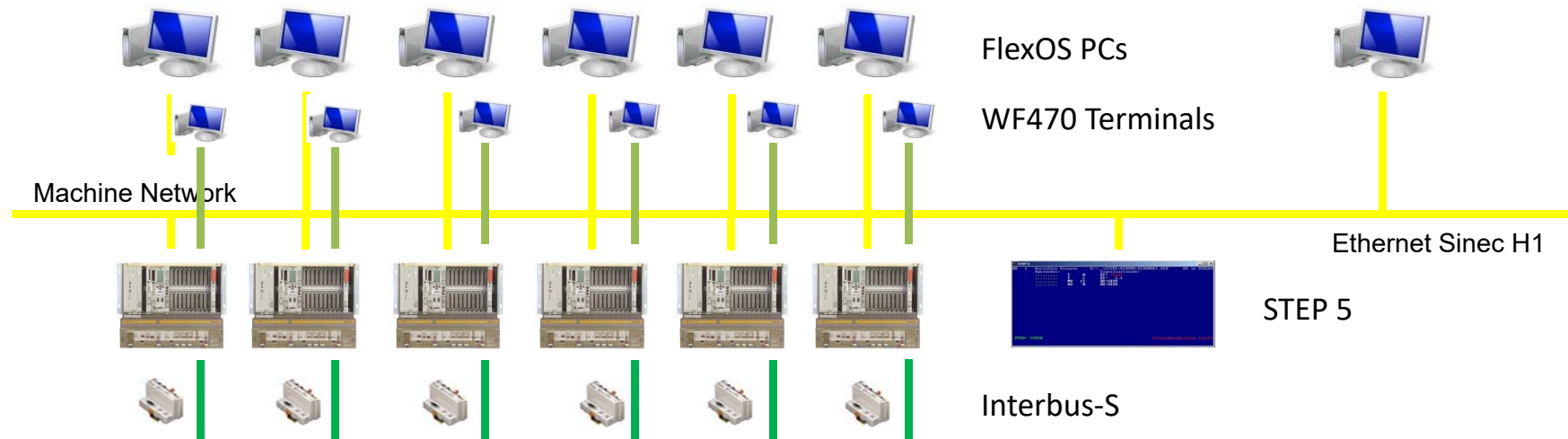


Integration of an analysis and data-management system Plant modernisation with ABC IT Systems

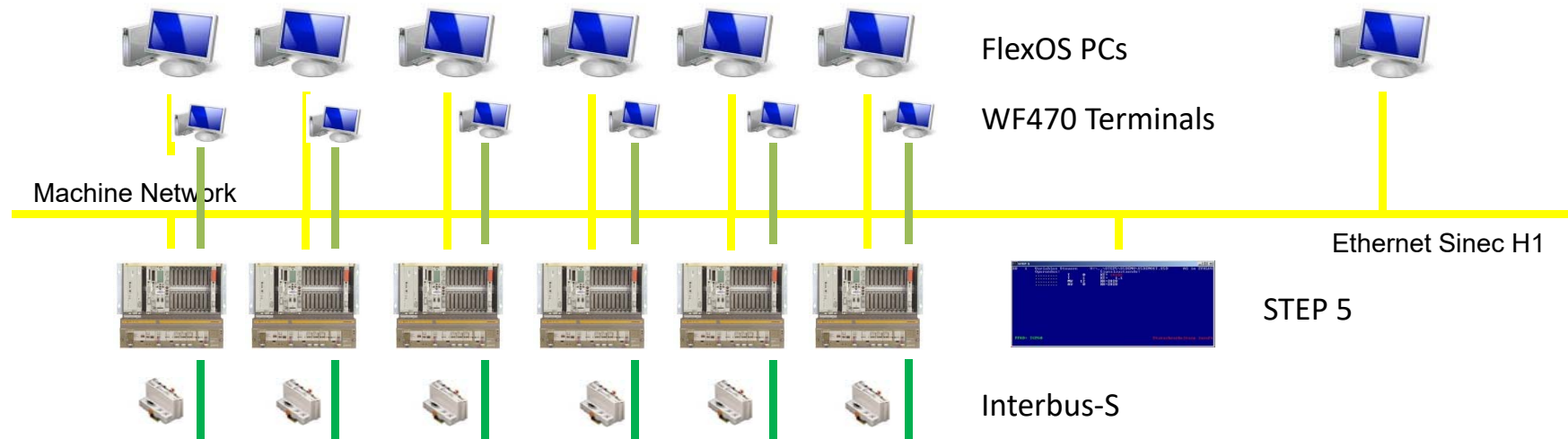
Current Condition

- Simatic S5 PLC Systems
 - WF470 operating terminal
 - Interbus-S
 - IP, WF, digital I/Os
 - STEP 5 programming
- Sinec H1 bus system
- Gracis control system
 - Siemens PC with Flex-OS operating system
 - CP1143 (H1 activation) or similar ISA bus



Current Condition - Assessment

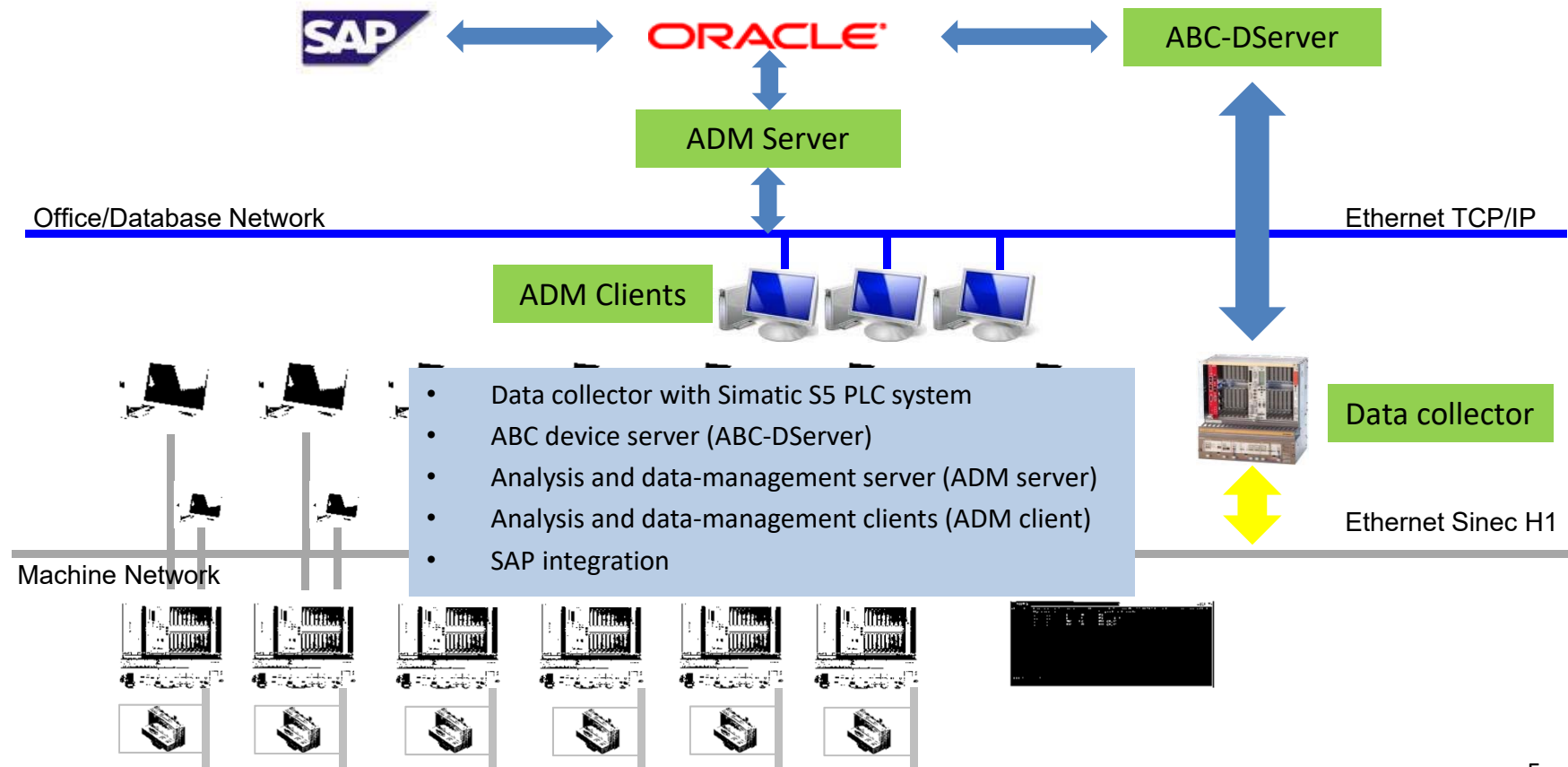
- The integration of an analysis and data-management system is not possible with the existing infrastructure.
- All components used here are out of date, they are being discontinued and spares are only difficult or even impossible to procure.



ABC retrofit - concept

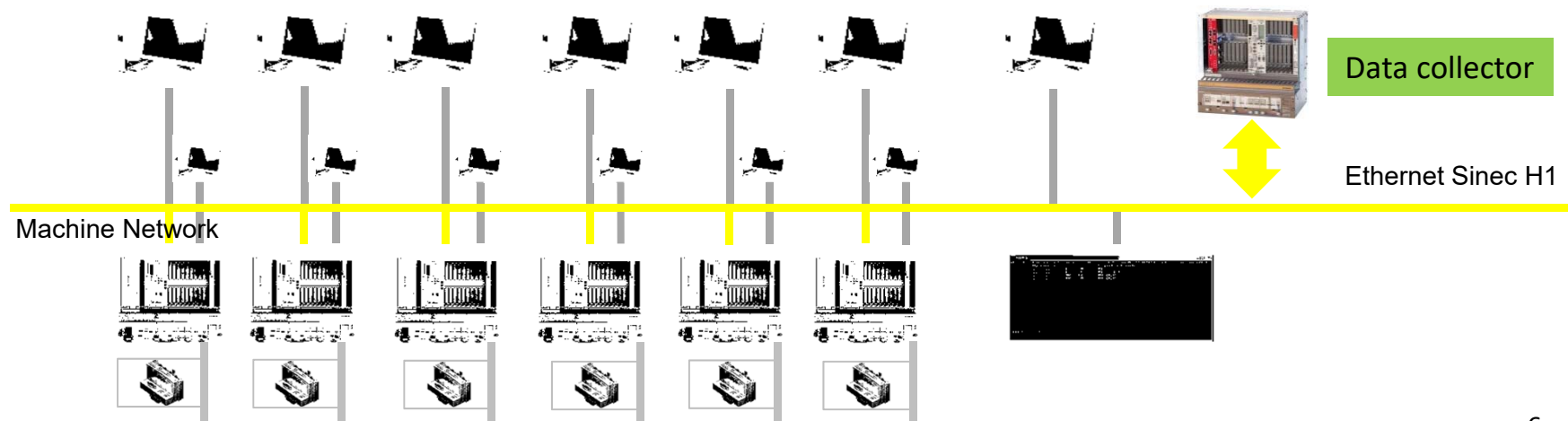
- ✓ The ABC retrofit concept constitutes the basis for the expansion and modernisation of Simatic S5 system controls.
- ✓ The costs for the individual modernisation and conversion phases may be precisely specified (cost control).
- ✓ Systems will be modernised according to the state-of-the-art over a planned period of time (planning reliability).
- ✓ No additional system downtimes during the individual phases of modernisation.

