beSharp. we make IT run. | Nital

Made in Italy Delivered at the speed of the cloud.

Nital S.p.A is the official distributor for Italy of brands such as Nikon, iRobot, Polaroid, and other innovative and technologically advanced brands. Located in a modern and eco-sustainable building in the industrial center of Moncalieri, the company's mission is to import technology, innovation, and new global trends to make them available to the **Italian market** through the distribution of hundreds of **technologically advanced products**.

THE NEED

As the traffic started to grow, along with the on-premise management complexity, the need for a more agile infrastructure arose. The customer started evaluating a Cloud Adoption Strategy for migrating all the **business-critical** and **highly latency-sensitive** applications such as stack lamp, e-commerce, Business Intelligence databases, and big data analysis services. Nital required a workmanlike architecture, designed to simplify maintenance and provisioning of resources and keep content delivery fast. Due to excessive query resolution times, the Irish Region proved to be inadequate. beSharp proposed to Nital the **migration of all services on the newly formed AWS Region of Milan** through Refactoring / Re-architecting of the architecture.

THE CHALLENGE

- Migrate the whole infrastructure in use to the AWS Cloud while continuing to **meet both the territorial and the low-latency constraints** resulting from moving resources outside the internal network.

- Design the new infrastructure for **High Availability** to make it always available and resistant to any breakdown or failure.

- Simplify the infrastructure's management, make the infrastructure **scalable**, and improve the performance of both internal and public-facing services.

THE SOLUTION

- Migration of all resources to the new Italian Region and improved latency times through advanced resources and infrastructure configurations: the **Amazon CloudFront** CDN allowed a very low-latency distribution of content, particularly for e-commerce and static assets of public-facing sites. With the **Amazon Route53** high-performance DNS service's customized routing policies, it was also possible to set up an Advanced Latencing Routing system, further lowering response times.

- **Multi-AZ** design for high availability and definition of **Autoscaling** policies allowed the automatic provisioning of resources based on traffic spikes or server failures. Effective balancing of HTTP and HTTPS traffic and advanced routing of requests through **Load Balancing** systems ensured fault tolerance, scalability, and security. By setting up an automatic **Amazon S3**-based full backup system, it was then possible to implement a Disaster Recovery plan and obtain resiliency and high performance. The entire networking stack was built leveraging the **Amazon VPC** service.

- Creation of an infrastructure optimized for performance and costs by leveraging fully-managed, highly available and rapidly instantiable services: **Amazon EC2** for computing, the high-performance relational databases **Amazon RDS** and **Amazon Aurora** equipped with PostgreSQL and MySQL and **AWS Lambda** used as a trigger for the setup of automatisms such as instance scheduling, event-driven infrastructure tuning, as well as for the provision of scalable and responsive APIs.

THE BENEFITS

- Taking advantage of the proximity of the new AWS Region of Milan both to the physical headquarters of the company and Italian customers, Nital has managed to improve its offer and user experience at the same time and gained competitiveness on other e-shops and competitors. The new ultra-low latency Cloud infrastructure has cut query resolution times by 90%: **40 milliseconds turned to just 5 milliseconds**. Furthermore, no legal adjustment is required for the new infrastructure, as Italian Region undergoes national regulations regarding governance and compliance.

- Migrating to the Cloud allowed Nital to overcome the rigidity of the old legacy infrastructure. The new agile, scalable and High Available infrastructure can now adapt to workloads of any size and resist any accidents. In this way, Nital technicians have **minimized manual maintenance interventions** and **eliminated the downtime** of their services. Thanks to the security, durability of the data, and the advantageous cost of storage on the Cloud, Nital has implemented an **automatic full backup system** without worrying about the amount of data to keep.

