



# MOBILE COMPUTING

mobile computing

**tutorialspoint**  
SIMPLY EASY LEARNING

[www.tutorialspoint.com](http://www.tutorialspoint.com)

 <https://www.facebook.com/tutorialspointindia>

 <https://twitter.com/tutorialspoint>

## About the Tutorial

---

Mobile Computing is a technology that allows transmission of data, voice and video via a computer or any other wireless enabled device without having to be connected to a fixed physical link.

This tutorial will give an overview of Mobile Computing and then it will take you through how it evolved and where is the technology headed to in future along with the classifications and security issues involved.

## Audience

---

This tutorial has been prepared for beginners to help them understand the basics of Mobile Computing. After completing this tutorial, you will find yourself at a moderate level of expertise in Mobile Computing from where you can take yourself to the next level.

## Prerequisites

---

This tutorial assumes you are completely unaware of the basic concepts of Mobile Computing, but still you are living in the present where mobile phones, PDAs and Tablet PCs are being used in day-to-day life.

## Copyright & Disclaimer

---

© Copyright 2015 by Tutorials Point (I) Pvt. Ltd.

All the content and graphics published in this e-book are the property of Tutorials Point (I) Pvt. Ltd. The user of this e-book is prohibited to reuse, retain, copy, distribute or republish any contents or a part of content of this e-book in any manner without written consent of the publisher.

We strive to update the contents of our website and tutorials as timely and as precisely as possible, however, the contents may contain inaccuracies or errors. Tutorials Point (I) Pvt. Ltd. provides no guarantee regarding the accuracy, timeliness or completeness of our website or its contents including this tutorial. If you discover any errors on our website or in this tutorial, please notify us at [contact@tutorialspoint.com](mailto:contact@tutorialspoint.com)

# Table of Contents

---

About the Tutorial .....	i
Audience.....	i
Prerequisites.....	i
Copyright & Disclaimer .....	i
Table of Contents.....	ii
<b>1. MOBILE COMPUTING – OVERVIEW .....</b>	<b>1</b>
<b>Mobile Communication .....</b>	<b>1</b>
<b>Mobile Hardware.....</b>	<b>1</b>
<b>Mobile Software .....</b>	<b>2</b>
<b>2. MOBILE COMPUTING – EVOLUTION .....</b>	<b>3</b>
<b>3. MOBILE COMPUTING – CLASSIFICATION.....</b>	<b>5</b>
<b>Personal Digital Assistant (PDA).....</b>	<b>5</b>
<b>Smartphones .....</b>	<b>5</b>
<b>Tablet PC and iPads.....</b>	<b>6</b>
<b>4. MOBILE COMPUTING – ADVANTAGES .....</b>	<b>7</b>
<b>5. MOBILE COMPUTING – SECURITY ISSUES .....</b>	<b>8</b>
<b>6. MOBILE COMPUTING – CURRENT TRENDS.....</b>	<b>10</b>
<b>3G .....</b>	<b>10</b>
<b>Global Positioning System (GPS) .....</b>	<b>10</b>
<b>Long Term Evolution (LTE).....</b>	<b>10</b>
<b>WiMAX .....</b>	<b>10</b>
<b>Near Field Communication.....</b>	<b>10</b>
<b>Conclusion .....</b>	<b>11</b>

# 1. MOBILE COMPUTING – OVERVIEW

Mobile Computing is a technology that allows transmission of data, voice and video via a computer or any other wireless enabled device without having to be connected to a fixed physical link. The main concept involves:

- Mobile communication
- Mobile hardware
- Mobile software

## Mobile Communication

---

The mobile communication in this case, refers to the infrastructure put in place to ensure that seamless and reliable communication goes on. These would include devices such as protocols, services, bandwidth, and portals necessary to facilitate and support the stated services. The data format is also defined at this stage. This ensures that there is no collision with other existing systems which offer the same service.



Since the media is unguided/unbounded, the overlaying infrastructure is basically radio wave-oriented. That is, the signals are carried over the air to intended devices that are capable of receiving and sending similar kinds of signals.

## Mobile Hardware

---

Mobile hardware includes mobile devices or device components that receive or access the service of mobility. They would range from portable laptops, smartphones, tablet PCs, Personal Digital Assistants.



These devices will have a receptor medium that is capable of sensing and receiving signals. These devices are configured to operate in full-duplex, whereby they are capable of sending and receiving signals at the same time. They don't have to wait until one device has finished communicating for the other device to initiate communications.

Above mentioned devices use an existing and established network to operate on. In most cases, it would be a wireless network.

## Mobile Software

Mobile software is the actual program that runs on the mobile hardware. It deals with the characteristics and requirements of mobile applications. This is the engine of the mobile device. In other terms, it is the operating system of the appliance. It is the essential component that operates the mobile device.



Since portability is the main factor, this type of computing ensures that users are not tied or pinned to a single physical location, but are able to operate from anywhere. It incorporates all aspects of wireless communications.

End of ebook preview

If you liked what you saw...

Buy it from our store @ <https://store.tutorialspoint.com>