Fault Tolerant Cloud Systems

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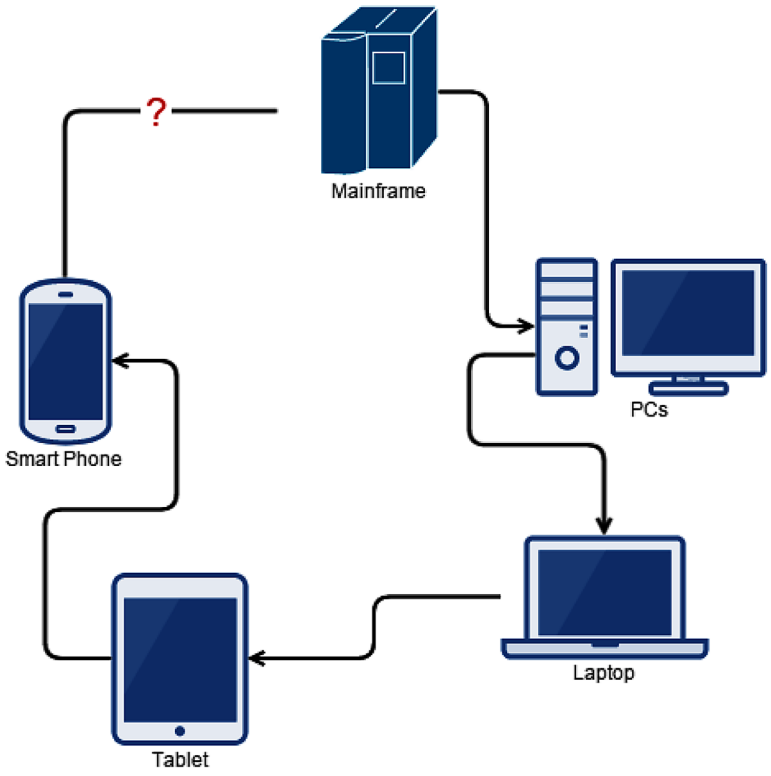
INTRODUCTION

Computing is a study of algorithms, automation, programming the information. Programming is a way of designing algorithms which are aimed at controlling, executing the computing devices. These devices have the basic features such as the amount of data they can store and process speed to perform in a reliable time. Traditionally in 1980's desktop personal computers (PCs) are used to support in creating, editing and manipulating documents. Further, these PCs are connected to the devices like a scanner to scan the documents, printer to take hard copies of the documents, etc. Later these devices are connected together to form a simple network. Since PCs has more of devices and it occupies more space the devices like laptop, tablet, mobile phone came into the context.

Figure 1. Sample computing paradigm shift



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BACKGROUND

Computing Shift from Mainframe to Cloud

There are five distinct stages that cloud computing arrived. Initially one computer terminals like keyboard monitor to access the mainframes systems. In stage1, personal computers (PCs) were used to manipulate user requirements. In stage2, several PCs were connected to form a network called local network and user can access the PCs from their own PCs. In stage3, several local networks were connected to a global network called the internet. From the internet, the users can remotely access the systems. In stage4, the grid computing came into the context were resources were shared distributedly. The user uses PCs to access the grid. In stage5, the user employs a computing technique called cloud computing that allows users to access the resources through the internet.

Figure 2. Mainframe to cloud shift