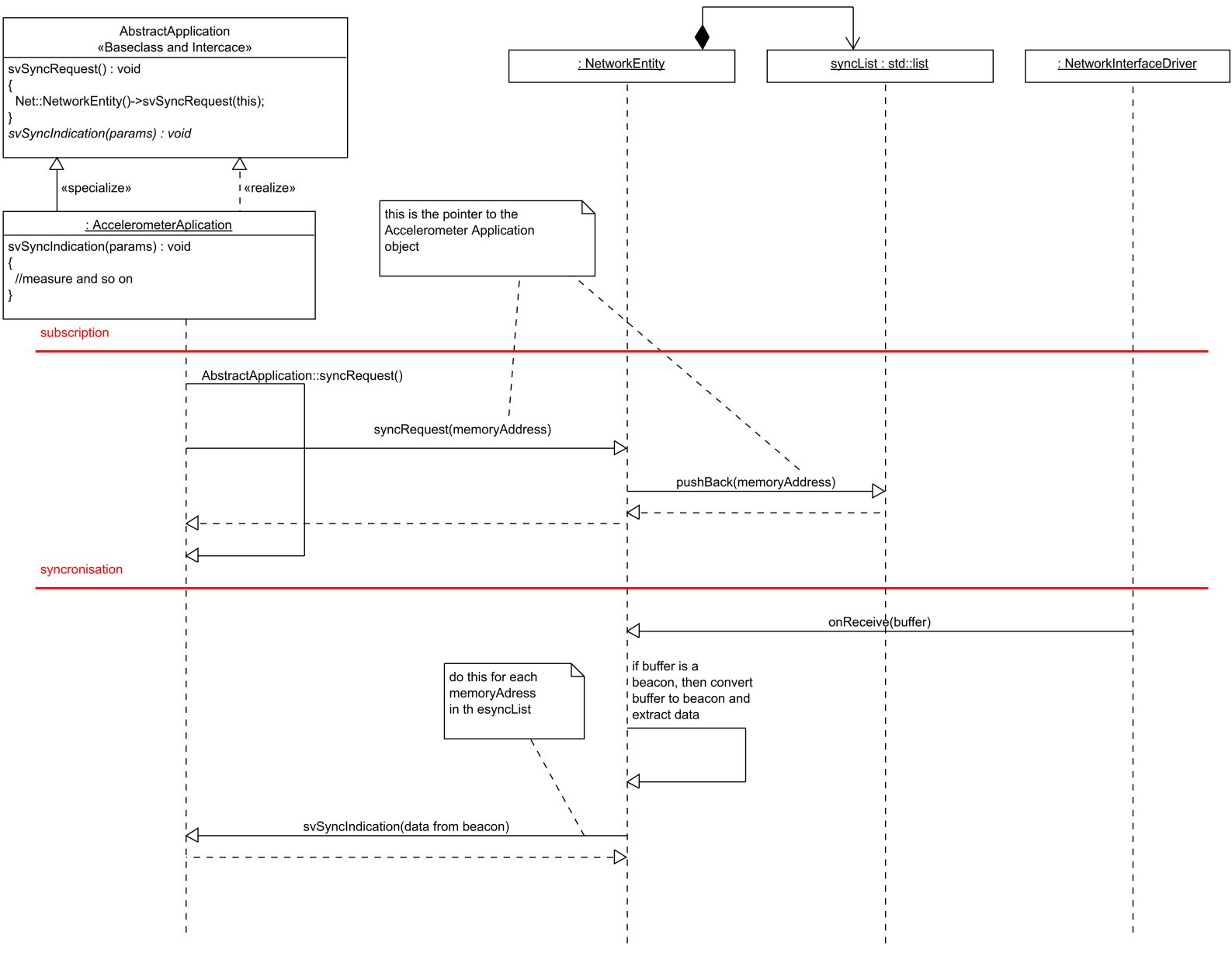
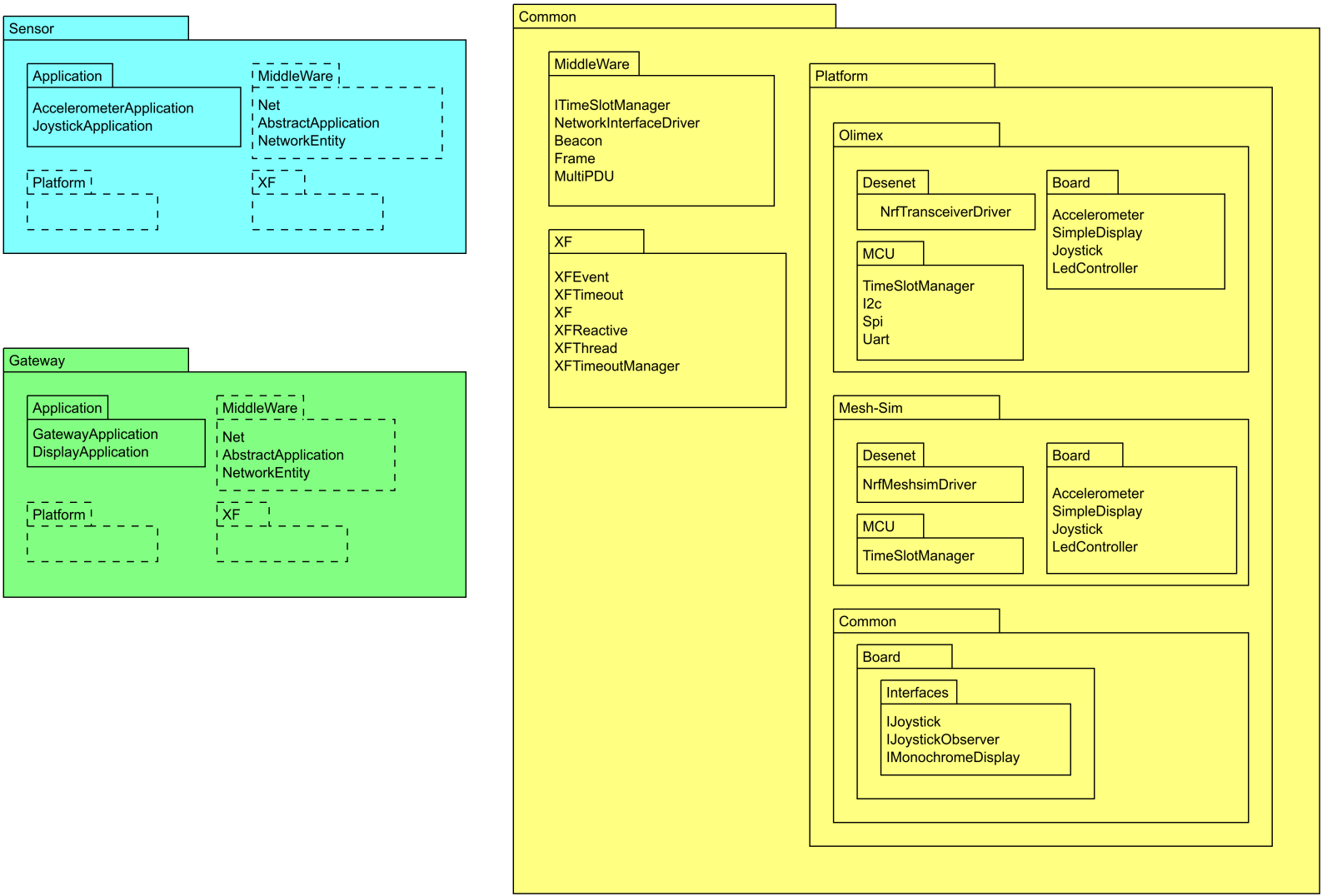
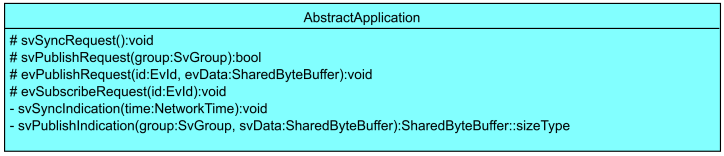
