

Cognitive edge-cloud with serverless computing



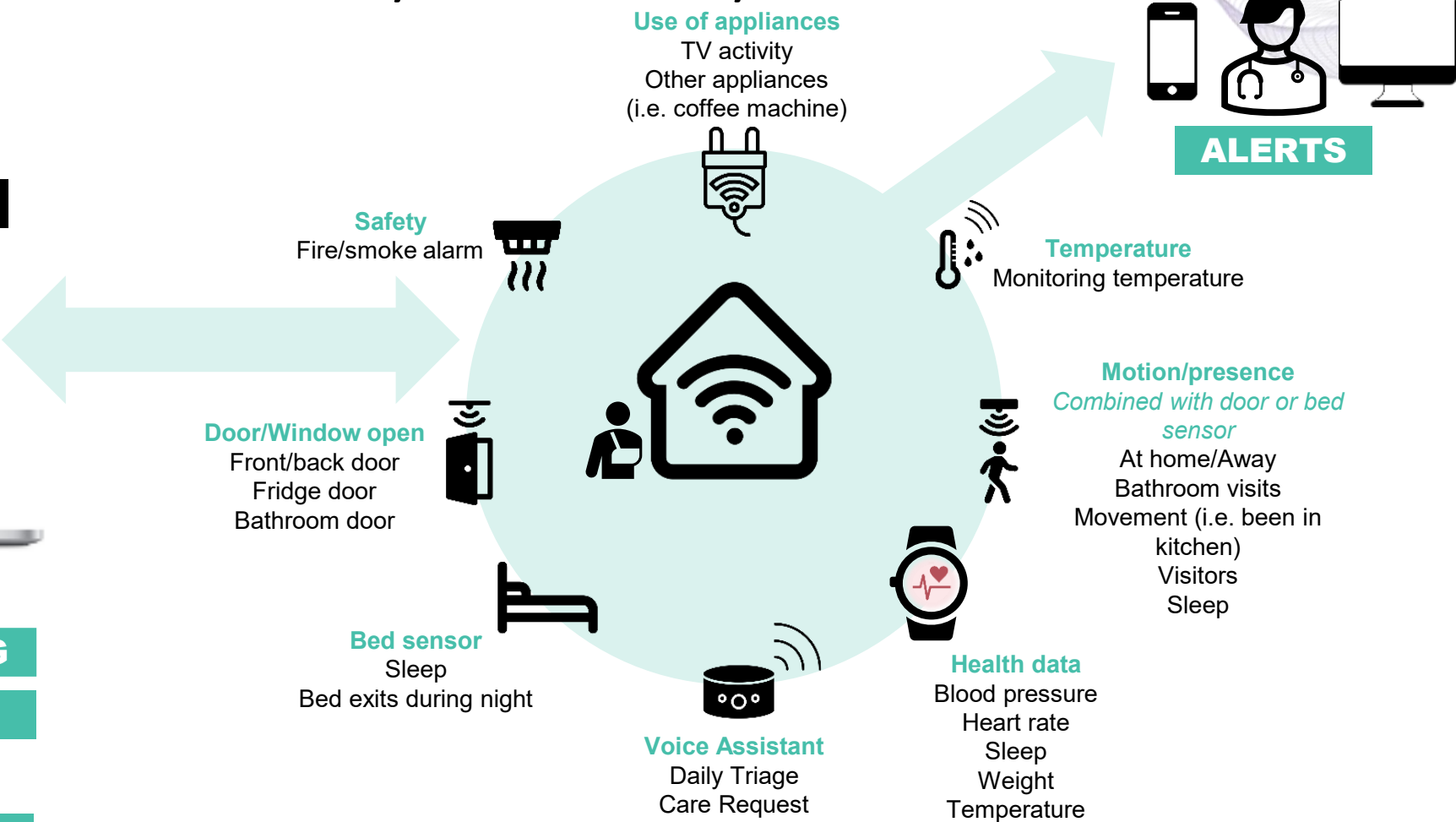
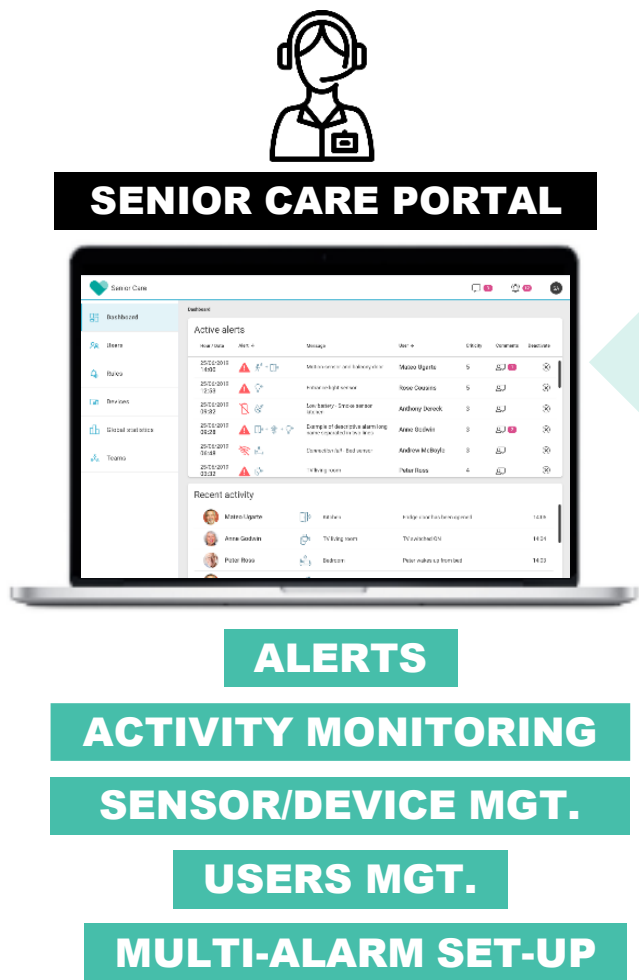
HealthCare Assistant Use case

