**Virtual Memory Partitioning for Enhancing Application Performance in Mobile Platforms**

**Abstract:** Now-a-dayssoftware users on mobile platforms are increasing rapidly due to the introduction of application stores. Mobile phones have limited memory storage compared to laptops and server’s due to their mobility and- they don’t have the facility to expand the memory through memory slots. Memory management techniques likeLow memory killer (LMK) and out of memory killer (OOMK) were used widely. Fragmentation and thrashing was the are the other problems because of forced termination of applications.

This paper gives solution to the problems caused due to deterioration of application because of LMK and OOMK. It provides an isolated virtual node at operating system.

**Introduction:** Most ofthe devices support both built-in and downloaded applications from application store. Memory management of applications downloaded are tested at manufacturing time. Because of it most of the devices faces memory shortage. LMK is the most widely used memory management technique which terminates the less important applications until sufficient space available for the running application. LMK and OOMK seriously deteriorate user perceived performance in two ways: 1) Victim information was unloaded and during the next usage of this application all the info need to be fetched.

2)Built in application like Phone, SMS and Contacts are forcibly terminated.

At the point when page issues caused by the memory deficiency happen much of the time, the cost of page substitution rules CPU usage, making applications more inclined to miss the required due date. Therefore, rather than really getting free memory, the thrashing often happens. Even the built in applications suffers because of this drawbacks. This paper propose a new technique were memory partitioning at OS level, which limits page reclamation within the memory partitioned area. VNODES are created for built-in application, trusted applications and untrusted applications.

**Memory Management Techniques:**

Conventional Memory Management, it blindly handles all processes without the

platform level semantics, which are important system applications in a mobile platform. LMK is other popular technique where it terminates the application based on the LRU table. OOMK is other technique where it depends memory score of processes heuristically. Thrashing and fragmentation are the main problems all the three techniques are not handled properly.