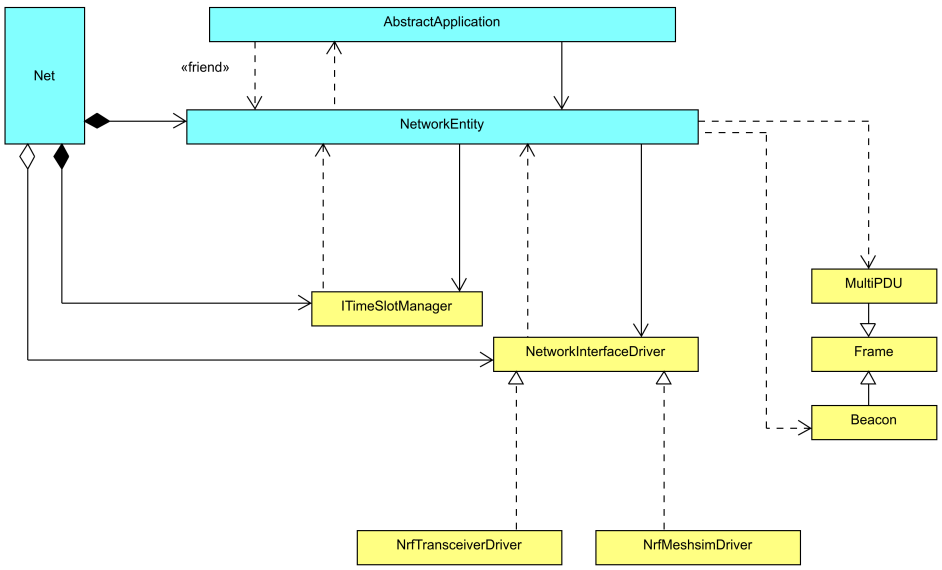
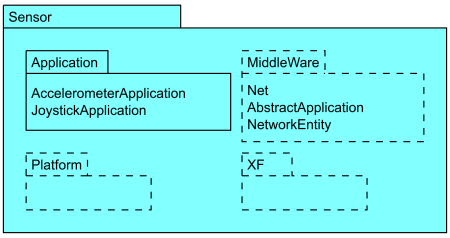
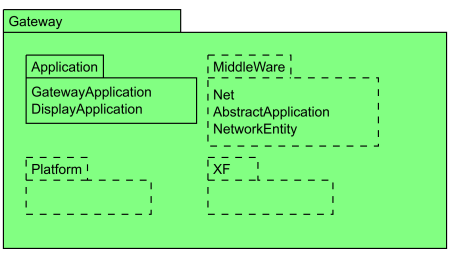

