

## إستخدام الحوسبة السحابية لتحسين سلامة الطيران

قطاع صناعة الطيران هو أحد المساهمين الرئيسيين في نمو واستقرار الاقتصاد العالمي. وتوضع العمليات الناجحة موضع شك بسبب ارتفاع حالات حوادث الطائرات والكوارث التي تم الإبلاغ عنها مؤخرا في أيام العصر التكنولوجي ، حيث لم يتم العثور على حطام بعض الطائرات المحطمة ، أو العثور عليها ، أو الإبلاغ عن فقدانها ، مثل ase من الخطوط الجوية الماليزية غامضة رحلة . MH370 ولا يزال لدى محققي حوادث الطائرات العديد من الأسئلة التي لم تتم الإجابة عليها عن سبب بعض هذه الحوادث بالفعل بسبب نقص موارد المعلومات وكيفية تجنبها في المستقبل. والغرض من الدراسة البحثية التالية هو التحقيق وتحديد ما إذا كان من الممكن اعتماد وإدماج نظم الحوسبة السحابية في صناعة الطيران العالمية كمصدر بديل للمعلومات وتيسير التتبع و رصد عمليات الطائرات والأنشطة المختلفة في الوقت الحقيقي .

# **Use of Cloud-computing in enhancing Aviation Safety**

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## **ABSTRACT**

**The aviation industry sector is one of the major contributor in the growth and stability of the global economy. The successful operations are put in doubt by the rising cases of aircraft accident and disasters reported recently in the days of technological era, whereby the wreckage of some of crashed aircrafts have never been recovered , found, or reported missing , such as the case of mysterious Malaysian Airlines Flight MH370 . Aircraft accident investigators still have many unanswered questions of what actually caused some of these accidents because of lack of information resources and how they can be avoided in the future. The purpose of the following research study is to investigate and establish whether or not it is feasible to adopt and integrate the cloud-computing systems in the global aviation industry as an alternative source of information and to facilitate tracking and monitoring of aircraft's different operations and activities at real-time , which would subsequently reduce the rising cases of aircraft accidents and maintain aviation safety in general . The integration of cloud-computing platforms would also improve air to ground communication.**

**This study uses mixed research methods to collect and analyze primary and secondary data required to answer the premise of the research question. The questionnaire survey method have been used to collect quantitative data from the 250 research group participants, while qualitative data has been collected through case studies. Data analysis employs statistical measures of descriptive statistics performed case study analysis for 12 selected corporations.**

**The results and findings of the research study confirm that the cloud-computing is indeed needed to be integrated in most of the operations and activities of the aviation industry sector , such as service**

**optimization by airlines. It is not yet being used to track and monitor aircrafts in real-time, regardless of the massive support that this proposal gets from different stakeholders in aviation industry sector , it also can be attributed to security concerns to share the information on the cloud.**