



# SAAB

```
{
  receivedData(const Safir::Devices::Adaptions::DeviceId &from,
  const Safir::Devices::Adaptions::Data &data)
{
  if(data.size() == 0)
  {
    return;
  }
  if(from == m_udpDeviceId)
  {
    // Assume data from UDP connection is always a complete message
    m_messageHandler->HandleMessage(from, data, L"");
  }
  else
  {
    // Buffer data from serial connections and check for complete messages
    m_deserializer->Deserialize(from, data, m_serialDeviceMap[from]);
  }
}
}
```

# SAFIR SDK

## A WELL-PROVEN FRAMEWORK FOR DEVELOPMENT OF C4I SYSTEMS

Safir Software Development Kit (SDK) is a standalone development environment providing users with all tools necessary for building C4I systems.

### PLATFORM INDEPENDENT

Safir SDK provides multi-platform support, which means that all Safir SDK services are independent of hardware platform as well as operating system. The Applications built with Safir SDK are scalable from hand held devices up to large distributed data centres without modifications.

### C4I ADAPTED DEVELOPMENT ENVIRONMENT

The Safir development environment provides a complete C4I application framework for developing applications and user interface. By developing the applications in this framework, mature functionality and development support for the domain is assured from the very beginning. Using the Safir SDK, the development effort can be limited to the implementation of new or the modification of existing subsystems.

### UNIQUE DATA CACHE MANAGEMENT FEATURES

Safir SDK is a common language independent system with unique data distribution service capabilities. In fact, it is the only solution available that provides all distribution paradigms, e.g. publish/subscribe, request/respond, send/forget and service oriented services, in one and the same mechanism. The Safir SDK also allow for transparent addressing were applications can register ownership on any server or entity, and clients are unaware of the service providers involved

### FREE OPEN SOURCE

The foundation of Safir SDK – the Safir SDK Core Edition – is available as free open source ([www.saabgroup.com/safir](http://www.saabgroup.com/safir)). Safir SDK Core Edition provides support of the data-centric publish/subscribe paradigm and the type system. This makes it possible to use Safir SDK as an object distribution service as well as an integration toolkit. The distribution mechanism (DOB) in Safir SDK can be used for all types of information distribution and provide the distribution mechanisms you need to create a real-time system. Currently it is possible to interface with the DOB from C++, C#, ADA and JAVA.

### TRULY OPEN SOLUTION

The application programming interfaces (API) to the Safir SDK services are open and thoroughly documented. As a truly open solution, the API can be used to build any application and support seamless integration of third party products and technologies.

### WELL-PROVEN FRAMEWORK

Safir SDK has excellent track record as framework for development of military C4I solutions as well as time critical and transaction based services for civil applications. Saab's own tactical battle management system 9Land BMS is build using Safir SDK as well as several other applications in operation today.

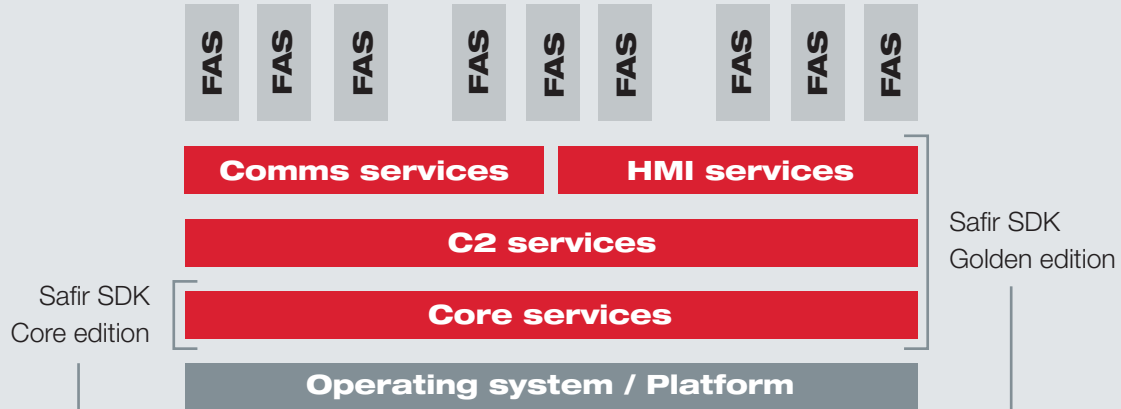
### SAFIR SDK FEATURES

- ▶ Well-proven framework
- ▶ Multi-platform support
- ▶ Platform independent
- ▶ Open source core edition
- ▶ Data cache management



## PRODUCT MODEL

All developed business components are packaged in Functional Area Services (FAS) and made available for reuse in future projects. Each FAS corresponds to a business need or workflow i.e. Ground target fire support, Close air support, Situation awareness etc.



### SAFIR SDK CORE EDITION

#### CORE SERVICES

##### Information handling

- Enterprise Service bus (DOB)
- User defined type system
- Integrated data persistency support
- Information and state recording
- Logging and software reporting

##### System handling

- System and application control
- Node supervision and redundancy support
- Synchronized alert handling

##### Application support

- File transfer support
- Encapsulated ODBC support
- Automated test support

Free open source version

### SAFIR SDK GOLDEN EDITION

#### CORE EDITION +

#### C2 SERVICES

##### Track services

- Time critical track handling
- Platform data distribution

##### Reliability services

- Time synchronization
- Hardware diagnostics (SNMP Support)

##### Application support

- Role based access control
- Geodesy support
- Tactical replay
- Distribution filters

Licensed version

#### COMMUNICATION SERVICES

- Information exchange framework with replication support
- Tactical link (Link-16)
- Formatted messages (VMF)
- Device integration framework

#### HMI SERVICES

- Independent map engine encapsulation
- Widget set
- Dynamic menu support
- Presentation filters
- Language support.
- Distributed selections



Saab's **thinking edge** enables us to break new ground and deliver technically advanced products and solutions.