# The Forrester Wave™: Enterprise Health Clouds, Q3 2019

**The Nine Providers That Matter Most And How They Stack Up**

by Jeff Becker
September 11, 2019

## Why Read This Report

In our 31-criterion evaluation of enterprise health cloud providers, we identified the nine most significant ones — Amazon Web Services (AWS), Atos, Google, IBM, Microsoft, NTT DATA, Philips, Rackspace, and SAP — and researched, analyzed, and scored them. This report shows how each provider measures up and helps digital business professionals select the right one for their needs.

## Key Takeaways

**IBM, Microsoft, And Google Lead The Pack**

Forrester's research uncovered a market in which IBM, Microsoft, and Google are Leaders; Amazon Web Services and Philips are Strong Performers; Atos and Rackspace are Contenders; and SAP and NTT DATA are Challengers.

**FHIR, Data Tagging, And Pretrained AI Are Key Differentiators**

As previous technology becomes outdated and less effective, improved healthcare AI will dictate which providers differentiate. Vendors that can provide HIPAA-compliant health data integration, advanced analytics, and consumer engagement channels position themselves to successfully support operational efficiencies, clinical outcome improvements, and patient satisfaction.

# The Forrester Wave™: Enterprise Health Clouds, Q3 2019

## The Nine Providers That Matter Most And How They Stack Up

by Jeff Becker
with Stephen Powers, Lauren E. Nelson, Sara Sjoblom, and Peter Harrison
September 11, 2019

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## Cloud Vendors Innovate To Win In The Healthcare Market

Healthcare and life sciences (HLS) organizations plan to migrate their workloads to the cloud in record numbers: 40% of US HLS infrastructure pros say that their primary cloud strategy is to move existing workloads to the public cloud.[1] As HLS demand for cloud services increases, vendors race to add industry-specific services, such as native support for healthcare interoperability standards, natural language processing (NLP) services that extract and classify medical data from unstructured text, access to pretrained healthcare AI models, genomic research capabilities, and medically literate chatbot services.

The market has seen a proliferation of vendors that cater to the unique needs of HLS organizations; these vendors are becoming enterprise health clouds. HIPAA compliance has become ubiquitous, and all major vendors will sign a business associate agreement (BAA) that covers a wide breadth of services. As a result of these trends, enterprise health cloud customers should look for providers that deliver four key components:

