

## I. INTRODUCTION

5G 5G3GPP 5G4G We need to allocated three types of resources. they are network, compute and storage. I need to read sdran network . and do some model building work.

‡ We assume total bandwidth in the network is  $BHz$ . According to Shannon capacity formula,  
motivation In article [], the virtual RAN was proposed to abstract the network resources.  
main contribution

## II. SYSTEM MODEL

The 5G network include several elements as infrastructure. It includes base stations, mobile edge computing servers, core network and cloud. For the 5G communication, these kinds of resources should be considered. ‡

## III. RESOURCE ALLOCATION AND HARQ OPTIMIZATION FOR URLLC TRAFFIC IN 5G WIRELESS NETWORKS

C classes SINR, a Poisson process with rate  $\lambda_c$  packets/sec. Arrival rates  $\lambda := (\lambda_1, \lambda_2, \dots, \lambda_C)$ . Let  $SINR_c$  denote the SINR of a class  $c$  user's packets.

A class  $c$  user requires  $r_c$  channel. The transmission success probability is at least  $1 - \delta$ . A URLLC packet of class  $c$  is allocated a bandwidth of  $h_c$  for a period of time  $s_c$ .

$$\kappa s_c h_c = r_c$$

where  $\kappa$  is a constant which denotes the number of channel uses per unit time per bandwidth of the OFDMA time-frequency plane.