MICRO FOCUS®

Improving patient care quality by helping physicians work more efficiently

Human Interest Story
Analytics and Big Data

At a glance

Industry:
Healthcare

Partner:
Cerner Corporation

Location:
Missouri, USA

Context:
Help physicians spend more time with their patients
and less time on processes and administration

Our Response:
Vertica Analytics Platform

Impact:
· Better patient care by streamlining physician's
  workflow to save time
· Faster patient diagnosis through easy access to
  fast treatment success
· Patient-centric healthcare improves care quality

Cerner™

Cerner is a leading supplier of health information technology
solutions and services. Its solutions optimize processes for
healthcare organizations ranging from single-doctor practices
to entire countries, and for the pharmaceutical and medical
device industry.

Impact of physician burnout

Cerner believes being a physician is far more than just a title or a role—it's a calling. However, practicing medicine in today's world is increasingly difficult. Physicians in the USA experience symptoms of burnout at almost twice the rate of other workers, often citing contributors such as the long hours, a fear of being sued, and having to deal with growing bureaucracy, like filling out clunky and time-consuming electronic medical records.

Burned-out physicians tend to make more medical errors, and their patients have worse outcomes and are less satisfied. The economic impact of burnout is also significant, costing the USA some $4.6 billion every year, according to a new study published in the journal Annals of Internal Medicine.
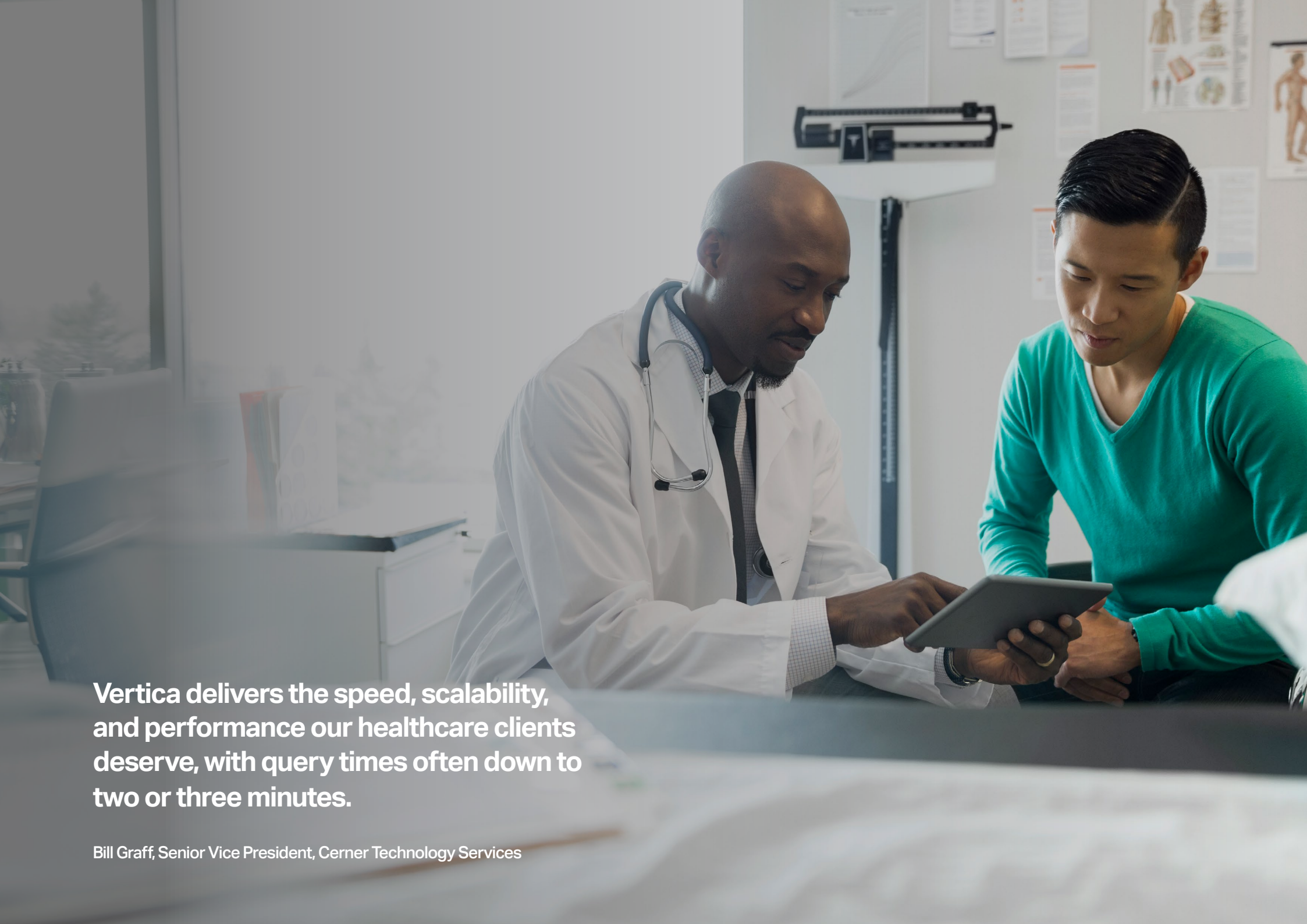
Improving physician's experience

