

# Enhancing Operational Performance with Multi-orbit Inflight Connectivity



## A Better Future Through Inflight Connectivity



### Pre-flight

- Gate-to-gate operational connectivity for pre-flight planning on electronic flight bags (EFBs), logbooks, and digital manuals
- Maintenance personnel can connect their tools seamlessly



### In-flight

- Enable real-time airplane health monitoring and predictive maintenance by wirelessly offloading data
- Real-time weather provides flight route optimization to save fuel, lower emissions, and improve situational awareness



### Post-flight

- Offload aircraft big data for Flight Operations Quality Analysis without manual intervention

## Create a Competitive Edge and Minimize Delays with Real-time Data for Your Crews

### Flight Operations: Enhance Your EFB Applications



Reduce CO2 emissions with optimized routing



Mitigate lightning risks with live weather updates



Reduce injuries due to turbulence with smoother flights



Lower fuel consumption with real-time wind data



## Weather Related Events are Costly for Airlines

### Lightning Strikes



Average cost per inspection for a narrow body aircraft after a lightning strike is **U.S. \$19,000**



Around **2/3 of lightning related damage** is outside of allowable limits which drives extensive repairs

### Turbulence



Estimating savings of **900-1,300 minutes** annually per aircraft and **8,000-12,000 gallons of fuel**



2017 global cost of turbulence related injuries was **U.S. \$367 million**, and could reach **U.S. \$1 billion** by 2035

## Ground Operations: Reduce Aircraft Turnaround Times with Real-time Data

- Increase awareness of in-flight concerns
- Proactively resolve maintenance issues
- Accurately refill catering and other supplies



## Gain Cost-effective Access to Operational Data in Near Real Time

Intelsat's secure IP network enables airlines to gain powerful insights and make better decisions.

- Aircraft performance testing
- Pilot performance testing
- Pilot score carding
- Predictive maintenance

### Routing non-safety data over Intelsat's network



A/C Data



Intelsat Network



Cost per MB

### Routing data over ACARS network



A/C Data



ACARS



Cost per MB

## Bring Your Operations Online to Save Time and Money



### In-cabin

Enable flight crews with tools to enhance the passenger journey



### Generate Revenue



### Flight Operations

Empower pilots with access to real-time data



### Reduce Cost



### Aircraft Operations

Minimize delays due to unexpected maintenance