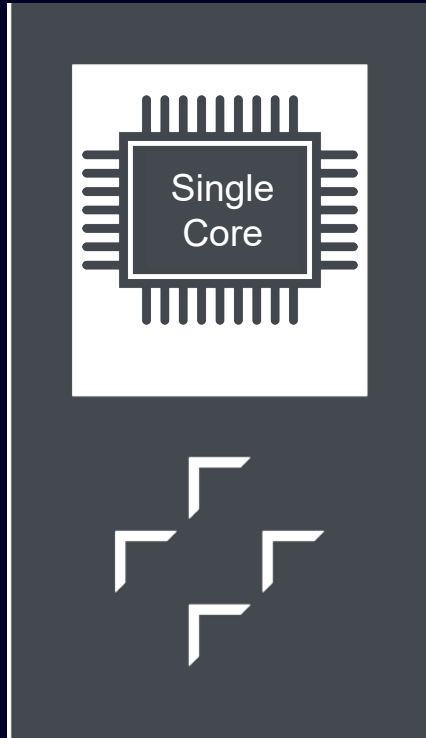
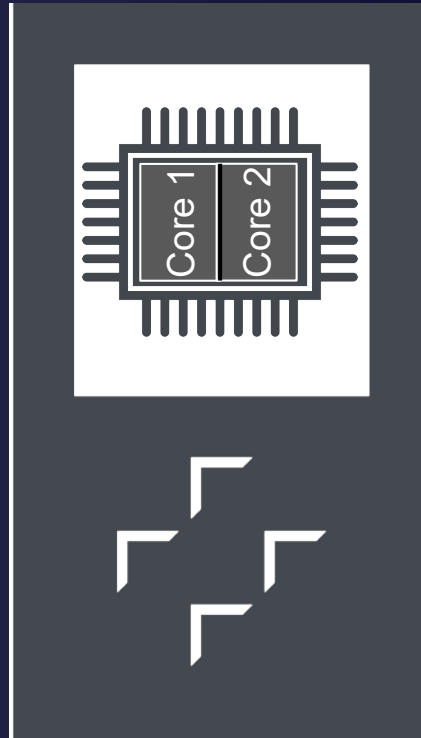


SIMATIC Hardware

New Hardware for CPUs ≤ 1516 starts with FW V3.0 & TIA Portal V18



6ES751x-xyyx0/1/2-0AB0
FW \leq V2.9



6ES751x-xyyx03-0AB0
FW = V3.0

New Hardware with 2 Core Processor

- Core 1
 - User program
 - Diagnoses
- Core 2
 - Communication

New Display implementation

Benefits

- Deterministic program processing (smaller jitter)
- Higher communication performance
- No separate Display FW needed

SIMATIC Hardware

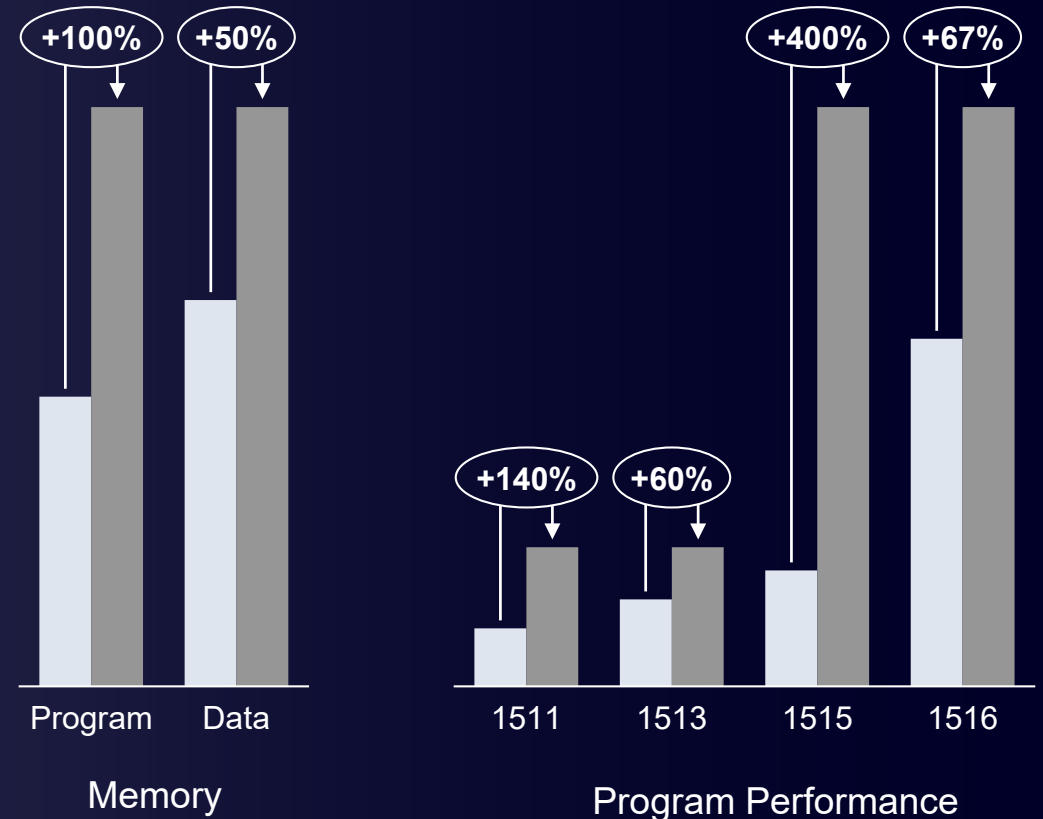
New Hardware for CPUs ≤ 1516 starts with FW V3.0 & TIA Portal V18

