



**RESEARCH ARTICLE**

# Virtual Remote Network Computing of User Appliances

**Kaja Masthan<sup>1</sup>, K. Sharath Kumar<sup>2</sup>, V. Hari Prasad<sup>3</sup>**

<sup>1</sup>M.Tech (CSE), Sphoorthy Engineering College, JNTU, Hyderabad, India

<sup>2</sup>Associate Professor, Sphoorthy Engineering College, JNTU, Hyderabad, India

<sup>3</sup>Head of the Department (CSE & IT), Sphoorthy Engineering College, JNTU, Hyderabad, India

---

*Abstract— Through the use of software VNC, acronym for virtual network computing, makes it possible to interact with a computer from any computer or mobile device on the Internet. VNC software provides cross- platform support allowing remote control between different types of computers. To use VNC you must have a network TCP/IP connection, a VNC server and a VNC viewer to connect to the computer running the VNC server. The open source version of VNC has been freely available since 1998, and more than 20 million copies of the software have been downloaded. The existing RFB protocol is extended straightforwardly to integrate video codecs. Next, the overall system architecture is modified from serial operation to parallel. Finally, we propose a modified region coding to further reduce the encoding time of screen images. The proposed methods are implemented into our prototype mobile VNC system, and practical performances are widely evaluated. We report that JPEG is the most suitable for mobile VNC in terms of both complexity and compression ratio. In addition, the proposed modified region coding can decrease encoding time and consequently increase screen update rate.*

**Key Terms:** - *mobile VNC; MJPEG; screen image coding; modified region coding*

---

Full Text: <http://www.ijcsmc.com/docs/papers/August2013/V2I8201330.pdf>