AbstractApplication
«Baseclass and Intercace»
svSyncRequest() : void
{
Net::NetworkEntity()->svSyncRequest(this);
}
svSyncIndication(params) : void
«specialize»
«realize»
: AccelerometerAplication
svSyncIndication(params) : void
{
//measure and so on
}
: NetworkEntity
syncList : std::list
: NetworkInterfaceDriver
this is the pointer to the Accelerometer Application object
subscription
AbstractApplication::syncRequest()
syncRequest(memoryAddress)
pushBack(memoryAddress)
syncronisation
onReceive(buffer)
do this for each memoryAdress in th esyncList
if buffer is a beacon, then convert buffer to beacon and extract data
svSyncIndication(data from beacon)

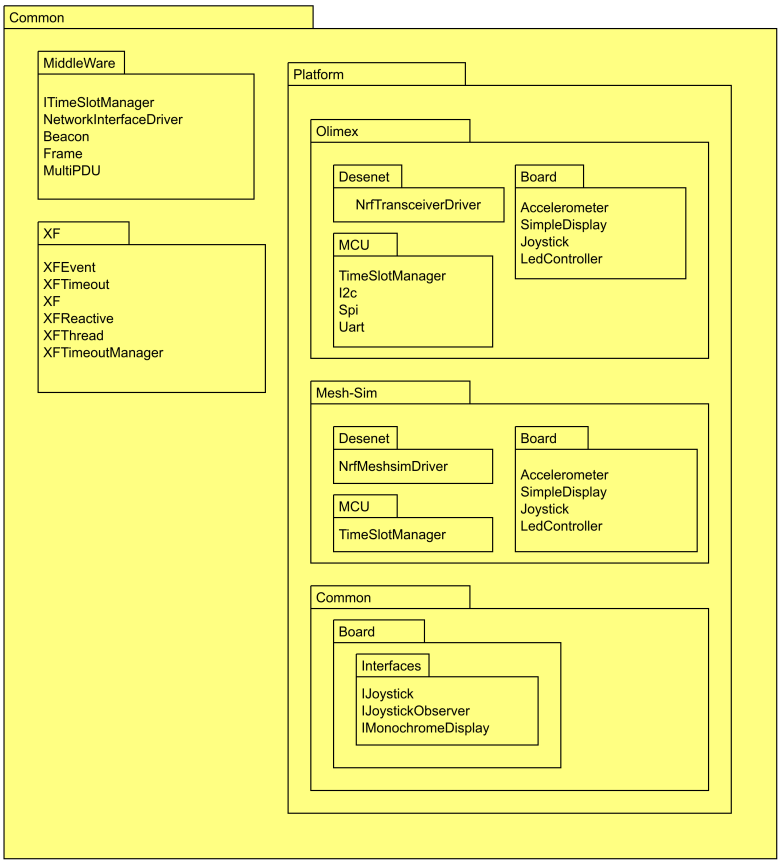

Sensor
Application
AccelerometerApplication
JoystickApplication
MiddleWare
Net
AbstractApplication
NetworkEntity
Platform
XF
Gateway
Application
GatewayApplication
DisplayApplication
MiddleWare
Net
AbstractApplication
NetworkEntity
Platform
XF
Common
MiddleWare
ITimeSlotManager
NetworkInterfaceDriver
Beacon
Frame
MultiPDU
XF
XFEvent
XFTimeout
XF
XFReactive
XFThread
XFTimeoutManager
Platform
Olimex
Desenet
NrfTransceiverDriver
MCU
TimeSlotManager
I2c
Spi
Uart
Board
Accelerometer
SimpleDisplay
Joystick
LedController
Mesh-Sim
Desenet
NrfMeshsimDriver
MCU
TimeSlotManager
Board
Accelerometer
SimpleDisplay
Joystick
LedController
Common
Board
Interfaces
IJoystick
IJoystickObserver
IMonochromeDisplay


AbstractApplication
svSyncRequest():void
svPublishRequest(group:SvGroup):bool
evPublishRequest(id:EvId, evData:SharedByteBuffer):void
evSubscribeRequest(id:EvId):void
- svSyncIndication(time:NetworkTime):void
- svPublishIndication(group:SvGroup, svData:SharedByteBuffer):SharedByteBuffer::sizeType


Net
AbstractApplication
«friend»
NetworkEntity
ITimeSlotManager
NetworkInterfaceDriver
MultiPDU
Frame
Beacon
NrfTransceiverDriver
NrfMeshsimDriver


Sensor
Application
AccelerometerApplication
JoystickApplication
MiddleWare
Net
AbstractApplication
NetworkEntity
Platform
XF