The new hardware offers

- More memory
- More Performance
- Higher communication performance (2nd core)

2nd / 3rd Step:

- Gbit Ethernet on X2 of the CPU 1515 /1516
- 2nd PN Interface with IRT



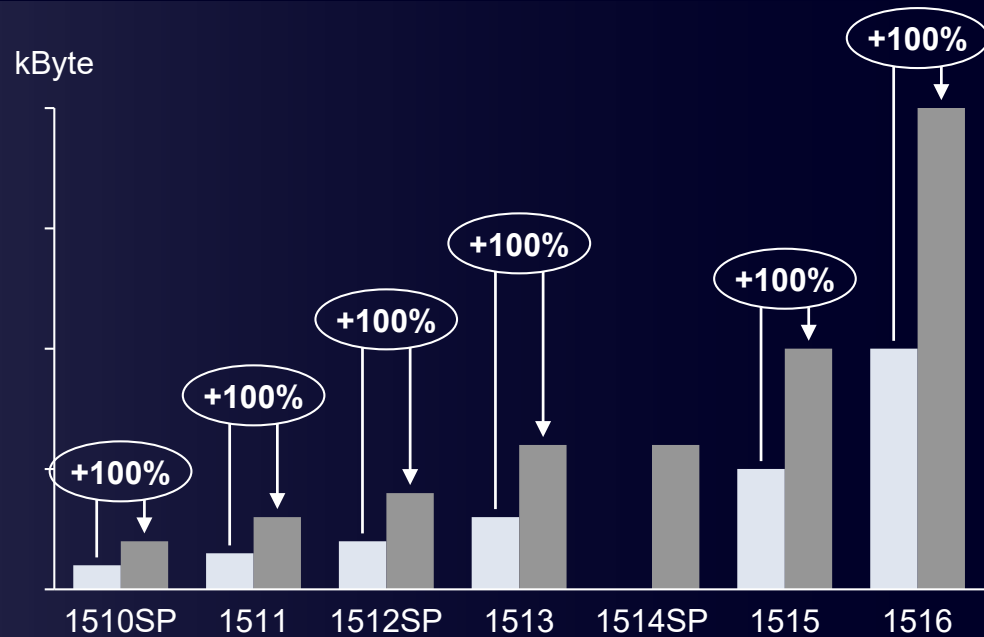
■ FW V2.9 (current article no.) ■ FW V3.0 (new article no.)