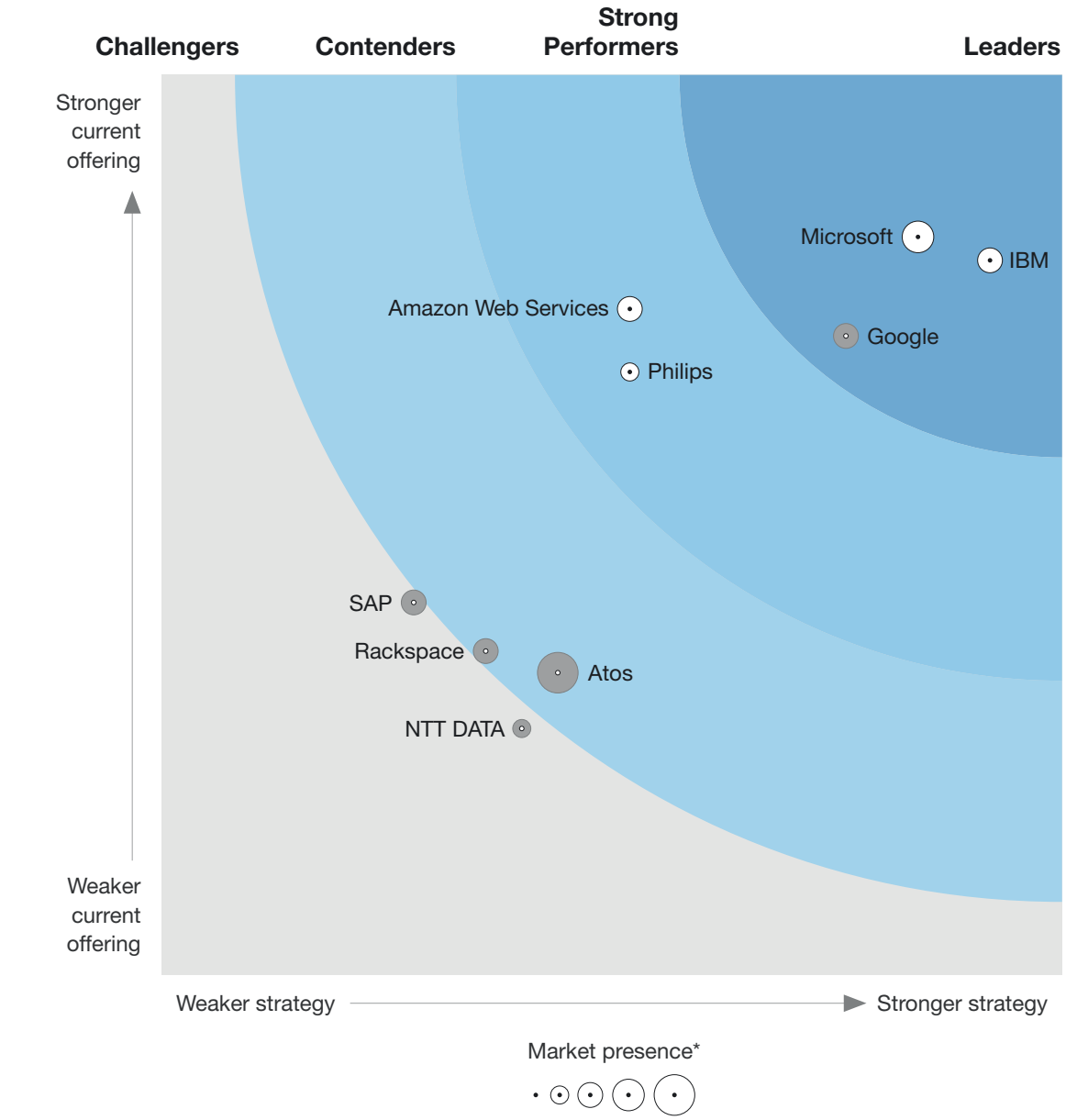
- **Secure backup and disaster recovery.** Backup and disaster recovery is the leading service driving cloud demand within the US HLS market.[2] As the cybersecurity war in healthcare continues to rage, HLS organizations are shopping for offsite backup and disaster recovery services that will reduce their downtime in the event of an attack. Cloud vendors now offer native disaster-recovery-as-a-service (DRaaS) within HIPAA-compliant, HITRUST-CSF-certified environments.
- **Healthcare data ingestion and preparation.** The frameworks that underpin healthcare data interoperability are numerous, but native support for FHIR is table stakes, and support for DICOM will be soon. Cloud vendors are now taking health data ingestion one step further, combing electronic health record (EHR), picture archiving and communications system (PACS), claims, genomic, streaming device, and social-determinants-of-health data. NLP services extract and classify medical data from unstructured text and images, electronic master patient index (EMPI) services deduplicate and aggregate patient data, and de-identification services strip protected health information (PHI) out of ingested data sets.
- **Healthcare-ready AI services.** Healthcare's citizen data scientists are finding a warm welcome in the cloud, as vendors increasingly deliver pretrained models that support healthcare and life science use cases, such as precision medicine research, benefits design analysis, and provider performance benchmarking. AI workbenches deliver capabilities that support nondata scientists working on custom machine learning (ML) and image analysis.
- **Insight delivery channels.** As HLS organizations create new insights, they must deliver those insights back to a provider, care manager, or patient. To support this, vendors offer application development platforms, including cloud-native low-code development platforms. These platforms offer healthcare API services and communication services that include text, video, and even medically trained chatbots. Hospitals are deploying these channels today to deliver insights to clinicians at the bedside.

