Broadway2 Software Package

- ▶ Windows and Linux network devices on 100BASE-T1 and 10BASE-T1L
- ▶ Flexible Software APIs incl. SMI/SPI-Access using FC401
- ▶ SDK, samples and Python3-Wrapper including many samples

Overview

Universal Software Package for all FibreCode USB - Ethernet Adapters.

With introduction of new Broadway2 version V2.3.0, FibreCode extends portfolio from 100BASE-T1 to support also external devices using FC401 as SPI/SMI USB-Adapter and new standards like 10BASE-T1L. The Broadway2 software supports Standard Network devices, Raw-Ethernet devices and external connected Transceivers and Switches via SMI/SPI.

- ▶ USB CDC-ECM - Standard network devices for 100BASE-T1/10BASE-T1L
- ▶ Raw Ethernet access and full access to Physical Transceiver (SMI Clause22/45 support)
- ▶ USB SMI/SPI adapter for external devices (Phy-Transceivers and SPI-based network switches)
- ▶ Trigger-Extension control and tools to receive Raw-Ethernet and external trigger events
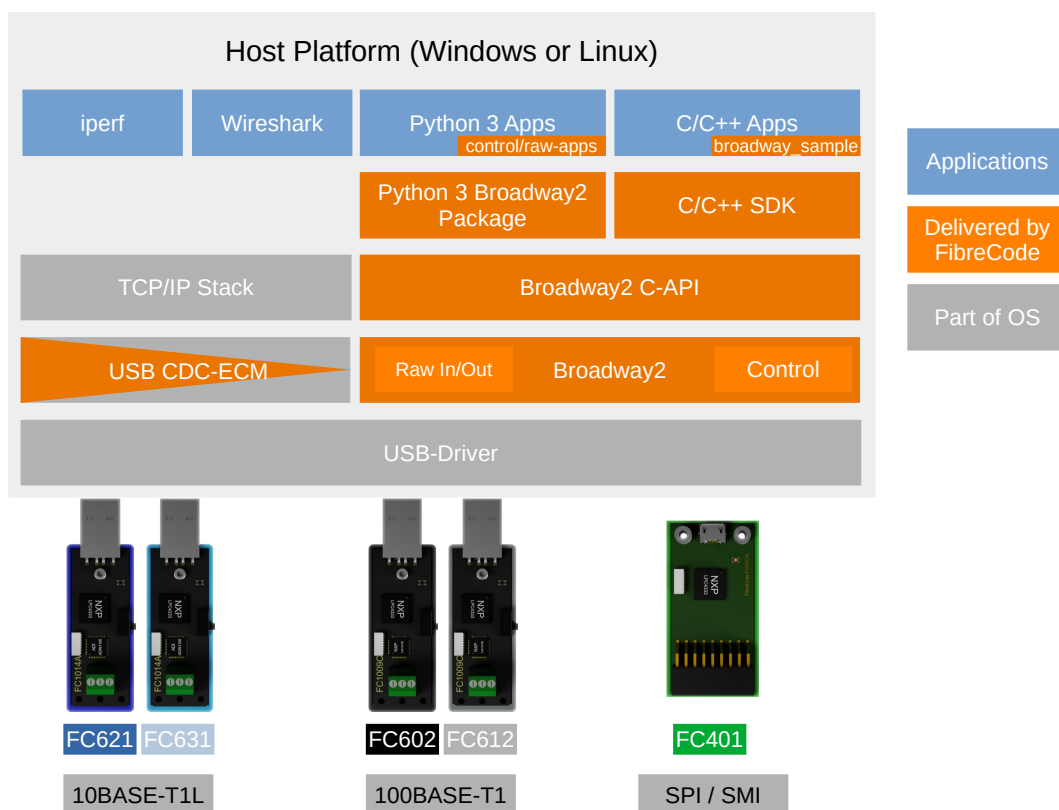
Features

- ▶ Auto-Detection of all USB-Adapters
- ▶ Mixed use-cases for standard IP traffic and Raw-Ethernet frames
- ▶ Software API to access all features of different Phy-Transceivers
- ▶ Python3 wrapper for Broadway2-API
- ▶ Easy firmware update via USB
- ▶ Windows 7, Windows 10, Raspberry Pi and Ubuntu
- ▶ One Software/API for FC602, FC611, FC612, FC621, FC631 and FC401
- ▶ Powerful and flexible API for SMI Register Access on all devices
- ▶ Python and C++ sample applications
- ▶ Python3 interfaces for easy and powerful Python applications
- ▶ Combine network devices, Raw-Ethernet adapters and external devices using ONE API and powerful tools

Applications

- ▶ Standard network device using Windows/Linux Host (e.g Wireshark/pcap)
- ▶ Raw-Ethernet access for 100BASE-T1/10BASE-T1L networks
- ▶ Test/Link-Partner to node/switch environments
- ▶ Verify and validate all test modes of intern/extern Phy/Switch
- ▶ Network-Adapter incl. TCP/IP, iperf, Wireshark, ...
- ▶ Layer2-network setup (including multiple instances)
- ▶ VLAN, AVB/TSN network testing using USB-Raw Adapters
- ▶ Security, Stability-checks, Bubbling-Idiots, protocol errors, ...
- ▶ SMI/SPI connections via FC401 to Eval-Boards and custom designs based on NXP TJA110x/SJA1105x/SJA1110 or ADI ADIN1100

System-Overview

Host Platform (Windows or Linux)

iperf	Wireshark	Python 3 Apps	C/C++ Apps
		control/raw-apps	broadway_sample

	Python 3 Broadway2 Package	C/C++ SDK

TCP/IP Stack	Broadway2 C-API

USB CDC-ECM	Raw In/Out	Broadway2	Control

USB-Driver

Applications

Delivered by FibreCode

Part of OS

FC621 FC631

10BASE-T1L

FC602 FC612

100BASE-T1

FC401

SPI / SMI

Test-Setup

TP-LINK USB3-Hub 7.2

Phy

Eval-Boards:
100BASE-T1 / 10BASE-T1L

Phy1

Phy2

P1 P2

Switch

ECU-100BASE-T1

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