

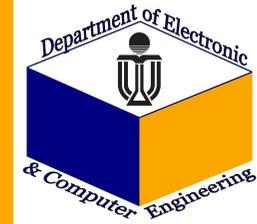
Mobile Remote Desktop Device (WKT5-10)

Student members

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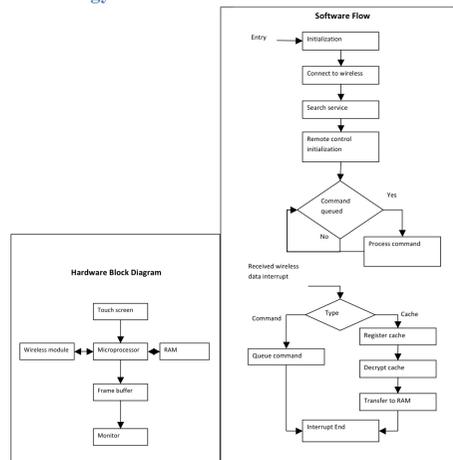


Aims and Objectives

This project aims to introduce a new form, light, power saving and inexpensive mobile computer. Mobile Remote Desktop Device (MRDD). Meanwhile, the device should be able to handle daily word processing tasks and browsing web pages smoothly.

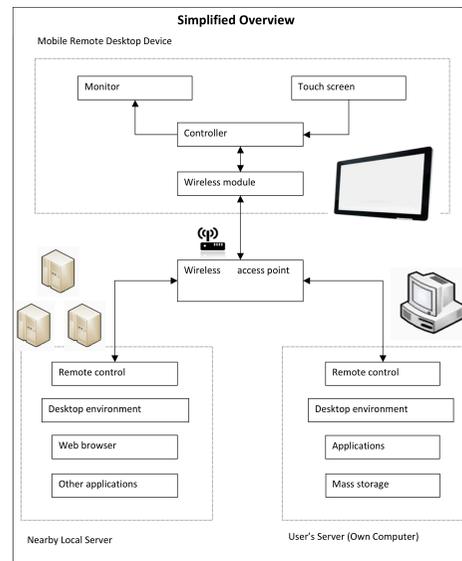
MRDD would change the way people use mobile computers in the future. Main features of MRDD are extremely high portability and endurance. It allows users to carry their mobile computers at anytime and anywhere, without recharging battery daily.

Methodology



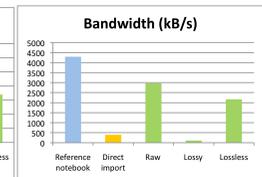
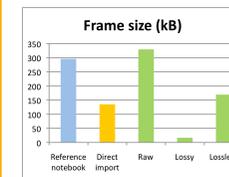
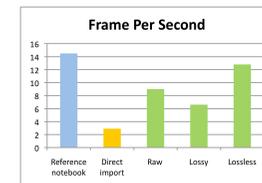
Simplified Overview

The core components of the MRDD are the controller, monitor, touch screen and wireless module. The controller coordinates the other components. The monitor displays the desktop environment. The touch screen is the only input device.



Result

- Testing equipments and conditions:
- 600MHz client device with 128MB RAM
 - 2.4GHz server
 - 1.2GHz notebooks as reference
 - 100Mbps LAN
 - Playing 1 game video and 1 film on YouTube



Conclusion

This project is to introduce a new form of mobile computer using remote desktop. Most of the computation and mass storage is transferred to servers. The performance test shows the feasibility of the concept. The current technology is able to provide 12.8 frames per second by using 600MHz processor and 2.1Mbps network bandwidth. This performance almost reaches the performance of the reference computer using 1.2GHz dual cores CPU. The analysis of the performance also shows that the system is suitable for different conditions as the system provide very flexible settings.

The performance of the client device successfully introduced a method to create a new form of mobile computer. There is still much room for improvements in order to bring this new concept into real product but the test strongly provided the feasibility of the concept.

