# ASOCS®

On-premise mobile clouds

Private 5G Network Solutions for Industry 4.0

Corporate Snapshot

- **Founded in 2003, pivot to vRAN in 2014**

- **Pioneer in the creation of virtual Radio Access Networks (vRAN) and private 5G standalone networks**

- **Technology & Core Competency:**
  - Performing cellular processing on IT clouds
  - Combining 5G & edge clouds to deliver private networks for Industry 4.0

- **Target Markets:**
  Industrial enterprises, campuses, and operators offering private networks

- **Headquarters in Israel, offices in India, the USA and Ukraine.**

5G will create $1.5 trillion by 2030 in Enterprise Value

Industry 4.0   5G Network   Edge

ASOCS®

Private Networks
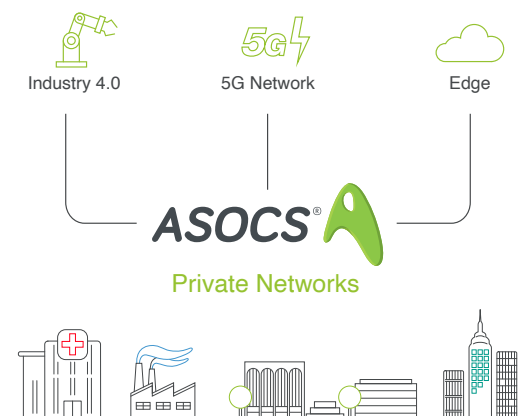
What is Industry 4.0 & IIoT?

Industry 4.0, the 4th industrial revolution, is driving technology investments and innovation in robots, drones, connected production lines and process automation. Industrial IoT (IIoT) devices collect vast amounts of data that need to be processed quickly, and securely, hence locally at the edge.

Industrial enterprises around the globe are adopting smart manufacturing and automation technologies, preparing their manufacturing facilities for Industry 4.0. As part of this revolution, the manufacturing industry is breaking away from the traditional model of efficiency through automation, specialization, and scale and entering the world of big data. Every object in the factory will communicate with the others. Decisions and directions for assembly will be made at the product level and adapted to current conditions.

Industry 4.0 and 5G

Such automation and flexibility require high-performance wireless communications between machines, people, and even the walls and floors of the facilities themselves. Until recently, achieving the required level of connectivity was simply not possible. The number of devices that need to be connected, the amount of data that needs to be transferred, the reliability, latency, and the security requirements - all of these could not be achieved with previous technologies. That is where 5G comes in.

5G is seen by many in the manufacturing industry as a necessary driver for Industry 4.0 and the automation of manufacturing processes. Currently, connecting machines and devices on the factory floor requires specialized wireless equipment that still fails to provide the reliability and security levels needed for such mission-critical applications.

Welcome New Spectrum

One of the key aspects related to 5G is the fact that an operator is no longer a prerequisite for creating a local cellular network. There has been a worldwide move to allocate specific radio frequencies for public use with no need for licensing. What this means is that with the proper equipment in place, you can set up your own private network which you fully control, without the need to rely on an external provider or share the network with others. ASOCS, an Israel-based software company, is a leader in cellular clouds and 5G private networks, enabling mobile connectivity at fiber like speeds and bandwidth. The company's unique approach to cellular access is based on fully virtualizing cellular access, and utilizing the Open Radio Access Network (O-RAN) specifications, making its solution ideal for system integrators who wish to incorporate the cellular processing layer as part of their overall edge service offering.

Benefits for Industry 4.0

The network they need

High performance, high speed, high device density, low latency, elevated security, traffic prioritization, network analytics – the infrastructure needed for the factory of the future.

Complete flexibility

We support an Infrastructure-as-a-service business model, so industrial enterprises can enjoy complete control, flexibility and scalability.

Tailored and prioritized cellular access

Ensure reliable cellular service specifically tailored to their specific needs and requirements.

WiFi-like installation - it's that easy

Install a private cellular network as easily as other organizational IT systems - upgrade, scale up, make changes as needed.