HiPEAC 26 - ML4ECS workshop – Kraków – January 2026



Worldline Senior Care solution

Safety & Autonomy

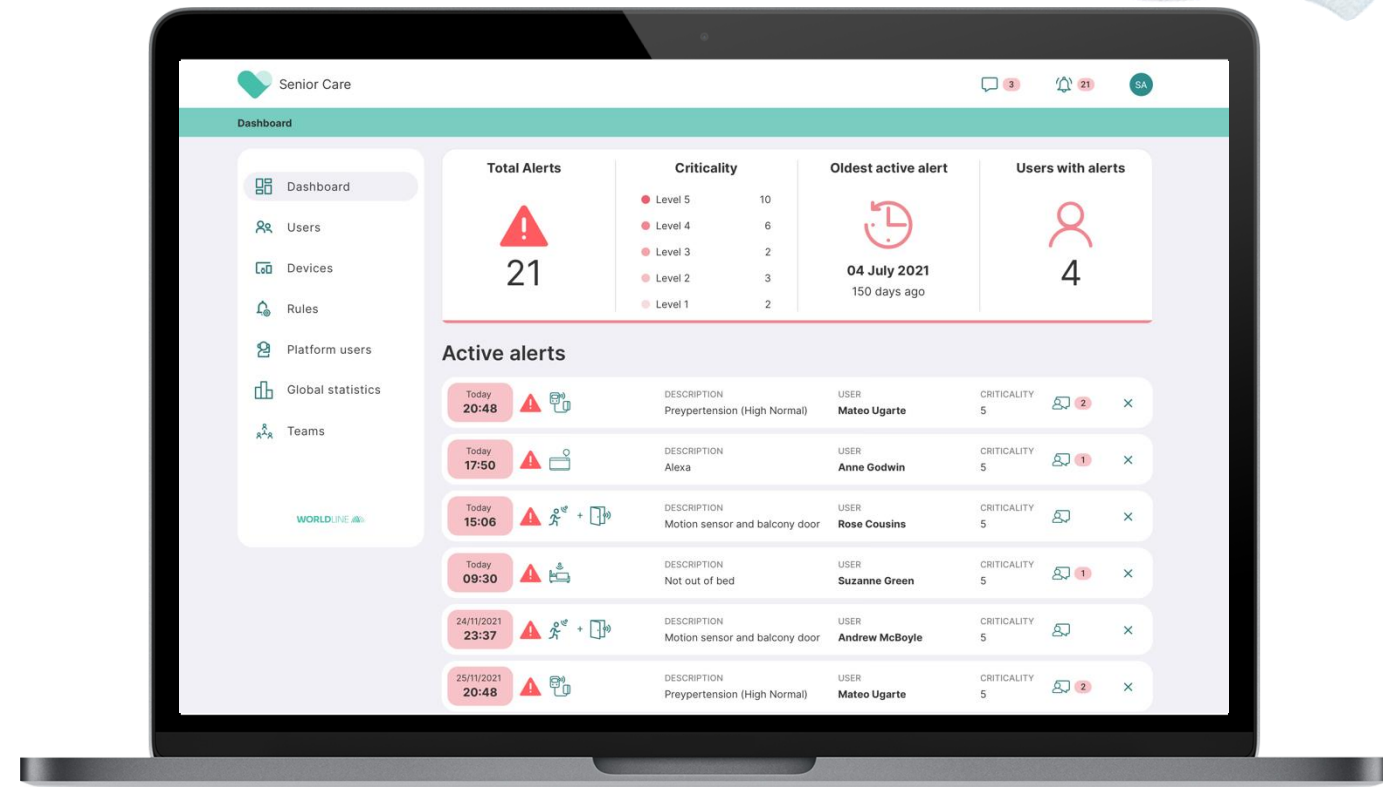


Intuitive Dashboard

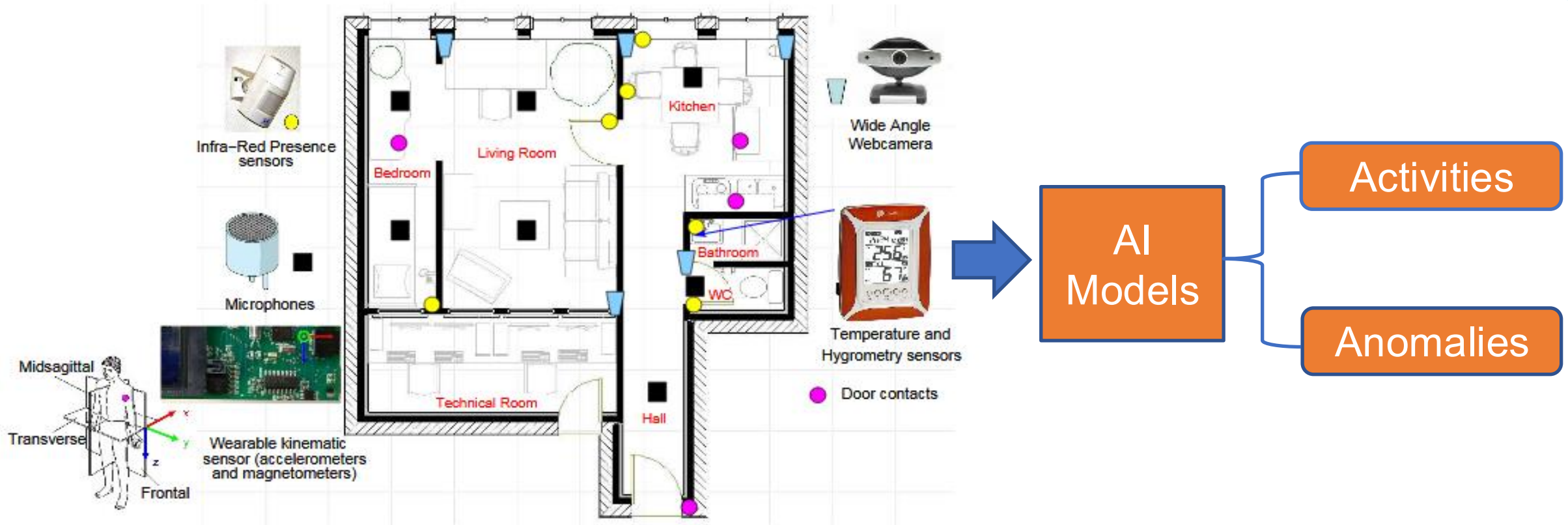
Activity monitoring and alerts

Emergency management for triggered alerts






Follow-up through caregiver comments and notes



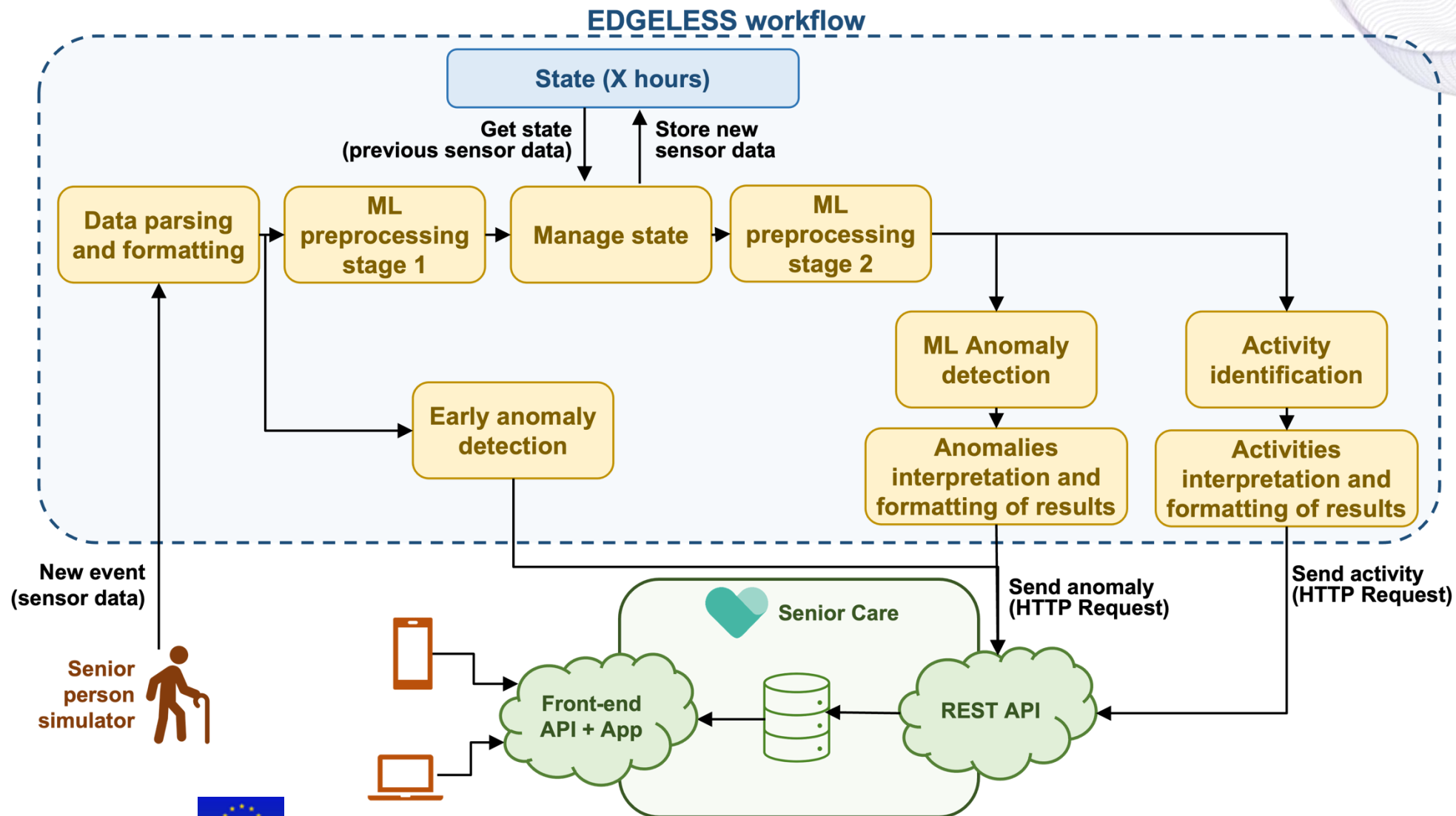
AI for Senior Care

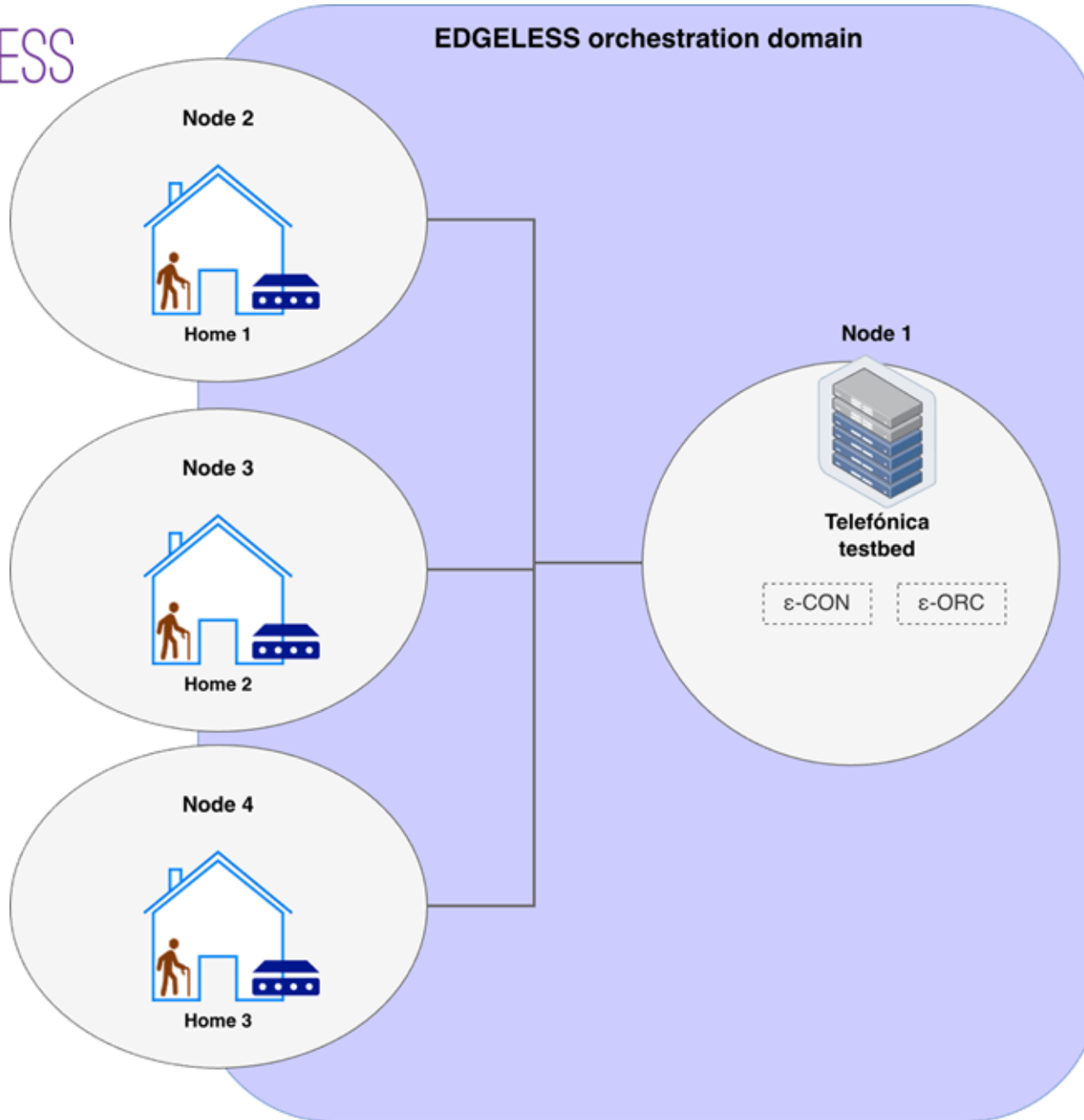


Sensor devices used in the Demo scenario

Device	Details
	<p>Mattress Device</p> <p><u>Type:</u> Pressure sensor. <u>Event Trigger:</u> The sensor