Security Methods for the Mobile Android Platform

Sam Rush

Abstract

Mobile technology is rapidly evolving to the point where customers who buy a phone with a two year contract feel compelled to upgrade before the contract expires. Yet, mobile phones have not yet experimented with biometrics to any large scale. This project will integrate biometric technologies with the Android mobile platform. As smartphones continue to hold more and more personal information, including emails and other forms of private communication, the demand for security is growing. This project aims to protect a phone using only biometric security measures.

Introduction

The cell phone industry is rapidly growing. In recent years there has been a mass shift from traditional cell phones with twelve key dual-tone multi-frequency keypads to ``smartphones'' with touch-screen displays. In the last six years, the United States has been migrating to 3rd generation (3G) cellular networks in the form of HSPDA and EVDO, which both carry a bandwidth potential of about 2 Mbit/s\cite{3G}. In comparison, the average household internet connection in the United States is 6.8 Mbit/s according to SpeedTest.net. This new technology has created a large demand for security, especially on phones capable of full internet and email. On the Android operating system, the only available security is called the pattern unlock.