

# [ui!] PowerNode

FIXES FAULTS REMOTELY

HIGH QUALITY  
MADE IN GERMANY

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# PROBLEM

## The classic freeze

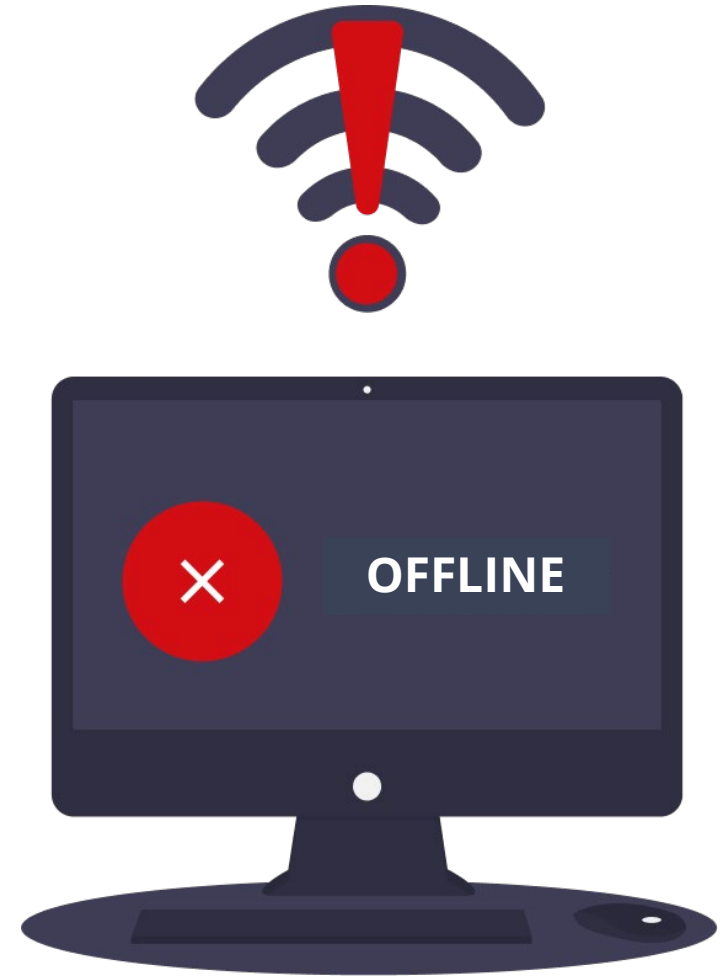
In modern technical systems, occasional malfunctions can disrupt operation.

Communication systems and sensors in particular are susceptible to problems in which devices “hang up”, go offline or no longer respond correctly.

Such problems can result from various causes, including software errors, hardware wearing out, temporary overloads or power outages.

In most cases, the first reaction is to check the power supply, followed by a cold start of the affected systems, which restores functionality in most cases.

However, these cold starts lead to additional downtime and can interrupt operations, which is particularly problematic for critical applications and causes considerable costs for on-site visits.



# SOLUTION: [ui!] PowerNode

The [ui!] PowerNode is an innovation designed to efficiently carry out hard resets.

It enables remote control of the power supply for connected devices, so that a restart is possible without the need for on-site intervention. This is particularly useful for devices located in hard-to-reach or remote locations.

