



EEPROM

Memory-rich data centers

One secure facility, many memory missions

Memory is everywhere in data centers

- **Servers** AI & general compute servers, network, storage servers
- **System power & cooling systems** power supply unit for server and telecom, industrial BMS, HVAC unit
- **Storage** hard disk drive, network attached storage, solid state drive

Data centers growth drivers

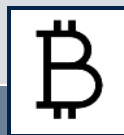
Social media

Video streaming, real time data analysis



Crypto mining

Cryptographic algorithms, blockchains and networks



Digital transformation

Public & private paperless transactions, virtualization



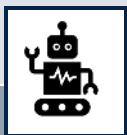
Remote work

Work from home, shared files, virtual events



AI revolution

Powerful computing power, massive GPU adoption, data traffic



e-Commerce

Online operations, customer data, warehouse management



VoD streaming

Accessible digital content, high bandwidth data



5G & IoT

Increasing mobility through connected devices



The background of the slide features a server rack with blue lighting. In the top left corner, there is a dark blue circular logo with the text 'ST EEPROM' and three white cubes. In the bottom left corner, the ST logo is displayed.

ST
EEPROM

Success

- Trusted provider, ranked #1 for 20 years
- 44 billion units shipped over 40 years

Quality & services

- Unparalleled quality track records
- Long-term commitment, with in-house technology and manufacturing

Portfolio

- Wide range of products for multiple application segments (standard, mobile, automotive, data centers)
- Innovative Page EEPROM and Unique ID EEPROM



ST EEPROM presence in data centers

OPTICAL CABLES Transceiver with fibers

PRODUCT	RECOMMENDED PARTS	CUSTOMER NEED
STD EEPROM	M24M02E-FCS6T/VF M95M02-DRCS6TP/K M95M04-DRCS6TPVF	Settings and calibration
Page EEPROM	M95P08-IXCST/EF M95P16-IXCST/EF M95P32-IXCST/EF	

AI or General Compute tray Board controller

PRODUCT	RECOMMENDED PARTS	CUSTOMER NEED
STD EEPROM	M24C64-FMN6TP M24128-FMN6TP M24M02E-FMN6TP	Identification, traceability and data storage
UID EEPROM	M24C64-UFMN6TP M24128-UFMN6TP M24M02E-UFMN6TP	
Page EEPROM	M95P08-EXMNT/E M95P16-EXMNT/E M95P32-EXMNT/E	

PDU PSU Power the unit and monitor

PRODUCT	RECOMMENDED PARTS	CUSTOMER NEED
STD EEPROM	M24C02-FDW6TP M24C64-FDW6TP M24M01E-FDW6TP	Settings and identification
UID EEPROM	M24C64-UFMN6TP M24512E-UFMN6TP M24M01E-UFMN6TP	



Optical cables: Page EEPROM inside

KEY FEATURES

- 1.6 to 3.6 V
- -40 to +105 °C temperature range
- 80MHz quad-SPI
- Byte write granularity
- Page program up to 512 bytes
- Page/sector/block/chip erase
- 500K write cycles endurance
- Current peak below 3mA
- Deep power down mode
- Error correction code
- 100-year data retention

BENEFITS

Ultra-low-power performances in intensive use

Firmware storage with high **integrity** and **reliability**

Fast data logging for easy logs, diagnostics, and maintenance

Ultra **fast FOTA**, which reduces downtimes

Combines the advantages of **Serial Flash** and **EEPROM**

Part Number	Memory size	Temperature range (°C)	Package
M95P08-I	8-Mbit	-40 to +85°C	S08N DFN8 WLCSP8
M95P16-I	16-Mbit		
M95P32-I	32-Mbit		
M95P08-E	8-Mbit	-40 to +105°C	S08N
M95P16-E	16-Mbit		
M95P32-E	32-Mbit		



Portfolio

Standard & Unique ID EEPROM

Identification, traceability, parameter storage

M24 / M95 / M34

Description

- **Unique ID EEPROM**

- 128-bit unique factory-programmed serial number (UID) with unicity guaranteed by ST
- User memory from 32Kb to 2Mb in SO8 package
- Improved identification and traceability
- “10 years longevity commitment”