1. Integration of an analysis and data-management system



Step 1.1

- Data collector with Simatic S5 PLC system
 - Simatic S5 rack (from spare parts)
 - ABC-X-CPU (new)
 - CP143 (Sinec H1) (from spare parts)
 - Expansion of the connection project in the individual cells
 - No program customisations necessary
 - Data points must be known



Step 1.2

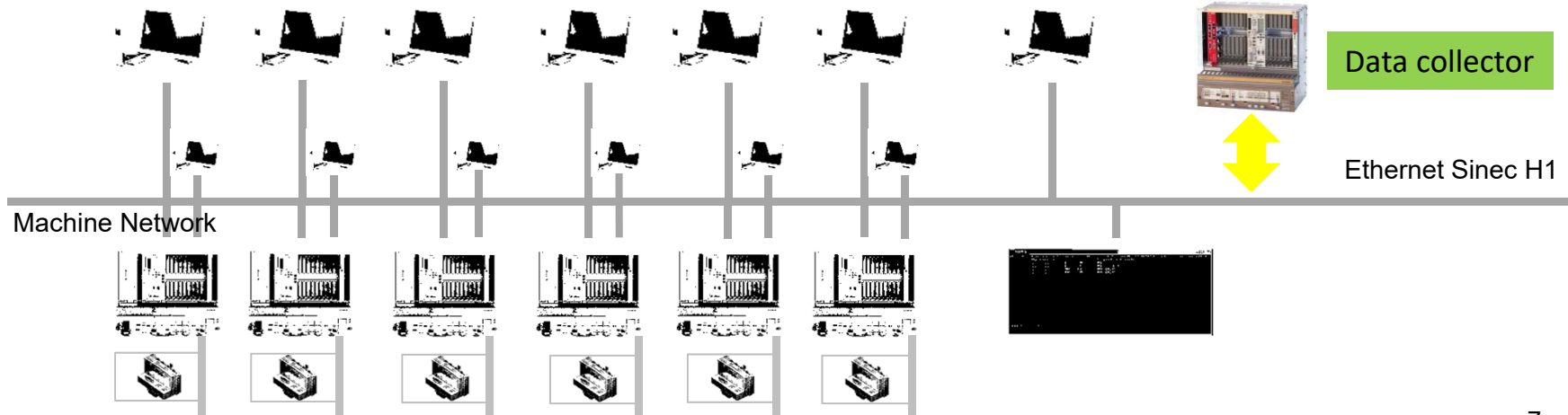
- ABC device server (ABC-DServer)
 - Central data acquisition from the data collector via ABC-X-CPU and Ethernet TCP/IP.
 - Data is written into an SQL database (e.g. Oracle) for further processing.
 - The server is installed on a Windows XP/ Windows 7 or Windows Server system and started as a service.
 - The connection parameters are set in the database. No additional tools are required to set the parameters.

ORACLE®

ABC-DServer

Office/Database Network

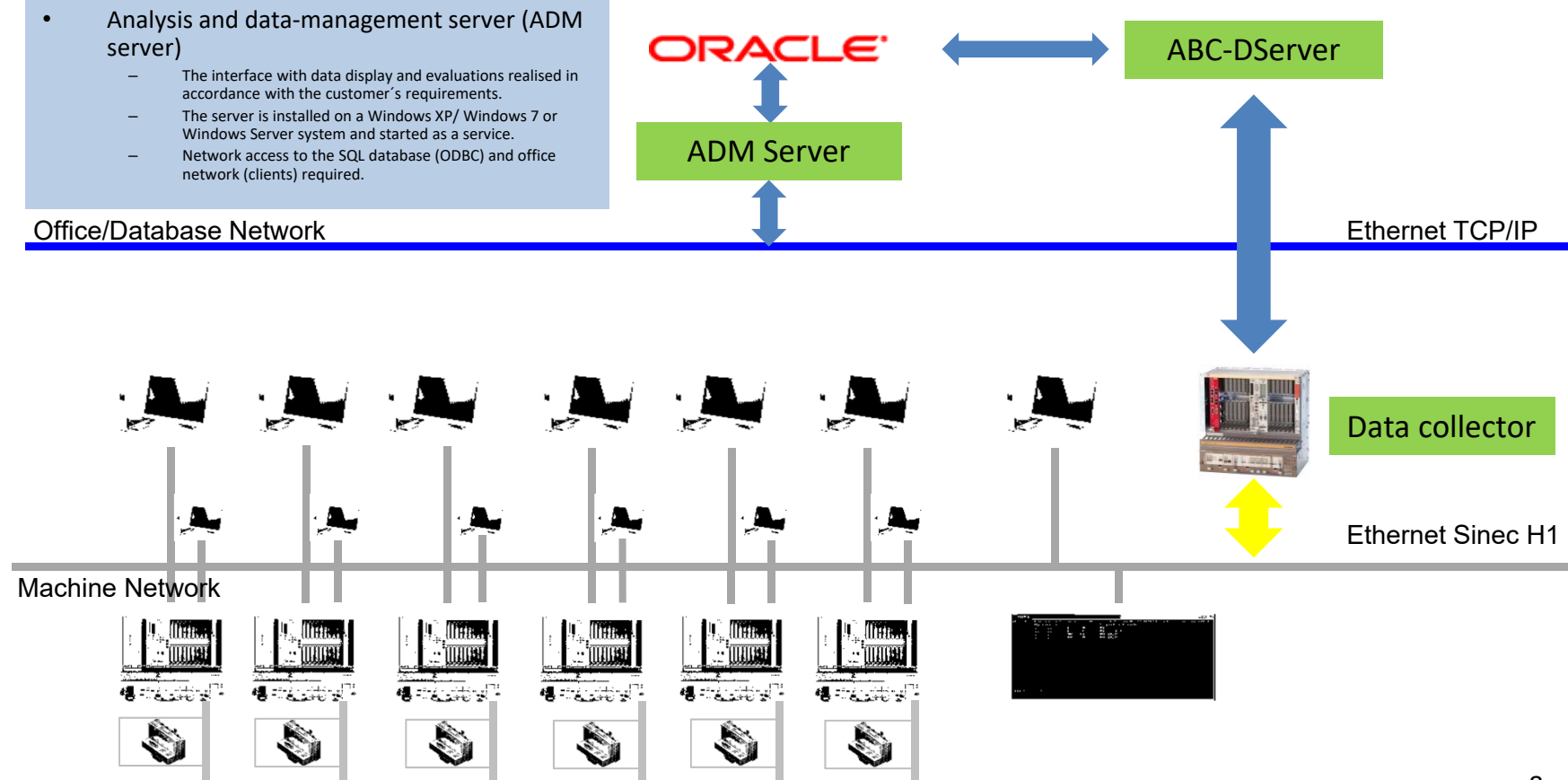
Ethernet TCP/IP



Step 1.3

- Analysis and data-management server (ADM server)

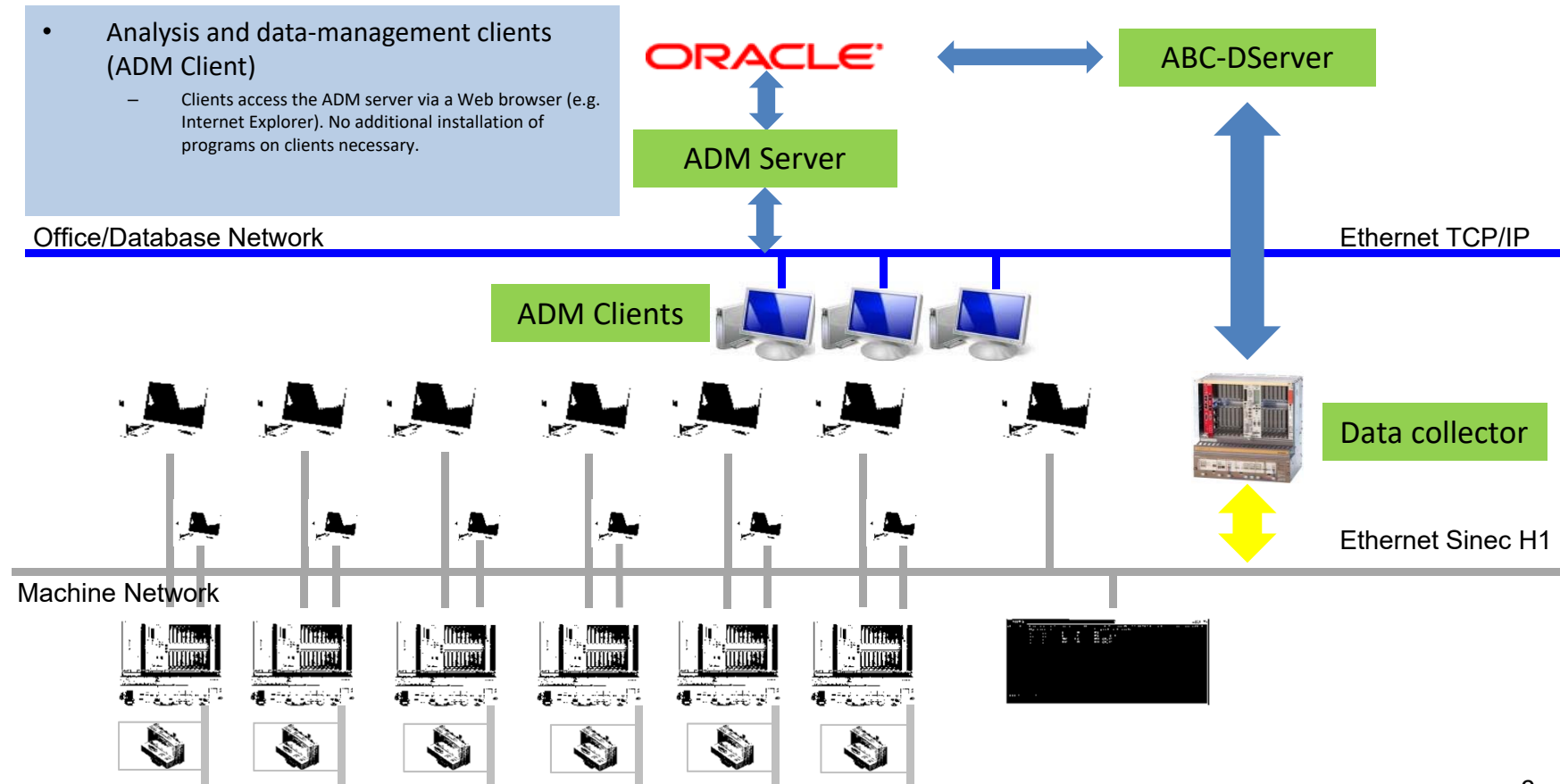
- The interface with data display and evaluations realised in accordance with the customer's requirements.
- The server is installed on a Windows XP/ Windows 7 or Windows Server system and started as a service.
- Network access to the SQL database (ODBC) and office network (clients) required.



