TALK

MCS Table and How You Can Use it

Keith Parsons · WLAN Pros channel · 2020-09-02

The MCS (modulation and coding scheme) table and how you can use it to judge the quality of the RF environment, because every transmitter picks an MCS for every transmission.

Key points

- Explains the MCS (modulation and coding scheme) table, which lists every data rate a Wi-Fi radio can choose and what goes into it.
- Each rate combines modulation, coding rate (how much forward error correction is sent), spatial streams, channel width and guard interval.
- MCS numbers mean different things in 802.11n (HT) and 802.11ac (VHT), and the table grows again with 802.11ax.
- Generic columns show the minimum SNR (signal-to-noise ratio) and RSSI (received signal strength) each rate needs.
- When a frame fails, the transmitter does not know why, and different devices step down in different ways; one handset drops straight to the slowest rate.

Chapters

1. 00:15 What the MCS table is
2. 01:05 From fixed data rates to MCS
3. 02:13 Reading the columns
4. 04:06 Coding and forward error correction
5. 05:02 Minimum SNR and RSSI
6. 07:07 How a transmitter picks a rate
7. 09:03 When a transmission fails
8. 11:04 Different rate-step algorithms

Watch on YouTube (https://www.youtube.com/watch?v=QBiBPbME5tY). More conference talks: wlan-talks.net (index by Victor Gatuna).

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