## Main features

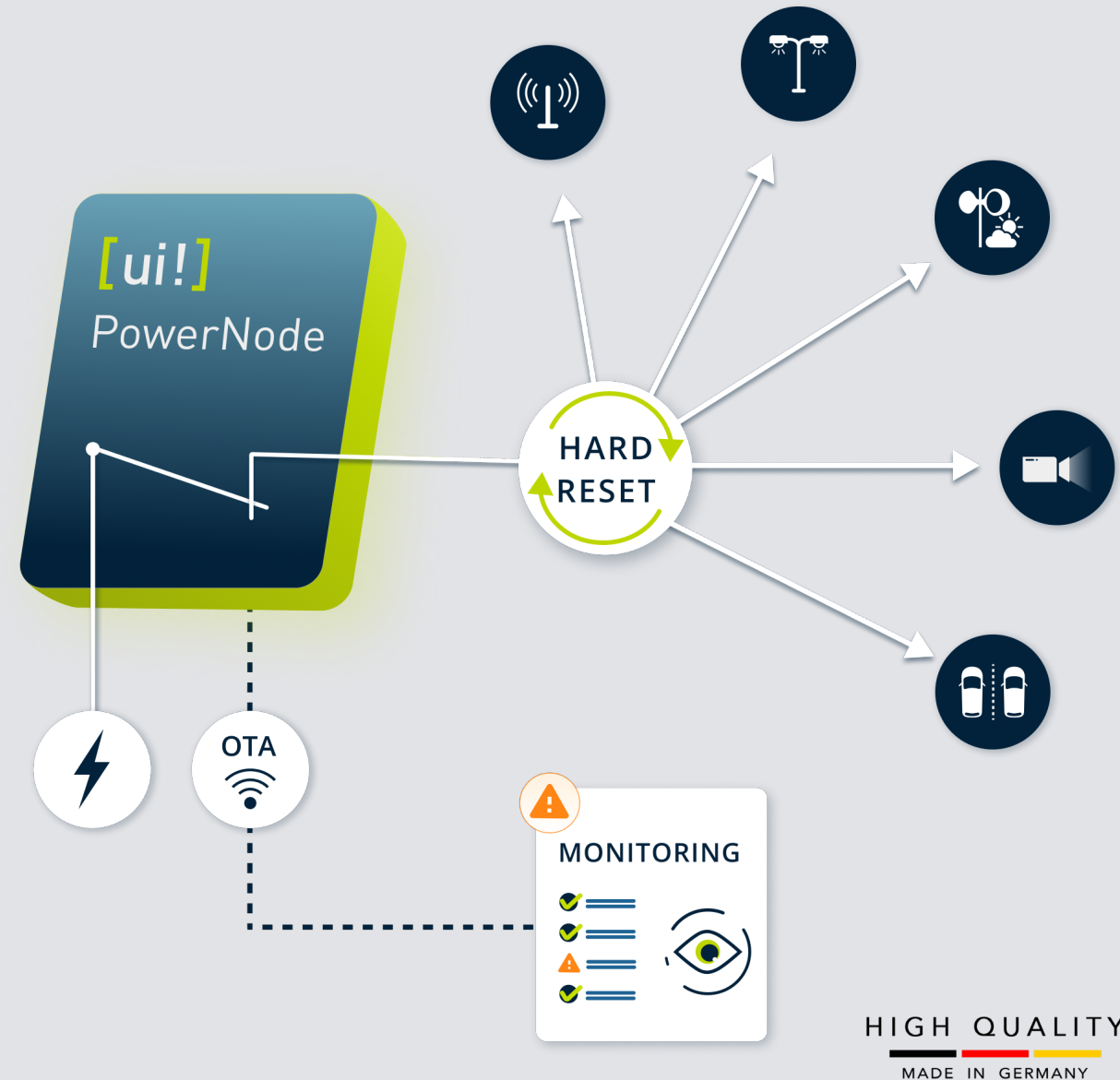
**Remote control:** Restart devices via a browser-based dashboard, including the ability to disconnect power for up to one hour.

**Monitoring and data analysis:** View voltage, current and temperature data as well as historical data analysis to optimize operations.

**Notifications:** Alarm and notification features alert the user to critical status changes – even in case of power failures.

**Improved efficiency:** Automation of restarts reduces manual intervention, saving time and costs.

**Technical data:** Supports voltages up to 38 V DC and a maximum current of 4 A, making it compatible with a wide range of devices.



# Advantages

**Time savings:**

Manual interventions on site are no longer necessary thanks to the remote access options.

**Automation:**

Repeated system restarts can be carried out quickly and conveniently without the need for staff to be on standby.

**Minimized downtimes:**

Quickly executable restarts increase device availability and prevent operational losses due to extended downtimes.

**Lower staff costs:**

The need for on-site visits is minimized, which is particularly beneficial for remote or hard-to-reach locations.

**User-friendliness:**

The browser-based dashboard makes the system accessible even for non-technical users.

