Page EEPROM:
How it enhances applications

Page EEPROM introduction

Product features

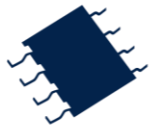
- 80 MHz Quad-SPI interface
- 2.3 ms auto-erase and program
- 4 ms ultrafast block erase
- 500k write cycles on full temperature range
- Below 3 mA ultralow power operations
- ECC — Error correction code
- Safety flags

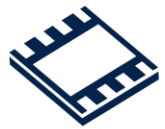
A unique product

The power **efficiency** and **durability** of an EEPROM with the **capacity** and **speed** of a Flash memory.

Memory densities

8 Mbit | 16 Mbit | 32 Mbit | *64 Mbit


SO8N


DFN8


WLCSP


Bare die

** In development*

Page EEPROM in diverse segments

Servers

Wearables

Smart home

Asset tracking

Healthcare

Smart industries

Smart cities

Metering

Application benefits

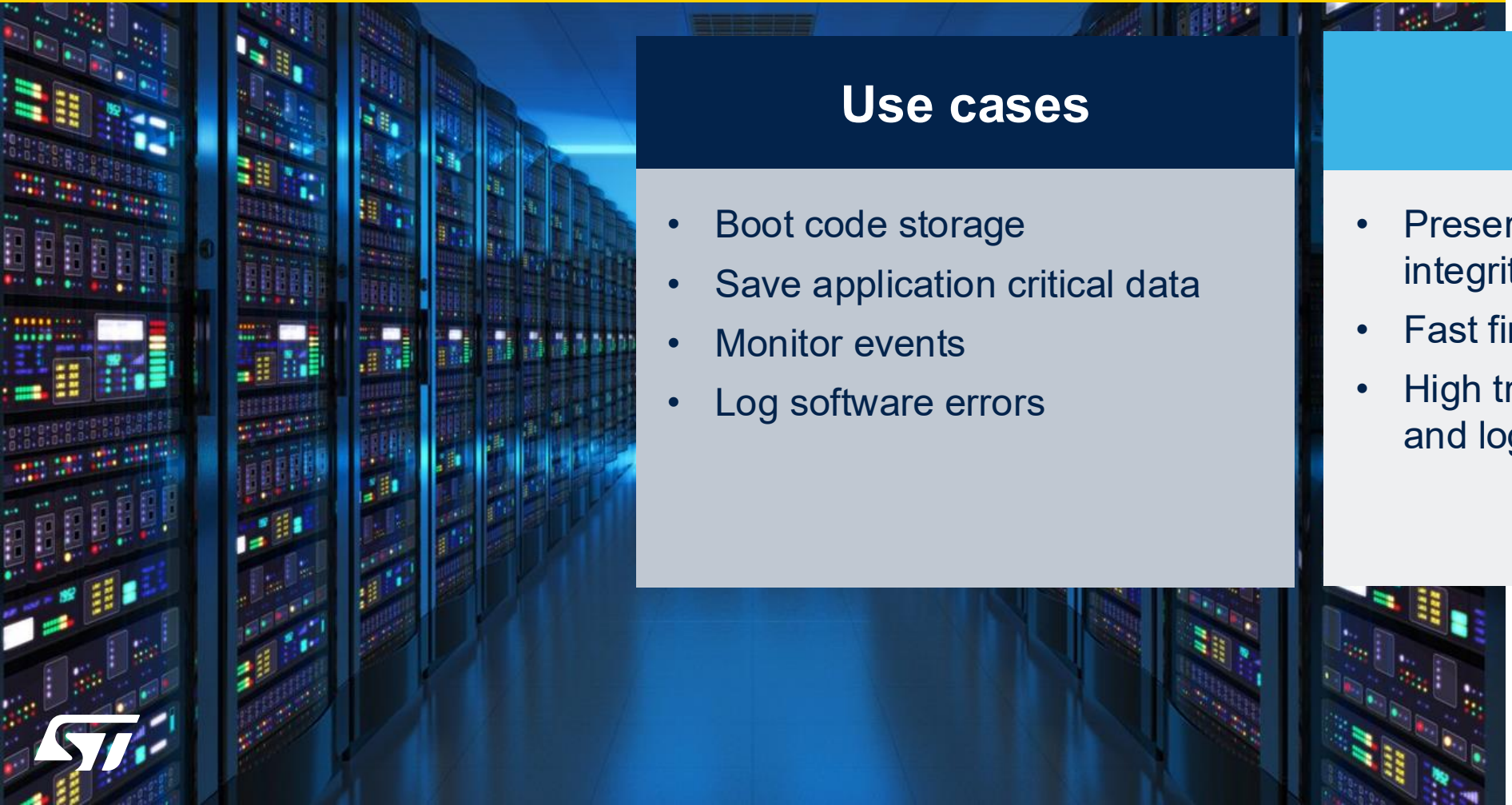
Maximize battery life
Conserve power for what matters most

