

Figure 1. General System Architecture Diagram

Key Characteristics:

provides layered information hiding

- implementation-application isolation
- supports reuse of components
- separation of concerns
- provides abstraction
- extended services
- protected access
- common functions available applications
- network isolation
- Real-Time and UNIX platform support
- proven technology
- provides platform portability to applications

Open Source Equivalent:
Adaptive Communication Environment (ACE)

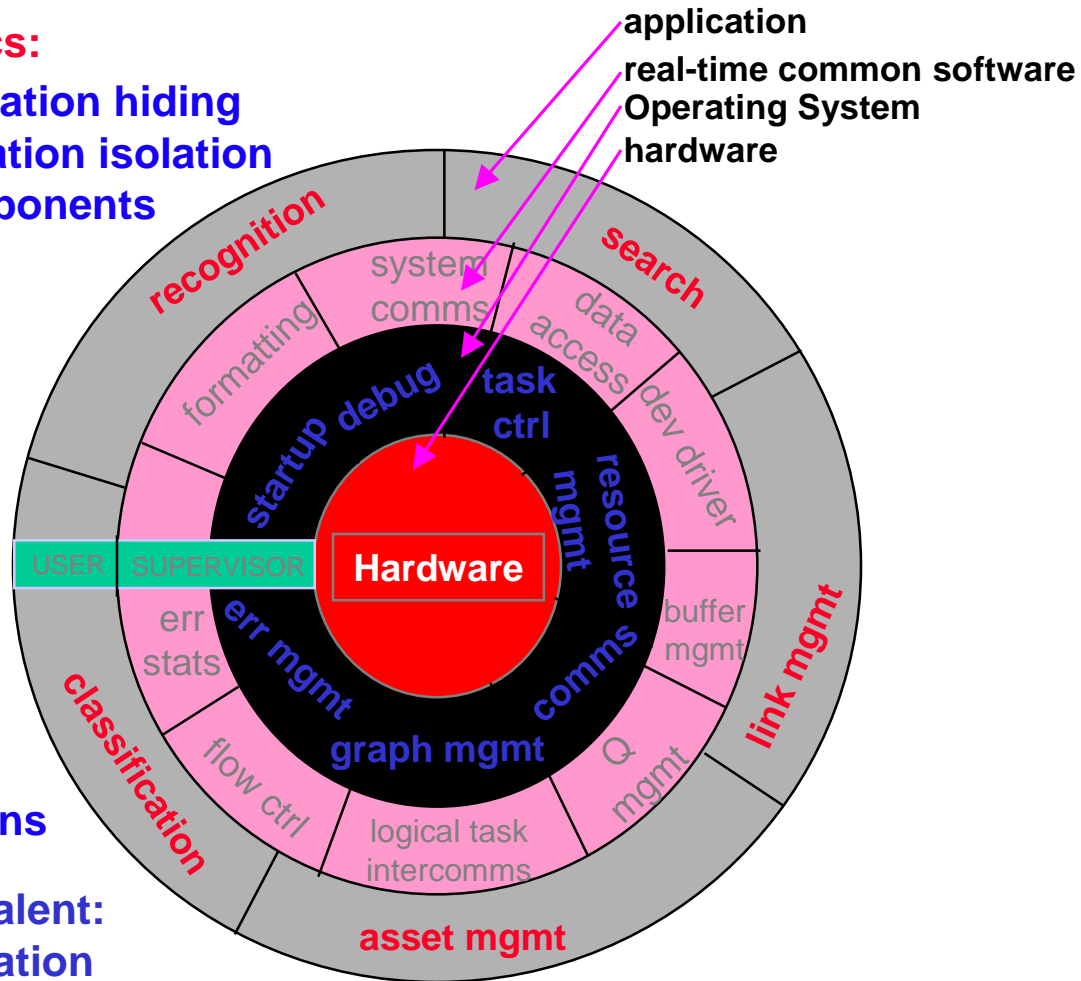


Figure 2. Common Software Architecture Diagram

Software Characteristics

- Message Passing Concept
 - client-server exchange messages
 - events generate messages
- Message Limitations:
 - encoded bits
 - language implementation specific
 - interface not clearly defined
 - numerous messages
 - request/response not identifiable
- Interface Limitations:
 - not structured
 - not clearly defined
 - language dependent
- Somewhat platform/tool dependent