## Evaluation Summary

The Forrester Wave™ evaluation highlights Leaders, Strong Performers, Contenders, and Challengers. It's an assessment of the top vendors in the market and does not represent the entire vendor landscape. You'll find more information about this market in our "Now Tech: Enterprise Health Clouds, Q2 2019" report.[3]

We intend this evaluation to be a starting point only and encourage clients to view product evaluations and adapt criteria weightings using the Excel-based vendor comparison tool (see Figure 1 and see Figure 2). Click the link at the beginning of this report on Forrester.com to download the tool.

**FIGURE 1** Forrester Wave™: Enterprise Health Clouds, Q3 2019




*A gray bubble indicates a nonparticipating vendor.

**FIGURE 2** Forrester Wave™: Enterprise Health Clouds Scorecard, Q3 2019

| | Forrester's weighting | Amazon Web Services | Atos* | Google* | IBM | Microsoft | NTT DATA* | Philips | Rackspace* | SAP* |
|---|---|---|---|---|---|---|---|---|---|---|
| **Current offering** | 50% | 3.70 | 1.68 | 3.55 | 3.97 | 4.10 | 1.37 | 3.35 | 1.80 | 2.07 |
| Regulatory compliance | 10% | 3.00 | 1.00 | 3.00 | 3.00 | 5.00 | 1.00 | 3.00 | 5.00 | 1.00 |
| Disaster-recovery-as-a-service offerings | 5% | 5.00 | 1.00 | 3.00 | 5.00 | 5.00 | 3.00 | 3.00 | 5.00 | 1.00 |
| Security | 5% | 5.00 | 3.00 | 5.00 | 3.00 | 3.00 | 3.00 | 5.00 | 1.00 | 1.00 |
| Application migration services | 5% | 5.00 | 3.00 | 5.00 | 5.00 | 5.00 | 3.00 | 3.00 | 1.00 | 1.00 |
| Hybrid cloud and multicloud | 5% | 3.00 | 1.00 | 5.00 | 3.00 | 3.00 | 1.00 | 3.00 | 1.00 | 3.00 |
| Healthcare cloud migration partner ecosystem | 5% | 5.00 | 1.00 | 3.00 | 3.00 | 5.00 | 1.00 | 3.00 | 1.00 | 3.00 |
| Data acquisition | 10% | 3.00 | 1.80 | 4.20 | 5.00 | 3.00 | 2.20 | 3.80 | 1.00 | 1.40 |
| Data interoperability | 5% | 3.00 | 1.00 | 3.66 | 4.32 | 3.00 | 1.00 | 4.34 | 1.00 | 1.68 |
| Data export | 5% | 3.00 | 3.00 | 5.00 | 3.00 | 5.00 | 1.00 | 3.00 | 1.00 | 3.00 |
| Developer experience | 5% | 5.00 | 1.00 | 3.00 | 3.00 | 5.00 | 1.00 | 3.00 | 1.00 | 3.00 |
| AI and machine learning | 5% | 3.00 | 3.00 | 3.00 | 5.00 | 5.00 | 1.00 | 5.00 | 1.00 | 3.00 |
| IoT services | 5% | 3.00 | 3.00 | 3.00 | 5.00 | 3.00 | 1.00 | 3.00 | 1.00 | 3.00 |
| Master patient index | 5% | 5.00 | 1.00 | 1.00 | 5.00 | 1.00 | 1.00 | 3.00 | 1.00 | 1.00 |
| Consumer engagement | 5% | 3.00 | 3.00 | 3.00 | 5.00 | 5.00 | 1.00 | 5.00 | 1.00 | 3.00 |
| Language support | 5% | 5.00 | 0.00 | 3.00 | 3.00 | 5.00 | 1.00 | 3.00 | 3.00 | 3.00 |
| System-of-insight partnership ecosystem | 5% | 3.00 | 1.00 | 3.00 | 3.00 | 5.00 | 1.00 | 1.00 | 1.00 | 3.00 |
| Developer community | 5% | 3.00 | 0.00 | 3.00 | 5.00 | 5.00 | 0.00 | 3.00 | 3.00 | 3.00 |
| Application performance monitoring | 5% | 3.00 | 3.00 | 5.00 | 3.00 | 3.00 | 1.00 | 3.00 | 1.00 | 1.00 |