SIMATIC Hardware

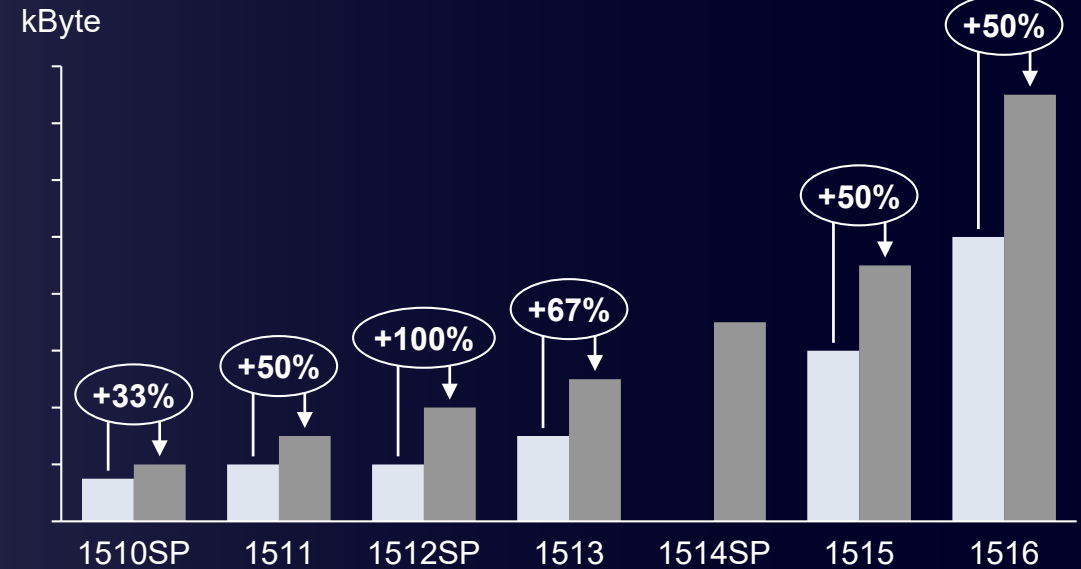
New Hardware for CPUs ≤ 1516 starts with FW V3.0 & TIA Portal V18

+100% more program- and data memory

➤ more resources for future customer application extensions



Program memory



Data memory

Standard and Fail Safe

■ FW V2.9 (current article no.) ■ FW V3.0 (new article no.)

