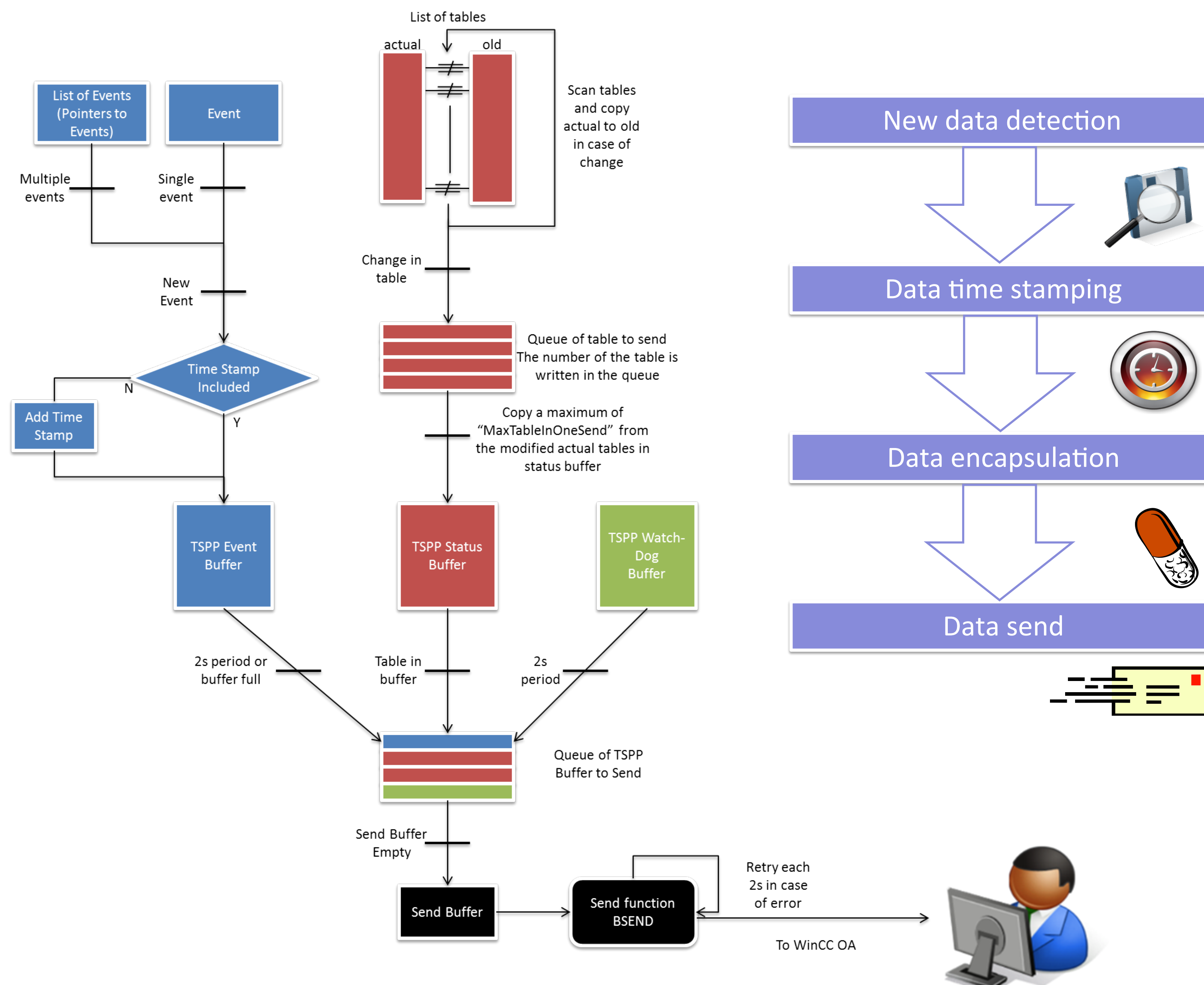
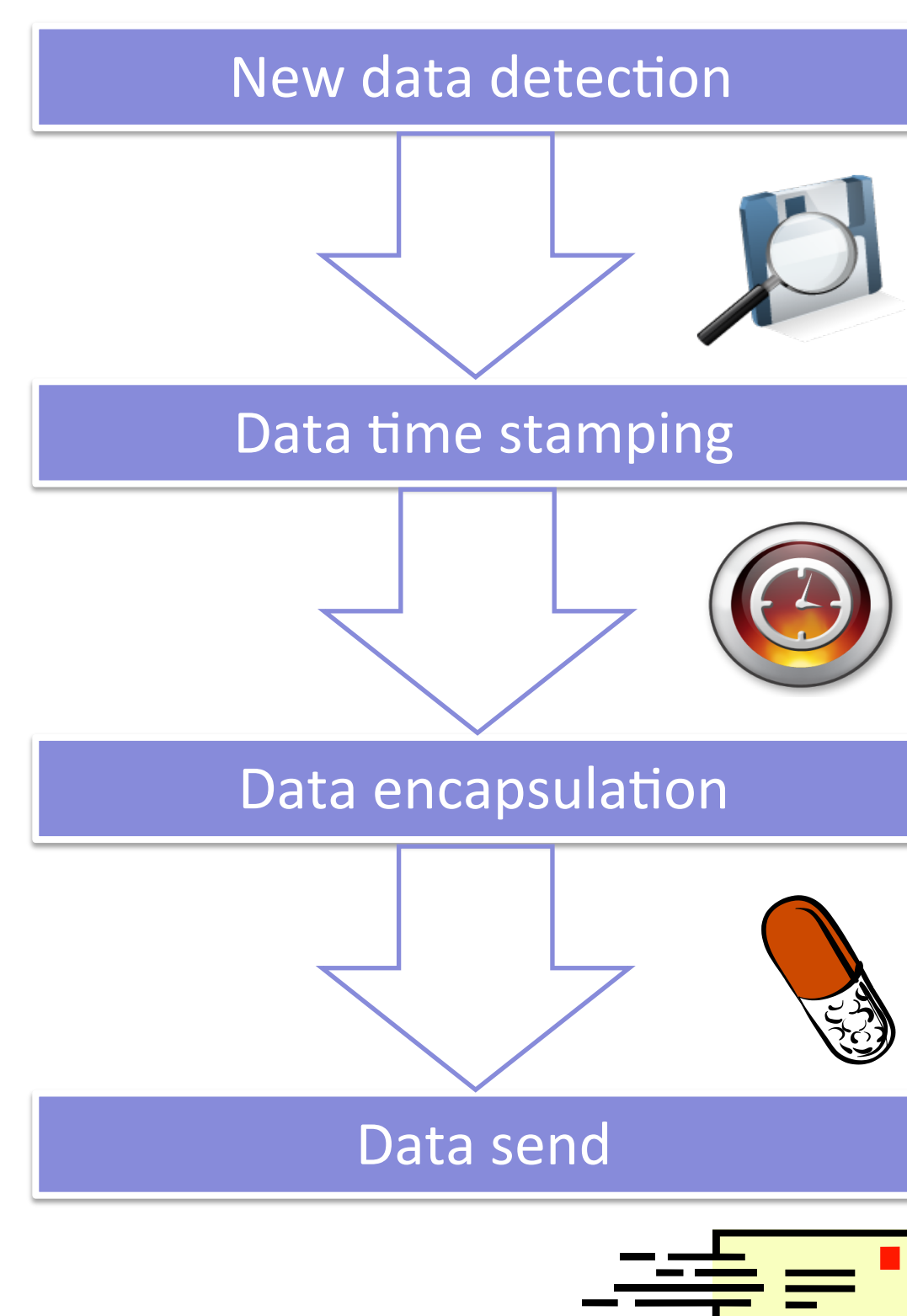