All scores are based on a scale of 0 (weak) to 5 (strong).
*Indicates a nonparticipating vendor.

**FIGURE 2** Forrester Wave™: Enterprise Health Clouds Scorecard, Q3 2019 (Cont.)

| | Forrester's weighting | Amazon Web Services | Atos* | Google* | IBM | Microsoft | NTT DATA* | Philips | Rackspace* | SAP* |
|---|---|---|---|---|---|---|---|---|---|---|
| **Strategy** | 50% | 2.60 | 2.20 | 3.80 | 4.60 | 4.20 | 2.00 | 2.60 | 1.80 | 1.40 |
| Past performance | 20% | 3.00 | 3.00 | 5.00 | 5.00 | 3.00 | 3.00 | 3.00 | 1.00 | 1.00 |
| Product vision | 20% | 3.00 | 3.00 | 3.00 | 5.00 | 5.00 | 3.00 | 1.00 | 1.00 | 1.00 |
| Planned enhancements | 20% | 3.00 | 1.00 | 1.00 | 3.00 | 5.00 | 1.00 | 3.00 | 1.00 | 1.00 |
| Commercial model | 20% | 3.00 | 1.00 | 5.00 | 5.00 | 3.00 | 0.00 | 1.00 | 3.00 | 3.00 |
| Healthcare focus | 20% | 1.00 | 3.00 | 5.00 | 5.00 | 5.00 | 3.00 | 5.00 | 3.00 | 1.00 |
| **Market presence** | 0% | 5.00 | 2.50 | 3.00 | 3.00 | 3.50 | 2.00 | 1.50 | 2.50 | 3.00 |
| Number of customers | 50% | 5.00 | 3.00 | 3.00 | 3.00 | 5.00 | 2.00 | 1.00 | 4.00 | 3.00 |
| Average deal size | 50% | 5.00 | 2.00 | 3.00 | 3.00 | 2.00 | 2.00 | 2.00 | 1.00 | 3.00 |

All scores are based on a scale of 0 (weak) to 5 (strong).
*Indicates a nonparticipating vendor

## Vendor Offerings

Forrester included nine vendors in this assessment: Amazon Web Services, Atos, Google, IBM, Microsoft, NTT DATA, Philips, Rackspace, and SAP (see Figure 3).

**FIGURE 3** Evaluated Vendors And Product Information

| Vendor | Product evaluated |
|---|---|
| Amazon Web Services | Amazon Web Services Platform |
| Atos | Atos Canopy Orchestrated Hybrid Cloud Platform |
| Google | Google Cloud Platform |
| IBM | IBM Cloud Platform |
| Microsoft | Microsoft Azure Platform |
| NTT DATA | NTT DATA Complete Cloud for Healthcare Platform |
| Philips | Philips HealthSuite Digital Platform |
| Rackspace | Rackspace Managed Cloud Platform |
| SAP | SAP Cloud Platform |

## Vendor Profiles

Our analysis uncovered the following strengths and weaknesses of individual vendors.

