

CASE STUDY

Airports Economic Regulatory Authority of India Adopts Automation for Form Submissions



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ABSTRACT

Airports Economic Regulatory Authority of India (AERA) wanted to develop a web application to help their various service providers working at different airports of India to submit their financial details in prescribed forms easily so that their proposals could be reviewed. These forms contains the past 10 years data to next 5 years estimation in terms of financial expenditures of Capital / Operational in nature. The idea was to reduce the workload of AERA officials & Service providers in terms of manual data sheets sharing with authorities to freeze the Tariff rates (Charges which Service providers are going to charge from passengers for various services), while also helping service providers to reduce the burden of resubmissions and rejections due to erroneous manual filling of forms. AERA had given contract to Indus Net Technologies via NICS I to develop a web app that would effectively automate the entire form submission, reviewing and approval process so that service providers can offer cargo, ground handling and fuel services to various airports in India. Indus Net Technologies used its famed INTEM to manage this project and created a robust web app based on HTML, JavaScript, CSS, MySQL and XML. The resulting app helped AERA to quickly choose service providers based on automated capital and operational expenditure estimates. It also helped to reduce its officials' workload and save service providers' time.

AERA LOOKS TOWARD AUTOMATION OF TARIFF CARD MANAGEMENT AND FORM SUBMISSIONS

India is currently witnessing an astronomical growth in terms of air traffic. With improved infrastructure and development of both small and large airports across the country, airports have felt the need to streamline the ground handling, cargo and fuel requirements related price fixation with service providers.

Most of these services are provided by private entities in India, who have to bid for proposals, which is then scrutinized by the Airports Economic Regulatory Authority of India (AERA), for consistencies and economic feasibility. Once approved, these private vendors can offer their services to individual airports. This process requires filling up of more than 77 forms as stipulated by the ministry of Aviation and the auditing process is even more convoluted.

Much precious time is lost in the process, and man-hours are expended. Automating the entire process was a defining feature of the design and development of Online Tariff Submission, a web application. AERA contacted Indus Net Technologies to help develop Online Tariff Submission web app so that it could streamline the process of form submissions by vendors, service providers and operators finalize service agreements with various airports in India.



We understand that different projects require different levels of involvement. Our unique method of INTEM delivers results in a gestalt-like approach.

- Indus Net Technologies' employee




BRINGING A WEB APP THAT IS SECURE, ROBUST AND EFFICIENT

Earlier, service providers had to submit more than 77 forms manually most of which were rejected due to errors in submissions or due to omissions of fields. Indus Net Technologies' automation and web app development helped AERA to help service providers to submit forms without the need for resubmissions and avoid unnecessary delays.

Managing projects efficiently

Indus Net Technologies uses a coherent and streamlined approach toward managing complex projects. Indus Net Technologies' Execution Model (INTEM) is a combination of the Waterfall and the Agile methodologies. By using Waterfall for the planning and design phase, and by using Scrum (an Agile approach) for building and releasing phases, a project is viewed as a gestalt, rather than as subsets. This people-focused gestalt-like approach to managing projects helps Indus Net Technologies to bring a win-win-win scenario, where teams are empowered and motivated, users receive the solutions they need, and businesses involved witness rapid growth in ROI with a significant reduction in risks involved.

The user level management of the app is divided along the lines of

-  Service providers and operators, who can submit various MYTP, ATP and ACS forms as stipulated by the Government of India. All that a service provider needs to do is to login, fill the form, attach the required supporting documents and submit the filled in forms. Service providers can also download filled forms in excel or PDF format and receive notifications through mail. Thanks to a responsive dashboard, all this can be done on mobile phones and tablets as well.
-  AERA internal users, who have access to Tariff Card Management. AERA officials can easily view the forms that have been submitted by service providers. The forms are then submitted to higher authorities for approvals and sent back to service providers, if approved.
-  Administrator panel for admins, who have access to Master Section Management and Tariff Card Management. Admins can create accounts, profiles, block users, assign functions and user level access and manage everything centrally.

The app also has a notification system in place and integrates digital signatures to authenticate interaction and communication. Report generation helps AERA officials to easily award tenders to those service providers who provide the most cost-effective services to airports.