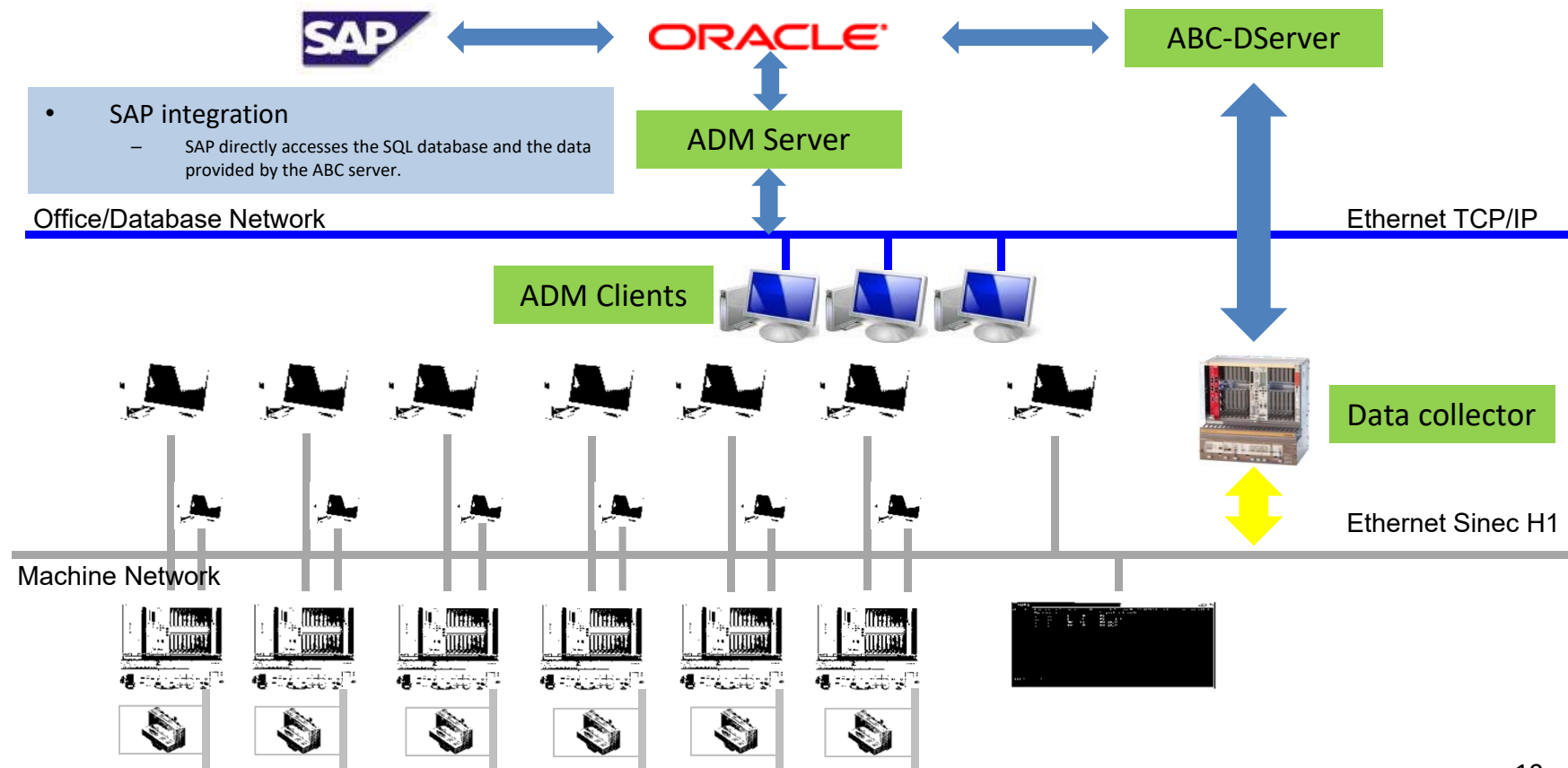
Step 1.4

- Analysis and data-management clients (ADM Client)

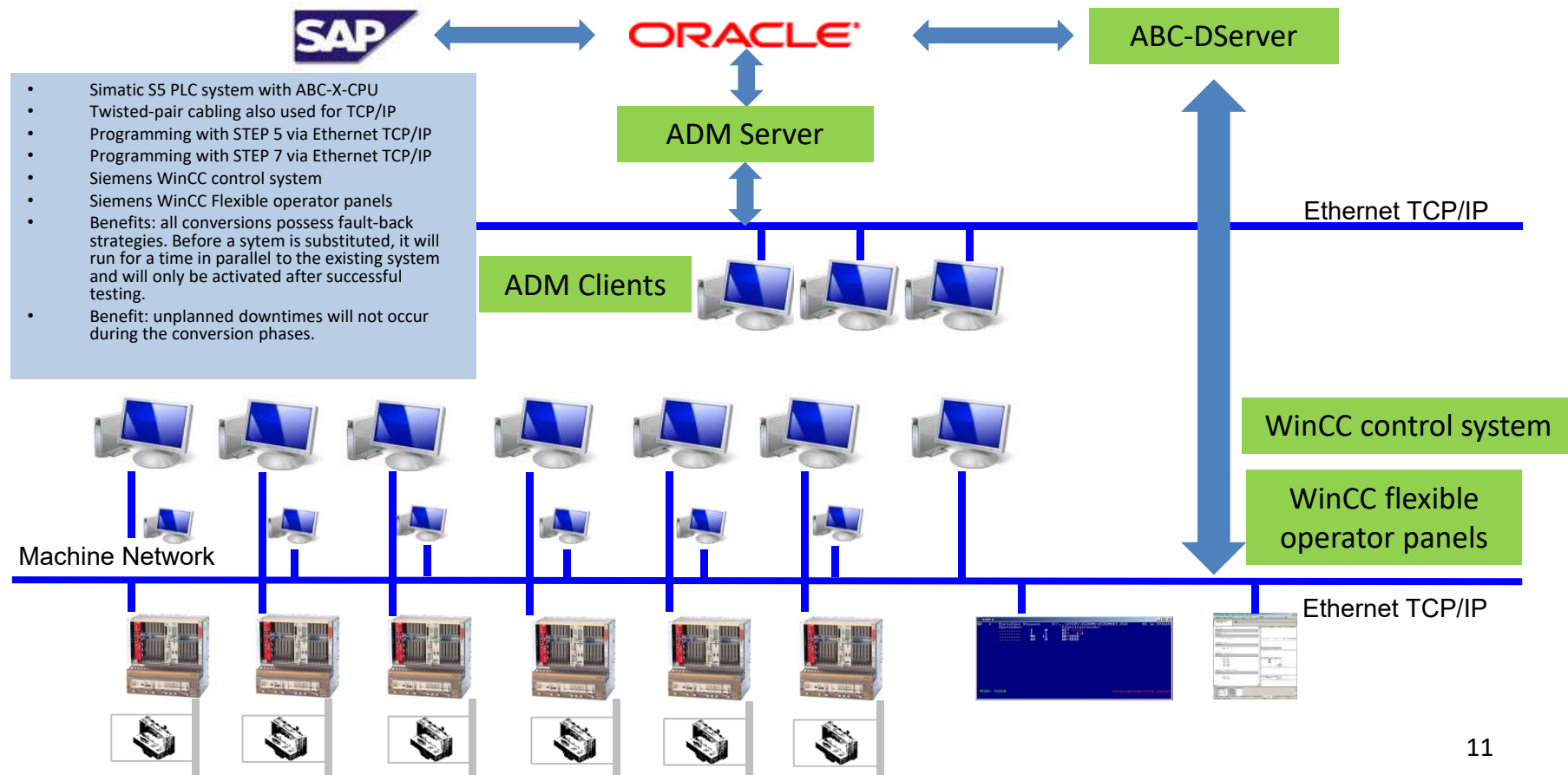
- Clients access the ADM server via a Web browser (e.g. Internet Explorer). No additional installation of programs on clients necessary.



