Android Stagefright

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**ABSTRACT**

In this paper, we describe our approach for implementing the known exploit for the Android operating system (OS) Stagefright vulnerability on numerous releases of the Android OS ranging from versions 4.0-5.1.

**Categories and Subject Descriptors**

K.6.5 [Management of Computing Information Systems]: Security and Protection

**Keywords**

Security; Stagefright; Zimperium Research Labs (zLABS); Android Open Source Project (AOSP);

# INTRODUCTION

Security researchers at Zimperium Research Labs (zLABS) recently discovered an Android OS vulnerability. To exploit this vulnerability, the attacker merely needs access to the phone’s mobile number and can gain remote code execution privileges. The Android Open Source Project (AOSP) contains a media library named Stagefright at its core which is responsible for processing of all multimedia files (videos, audio, and documents). When dealing with multimedia files time is of the essence and speed of processing is a high priority. As such, the Stagefright library was not written in Java or a similar more memory-safe language, but instead was based in C++, which is more apt to suffer from memory corruption.

The vulnerability found in Stagefright exploits memory

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