

AVIATION DIGITAL TREND

IN THE NEXT THREE YEARS

- 58%** intend to invest in the Internet of Things (IoT)
- 85%+** will offer booking via mobile and mobile boarding passes
- 91%** will invest in cyber security programmes



Almost half already have an innovation collaboration strategy in place

THE BENEFITS ARE COMPELLING

Moving to hybrid cloud could save	Digitalising operations could boost efficiency	Integrating data and business platforms could save
12% - 30%	8% - 20%	5% - 15%
Process optimisation could save	Multi-channel offers could increase revenue by	
5% - 8%	25% p.a	

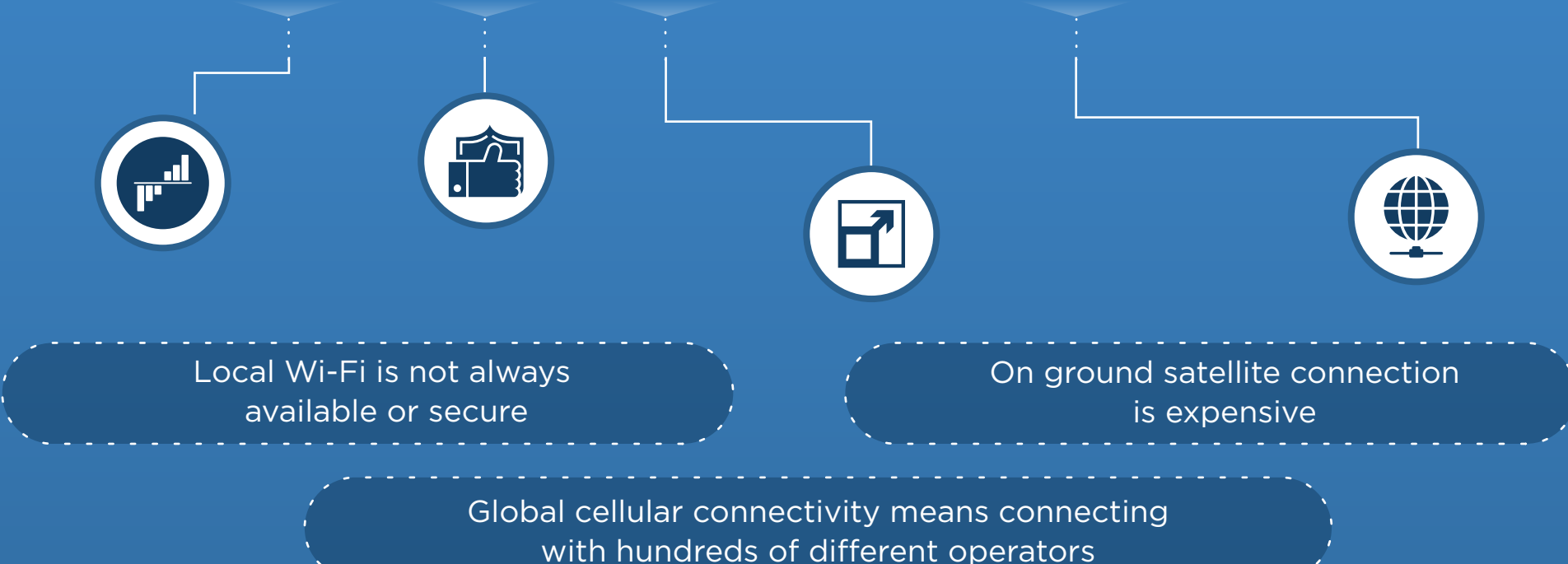
WHAT WILL THE FUTURE OF AVIATION LOOK LIKE?

Coming into land: Smart Aviation with the Internet of Things (IoT)

- O&M efficiency** - with baggage and logistics monitoring / precious cargo tagging
- Energy conservation** - with temperature and lighting control
- Cost savings** - with pre-amped cleaning schedules and predictive maintenance
- Improved safety** - with automated bridge manning
- Improved visibility** - with checks on/off and airport-based equipment monitoring
- Operations efficiency** - with efficient flight planning and electronic flight bags
- Better customer experience** - with improved waiting time and better inflight experience
- Better ROI** - with pre-scheduled maintenance

BY 2021, THE AVIATION IOT MARKET SIZE IS EXPECTED TO GROW TO \$14.23BN

Successful airline IoT initiatives require consistent, reliable, scalable and secure global connectivity as



TATA COMMUNICATIONS MOVE™ IS THE ANSWER, delivering to airlines' IoT connectivity needs enabling pervasive, scalable, flexible and secure connectivity

- Global - local mobile coverage**
 - With local radio access via 600 mobile network operators
 - Plus regional distribution of traffic to offer a near-to-local experience
- Support for multiple use cases**
 - With a technology-neutral solution
- Secure access to own private network**
 - With a fully secured end-to-end global private network
 - Controlled, secure routing of traffic with custom APNs
- Real-time visibility and control**
 - Connecting with the best available mobile network, wherever the aircraft lands
 - Full access control - allow the content/apps you want, keep the rest out
- Cost-effective connectivity**
 - With flexible pricing models such as shared bundles across multiple SIMs for different geographies
 - Zero-rated, unlimited usage of your approved corporate apps
- Peace of mind**
 - With the reassurance that we are already connecting some of the world's largest airlines

TATA COMMUNICATIONS MOVE™ - IN ACTION

Helping you transform...

- ELECTRONIC FLIGHT BAG**
 - Enabling better flight efficiency and planning
 - No more paper or cockpit clutter, with digital charts held on a tablet
 - Plus automated calculations for take-off and landing
- CONNECTED CABIN CREWS**
 - Enabling better in-flight and operations planning
 - Electronic passenger manifest and seating plans to reduce boarding time
 - With tablet-based communications simplifying paper work and increasing productivity
 - Benefiting from unlimited usage of corporate apps on company devices
 - Plus controlled, policy-based access to other content
 - With SIMs supporting up to 5 MSISDNs from countries of your choice
- CONNECTED AIRCRAFT**
 - Monitor fuel and engine performance and collect predictive maintenance data of other parts of the aircraft
 - So the right staff, equipment and services can be waiting on the tarmac
 - With fail-safe connectivity from multiple mobile networks supported on each SIM in most countries
- CONNECTED CARGO MANAGEMENT**
 - Track cargo location and condition With in-built sensors that monitor location, temperature and shocks
 - Create real-time load plans to optimise resources
 - Avoid loading delays and ensure passenger and luggage arrive together
 - Plus fail-safe connectivity from multiple mobile networks supported on each SIM in most countries
- IN-FLIGHT ENTERTAINMENT**
 - Download reports and software updates on customers' music, news and movies choices
 - Offer customers their preferred entertainment choices
- IN-FLIGHT DUTY FREE**
 - Ensure all mid-air POS transactions go through
 - Carry out cart stock tally in real time
- SMART LUGGAGE**
 - Locate any lost item with trackable smart tags
 - Low cost feature that keeps customers happy
- CONNECTED CUSTOMERS**
 - Enhance customer loyalty with sponsored connectivity
 - Customers stay connected during flights and sign up to loyalty programmes
 - With full access control to allow only the content/apps you want to offer

FIND OUT HOW TO TAKE YOUR BUSINESS FURTHER WITH TATA COMMUNICATIONS MOVE™