CYRUS 2.0

Open RAN

- Complies with O-RAN 7.2 fronthaul
- Use any 7.2 radio

Pure IT Solution

- No special hardware or FPGA acceleration
- Runs on any server

Cloud-Native

- Runs on common virtualization layer (VMware, OpenStack)

CYRUS® 2.0

The CYRUS 2.0 solution is a single software stack for 5G cellular processing. CYRUS is fully virtualized across all layers therefore it can run on any standard server. It connects to radios based on the O-RAN 7.2 fronthaul interface, enabling multiple use cases. The CYRUS solution supports 4G technologies in the same exact architecture. While 4G (LTE) is less applicable to the industrial use case, in certain markets such as the USA an interim use of 4G over the CBRS band may become a transitional step on the way to a full 5G SA network. In such case CYRUS can guarantee full backward and forward compatibility within this band without any forklifting. The virtual base station software runs as a virtual function on a standard IT hardware. Having the 5G access solution run as virtualized software, disaggregated from the radio units, ensures full flexibility and upgradability in any type of private network scenario.

CYRUS 2.0 for Private Networks

The CYRUS solution for 5G private networks can support the facility's full range of IoT devices while providing unlimited bandwidth to process and transfer massive amounts of data from these connected devices. Utilizing standard servers CYRUS 2.0 is managed like any other IT element. It enables industrial enterprises to easily implement 5G private networks with Time Sensitive Networking (TSN), high network reliability, low latency, and speed, making it ideal for innovative IIoT applications.
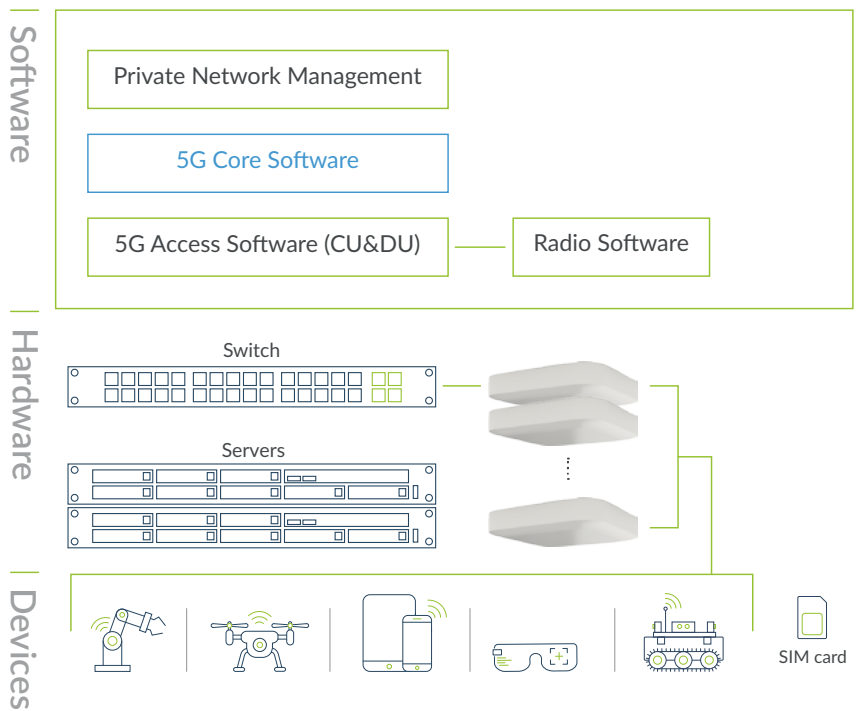
About ASOCS

ASOCS is disrupting the industrial network connectivity market with an open and virtualized software solution that delivers 4G and 5G private mobile network solutions in a single software stack. Our on-premise mobile cloud is a truly open solution that allows industrial enterprises to run their networks on their own terms using standard hardware, just as they do with their IT infrastructure. It enables industrial enterprises to easily implement 5G private networks with Time Sensitive Networking (TSN), high network reliability, low latency, and speed, making it ideal for Industry 4.0 applications.

On-premise mobile clouds

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