



Intelligence

Workload forecasting with *Cerner Clairvia*



Health care is too important
to stay the same.™



Better patient outcomes occur when you have the **right caregiver**, in the **right place**, at the **right time**.

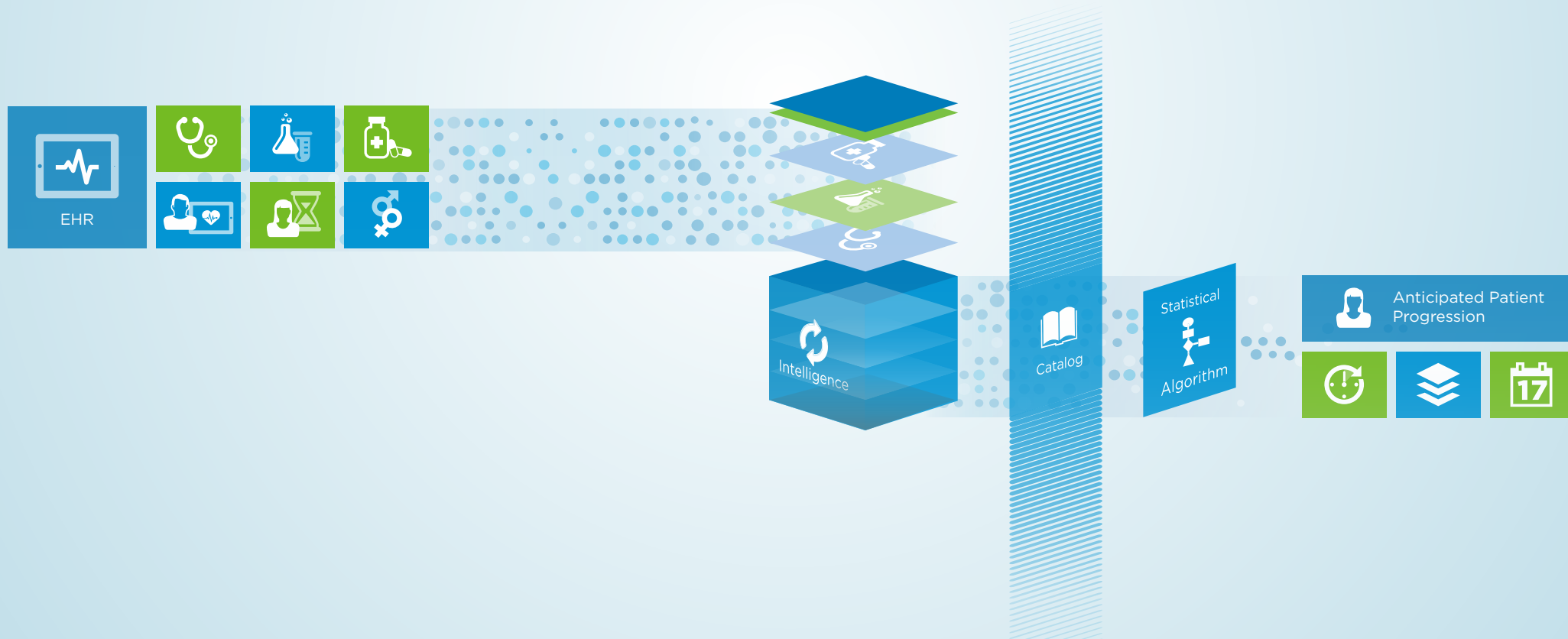
A hospital's workforce is its biggest expense, so it is critical to appropriately plan for staffing needs and have those needs align to individual patient care. Cerner is committed to delivering automated and intelligent solutions for health care organizations to provide the best care at the lowest cost.

Turn clinically-driven data into informed workforce management decisions with *Cerner Clairvia*[®]. *Clairvia* offers a seamless automated intelligence layer that analyzes staffing yesterday, identifies patient demand today and anticipates needs for tomorrow.

Predictive Intelligence

Cerner Clairvia leverages nursing documentation from the Electronic Health Record (EHR) to paint a clinical picture of each patient's care needs. Through no additional work for clinicians, patient data – including assessments, medications, lab values and other key data points – passes through an intelligence layer that automatically calculates an individual, objective measure of the care hours needed for each patient.

Rather than assuming all patients require equal care, *Cerner Clairvia* leverages outcomes, interventions, and observations to create a custom workload calculation based on each patient's clinical condition. With this measurement *Clairvia* projects the patient's progression to the next level of care and length of stay, enabling organizations to efficiently plan for care team coverage.