Step 1.5



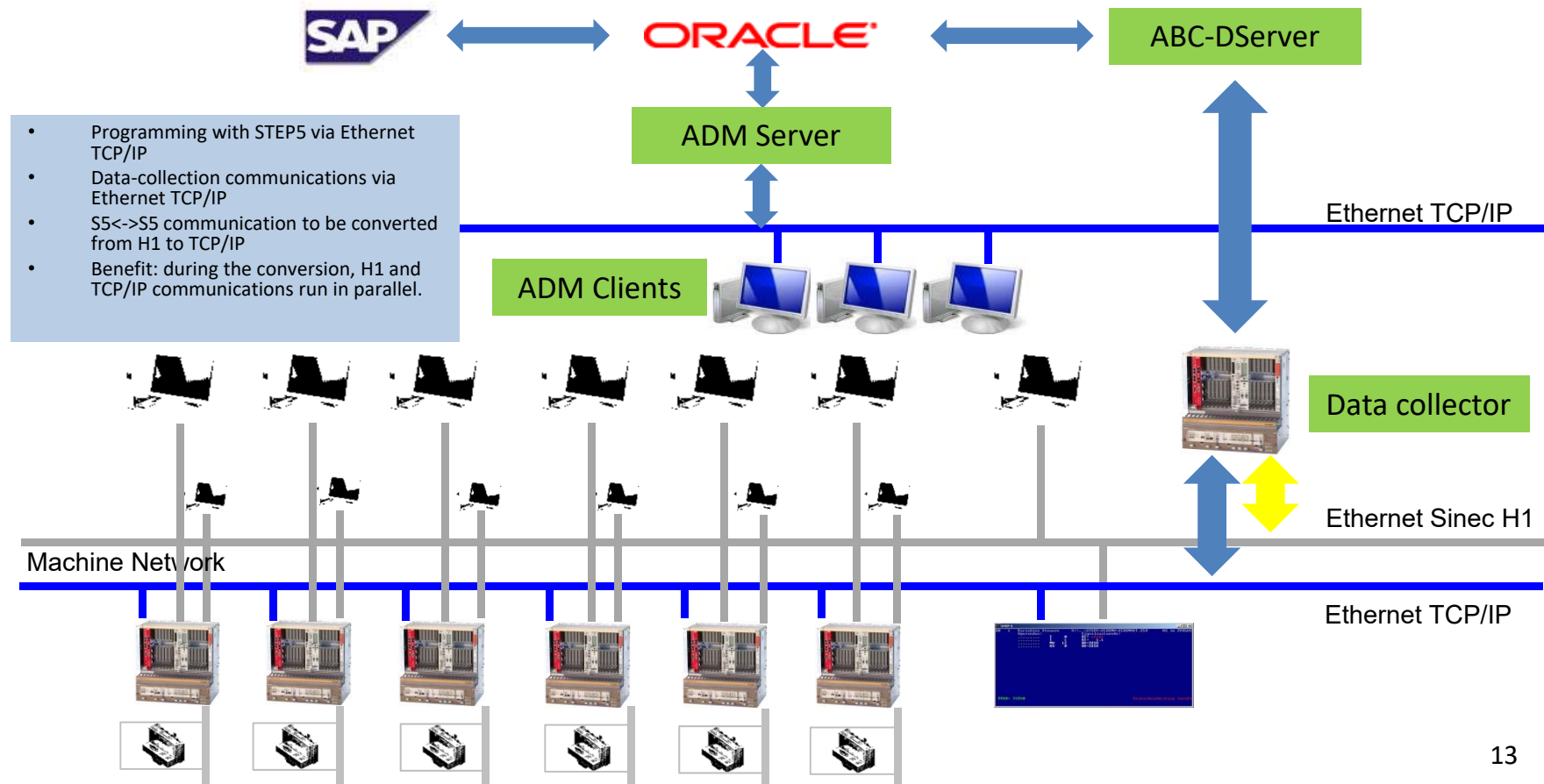
2. Modernisation control level



Step 2.1



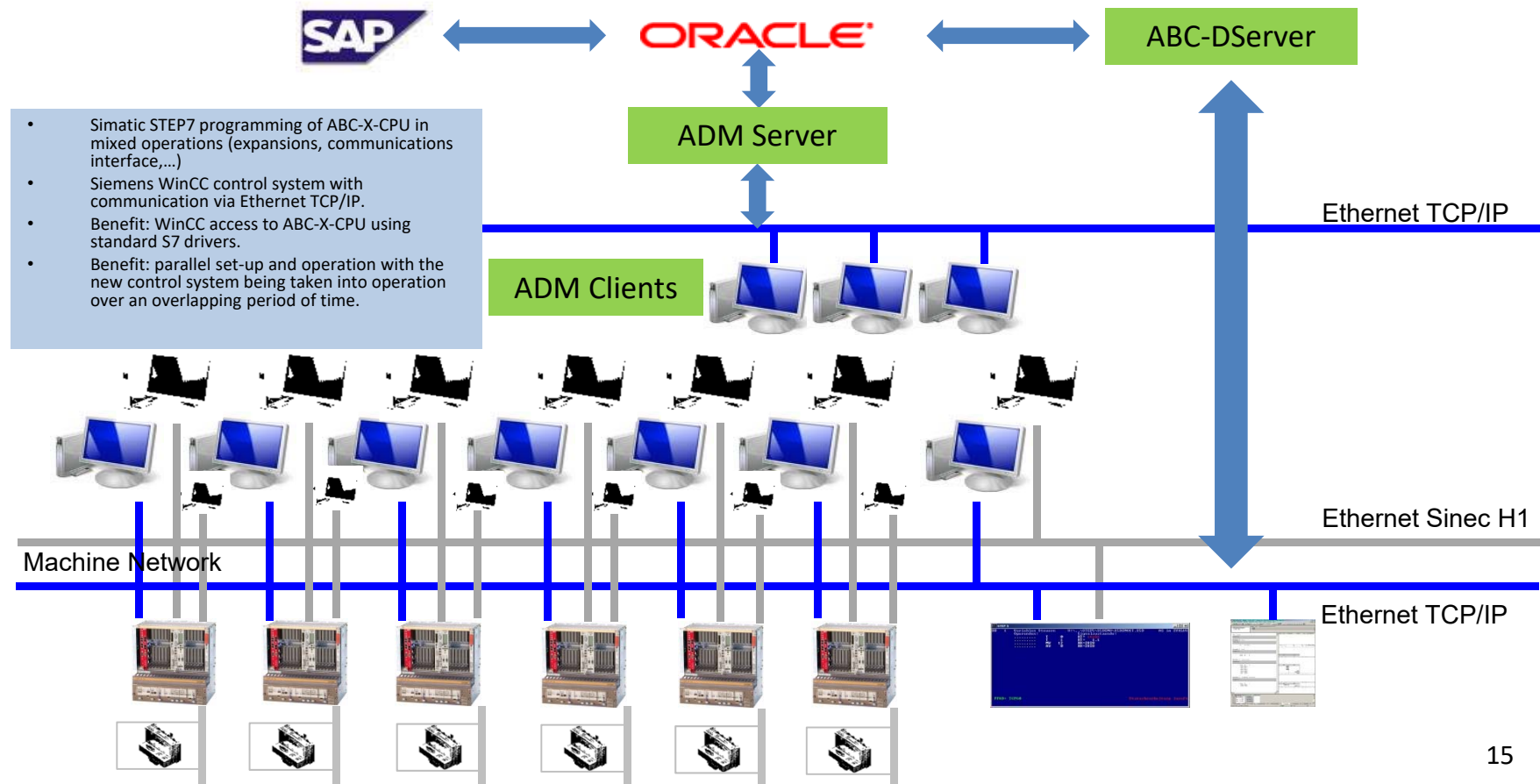
Step 2.2



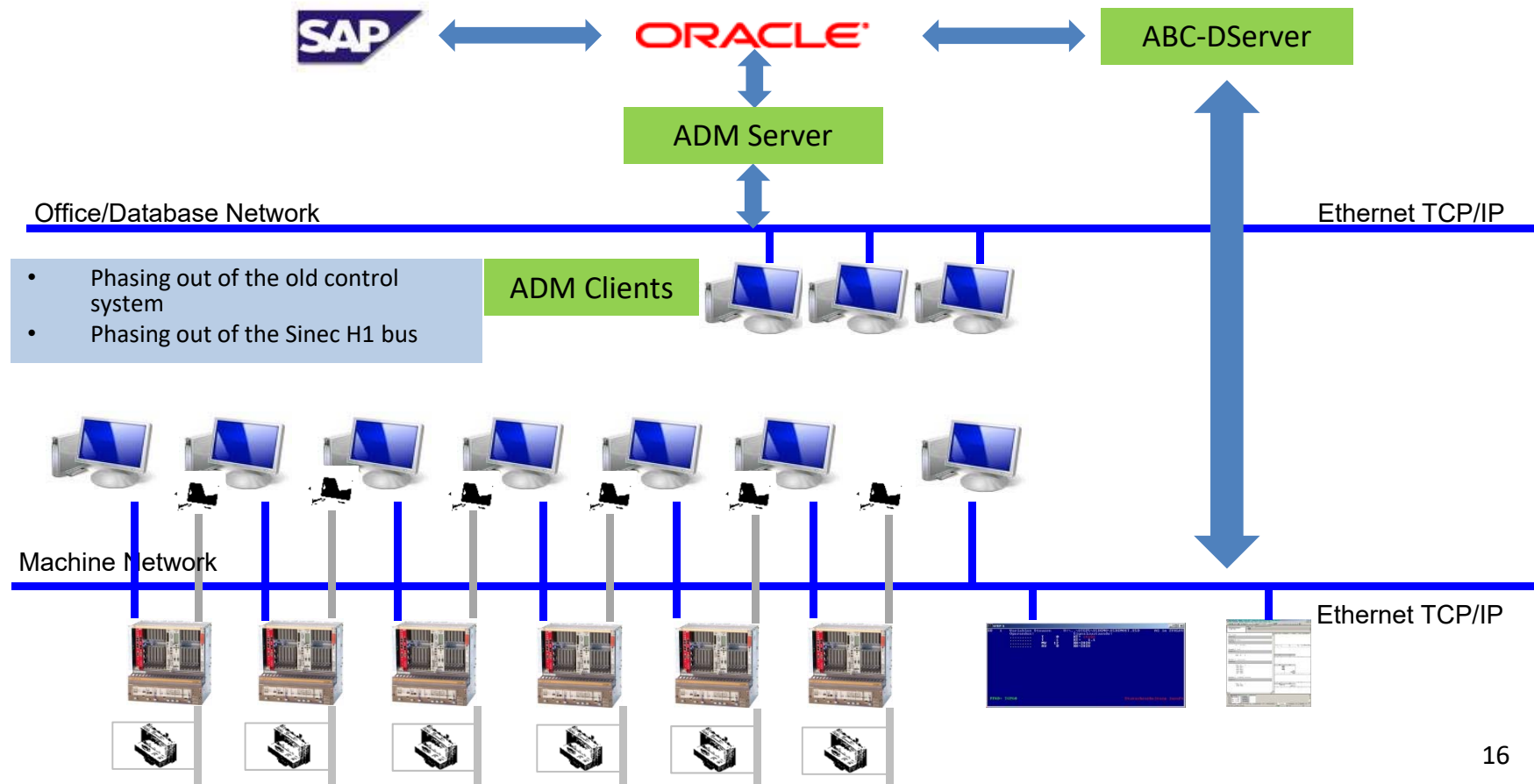
Step 2.3



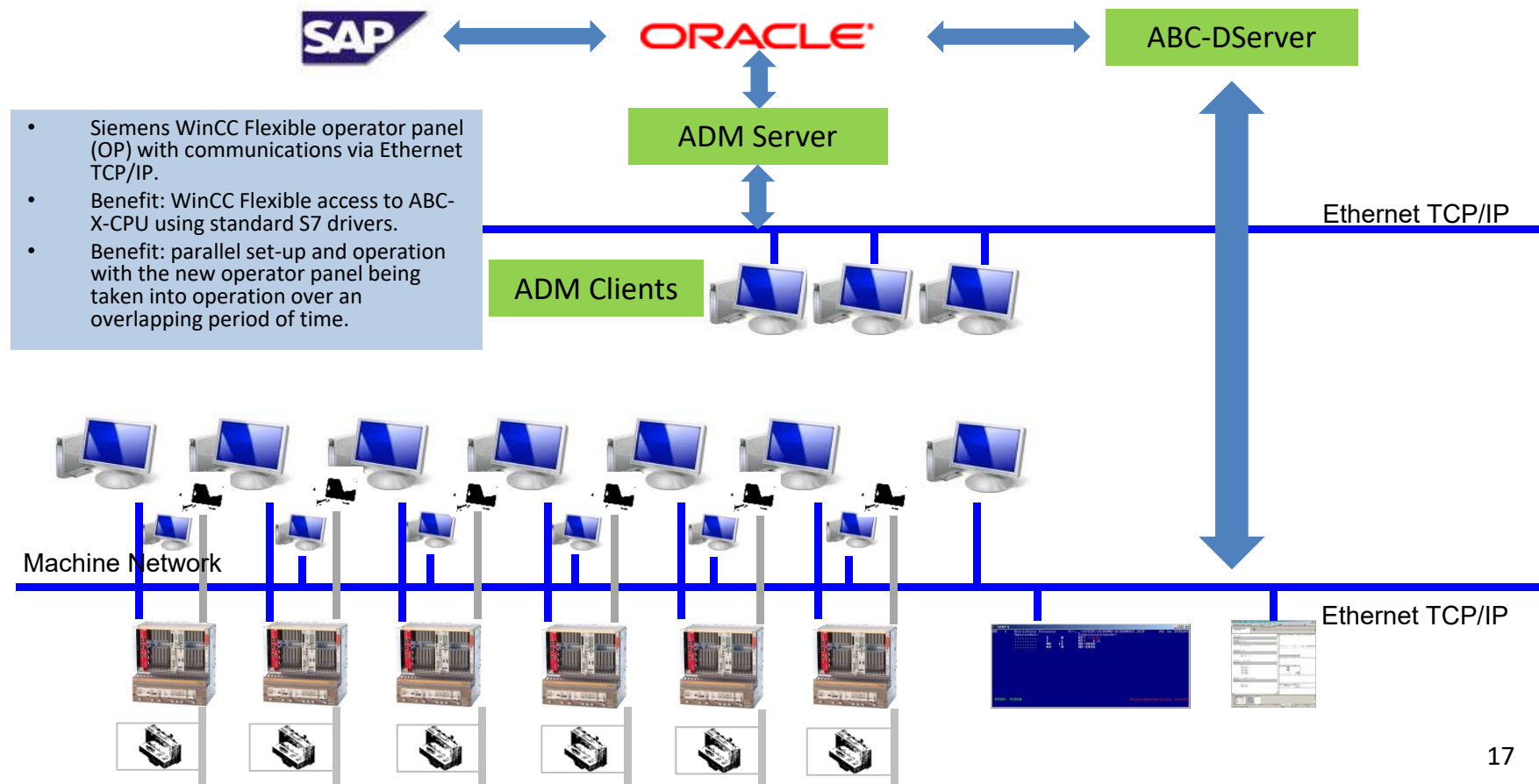
Step 2.4



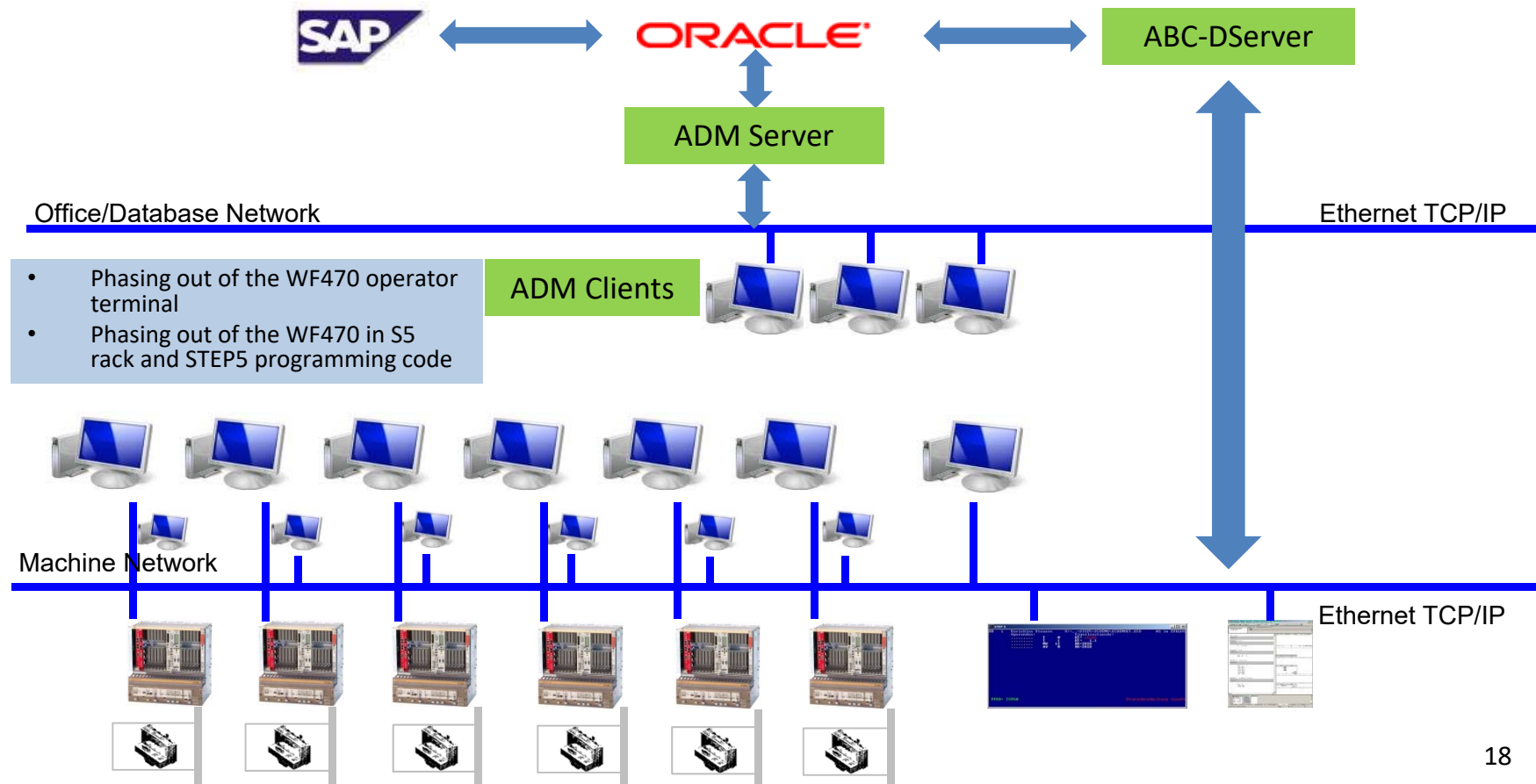
Step 2.5



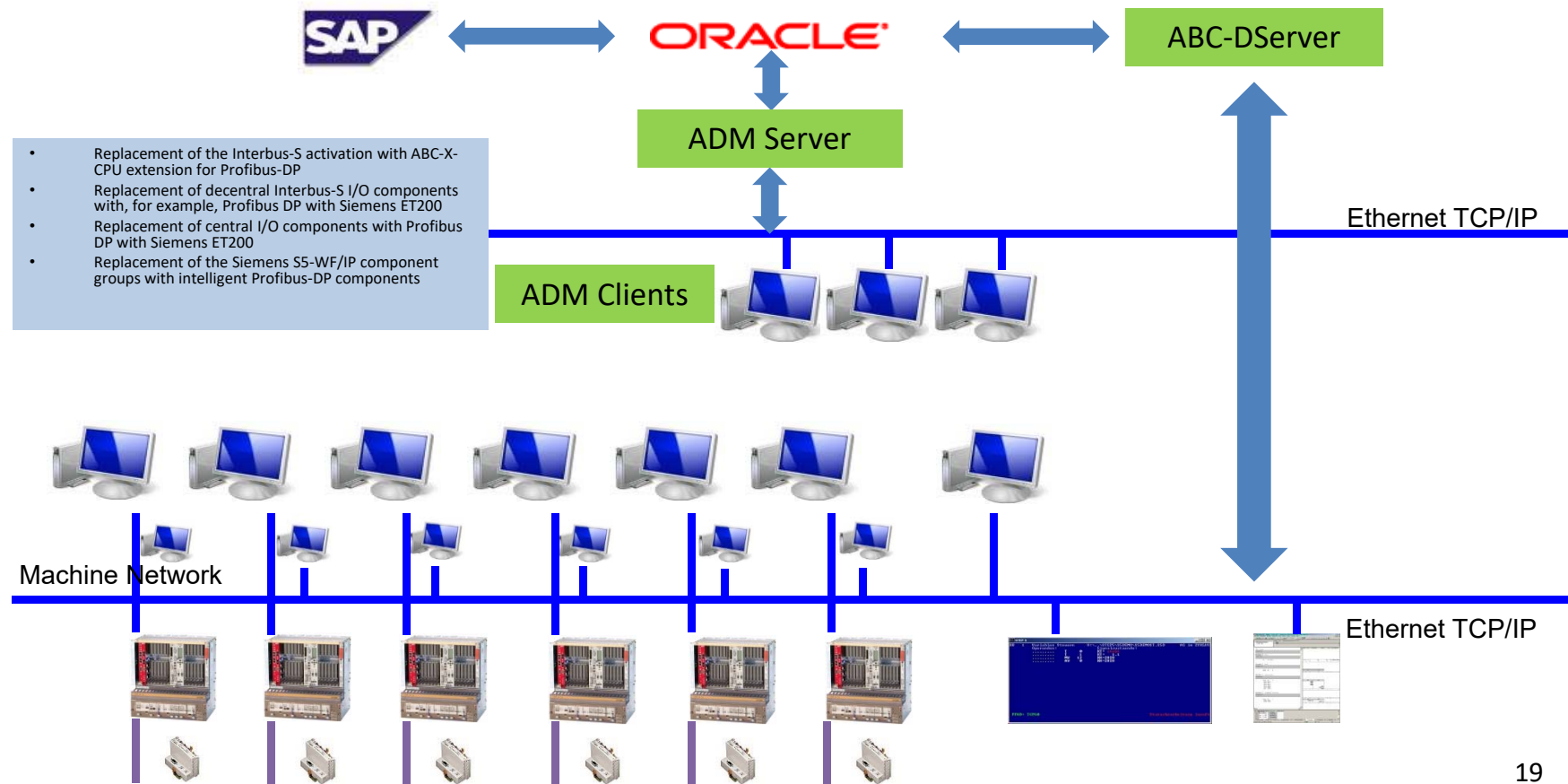
Step 2.6



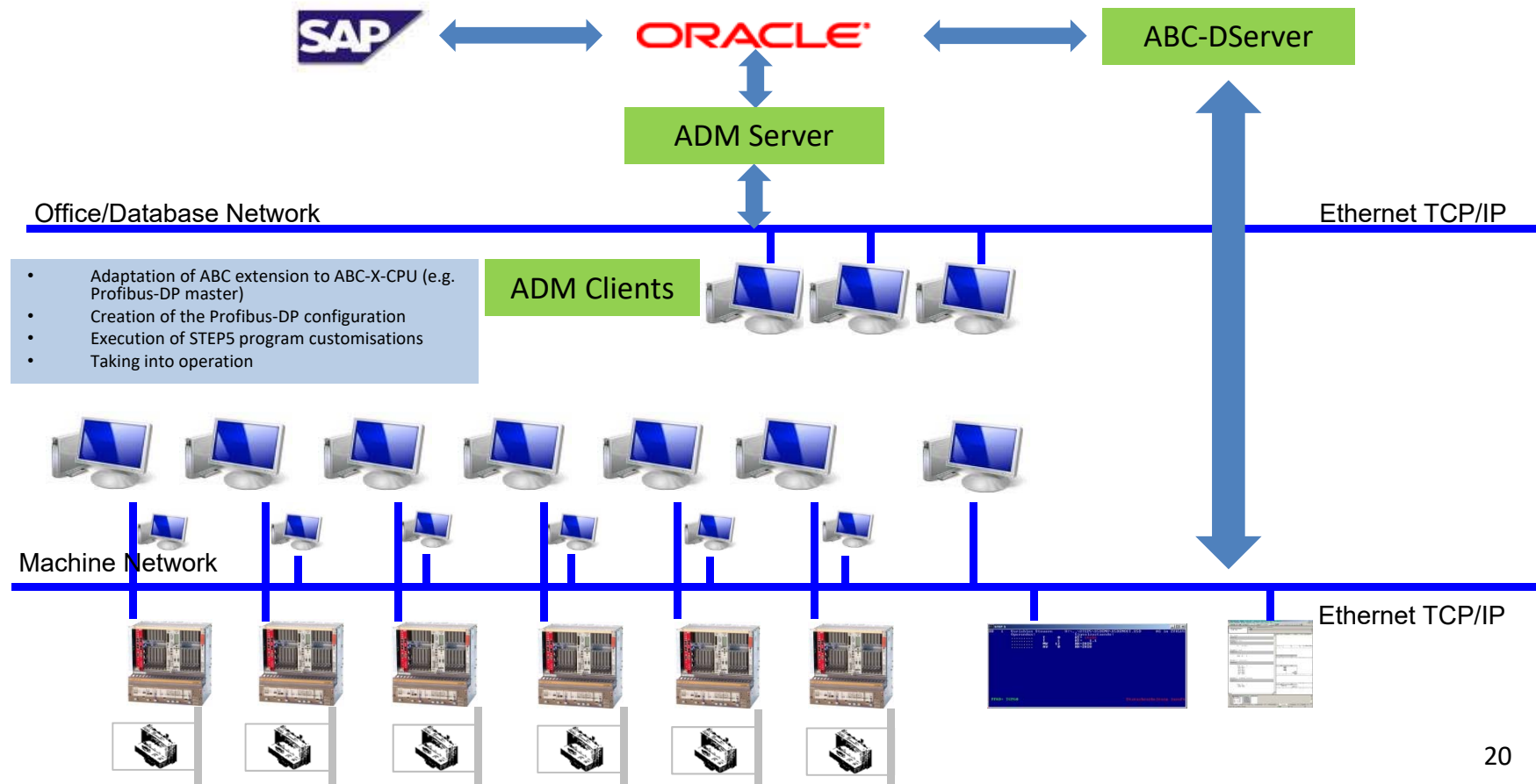
Step 2.7