### Leaders

› **IBM Cloud differentiates with its breadth of healthcare analytics.** IBM has strategically designed a cloud platform that differentiates with its ability to solve healthcare-specific problems, such as native FHIR and DICOM integration, patient matching, and risk stratification. Where others rely on partner ecosystems to solve these problems, IBM partners with industry leaders to codesign native solutions. Its strategic strengths include its past performance pursuing moonshot AI projects in healthcare, which resulted in native AI models available on IBM Cloud. IBM's strategic weakness is its execution on product vision, which has resulted in high-profile product deinstallations that harmed its reputation in the industry.

IBM Cloud's current offering strengths include clinical data extraction services that leverage NLP to analyze and codify unstructured data as well as a master patient index it uses to create healthcare data models. Reference customers told us that IBM's AI workbench is easy for nondata scientists to learn. More than 50 predictive models are natively available to support risk stratification analysis, cost-of-care analysis, and more. Further, the platform touts a pretrained medically literate chatbot and a low-code developer environment. IBM Cloud is HITRUST CSF certified, though Watson Platform

for Health, its cloud analytics engine, has not yet earned this distinction — a notable weakness. IBM Cloud is a good fit for health insurers and healthcare providers looking for an end-to-end cloud migration partner with strong capabilities in advanced analytics and consumer engagement.

› **Microsoft Azure stands out with its healthcare-savvy partner network.** Microsoft has built a health cloud that is well positioned to meet the needs of the industry. Azure's key strategic strengths include its product vision, characterized by fast innovation that has led to both FHIR and genomics ingestion and a medically literate chatbot in little more than a year. Microsoft's planned enhancements are also a strength; it's tackling truly innovative use cases, like AI for oncology care. While Azure's future road map is full of innovation, its past performance has been a strategic weakness, characterized by a development road map that focused on table-stakes capabilities rather than healthcare innovation.

Microsoft Azure's current offering strengths include its large partner ecosystem, which is well positioned to support healthcare clients in both their cloud migration and data analytics endeavors, as well as its own application migration and DRaaS offerings. Microsoft offers a broad set of consumer engagement channels and a developer experience that includes a native low-code environment. Customer references note that its pretrained medical chatbots integrate with EHRs and do well as virtual clinical assistants. Azure's weaknesses include its lack of a native electronic master patient index and lack of native healthcare content for its Power BI analytics platform — Azure relies on partners to provide these services to clients. Microsoft Azure is a good fit for healthcare organizations that are looking for services to augment existing patient digital touchpoints or clinical workflows with AI-generated insights and virtual assistants.

› **Google Cloud Platform shines bright with its healthcare API.** Google has prioritized creating cloud capabilities for healthcare, and that foresight is paying off. Among Google Cloud Platform's strategic strengths is its healthcare focus; it recruited former Cleveland Clinic CEO Toby Cosgrove to define its health cloud strategy. Its past performance is also a strength. An early focus on moonshot healthcare AI projects led to the availability of various pretrained AI models, such as DeepVariant, its precision medicine AI offering. Google's main strategic weakness is its planned enhancements, with no healthcare-relevant features noted in publicly available documentation.

Google Cloud Platform's current offering strengths are in data acquisition and data analytics. Its Healthcare API provides native tooling to support ingestion of FHIR, HL7v2, and DICOM data formats. Tooling is natively available to de-identify inbound data as it is acquired. Its AI workbench offers tooling to support nondata scientists working on natural language, machine learning, and medical image analysis use cases, and it provides compelling pretrained models relevant to healthcare. Its weaknesses include the lack of an electronic master patient index, medically trained chatbot services, and native DRaaS. Google Cloud Platform is a good fit for healthcare payers, providers, or life sciences organizations working to amplify existing workflows with AI-generated insights. Google declined to participate in the full Forrester Wave evaluation process.

## Strong Performers

› **AWS brings the cloud but leaves the healthcare details to partners.** Amazon has built a cloud platform that is well suited to meet the needs of ISVs. AWS's strategic strengths include its past performance: As the first vendor in the public cloud market, it has set the bar for what a public cloud provider should offer. Its weaknesses include its product vision, which largely focuses on the needs of ISVs rather than those of healthcare user organizations. Similarly, its planned enhancements don't address some healthcare organization needs, like native support for FHIR or DICOM data ingestion. Reference customer calls revealed that its commercial model creates confusion for clients trying to monitor spend.