The CERN **UN**ified Industrial **CO**nrol **S**ystem framework (UNICOS) with its Continuous Control Package (UNICOS CPC) is the CERN standard solution for the design and implementation of continuous industrial process control applications. The in-house designed communication mechanism, based on the **Time Stamp Push Protocol (TSPP)** provides event driven **high performance** data communication between the control and supervision layers of a UNICOS-CPC application. This poster presents the TSPP design, **redundant architecture** as well as a comprehensive evaluation of its performance for SIEMENS PLCs in different test scenarios.

TSPP PLC Manager

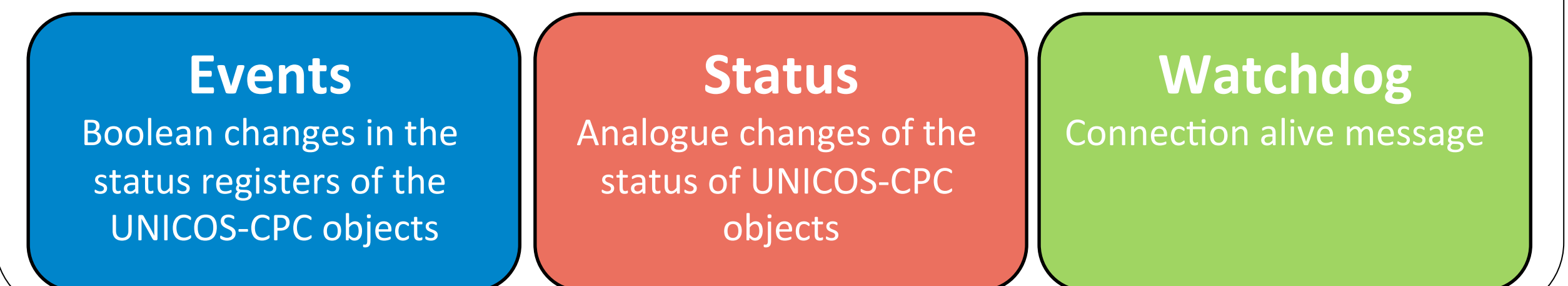


TIME STAMP PUSH PROTOCOL (TSPP)

