

Expway Wi-Fi Multicast

HD video delivery
over dense Wi-Fi areas

EXPWAY

Solution Sheet



Expway Wi-Fi Multicast is a complete end-to-end solution that broadcasts content to many wireless devices connected using Wi-Fi. It turns Wi-Fi Access Points (AP) into multicast streaming gateways, allowing content to be delivered just once to many devices, instead of delivering multiple individual transmissions to each device. Wireless devices connected to the multicasting AP receive large video and data files simultaneously with the best service quality possible, in a highly efficient way - minimizing the airtime consumed by the multicast traffic.

Several organizations worldwide, including stadiums, shopping malls, airports, train and subway stations and college campuses, have adapted their existing Wi-Fi networks to deliver live videos and data in multicast. The content made available to their fans, the general public, and students, includes live sporting events, concerts, shopping coupons, up-to-date train and traffic information and lectures. Devices supported range from smartphones and set-top-boxes, to home gateways and mi-fi dongles.

The Expway Wi-Fi Multicast solution's open architecture allows it to be deployed with any AP from any vendors.

Forward Error Correction

Expway's unique and highly proven Forward Error Correction (FEC) overcomes quality issues inherent with 802.11-based wireless local area networks (Wi-Fi) such as low data rate, high losses, and variability in error rates. Expway's FEC insures high video quality multicast over Wi-Fi with reliable and predictable service quality.

Key Benefits

- Reliable high service quality with no degradation
- Highly scalable to many devices
- Efficient and cost effective.
- Can be deployed on any AP from any vendor

Key Products

- Expway BMSC
- Expway BPM
- Expway Middleware

www.expway.com



Scalability With No Degradation

Wireless local area networks scale unreliably as the number of users devices grows, and therefore can't deliver decent service quality in highly dense areas. The Expway Wi-Fi Multicast solution does not degrade as the number of devices increases, allowing content to be delivered virtually to an infinite number of devices with a consistent high service quality.

Coexistence Between Unicast and Multicast

Coexistence between Multicast and Unicast sessions is possible on the same AP with The Expway Wi-Fi Multicast solution. Unicast connections are not starved or do not suffer any degradation due to neighboring Wi-Fi services.

Audience and Service Quality Metrics

The Expway Wi-Fi Multicast solution provides network status information such as radio signal strength, transmission quality, bandwidth usage, and device reception. This information allows operators to fine-tune their network configurations and FEC ratios. User behavior analysis such as how long content was watched, when and where is also gathered, allowing service providers to better target content and advertising.

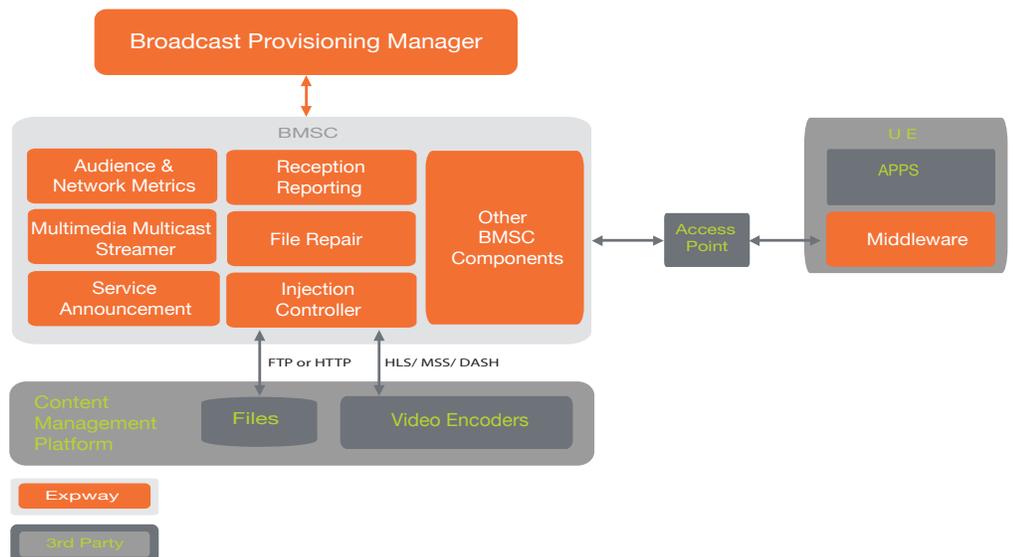
Expway Wi-Fi Multicast Key Products

Expway adapted its leading, carrier-grade LTE Broadcast technology to Wi-Fi Multicast. The following products make-up the Expway Wi-Fi Multicast solution:

- **Expway BMSC** is a server that generates multicast streams. It sits between the content sources and the AP. Its main role is to send content to the APs. It generates multicast transmissions encoded in FEC and a standard video format, and informs the devices which services will be transmitted and when. It can broadcast to several APs at the same time, and coordinate multiple APs to enhance video quality.
- **Expway BPM** is another server. It is used to configure and schedule the Wi-Fi Multicast services and manage the service transmission of a single or multiple BMSCs. Its GUI interface enables easily scheduling, activation/de-activation of services. Templates are used to manage pre-defined services or create new ones.
- **Expway Middleware** resides on the end-user equipment. It receives Wi-Fi Multicast transmissions and decodes the video streams using FEC and File Repair. It can support up to 20 simultaneous sessions.

The Expway Middleware gathers statistics on how the services are consumed and what service quality is achieved, and relays this information back to the Expway BMSC. It can easily be downloaded to any Android or iOS device and includes the Expway Middleware SDK to enable service provider to develop attractive applications that with an optional video player.

Expway Wi-Fi Multicast Architecture



Contact Us

www.expway.com

China +86 13910526950

Europe +33 1 44 54 29 28

Japan +81 3 5251 4021

Korea +82 10 5212 5700

USA +1 (408) 501 8816

