Customer

Solution

Story

Enable application

innovation

GE Healthcare Delivers Core

Customer Solutions on the

Microsoft Cloud

“Using Microsoft Azure will help us bring new

solutions to market faster, scale up and out easily,

and meet the unique needs of our customers

around the world.”

Evren Eryurek, GE Healthcare Software Chief Technology Ofﬁcer

GE Healthcare, a division of General Electric, provides transformational medical technologies and services that are shaping

a new age of patient care. The company wanted a more ﬂexible, scalable platform for delivering applications healthcare

providers worldwide rely on. To meet its goals, it pursued a cross-platform cloud strategy and decided to deploy multiple

applications on Microsoft Azure. Now, GE Healthcare is accelerating development and time-to-market while cutting

costs with a ﬂexible solution that can support regulatory requirements in different regions of the world. With Microsoft

technology and support, GE Healthcare continues to meet the needs of its diverse,

worldwide customer base while working on its next innovative solution.

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Situation

to both improve efﬁciency and improve

clinical care, they must also protect

A division of General Electric, GE Healthcare

provides medical imaging and information

technologies, medical diagnostics, patient

monitoring systems, performance

improvement, drug discovery,

and biopharmaceutical

patient information and meet increasingly

challenging regulatory requirements

Moreover, the company sought to meet

its goals without investing additional time

and money in on-premises infrastructure.

In the United States, GE Healthcare sought

to simplify Meaningful Use (MU) reporting

to help facilitate the MU attestation

required to qualify for incentives from

programs established through the Health

Information Technology for Economic and

Clinical Health Act (HITECH Act). Customers

in other countries also have compliance

needs, and GE Healthcare wanted a solution

that it could easily adapt to a wide range

of privacy and security requirements.

manufacturing technologies.

With headquarters in England and ofﬁces

around the world, GE Healthcare has a

global customer base that relies on its

products. The company required a ﬂexible,

highly scalable platform that could deliver

a wide range of solutions and services to

help imagine new ways to diagnose and

treat cancer, heart disease, neurological

diseases and other conditions earlier, more

cost-effectively, and more efﬁciently.

“We’re committed to

working with partners

like GE Healthcare to

provide secure, scalable

cloud solutions that drive

value for health customers

around the world and

meet shifts within the

industry.”

Solution

GE Healthcare has an ecosystem of cloud

partners and decided to take advantage

of the Microsoft Azure platform with its

infrastructure-as-a-service (IaaS) offering.

Moving to the cloud would offer multiple

beneﬁts, including easier, more centralized

software distribution and management,

and better scalability. The company

was also drawn to the Microsoft Azure

environment’s readiness to help customers

meet their compliance requirements in

the healthcare industry. In addition to

technical safeguards, Azure offers a HIPAA

Business Associate Agreement (BAA) in

which Microsoft commits to adhere to

certain security and privacy provisions

Two of the company’s businesses—GE

Healthcare IT and GE Healthcare Global

Services—sought to provide customers with

more ﬂexible, yet secure cloud solutions.

GE Healthcare IT software and services

for Integrated Care create actionable

insight across the healthcare system and

the care pathway, enabling better clinical

and ﬁnancial outcomes. Healthcare Global

Services help health systems manage

their operational resources to deliver

high quality care safely, efﬁciently, and

affordably. Both business groups knew

that while healthcare providers worldwide

need better insight and control over data

Neil Jordan, General Manager

Worldwide Health, Microsoft

Overview

Customer Proﬁle

Solution

Customer: GE Healthcare

Customer Website: www.gehealthcare.com

Customer Size: 46,000 employees

Country or Region: England

Industry: Healthcare—Other health-

related services

A division of General Electric, GE

Healthcare provides transformational

medical technologies and services that

are shaping a new age of patient care.

GE Healthcare deployed multiple

applications on the Microsoft Azure

platform, including Microsoft SQL Server

2014 on virtual machines.

Business Situation

Beneﬁts

Multiple business units within GE

Healthcare wanted a more scalable,

ﬂexible platform for delivering solutions

to regions around the world.

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Faster Time-to-Market and Lower

Operating Costs

Enables Regulatory Compliance

Better Flexibility and Faster Innovation

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set forth in HIPAA and the HITECH Act.

The openness of the platform was

developed an elastic, service-oriented

architecture that scales automatically as

workloads ﬂuctuate. The company took

advantage of the cloud platform for the

entire process, from development through

testing and initial customer pilots. The

ﬂexibility not only speeds development

and time-to-market, it also eases business

expansion. GE Healthcare can add new

healthcare providers without increasing

or reconﬁguring infrastructure.

appealing too. Because Microsoft Azure

easily integrates with various development

platforms, GE Healthcare could continue

working with its existing tools, including

Java code and a messaging system.

Management would be easier and more

affordable as well because Microsoft

handles service operations and platform-

related updates. The company also knew

it would beneﬁt from the Azure team’s

high level of support and architectural

expertise, which it would need to bring

its solutions to market quickly.

The solution streamlines communication

between clinicians, patients, and hospital

administrators with secure, centralized,

real-time access to diagnostic scans and

reports. “Doctors working in different

locations can all look at the same diagnostic

images simultaneously,” says Jeanine

Banks, general manager of commercial

cloud solutions at GE Healthcare. “By

running our image exchange software in

the cloud, we can help reduce information

silos and help doctors collaborate more

easily and quickly on treatment plans.”

