

## The ARIS/SP<sup>®</sup> stand planner



### Plan gate, stand, and parking position assignments for complete schedule periods

The ARIS/SP stand planner plans gate, stand, and remote parking position allocations for all days in a seasonal flight schedule.

With the ARIS/SP stand planner, you can:

- Create seasonal aircraft parking-assignment plans in which flights are assigned to the same parking positions for the schedule period
- Create plans based on the same flight-schedule information stored in the ARIS/SmartBase<sup>®</sup> database used by other ARIS<sup>®</sup> air-transportation products
- Identify and resolve conflicts between needed and actual gate, stand, and parking-position resources
- Provide plans that guide the ARIS/GM<sup>®</sup> gate manager in assigning parking positions prior to the day of operation
- Ensure that weekly and/or week-to-week parking-position assignments are consistent
- Specify the balance between day-to-day parking assignment consistency and parking assignment optimization for a specific day
- Create seasonal parking-position plans automatically.

### Plan week and day-of-the-week parking position schedules

If your flight operations are much the same from day to day, the ARIS/SP stand planner can create a weekly plan that assigns consistent parking positions to flights on each day of the week and from one week to the next. If your flight operations vary quite a bit from day to day, the ARIS/SP stand planner can create a plan for weekdays, for weekends, and for each day of the week so that one plan is used for all Mondays, another for Tuesdays, and so on. The ARIS/SP stand planner maintains consistent parking assignments insofar as possible.

In both cases, you can load the plan into the ARIS/GM gate manager to pre-allocate parking positions prior to the day of operation. If a parking assignment planned by the ARIS/SP stand planner is not appropriate, for example because of an aircraft type change on the day of operation, the ARIS/GM gate manager automatically corrects the assignment.

The planning capabilities of the ARIS/SP stand planner are not limited to a single airport. It can generate plans for any number of airports affected by a given flight schedule. Because it stores all plans in the ARIS/SmartBase database, the ARIS/SP stand planner can create a report that pinpoints when and where schedule conflicts exist and resources are exceeded.

**Who we are**

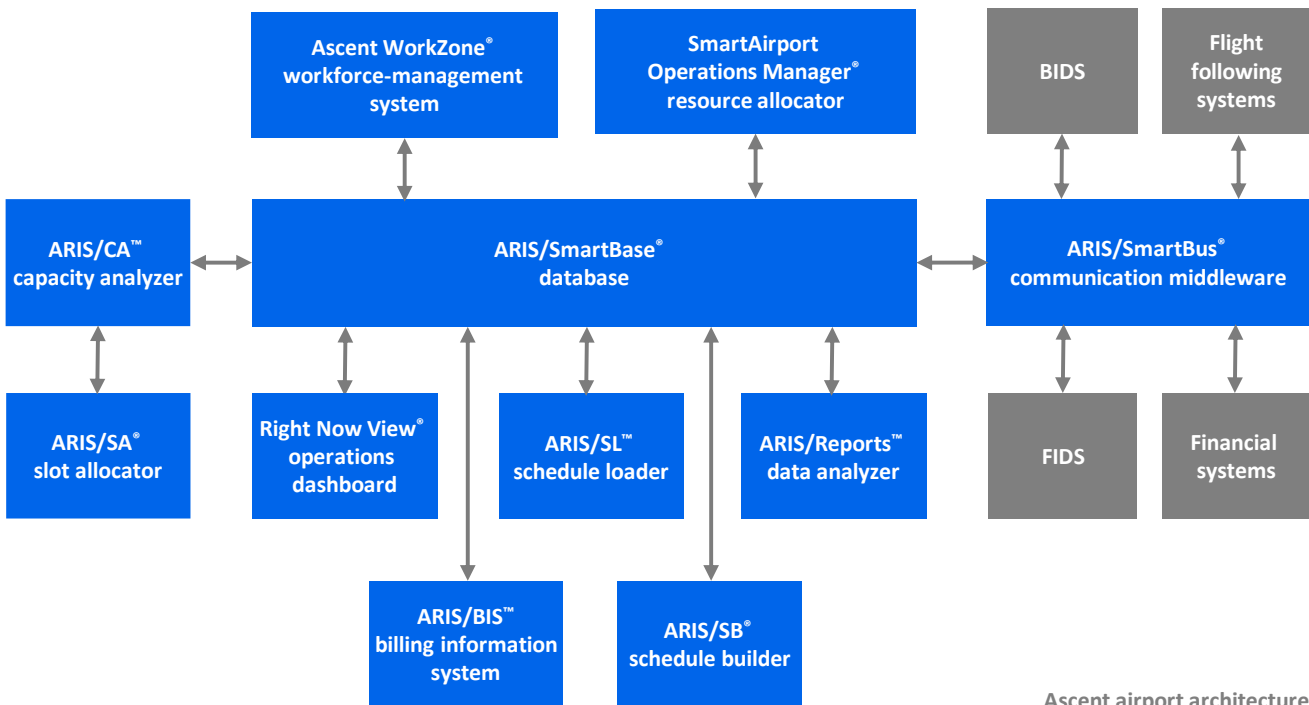
Since our founding more than 30 years ago by members of the Massachusetts Institute of Technology Artificial Intelligence Laboratory, Ascent Technology has helped organizations deploy costly resources as efficiently, effectively, and economically as possible. Our highly trained and capable team of technologists, problem solvers, and solution designers has broad domain expertise and substantial experience in artificial intelligence, computer science and engineering, system design, mathematical optimization, operations research, and resource optimization, planning, scheduling, and management.

