

DWD Case Study

Every Second Counts in Weather Forecasting

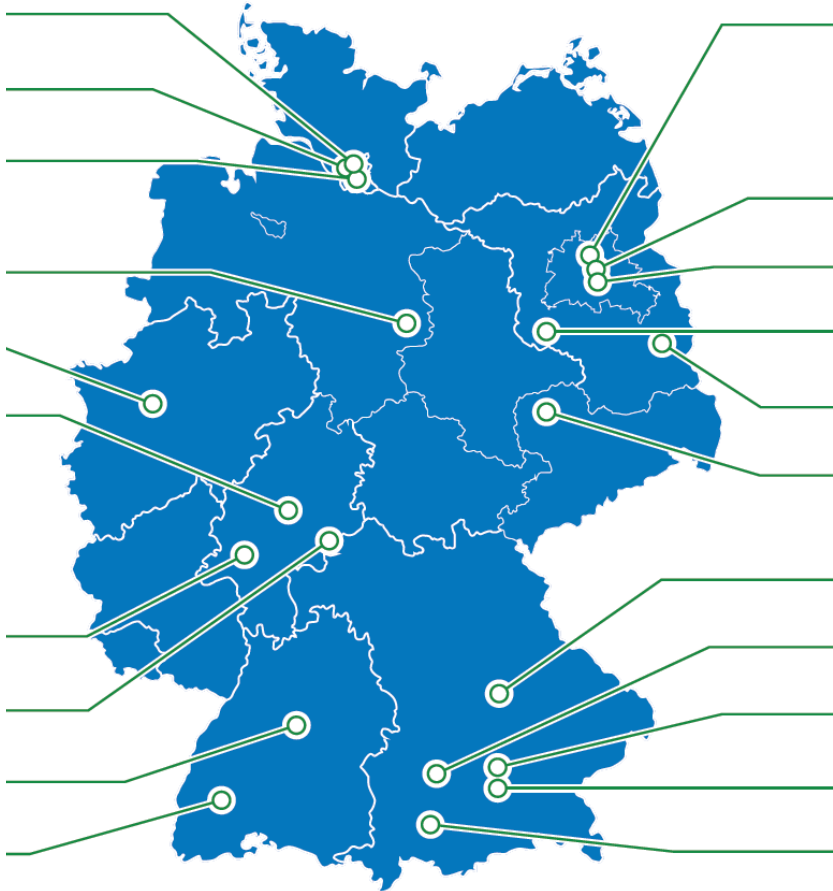
Flash Memory Summit, Enterprise Applications Case Study Track

Lee Caswell, VP Product Marketing, NetApp



DWD is Germany's National Meteorological Service

Deutscher Wetterdienst
Wetter und Klima aus einer Hand



Public safety for extreme weather conditions

- Airline, shipping, and railway businesses rely on DWD weather forecasts
- Real-time results can preclude serious property damage – even loss of life
- 8PB and 164 storage systems across 21 sites

The Challenge – A Perfect Data Storm



“Imagine that you’re waiting 15 seconds, and look at your watch. It’s a very long time—particularly when someone’s life is in danger.”

- Alexander Harth, DWD

Massive data feeds

- 2,000 measuring stations
- 200 international data sources
- 17 radar systems

Complex forecast modeling environment

- NinJo proprietary weather visualization application
- Oracle database for radar and satellite data
- Fast results critical for search-and-rescue pilots

The Solution – 15X Faster Response Time with NetApp AFF



“We are now able to provide features that forecasters had been requesting for a long, long time”

- **Hans-Joachim Koppert, DWD**

Solution

- NetApp® all-flash AFF for enterprise-grade performance
- NetApp hybrid FAS for capacity apps
- NetApp disk E-Series for HPC

AFF Performance Results

- Reduced forecast time from 15 seconds to 1 second
- Enabled ad hoc visualization of sophisticated weather scenarios
- Improved accuracy of weather forecasts and warnings

Enterprise-Grade Features

- No flash silos
- Non-disruptive operations
- Integrated application support and data protection

Flash success requires more than performance



Alexander Harth
Head of User Support Division, DWD

“When it came time to select a flash vendor, we knew that NetApp could deliver more than just speed. We could count on NetApp to deliver the data our customers need whenever they need it.”

Thank you

