

## About the company: general information and key businesses

Since 1991, its foundation date, TAIS continues to build its expertise in tailoring various automation systems for transportation industry to cater for the needs of general public.

Amongst company's product range, SIRENA – 2.3 CRS & Ticketing system, AVTOVOKSAL-2 inter-city bus transportation reservations, and REGINA departure control system (DCS) are well-established brands. To leverage synergies, TAIS develops various software products – as diverse as text and graphic terminals, data interchange networks, and Internet applications.

As for SIRENA – 2.3 computer reservation and ticketing system, currently as many as 22 reservation centres service air passenger transportation in Russia, the Ukraine, Belarus, Uzbekistan, Kyrgyzstan and Turkey enabling access to the inventory of more than 50 airlines. AirUnion Alliance (which unites Domodedovo Airlines (E3), Samara Airlines (E5), Krasair (7B), Omskavia Airlines (N3), Sibaviatrans (5M), as well as UTair (P2), Pulkovo Airlines (FV), Ural Airlines (U6), Bashkir Airlines (V9), and Kavminvodyavia (KV) are just few to name amongst airline partners participating in this system. First 11 months of 2005 have seen 7,7 Million seats sold via SIRENA – 2.3 centres showing 4,5% growth rate against same period of the previous year. As a rough estimate, this volume forms half of the overall scheduled domestic air transportation market.

REGINA DCS is up and running in the airports of Yakutsk, Perm, and Kiev (Zhuliany) with Krasnoyarsk airport being under implementation stage.

AVTOVOKSAL-2 remains to be a heart of the Moscow Bus Terminal ensuring more than 5 Mio passengers each year are handled for the inter-city ground transportation.

Building on its knowledge and expertise gained in different transportation sectors, TAIS is in the forefront to offer solution packages for the multimodal transportation.

As a recent strategic imperative, TAIS tasks itself with rolling out complex solutions for the local airline market – with airline distribution system (ADS) SIRIN that was made available for the needs of travel trade in 2001 and IKAR, airline information complex.

## **IKAR, airline information complex**

### **IKAR Project**

Rise of new processes for pre-flight passenger handling – with paperless ticketing technology at first place – dictates a complex approach to the automation of airline's commercial activities across entire range of passenger experience. Since 2005, in line with this modern imperative TAIS has launched IKAR, an airline system integration project.

IKAR aims to integrate the following systems:

- **SIRENA – 2.3 CRS** (Developed by TAIS)
- **REGINA DCS** (Developed by TAIS)
- **ProfitLine/Yield revenue management system (RMS)** (Developed by Lufthansa Systems, [www.lhsystems.com](http://www.lhsystems.com))
- **Siebel customer relationship management (CRM) system** (Developed by Siebel, [www.siebel.com](http://www.siebel.com))
- **SOFI revenue accounting system (RAS)** (Developed by IATVT, [www.iatvt.ru](http://www.iatvt.ru)).

AirUnion alliance, with more than 2 Million passengers carried for the first 11 months of 2005 has become first full-range customer for IKAR. Based on existing agreements between TAIS and AirUnion, it is planned to complete the system integration under the IKAR project in 2006.

### **Airline inventory management via SIRENA-2.3**

Currently, IKAR fully enables airline ticket sales on traditional paper-based technology. As a part of this integrated package, SIRENA-2.3 provides number of distribution channels for the airline inventory:

- Travel agency network that uses their own SIRENA-2.3 terminals;
- Travel agency network that uses ADS SIRIN (see below for details);
- Airline's web resource that has got a direct interface to the inventory;
- Travel agency web resources that have an interface access to airline inventory through ADS SIRIN;
- Travel agency network that uses domestic ADS Sirena-Travel;
- Travel agency network that uses AMADEUS, GALILEO, SABRE;
- Airlines' interline partners that use their own inventory systems.

SIRENA-2.3. supports both standard (AIRIMP) and interactive (EDIFACT) access to a GDS. The interactive access is already in use with AMADEUS and GALILEO while interface to SABRE is under test stage. Also, SIRENA-2.3

supports bi-lateral AVS and SSM message exchange with other reservation systems.