**Analyze flight schedules in detail**

As the ARIS/SP stand planner creates parking-assignment plans, it produces information you can use to analyze flight schedules. For example, the tool identifies schedule conditions, such as flight legs that do not match turns, turns that do not match flight legs, and imbalances at airports in multi-airport systems, and then stores information about the conditions in the ARIS/SmartBase database automatically.

**Use the same business knowledge that drives the ARIS/GM gate manager**

The ARIS/SP stand planner makes planning decisions using the same business rules and flight-schedule information stored in the ARIS/SmartBase database that the ARIS/GM gate manager uses to make operations decisions. Using airport models stored in the database, the ARIS/SP stand planner creates parking-assignment plans that accurately reflect physical changes to the airport, such as construction that prevents certain aircraft types from parking at certain positions.



Ascent airport architecture

## Representative features

**Parking assignments available at a glance.** The ARIS/SP stand planner provides an easy-to-use graphical user interface that displays parking positions on a bar chart, similar to the ARIS/GM gate manager bar chart.

**Shared knowledge base.** The ARIS/SP stand planner makes long-term planning decisions using the same knowledge base used by the ARIS/GM gate manager to make short-term planning and day-of-operation assignments.

**Automatic conflict identification.** The ARIS/SP stand planner automatically identifies conflicts between flight schedule requirements and available airport resources. Seasonal schedule period allocation. The ARIS/SP stand planner creates parking assignments for all days or for a user-selected subset of days in the schedule period. It provides consistent parking plans from day to day, ensuring consistent week and week-to-week plans.

**What-if analyses.** You can create multiple plans for the airport, and each plan can use different business rules and physical layouts. This makes it easy to determine the effect of construction, renovations, preferences, and business rule changes on the stand plan. It also makes it easy to understand how future changes, such as facility construction projects, affect flight operations.

**Automatic handling of varying turns.** Links between arrivals and departures often vary during a schedule. The ARIS/SP stand planner recognizes the changes and combines relevant information into a single assignment that covers flight variations.

## Reports

You can print hardcopies of the ARIS/SP stand planner bar chart. You can also convert the output to PDF file format for distribution.

You can load spreadsheet files that contain bar chart information in other applications for analyses and reporting. An optional spreadsheet format loads bar chart information in the Sabre Staff Plan tool.

The ARIS/SP schedule planner stores information in the ARIS/SmartBase database, which runs on the Oracle® database. We can create reports for you, and you can create your own reports from a synchronized reporting database using Oracle-compatible report-generator tools, without interfering with the integrity or performance of the ARIS/SmartBase database.

## Ways we can help you

**Advisory and consulting services.** We provide unbiased advice about resource allocation, optimization, planning, scheduling, management, and deployment methodologies; develop cost-benefit analyses; analyze business processes; manage projects; gather and document technical requirements; develop functional specifications; and specify hardware, software, and devices.

**Project management services.** Our project management team works closely with you, following our time-proven delivery methodology, and uses face-to-face meetings, teleconferences, web conferences, and email exchanges to keep you informed every step of the way. We believe careful project management is the key to successful on-time and on-budget deliveries of SmartAirline Operations Center and SmartAirport Operations Center products, services, and solutions.

**Knowledge engineering services.** Knowledge engineering is the process of identifying your business knowledge—the business rules, policies, procedures, preferences, and requirements that guide the way your organization operates—and then codifying your business knowledge in the knowledge base at the heart of SmartAirline Operations Center and SmartAirport Operations Center solutions. The business knowledge in the knowledge base determines how the solutions behave. Our knowledge engineers work with you to gather and enter the business knowledge that enables the solution to behave exactly the way you want it to.

