ASCENT
TECHNOLOGY, INC.

Headquarters
Ascent Technology, Inc.
101 Federal Street, 19th Floor
Boston, MA 02110 USA

Mailing address
Ascent Technology, Inc.
PO Box 51435
Boston, MA 02205-1435 USA

Telephone: +1.617.395.4800
email: sales@ascent.com
www.ascent.com

Right-Now View® operations dashboard

Forecast, plan, and manage critical resources with Ascent Technology's From Touchdown to Takeoff® cloud-hosted service for airline and airport operations

Ascent's From Touchdown to Takeoff cloud-hosted service delivers the power of the Ascent Resource Information System® solutions (ARIS® solutions, for short) in a secure, highly-available, and readily-expandable cloud-hosted infrastructure. When you subscribe to Ascent's cloud-hosted service, you use a standard browser, such as the Google Chrome™ browser, from your network to access the comprehensive suite of ARIS products without having to install, maintain, and support on-premise hardware and software. Available computing power can be adjusted to meet your organization's changing needs, and the ARIS solution expands easily to accommodate additional users, resources, facilities, and locations, as well as additional ARIS products.

The Right-Now View operations dashboard is a customizable, highly graphical, web-enabled system that consolidates, organizes, and presents your organization's planning, scheduling, operations, and performance information in one or more displays, called content panes. It enables you to view and analyze extensive information about your organization's past, current, and future operations and to take immediate action if needed. Because the Right-Now View operations dashboard receives continuously updated operations and performance information from the ARIS/SmartBase® database, information displayed in the dashboard is always current. When you enter resource, plan, schedule, and event information in the Right-Now View operations dashboard, the ARIS/SmartBase database automatically shares the updated information with the rest of the ARIS solution in near real time. Similarly, when a co-worker or an external system enters or changes information in the ARIS solution, the Right-Now View operations dashboard displays the updated information to you in near real time.

Many users view the Right-Now View operations dashboard as read-only, standard-format dashboards your organization creates and presents on large wall-mounted displays, desktop displays, tablets, and mobile devices. Other users both view and manipulate information in Right-Now View operations dashboards, using content panes they select, size, and position to match their tasks, responsibilities, and preferences. Administrative users create, manage, and share custom dashboards with other users, choosing information to display in content panes and positioning the content panes in dashboards in ways that match your organization's communication needs and preferences. There are many options for content panes, such as:

- Read-only gate charts displaying released and unreleased assignment information
- Fully functional, real-time gate charts, displaying released and unreleased assignment information, that support information entry and manipulation
- Planned gate charts, such as those planned months in advance and more immediate plans generated by the ARIS/CA® capacity analyzer
- Graphs of scheduled, planned, current, and past parking-position use over time
- Gate-release control information
- Passenger-connection and crew-connection information
- Arrival and departure flight-readiness status
- Aircraft-towing information and status
- Aircraft-diversion information and status
- Gate-use overviews
- Aerial views of airport operations
- Global lines of flight through multiple airports when system-wide airline flight data are available
- Embedded information from external web pages
- System status, including statistics, memory usage, and message-traffic information

An operations manager, for example, might create a dashboard with content panes that display up-to-the-minute information about ground activities by time of day, departure delays, arrival delays, weather conditions, estimated times of arrival and departure, and aircraft-parking assignments by stand and time of day. A ramp manager might create a dashboard with content panes that display aerial views of aircraft-parking assignments and information about possible delays in completing ground activities associated with departures. A passenger-services manager might create a dashboard that displays aerial views of gate locations and flight times to passengers on FIDS-like screens throughout a concourse.

There are endless ways to customize the Right-Now View operations dashboard to fit user needs, ranging from choosing and laying out content panes to choosing colors, font sizes, and scaling levels of information displayed on flight bars in gate charts. The system stores customized settings in the central server and makes them available to users across multiple sessions. With unlimited browser-window support, users can display information across several monitors. Users can also display customized gate charts with each airport terminal on a separate monitor.