Managers are able to **easily identify** any pockets of over- or under-staffing and **proactively adjust staffing needs**.

Efficient Staffing

Visibility to workforce demand empowers organizations to better understand and plan for the dynamic care needs of their patient populations to establish staffing, scheduling and multidisciplinary rounding practices that result in reduction of premium pay (overtime, agency, bonus pay) and lower length of stay.

Nursing units across the hospital are able to adjust staffing based on the workload forecast for individual patient need. *Clairvia* continually compares the incoming projected admission, discharge, transfer and workload demand with existing schedules. Managers are able to easily identify any pockets of over- or under-staffing and proactively adjust staffing needs.

Smart Assignments

For the staff scheduled, *Clairvia* enables equitable patient assignments by matching the most qualified, available caregiver to each patient, taking into account staff competencies, continuity of care, the patients' individual care needs and projected transitions of care. With automated and objective workload created from rich clinical data, staff can trust the fair and equitable assignments, and managers gain visibility across the unit to the dynamic needs of the patient population.

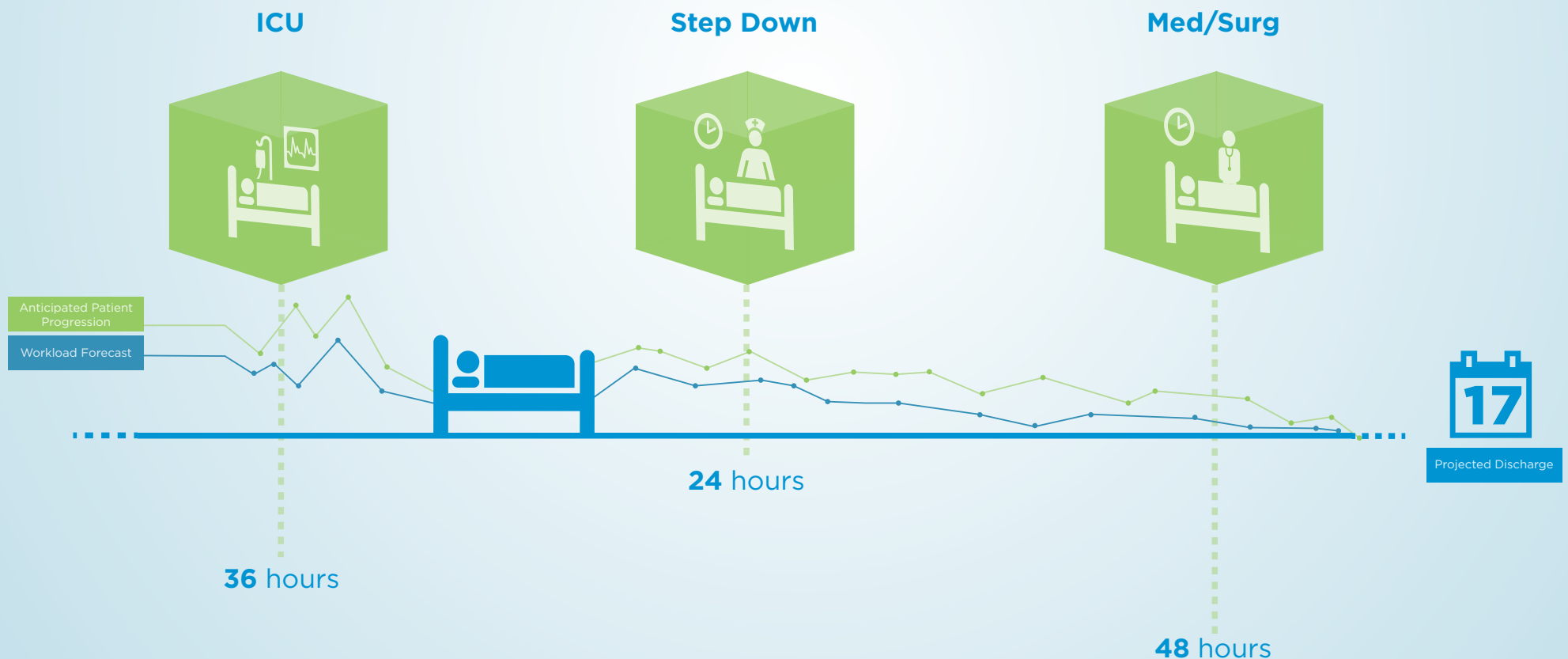
Further enabling convenience and integrating to Cerner technology, the assignment function can match available devices to caregivers, supporting care team communication at the point of care. Content seamlessly flows to these devices and electronic whiteboards so care teams have visibility to staff assignments across units.



