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

ARIS/BIS™ billing-information system

Track fee-based ground services and facilities with a usage-based billing system

The ARIS/BIS billing-information system tracks your customers' use of airport ground services and facilities, and then automatically calculates fees owed based on the type and duration of resource use. Each time a customer uses a fee-based resource, the system creates a record that contains the type of use, the time the use started, and the time the use ended, which you can use to invoice your customers. You can produce billing reports to circulate internally and externally and export billing information to a separate accounting system for subsequent invoicing.

The system creates billing records, which are usage-based descriptions of airport resources and services your organization provides for a fee to airlines, handling agents, and other customers during a monthly billing period. Typical billing items include the use of facilities, such as gates, stands, pads, and check-in counters; and the provision of services and equipment, such as electricity, heating, and cooling at stands, CUTE consoles, ticket and boarding pass printers, and VIP and security services.

The billing records are always accurate because they are based on actual flight information captured, interpreted, and generated by the Gate Chart Display™ tool in the Right-Now View® operations dashboard and other ARIS® products, and precise docking times from docking guidance systems used at the airport. The system indicates when information, such as flight arrival times, departure times, and tow times, is missing or may be unreliable, and enables you to compare and confirm billing information with other sources of information and enter corrected or additional information manually.

The system provides simple intuitive screens that guide you through the process of opening and closing each monthly billing period and then through the process of creating, analyzing, modifying, recalculating, and

Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

deleting billing items in the monthly billing period. The system enables you to produce billing reports for both open and closed billing periods, which you can print and distribute internally and externally.

What the ARIS/BIS billing-information system enables you to do

The ARIS/BIS billing-information system enables you to:

- Enter business rules that describe your airport's fee-based services and facilities and the prices you charge for their use
- Model the terms of each customer's contract, including time exemptions, for resource usage
- Create, view, close, and reopen monthly billing periods
- Automatically create provisional billing items for the use of stands and stand-related resources, using flight information and ground-activity information captured, interpreted, and generated by the Gate Chart Display tool and other ARIS products and stored in the ARIS/SmartBase® database
- Compare provisional billing items with other sources of resource usage information, confirming accurate information, and identifying and correcting missing or inaccurate information
- View, create, analyze, modify, and delete billing items
- Move billing items from one monthly billing period to the next or previous billing period
- Ask the system to re-evaluate billing rules when underlying business rules change and to recalculate billed costs when usage durations and fees change
- Create final billing items used for invoicing
- Produce billing reports
- Export billing-report information to external accounting systems for customer invoicing

To calculate billing costs automatically, the ARIS/BIS billing-information system relies on business rules, accurate flight information, and sophisticated algorithms

When you install the ARIS/BIS billing-information system, our knowledge engineers show you how to use the Reference Editor tool, a companion product, to enter business rules that describe how your organization prefers to operate and billing rules that describe how you charge fees for your facilities and services. Because you already use other Ascent Technology products, such as the Gate Chart Display tool in the Right-Now View operations dashboard, much of your business knowledge is already codified and stored in the ARIS/SmartBase database.

We will help you to enter information the billing system requires, such as customer names, addresses, contact information; the terms of contracts between you and your customers; and your organization's fee structure for providing ground services and facilities. For example, you may bill customers for stand usage based on aircraft wingspan or aircraft weight, so that you can charge different prices for smaller aircraft and larger aircraft or for lighter aircraft and heavier aircraft. You may also establish fees based on duration of stand use, such as one price for a maximum of 240 minutes of stand use, another price for a maximum of 480 minutes of stand use, and yet another price for a maximum of 960 minutes of stand use. You may charge

Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

additional fees for the use of electricity, heating, or cooling while at the stand or for VIP services at the gate. The system also handles promotional pricing, which you may offer to encourage airlines to add flights.

After you enter your business rules and billing rules, the ARIS/BIS billing-information system automatically calculates the amount to charge for each use of a stand, starting from the time the aircraft is on block until the aircraft is off block, based on flight and ground-activity information captured, interpreted, and generated by the Gate Chart Display tool, information provided by other systems at the airport, and information you may enter manually.

The system organizes billing records by calendar year, and then in order of calendar month, day, and time of day. It enables you to view, create, close, and reopen monthly billing periods; to view, create, analyze, modify, and delete billing items that occur during monthly billing periods; and to produce billing reports that can be printed, distributed internally and externally, and exported to your accounting systems.

The ARIS/BIS billing-information system creates billing items based on flight-leg information stored in the ARIS/SmartBase database and then enables you to compare billing items with flight information for your regular airline customers and with flight information for all airlines at the airport. When flight information is missing, the system displays a form-like interface for manual information entry. The interface simplifies information entry by providing context-sensitive commands; automatic error-checking; and menus of correctly-formatted information entries to choose from. An intelligent filter and search feature enables you to locate and display particular billing items quickly, so that you can view, analyze, and modify them. When you need help, advice blocks display brief explanations about the screen you are viewing. You can also view the user guide in a window superimposed over the screen.

