

## Presenting Internals of Networks Using Bare Machine Technology

**Authors :** Joel Weymouth, Ramesh K. Karne, Alexander L. Wijesinha

**Abstract :** Bare Machine Internet is part of the Bare Machine Computing (BMC) paradigm. It is used in programming applications to run directly on a device. It is software that runs directly against the hardware using CPU, Memory, and I/O. The software application runs without an Operating System and resident mass storage. An important part of the BMC paradigm is the Bare Machine Internet. It utilizes an Application Development model software that interfaces directly with the hardware on a network server and file server. Because it is "bare," it is a powerful teaching and research tool that can readily display the internals of the network protocols, software, and hardware of the applications running on the Bare Server. It was also demonstrated that the bare server was accessible by laptop and by smartphone/android. The purpose was to show the further practicality of Bare Internet in Computer Engineering and Computer Science Education and Research. It was also to show that an undergraduate student could take advantage of a bare server with any device and any browser at any release version connected to the internet. This paper presents the Bare Web Server as an educational tool. We will discuss possible applications of this paradigm.

**Keywords :** bare machine computing, online research, network technology, visualizing network internals

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