

## Framework of fast medical data transmission

### ABSTRACT

Nowadays, PACS systems in hospitals have been upgraded to 3D and 4D images. PACS (Picture Archiving and Communication system (PACS) is a medical imaging technology which provides storage and access to images from multiple modalities. Images from echocardiography and magnetic resonance imaging (MRI) are among the big data to be transferred through the network. Thus, the large size of data has used a lot of time to transmit through the network. To solve the problem, in our research, we proposed a new framework named "Exponential-and-Uniform-based (ExpoNUni) to improve the transmission time and maintain the quality of the data. Our "ExpoNUni" Framework has performed a better result compared to the framework embedded with techniques such as Fibonacci-based Splitting with V1mi n Technique and Uniform-based Splitting Technique.

**Keyword:** Video storage; Grid computing; Grid storage; Data transmission; Video splitter

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