AWS's current offering strengths include its automated support for application and data migration as well as its native support for backup and disaster recovery and its robust ecosystem of partners that have experience leading healthcare cloud migrations. AWS provides an electronic master patient index, an NLP engine that scrubs unstructured medical text to identify key data elements, and a library of preconnected, healthcare-relevant public data sources. AWS's weaknesses include its lack of native support for FHIR, DICOM, and HL7v2 data ingestion; lack of medically trained chatbot services; and lack of healthcare-relevant analytics content. AWS leans on partners to provide these services. AWS is a good option for healthcare organizations focused primarily on application development and deployment.

› **Philips HealthSuite brings healthcare tooling to AWS but lacks a partner ecosystem.** Philips HealthSuite features native healthcare tooling on top of AWS to address industry issues. Philips markets HealthSuite as a platform for everything from hosting to data analytics to application development services. The company's strategic strengths include its overall focus on the healthcare industry, and reference customer calls revealed that this adds value during other phases of the relationship. Strategic weaknesses include its product vision, which does not meaningfully differentiate its offering from others in the rapidly maturing public cloud market, and its commercial model, which lacks public-facing, transparent pricing.

HealthSuite's current offering strengths are in its integration and data extraction capabilities. HealthSuite natively supports FHIR, DICOM, and HL7v2, plus it offers tools to create custom integrations through a managed instance of the Rhapsody Integration Engine. Philips leverages NLP to analyze ingested data and tag data elements with relevant code sets and FHIR resources. The vendor offers managed instances of Tableau or Qlik for analytics and TensorFlow to provide AI capabilities. Weaknesses include the lack of functionality that some industry-agnostic vendors have already deployed, such as an EMPI and a medically trained chatbot service. Its lack of a partner ecosystem is also a weakness. HealthSuite is a good choice for health systems looking for deep integration between enterprise applications and an AI workbench.

## Contenders

› **Atos delivers hybrid-cloud-as-a-service but lacks in developer experience.** Atos comes to the cloud market with deep healthcare industry knowledge. The company is building a cloud revenue stream by marketing a managed private cloud environment that it will integrate with other public cloud platforms to deliver a healthcare-ready hybrid cloud. Atos' strategic strengths include its past performance managing cloud migration projects in the healthcare industry and its product vision, which focuses on unlocking the value of hybrid cloud deployments. Its strategic weakness is its commercial model, which offers little cost transparency compared with competitors.

Atos' current offering strengths include its application and data migration services. The vendor builds secure hybrid cloud environments for its clients, blending data from a wide range of public cloud and on-premises data centers. Atos also brings big data capabilities to healthcare through the AI and internet-of-things (IoT) services within its Atos Codex analytics engine. Atos' AI workbench, AI Suite, supports data scientists pursuing healthcare-relevant use cases, including genomics-based precision medicine research. Atos' weaknesses include its limited developer experience, with no developer community to support its hybrid cloud environment or Codex developer capabilities. Atos is a good fit for healthcare organizations building a hybrid cloud environment to support big data initiatives. Atos declined to participate in the full Forrester Wave evaluation process.

› **Rackspace nails secure hosting and big data but needs healthcare integration points.** Rackspace delivers a HITRUST-CSF- and FedRAMP-certified, healthcare-friendly cloud hosting environment. Its strategic strengths rest in its transparent commercial model, with pay-as-you-go pricing and public-facing cost calculators. Rackspace lags in product vision. Its tunnel vision on hosting and big data has resulted in a platform that currently supports application and data migration as well as health data analytics but does not provide the native healthcare integration points necessary to deliver insights back into enterprise systems, such as EHRs.