**Centralized management:**

All devices can be monitored and controlled from a single interface.

**Comprehensive data analysis:**

The ability to analyze historical data supports informed decisions and long-term optimization of operations.

**Proactive problem solving:**

Alerts and notifications for critical events enable quick action before major problems occur – even in case of power failures.

**Flexible installation options:**

Thanks to its compact dimensions, the [ui!] PowerNode can be installed flexibly in a variety of environments - even inside lamp posts.

**Compatibility:**

Supports a wide range of devices through its technical specifications (38 V DC, 4 A) and can be linked to other systems via REST API.

# HealthCenter – the simple overview of your [ui!] PowerNodes

## System Overview

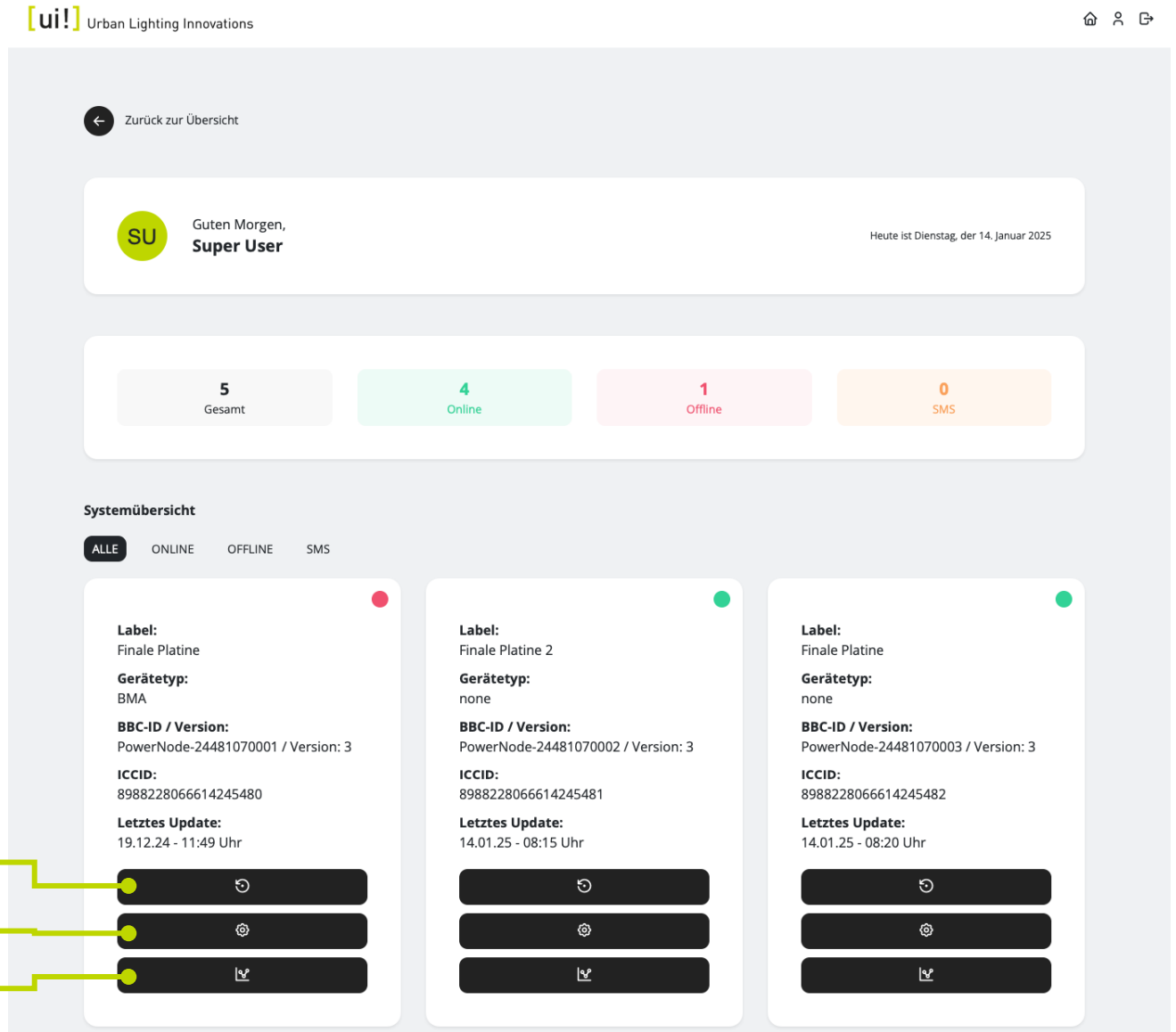
The system overview gives you an at-a-glance insight into all your devices and their status.