Amongst supplementary services provided by TAIS for SIRENA-2.3 users the following worth mentioning:

- deployment of the 1M gateway that serves as a hub for all SIRENA-2.3 centres. Using 1M, TAIS connects SIRENA-2.3 inventory centres to GDS as well as to other airlines' inventory systems. This eliminates the need in direct linkages to each SIRENA-2.3 user airline's inventory system. 1M code is registered with IATA as PDP TAIS;
- based on agreements between TAIS and SITA, assistance with access to SITA network;
- with regard to irregular situations, managing message queues generated through interaction with other computer reservation systems (CRS); analysis of, and assistance to airline staff in, resolving these situations;
- in the SIRENA-2.3 centres, maintaining and updating travel information provided by both IATA and Transport Clearing House (TCH), as well as global timetable provided against agreement between TAIS and OAG;
- providing data exchange in the SSIM format on schedule changes of the SIRENA – 2.3 participating airlines to other CRS and OAG.

## **REGINA DCS**

Compliant with internationally recognized standards, REGINA supports all exchange protocols with other departure control systems and functions in both hosted and local setups.

Recent developments with e-ticketing enhance the role of a departure control system as a key to airline commercial activity. None the less so, it shows in case of traditional paper-based technology especially if integrated with a revenue management system.

AirUnion plans to automate departure controls through REGINA implementation in the majority of more than 60 airports the alliance members operate their flights currently. Having been realized in a hosted version with use of SIRENA-2.3 functionalities, REGINA is a right choice for such a project

To enable REGINA deployment in the CUTE environment (at Domodedovo, Sheremetyevo, Pulkovo, Kiev airports) TAIS has launched integration of its DCS with CUTE SITA and UltraCUSE (Videocom).

## **Revenue Accounting System**

SOFI (developed by IATVT) and ASIA (developed by Hypersoft, [www.hypersoft.ru](http://www.hypersoft.ru)) are two major products in use in the Russian air transport market. We believe that there is room for deployment of alternative revenue accounting systems, bearing in mind that data flows between these interfaces and CRSs are sufficiently operationalised.

## **Revenue Management System**

As a part of the IKAR integrated solutions package, TAIS offers any of revenue management systems (RMS) developed by Lufthansa Systems within ProfitLine/Yield product family.

As a “junior” member of this family, REMBRANDT allows an airline to effectively manage capacity for each class of service on either direct flights, or on flights with multiple segments. More sophisticated solutions would enable an airline to forecast demand and optimize route network based on “Origin/Destination” concept.

Current interfaces enable SIRENA-2.3 and REGINA to feed all required data into such a RMS. Optimization of quotas for each class of service requires “feedback” of data, after due analysis, from a ProfitLine/Yield RMS to SIRENA-2.3. By 1Q of 2006, the functionality of both exporting data from SIRENA-2.3 into ProfitLine/Yield and importing data back for flight optimization purposes is planned to be in place due to relevant upgrades to be carried out for SIRENA-2.3.

## **Customer Relationship Management (CRM)**

As a part of IKAR package, TAIS is ready to offer solutions enabling airlines to manage customer databases and loyalty programmes. Developed by Siebel, one of the known CRM systems providers, such a system is integrated into IKAR across the following lines:

Based on the passenger data accumulated within SIRENA-2.3, an up to date database of airline’s customers is built and maintained. Booking and check-in agents get an access to customer profiles and during a transaction may offer a passenger high level of service meeting and exceeding customer needs. Such an integration allows the airline to become more customer-orientated.

## **E-ticketing**

In response to growing demands for airlines to become compatible with paperless technology, TAIS works on enhancing IKAR with e-ticketing functionality.

To successfully meet this challenge by first half of 2006, TAIS plans to develop electronic ticketing server (ETS) and proceed with required upgrades for SIRENA-2.3 and REGINA. Upon completion of this part of the IKAR Project, TAIS will be ready to offer its customers multifunctional information complex enabling “own” e-ticketing functionality through both travel agency network and Internet as well as providing connectivity to other GDSs and interline partners’ ETSS. It is planned that we start a e-ticket pilot project with one large Russian airline in June 2006.

## **ADS SIRIN**

Built on SIRENA-2.3 network, SIRIN, an airline distribution system has seen years of success in the aviation market.

Serving more than 70 airlines, SIRIN enables access to both SIRENA-2.3 centres and to airlines' inventories managed in GABRIEL and SABRE (on the interactive level) for more than 5000 booking agents. Number of bookings made through SIRIN for the 11 months of 2005 totals to around 4,5 Million.

