**Cloud Based Architecture Solution for Aircraft Flight Data Recorder**

Abstract

Flight Data Recorder (FDR) is an on board equipment in the aircraft, it records many different operating conditions of the flight, computer animated video reconstruction of the flight can be generated from data retrieved from FDR, the aircraft accident investigators can then visualize the last moments of flight before the accident. There may be instances when it was difficult to retrieve FDR from the scene of an accident, or even, if retrieved, the data could not be retrieved because FDR might have been burnt beyond allowable temperature. As a result of this, there is a need for alternative source of data. The cloud computing concept could be extended to the aircraft system data network environment with every aircraft subscribing to the cloud resources to run their mission-critical applications. This paper models cloud based architecture solution for aircraft FDR by implementing private cloud computing. Unlike the existing Cloud Computing Platform of Aviation Industry (CCPAI) framework which provides a mechanism to monitoring aircraft management only, the proposed model in this paper will provide alternative data for aircraft accident investigators to work with in case of any aircraft mishap. Reliability of internet connection and availability of large bandwidth to support real time flight data transmission are envisaged as potential limitation of the proposed model.