Academic Research
Germany

Accelerating analysis of satellite data to support flood warning systems and save lives.

EODC Earth Observation Data Centre

AMD

Solution components Hardware

- Lenovo ThinkSystem SR635 powered by AMD EPYC™ 7702P processors with 64 cores

Software

- Lenovo XClarity Controller with Redfish compliant API
- OpenStack
- Ansible Community
- Ceph Storage
- Red Hat Enterprise Linux

Services

- Lenovo Preconfigured Support
- EDV-Design Informationstechnologie GmbH

The EODC Earth Observation Data Centre for Water Resources Monitoring GmbH (EODC), based in Vienna, Austria, operates the Global Flood Monitoring (GFM) service— a Copernicus Emergency Management Service product, which provides a continuous global, systematic monitoring of flood events, with significantly enhanced timeliness of flood maps for emergency response activities. EODC manages 20 PB of satellite data to support global and automated monitoring of all land surface areas. To increase availability and speed up its time-critical information services, EODC worked with Lenovo partner EDV-Design to deploy 17 Lenovo ThinkSystem SR635 servers, equipped with powerful AMD EPYC™ 7702P processors with 64 cores, to run its OpenStack cloud computing and Ceph storage environment. Building on Infrastructure as Code (IaC) and containerization, EODC integrated its processes with Lenovo XClarity APIs and streamlined the management of its cloud platform, leading to 30x faster deployments. With Lenovo and AMD technology, EODC boosted its core density per rack unit by more than 3x and accelerated satellite data acquisition by 50%. As a result, EODC contributes to timely action in response to ongoing flood events.

> “Thanks to Lenovo, AMD, and EDV-Design, we can now deliver essential flood information even faster and more reliably to our global users. The highly automated and cost-efficient solution is a huge step forward for us.”

EDV-DESIGN integration at work | eodc

Tom Clark,
Head of IT Architecture and Operations, EODC

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