

## ARIS/CA™ capacity analyzer

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### Visualize your future operations, so you can ensure you will have the facilities you need and use those facilities to their fullest potential

The ARIS/CA capacity analyzer enables you to study scenarios about how your stations might operate in the future and analyze how you might operate under the scenarios that use alternative flight schedules. It enables you to create a resource-allocation plan for each scenario that identifies how to use your resources and capacity to greatest advantage. When you experience rapidly-changing flight schedules, irregular operations, or air-transportation system disruptions, the ARIS/CA capacity analyzer can help you determine if you can accommodate additional flights and minimize the effect of the changes and disruptions on your operations.

With the ARIS/CA capacity analyzer, you can:

- Create capacity-utilization projections that show how you would handle proposed flight schedules given the capacity of your runways, gates, stands, and remote parking positions
- Determine how changing the capacity of your runways, gates, stands, and remote parking positions affects your ability to accommodate flights
- Determine which combinations of flight schedules and resources are possible and which combinations are most advantageous
- Examine your resource capacity for any future date to determine which physical changes to make sooner and which to make later
- Identify physical changes to resources that are most likely to meet customizable goals, such as higher profitability
- Analyze how differences in scheduled Flight times and days of operation, Aircraft types, and traffic levels affect your operations now and in the future

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## Who we are

Since our founding more than 35 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.

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- Understand how changing mixes of international, domestic, and regional traffic affect your operations
- Identify when and where passenger and cargo traffic peaks and valleys occur
- Determine the most efficient configuration of runways, gates, stands, parking positions, check-in desks, baggage belts, and other facilities
- Determine how to operate during extended periods of construction
- Ensure you construct the physical resources your station really needs
- Change one variable, or several variables, and see how operations are affected so you can proactively resolve problems and generate new business opportunities

Because it provides both long-range schedule planning and dynamic response to requests by carriers to change their schedules, the ARIS/CA capacity analyzer enables you to plan as you operate your stations, and to operate your stations as you planned.

The ARIS/CA capacity analyzer can handle every station, large or small. It can be deployed for use by a few users or by many users, both singly and concurrently.

The ARIS/SmartBase® database is the resource, planning, and operations data and knowledge base, flight-schedule server, and communications server for all SmartAirline Operations Center products and tools. It contains comprehensive, consistent, and accurate information about resources, plans, schedules, and operations. It also contains flexible, user-specified business rules that control the decision-making logic for the creation of resource-allocation plans and scenarios, models of future operations, operational schedules, and real-time responses to irregular operations and other unplanned events. It maintains accurate and secure records of the plans and day-of-operation activities it manages, providing the data needed to produce reports, to generate invoices, and to perform analyses.

The ARIS/SmartBase database ensures that all users have access to the same up-to-the-minute information about scheduled and actual operations at the same time. By accessing and sharing valuable information stored in the ARIS/SmartBase database, users can work collaboratively to make better decisions.

The ARIS/SmartBase database environment is further enriched by its ability to transfer information seamlessly to and from a wide range of data sources, systems, and applications beyond the SmartAirline Operations Center solution, in combination with the ARIS/SmartBus communication middleware.

The ARIS/CA capacity analyzer is available through Ascent Technology's From Touchdown to Takeoff® cloud-hosted service, which delivers the power of Ascent Resource Information System® solutions (ARIS®, for short) in a secure, highly-available, and readily-expandable cloud-hosted infrastructure. When you subscribe to our cloud-hosted service, you can access Ascent Technology's comprehensive suite of ARIS solutions using a standard browser directly from your network without any need to install, maintain, and support on-premise hardware and software. We can readily adjust available computing power to meet your organization's changing needs, and you can easily expand the solution to accommodate additional users and to manage additional resources, facilities, and locations.

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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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## Representative features

**Powerful analysis support.** The ARIS/CA capacity analyzer enables you to set up multiple analyses that combine different schedules with several scenarios, queue them for processing, and compare multiple runs.

**Supports runs with multiple stations in a single analysis.** You can analyze hundreds of stations in your network at the push of a button.