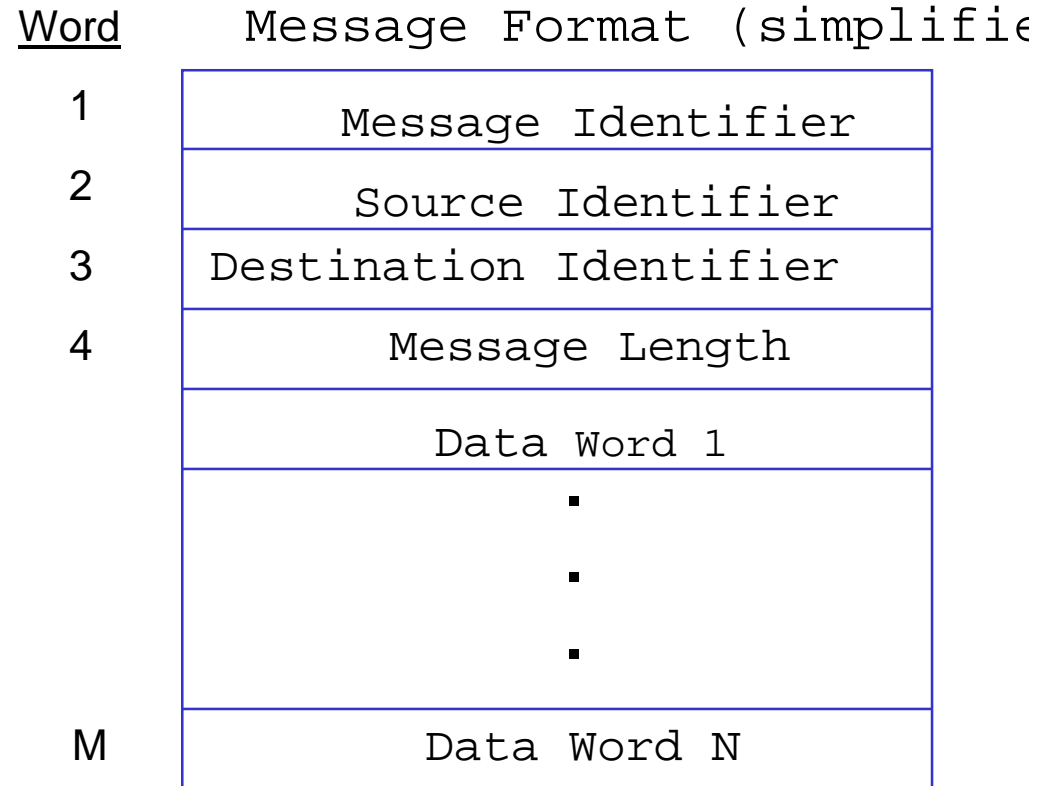


Figure 3. Common Software Message Format - Generalized

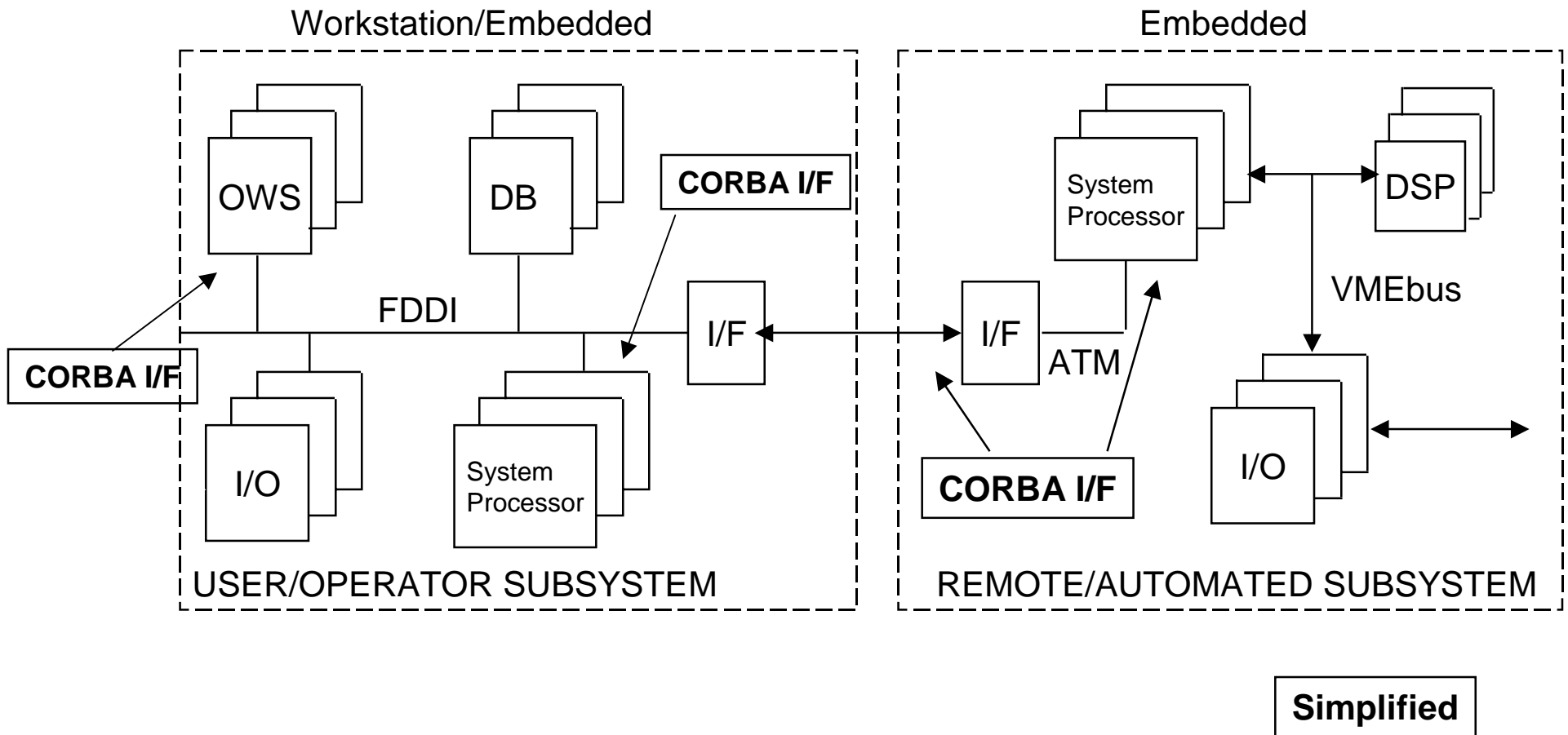