Rackspace's current offering strengths are in its regulatory features for healthcare; it has achieved HITRUST CSF certification and FedRAMP compliance. Rackspace delivers dedicated hosting, backup, disaster recovery, big data analytics, and application development services under its BAA. Its weaknesses are in its analytics services, where there are neither data visualization capabilities nor native content relevant to healthcare. Rackspace delivers a managed instance of Hortonworks to support the needs of healthcare data scientists but provides no native pretrained models relevant to healthcare organizations. Rackspace is an ideal option for healthcare organizations looking to reduce their data center footprint and establish disaster recovery capabilities with only lightweight analytics and application development needs. Rackspace declined to participate in the full Forrester Wave evaluation process.

## Challengers

› **SAP Cloud Platform offers enterprise integration but lacks some key certifications.** SAP's public cloud platform is designed to help enterprise businesses automate internal workflows and develop new mobile applications. Strategically, its strength is its commercial model, which offers pay-as-you-go pricing or a subscription model for unlimited use. It also provides its clients with predictive consumption dashboards to monitor spend and a cost calculator for financial planning. SAP Cloud Platform has little healthcare-specific tooling in its product vision and road map. This industry-agnostic approach to cloud services delivery will leave healthcare clients wanting more.

SAP Cloud Platform's current offering strengths include its deep integration with enterprise applications and, in particular, its own enterprise resource planning (ERP) platform. SAP also offers comprehensive IoT connectors and an advanced analytics workbench that is capable of supporting nondata scientists. SAP Cloud Platform offers a reasonable number of software development kits and a developer community forum that it participates in. Cloud Platform's weaknesses include its lack of native DRaaS support, lack of healthcare interoperability support, and lack of HITRUST CSF certification, which leave HLS organizations with an immediate technical hurdle to address in their cloud adoption plans. SAP Cloud Platform is a good fit for healthcare organizations that are already using SAP's ERP suite and that value a deeply integrated development environment. SAP declined to participate in the full Forrester Wave evaluation process.

› **NTT DATA brings hosting to healthcare, but pricing isn't transparent enough.** NTT DATA's Complete Cloud for Healthcare brings a mix of professional services and managed services together to support healthcare clients throughout their cloud migrations. NTT DATA's strategic strengths lie in its healthcare focus; it has established hosting agreements with many of the major EHR vendors, and it complements these arrangements with its own cloud-native DRaaS and migration-focused professional services capabilities. NTT DATA's strategic weaknesses lie in its commercial model and its planned enhancements, with no public-facing documentation that describes pricing arrangements or the development road map.

NTT DATA's current offering strengths are in its application hosting as well as in its data acquisition capabilities, where it blends on-premises and cloud-hosted EHR, genomics, claims, wearable, and patient-generated health data to create a cloud data lake for healthcare data scientists. NTT DATA also shines in its data analytics capabilities, delivering its cloud-native Business Insights Engine, which includes healthcare-relevant reports and models that build a 360-degree view of the healthcare consumer. NTT DATA's key weakness is its developer experience; it offers no integrated developer environment or developer community forum and instead markets a collaborative, service-based approach to building integrated enterprise applications. NTT DATA is a good fit for healthcare organizations looking for a mix of professional and managed services to lead their cloud migration from hosting through analysis and insight integration. NTT DATA declined to participate in the full Forrester Wave evaluation process.

## Evaluation Overview

We evaluated vendors against 31 criteria, which we grouped into three high-level categories:

- **Current offering.** Each vendor's position on the vertical axis of the Forrester Wave graphic indicates the strength of its current offering. Key criteria for these solutions include regulatory compliance, disaster-recovery-as-a-service, data acquisition, AI/ML, and consumer engagement.
- **Strategy.** Placement on the horizontal axis indicates the strength of the vendors' strategies. We evaluated past performance, product vision, commercial model, and healthcare focus.
- **Market presence.** Represented by the size of the markers on the graphic, our market presence scores reflect each vendor's number of customers and average deal size.