Representative features

Extensive up-to-date operations and performance information available at a glance. The ARIS/SmartBase database, which stores comprehensive information about resources, plans, schedules, and operations managed by Ascent's ARIS solutions and ensures that users have access to the same up-to-the-minute information at the same time, is the primary source of information displayed in content panes. You can enrich this information with material from external web pages and, in combination with the ARIS/SmartBus® communication middleware, from external data sources, systems, and applications, creating seemingly endless possibilities for dashboard content and layout. Possible content-pane options:

- The ARIS/AV® aerial-view display content pane provides up-to-the minute aircraft-parking status at gates, stands, and remote parking positions.

- The ARIS/CX® crew-connection analyzer and ARIS/PX® passenger-connection analyzer content pane enables you to determine how flight delays and cancellations affect connecting crews and passengers. Crew-connection and passenger-connection information overlays help you spot possible problems in advance so you can determine the best ways to recover the schedule.

- The ARIS/DC™ diversion controller content pane tracks an airline's system-wide flight diversions, providing the real-time status of each diverted flight to workers at diversion stations.

- The ARIS/FR® flight-readiness display content pane provides information about tasks and activities associated with flight arrivals and departures, such as fueling, catering, baggage loading, baggage unloading, and boarding status.

- The ARIS/TE® tug-equipment assigner content pane provides an automated workflow for aircraft-tow management, displaying information such as tows to be completed, available tugs, and tow progress in a mobile app.

- The Gate Chart Display™ tool content pane displays gates, stands, and parking positions and the flights assigned to them. The gate chart provides detailed information for each flight that can be customized to meet users' needs and preferences. Authorized users can change parking assignments, create and cancel tows, and change flight times manually, directly in the gate chart.

- The Gate Chart Display with the webGM™ add-on tool content pane plans and manages day-of-operation parking assignments with automated assistance using business rules and intelligent scenarios.

- The Stand Assignment Optimizer™ assistant, in coordination with the Gate Chart Display with the webGM add-on tool, searches continuously for opportunities to resolve problems that arise due to flight delays, swaps, and cancellations. The assistant understands that changes are limited to future flights, leaving near-term arrival and departure flights unchanged.

Multiple content panes can be placed in a dashboard and configured individually. You can choose from dozens of content panes to create the dashboard layout you prefer, with full control over content-pane position and size. Some content panes contain graphical information, others contain textual or numerical information; some content panes are read-only, and others enable authorized users to modify information. The system automatically adjusts the layout to the screen size or browser tab within which it operates.

Visual marking of related information supports rapid situation awareness and better decision-making. The Right-Now View operations dashboard highlights information displayed in more than one content pane, so you can easily identify and analyze related information. When you place the pointer over information in one content pane, such as over a delayed flight in a Departure Delays content pane, the system marks the

same information in other content panes, such as the same delayed flight in an Arrival Delays content pane and in a Ground Activity content pane. When you place the pointer over an item in a graph, plot, or bar chart, the system displays information about the item in a message block within the graph, plot, or bar chart.

View and analyze information about past, current, and future operations. Situational-awareness content panes display key operational performance matrices that describe how well your organization is doing in real time and in the past, as compared with daily and weekly statistical past-performance information.

Create customized graphical information displays easily, without programming. Intuitive menus and tools enable you to choose the information you want to display, to position the information in a content pane in a grid in the dashboard, to drag the content pane to a new position, to specify the size of the content pane, and to add and remove content panes from the dashboard.

Content panes update dynamically, supporting real-time interaction between multiple users. When you manipulate information in a content pane, your changes appear in other users' screens automatically within seconds with no need to refresh screens manually.

Content panes synchronize dynamically. Content panes transmit user-action information to each other, even when the content panes are running in different browser windows. For example, when you place the pointer over an item in one content pane, the system highlights the item in your other content panes even when the item is represented differently in the other content panes and when the content panes are displayed in other browser tabs.

A robust role and permission structure enables organizations to restrict who can make, modify, and share dashboards. Additional user-based permissions can restrict which data can be displayed and which actions can be taken within content panes.

Stores all information securely in the ARIS/SmartBase database, with as much redundancy as your organization requires. Because the ARIS/SmartBase database coordinates the actions of all other ARIS products in your solution, when you enter information in or an external system supplies information to the Right-Now View operations dashboard, the information is available to all other ARIS products within seconds.