“With 24/7, cloud-based

access to performance

data from multiple areas

of the healthcare system,

our customers can

optimize equipment use,

control costs, and help

enhance patient care and

satisfaction.”

GE Healthcare and Microsoft kicked

off a proof of concept for transitioning

apps that were running in a production

environment on-premises to Microsoft

Azure. The transition was seamless using

Microsoft Azure Virtual Machines (VMs).

The VMs host multiple application

components, including database instances

running on SQL Server 2014 software

and business logic running in Microsoft

.NET Framework assemblies. Both SQL

Server and .NET on Microsoft Azure VMs

provide full compatibility with on-premises

infrastructure. In addition, the SQL Server

AlwaysOn feature ensures high availability.

Jeanine Banks, GM, Commercial

Solutions, Cloud, GE Healthcare

GE Healthcare used the Microsoft Azure

Software Development Kit (SDK)—a

comprehensive set of cross-platform

tools—to simplify deployment of existing

code to the cloud. The company deployed

two existing solutions on Microsoft Azure:

iCenter and Centricity Clinical Quality

Reporting (CQR). iCenter is an asset

maintenance and management software

application. It provides data and analytics on

asset status, location, maintenance history,

utilization, and planning. For GE Healthcare

customers it means data driven decisions

and improved hospital operations. Centricity

Clinical Quality Reporting creates reports

on clinical quality measures that are tracked

in government programs. The solution

visualizes data from Centricity electronic

health records software so that providers

can easily evaluate progress in meeting

government healthcare requirements.

The project soon extended to multiple

applications; some that were in production

and some new. When GE Healthcare saw

what Microsoft Azure could do in the proof

of concept, it understood the value it could

bring to multiple healthcare scenarios.

GE Healthcare customers in the United

States can take advantage of solutions

running on Microsoft Azure such as the

newly developed Centricity 360™ featuring

Case Exchange, which was designed to

provide secure image and data exchange

to physicians working in their care settings.

Using Microsoft Azure, GE Healthcare

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Beneﬁts

Enable application

Enables Regulatory Compliance

Using the trusted and certiﬁed Microsoft

Azure platform—which includes a

variety of technical safeguards as

well as extensive support—enables

GE Healthcare to meet the needs

of its customers. Microsoft Azure

provides security and privacy- related

contractual commitments as part of

the HIPAA BAA so that healthcare

organizations of all sizes can meet

their compliance requirements while

beneﬁtting from cloud-based solutions.

With the Microsoft Azure platform GE

Healthcare can accelerate time-to-

market and cut costs, enable regulatory

compliance for more customers,

and spur its own innovation.

innovation

For technology to be strategic to

your business, you need more than

another quick ﬁx. You want something

that helps you deliver the right things

faster, with tools and processes that

interoperate and foster agility as well

as a cloud environment that works

on your terms. Microsoft’s enterprise-

proven approach enables application

innovation to help you stand out.

Faster Time-to-Market and

Lower Operating Costs

With Microsoft Azure, GE Healthcare

has streamlined the development of

new solutions such as Case Exchange

and has migrated existing applications

quickly and affordably. “By working

closely with the Microsoft technical team

and taking advantage of the Microsoft

Azure platform, we developed, tested,

and launched new applications with

minimal investment in infrastructure,”

says Evren Eryurek, GE Healthcare

Software Chief Technology Ofﬁcer.

“Using Microsoft Azure—whether

exclusively or as part of a hybrid cloud

deployment— we are able to bridge

traditional infrastructure barriers while

meeting the security and privacy needs

of our customers around the world.”

For more information about enabling

application innovation, go to:

http://www.microsoft.com/en-us/

server-cloud/cloud-os/application-

development.aspx

Better Flexibility and Faster Innovation

The company ultimately plans to adopt

the Microsoft Azure platform-as-a-service

(PaaS) to take advantage of automated

service maintenance and scalability.

For more information

For more information about Microsoft

products and services, call the Microsoft

Sales Information Center at (800) 426-

9400. In Canada, call the Microsoft

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Canada who are deaf or hard-of-hearing

can reach Microsoft text telephone (TTY/

TDD) services at (800) 892-5234. Outside

the 50 United States and Canada, please

contact your local Microsoft subsidiary. To

access information using the World Wide

Web, go to:

By taking advantage of Microsoft

technology and technical architects,

GE Healthcare can focus on innovation

instead of infrastructure. The initial

successes in Healthcare IT and Global

Services have spurred expansion across

other GE Healthcare businesses. Proof of

concept projects with Microsoft Azure are

underway across a wide variety of areas

ranging from cloud-based scheduling

software solutions to big data for genome

sequencing. “We have several projects

underway that reﬂect our partnership

with Microsoft and Azure,” says Chris

Larkin, GM Software Engineering, Life

Sciences at GE Healthcare. “We believe

that Azure is an innovative and cost

effective way to deliver value to our Life

Sciences customers with mobile, and

highly scalable cloud applications.”

Neil Jordan, General Manager Worldwide

Health at Microsoft agrees that the strong

relationship between the two companies

contributes to the ongoing success

of the project. “We’re committed to

working with partners like GE Healthcare

to accelerate their go-to-market

www.microsoft.com

strategy with Microsoft technology.”

For more information about GE

Healthcare products and services, call or

visit the website at:

www.gehealthcare.com

Software and Services

Microsoft Azure platform

Microsoft Server Product Portfolio

Technologies

• Microsoft .NET Framework

•

•

Microsoft Azure Virtual Machines

Microsoft Azure Software Development Kit

•

Microsoft SQL Server 2014

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