



# The Computerworld Honors Program

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## Final Copy of Case Study

**LOCATION:**  
*Karnataka, India*

**ORGANIZATION:**  
Bangalore International Airport Limited

**YEAR:**  
*2011*

**ORGANIZATION URL:**  
<http://www.bengaluruairport.com>

**STATUS:**  
*Laureate*

**PROJECT NAME:**  
Collaboration airport framework

**CATEGORY:**  
*Economic  
Opportunity*

### PROJECT OVERVIEW

Background: Bangalore International Airport ( BIAL) was the first green field airport with Public Private Participatory business model conceived by the Government of India and is a Public Limited Company. New Business model for an airport in Indian context: In the Indian context prior to private airports coming in, all services followed a “silo” approach that resulted in non- optimization of all airport resources and inconsistent passengers experiences. Also no single airline could justify deploying Enterprise class or ISP class solution. And passengers had no choice. BIA as a green field private airport operator needed to create the entire airport infrastructure from ground zero. ICT needed to align to the business and it was primarily a paradigm shift for an airport operator to don the role of an ICT service provider and to create state of the art infrastructure and services from ground zero for “optimum utilization” of al resources. It was equally very challenging to change the mindsets of stakeholders (Airlines, concessionaires, Retail and F&B players in airport) for all of them to ride on the common ICT infrastructure, managed by BIA ICT on a 24X7 basis. A new business model for stake holders needed a robust platform and QOS par excellence. Bangalore being IT Technology Capital, BIA ICT needed to match any leading IT service provider for services, so that be it passengers from that of full fare Airline or low cost Airline, all its passengers should get the same “feel good experience” at all touch points within the airport from the time of entry to the time of departure. To ensure this apart from technology solution stack, it needed the best in class IT teams to come on board. Unlike other airports in India BIA chose “in-sourcing” model for ICT to manage 24x7 IT operations and ICT Projects execution. Hence BIA ICT provides plug and play services for all stake holders on a pay per “use” (rental) model. To provide a pure plug and play services, ICT laid passive IT infrastructure OFC ( Fiber ) backbone across the airport campus ( 160Kms of OFC) and Cat 6e for LAN. For Active Network deployed the best in class Nortel/Avaya CORE Switches and Access switches and for 100plus customers created VLANs and extended a 24x7 services. On the Voice side, took a conscientious decision to leapfrog in technology and since TDMA technology as almost reached its end of life cycle, opted for pure VoIP services and there by leveraged a unified LAN infrastructure for Voice and Data services and each IP

port supported 1Gig. All Airlines had deployed only analog PMR ( Walkie Talkie) for operational needs. This again created islands and there was NO concept for "Airport Emergency platform". BIA was the first airport to address this by deploying the latest TETRA Digital Motorola solution ( PMR) and all airport users worked on the same platform. So we have individual company group and Emergency groups created.

## **SOCIETAL BENEFITS**

→ Airport Solutions has enabled higher airport efficiencies - turnaround time for airlines and on-time for passengers. → Common Mobile infrastructure has enabled energy savings and contributed to lesser carbon emission with reduced generator requirements for individual operator and created a level playing field. →

