**Creating Self-Adapting Mobile Systems with Dynamic Software Product Lines**

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Abstract: How easy would be life if the systems around us can adapt to our requirements, it would be nice if the lights around me know what mood I am in and how much brighter I want them to be to feel nice, it would nice if the air conditioning could understand what temperature would make me feel good. Though I quote of the luxurious perks, the self-adaptive Mobile systems with DSPL are a very good examples, this trend in technology is no longer a distant vision, mobile systems being able to understand whether wifi or mobile network is good to connect my call, what place might I be looking for are some of the examples an adaptive system have in place, the below paper tries to highlight in detail what would behind the scene in such a situation.

1.0 Introduction

In the age technology New mobile system demands more and more adaptive features, and often required frequent changes to context, many of them performed dynamically, this makes context change an ideal candidate to put through Dynamic software product line, the paper tries to address how an adaptive system need to be configured to address a specific problem in the mobile system rather than just changing the configuration to adapt. So next time rather than just introducing a new next generation network phone which can handle an advance network introduce the same base model with the advances network capability, to say in more realistic terms it’s easy to introduce an iPhone 5 S or iPhone 5 SE with the needed physical reconfiguration or upgrade the operating system to handle new features or requirement, rather than needing to launch a completely new line of product in a similar way the paper discusses the findings of the researchers and how to device a process to identify the requirement for an adaptive system and make a dynamic judgment on what is the best way to resolve the constraint.

2.1 Significance

The speed at which technology changes itself is significant, in a recent speech after being sold out CEO of Nokia mentioned “we didn’t do anything wrong, but somehow we lost”, many analysts try to find out what went wrong for them, many believe they missed out on learning and changing. Thus is the importance of adapting in a life span of a system. The significance of the thoughts put in this paper revolve around the very capability of the system to adapt dynamically to deliver quick changes and adapted outcomes for its customers.

2.2 Solution

The team builds a process wherein they have designed to main process cycles, one which identifies the problem and rectifies it by making the system evolve the first cycles and continuously tries to find the areas where the context change may need to happen the second process is a dependent cycle on the first, if a context change has happened the second process would trigger which controls the product reconfiguration line, and will make sure the new products is reconfigured to this changes and adhere to its QoS goals.

2.3 Assessment

The team further explain their research using an example where a location based services uses three different technologies to obtain the location, based on limitations and criticality how the system will reconfigure on what the best solution is for the system to function on.

3.0 Future

Though the research paper tries to address an adaptive system in depth, the overall application and use of the concept does not even penetrate the surface of the ocean of requirements where the solution can be implemented. There is still more research that is needed on how to optimize the utilization of such a process, keeping the systems from not overloading and yet trying to achieve the best adaptation for the system.