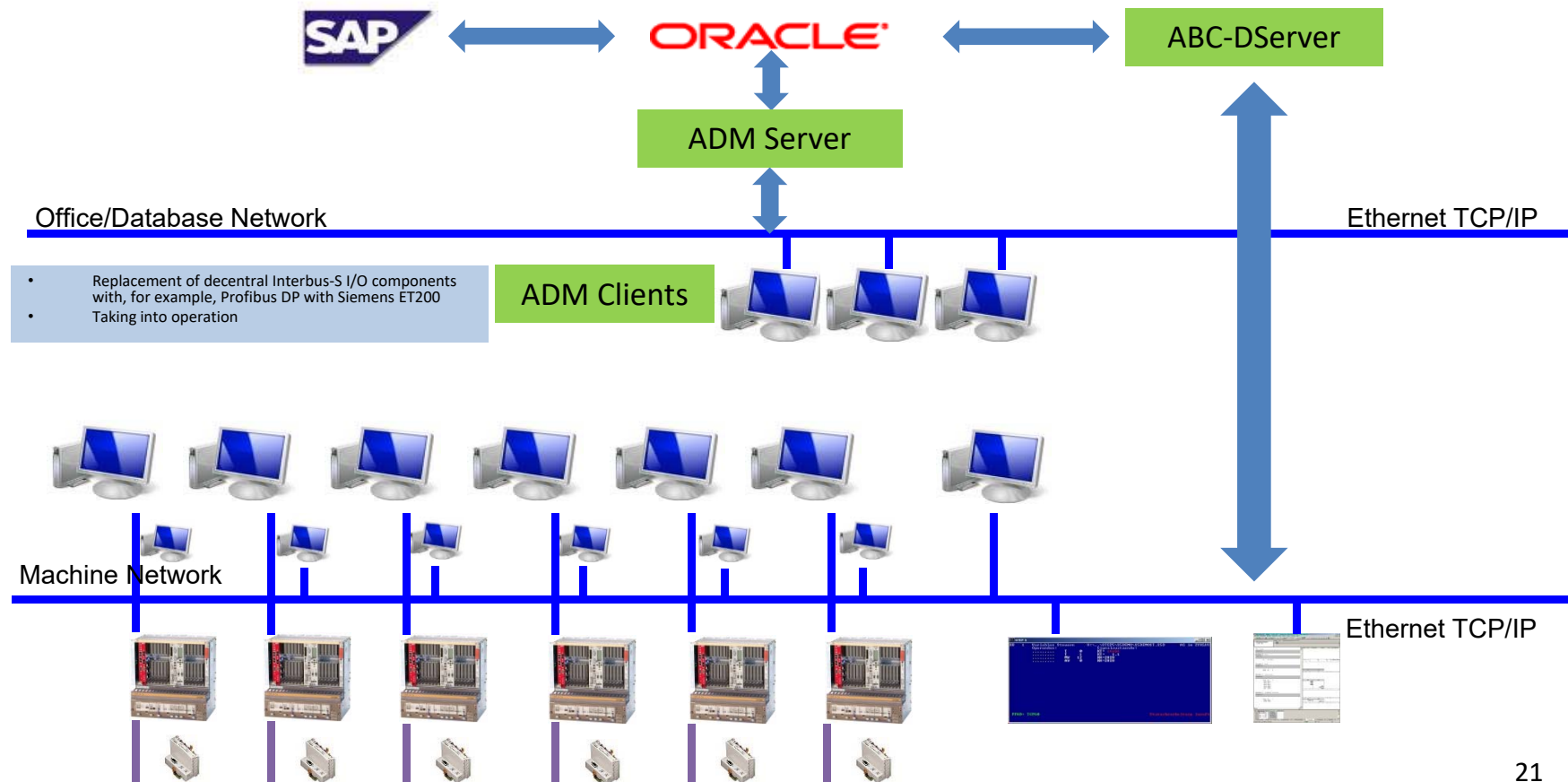
3. Modernisation field bus level



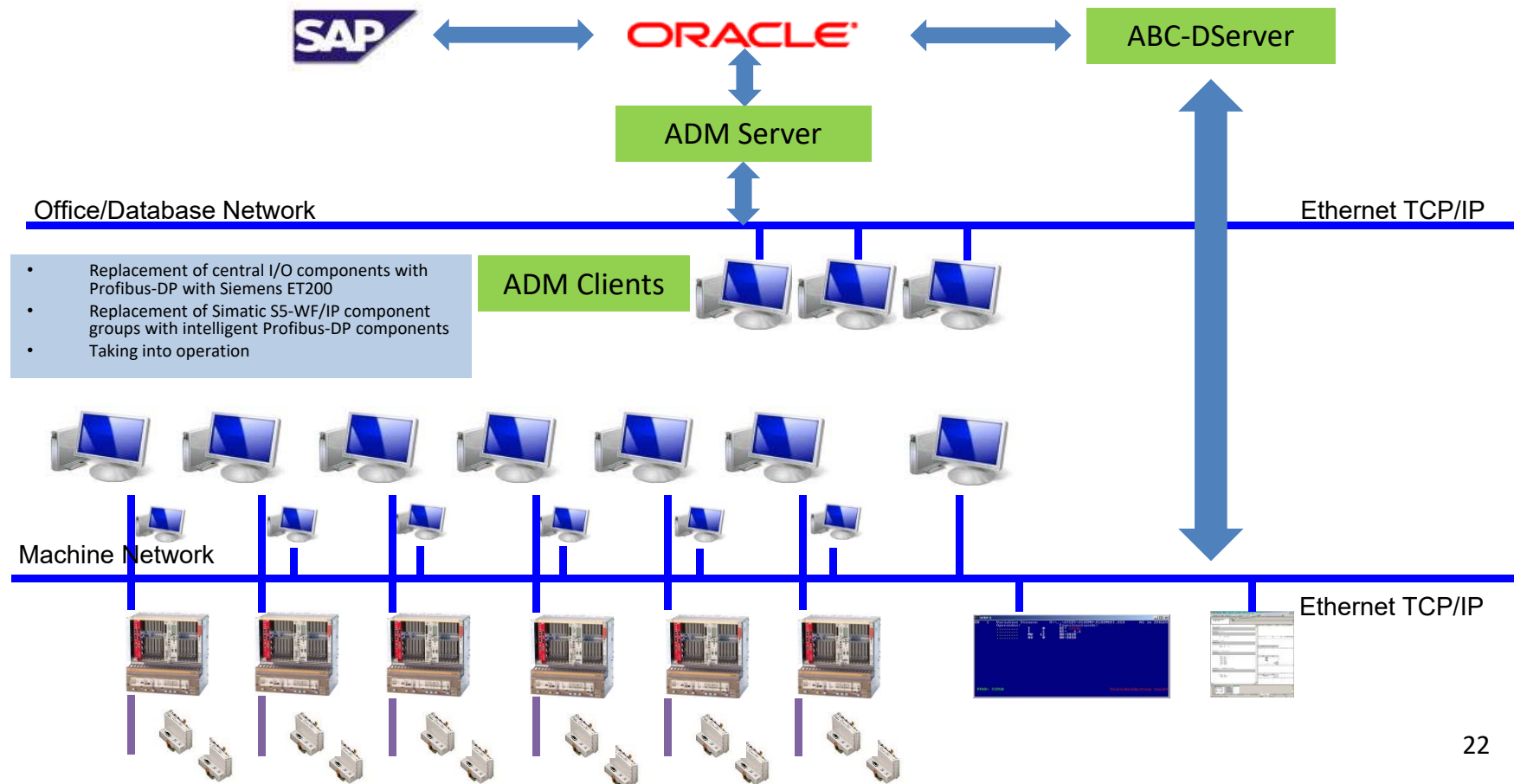
Step 3.1



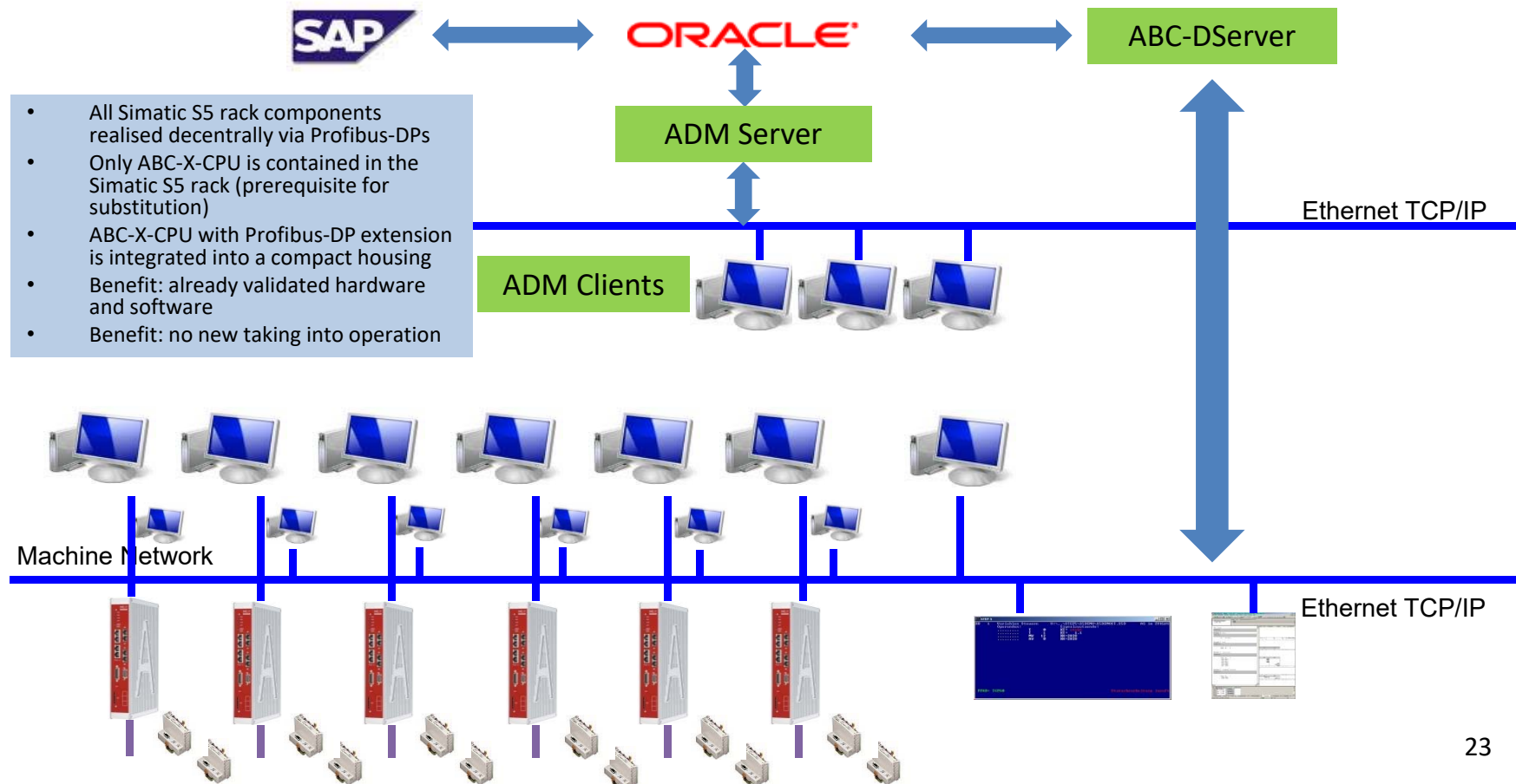
Step 3.2



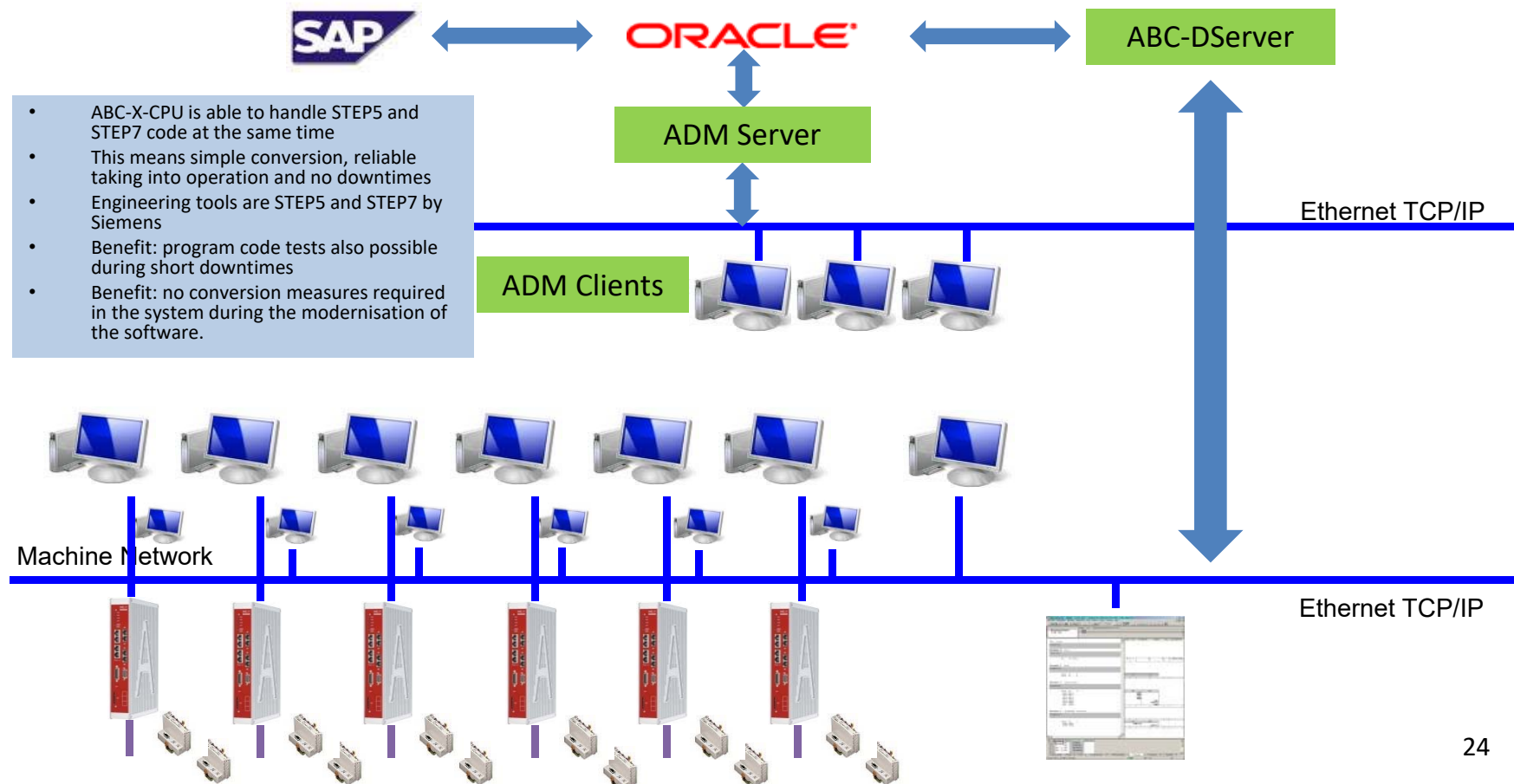
Step 3.3



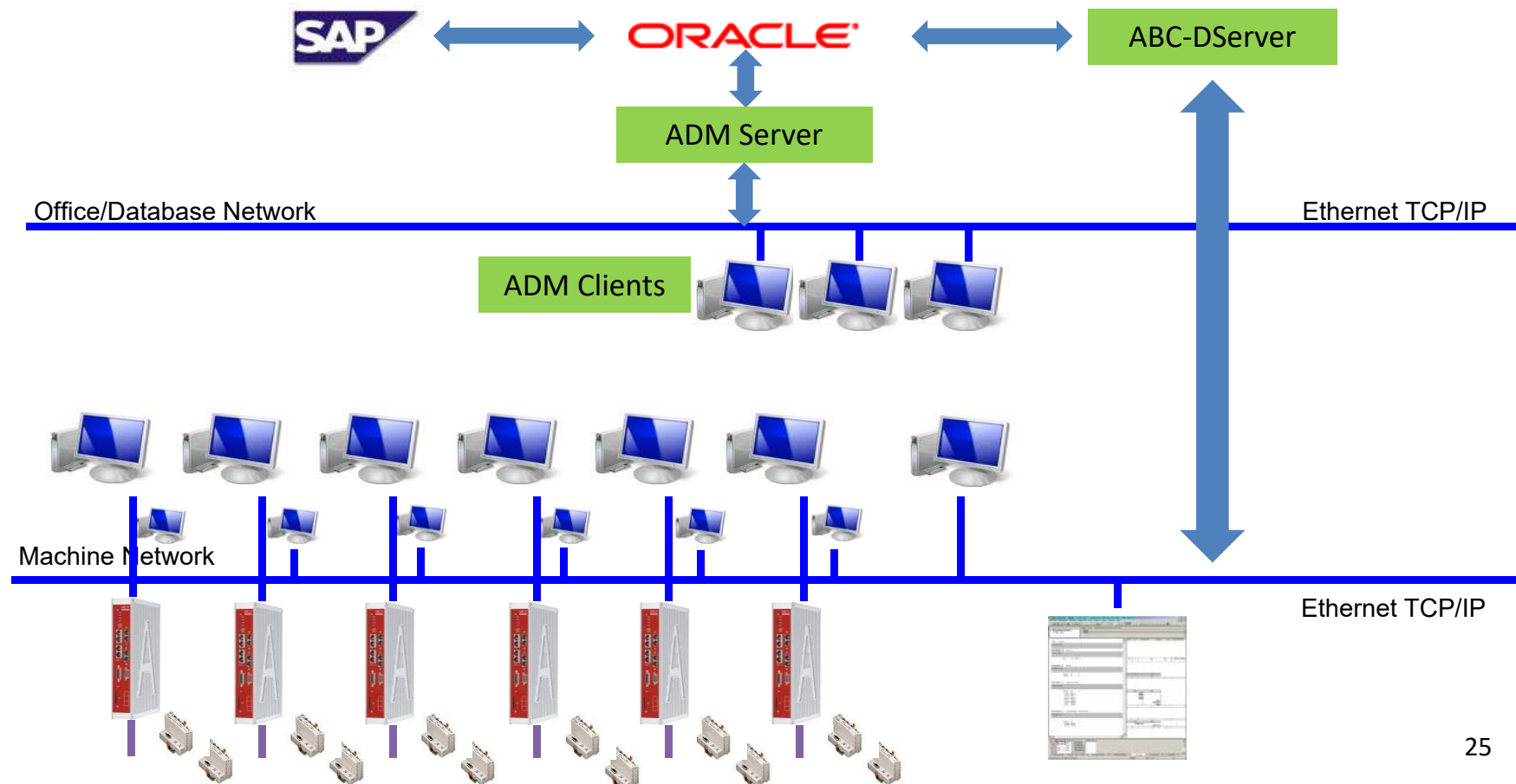
4. Modernisation Simatic – S5 rack



5. Modernisation STEP 5 - software



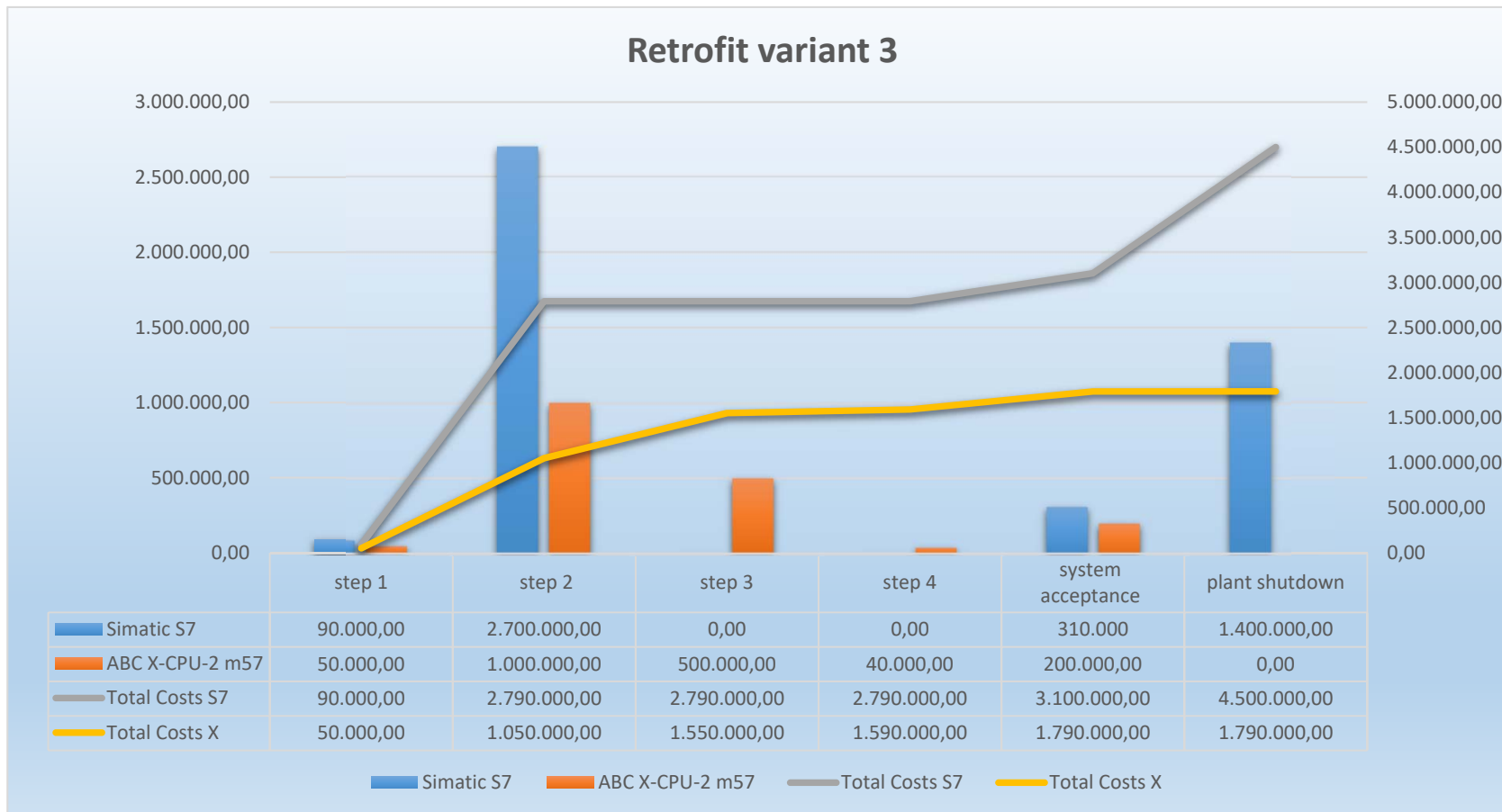
6. Modernisation implemented in hardware and software