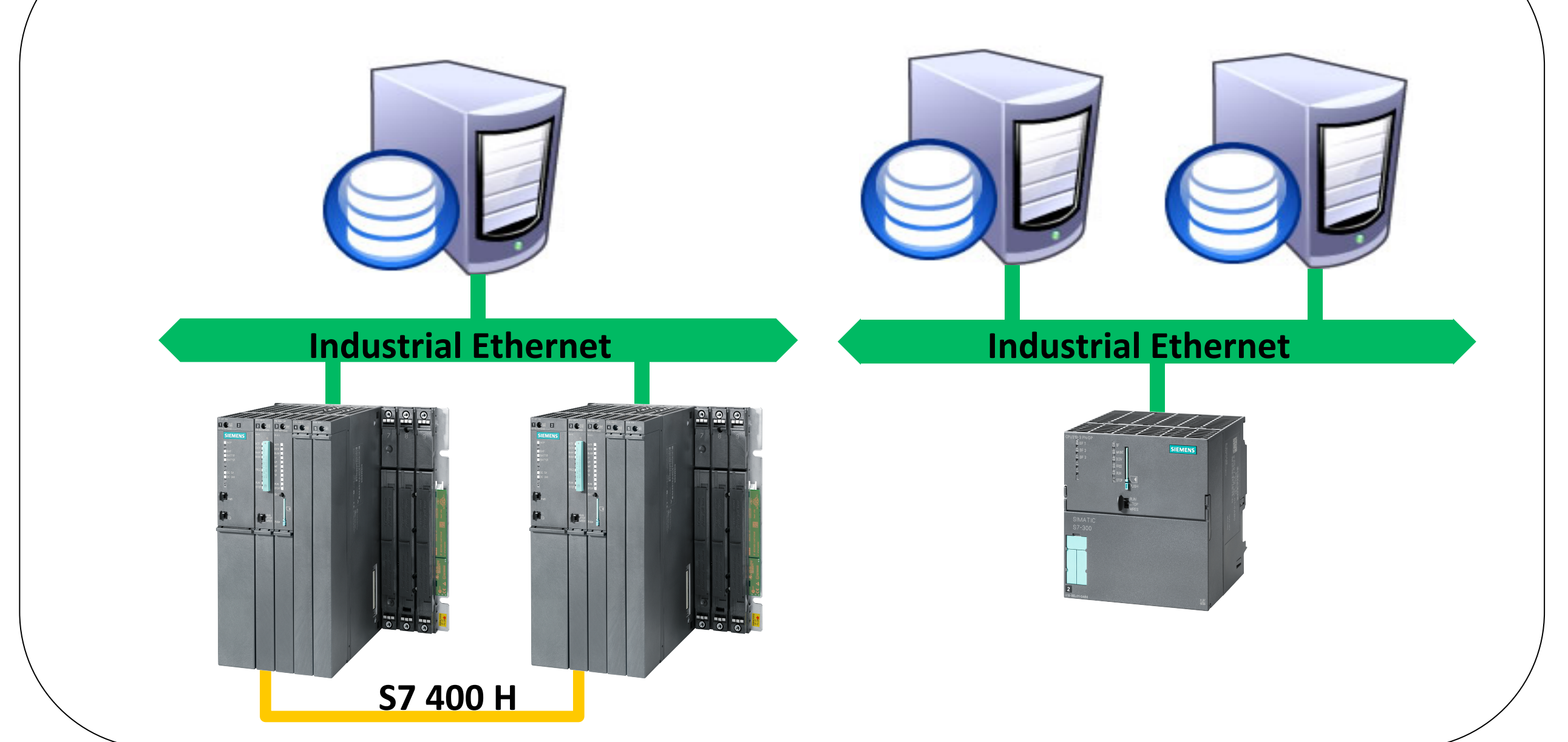


- ✓ Event driven
- ✓ From PLC to data server
- ✓ Time-stamped data at source
- ✓ Communication optimisation