## **PROJECT BENEFIT EXAMPLE**

BIA ICT has deployed Enterprise class / ISP class which ensure high MTBF and high throughput. This platform has helped all stakeholders to witness consistent performance standards and has resulted in very satisfied passengers and optimal usage of all airport infrastructures. Illustrative examples as to how multiple stake holders benefitted from different solutions deployed: → BIA is the only Airport in India where a true collaborative platform has been implemented and practiced and BIA team plays the anchor role and all major stake holders participate in a true collaborative decision making. ICT systems and solutions is an enabler for collaborative decision making. → ICT has also implemented ITOCC ( IT operations control center) – the collaboration platform where different ICT streams engineers work and collaborate and resolve any operational aspects that needs active intervention. Gained Passengers and Airlines satisfaction on service standards. → First Airport in India to get the IATA Platinum certification for 100% compliance for 2D bar code technology and ensured faster boarding process for all airlines. → Deployed technology platforms by "future proofing" solutions to bring true value propositions – for example - deployed only IP converged networks (AVAYA) for true "Triple Play services". This has enabled full utilization of BW on the same network. → First airport in India to deploy Digital TETRA PMR (Motorola). This has enabled 1000 users to be on the same platform on airside operations and at the same time geared for any emergencies (emergency talk group). → Also deployed to handle Emergency alerts through group SMS and developed bespoke application to handle for the first 48 hrs any airport emergencies till airlines are geared to handle. → Multi-tenant environment with 7000+ IP Ports with a plug and play services with internet bandwidth and managed firewall services. All customers are able to focus on their business and not worry on ICT issues. → Deployed VoIP in-lieu of TDMA technology thereby prevented a technology refresh and enabled to do value addition with XML Apps on VoIP that could be rolled over. → First Airport in creating common passive Mobile infrastructure (GSM and CDMA – total 10 players) and created a level playing field for all operators and a seamless access to all mobile users, a true Win Win proposition. → BIA was one of the first adopters on current Microsoft technologies - WIN 7, R2 2008, Office 2010, Exchange 2010, OCS 2007), thereby increasing all internal stakeholders productivity apart from functional enhancement. A true case of productivity enhancement. → The only airport in India to provide IP TV to its customers. (Year 2009). Demonstration of technology leader. → As part of enabling Corporate Governance as a first step, ICT has implemented in Aug 2010 Corporate performance Management application which captures data points on hourly basis, from multiple systems, and provides to different stake holders dash boards and drilled down details of operational performance. This is the building block for implementation of Balance Score Card for the corporate and 365 days performance appraisal of employees as well.

## **IS THIS PROJECT AN INNOVATION, BEST**



## **PRACTICE?**

Yes. Innovation in “services” and indeed best practice as well. For example the common mobile infrastructure by Ericson for all GSM and CDMA players to ride the same infra was first of its kind in any Indian airport which has since been adopted by other private airports in India. Even on global scale to have a mix of GSM and CDMA with 10 operators using that facility and a seamless access for all public in our airport was a big step. With 3g services launched in India, we are now scaling up with optical solution.

## **ADDITIONAL PROJECT INFORMATION**

Some highlights are listed to validate the pedigree of the green airport now. → BIA Voted Best Emerging Airport – Indian sub-continent by EMA, Dubai. → BIA ICT has achieved 99.999 uptime across all services from the start date ( May 2008) to current date that provides a high customer satisfaction in QOS. → One of the first airports in India to obtain coveted ISO 27001 Certification and BIAL is also the recipient of ISO 14001: 2004. → IATA Platinum certification for the first 100 % Bar-Coded Boarding Passes (BCBP) compliant airports in India. → BIA USP is free WiFi for passengers ( for 45 min now) → BIA ICT as a service provider deployed processes that conform to ITIL V3 standard and deployed HP SM7 tool for the same. → Participated in the beta program and early adopters of Windows 7. BIA Use case showcased in Microsoft portal- [http://www.microsoft.com/casestudies/Case\\_Study\\_Detail.aspx?casestudyid=4000005461](http://www.microsoft.com/casestudies/Case_Study_Detail.aspx?casestudyid=4000005461) → One of the very few airports in the global stage that has deployed “Corporate Performance Management” solution to capture near real time (every hour) operational metrics and provide to the concerned stake holders Dash board for a quick uptake on past hour performance be it on-time (OTP), PAX and Cargo loads and Resources utilization, First and last bag time achieved as operational metric etc. (Screen shots provided). In the next fiscal we would enhance to real time using mobility solution. → BIA portal has since been redesigned using Web 2.0 features on Oracle 10g. Please visit us at <http://www.bengaluruairport.com>