Acute Transitions of Care

Discharge planning begins on admission. By aligning each patient's progress against established transitions of care benchmarks, caregivers can compare each patient's expected clinical progress to his or her actual progress from admission to discharge. Visual alerts help clinicians identify patient's progression, allowing additional interventions or revisions of care plans to correct the patient's care transitions through the organization.

Care teams now have a clear picture of resource needs for the next level of care based on individual clinical progress and the impact of patient departures. This enhanced care team collaboration decreases process variability by providing one common, planned departure date for each patient accessible to the entire organization.



Productivity Reporting

Clairvia offers dozens of reports designed to aid organizations in managing workforce needs and planning. Find better alignment to financial departments within your organization by retrieving data to evaluate the following needs:

Efficiencies in staffing



Reduction in overtime and premium pay



Decision support for length of stay



Productivity management



Minimizing staff fatigue



Equitable patient assignments



How *Cerner Clairvia* is different

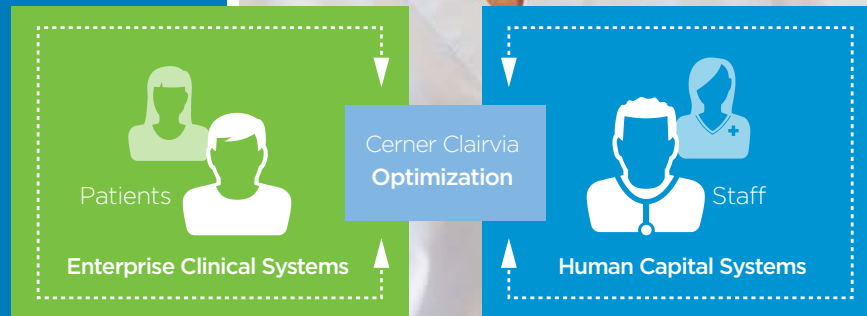
Patient Centered Approach

While other vendors focus on HR metrics for staffing decisions, Cerner is focused on the patient and individual EHR-driven workload to facilitate improving outcomes. In addition to each patient's clinical data, *Clairvia* utilizes information from existing time & attendance systems as well Human Resources Information System (HRIS) to leverage each piece of information needed to make the best staffing decisions, for both caregivers and patients.

Model Experience and Value Measurement

The Model Experience represents Cerner's documented best practices to help achieve your organization's goals. It includes the optimal EHR workflows, content and capabilities, as well as the methodology, to introduce change into your organization.

This approach is further supported through data-driven methodology to measure outcomes. Our goal is to measure the improved cost, quality and safety outcomes our clients are achieving as a result of our solutions. To do that, we measure outcome data, not just process, system, or adoption data. Our strategy is to align measures with organizational priorities and goals, use industry defined outcome measures, provide actionable data, and combine solution strengths to meet your goals.





Supply



Demand



Staff



Patient

- Provides total command of care team scheduling, staffing and allocation hour-by-hour, every day.
- Matches each caregiver's precise qualifications and competencies to each patient's current needs, facilitating patient assignment to caregivers most qualified to guide them to their desired clinical outcome.