**Supports and enables system-wide collaboration.** The ARIS/CA capacity analyzer's web-based user interface enables planners in all stations to view and discuss results with the entire network planning group.

**Provides multiple analysis engines.** The ARIS/CA capacity architecture supports multiple analysis engines, enabling the product to crunch through dozens of stations at the same time. This approach makes it ideal for computing environments with large servers with a dozen or more cores.

**Provides express-analysis options to process stations when detailed rules are not available.** This feature is very useful for airlines operating in dozens or even hundreds of stations without detailed parking procedures.

**Available within the Right-Now View operations dashboard.** The Right-Now View operations dashboard provides endless ways to customize displays, giving each user the ability to create an interface that meets their needs.

**Communicates results automatically.** The ARIS/CA capacity analyzer provides an email and messaging communication interface that sends messages and charts of results to users upon completion of complex runs.

**Powerful search capabilities.** The ARIS/CA capacity analyzer uses powerful deep-search capabilities to produce highly-optimized results with the smallest numbers of resources required to meet operational guidelines.

## 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.

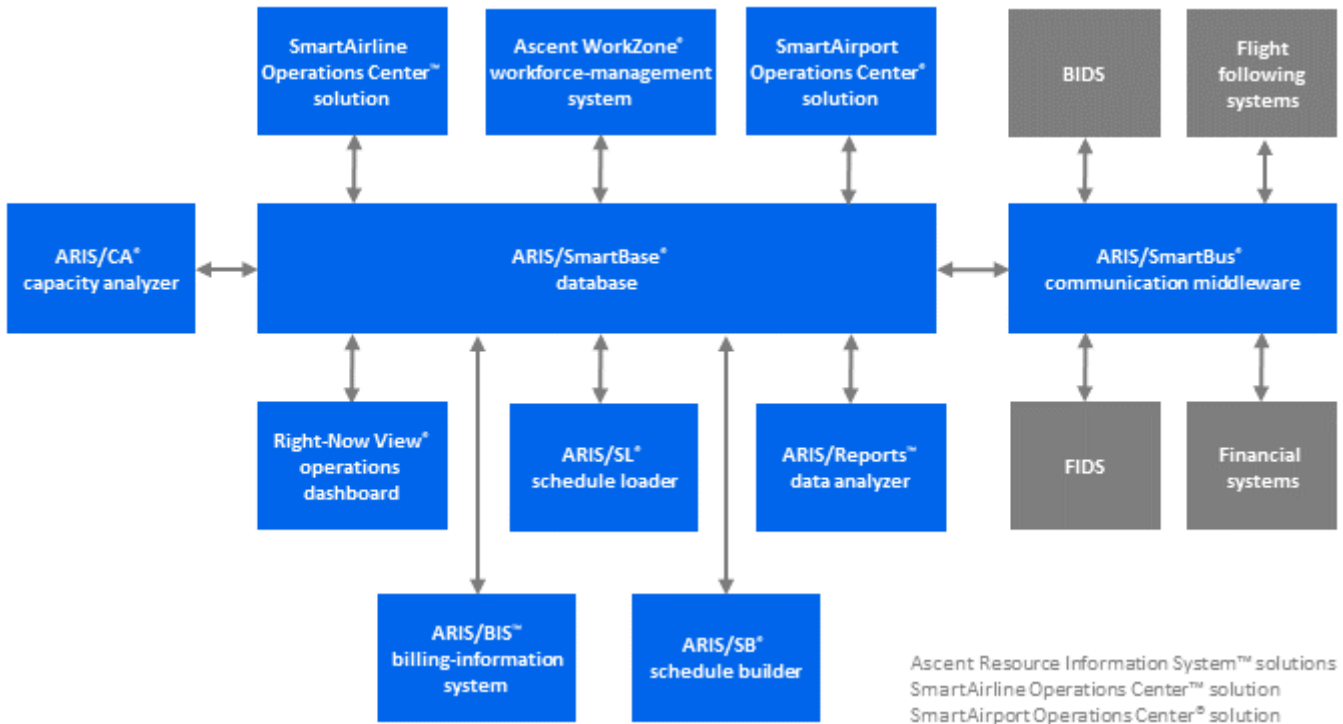
**Project-management services.** Our project-management team works closely with you, following our time-proven delivery methodology, and uses face-to-face meetings, teleconferences, web conferences, and email exchanges to keep you informed every step of the way. We believe careful project management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

**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 solution and SmartAirport Operations Center solution. 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. Our implementation team is also responsible for setting up an environment, customized to meet your organization’s needs, and monitoring its performance, in our secure hosting center.

