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**Unmanned Aerial Vehicle (UAV)
Utilization of Cellular Services**
Enabling Scalable and Safe Operation

Abstract

This whitepaper addresses how mobile cellular networks can support the adoption of Unmanned Aerial Vehicles (UAVs) as well as provide services that can help address areas of concern in a convenient and technically feasible way. This whitepaper shows how the synergy and effective use of the combination of UAVs and mobile cellular services technologies will offer mutual benefits.

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1. Introduction

In the last few years, the application of new technology has vastly improved the performance and accessibility of Unmanned Aerial Vehicles (UAVs). The UAV market is soaring, not just for hobbyists but increasingly for a range of professional and civil applications (see Figure 1).

The increased use of UAVs is proving valuable for recreational and professional purposes. However, it is also raising concerns about safety, security, and privacy. This paper shows:

- How mobile cellular networks can support the adoption of UAVs as well as provide services that can help address areas of concern in a convenient and technically feasible way.
- That the synergy and effective use of the combination of UAVs and mobile cellular services technologies will offer mutual benefits.