is activated upon each change of state, detecting when pressure is applied or removed. <u>Item Attachment:</u> Can be attached to beds, couches, chairs, and similar furniture items. This device generates data only when a change of state happens.</p>
	<p>Motion Device</p> <p><u>Type:</u> Motion sensor. <u>Event Trigger:</u> Sends an alert with each detection of movement or cessation of movement within a room. <u>Item Attachment:</u> Installed on room walls or ceilings for optimal coverage. This device generates data only when a change of state happens.</p>
	<p>Smart Plug Device</p> <p><u>Type:</u> Electric power sensor. <u>Event Trigger:</u> Reports electric consumption data every minute. <u>Item Attachment:</u> Connected to electrical appliances such as TVs, coffee makers, music systems, and lamps. This device generates data every minute.</p>
	<p>Window-Door Device</p> <p><u>Type:</u> Contact sensor. <u>Event Trigger:</u> Activates when the contact between two device components is broken or re-established. <u>Item Attachment:</u> Suitable for doors, windows, boxes, and drawers to monitor access and closure. This device generates data only when a change of state happens.</p>
	<p>Smoke Device</p> <p><u>Type:</u> Smoke presence sensor. <u>Event Trigger:</u> Triggers only when smoke is detected to alert for potential fire hazards. <u>Item Attachment:</u> Fixed to ceilings, the device ensures timely smoke detection. This device generates data only when a change of state happens.</p>

EDGELESS Workflow





Demo scenario

Identifiable Activities:

- GET_UP
- GO_TO_THE_BATHROOM
- TAKE_MEDICINES
- PREPARE_FOOD
- EAT
- HOUSEHOLD_ACTIVITIES
- WATCH_TV
- ACTIVITIES_OUTSIDE_THE_HOME
- SLEEP

CONSORTIUM



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