### Vendor Inclusion Criteria

Forrester included nine vendors in the assessment: Amazon Web Services, Atos, Google, IBM, Microsoft, NTT DATA, Philips, Rackspace, and SAP. Each of these vendors has:

- **Infrastructure-as-a-service.** Each vendor markets infrastructure services capable of supporting enterprise healthcare clients pursuing a variety of application and data center cloud migration strategies.
- **Cloud data warehouse services.** Each vendor markets cloud-native data warehouse services that leverage industry-agnostic data acquisition services and healthcare-specific interoperability frameworks to consolidate a wide range of healthcare data into a cloud data warehouse.
- **Cloud analytics.** Each vendor provides cloud-native advanced analytics services capable of supporting enterprise healthcare clients pursuing a variety of analytics projects, including curation of a 360-degree view of the patient.
- **Cloud development platform services.** Each vendor markets cloud-native application development services capable of supporting enterprise healthcare clients with internal business automation projects and consumer-facing digital engagement solutions.
- **HIPAA compliance.** Each vendor maintains HIPAA compliance for its solution and will sign a business associate agreement for healthcare clients working with PHI.
- **Product presence in the healthcare vertical.** Each vendor has US-based enterprise healthcare clients that leverage its cloud-native solution.

## Supplemental Material

### Online Resource

We publish all our Forrester Wave scores and weightings in an Excel file that provides detailed product evaluations and customizable rankings; download this tool by clicking the link at the beginning of this report on Forrester.com. We intend these scores and default weightings to serve only as a starting point and encourage readers to adapt the weightings to fit their individual needs.

### The Forrester Wave Methodology

A Forrester Wave is a guide for buyers considering their purchasing options in a technology marketplace. To offer an equitable process for all participants, Forrester follows The Forrester Wave™ Methodology Guide to evaluate participating vendors.

In our review, we conduct primary research to develop a list of vendors to consider for the evaluation. From that initial pool of vendors, we narrow our final list based on the inclusion criteria. We then gather details of product and strategy through a detailed questionnaire, demos/briefings, and customer reference surveys/interviews. We use those inputs, along with the analyst's experience and expertise in the marketplace, to score vendors, using a relative rating system that compares each vendor against the others in the evaluation.

We include the Forrester Wave publishing date (quarter and year) clearly in the title of each Forrester Wave report. We evaluated the vendors participating in this Forrester Wave using materials they provided to us by June 2019 and did not allow additional information after that point. We encourage readers to evaluate how the market and vendor offerings change over time.

In accordance with The Forrester Wave™ Vendor Review Policy, Forrester asks vendors to review our findings prior to publishing to check for accuracy. Vendors marked as nonparticipating vendors in the Forrester Wave graphic met our defined inclusion criteria but declined to participate in or contributed only partially to the evaluation. We score these vendors in accordance with The Forrester Wave™ And The Forrester New Wave™ Nonparticipating And Incomplete Participation Vendor Policy and publish their positioning along with those of the participating vendors.

### Integrity Policy

We conduct all our research, including Forrester Wave evaluations, in accordance with the Integrity Policy posted on our website.

## Endnotes

[1] Base: 78 US infrastructure decision makers working in healthcare/pharmaceuticals and medical equipment whose firms are planning on implementing, have implemented, or are expanding implementation of cloud services. Source: Forrester Analytics Global Business Technographics® Infrastructure Survey, 2018.

[2] Base: 58 US infrastructure decision makers working in healthcare/pharmaceuticals and medical equipment whose firms (of 20 employees or more) are planning to or have implemented public cloud services. Source: Forrester Analytics Global Business Technographics Infrastructure Survey, 2018.

[3] See the Forrester report "Now Tech: Enterprise Health Clouds, Q2 2019."

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