Increase accuracy
Data monitoring made easy

Lower FOTA downtime
Fast firmware up/download

Page EEPROM in servers

Ensure safe operations



Use cases

- Boot code storage
- Save application critical data
- Monitor events
- Log software errors

Benefits

- Preserved boot code & data integrity
- Fast firmware update
- High tracking rate of events, and logs

Examples

AI servers, banking servers, cloud, etc.

Page EEPROM in wearables

Collect more data without draining the battery

Use cases

- Firmware storage
- Display image storage
- Fitness, health & location monitoring
- Fit with tiny batteries

Benefits

- Reliable boot and remote upgrade
- High-monitoring rate
- Batteries last longer

Examples

Smartwatch, VR headset, E-cigarette, Earbuds, etc.

Page EEPROM in smart homes

Enable efficient operation and data storage

Use cases

- Support quick FOTA updates
- Save user settings
- Store sensor data
- Record event log

Benefits

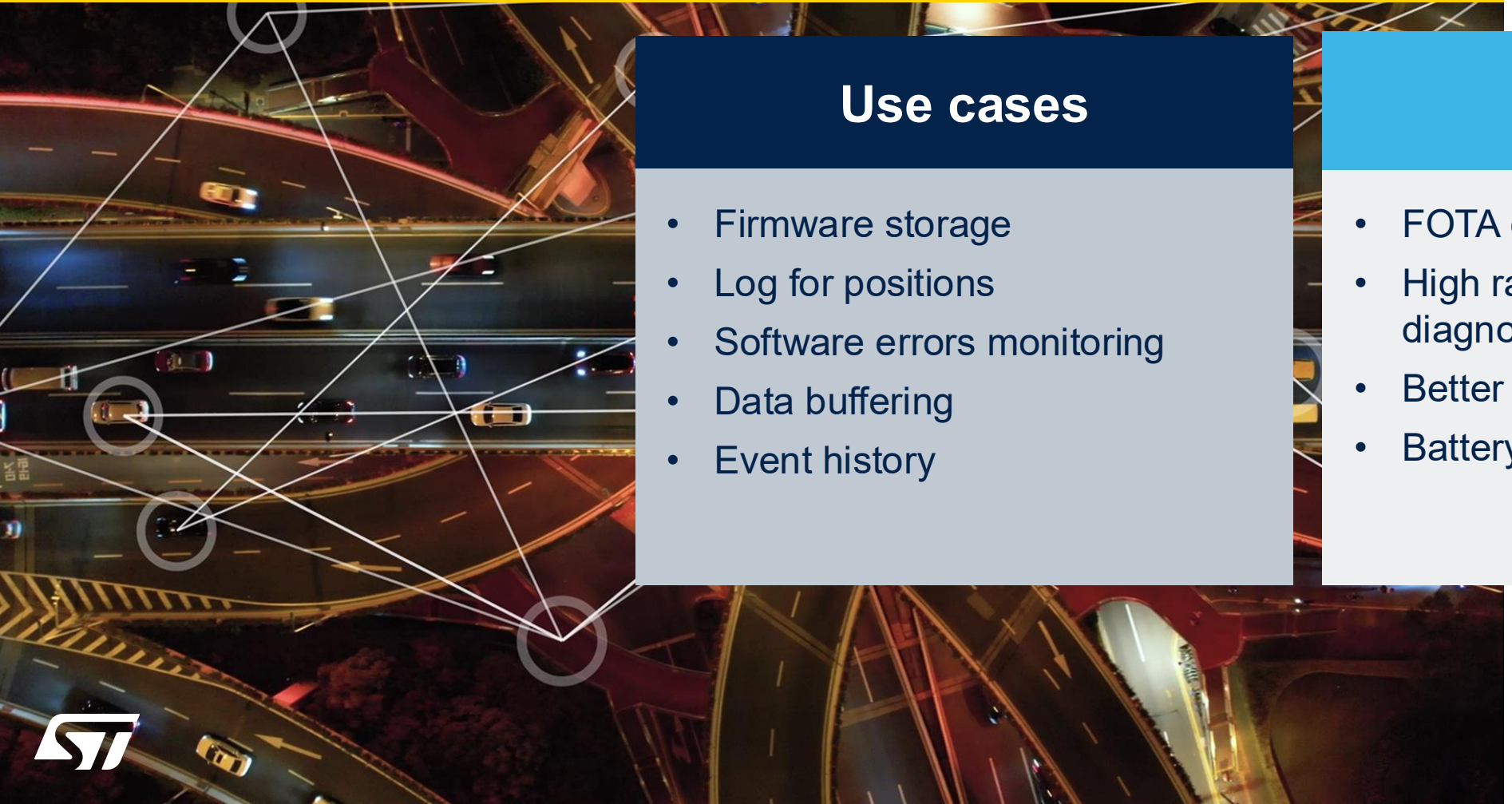
- Enhance firmware without physical access
- Ensures personalized device behavior
- Supports historical data analysis

