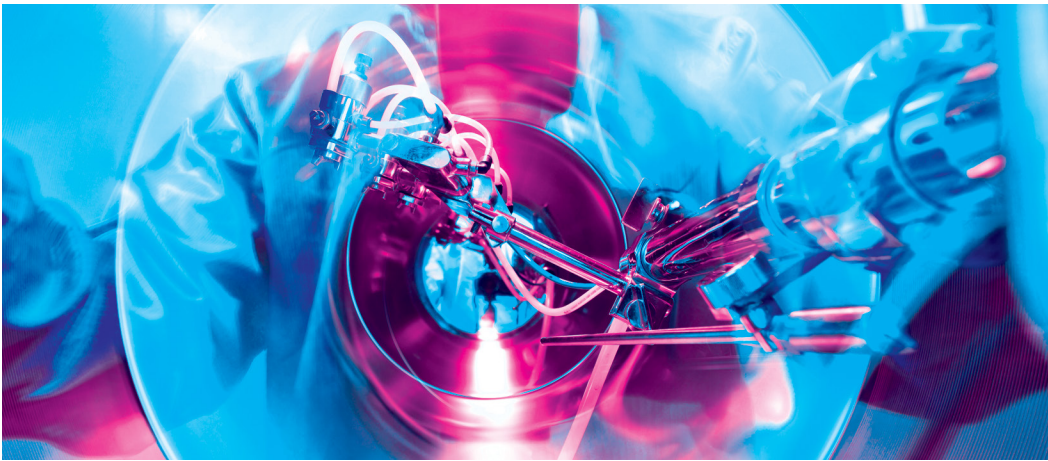# CloudPhysics Helps Sanofi Transform Global Data Center Operations for Greater Efficiency and Performance

Key Results

- Immediate reclamation of 17TB of wasted storage capacity
- Rapid, data-driven diagnosis of performance issues
- Maintenance-free SaaS application saves money and time

"CloudPhysics gives us the insights we're looking for, a lot quicker, and without the headaches – so we can make better, faster decisions for greater operational efficiency."

— Joachim Heppner, Head of Virtualization, Sanofi GIS

SANOFI

Sanofi is the world's fifth-largest pharmaceutical company, with 2013 revenues that topped $45 billion (USD) and more than 130,000 employees in 130 countries worldwide. To support the company's global growth objectives, Sanofi's Global Infrastructure Services (GIS) team launched the Next-Generation Data Center initiative (NGDC). The initiative is designed to stabilize and standardize operations across the company's three primary regional data centers (US, EMEA and APAC), reducing infrastructure variances across these VMware-based environments and improving efficiency and predictability.

As a first step, the GIS team needed to conduct an initial analysis to assess overall data center health, with a particular focus on reducing storage waste and improving performance.

"The biggest overall challenge for us to solve was VM waste, whether related to storage, CPU or memory," says Joachim Heppner, head of virtualization for Sanofi's GIS team. "Historically, we've given our application teams whatever resources they've asked for, primarily because we had no way of verifying their true level of need. We knew there was a lot of waste, but had no data-based reason for challenging their requests or making different decisions."

In addition, Sanofi's top day-to-day challenge was an ongoing complaint from their internal customers: *My app is running slow*. Without deep insight into the details of their VMware environment, it was very difficult to diagnose and troubleshoot performance problems, says Heppner.

On the recommendation of CloudPhysics partner Cambridge Computers, the Sanofi team selected CloudPhysics for their health audit. They believed CloudPhysics' ability to unobtrusively collect, correlate, and analyze data across Sanofi's worldwide VMware environment would effectively provide data-driven insights for better decision making regarding infrastructure space and performance.

Immediate value

From the start, CloudPhysics provided value for Sanofi.

"In a large organization like ours, anything takes a lot of time, yet CloudPhysics was so simple to install and connect to our vCenter, we were collecting data and analyzing it in well under 30 minutes with very little effort on our side," says Heppner.

CloudPhysics' Saas approach is a tremendous advantage over traditional on-premise solutions, from both a time-to-value and cost perspective. All of Sanofi's vCenters were configured in a single day, whereas a traditional tool would take months to deploy due to the hassle and delay of requesting hardware and software, installation, configuration, data collection, ongoing maintenance, etc.

> *"We were collecting and analyzing data in well under 30 minutes, with very little effort."*

"For us, the SaaS model is an outsourcing model; we want somebody to get it off our plate. CloudPhysics is maintenance free – we don't have to do anything, so I can focus staff time on other activities that have greater value to the business," he says.