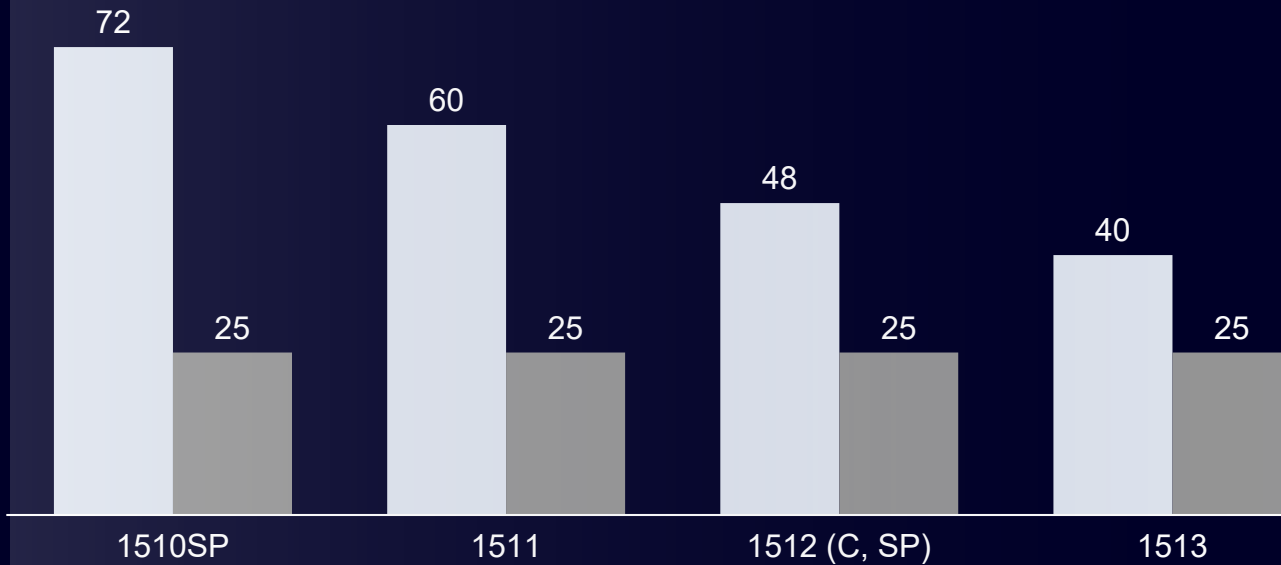
SIMATIC Hardware

New Hardware for CPUs ≤ 1516 starts with FW V3.0 & TIA Portal V18

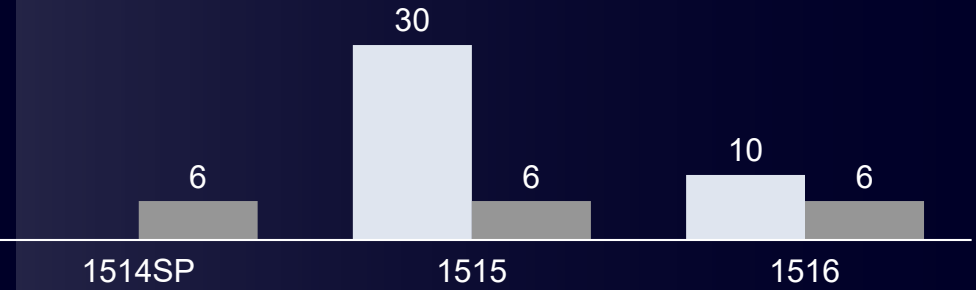
- 2 performance levels
- up to +400% performance increase

- Easier controller selection
- More customer use cases can be realized

Performance – Level 1 (Small)



Performance – Level 2 (Middle)



■ FW V2.9 (current article no.) ■ FW V3.0 (new article no.)

SIMATIC Hardware

Increase/harmonization of quantity structure

Ambient temperature

- CPU 1511-1516 from -25°C - +60°C → **-30°C** - +60°C

- Same temperature range as most of IO modules
- Usable in more customer applications
- Easier controller selection

Retentive Data

- CPU 1510SP-1513 from 128 kB to **256 kB**

- More memory space to prevent data loss in the event of power failure

Min. OB 3x cycle

- CPU 1510SP-1515 from 500µs to **250µs**

- More frequent processing of program parts

UDP multicast circuits

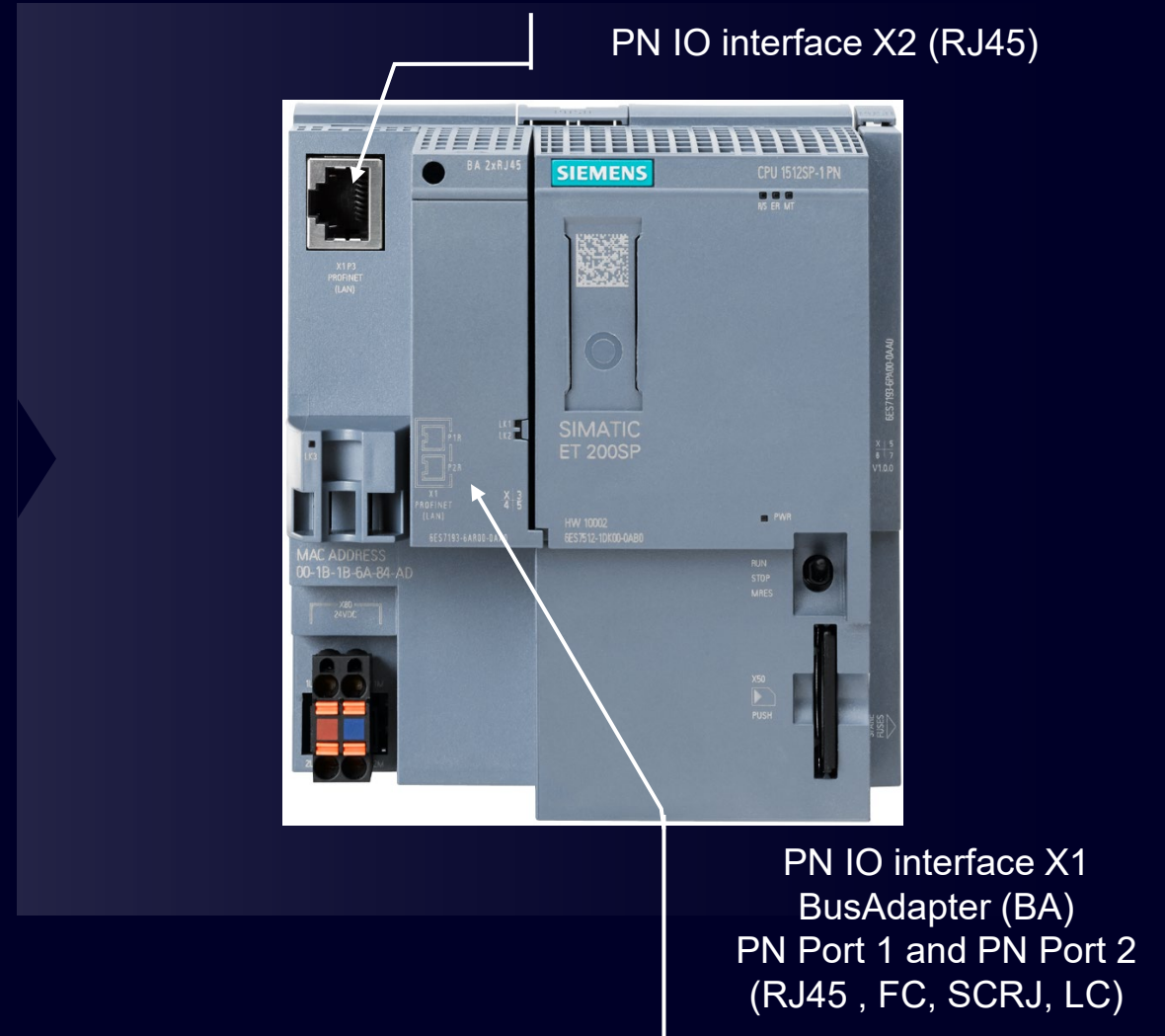
- CPU 1510SP-1513 from 5 to **78**
- CPU 1515-1516 from 5 to **118**

