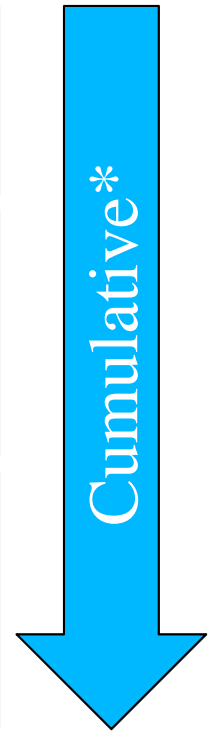


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doc.: IEEE 802.11-18/1549r0

# 802.11 (+WFA) has a remarkable history of standardizing valuable technologies ...

Amendment	Mandatory Headline Feature	Optional Headline Feature
11n (HT)	<b>AP: 2SS MIMO</b> <b>AMPDU</b>	5 GHz 3-4SS 40 MHz
11ac (VHT)	5 GHz 40 MHz <b>80 MHz</b>	3-8SS DL-MU-MIMO 160 MHz 256QAM
11ax (HE)	4SS AP: DL-MU-MIMO <b>UL/DL-OFDMA</b> ● <b>MU-EDCA</b> ●●	3-8SS UL-MU-MIMO 160 MHz 256 & 1024QAM



Some novel features jump straight to **mandatory**, and some evolve from optional to mandatory

\*With some minor exceptions:  
 • 5GHz not mandatory in 11ax but eco-system direction now well-established  
 • Exception for IoT-class 20MHz-only HE STAs