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DEVELOPMENT WITH DATA SECURITY BEING THE TOP PRIORITY

Certainly, ensuring data security onboard flights is a challenging task, and developers at Indus Net Technologies worked hard to overcome the many challenges that come with such a task. Making sure that there was a neutral Linux Box deployment which connected both to the cloud and to the airline LAN, and ensuring in-flight announcements were not disturbed were a few challenges that our developers encountered in this project. These challenges were tackled by using tact and experience. This is the reason why media was allowed to sync and update only when connected to secure airport Internet connections when the flight is on the ground. If you have a high-security project in mind, and were wondering how to implement, speak to our developers today. We can help you reach your development goals without risking security or privacy.

Technology used to build the project

LAYOUT PHASE	DATABASE PHASE	WEB SERVICES PHASE
		Uses XML but focuses on interoperability to communicate between different languages
		
		

ONLINE TARIFF SUBMISSION REDUCES AERA OFFICIALS' WORKLOAD AND BOOSTS SECURITY

Once these forms were manually submitted to AERA, its officers had the unenviable task of manually comparing capital expenditures, operational expenditures and possible profits and losses, in order to freeze the tariff related charges / rates for service providers.

Automating this process helped AERA to reduce its workload, come up with expenditure estimates in a more scientific and automated manner, and draw financial analyses to compare and choose service providers in an efficient manner. Indus Net Technologies helped AERA to connect service providers with a central repository, so that forms need not be submitted each time a service provider applies in different airports.

All that AERA officials now need to do is, verify the forms submitted by service providers, and then send these forms to higher authorities for approval. Once they are approved, these forms are sent back to the service providers so that they can get busy with bringing services to their chosen airport. This app also eliminates the need for reviewing same forms submitted each time a service provider wants to apply for different airports. Certainly, AERA officials now have a lot less to complain, and more time to grab their afternoon coffee.



Security is always primary

When it comes to air security, even ground handling, fuel and cargo service providers need to be assessed carefully. When these third party service providers were submitting forms manually, there were security loopholes such as courier packages filled with forms being delivered to unscrupulous entities. Indus Net Technologies created separate login IDs for senior officers and all forms that are submitted by service providers can only be accessed by these senior officers.

These forms are stored in the NIC cloud 'Megharaj', which is Indian government's cloud server. Indus Net Technologies also ensured that the development complied with security standards so that cyber security audit certificates could be displayed. Indus Net Technologies continues to work closely with AERA to provide continued web app support, maintenance and enhancements.

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AUTOMATION BY LOOKING AT A PROJECT AS A WHOLE, NOT AS A SUM OF ITS PARTS

Automation helps almost every entity, small or large, to reduce workload and improve efficiency. As evidenced by the case study of Online Tariff Submission app for AERA, automating manual tasks helps to eliminate errors, reduce workload and also enhance security. Indus Net Technologies' unique INTEM project management method helps to look at the issue as a whole, rather than the sum of its parts, to borrow gestalt's way of looking at things. If you are looking for automation or web app related solutions for your projects, do contact us today. You can be rest assured that our gestalt-like approach will help you arrive at solutions sooner than you might realize.

ABOUT AERA

The Airports Economic Regulatory Authority (AERA) was established by the Government of India in order to determine the capital expenditure incurred at airports and to ensure timely investment in the improvement and development of airport facilities. The agency closely monitors the economic and viable operation of major airports and oversees the cost for improving efficiency. It also ensures that the service quality provided by third-party vendors is up to the mark. It is responsible for handing out permission to service providers if they want to offer their cargo, ground handling and fuel services. With Indian air traffic poised to increase dramatically, AERA continues to look for vendors who can help streamline airport functioning across Indian airports.



ABOUT INDUS NET TECHNOLOGIES

Indus Net Technologies is an award-winning, global digital service company, providing enterprise mobility, mobile app development, web application development, analytics and digital marketing solution to mid-large enterprises across forty countries through its offices in India, UK, USA, Canada, Singapore and Saudi Arabia.

Indus Net have proven expertise in Financial Service/BFSI, Media, Publishing, Entertainment, Retail, Health and Professional Services business verticals.

With a team of 750+ digital professionals and experience of executing 11000+ projects over two decades, Indus Net have touched over 200m+ lives.

Being ISO 9001, ISO 27001 certified and appraised for CMMi Level3, Indus Net is known for agility, partner approach, innovation and technology excellence.

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