- Significantly more participants can be reached via UDP Multicast

SIMATIC Hardware

New ET 200SP CPU 1514SP (F/T/TF)-2 PN with FW V3.0 & TIA Portal V18

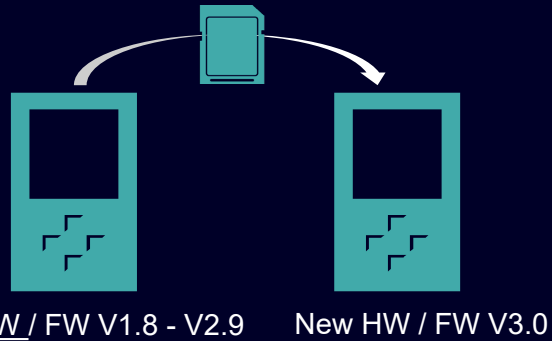
- Comparable with memory concept, quantity structure and features of a SIMATIC S7-1500 CPU 1515(F) - 2 PN CPU
- Work memory
 - Program: **600/900 kByte**,
 - Data: **3,5 MByte**
- Performance: Bit instruction time: **6 ns**
- **2 PROFINET IO interfaces**
 - PN IO interface X1
 - PROFINET RT/IRT
 - different BusAdapter with 2 Ports
 - PN IO interface X2
 - PROFINET RT



SIMATIC Hardware Compatibility

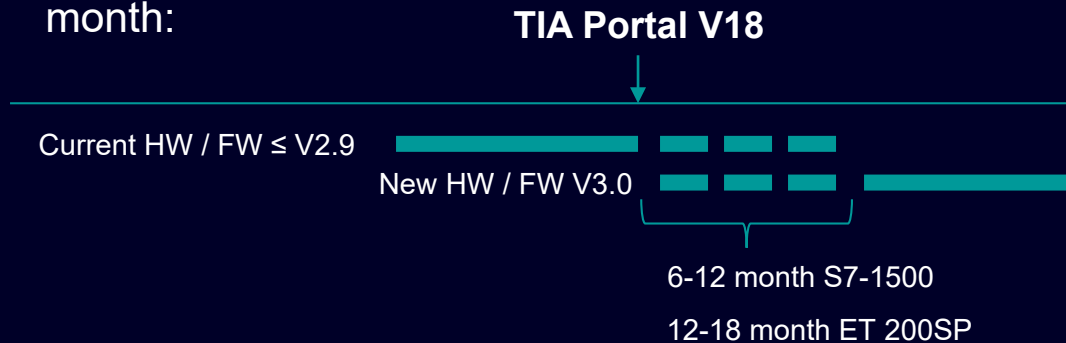
1. CPU 1510SP to CPU 1516

- FW V3.0 only for new article numbers



- Full spare part compatible:

- Parallel delivery of the old and new HW for 6-12 month:



2. CPU 1517/1518

- Same HW as today
- New functionality with FW V3.0 upgrade also for existing CPUs

3. Compact and ET 200pro CPUs

- Same HW and FW (V2.9) as today
- No new functionality with TIA Portal V18!

4. Support of FO/LC BusAdapter for ET 200SP CPUs 1512SP(F) first with 2nd step (TIA Portal V19)