Figure 4. Updated System Architecture Diagram

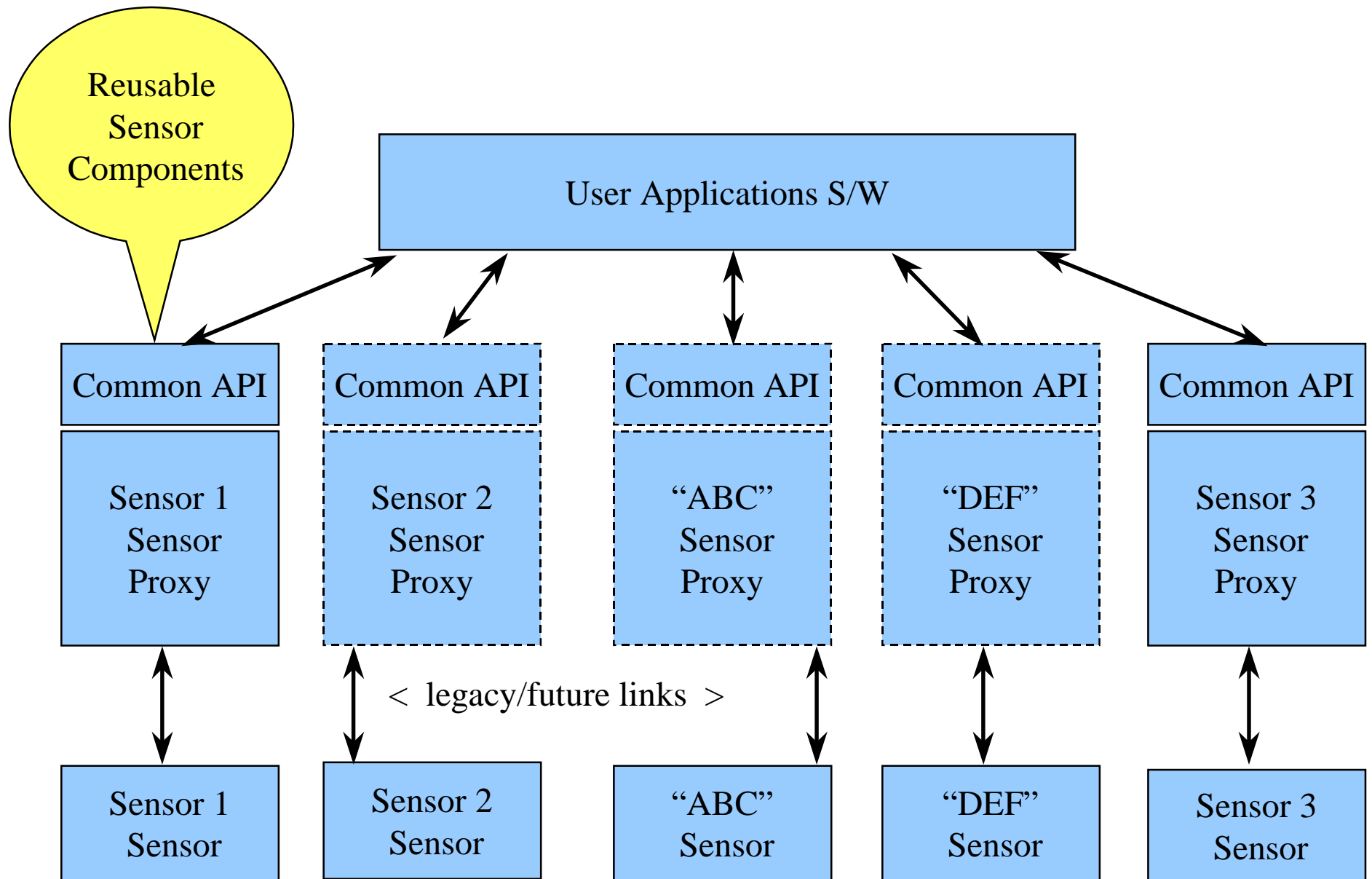


Figure 5. Interoperable Sensor Interface (ISI) Architecture Diagram