Provides easy access to the ARIS/CI® check-in counter allocator and the ARIS/SP® stand planner. The Right-Now View operations dashboard provides buttons that enable you to enter other ARIS products, such as the ARIS/CI check-in counter allocator, the ARIS/SP stand planner, and the resource-editor tools associated with viewing, entering, and maintaining information stored in the ARIS/SmartBase database.

Offers a variety of secure hosting options. In shared-tenant and single-tenant single-region environments, servers and databases reside in multiple data centers within a single region. In redundant dual-region environments, servers and databases are replicated in two different regions in different geographical areas. To ensure your data remain in a specific country, you may choose a hosting environment within a specific country or within countries with data-privacy laws you prefer.

Services to help you maximize the benefits of Ascent solutions

Advisory and consulting services. Ascent provides advice about resource allocation, optimization, planning, scheduling, management, and deployment methodologies; develops cost-benefit analyses; analyzes business processes; and gathers and develops technical requirements and functional specifications.

Project-management services. Ascent's project-management team works closely with you, following time-proven delivery methodologies, and uses face-to-face meetings, teleconferences, web conferences, and email exchanges to keep you informed every step of the way. Ascent believes careful collaborative project management is the key to successful on-time and on-budget deliveries of Ascent's solutions.

Knowledge-engineering services. Knowledge engineering is the process of identifying your business knowledge—the business rules, policies, procedures, preferences, reference information, and requirements that guide the way your organization operates—and then codifying your business knowledge into rules stored in the knowledge base at the heart of the Ascent solutions. Your business knowledge, stored in the knowledge base, determines how the solutions behave. Ascent's knowledge engineers work with you to ensure the solution behaves just as you want it to.

Implementation, integration, and installation services. Ascent's 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. Ascent's implementation team is also responsible for setting up environments, customized to meet your organization's needs, and monitoring its performance, in secure AWS hosting centers.
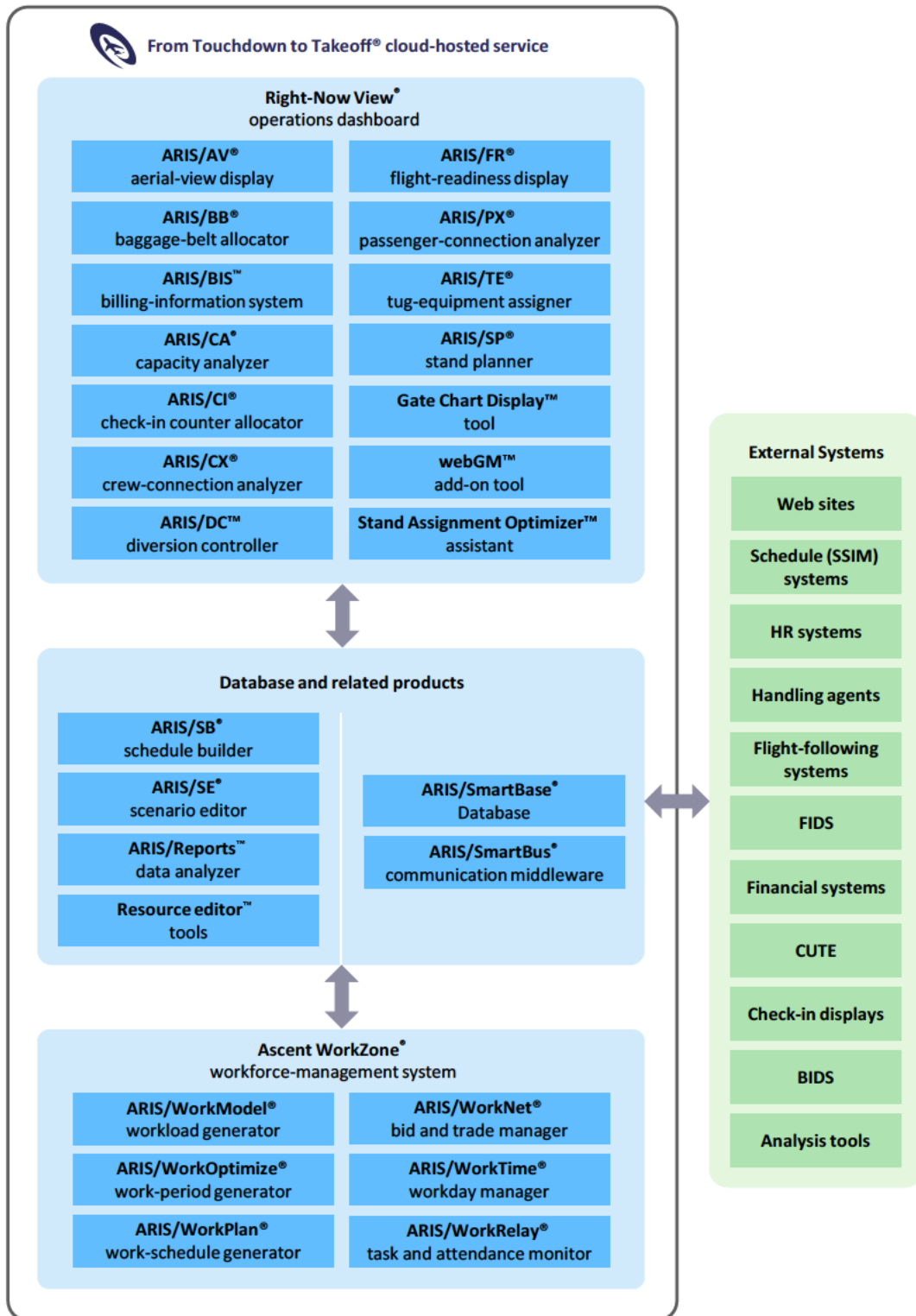
Training services. Ascent offers a wide range of user, administrator, trainer, and refresher training classes at your location, at Ascent's Boston, MA, headquarters, and remotely over the web. Ascent also offers operational training services remotely when you begin to use an Ascent solution in production.