Hard resets on cameras, displays, LoRa gateways, WiFi hotspots, sensors, measuring stations and much more no longer require an on-site visit with the [ui!] PowerNode, but are just two clicks away. You can restart your technologies completely remotely - even if they are offline.

**Click the Reset button and confirm - done!**

In addition, you can easily configure further settings such as the reset time in the system overview.

**Reset** ●  
**Settings** ●  
**Monitoring** ●



# HealthCenter – the simple overview of your [ui!] PowerNodes

## System Overview

The [ui!] PowerNode monitors the performance parameters on the power supply side, which makes remote troubleshooting (e.g. in the event of power failures) much easier.

In the system overview, you will find graphical overviews of system status, battery capacity, temperature and humidity as well as consumer performance data in the statistics section.



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ALL DATA AND FUNCTIONALITIES CAN BE ACCESSED VIA **REST-API**

# TECHNICAL FACTS



Datasheet

## [ui!] PowerNode

General Informationen

Type	Housing / Box
Protection Class	IP65
Dimensions (HxWxL)	55 mm x 82 mm x 195 mm
Weight	0,4 kg
Input Connection	25 cm cable with pre-assembled quick connector
Output Connection	25 cm cable with pre-assembled quick connector
Temperature Range	-20 to +60 degrees celcius

Electrical Specifications

Input Voltage	12 / 24 V DC (8-36V DC) / 48V*
Output Voltage	12 / 24 V DC (8-36V DC) / 48 V*
Current Load Capacity	Max. 4A
Switch Contacts	1 piece (NC)
Battery (internal)	3,7V Lipo 1800 mAh 6,7 Wh

Connectivity Specifications

SIM Card	MicroSIM (included)
Network Coverage	MultiSIM
Cellular Class	LTE Cat M1 / NB1: Class 3 (23 dBm)
Cellular Frequenzies	LTE's Cat M1/NB1 bands 1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 28
Alternative Networks	LAN**, WLAN**
Antenna	included

\* Current and power consumption of the connected devices are not transmitted to the [ui!] Healthcenter. All other functions are available unlimited.  
\*\* The type of network connection required must be specified when ordering. A later change is not possible.

# CONCRETE COST BENEFITS

## How the [ui!] PowerNode pays for itself with just one fault call-out

Real example from Burg/Senftenberg, Germany (operation of traffic cameras)

Szenario	Cost
1x technician call-out (local)	301 € per fault
Extended downtime	20 € Service fee loss
Total damage per fault	<b>321 €</b>
[ui!] PowerNode p. a. (2 years)	243,30 € per year
[ui!] PowerNode p. a. (5 years)	168,60 € per year
Conclusion	<b>Amortized from the 1st avoided incident</b>

With the [ui!] PowerNode, we achieve a **cost advantage** of over **77 €** or over **150 €** with just one avoided on-site per year.



# PRACTICAL AND PROVEN

## Experience that counts - technology from the field

**Urban Lighting Innovations** (winner of the Smart 50 Award 2022) has been developing and operating **smart city infrastructures for over 10 years** and has realized projects on 4 continents.

This experience fed directly into the development of the **[ui!] PowerNode** - a solution that solves real problems by avoiding unnecessary on-site visits and downtime.

Under the leadership of **Matthias Weis (former EnBW, Digital Leader Award 2016, Handelsblatt Top 100 Innovators 2017)**, the **[ui!] PowerNode 2023** was developed and tested under real-life conditions for over a year.

Following its presentation at **SmartCity Expo Barcelona 2024**, the PowerNode has been available to **external customers since 2025** - a proven, field-tested solution that significantly improves the availability and efficiency of infrastructures.

