

Next-gen HPC Delivers Sustainability, Efficiency, and Lower TCO

A BNP Paribas, atNorth, and Dell Technologies collaboration deploys HPC with 50% less energy usage, 85% less CO2 output, and lower TCO.

Customer profile



HPC and Financial Services | Europe



“BNP Paribas has demonstrated that an environmentally responsible strategy can have both cost benefits and increase solution performance. We are very proud to be a part of the decarbonization journey with them as sustainability is a core mission for the atNorth team”

Gísli Kr.
CCO, atNorth

Business needs

To better serve its customers, BNP Paribas faced exponential infrastructure growth. BNP Paribas worked with atNorth and Dell Technologies to expand responsibly and build a “future-proofed” HPC infrastructure. By moving a portion of their data center operations to Iceland and its renewable energy sources, BNP Paribas lowered TCO, with 50% less energy and 85% less CO2 output.

Business results

- Reduced energy usage by 50%
- Decreased CO2 (carbon dioxide) output by 85%
- Transitioned to 100% renewable energy
- Increased power efficiency at higher compute density
- Lowered TCO (total cost of ownership)
- Adopted “future-proof,” environmentally responsible HPC

Solutions at a glance

- atNorth, in collaboration with Dell Technologies, provides BNP Paribas with a state-of-the-art Infrastructure as a service solution.
- The infrastructure, including Dell PowerEdge servers, is hosted in atNorth’s ultra-power-efficient data center facilities in Iceland
- The infrastructure is powered only with renewable energy that dwarfs the carbon effect of the solution

BNP Paribas has a bold purpose: “We are at the service of our clients and the world we live in.” A recent technology pivot shows that BNP Paribas is a vigilant keeper of that mission and its two, often-divergent directions. To deliver more value to its customers and fuel emerging HPC needs, BNP Paribas required exponential infrastructure growth. In keeping with its mission, BNP Paribas sought environmentally responsible options to “future-proof” its technology. Adoption of a novel high performance computing (HPC) approach has reduced energy consumption by 50%, decreased CO2 emissions by 85%, and moved 100% of energy supply to renewable generation.

BNP Paribas, in collaboration with atNorth and Dell Technologies, tailor-designed an HPC infrastructure using Dell Technologies solutions. The cluster is housed in one of atNorth’s colocation data centers in Iceland and deployed as-a-service for BNP Paribas. Through novel design approaches, the atNorth data centers are very economical, energy-efficient and powered by 100% renewable energy sources.

Headquartered in France, BNP Paribas serves customers in over 65 countries and is the top bank in the European Union. As a purpose-driven company, BNP Paribas prioritizes its mission as a bank and as a company committed to meeting environmental and social challenges. Its recent data center transition is evidence of BNP Paribas’ commendable commitment.



“By using only renewable energy sources and decreasing our carbon footprint 85%, BNP Paribas is realizing its dual mission to reduce its environmental impact and better serve our customers.”

Ricardo Jantarada

Global Head of Telecom & Datacenter at BNP Paribas

Green means cost-efficient: 50% less energy

The financial services industry is transforming rapidly as HPC ushers in novel capabilities. HPC is a tool that can analyze massive amounts of data to extract insights, expand services for customers, and mitigate security threats. At the same time, HPC requires a large physical footprint and big supply of energy to manage the speed and volume of hefty computations.

atNorth, however, has recast some of HPC’s traditional parameters. The company has a unique approach to carbon-neutral data centers that reduce energy waste, minimize environmental impact, and operate cost-effectively. The result is high power density compute delivered economically with the least environmental effect.

atNorth’s three locations deploy three practices to enable future-focused data centers:

1. Use 100% renewable energy sources to power data centers.
2. Leverage natural air-cooling systems that optimize data center temperature and humidity while minimizing energy costs.
3. Employ a team of experts on-site to help optimize every customer application.

85% reduction in carbon emissions

In addition to saving on energy usage, BNP Paribas’s deployment with atNorth generated an 85% reduction in CO2 emission. Concurrently, this significant decrease bolsters BNP Paribas’ capabilities, enhancing service to its customers, and lowering TCO. The new HPC data center provides increased power efficiency at higher compute density.

“Having atNorth construct and manage our HPC cluster infrastructure, which is built on Dell Technologies custom-designed infrastructure, has been transformational. Through atNorth’s innovative data center design, we have reduced our energy consumption by 50% due to the transition of our in-house data center to atNorth’s sustainable facility,” shared Ricardo Jantarada, Global Head of Telecom & Datacenter at BNP Paribas CIB. “By using only renewable energy sources and decreasing our carbon footprint 85%, BNP Paribas is realizing its dual mission to reduce its environmental impact and better serve our customers.”

“BNP Paribas has demonstrated that environmentally responsible strategy can have both cost benefits and increase solution performance and we are very proud to be a part of that journey to decarbonization with them as sustainability is a core mission for the atNorth team,” shared Gísli Kr. CCO, atNorth.

atNorth Collaboration with Dell Technologies

The atNorth and Dell Technologies collaboration is catalyzing powerful outcomes for customers such as BNP Paribas. atNorth helps companies with big compute needs make those deployments future-proof. That “proof” includes economic reasons (costs, regulatory compliance) and also environmental reasons.

Dell Technologies and atNorth share a commitment to customer-centricity. In the case of BNP Paribas, Dell Technologies conducted a thorough analysis of customer needs and used creative ways to address BNP Paribas’ pain points with infrastructure solutions. Customer-centricity together with proven, innovative approaches to HPC, underpin the success of the atNorth and Dell Technologies collaboration.

“Dell Technologies’ ability to deeply understand customer needs and then innovatively meet them, is a stand-out quality that is extremely beneficial to our organization and our customers’ organizations. A shining example of that is our shared success in helping BNP Paribas enhance service to its customers via HPC, while also reducing TCO and environmental impact,” said Gísli Kr. CCO, atNorth.



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