Gateway
Application
GatewayApplication
DisplayApplication
MiddleWare
Net
AbstractApplication
NetworkEntity
Platform
XF


Common
MiddleWare
ITimeSlotManager
NetworkInterfaceDriver
Beacon
Frame
MultiPDU
XF
XFEvent
XFTimeout
XF
XFReactive
XFThread
XFTimeoutManager
Platform
Olimex
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MCU
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Joystick
LedController
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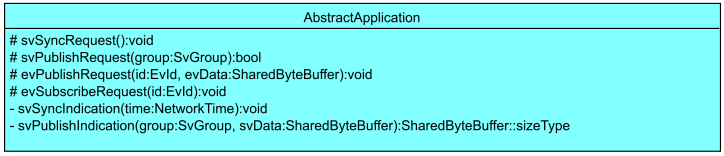
IJoystick
IJoystickObserver
IMonochromeDisplay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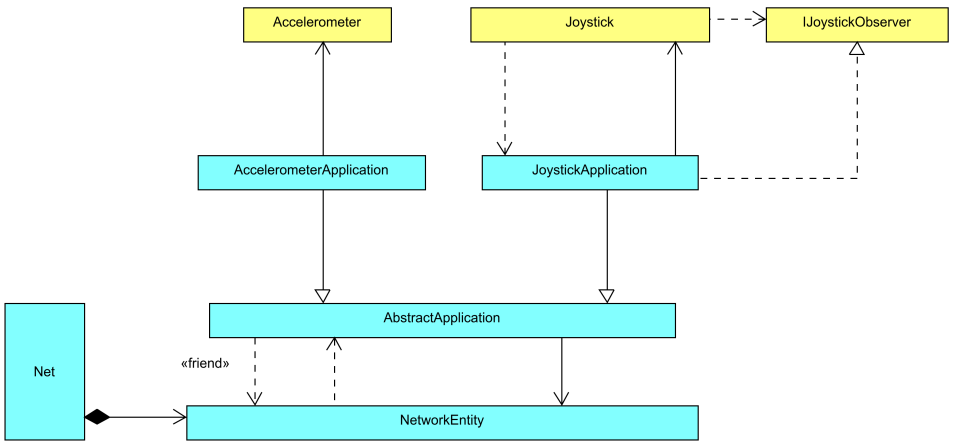
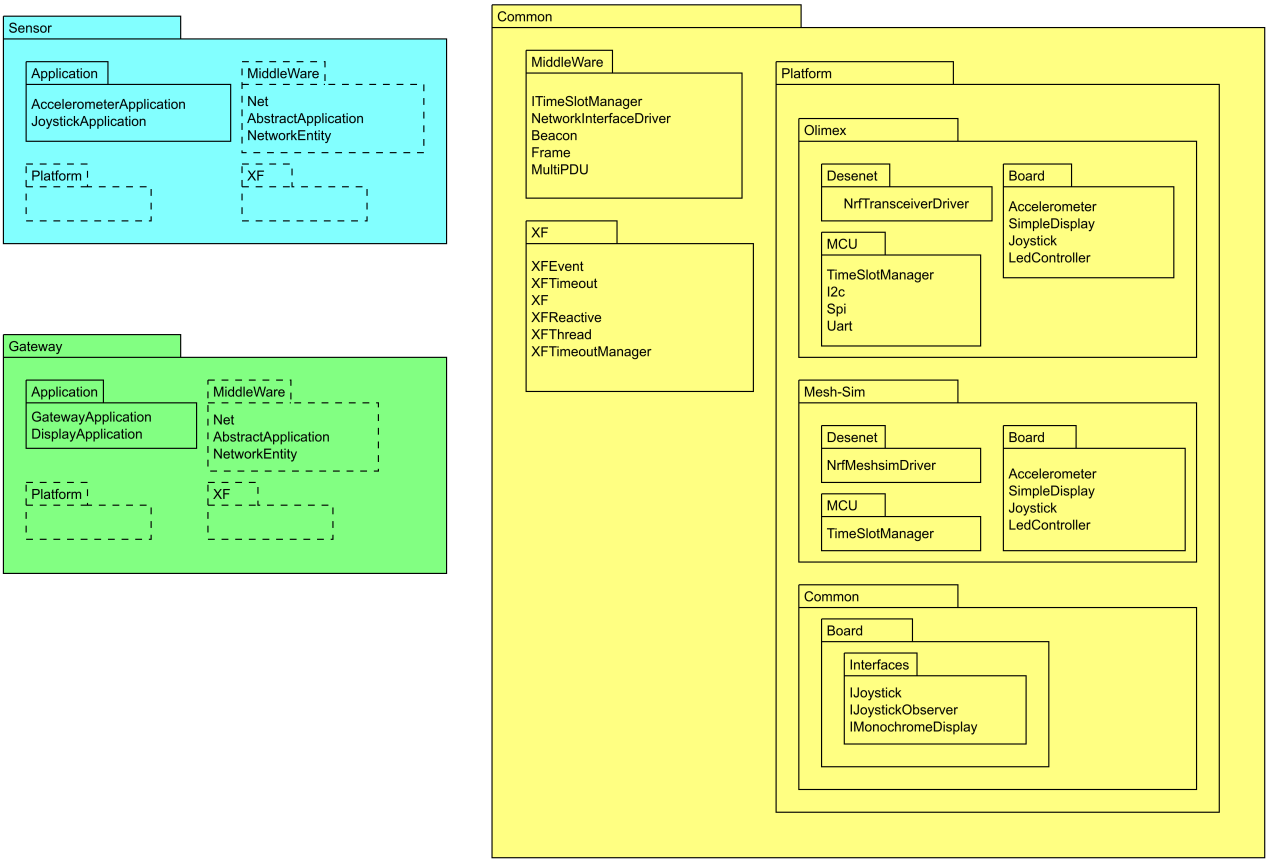
- svSyncIndication(time:NetworkTime):void
- svPublishIndication(group:SvGroup, svData:SharedByteBuffer):SharedByteBuffer::sizeType


