



## CASE STUDY

AWE innovates computational program that supports the UK's nuclear defense strategy with the help of Spectra Logic



High performance computing is a critical underpinning technology in the vast majority of our science-based program. These new Spectra Logic tape libraries provide more storage capacity in less space than our previous libraries.

Paul Tomlinson,  
High Performance Computing,  
AWE



## CHALLENGE

AWE operates some of the world's largest computers, including a supercomputer performing over 7.4 thousand trillion calculations per second. Under the Comprehensive Nuclear Test Ban Treaty, AWE relies on computational methods to ensure stockpile safety. Their work supports counterterrorism and innovations in healthcare and transport. AWE's irreplaceable data must be preserved indefinitely. After Oracle® downsized its SL8500 tape portfolio, AWE sought scalable replacements to support T10K drives, integrate LTO-9 technology, and work with software like IBM® Spectrum Protect, Oracle HSM, and Veritas NetBackup.

## SOLUTION

AWE deployed two Spectra® TFinity® ExaScale Tape Libraries with LTO-8 drives and media, implementing a disaster recovery plan with full data redundancy. The libraries support their existing software and are compatible with LTO, IBM TS11XX, and Oracle T10000x tape technologies, allowing AWE to migrate Oracle T10000x media into the Spectra infrastructure and transition to LTO technology.

The TFinity also features Spectra Swarm, enabling Ethernet and iSCSI connectivity, integrating seamlessly with modern data center infrastructure. Spectra's LTO media pre-purchase program ensures AWE can upgrade to future LTO generations at no extra cost.

## AT A GLANCE

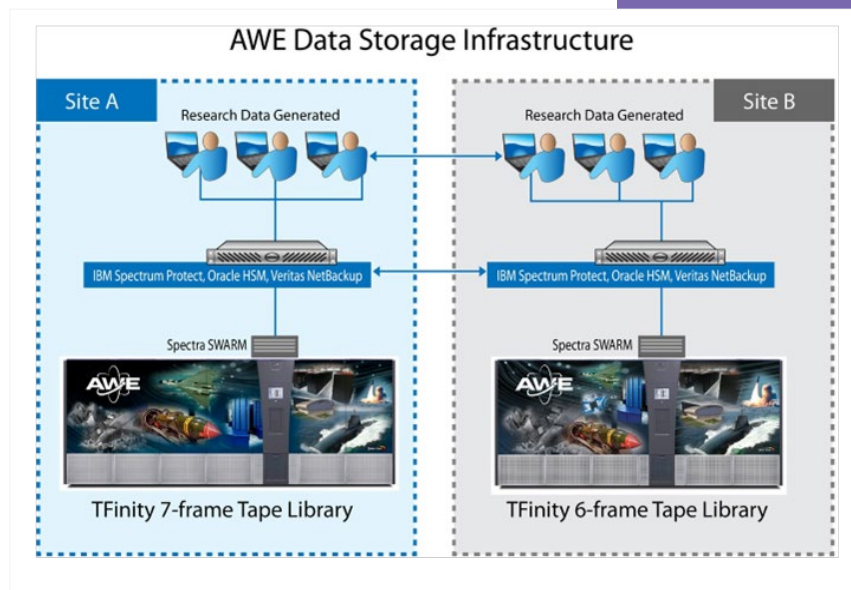
### Challenges

- Indefinite data retention
- Oracle library downsizing
- Tape drive compatibility
- Scalable future solutions

### Solution

- Deploy TFinity libraries
- Ensure full data redundancy
- Enable tri-media compatibility
- Pre-purchase LTO upgrades





Storage Workflow Diagram for AWE

## AWE'S ENVIRONMENT

## SOLUTION INFORMATION

**TFinity ExaScale Tape Library** – With unsurpassed storage density packaged in the smallest footprint of any enterprise library on the market, the Spectra TFinity ExaScale offers industry-leading scalability with the speed necessary to meet requirements of the most demanding environments. Deployed by some of the most recognized organizations in the world, the Spectra TFinity ExaScale provides maximum flexibility by allowing you to select the tape technology that is the perfect fit for your business. In addition to LTO tape technology, the Spectra TFinity Exascale is also compatible with IBM TS11X0 enterprise tape technology and Oracle T10000x enterprise tape technology, enabling all three in the same library.

The library's modern design provides a tape archive and backup solution to fully meet the needs of the Enterprise IT, federal government, high performance computing, and media and entertainment markets.

### Why AWE Chose Spectra:

- Spectra Swarm for Ethernet-based connectivity
- Tri-media configuration ensures compatibility with Oracle T10000x enterprise tape technology
- LTO media pre-purchase program
- Commercially competitive

## ENVIRONMENT

- 6-frame Spectra TFinity ExaScale Tape Library
- 7-frame Spectra TFinity ExaScale Tape Library with LTO-8 and Oracle T10K tape drives
- BlueScale® Software with standard encryption

## ABOUT AWE

For almost 70 years, AWE has supported the UK government's nuclear defense strategy and the "Continuous At Sea Deterrent." The UK Ministry of Defense has responsibility for the program at AWE, which is operated under contract by AWE Management Limited. AWE uses their nuclear know-how and technical expertise to provide innovative solutions that support the UK's counter-terrorism and nuclear threat reduction activities.