Intel + Dell + Tracewell + Red Hat

Delivering the Next Generation of Hyper-Converged, Software-Defined Storage Platforms

US Department of Defense agencies are transforming how they use information technology to support their mission requirements. Traditional IT – with its separate server, networking and storage hardware – is giving way to a new era in hyper-converged computing featuring software-defined storage systems.

DOD agencies recognize this new hyper-converged future delivers significant improvements in their size, weight, power and cooling requirements, making it possible to deploy integrated systems that offer increased computing power, greater flexibility, less cost and easier system management – all with fewer technical specialist resources. For example, a hyper-converged, software-defined storage solution for one organization has the potential to reduce the number of mobile transit cases from six separate units to a single, mobile ground system.

Solution Overview

Tracewell Systems teamed with Intel, Dell and Red Hat to create the T-FX2e – an integrated compute and storage platform that is electrically identical to the Dell FX2 platform but adds form factor changes and additional storage capacity to deliver the benefits of hyper-converged computing and software-defined storage to DOD agencies that require mission support for the data center, space-constrained environments and "beyond the back office" forward deployed solutions.

Red Hat Gluster Storage, Virtualization
Tracewell Systems T-FX2e
Dell FX Architecture

RED HAT: SIMPLE, STABLE, RUGGED

Solutions that are simple: Red Hat simplifies the acquisition of compute and storage by delivering a single consumable software-defined package. With Red Hat it is no longer necessary to go to different propriety vendors for their unique single face solution. **Solutions that are stable:** Red Hat has a proven track record in the defense industry, from software co-developed by classified agencies to cloud platforms that provide software-driven compute and storage functions. **Solutions that are rugged:** Red Hat is simple to deploy and combines compute and storage delivering an open solution for convergence that works in a wide range of rugged and forward deployed environments.

THE T-FX2e FORM FACTOR

Based on the Dell FX architecture – and primed to deliver the future of hyper-converged computing and software-defined storage. Platform optimized to run Red Hat solutions for software-defined storage.

THE DELL FX ARCHITECTURE

Features a converged design with servers, networking and storage in one complete system. Flexible footprint with simplified management tools.

Tracewell T-FX2e

Dell's PowerEdge FX – with a converged design featuring servers, networking, storage and management tools in one complete system – has been hailed by Forrester Research as "a bold new computing architecture." Tracewell Systems makes it possible to deploy Dell's powerful FX architecture "beyond the back office," in settings where standard systems are not designed to operate. The T-FX2e was designed from the ground up to enable the next generation of hyper-converged, storage-intensive applications and has been optimized for a wide range of software-defined workloads, such as virtual desktop infrastructure (VDI).

FULLY COMPATIBLE
Features Dell FX compute, networking, storage and systems management.

MAXIMUM CAPACITY
Fully configured system supports up to 144 processor cores (288 hyper-thread), 80TB of raw storage, hybrid SSD/HDD for maximum performance at lower cost, over 3TB of DDR4 RAM and redundant L2/L3 internal 10GB switch modules.

EASILY ADAPTED
Can be customized to meet specific field mission and program requirements.

EXTENDS STORAGE CAPACITY
Adds an additional 8 drives per Dell PowerEdge FC630 (half-width) server block – offering greater density than rack-and-stack systems.

OPTIMIZED FOR LIMITED SPACE
Features a short-depth platform of 23.7" (height: 4U).

INCREASED EFFICIENCY
Features increased cooling, lighter weight and less power consumption than standard Dell FX2 systems.

SECURE SUPPLY CHAIN / TAA

ABOUT TRACEWELL SYSTEMS
Tracewell's T-FX2 family of products, based on Dell PowerEdge FX, represents the company's fourth generation of blade-based systems engineered to deliver high-performance computing in a form factor designed for forward deployment in space-constrained environments, such as in the air, at sea or on land, in unique fixed or mobile installations. The company has a 40-year history of enabling the nation's largest military and commercial organizations to deliver powerful and reliable computing solutions in environments where size, weight, power and other constraints present challenges that cannot be met by standard computing systems. Tracewell Systems has become recognized by the top names in the defense and technology sectors for their commitment to Trusted Innovation – a process where the company solves previously impossible, sensitive, mission-critical platform challenges through custom solution design, engineering and manufacturing, all under one roof. For more information, www.tracewell.com.

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