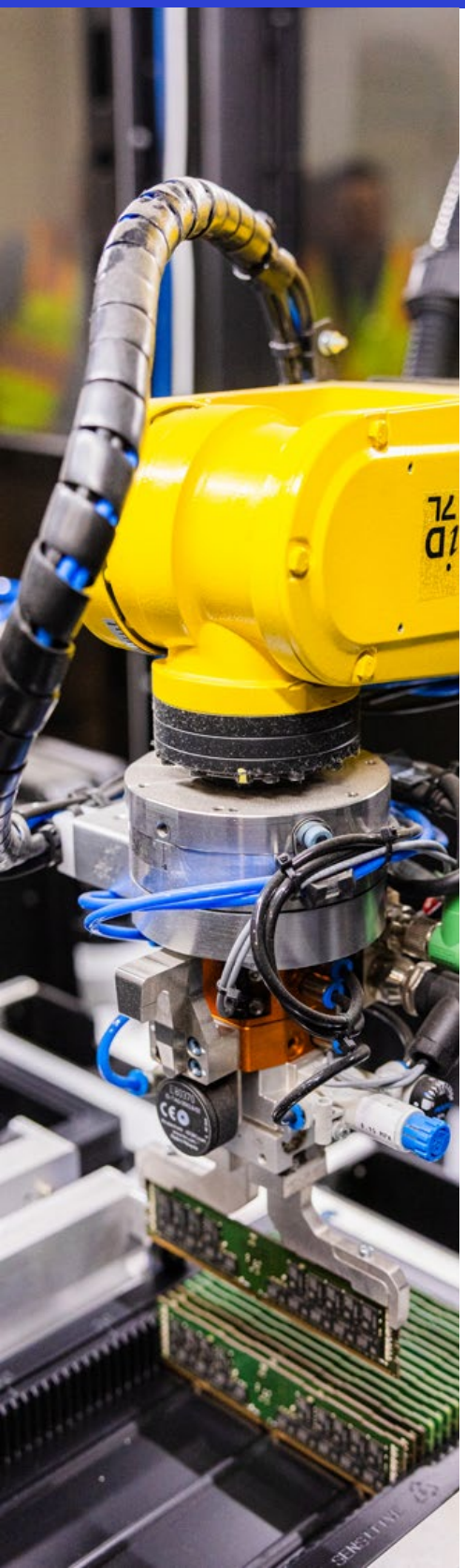
Production-Ready Recertified DDR4
At Hyperscale. Only from SLS.



Client Challenge

A major hyperscale data center company needed a reliable source of recovered DDR4 memory to support rapid infrastructure growth and ongoing production requirements.

Large volumes of DDR4 were becoming available through planned server refreshes. However, redeploying that memory required more than recovery. Each module needed to be systematically processed, tested, recertified, relabeled, and prepared to meet defined deployment requirements. Engineers commissioning new ODM and CXL infrastructure need recertified DDR4 they can trust in mission-critical production environments, not simply tested preowned memory.

The client needed a partner capable of delivering this work at hyperscale without compromising quality, consistency, or throughput.

SLS Approach

Working with the hyperscaler, SLS developed a high-volume DDR4 recertification program that transforms recovered memory from decommissioned servers into tested, production-ready inventory.

Each module undergoes a controlled qualification process that includes:

- Physical inspection
- Validation and functional testing
- Reprogramming
- Relabeling
- Inventory stocking, packaging and shipping
- Final preparation for deployment

The program combines purpose-built robotics for testing infrastructure, automation, and repeatable process controls to deliver consistent quality at production scale.

SLS later expanded the program to support Compute Express Link, or CXL, environments. This enabled recertified DDR4 to be integrated into new infrastructure architecture rather than limited to maintenance or legacy applications.

Results at Scale

Since the program began, SLS has processed more than 9 million DDR4 modules, with yields consistently exceeding 99.5%.

In 2025 alone:

- More than 2.6 million modules were tested and reprogrammed.
- More than 1.1 million modules were prepared for ODM builds and new product introductions.
- Monthly throughput increased from 45,000 to 300,000 modules through expanded testing infrastructure and automation.

The resulting inventory has supported deployment in production data center environments while improving hardware availability during periods of supply constraint.

Business Impact

The program gives the hyperscaler a reliable source of recertified, production-ready DDR4 for critical infrastructure deployments. By connecting memory recovery with rigorous testing and qualification, SLS helps :

- Increase access to deployment-ready DDR4, strengthening inventory resilience
- Support ODM builds and new product introductions
- Reduce dependence on constrained new-memory supply
- Maintain consistent quality across millions of modules
- Extend DDR4 into CXL-enabled infrastructure

As an additional benefit, reusing qualified memory reduces the need to manufacture replacement modules and avoids the associated embodied carbon. Based on SLS estimates, redeploying 1.1 million DDR4 units avoided approximately 13.2 million kg of CO_2e.

Key Takeaway

The program showcases SLS's innovation capabilities, demonstrating how we anticipated market needs and developed a rigorous memory redeployment strategy to maximize reuse and value recovery. The expertise gained through DDR4 recertification is now informing new approaches to data-safe storage media reuse and GPU recertification, where trust, validation and performance matter just as much.

