# Mobile Devices and Their Operating Systems

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### ABSTRACT

This paper discusses the operating systems used in mobile computing.

## Keywords

Mobile, Device, Operating, Systems

## 1. INTRODUCTION

Consumers being more and more on the move these days, developers have had to be more innovative in the designing of their electronic devices, making them mobile. Where simple cell phones used to be, smartphones have taken their place. Since smartphones have physical restraints as far as hardware goes, newer, lighter operating systems have been developed to take advantage of their hardware.

## 2. TOP SMARTPHONES

The highest rated smartphones to date are the Samsung Omnia, T-Mobile G1, Apple iPhone 3G, RIM Blackberry Bold, T-Mobile Sidekick 2008, and the RIM Blackberry Storm [1]. As of the second quarter in 2009[2], Nokia dominated the market with a 45% market share, RIM claimed 18.7%, Apple 13.3%, and T-Mobile, trailing behind due to its lateness in entering the market, with only 0.16%. Since T-Mobile's products have continually received highest ratings, it's likely their market share will increase rapidly in the next few years.

#### 3. OPERATING SYSTEMS USED

The most common operating systems distributed with smartphones are Symbian OS, RIM Blackberry, Apple iPhone, Windows Mobile, Android, Palm WebOS, and a mobile Linux variation. Symbian OS is used on the largest number of smartphones, and it owns 50.3% of the smartphone OS market share[3]. RIM BlackBerry has 20.9%, Apple iPhone 13.7%, Windows Mobile 9%, Google Android 2.8%, and Palm WebOS/Linux with the remaining 3.3%.

Grading Rubric	Max	Earn
On Time/Format	1	
Correct	5	
Clear	2	
Concise	2	
TOTAL	10	

Interestingly enough, though Palm is generally the company credited for starting the portable planner and smartphone trend, they are now the company that trails behind in reliability, enhanced features, and ultimately sales. Google's Android OS, available only on the T-Mobile network, has worked its way to 2.8% of the overall marketshare in a surprisingly short amount of time. The system is friendly, clean, and very efficient, thus rendering it a favorite among the smartphone community.

Similar to its desktop operating system, Apple's iPhone operating system is intuitive and clean, making it a favorite as well. Apple has pushed their way to a high ranking in the smartphone community, but it has had a difficult time passing RIM BlackBerry due to BlackBerry's long-standing lead in the business community.

### 4. CONCLUSIONS

Frankly, the potential of mobile operating systems and devices has only begun to be explored. The mobile world is what is going to be exploding with advancements in the next few years, so the operating systems will continue to become more advanced, faster, and more reliable. The most convenient advancement will be if the smartphone makers start selling their phones to multiple mobile carriers instead of exclusively to one or two. Until then, systems like Google's Android and Apple's iPhone OS will be limited to the scope of T-Mobile or AT& T.

# 5. REFERENCES

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