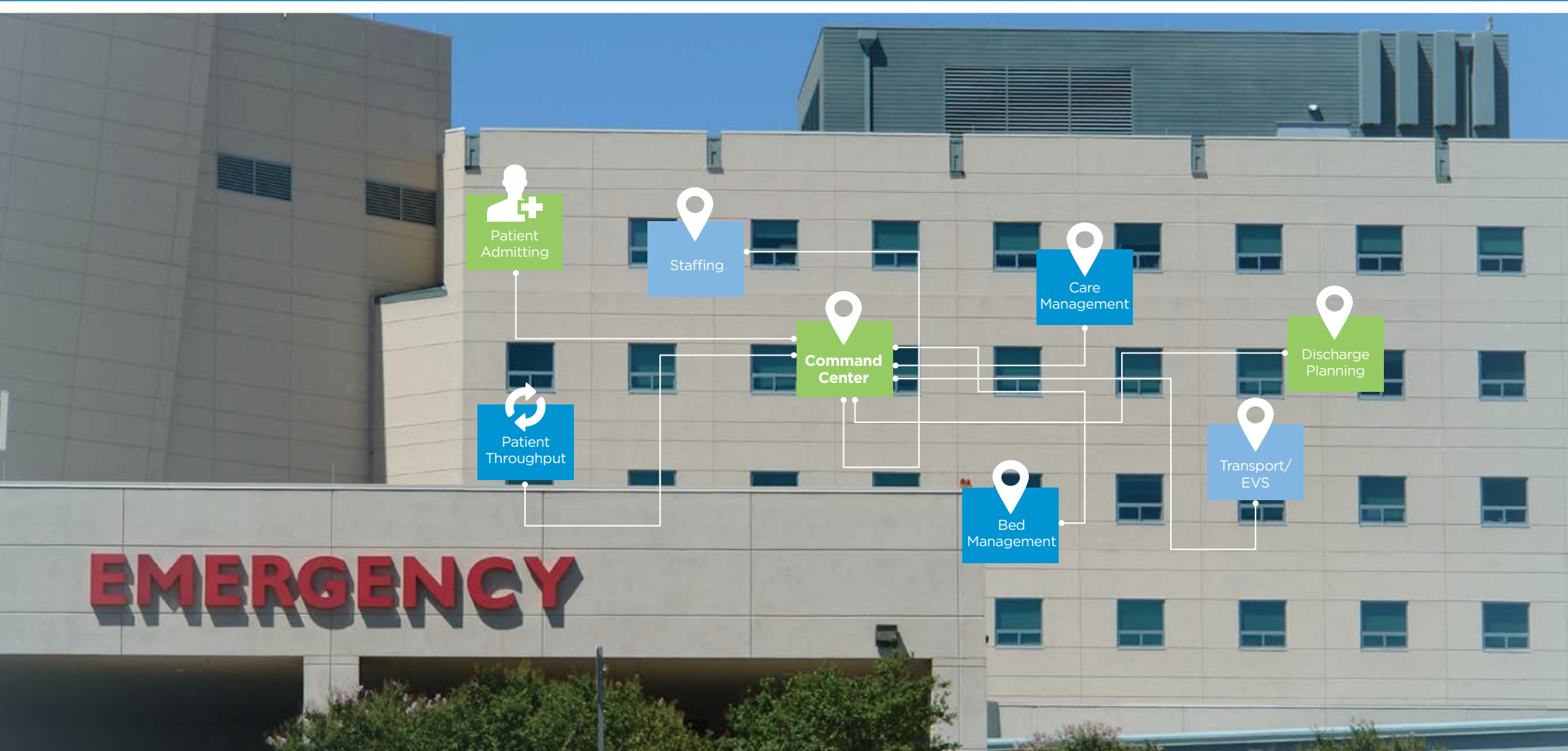
- Continually measures, tracks and predicts patient-specific care demands, enabling you to manage the demand variability and allocate the right staffing workload to attain optimal clinical outcomes for every patient.
- Focuses on each patient's EHR-driven workload assessment, so that staffing levels can be based on the skill sets required to achieve the next level of wellness.
- Compares each patient's expected clinical progress to actual progress from admission to discharge, providing a clear picture of how he or she may move through the care cycle, and empowering care teams to set departure dates based on patient progress.

