

# Proximus Group virtualizes network and cuts costs with Red Hat



## Software and services

Red Hat® OpenStack® Platform

Red Hat OpenShift®

Red Hat Ceph® Storage

Red Hat Consulting

Red Hat Technical  
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## Existing Red Hat software

Red Hat JBoss® Enterprise  
Application Platform

Proximus Group, Belgium's largest telecommunications provider, sought to replace its costly bare-metal server environment with a flexible, scalable network functions virtualization (NFV) approach. By standardizing NFV on Red Hat OpenStack Platform, supported by Red Hat Ceph Storage, the service provider can now run critical service functions in a cost-effective, scalable way. Additionally, using Red Hat OpenShift in OpenStack to deploy and run container-based microservices at scale helps Proximus save €30,000 in monthly infrastructure setup and maintenance costs.



## Telecommunications

10,000 employees

## Benefits

- Achieved on-demand scalability at 20% lower cost
- Improved developer efficiency, generating €30,000 monthly savings and speeding time to market
- Optimized configuration and troubleshooting with expert guidance from a Red Hat Technical Account Manager

*"With Red Hat OpenShift, we can increase the number of instances in a single step—or even automatically—to sustain peak loads."*

**Nicolas Kaczmarek**  
Web Application Servers Team Leader,  
Proximus Group



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*“We’re running services that are critical to our business on Red Hat. For example, if our voice platform goes down, nobody in Belgium can use any IP phone or Proximus network. Working with a Red Hat TAM ensures we have the best possible support from Red Hat and that the software can meet our specific needs as a telco.”*

**Alain Elengesa**  
Telco Cloud Manager,  
Proximus Group

## Replacing costly custom server approach with network functions virtualization

Proximus Group (previously Belgacom Group) is Belgium’s largest telecommunications company. Primarily owned by the Belgian government, Proximus offers digital services and communication solutions for national and international personal and business customers.

Proximus has focused recent investments in creating a modern network and innovative telecommunications services, but this work was hindered by its custom, bare-metal server environment. Although this hardware was designed and configured to support high-performance workloads, it was complex to run and maintain. To expand capacity, Proximus had to purchase and install costly new custom servers.

“We wanted to get free of our dependency on specialist vendors and the high cost of ownership that came with that approach,” said Alain Elengesa, Telco Cloud Manager, Proximus Group. “Network functions virtualization (NFV) offers the flexibility to easily add capacity and buy commodity, rather than proprietary servers, but we needed a platform that could match the performance of our bare-metal environment.”

Additionally, the service provider sought to improve its developer experience with more responsive provisioning and infrastructure management.

“Developers were requesting a dedicated application server on the virtual machine for each application,” said Nicolas Kaczmarek, Web Application Servers Team Leader at Proximus. “We needed an efficient way to host microservices and looked to container technology for a complete orchestration solution.”

## Creating a flexible, scalable foundation for NFV and microservices with Red Hat

Proximus evaluated several solutions for performance and total cost of ownership before deciding to create its new Telco Cloud NFV solution using Red Hat OpenStack Platform, and Red Hat Ceph Storage. The service provider had previously adopted Red Hat JBoss Enterprise Application Platform and saw Red Hat as a leader in private cloud solutions.

“We found that with some tuning, Red Hat OpenStack Platform could reach much higher performance than other options for the same price,” said Elengesa. “Red Hat OpenShift also met our requirements, and companies with similar needs have used it successfully.”

Red Hat OpenStack Platform provides a modular environment to optimize IT operations for both traditional and cloud-native applications, simplifying delivery through automation and self-service capabilities. To support its NFV storage needs, Proximus deployed Red Hat Ceph Storage, enhanced with Red Hat OpenShift Container Storage.

Proximus uses this platform as a common foundation for both its Telco Cloud NFV and Red Hat OpenShift container workloads. Red Hat OpenShift provides an enterprise container platform that supports transforming monolithic applications into [microservices](#) that can be more easily, iteratively updated.

“The more we can containerize, the better,” said Kaczmarek. “As we evolve to a more cloud-native way of working, our applications become more flexible and we become more agile.”

## **Optimizing costs while meeting service demands faster**

### **Achieved on-demand scalability at 20% lower cost**

Previously, scaling beyond its existing capacity required Proximus to purchase and install custom servers and cabling in its datacenter—an expensive and time-consuming process.

With virtualized network functions (VNF) running on Red Hat OpenStack Platform, Proximus can efficiently scale its voice and data applications as needed, at a 20% lower cost compared to its bare-metal deployment.

“With Red Hat OpenStack Platform, we can scale flexibly according to demand,” said Jan van Hoorick, Network & Service Platform Architect, Proximus Group. “If we have peak activity in one domain, we can allocate computing resources for a particular amount of time, until demand decreases. We can also use commodity servers, which are much more cost-effective than the custom, specialized solution we used before.”

In addition to improved scalability for its service networks, the service provider has achieved similar improvements for its web properties with Red Hat OpenShift.

“Previously, when website demand peaked, we had to provision new hardware, which took a lot of time and effort and sometimes introduced issues,” said Kaczmarek. “With Red Hat OpenShift, we can increase the number of instances in a single step—or even automatically—to sustain peak loads.”

### **Improved developer productivity, saving €30,000 monthly**

Centralizing management of its Telco Cloud has helped Proximus save time on provisioning and administration. Before adopting Red Hat OpenShift, developers had to send a request to the core Telco Cloud team asking them to create virtual machines (VMs). The team then had to install the application server software and configure it to the needs of the developers. With Red Hat OpenShift, the developers can automatically create the IT infrastructure they need themselves based on pre-defined templates as soon as the resources have been allocated to their projects.

“With the central, streamlined provisioning process we’ve created using Red Hat technologies, our developers no longer need to wait for the environments they need,” said Kaczmarek. “These improvements have helped us save €30,000 each month, and developers can bring new services and features that add value for customers to market faster.”

### **Gained expert support for in-depth technology insight and faster troubleshooting**

After initial deployment, Proximus engaged a Red Hat Technical Account Manager (TAM) to help it connect with product and technology experts at Red Hat. The TAM provides the latest updates on new features and roadmaps, as well as direct communication with Red Hat teams for more efficient troubleshooting.

“We’re running services that are critical to our business on Red Hat. For example, if our voice platform goes down, nobody in Belgium can use any IP phone or Proximus network,” said Elengesa. “Working with a Red Hat TAM ensures we have the best possible support from Red Hat and that the software can meet our specific needs as a telco.”

## Building the future of telecommunications

Proximus plans to continue migrating applications and services, such as its television services, to Red Hat OpenShift. The service provider is considering adopting Microsoft Azure Red Hat OpenShift—a high-availability managed solution that is jointly engineered, operated, and supported by Microsoft and Red Hat—to support its future move to a hybrid cloud environment.

It is also using Red Hat technology to support 5G development—a primary area of focus for the industry worldwide. Ericsson, a [Red Hat partner](#), will provide the core network product for this new service, which will run on Red Hat OpenStack Platform.

“As we continue our transformation journey, Red Hat OpenStack Platform and Red Hat OpenShift will continue to play a crucial role,” said van Hoorick. “With Red Hat, we are confident our platform will deliver the performance and stability we need to deliver our new offerings with the high service levels our customers expect.”

## About Proximus Group

Previously known as Belgacom Group and primarily owned by the Belgian government, Proximus Group is Belgium’s largest telecommunications company. IT offers digital services and communication solutions for both personal and business customers in and beyond Belgian markets.



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## About Red Hat



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