Data flows are managed through TARAS Information Centre which is a part of SIRIN.

Uniqueness of the SIRIN comes from the fact that any SIRENA-2.3. centre may become a participating member, provided the centre agrees to join its terminal network and to comply with general selling conditions. Thus SIRIN represents a joint terminal network of individual SIRIN centres. The "shared services" SIRIN provides for its members through its centralized data management include loading and updating of flight schedules and airfares.

To further develop distribution functions delivered by SIRIN, TAIS works on enhancing "Airfares" and "Ticketing" subsystems of SIRENA-2.3.

### **"Airfares" subsystem**

Currently, "Airfares" of SIRENA-2.3 provide automated pricing for all types of routes in compliance with industry standards as well as air fare rules and descriptions, airport taxes, luggage allowances and charges for extra luggage, currency conversion and other functions. SIRIN supports data exchange on airport and airline taxes registered by TCH and IATA.

The "Best Available Fare" search system enables a booking agent to opt for the best routing while issuing a ticket with fewer transactions. As for airlines, they get the opportunity for fast delivery of the most lucrative offerings to the customer.

Unique caching technologies allow for high productivity even on slow-performing PCs.

Graphical interface allows for an easy manipulation by all the items of the air fare information with changes coming into effect immediately and easy retention of "historical" pricing and air fare changes.

SIRIN currently considers possibility to automatically load in international air fares from AIRFARE.

### **"Ticketing" subsystem**

Key features of the subsystem are fast handling of standard traffic documents (STD), minimizing ticketing errors and unauthorized actions on the part of booking agent. None the less importantly, it makes automation of airline and

travel agency accounting procedures possible based on retention of the “historical” STDs. This is a choice of airline to perform ticketing against IATA or TCH procedures.

“End Of the Day” procedure implies report generation accompanied by corresponding coupons to be submitted for further remittance. “History” may be exported in DISH-readable files for further reconciliation under own or standard revenue accounting system. This allows airlines and travel agencies to enjoy considerable cuts of the coupon reconciliation costs.

Reservation system may be customized to ensure PNR ticketing time limit could not be waived without retaining corresponding ticket mask in the “history”. This rather simple solution enables airlines to streamline travel agent sales without introducing sophisticated internal control procedures.

As for printing equipment, any Epson-compatible matrix printer may be used, that leaves room for a user to opt for whatever value-for-money printing device. Printing setups are user-friendly for both continuous feed and manual blanks with the latter enjoying high level of printing precision.

Automation of any new ticket stock formats is considerably simplified as TAIS professionals based on their thorough knowledge of both IATA and TCH ticketing requirements use a special questionnaire for airlines. Customer needs for any new STD are identified against such a questionnaire and met on a timely basis by simply changing printing setups.

“Ticketing” subsystem will undergo required upgrades in line with overall plans to launch e-ticketing functionality by Q2 of 2006. By completion of this stage, all users of SIRIN centres will be able to e-ticket sales of the SIRENA-2.3 participating airlines. At a later stage, TAIS plans to provide the access from airline distribution system SIRIN to ETSS of the GABRIEL, SABRE and other GDS vendor airlines.

## **Commercial initiatives of SIRIN**

Since Delta Capital Group ([www.dpep.com](http://www.dpep.com)) joined its shareholder list, SIRIN visibly strengthened its positions in the air travel market.

Amongst marketing and commercial initiatives that SIRIN undertakes to promote its airline distribution system a brand new concept for a local air travel market deserves distinctive attention. Under this initiative, SIRIN plans to launch budget air ticket sales through new distribution channels – online, etc. With implementation target date by February 2006, this will save airlines a portion of distribution costs that incur normally at front-office stage of passenger handling.

## **Other products and solutions**

All the applications developed by TAIS are supported by existing network and periphery media, including both TEMUL98 text terminals that have seen



thousands of implementation cases and TEMULPRO, recent graphic terminal based on TCAA technology that supports automatic programme update.

Dedicated terminals enable airline technical staff to efficiently manage the functioning of the system.

Developed by TAIS, SIG23 online booking engine ensures interface between SIRENA-2.3 centres and more than 10 airline (such as UTair, Ural Airlines, KrasAir) and travel agency websites – such as [www.avantix.ru](http://www.avantix.ru) of Travel-City web resource that champions most of the online sales in the market.

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