Representative features

Creates provisional billing items automatically. When you create a billing period, the system automatically generates provisional billing items for the billing period. For example, when you bill for stand use, you can ask the system to generate billing items for billable flights, which are the flights that use stands you provide for a fee, or for all flights at the airport. The system generates billing items based on flight legs for the billing period stored in the ARIS/SmartBase database. You review the provisional billing items, modify them as needed, and then create final billing items.

Calculates billed costs automatically. The ARIS/BIS billing-information system automatically calculates the billed cost of a billing item based on your business rules, billing rules, and other information stored in the ARIS/SmartBase database, such as billing category, resource usage cost, the amount of time the customer used the resource, and the terms of the contract between your organization and the customer. The system also automatically re-calculates the billed cost when you manually modify the cost of the billing item or the amount of time the customer used the resource and save your work.

Provides an intelligent filter search mechanism for billing information. The system enables you to search large tables of billing items by numerous filter categories, so that you find the billing item(s) you are looking for quickly. The system provides tailored commands that enable you to perform actions on only the filtered subset of billing information, and not on all billing information in the monthly billing period.

Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

Enables you to create and modify billing information manually. The system provides an easy-to-use form-like interface that enables you to enter the information required to create a billing item manually. You use the same form-like interface to modify information in a billing item produced automatically by the system. The interface provides easy-to-use information-entry boxes, which highlight required information and provide menus of corrected-formatted information from which to choose.

Provides an intuitive, easy-to use graphical interface. The ARIS/BIS billing-information system's intuitive screens take you from one step to the next quickly and intelligently. For example, when the system requires you to enter information in a particular format, it provides a list of correctly formatted items from which to choose. When you ask the ARIS/BIS billing-information system to do something it cannot do or if you do not give it all the information it needs, the system displays guidance messages that tell you what you need to do to recover from or avoid the problem. If you forget how to do something, you can click the Advice button to display brief explanations about how to use the screen you are viewing. You can also display the ARIS/BIS Billing-Information System User Guide in a window that you can view at the same time you view the screen.

Produces billing reports for distribution and exports billing information to external accounting systems. The ARIS/BIS billing-information system enables you to produce billing reports for a monthly billing period by customer, airline(s), stand(s), and date range. You can save billing reports in Portable Document Format (PDF) files or Comma Separated Values (CSV) files, and you can export billing information to your accounting system for invoicing.

Web-enabled for cost-effective rapid deployment. You gain access to the ARIS/BIS billing-information system through our From Touchdown to Takeoff® cloud-hosted service, a secure, highly-available, and readily-expandable cloud-hosted infrastructure. The service enables you to access the system using a standard browser directly from your network without any need to install, maintain, and support on-premise hardware and software.

Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

Services to help you maximize the benefits of Ascent solutions

Advisory and consulting services. Ascent advises 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 cloud-hosting services. Ascent's implementation team provides system integration and testing services, and develops product extensions, enhancements, and connectivity software for importing data to and exporting data from external systems. Ascent's implementation team also sets up, monitors, and maintains highly secure and reliable AWS hosting environments for the Ascent solutions you rely on, customized to meet your organization's need for redundancy and performance.

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.

