RUCKUS®
COMMSCOPE

CHANNELFLY®

BENEFITS

- Analyzes live channel activity to determine what channels will yield the most throughput

- Automates channel selection to optimize throughput in RUCKUS® networks

- Combines with BeamFlex® to support the most demanding enterprise requirements

- Maximizes capacity by selecting channels with the fewest neighboring APs and lowest interference

- Gives IT teams the power to limit when channel changes occur

Automatic RF channel selection and interference mitigation

A feature of the SmartZone™ control and management architecture, ChannelFly® automates wireless channel planning to minimize interference from both Wi-Fi and non-Wi-Fi sources. It analyzes channel activity and uses specialized algorithms to select the best channel based on historical values. In combination with RUCKUS BeamFlex adaptive antenna technology, ChannelFly maximizes throughput in the most demanding enterprise environments. It optimizes RF channel selection based on the number of neighboring APs and the historical capacity on each channel.

ChannelFly is integrated into every RUCKUS access point. It constantly monitors the RF environment and tracks the history of devices and interference on every channel. ChannelFly uses the 802.11h protocol to advertise necessary channel changes to active clients. This helps smooth transitions from one channel to another for clients and APs.

While proper channel selection is critical for RF health, excessive channel changes can disrupt the user experience. The 802.11h protocol is inconsistently implemented on clients, and interoperability issues may arise. An automatic channel selection algorithm needs to balance seeking the best channel with preventing excessive channel changes that may disrupt the client experience. ChannelFly allows the IT admin to specify when channel changes are allowed, such as in the middle of the night when wireless usage is light. Admins can also configure how responsive ChannelFly is to interference and reductions in capacity. On each channel change, ChannelFly weighs the benefit of changing channels against the potential impact on clients to minimize disruption to the user experience.

Channel plan created by ChannelFly in an enterprise office environment (20 MHz)

The network is in service—admins can choose to delay channel changes.