**2013** First smart city projects of today's team

Since January **2024** Use of the [ui!] PowerNode in your own projects under real conditions

**2023** Development of the [ui!] PowerNode including initial tests in a laboratory environment

Nov. **2024** Presentation of the [ui!] PowerNode at the Smart City Expo World Congress in Barcelona

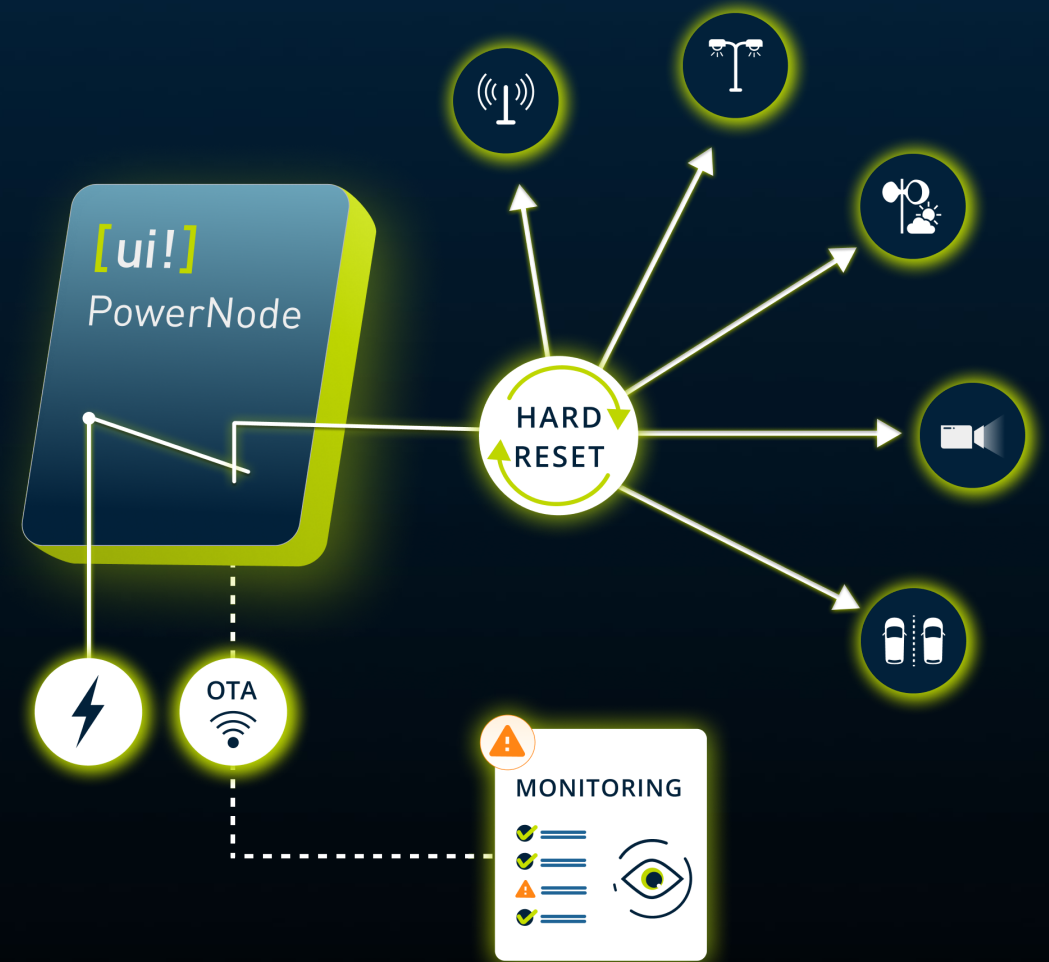
**2025** Provision of the [ui!] PowerNode for external customers

# References



# [ui!] PowerNode

Innovative  
remote maintenance  
for maximum availability!



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# How you can reach us

We are here for you!

To place an order, if you have any questions or require further information, please contact our experts. Whether by phone, email or on site - we look forward to inspiring you with smart solutions that really help you move forward!

[ui!] Urban Lighting Innovations



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