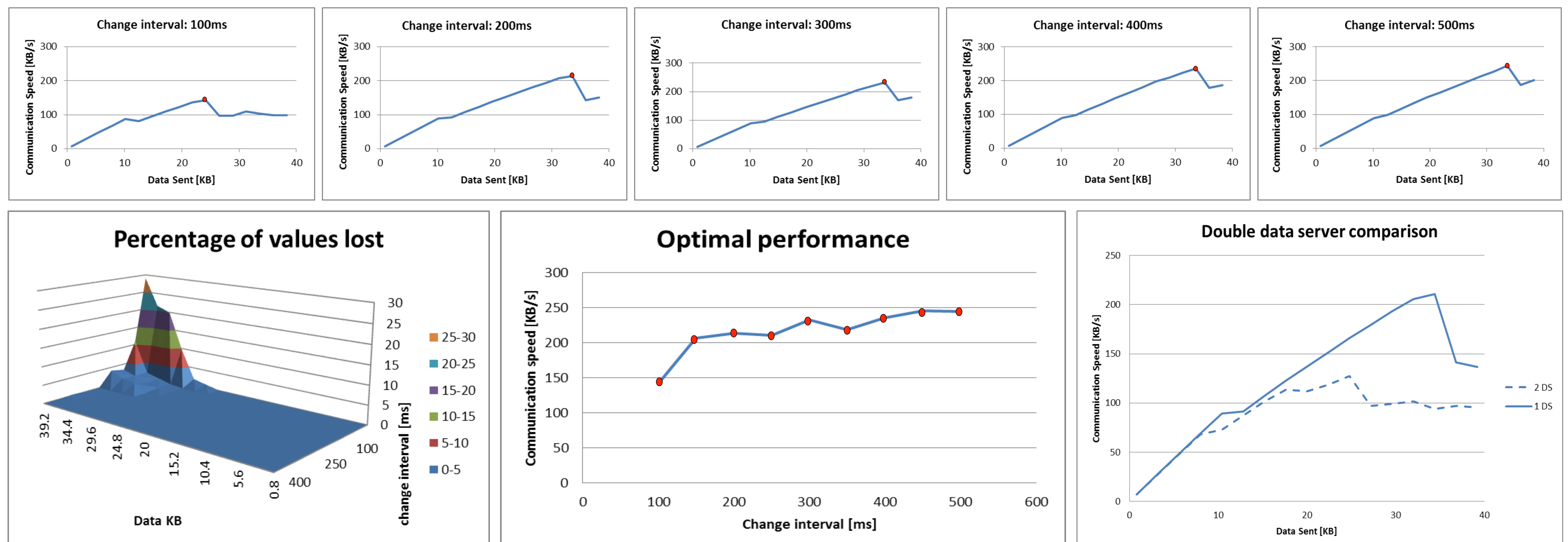
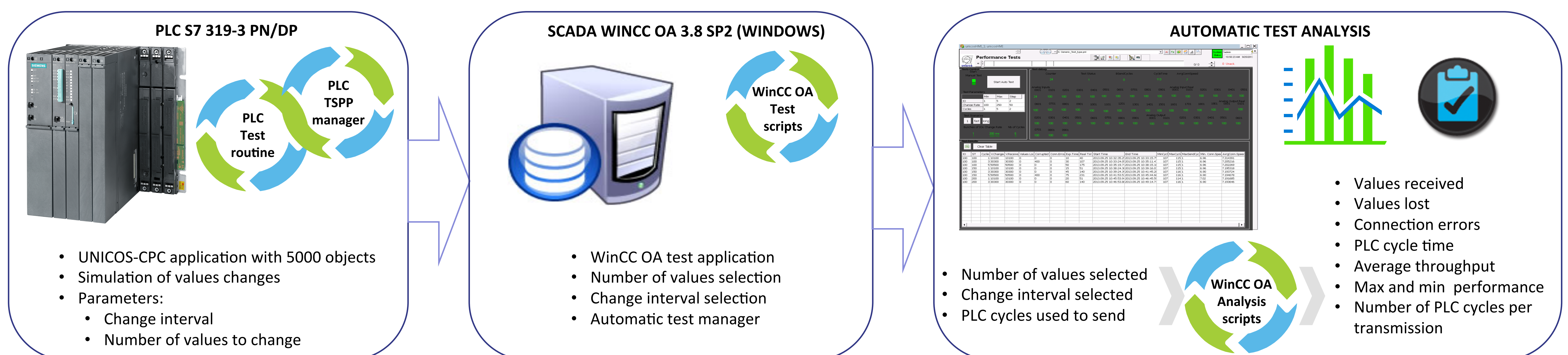
Message types



Redundant architectures



PERFORMANCE TESTS



- ✓ High performance, stability and robustness
- ✓ Transfer rates up to 250 KB/s
- ✓ Automated data analysis scripts
- ✓ High availability
- ✓ Permanent test bench for future versions validation