Accelerometer
Joystick
IJoystickObserver
AccelerometerApplication
JoystickApplication
AbstractApplication
Net
«friend»
NetworkEntity


Sensor
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XF
Gateway
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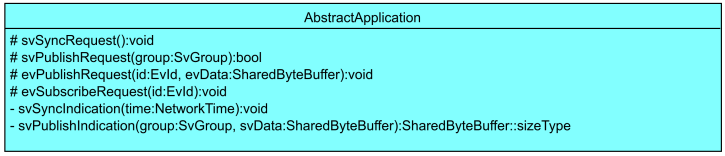
IMonochromeDisplay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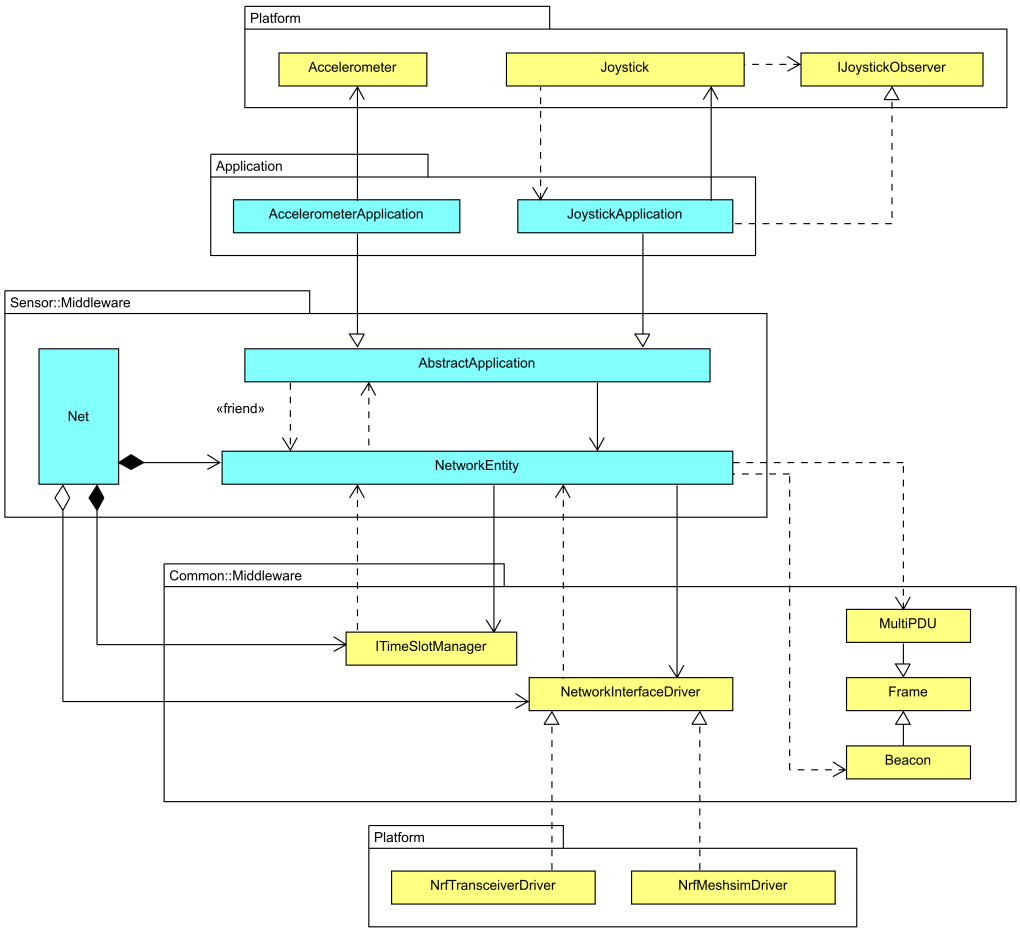
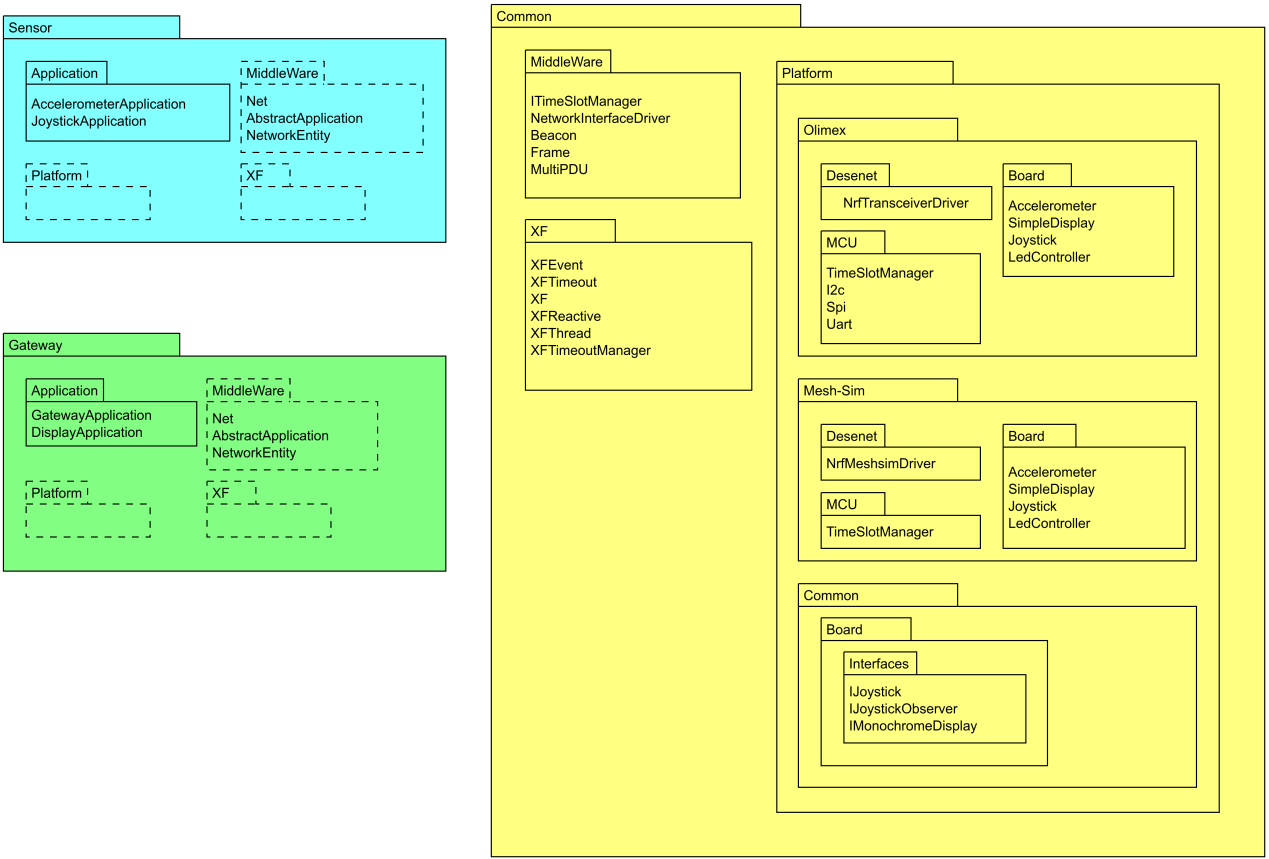
evSubscribeRequest(id:EvId):void
- svSyncIndication(time:NetworkTime):void
- svPublishIndication(group:SvGroup, svData:SharedByteBuffer):SharedByteBuffer::sizeType


