Dynamic Resource provisioning for Energy Efficient Cloud Radio Access Networks

Abstract:

Cloud radio access network (C-RAN) is a promising architecture in next generation mobile networks to curtail both capital and operational cost for the network operators. It incorporates cloud computing technologies into the cellular networks.

Existing system:

The concept of C-RAN was first proposed in and further elaborated in .After that, an increasing number of research has been carried out in both industry and academia .These works have demonstrated that the C-RAN can enable energy efficient network operations. In a C-RAN, the main network resources are the computation resources in CU pool and the spectrum resources in RAUs. To fully explore the potentials of C-RAN in reducing energy consumption of the mobile networks, some strategies were proposed to achieve right-sizing of network resources, according to the dynamic change of network load.

Disadvantages:

1. No existing works has studied the problem of jointly selecting the active RAUs and consolidating the VMs.

Proposed system:

We propose an efficient low-complexity algorithm along with a context-aware strategy to dynamically select active RAUs and consolidate VMs to CUs. In this way, we can significantly reduce the energy consumption of C-RANs, while do not incur too much overhead due to VM migrations. Our proposed scheme is practical for a large-size network, and its effectiveness is demonstrated by the simulation results.

Advantages:

1. This application reduced the significant energy consumption of the C-RANS.

SYSTEM REQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –III
- RAM - 256 MB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Operating System : Windows95/98/2000/XP
- Application Server : Tomcat5.0/6.X
- Front End : HTML, Jsp
- Scripts : JavaScript.
- Server side Script : Java Server Pages.
- Database : MySQL 5.0
- Database Connectivity : JDBC