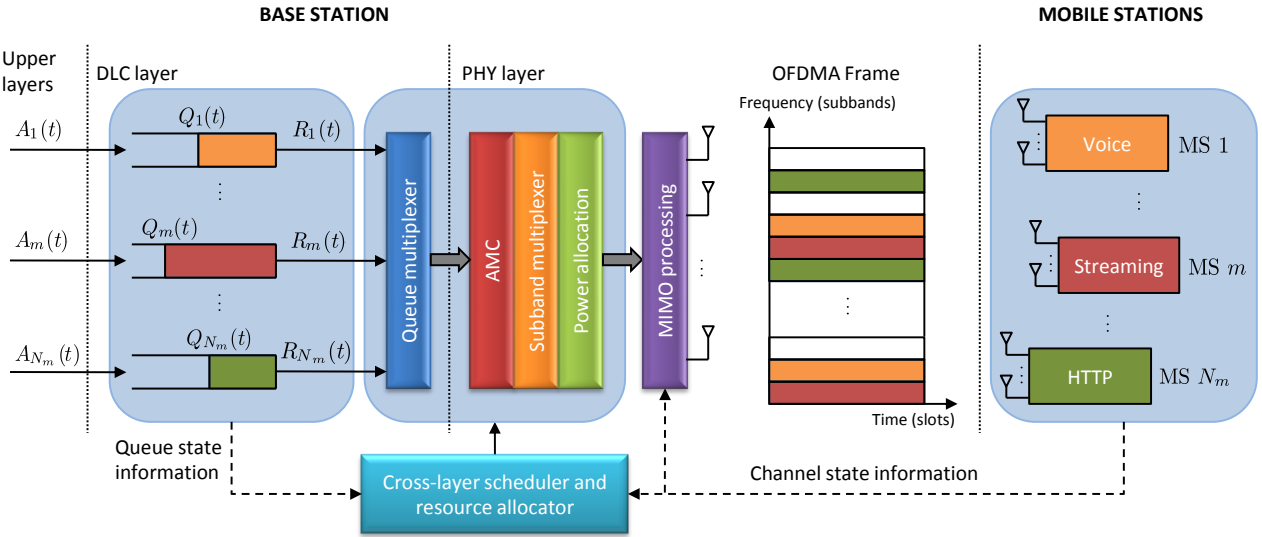
BASE STATION
MOBILE STATIONS
Upper layers
DLC layer
PHY layer
OFDMA Frame
Frequency (subbands)
Time (slots)
$A_1(t)$
$A_m(t)$
$A_{N_m}(t)$
$Q_1(t)$
$R_1(t)$
$Q_m(t)$
$R_m(t)$
$Q_{N_m}(t)$
$R_{N_m}(t)$
Queue multiplexer
AMC
Subband multiplexer
Power allocation
MIMO processing
Voice
MS 1
Streaming
MS m
HTTP
MS N_m
Queue state information
Cross-layer scheduler and resource allocator
Channel state information