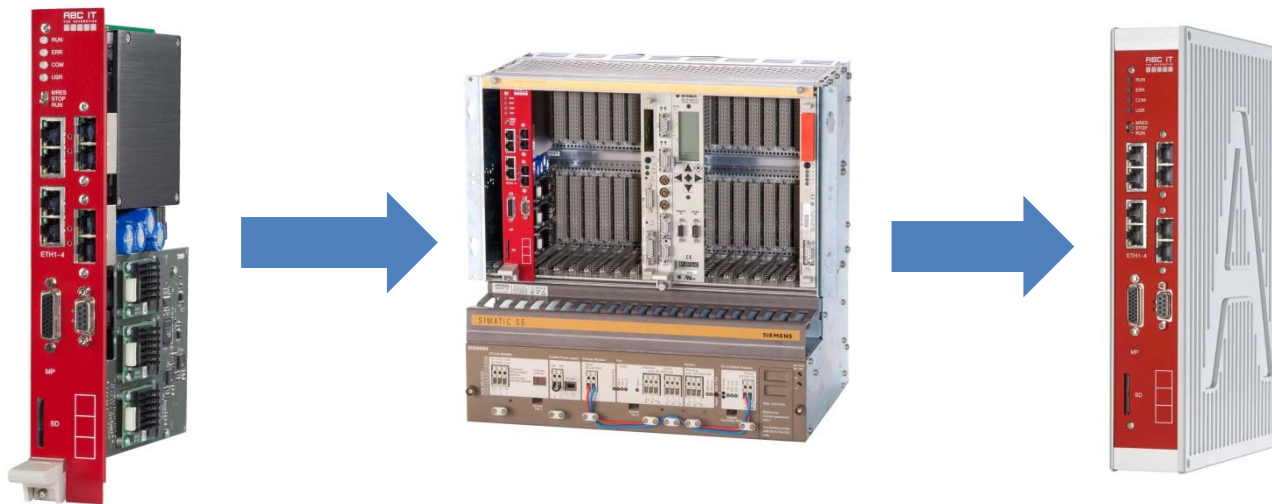
ABC scope of performance

- ✓ System expanded by an analysis and data-management system
 - ✓ ABC IT will assume the handling of the entire project
- ✓ Modernisation of the Simatic S5 controls
 - ✓ The expansion and modernisation periods and times will be defined by the customer
 - ✓ ABC IT will carry out the planning and realisation while accompanying the customer during the modernisation – if desired
 - ✓ ABC IT will work with the system builder / system integrator associated with the customer – if desired
 - ✓ ABC IT will assume the entire handling of the modernisation process – if desired

Cost example



ABC components



www.abcit.eu

Remote Management

Products:
eWON Netbiter



Remote Access and Remote Data

Products:
eWON Flexy & Cosy



Wireless access

Products: Anybus Wireless Bridge
Anybus Wireless Bolt, IXXAT CANblue II



CAN infrastructure

Products:
IXXAT CAN products



PC Interfaces

Products:
IXXAT PC cards
IXXAT INpact



Functional safety

Products:
A a



Embedded multi-network connectivity

Products: Anybus CompactCom



Multi-network connectivity

Products: Anybus at ay
Anybus Communicator



Connectivity
solved!



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