

# Using Cisco ACI and Red Hat OpenShift to “automate everything”



Runtastic · Size: 245 employees · Industry: Health and fitness · Location: Linz, Austria

Runtastic, an Austrian company founded in 2009 and a leader in the digital health and fitness market, provides mobile applications focused on running and bodyweight training as well as curated expert content. The company aims to offer the best possible running and training experience and motivate its 140+ million registered users to get in shape and embrace a healthy lifestyle. In August 2015, [Runtastic](#) was acquired by adidas to support the development of the parent company’s digital strategy.

## Challenges

- Simplify infrastructure management and scaling
- Increase the speed of service delivery
- Align infrastructure, applications, and security operations

## Solutions

- Cisco® Application Centric Infrastructure (Cisco ACI™)
- Red Hat OpenShift

## Results

- Automated the entire network stack
- Integrated infrastructure systems with open source development tools
- Streamlined development processes with self-service provisioning

## For more information

- [Cisco ACI](#)
- [Cisco ACI and OpenShift integration](#)
- [Cisco ACI and Kubernetes integration](#)



## Challenge: Increase the speed and scale of IT delivery

When Runtastic was acquired by adidas in 2015, the fast-growing European startup instantly became a prominent player in the global fitness app market. Today, Runtastic supports more than 140 million registered users and experiences 150,000 new downloads every day.

“The acquisition brought more awareness, more opportunity, and more pressure,” says Andreas Kurz, infrastructure engineer at Runtastic. “We soon realized that we would need to scale our infrastructure to support more users and speed up our development processes to deliver new features much faster.”

The company’s IT team relocated its data center in 2016 and decided to “automate everything,” starting with the network stack. They chose Cisco ACI, the world’s leading software-defined networking (SDN) solution, largely because of its automation and integration capabilities.

“ACI was perfect for us,” Kurz says. “It allowed us to automate the whole network stack, it integrates with open source technologies like Terraform, Kubernetes, and Ansible, and it unifies network operations for bare metal, virtual, and container workloads.”

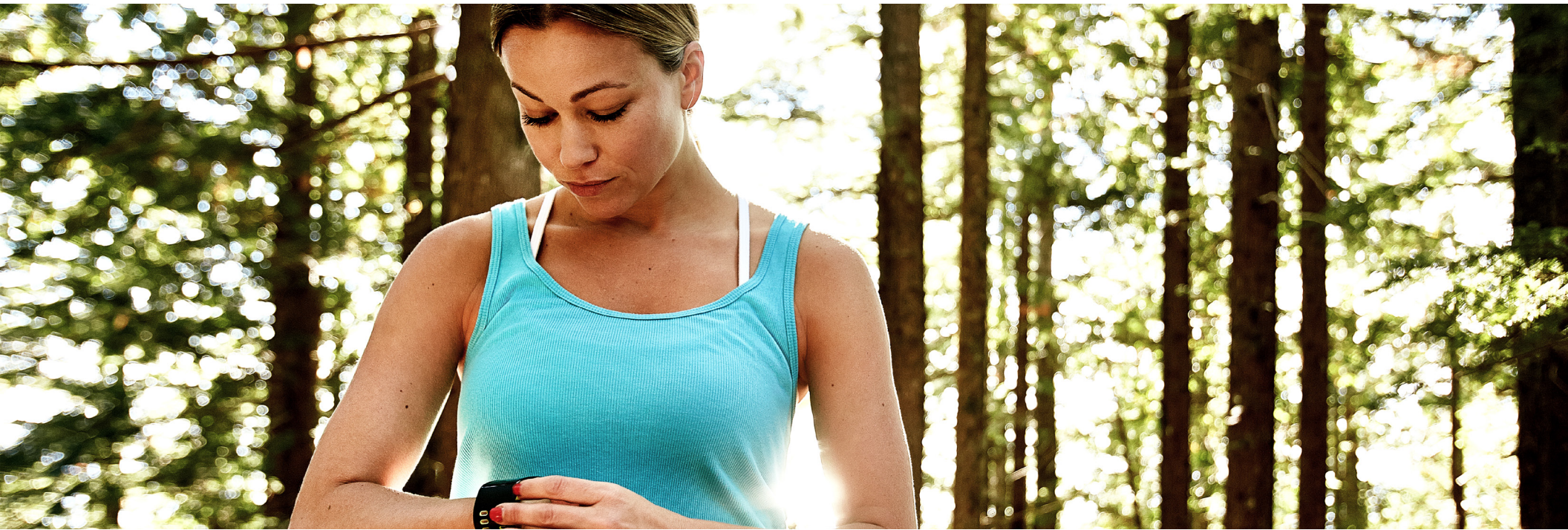


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### Andreas Kurz

Infrastructure Engineer, Runtastic





## Extending network automation to DevOps practices

Using Cisco ACI, Runtastic simplified and standardized its network operations. It automated the configuration and deployment of bare metal, virtual machines, and containers. And it segmented its network into endpoint groups (EPGs) that isolate and protect its applications as well as its tenants.

“Everything is more centralized with ACI,” Kurz explains. “It has given us a singular view, a consistent policy model, and automation across our legacy, virtual, and container environments.”

Integrating and automating backend infrastructure operations was only the first step. Runtastic is now doing the same with its development processes.

“We’re moving to a DevOps model and dividing our applications into container-based microservices,” says Kurz. “We started building our own continuous integration pipeline based on VMs, but the maturity of OpenShift and its integration with Cisco ACI convinced us to change course.”

Runtastic is using the new Cisco ACI Container Network Interface (CNI) plugin for OpenShift to align its agile development practices with its highly automated network operations. The plugin eliminates management bottlenecks between application and infrastructure teams and simplifies OpenShift container deployments for both development and production workloads.

“With the plugin, the Kubernetes workloads in our OpenShift cluster become fabric endpoints,” Kurz explains, “and ACI supports all of their networking needs just like it would any other VM or bare metal endpoint.”



## Aligning infrastructure, applications, and security

According to Kurz, the new infrastructure has improved technology operations and created better alignment between functional teams.

“We now have a common framework, view, and language for managing infrastructure, applications, and security,” he says. “We can see how containers are connected to infrastructure resources, we can share the same policies and contracts, and we no longer have to monitor and correlate information from different systems.”

Eliminating operational silos has also increased the speed of development and spawned new self-service possibilities. Runtastic developers can now deploy resource-efficient containers and test new services in a sandbox using prebuilt contracts and policies that will follow the services into production. The developers have even created an automated bot that triggers the configuration and deployment of a complete development environment with more than 100 containers. The entire process takes less than 10 minutes.

“The developers are happy because they have more freedom and don’t have to rely on the operations team to get their job done,” Kurz says. “And we’re happy because we can maintain control of security, connectivity, and governance policies.”

## Looking ahead

With its infrastructure systems and development processes now integrated and largely automated, Runtastic is finding new ways to increase the speed and scale of its business.

The company’s IT staff is doubling down on container-based microservices, pushing all of their VMs to an OpenShift cluster. They are exploring dynamic scaling and resource utilization, dedicating more resources for weekday testing purposes, and then freeing up

those resources during weekends when app downloads and user activity spike. And they plan to expand their IT footprint, leveraging the infrastructure and policy standards they have recently established.

“With ACI, OpenShift, Terraform, and Ansible,” says Kurz, “we have all we need to automate everything.”

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**Andreas Kurz**  
Infrastructure Engineer, Runtastic