

Customer Success Story: The Hardis Group

IT Transformation Drives Data Center Networking Conversion to Cloud-Style Networking from Arista

Technology infrastructure architects redesign a network for SaaS based product transitions

The Hardis Group, a service digitization and IT transformation company based in France, with offices in four countries, offers B2B logistics and warehouse supply-chain management software and IT consulting services. The company prides itself on being innovative, leading edge, and a trusted business advisor to its customers. To remain a leader in the market, Hardis decided to pivot from selling on-premises software and services to offering cloudbased subscriptions (software as a service). SaaS is fast becoming customers' preferred consumption approach for Hardis's popular logistics software. The transformation over to SaaS required a re-engineering of the Hardis Group data center infrastructure.

Offering their software as a subscription services, where the server components operated within their own data center, required new technologies including virtualization, multi-tenancy security, scale-out capacity, and multi-tenant onboarding configuration automation. In short, the Hardis data center needed to embrace many core cloud principles.

Putting Expertise to Work

As technology transformation specialists themselves, the Hardis leaders knew they needed a more agile networking approach because any new subscriptions sold required new tenant networks that the revenue teams had to configure from their customer subscription portal. The solution needed to ensure tight security controls between internal resources and newly added external user communities. Misconfiguration was not an option. Moreover, the network operators needed to easily trace and troubleshoot problems, with best-in-class mean time to resolution. Any outage would impact their customers directly and require mitigation wherever possible.

The Hardis networking team had years of experience working with chassis-based data center switches, three-tier architecture, Layer 2/3 protocols, VLANs, CLI-driven configuration, automation scripts, and many third-party tools that help manage daily operation tasks. The well-seasoned staff saw the switch itself as a common denominator among the known network technologies.

Hardis Group Solution at a Glance

Solution

- Leaf-spine networking architecture
- 50 server racks, with 700 physical servers
- Redundant ToR switches in every rack
- Dell Open Networking Switches
- Converged Cloud Fabric (CCF)
- "Excellent" collaborative support from Dell and Arista Networks

Results

- Scalable network resources for business growth
 - 5000 virtual machines in production
 - More than 250 external tenants
- Automated provisioning of customer tenants
- Self-service portal for revenue teams for speedy onboarding
- Clear evidence for converting a second data center
- First-person expertise in converting to SDN to share with clients



Every switch in the market offered the same wire-rate performance, the same 1/10/25/40/100 Gbps port-density options, and the same hot swappable power supply and fan replacement features—especially the 1RU and 2RU ones. Moreover, every switch came with multi-tenant isolation, including both VLANs and VXLANs.

The hardware commonality allowed the project team to focus on comparing software features. A bad call on software architecture could have led to disaster while Hardis scaled up its SaaS business in Europe. The planners knew that they could not keep up with anticipated growth if they had to continue adding each new customer manually. Customer onboarding had to be automated. And secure. And accessible to the revenue teams. Neither a CLI nor a script approach would scale.

Given that scalability requirement, the project team decided to evaluate offerings with a software controller and a set of welldefined APIs to easily program inbound configuration requests from the customer onboarding portal. The planners knew they needed a solution with the control plane fully abstracted from the data plane. The control plane can offload many day-to-day operations tasks by automating all port and switch configuration for:

- Adding new servers
- Rolling out patches or upgrades
- Solving connectivity issues by running trace commands
- Configuring and managing the network as one logical fabric

Choosing the Future

The Hardis team evaluated software-defined controller approaches from several data center networking vendors in addition to Arista Networks. Based on simplicity, ease of deployment, the number of operations tasks automated, and other factors, the evaluators chose the CCF solution. By comparison, other offerings were more complex to install and get working. Compared to CCF, the alternatives also fell short in integration, including how well the APIs were integrated with their virtualization platforms.

Based on two years of successful operation with CCF, the Hardis Group is planning another data center project with Arista Networks CCF technologies.

In addition, the group now intends to consult with enterprise clients in Europe on how to replicate their success. Recognizing that many clients cling to the networking status quo, the consultants now can leverage the firm's own experience to help clients modernize their network infrastructures

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