**Implementation, integration, and installation services.** Our implementation team provides system integration and testing services; develops product extensions, enhancements, and connectivity software for importing data to and exporting data from external systems; and creates reports. The team also configures, installs, and tests hardware, software, and equipment for you when you choose to integrate the SmartAirline Operations Center or SmartAirport Operations Center solutions in your IT environment, and quickly sets up an environment in our hosting center for you when you choose to gain access to the solutions over the web.

**Training services.** We provide a wide range of user, administrator, trainer, and refresher training classes in person at your location, at our Cambridge, MA, headquarters, and remotely over the web. We also provide operational training services in person and remotely when you begin to use the SmartAirline Operations Center or SmartAirport Operations Center solutions in production.

**Maintenance and support services.** We offer Standard Support Services Monday through Friday during our normal office hours in Cambridge, MA, and Premium Support Services around the clock. Both provide comprehensive remote user support services via telephone, email, and Internet, as well as software maintenance, such as product updates, patches, and releases. We provide a web-enabled support portal that enables you to ask questions and receive responses, request service, report problems, and track issues.

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### More information

To learn more about how Ascent Technology solutions can help you optimize your resources to greatest advantage and to schedule a demonstration of our products, send email to [sales@ascent.com](mailto:sales@ascent.com) or call our Sales and Marketing department at +1.617.395.4800.

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## Technology Platform

You can gain access to the SmartAirline Operations Center or SmartAirport Operations Center solutions in two ways: you can integrate the solution into your own IT environment, or you can gain access over the Internet to the solution running on Amazon Web Services (AWS) platform.

Ascent Technology Products	Your own IT environment			Amazon Web Services (AWS) platform
	Server	Client desktop	Web browser	
	Server: Microsoft® Windows® Server™ 2012 or 2016 operating system or Red Hat® Enterprise Linux 7; if virtualized, our solutions are certified to run on VMware® server virtualization products  Database: Oracle 12C SE2  Desktop: Windows 7, 8 or 10 with 4GB of RAM  Browser: Latest Microsoft Edge, Google Chrome or Mozilla Firefox  Minimum internet access for remote support: 512 kbps			Browser: Latest Microsoft Edge, Google Chrome or Mozilla Firefox; Internet connection (1 Mbps or better)
ARIS/AV® aerial-view display	✓		✓	✓
ARIS/AR® aircraft-routing system	✓	✓		
ARIS/SmartBase® database (including Resource Editors)	✓			
ARIS/BB® baggage-belt allocator	✓	✓		✓
ARIS/BIS™ billing information system	✓		✓	✓
ARIS/CI® check-in counter allocator		✓		✓*
ARIS/CX® crew-connection analyzer			✓	✓
ARIS/GateView® real-time display	✓	✓		✓
ARIS/GM® gate manager		✓*		✓*
Right Now View® operations dashboard	✓		✓	✓
ARIS/PX® passenger-connection analyzer	✓		✓	✓
ARIS/Reports™ data analyzer	✓		✓	✓
ARIS/SB® schedule builder	✓	✓	✓	✓
ARIS/SL™ schedule loader	✓		✓	
ARIS/SmartBus® communication middleware	✓			
ARIS/SP® stand planner		✓*		✓*
SmartAirline/SmartAirport Capacity Analyzer strategic planner	✓		✓*	✓*

Ascent WorkZone® workforce management system	✓	✓*	1200x768 minimum resolution for ARIS/WorkNet® bid and trade manager
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\*Minimum display resolution (pixels): 1600 x 1200

ARIS, ARIS/AR, ARIS/AV, ARIS/BB, ARIS/CI, ARIS/CX, ARIS/FW, ARIS/GateView, ARIS/GM, ARIS/IQ, ARIS/LegGen, ARIS/PX, ARIS/SA, ARIS/SB, ARIS/SE, ARIS/SL, ARIS/SmartBase, ARIS/SmartBus, ARIS/SP, ARIS/Tow Panel, ARIS/WorkModel, ARIS/WorkNet, ARIS/WorkOptimize, ARIS/WorkPlan, ARIS/WorkRelay, ARIS/WorkTime, Ascent Technology, Inc. (stylized), Ascent WorkZone, Ascent WorkZone (stylized), GateKeeper, Right Now View, SmartAirline, SmartAirline Capacity Analyzer (stylized), SmartAirline Operations Manager (stylized), SmartAirline WorkZone, SmartAirline WorkZone (stylized), SmartAirport, Smartairport.com, SmartAirport Capacity Analyzer, SmartAirport Capacity Analyzer(stylized), SmartAirport Information Manager, SmartAirport Information Manager(stylized), SmartAirport Operations, SmartAirport Operations Center, SmartAirportOperations Manager, SmartAirport Operations Manager (stylized), SmartAirport WorkZone, and SmartAirport WorkZone (stylized) are registered trademarks of Ascent Technology, Inc., in the United States.

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