Platform
Accelerometer
Joystick
IJoystickObserver
Application
AccelerometerApplication
JoystickApplication
Sensor::Middleware
Net
AbstractApplication
«friend»
NetworkEntity
Common::Middleware
ITimeSlotManager
NetworkInterfaceDriver
MultiPDU
Frame
Beacon
Platform
NrfTransceiverDriver
NrfMeshsimDriver


Sensor
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MCU
TimeSlotManager
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Accelerometer
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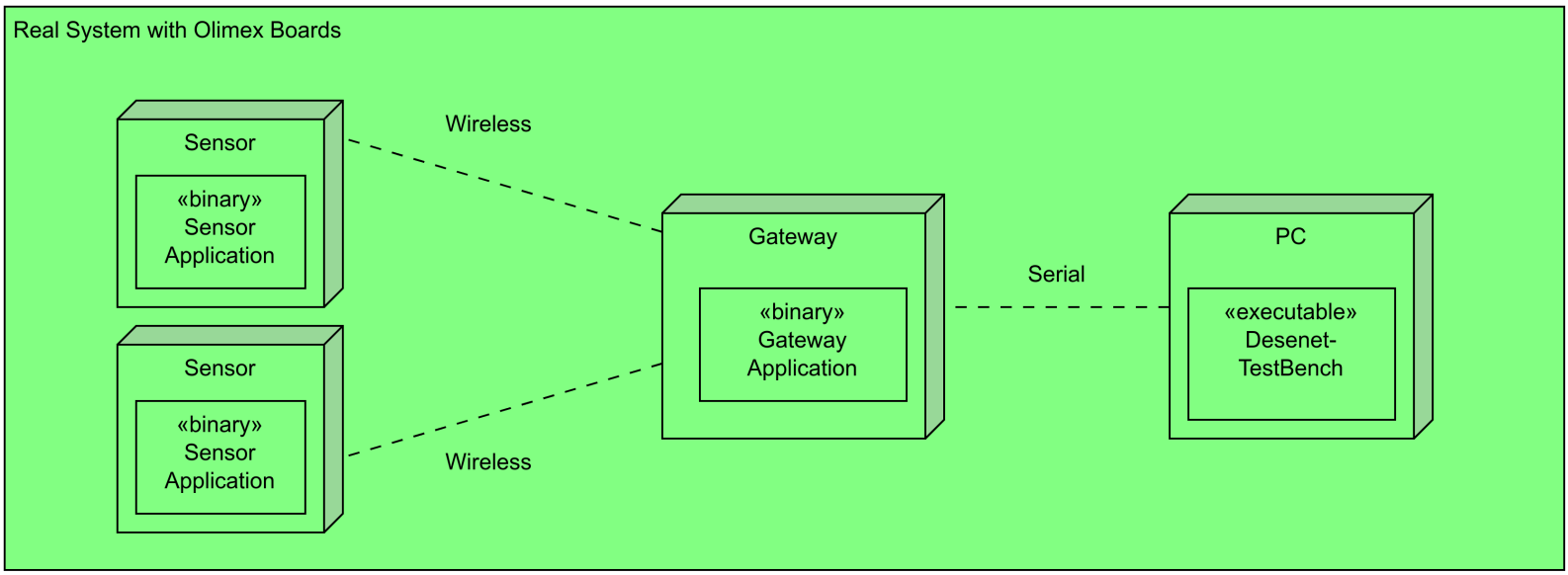
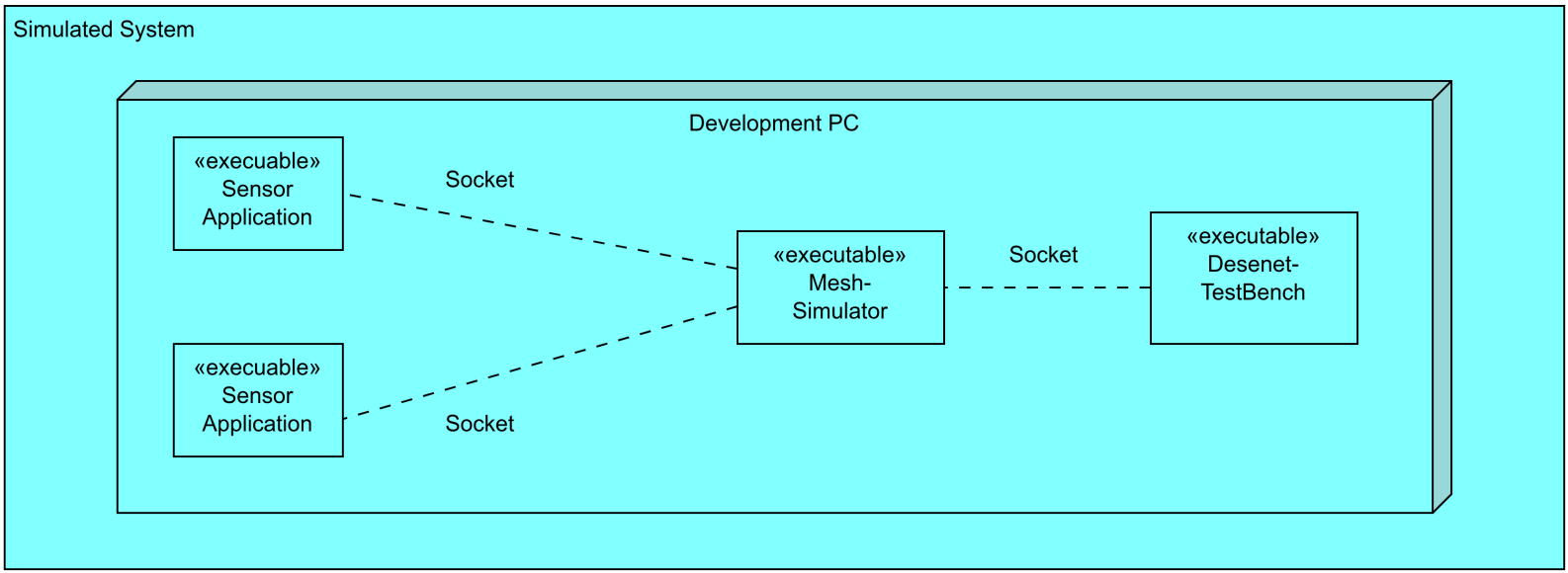
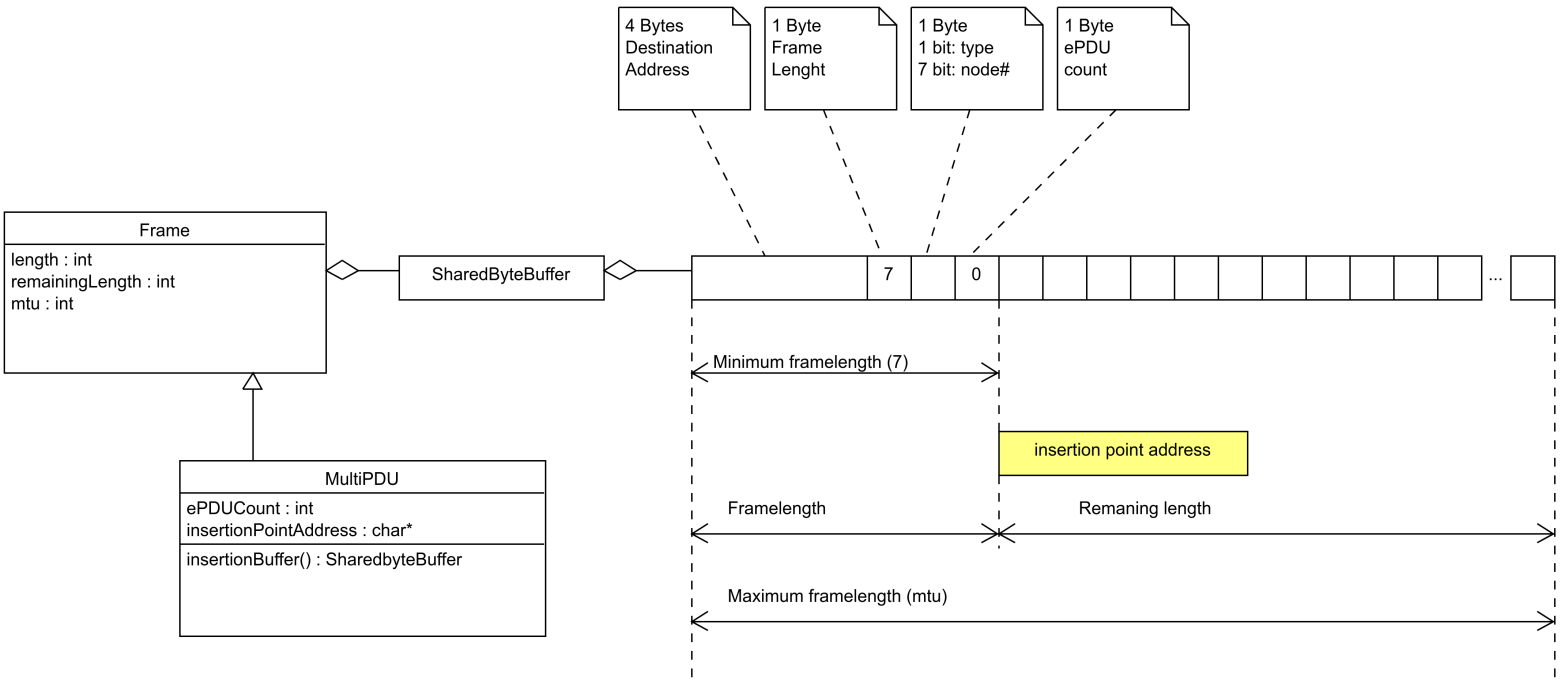
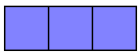
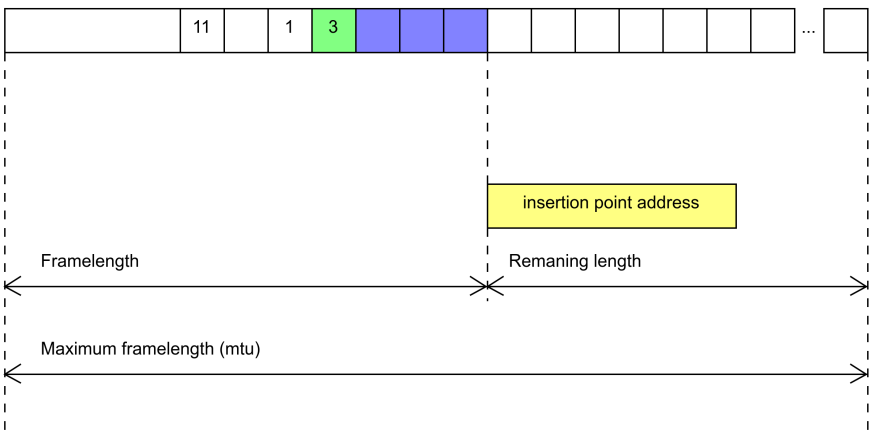

Real System with Olimex Boards
Sensor
«binary»
Sensor
Application
Sensor
«binary»
Sensor
Application
Wireless
Wireless
Gateway
«binary»
Gateway
Application
Serial
PC
«executable»
Desenet-
TestBench


Simulated System
Development PC
«execuable»
Sensor
Application
«execuable»
Sensor
Application
Socket
Socket
«executable»
Mesh-
Simulator
Socket
«executable»
Desenet-
TestBench



insertion point address = SharedByteBuffer()::buffer()+length

insert an svPDU as shown below

svPDU 

```
SharedByteBuffer ib = SharedByteBuffer:proxy(insertionPointAddress+1,remainingLength-1)
int nbrBytes = AbstractApplication::evPublishRequest(ib)
if (nbrBytes>0)
{
  length += 4
  *insertionPointAddress = 3
  insertionPointAddress += 4
  remainingLenght -= 4
  ePduCount += 1
}
```