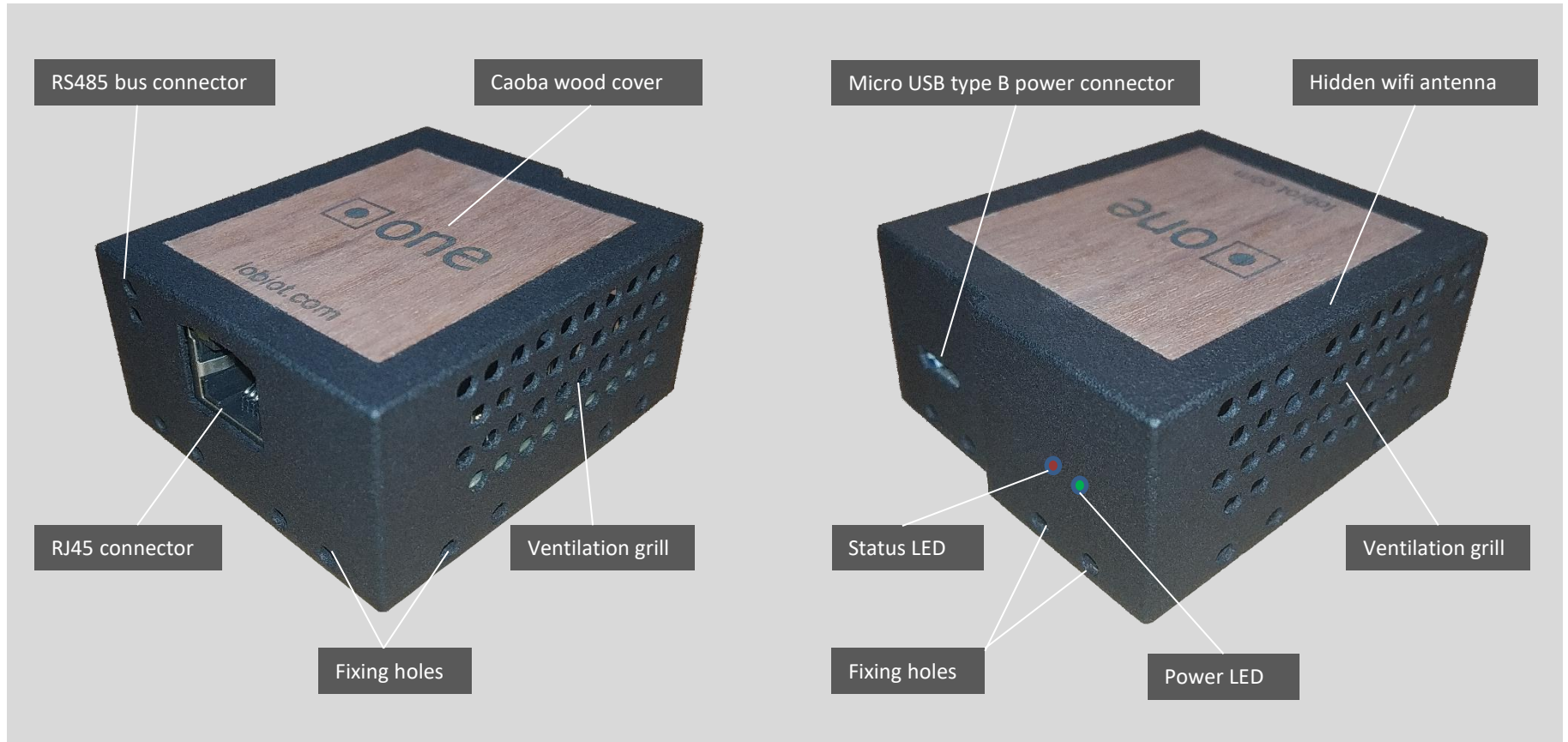


Lobiot One image



Physical Interfaces

In the next two images are the visual description of the **Lobiot One** physical interfaces:

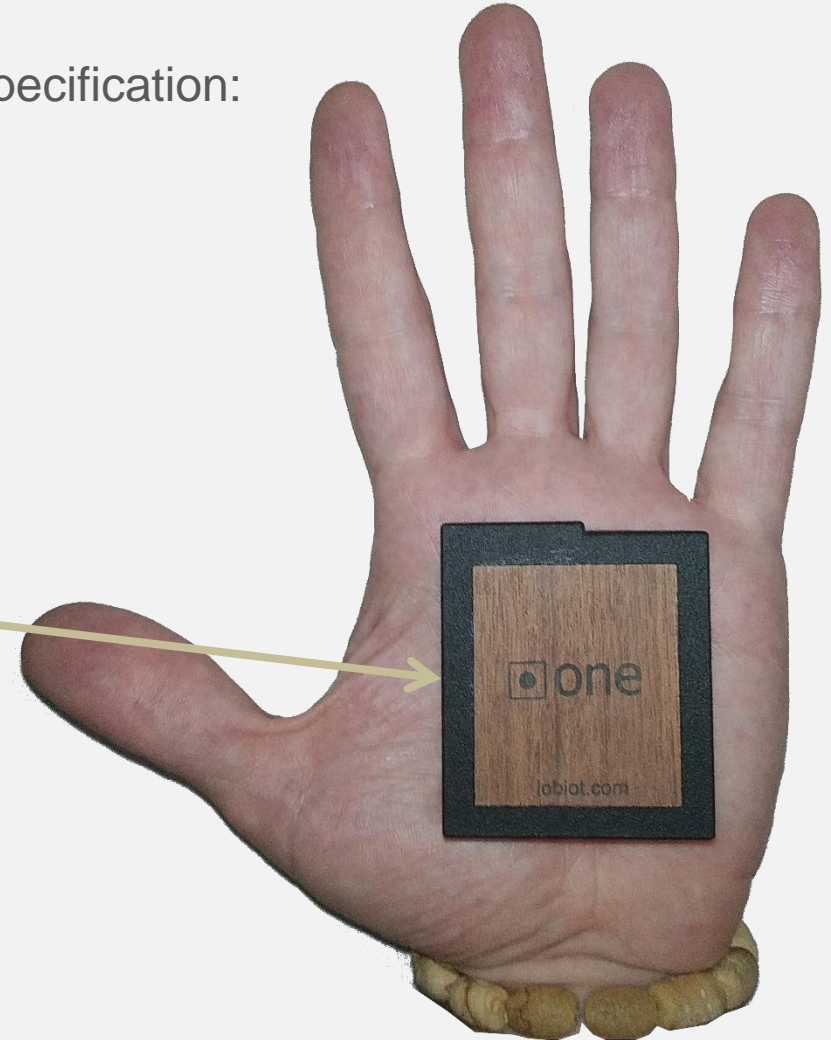




Technical Specification

In the next list are the **Lobiot One** technical specification:

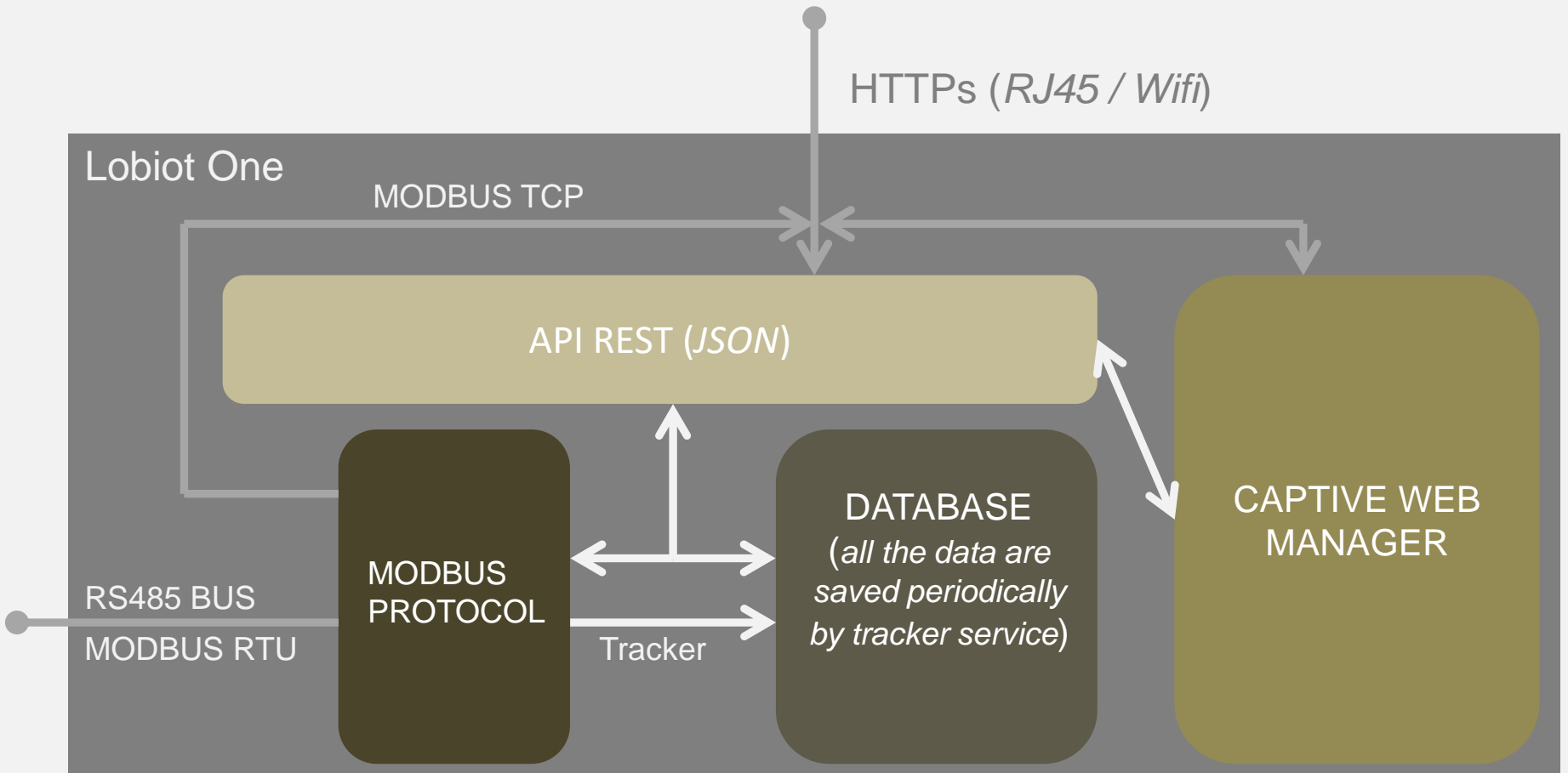
- CPU: Quad-core Cortex-A7
- GPU: Mali400MP2 GPU
- RAM: 512MB DDR3 (*shared with GPU*)
- ETHERNET: 100M RJ45 (*POE optional*)
- WIFI: XR819, IEEE 802.11 b/g/n
- Operating System: Linux
- Product size: 57 mm × 49 mm x 25 mm
- Weight: 46 g
- Power consumption: 1,5 W
- Maximum Ambient Humidity: 80%
- Maximum Ambient Temperature: 55°C





Firmware Specification

In the following diagram are the **Lobiot One** firmware specifications:





Thanks!!