Examples

Thermostats, security cameras, sensors, etc.

Page EEPROM in asset tracking

Boost accuracy in asset tracking devices



Use cases

- Firmware storage
- Log for positions
- Software errors monitoring
- Data buffering
- Event history

Benefits

- FOTA downtime reduced
- High rate of event tracking and diagnostics
- Better accuracy
- Battery lifetime extended

Examples

Fleet management, GPS tracker, cold chain, etc.

Page EEPROM in healthcare

Store more data to improve healthcare

Use cases

- Store device firmware
- Patient data logging
- Log critical events or device errors
- Configuration and calibration data

Benefits

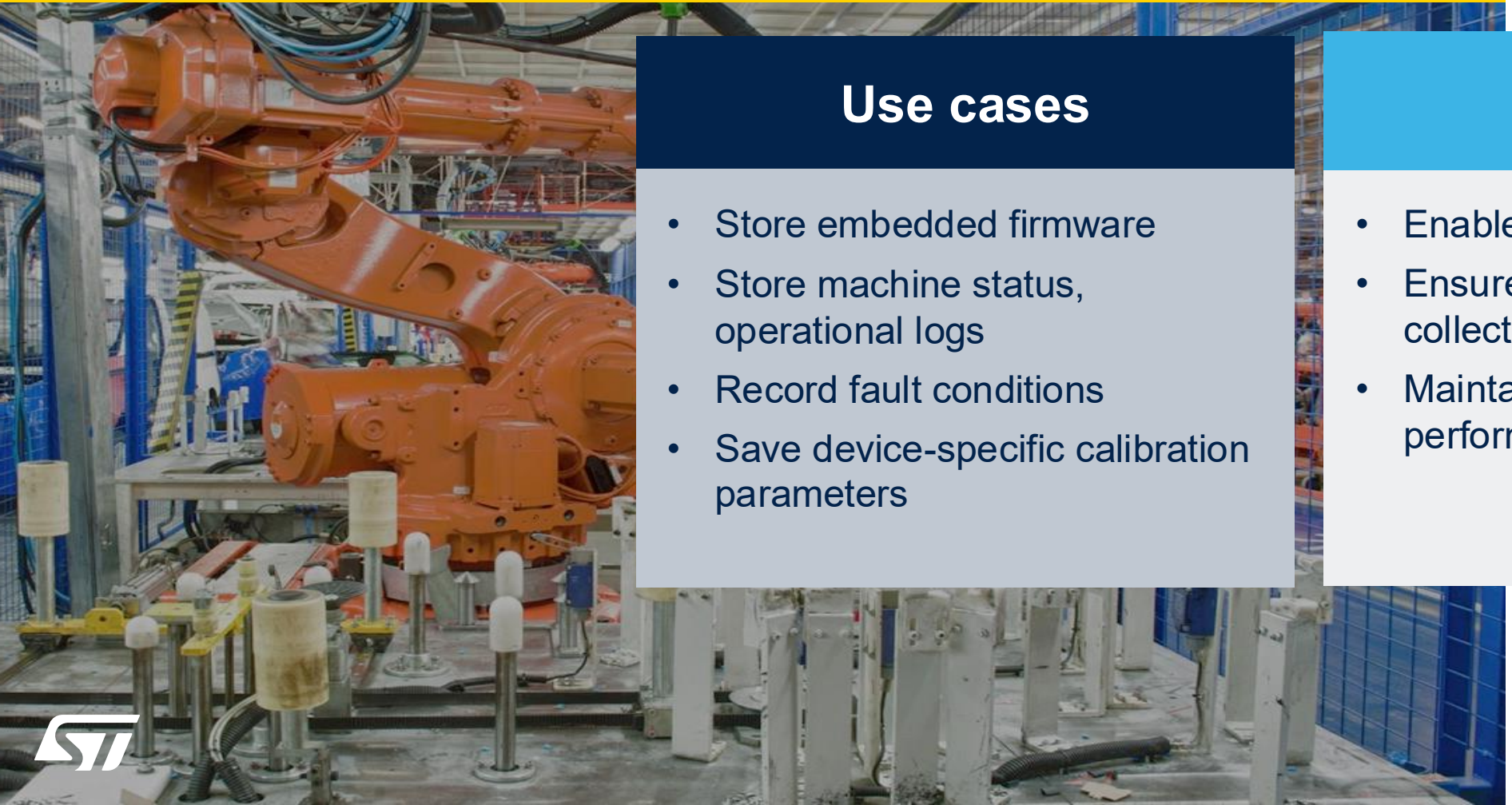
- Reliable firmware storage
- Continuous monitoring
- Reliable data storage
- Fit with the tiniest batteries

Examples

Pain management, arthroscope, glucometer, etc.

Page EEPROM in smart industries

Combine data integrity and intensive monitoring



Use cases

- Store embedded firmware
- Store machine status, operational logs
- Record fault conditions
- Save device-specific calibration parameters

Benefits

- Enables reliable device startup
- Ensures continuous data collection
- Maintains accurate device performance

Examples

BMS, solar tracker, servers, etc.

Page EEPROM in metering

Accurate measurement and invoicing

Use cases

- Store meter firmware
- Store usage data locally
- Save calibration & tariff settings
- Record faults and power events

Benefits

- Reliable remote upgrades
- Continuous data collection
- Enhanced diagnostics
- Historical records maintained during network failures

Examples

E-meters, water, gas meters, etc.

Page EEPROM
How it enhances applications

Shape your application with one memory solution that combines benefits from both EEPROM & Serial Nor Flash

Efficient and robust as an EEPROM

with the speed & the capacity of a Flash

Replace EEPROM and NOR Flash, reducing BOM complexity

Mix firmware and data monitoring in one and unique product

Boost the battery life of the application

Plug & play: Flash and EEPROM pin to pin compatible (SO8N & DFN8).

Easy integration: Opcodes compatible with Flash and EEPROM

Our technology starts with You

Find out more at st.com/Page-EEPROM