

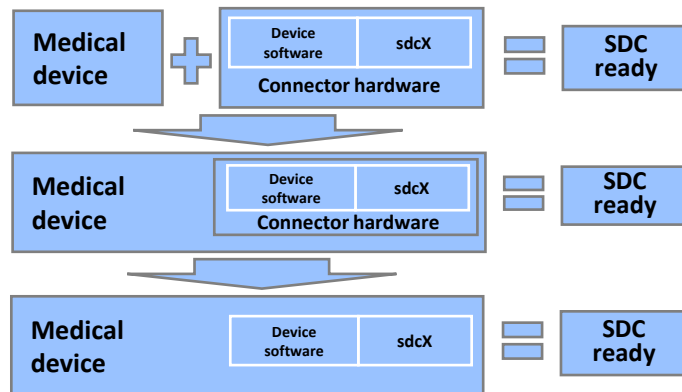
## sdcX – The commercial IEEE 11073 software stack

The easiest way to make your product speak SDC: Implement the SurgiTAIX sdcX software library into your current or future product.

Over 10 years of experience in SDC library development incorporated in a quality assured and security aware software product.

Wherever you stand, you can upgrade your current or future product to speak the new top notch language of the operating room.

### A path of migration



## Consulting services: SDC Integration and Regulatory Affairs

- Technical support during the launch of products for international companies
- Training of end customers and distributors
- Expertise in:
  - ISO/IEED 11073 SDC Family
  - DIN EN ISO 13485
  - DIN EN ISO 14971
  - DIN EN ISO 60601
  - DIN EN ISO 62304
  - DIN EN ISO 62366
  - Medical Device Directive 93/42/EWG
  - Medical Device Regulation MDR
  - ... and more



The extensible  
IEEE 11073 library



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## What is SDC?

SDC stands for Service-oriented device connectivity. It comprises a family of open communication standards (IEEE 11073 SDC Family) for the interoperability of medical devices.

The vision of the SDC project is a safe and secure plug-and-play environment in the operating room.

Main features of the standard are:

- Safe and secure data transfer between medical devices and systems
- Remote control functionality
- Consistent and high data quality
- Applicable for common hardware (Ethernet / WiFi)

## sdcX - Technical details

### Key features

- Written in highly distributable C++14 with CMake for the build process
- Deployable to different Single-Board Computers (e.g. Yocto and Build-root environments)
- Thread pooling for unlimited scalability (e.g. server applications)
- Customization as a service

```
return model;
};
using namespace MessageModel;
std::vector<ThisDevice::FriendlyName> friendlyNames;
friendlyNames.emplace_back(std::string("sdcX Reference Provider"));
auto device = std::make_shared<ThisDevice>(std::move(friendlyNames));
device->setSerialNumber(ThisDevice::SerialNumber("4711"));
device->setFirmwareVersion(ThisDevice::FirmwareVersion("0.1.1"));
return device;
}
std::shared_ptr<Config::TLSConfig> createTLSConfig()
{
    auto tlsConfig = std::make_shared<Config::TLSConfig>();
    tlsConfig->setTrustedAuthorityLocation("./certificates/pat_ca.pem");
    tlsConfig->setCertificateLocation("./certificates/pat_cert.pem");
    tlsConfig->setPrivateKeyLocation("./certificates/pat_private.key");
    return tlsConfig;
}
std::shared_ptr<Config::ProviderConfig> createProviderConfig()
{
    auto providerConfig = std::make_shared<Config::ProviderConfig>();
    providerConfig->setDeviceDescription("sdcX Reference Provider");
    providerConfig->setSerialNumber("4711");
    providerConfig->setFirmwareVersion("0.1.1");
    providerConfig->setTLSConfig(createTLSConfig());
    providerConfig->setProviderName("sdcX Reference Provider");
    return providerConfig;
}
```

## X for eXtensible

- Modular, layer based architecture
- Quick adaptation to customer requirements
- Engagement in standardization lead to fast implementation of newest features

## Additional services

### Documented since the beginning:

The development is following the IEC 62304. The whole documentation is delivered for an effortless approval process.

### Extensive test suite:

For high code quality and validation.

### Know your Risks:

ISO 14971 conforming modular and extensible risk analysis is delivered. IT-security process monitoring risks of SOUP components.

### Integration services:

Better leave the work to the integration experts? No problem, the SurgiTAIX AG offers everything from consulting to full integration services.