- Moving away from on-premise relieved Nital's IT of too complex infrastructure management. The automatic instant provisioning of resources and the **Serverless** paradigm's introduction for the event-driven allowed technicians to automate most of the activities, **increasing performance** and **halving management costs**.
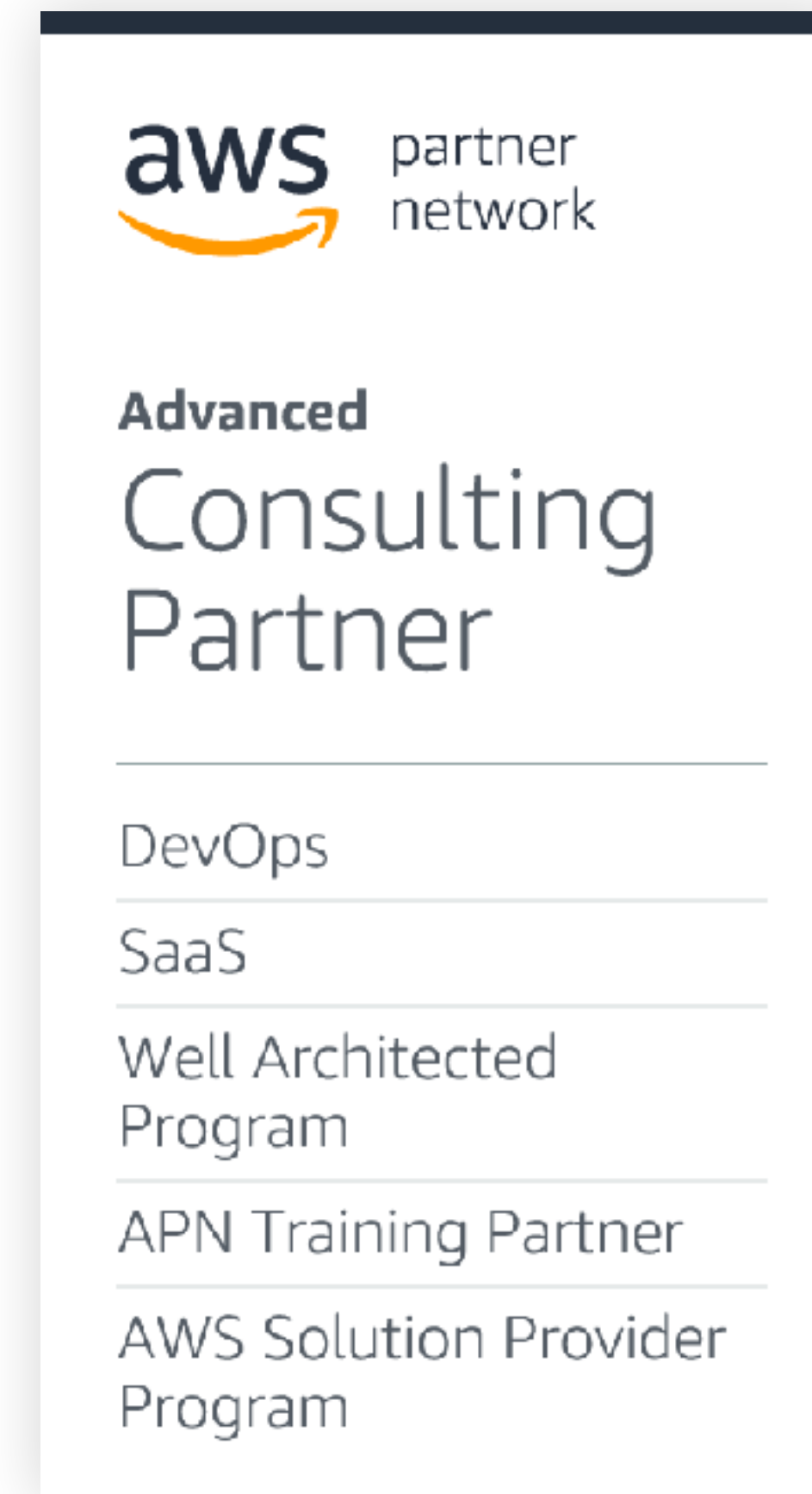
"Just like our team, beSharp is led by innovation.
Partnering up with beSharp allowed us to turn our IT
constraints into an opportunity for growth."

Alan Girard

IT Manager @Nital

ABOUT BESHARP

Nital has chosen beSharp as **Featured Partner for the AWS Region in Italy**, to design and implement the migration of the on-premise infrastructure to the first and unique point of presence of Amazon Web Services in Italy. After the initial feasibility assessment in the light of the expected results in terms of latency, territorial constraints, and services already available in the new Region, the beSharp Cloud Experts successfully refactored the infrastructure according to the **AWS Well-Architected Framework**. The **on-the-job training** approach adopted by beSharp has made Nital's technical team independent in managing, maintaining, and updating the infrastructure.

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Advanced

Consulting Partner

DevOps

SaaS

Well Architected Program

APN Training Partner

AWS Solution Provider Program

aws 50 certified

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