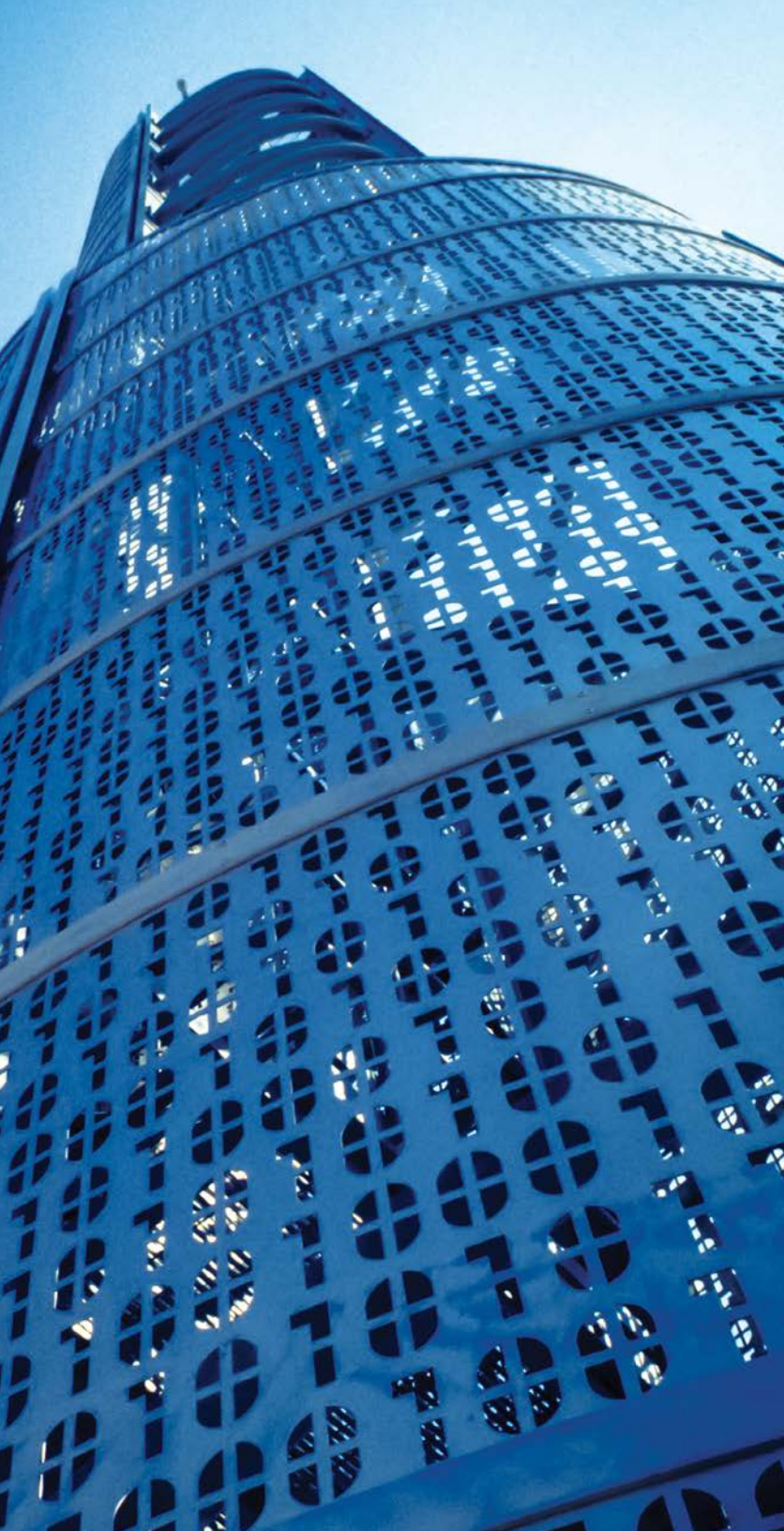
Health System Operations

Cerner understands that operational efficiency goes beyond workforce management. In every way a patient moves through the hospital, receives care, and interacts with the care team there are opportunities to reduce waiting, deliver information more quickly, and proactively deliver high-quality care. Cerner's operation-focused approach, including EHR-agnostic *Cerner Clairvia* solutions, provides client-proven value.

By balancing staffing with demand variability, bed management and location awareness; organizations are able to have visibility across the enterprise to increase efficiency, patient throughput, and provide the best quality care at the lowest cost.

This operational approach focuses on a **Command Center** with coordination among disparate departments and workflows, leveraging Cerner intelligence and superior services and support.





Meet Cerner

In the summer of 1979, three young men sought out to start a software company. They had no prior experience in health care, but had the vision to recognize some of the challenges the industry faced and the bold ambition to try to solve them.

Today, Cerner is made up of more than 29,000 associates. With health IT at our core, we employ thousands of the world's most talented software engineers, developers and clinicians to ensure the solutions we create for our clients are consistently state-of-the-art.

As the world's largest publicly traded health IT company, Cerner provides industry-leading solutions and services to health care facilities worldwide. We support the clinical, financial and operational needs of both small and large organizations.

Although we are part of the health care IT industry, we consider ourselves first and foremost a health company. Our focus is on solving health care challenges by leveraging innovative clinical and financial IT solutions.

We continuously work with our clients to leverage automation for reducing costs while improving care. With our clients, we are creating a future where the health care system works to improve the well-being of individuals and communities. By designing leading-edge health IT, we offer strategies that empower organizations to know, engage and manage their populations.

Cerner lives at the intersection of health care — a complex social system dedicated to an even more complex biologic system — and IT — the fastest-moving part of our world. It is at this intersection, full of opportunity, that we are transforming health care.

Cerner today



29,000+
ASSOCIATES

5,900+
hospitals

More than
694,000 PHYSICIAN
USERS
and 2,200,000 non-physician users



Physician
Practices
14,300+



Contracted at more than
27,500
PROVIDER
FACILITIES 
in **35+** COUNTRIES

440+  PATENTS
WORLDWIDE

3,400+ 
Home Health Care
& Long-Term Care Facilities

MORE THAN
\$7 Billion
 CUMULATIVE R&D INVESTMENT
EOY 2018

\$5.4 
BILLION 
2018 REVENUE



727 ACUTE CLIENTS **46**

1,424 AMBULATORY CLIENTS **467**



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