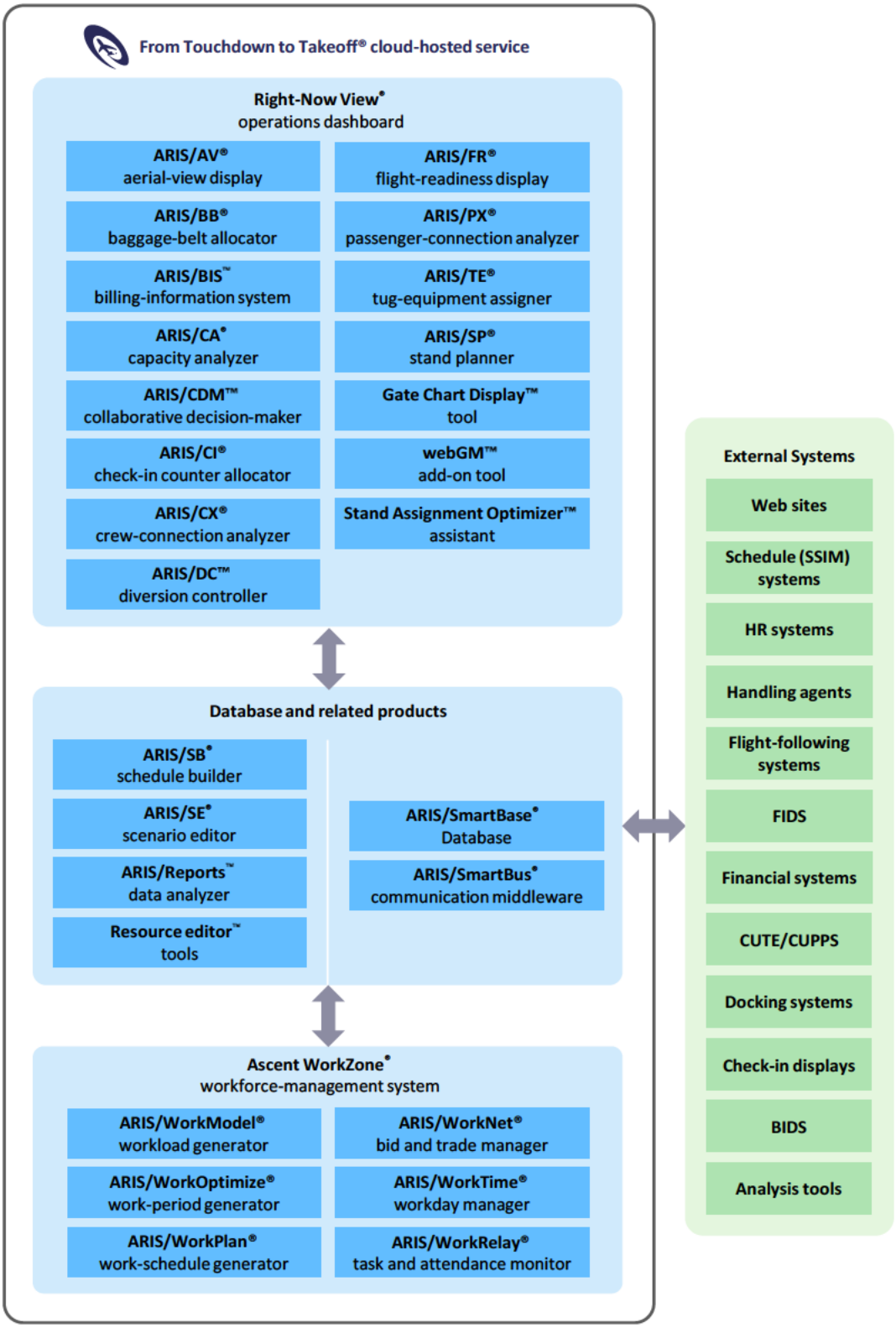
Maintenance and support services. Ascent offers maintenance and technical support services for Ascent's solutions around the clock. Ascent provides comprehensive remote support services via telephone, email, web conference, and Internet; software maintenance, such as product updates, patches, and releases;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

Who we are

Since our founding 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.

Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

Ascent Resource Information System® solutions



Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

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

Copyright © 2026 Ascent Technology, Inc. All rights reserved. www.ascent.com

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/CDM™ collaborative decision-maker	Enables collaborative decision-making with support from Ascent's powerful advanced AI and optimization algorithms
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/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/SP® stand planner	Plans parking-position assignments for schedule periods
ARIS/TE® tug-equipment assigner	Manages aircraft tows, assigns tugs to tows, and displays tow status
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 add-on 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

ARIS, ARIS/AR, ARIS/AV, ARIS/BB, ARIS/CA, ARIS/CI, ARIS/CX, ARIS/FR, ARIS/FW, ARIS/GateView, ARIS/GM, ARIS/IQ, 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, Right-Now View, SmartAirline, SmartAirline Capacity Analyzer, SmartAirline Information Manager, SmartAirline Operations Center, SmartAirline Operations Manager, SmartAirline WorkZone, SmartAirport, SmartAirport Capacity Analyzer, SmartAirport Information Manager, SmartAirport Operations, SmartAirport Operations Center, SmartAirport Operations Manager, SmartAirport WorkZone are registered trademarks of Ascent Technology, Inc., in the United States.

Active Schedules, Advanced Pay Rule System, ARIS/AR Display Board, ARIS/LegGen, ARIS/AR Turn Generator, ARIS/BB Change History, ARIS/BIS, ARIS/BX, ARIS/CDM, ARIS/CTS, ARIS/DC, ARIS/DS, ARIS/Reports, ARIS/SDS, Ascent WebConnect, Change History, Extended Flight View Dashboard, Flight Data Dashboard, Flight Filter Manager, Gate Chart Display, GateKeeper, Location Editor, Planning Control, Planning Schedules, Profile Editor, Query Editor, Reference Editor, Resource Editor, Rule Editor, Stand Assignment Optimizer, Stand Control, Template Worker Editor, Tow-Data Web Service, Update Control, User Editor, User Group Editor, webGM, webSB, Work Schedule Manager, and Worker Editor are trademarks of Ascent Technology, Inc., in the United States.

This is not a complete list of all registered trademarks, trademarks, and service marks owned by Ascent Technology, Inc. See www.ascent.com/trademarks.html for information. Other company, product, and service names may be registered trademarks, trademarks, or service marks owned by other parties.

Ascent Technology Software is the Confidential Information of Ascent Technology, Inc., and is available only under the terms of a license or grant of rights provided by Ascent Technology, Inc. Ascent Technology Software may be covered by one or more U.S. patents and/or pending patent applications. See www.ascent.com/patents.html for information. Ascent Technology, Inc., solutions may use software components developed by open-source projects. For information, send email to legal@ascent.com. Revised August, 2026.