Cerner's *Millennium* solution platform provides Electronic Health Records for over 9,000 global healthcare providers, but also helps those providers optimize processes to accelerate and improve patient care delivery.

Cerner has built some 2,000 Response Time Measurement System ("RTMS") timers into the *Millennium* platform. These RTMS timers track how long certain functions take, such as accessing or adding patient information or entering an order for medication or a medical procedure. Every month, Cerner collects over 10 billion RTMS timers. These help Cerner gain insight into how individual physicians and other users actually use *Millennium*, and how its use can be improved to enhance care delivery.

"As our numbers grew, we began to approach the upper limits of our analytical capability, given the volume of data we were collecting," says Bill Graff, Senior Vice President, Cerner Technology Services. "Some of our users would issue a query at 5:00 p.m., as they leave for the day, hoping they would have a result when they return at 8:00 a.m. the next morning."

Vertica delivers the speed, scalability, and performance our healthcare clients deserve, with query times often down to two or three minutes.

Bill Graff, Senior Vice President, Cerner Technology Services

Coaching to give physicians more time with patients

> **"With partners such as Micro Focus we hope to reduce physician burnout by saving them valuable time, enabling them to focus solely on their patients, leaving it to us to worry about streamlining administration and reducing costs."**
>
> Dan Woicke, Director of Enterprise System Management, Cerner

Graff continues: "Vertica delivers the speed, scalability, and performance our healthcare clients deserve, with query times often down to two or three minutes."

"Vertica also helps us analyze the workflow of physicians as they treat patients," explains Dan Woicke, Director of Enterprise System Management at Cerner. "We can virtually sit on their shoulder to see how they use the application and make suggestions about using it more efficiently."

For example, a user might routinely search through common orders in a hospital, rather than creating a folder or list of favorites. Using the folder could reduce a physician's time spent searching, and lower the risk of error, ultimately enabling them to spend more time caring for patients.

"If a physician isn't using a time-saving feature effectively, we can contact them and suggest a more efficient workflow for them," says Woicke. "We can coach our customers into using *Millennium* more effectively, to give them more time to spend with patients."

Improving patient safety and quality of care

User workflow analysis in *Millennium* also holds promises to improve quality of care. Predictive analytics are used to create a database, mapping patient outcomes based on past treatments, steering physicians towards a course of treatment with a greater likelihood of success.

Cerner's patient-centric healthcare solutions ultimately lead to improved healthcare delivery, better outcomes, and healthier, happier patients. Exactly what healthcare providers, and Cerner, hope to achieve.

Woicke concludes: "With partners such as Micro Focus we hope to reduce physician burnout by saving them valuable time, enabling them to focus solely on their patients, leaving it to us to worry about streamlining administration and reducing costs."