Maintenance and support services. Ascent offers maintenance and support services for Ascent's solutions around the clock. Ascent provides comprehensive remote user support services via telephone, email, web conference, and Internet; software maintenance, such as product updates, patches, and releases; and cloud-hosted environment monitoring, tuning, and switchover. Ascent's ticket system enables you to request service, report problems, and track issues day and night.

Who we are

Since our founding nearly 40 years ago by members of the Massachusetts Institute of Technology Artificial Intelligence Laboratory, Ascent 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. To learn more about how Ascent can help you optimize your resources to greatest advantage, send an email to sales@ascent.com or call our Sales and Marketing team at +1.617.395.4800.

Ascent Resource Information System® solutions

From Touchdown to Takeoff® cloud-hosted service

Right-Now View®
operations dashboard

ARIS/AV® aerial-view display	**ARIS/FR®** flight-readiness display
ARIS/BB® baggage-belt allocator	**ARIS/PX®** passenger-connection analyzer
ARIS/BIS™ billing-information system	**ARIS/TE®** tug-equipment assigner
ARIS/CA® capacity analyzer	**ARIS/SP®** stand planner
ARIS/CI® check-in counter allocator	**Gate Chart Display™** tool
ARIS/CX® crew-connection analyzer	**webGM™** add-on tool
ARIS/DC™ diversion controller	**Stand Assignment Optimizer™** assistant

Database and related products

ARIS/SB® schedule builder	
ARIS/SE® scenario editor	**ARIS/SmartBase®** Database
ARIS/Reports™ data analyzer	**ARIS/SmartBus®** communication middleware
Resource editor™ tools	

Ascent WorkZone®
workforce-management system

ARIS/WorkModel® workload generator	**ARIS/WorkNet®** bid and trade manager
ARIS/WorkOptimize® work-period generator	**ARIS/WorkTime®** workday manager
ARIS/WorkPlan® work-schedule generator	**ARIS/WorkRelay®** task and attendance monitor

External Systems

- **Web sites**
- **Schedule (SSIM) systems**
- **HR systems**
- **Handling agents**
- **Flight-following systems**
- **FIDS**
- **Financial systems**
- **CUTE**
- **Check-in displays**
- **BIDS**
- **Analysis tools**

From Touchdown to Takeoff® cloud-hosted service

Solutions for airline and airport resource optimization, planning, scheduling, and management

A standard web browser, such as the Google Chrome™ browser or the Microsoft Edge™ browser, enables access to Ascent Technology's cloud-hosted solutions. The From Touchdown to Takeoff service requires a minimum resolution of full HD (FHD).