Pre-built analytics: A fast path to dramatic space savings

Heppner says CloudPhysics' card-based paradigm makes it easy to understand and interact with the analytics. Each Card is a "mini application" – a slice of systems data and analytics, packaged together as a unit to address specific problems. The heavy lifting of correlating all the metadata from the infrastructure, running big data analytics and simulations, and applying the Collective Intelligence from the global data set happens automatically behind the scene.

"When it comes to gaining insights, I don't have to do a lot of work," Heppner says. "CloudPhysics provides numerous pre-built cards; I just click on the ones I need at any given time. Since CloudPhysics has already been collecting the data, I just have to decide what I want to view and how I want to view it. It's really nice."

One such card is Snapshots Gone Wild, which instantly pinpoints VM snapshot bloat so IT can reclaim wasted space.

"One of the big problems we uncovered and corrected quickly was snapshots. Unbeknownst to us, we had 17 TB of snapshots wasting space. With CloudPhysics, we were able to easily identify and clean that up; now we are down to less than 100 GB of snapshots. Standard monitoring tools are just not built to help you do that."

Heppner notes that by reclaiming so much space, Sanofi was able to defer the purchase of additional storage capacity. Other analytics also contribute to deferred resource consumption.

"Analyzing VM size, and being able to look at how much memory was allocated versus how much was actually used, is very valuable," says Heppner. "It enables us not to deploy that fifth or sixth virtual machine cluster, saving not just physical and virtual resources, but also the staff time it would take to set up and manage them."

CloudPhysics at Sanofi: Key Use Cases

Storage Space Management
CloudPhysics combines operational data with analytics for intelligent capacity management, eliminating wasted space and saving money.

Performance Troubleshooting
CloudPhysics pinpoints storage-induced performance issues, identifying culprits and victims for fast and easy remediation.

Custom Analytics & Reporting
CloudPhysics drag-and-drop tools make it fast and easy to build customized vSphere reports and analytics without coding.

Rapid, data-driven performance troubleshooting

Another of Hepper's favorites is the Datastore Contention Card, which accelerates performance trouble-shooting for storage-related issues. With a single click, Sanofi's IT team can see exactly where and how contention is causing performance degradation. They can determine exactly which VMs are the troublemakers, and which VMs are suffering. There is also an interactive timeline that visually correlates patterns among datastores and VMs, simplifying exploration and root cause analysis.

"We see value in CloudPhysics as a cross-platform tool. Instead of having to rely on each vendor to get to the root of problems, CloudPhysics acts as an objective third-party tool that enables us to see what's really going on without vendor bias."

Ad hoc analytics without programming

Sanofi also uses CloudPhysics Cardbuilder, which enables them to build ad hoc queries and reports using drag-and-drop features. With CardBuilder, Sanofi can dig into specific clusters, datastore, or objects properties in their VMware environment; CloudPhysics automatically correlates all the objects and allows Sanofi to apply filters for interactive exploration and ad hoc root cause analysis.

"For somebody who doesn't know how to program but still wants deeper analysis, CardBuilder enables you to do it," says Heppner.

Data-driven insights from a company that listens

Heppner sees great advantages in working with new companies like CloudPhysics.

"CloudPhysics listens to customers and actually implements their suggestions. Larger companies just can't be that responsive. CloudPhysics gives us the insights we're looking for, a lot quicker, and without the headaches – so we can make better, faster decisions for greater operational efficiency."

About CloudPhysics

CloudPhysics provides data-driven insights for smarter IT, giving IT teams more power than ever before to understand, troubleshoot and optimize their virtualized data centers and drive better operational decision making. The company, based in Santa Clara, Calif., serves thousands of users worldwide and is backed by Mayfield, Kleiner Perkins Caufield & Byers, and Jafco Ventures. http://www.cloudphysics.com.

"As an early adopter and leader in the use of virtualization, Sanofi is focused on continuous operational improvement across our three primary data centers in the US, APAC and Europe. The insights we gain from CloudPhysics are key in our efforts to reduce infrastructure variances across environments and improve operational predictability. CloudPhysics' ease of deployment provides a tremendous cost and time advantage; because it's SaaS, we were able to achieve visibility into our data centers in just minutes, not the months it takes to deploy on-premise tools."

— Joachim Heppner