

Bx-WiFi

Reliable video multicasting over WiFi

Product Overview

The Bx-WiFi technology enables broadcasting of uninterrupted audio or video content from multiple sources to thousands of smartphone or tablet devices, all connected to Wi-Fi access points.

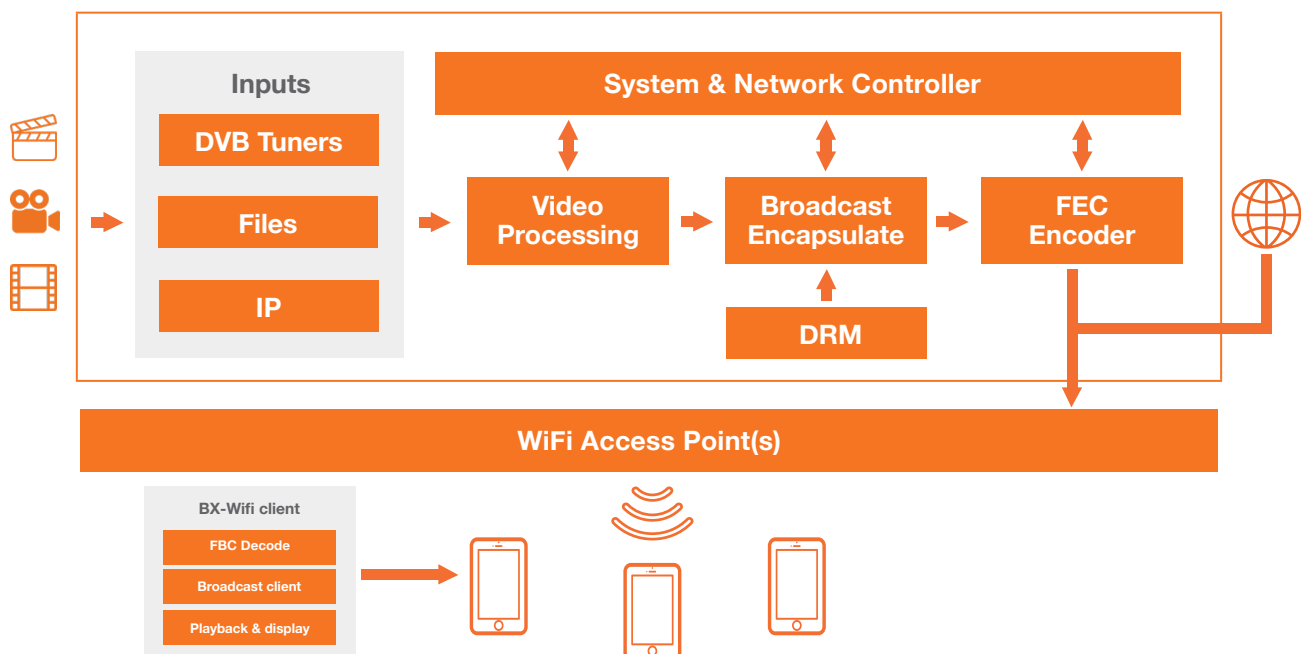
Bx-WiFi uses Forward Error Correction to maintain video quality, and multicast technology that minimises bandwidth usage when a large number of users are simultaneously streaming. Due to its transmission efficiency, access to the Internet can be offered at the same time while multicasting content.

Use cases for Bx-WiFi include provision of entertainment in large or small waiting areas, such as train stations or doctor's offices, added value infotainment services during large-scale events, for example at sports or music venues, or behind the scenes broadcast of live camera feeds for staff.

Key Features

- Hardware agnostic software solution for Linux server platforms
- Multiple input types including standard DVB, IP and File-based formats
- Fully configurable server via web interface to optimise for local installation requirements
- Reference client applications for various platforms including Android and iOS
- Flexibility on client application branding or integration into third party application

System Diagram



Specifications

| Bx-WiFi Server | | |
|------------------------|----------------------|--|
| Platform | Architecture: | X86_64 |
| | Operating System: | Linux Ubuntu |
| Content Sources | DVB: | DVB DVB-S/S2, DVB-T/T2 (other DVB formats and ATSC possible) |
| | File: | MP4 (other file formats can also be supported) |
| | IP: | RTSP / RTP / UDP |
| Video Input | Codec: | MPEG 2, H.264, HEVC |
| | Format & Resolution: | Standard TV formats up to HD (1080p60) |
| | Bitrate: | Up to 8 mbps |
| Video Input | Codec: | H.264, HEVC |
| | Format & Resolution: | SD 480p30 or 576p25 (other resolutions possible) |
| | Bitrate: | Up to 4 mbps |
| FEC | Error resilience: | Configurable. Up to 99% |
| | Window size: | Configurable. 200ms recommended |
| Streaming | Protocol: | Transport Stream in RTP |

| Network | | |
|-------------|---------------------|---|
| WiFi | Frequency: | 2.4 GHz and 5.2 GHz |
| | 802.11 version | a / g / n / ac |
| | Multicast MCS: | Access point must be able to set MCS |
| | Multicast transmit: | Access point must not limit time spent transmitting multicast |
| | Number of APs: | Any number of access points |

| Bx-WiFi Client | | |
|------------------------|-------------------|--|
| Client Hardware | Operating System: | Android, iOS, Raspbian, Ubuntu |
| Software Stack | Referecne App | Based on open source libraries and frame |