Airport Operational Database (AODB)	Central database
ARIS/SmartBase® database Includes one or more of the following tools:	Integrates, coordinates, disseminates, and maintains planning, operations, and historical information for resource and workforce management
• Location Editor™ tool	Manages the location hierarchy and records used to plan, schedule, and manage workload, workers, and tasks
• Planning Control™ tool	Manages work-schedule planning
• Profile Editor™ tool	Manages passenger-arrival profiles for departure flights
• Reference Editor™ tool	Manages reference-information records that determine how the Ascent Technology products, applications, and tools behave
• Rule Editor™ tool	Manages scenarios, rule groups, and rules for workforce management
• Template Worker Editor™ tool	Manages template worker records used to plan workload
• Update Control™ tool	Manages settings that block external systems from updating information in specified database fields
• User Editor™ tool	Manages user access to the products, applications, and tools
• User Group Editor™ tool	Manages user-group access to pre-set configurations and automated distribution of email and messages
• Worker Editor™ tool	Manages worker-related information and records
ARIS/Reports™ data analyzer	Produces reports based on plan, actual, and historic information
ARIS/SB® schedule builder (with ARIS/LegGen® flight-leg generator and ARIS/SL® schedule loader)	Creates, manages, and distributes flight-schedule and day-of-operation flight information; creates flight legs; and loads and stores SSIM flight data
ARIS/SE® scenario editor	Specifies and manages airport-resource rules and scenarios
ARIS/SmartBus® communication middleware	Enables information exchange between the ARIS/SmartBase database and external systems

Ascent WorkZone® workforce manager	Workforce optimization and management for mission-critical environments
ARIS/WorkModel® workload generator	Forecasts workload based on expected demand
ARIS/WorkNet® bid and trade manager	Worker self-service tool for managing work schedules
ARIS/WorkOptimize® work-period generator	Determines how many workers are needed and when they are needed
ARIS/WorkPlan® work-schedule generator	Creates work lines for full-time and part-time workers
ARIS/WorkRelay® task and attendance monitor	Provides task-assignment information to workers in real time
ARIS/WorkTime® workday manager	Assigns work, breaks, and locations to workers dynamically in real time

Right-Now View® operations dashboard	Dashboard to plan, schedule, and manage airline and airport resources and operations
ARIS/AV® aerial-view display	Displays real-time aircraft parking-assignment information on an airport aerial view
ARIS/BB® baggage-belt allocator	Plans and allocates baggage make-up and reclaim belts
ARIS/BIS™ billing-information system	Tracks usage-based ground fees
ARIS/CA® capacity analyzer	Plans, analyzes, and manages airport capacity and resources
ARIS/CI® check-in counter allocator (with ARIS/IQ® queue manager)	Plans, assigns, and manages ticket counters and kiosks
ARIS/CX® crew-connection analyzer	Shows how flight delays and cancellations affect connecting flight crews
ARIS/DC™ diversion controller	Tracks system-wide flight diversions, providing real-time status of diverted flights to diversion stations
ARIS/FR® flight-readiness display	Provides status of tasks and activities related to arrivals and departures
ARIS/PX® passenger-connection analyzer	Shows how flight delays and cancellations affect connecting passengers
ARIS/TE® tug-equipment assigner	Manages aircraft tows, assigns tugs to tows, and displays tow status
ARIS/SP® stand planner	Plans parking-position assignments for schedule periods
Gate Chart Display™ tool	Manages day-of-operation parking assignments with manual entry using basic scenarios and rules
Gate Chart Display with webGM™ add-on tool	Plans and manages day-of-operation parking assignments with automated assistance using business rules and intelligent scenarios
Gate Chart Display with webGM tool and Stand Assignment Optimizer™ assistant	Plans and manages day-of-operation parking assignments with automated assistance using business rules and intelligent scenarios, and resolves future parking-assignment problems caused by delays, swaps, and cancellations in compliance with business rules