- **Standard and Page EEPROM**

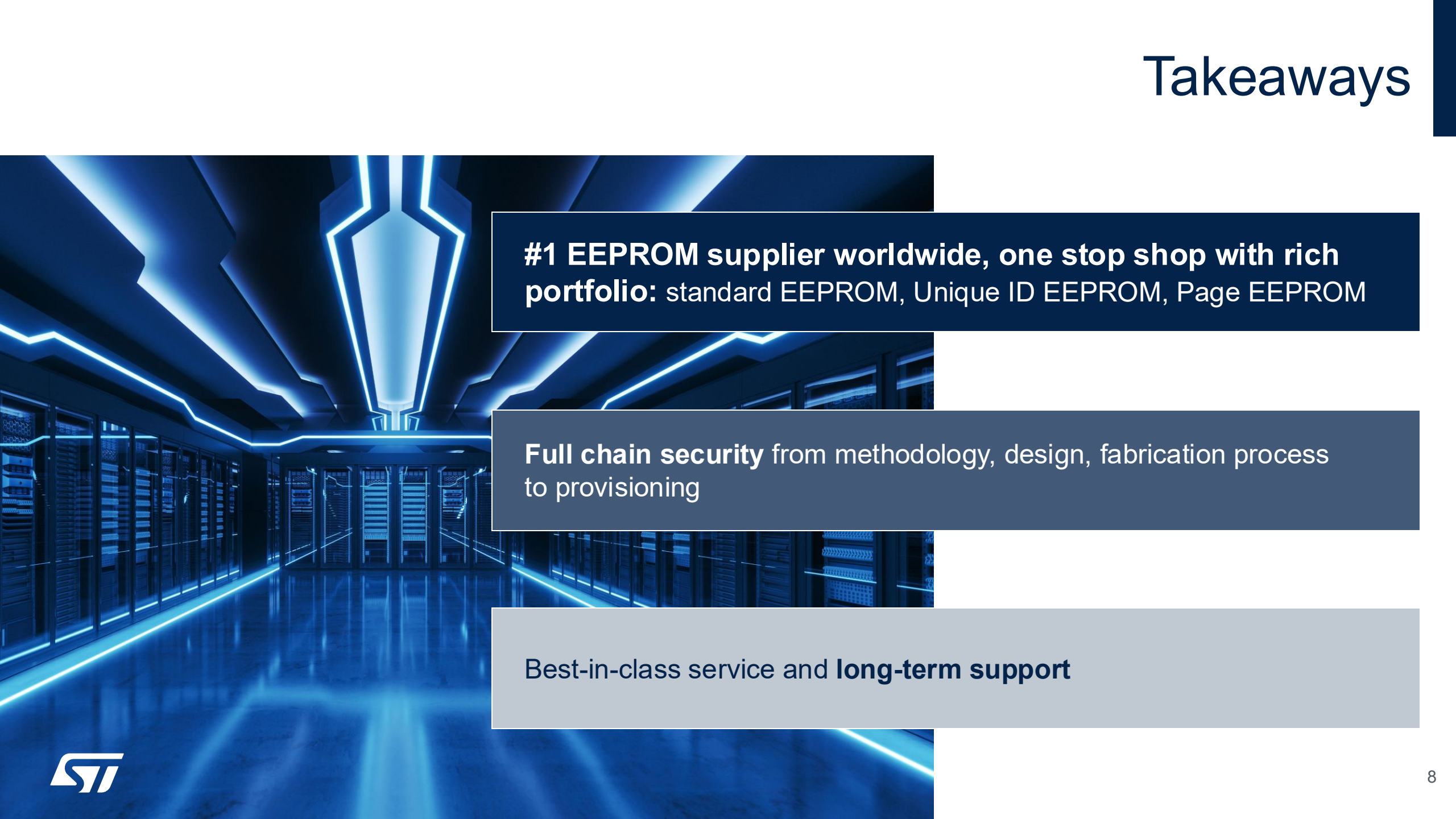
- Standard EEPROM full range of product from 1Kb to 4Mb
- Innovative approach with Page EEPROM from 8Mb to 32Mb
- Available in all packages from cross-over SO8 to WLCSP
- Scalability with pin-to-pin compatibility from 1Kb to 32Mb
- I2C and SPI interface
- Unparalleled quality track records
- Long term commitment, with in-house technology and manufacturing

Key applications

- Identification (device recognition, counterfeiting detection)
- Traceability (manufacturing tracking, supply chain management)
- Sustainability (recycling and reparability, regulatory compliance)
- Setting, calibration and storage



Takeaways



#1 EEPROM supplier worldwide, one stop shop with rich portfolio: standard EEPROM, Unique ID EEPROM, Page EEPROM

Full chain security from methodology, design, fabrication process to provisioning

Best-in-class service and **long-term support**

Our technology starts with You



Find out more at www.st.com/eeeprom

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