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

**Maintenance and support services.** We offer premium support services for the SmartAirline Operations Center solution and the SmartAirport Operations Center solution around the clock. We provide comprehensive remote user support services via telephone, email, web conferences, and Internet, as well as software maintenance, such as product updates, patches, and releases. Our customer support community portal and ticket system enable you to ask questions and receive responses, request service, report problems, and track issues day and night.



## Ascent Technology's From Touchdown to Takeoff Cloud-Hosted Service

You gain access to the Ascent Resource Information System solutions in the SmartAirline Operations Center solution and in the SmartAirport Operations Center solution over the Internet, using a standard web browser.

Ascent Resource Information System solutions SmartAirline Operations Center solution SmartAirport Operations Center solution	From Touchdown to Takeoff cloud-hosted service Browser support: Google Chrome, Microsoft Edge, and Mozilla Firefox Minimum Internet connection speed: 5 Mbps Minimum resolution: Full HD (FHD)
ARIS/AV® aerial-view display	✓
ARIS/BB® baggage-belt allocator	✓
ARIS/BIS™ billing-information system	✓
ARIS/CA® capacity analyzer	✓
ARIS/CI® check-in counter allocator (with ARIS/IQ® queue manager)	✓
ARIS/FW® flight watcher	✓
ARIS/GateView® real-time display	✓
ARIS/GM® gate manager	✓
ARIS/Reports™ data analyzer	✓
ARIS/SB® schedule builder (with ARIS/LegGen® flight-leg generator)	✓
ARIS/SL® schedule loader	✓
ARIS/SmartBase® database (with Resource Editor tools)	✓
ARIS/SmartBus® communication middleware	✓
ARIS/SP® stand planner	✓
Ascent WorkZone® workforce manager	✓
ARIS/WorkModel® workload generator	✓
ARIS/WorkNet® bid and trade manager	✓ *
ARIS/WorkOptimize® work-period generator	✓
ARIS/WorkPlan® work-schedule generator	✓
ARIS/WorkRelay® task and attendance monitor	✓
ARIS/WorkTime® workday manager	✓
Right-Now View® operations dashboard	✓
ARIS/CX® crew-connection analyzer	✓
ARIS/FR® flight-readiness display	✓
ARIS/PX® passenger-connection analyzer	✓
ARIS/TE® tug-equipment assigner	✓
Gate Chart Display™ tool	✓
Stand Assignment Optimizer™ tool	✓

\* Minimum requirements: 512 Kbps Internet connection speed and SXGA resolution

ARIS, ARIS/AR, ARIS/AV, ARIS/BB, ARIS/CA, ARIS/CI, ARIS/CX, ARIS/FR, ARIS/FW, ARIS/GateView, ARIS/GM, ARIS/IQ, ARIS/LegGen, ARIS/PA, ARIS/PX, ARIS/SA, ARIS/SB, ARIS/SE, ARIS/SL, ARIS/SmartBase, ARIS/SmartBus, ARIS/SP, ARIS/TE, ARIS/Tow Panel, ARIS/WorkModel, ARIS/WorkNet, ARIS/WorkOptimize, ARIS/WorkPlan, ARIS/WorkRelay, ARIS/WorkTime, Ascent Resource Information System, Ascent Technology, Inc. (stylized), Ascent WorkZone, Ascent WorkZone (stylized), From Touchdown to Takeoff, GateKeeper, Right-Now View, SmartAirline, SmartAirline Capacity Analyzer (stylized), SmartAirline Information Manager (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, SmartAirport Operations 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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