

Executive Summary

In a recent article in INFLIGHT Magazine, Brendan Gallagher offered the following observations concerning the current state of IFE installation;

"The present practice of putting IFE into airliners by jamming hefty boxes under every third seat is primitive. It exposes delicate electronics to dust, spills, physical shock and high heat loads. For the boxes, it is the equivalent of a hardship posting – their health suffers and passenger-bugging features are common. And while we're with the passengers, few of them can be ecstatic at the loss of legroom in cabins where seat-pitches are being squeezed until kneecaps squeak."

iCACHE, a Solution for **Safety and Reliability**

Some, within the industry, have raised concerns regarding **safety and reliability, when installing an IFE** system using the iCACHE design. However a careful study of the approach reveals a much **higher** level of safety and reliability. Consider the following specific points:

The **iCACHE** design meets or exceeds all of the requirements of the FAR's relating to this subject.

The **iCACHE** design **already** meets or exceeds all of the intended requirements of the FAA Advisory Circular #120-80.

The **iCACHE** design is actually ahead of the aviation communities concerns over the issue of hidden fires as the design includes options, of both a SMOKE DETECTION and a HEAT DETECTION system.

The **iCACHE** design also includes, as a standard feature, a constant monitoring of the cooling fans combined with an enunciator panel that informs the crew in the event that any one of the fans falls below a set rotation percentage and also informs the crew in which cluster the event occurred.

The **iCACHE** design includes, as a standard feature, easy access to all units that are housed within it's clusters such that any LRU's can be quickly and easily accessed by the crew in all phases of flight. This arrangement actually makes the access to any unit much easier than the traditional seat mounted arrangement and corrects this situation found on today's aircraft.

The **iCACHE** design, in Phase One, allows for a large reduction in the number of units required to operate any PAX Cabin System on widebody aircraft and also reduces the total power required. LRU reductions are in the magnitude of 20% to 25% seat IFE/ISPS LRU's, 66% of seat power/control LRU's and 100% of floor mounted LRU's. As a result, iCACHE actually reduces the chances of any mishap.