



mdc business
management
services

A Mubadala Company



CASE STUDY

Driving Faster, Better Decisions to Grow Asset Base

HUGE

Savings in total cost of
ownership

UP TO 90%

Reduction in power
consumption

SAVING

Up to AED 2 million per year
through consolidation

“ Our investment in Pure Storage is rooted in our recognition that we now live in a digital world. Timely, accurate information and the confidence in the safety and security of that information are vital.”

MANSOOR ALMARZOOQI
CIO, MDC BMS

Nalluri Subba Rao, Senior Vice President of Infrastructure and Operations at MDC BMS, sees storage as the backbone of the company's offerings. The company standardized its block storage on Pure Storage FlashArray to reduce TCO, focus IT resources on business-oriented tasks rather than storage management, and improve application performance.

Enhancing Performance and Simplifying Maintenance

Abu Dhabi's success story has become a legend worldwide, and a linchpin of the present-day prosperity of the United Arab Emirates. The vision of the late Sheikh Zayed bin Sultan Al Nahyan, founding father of the UAE and Ruler of Abu Dhabi until 2004, was a future for his people full of opportunity and innovation.

Mubadala Investment Company has played a starring role in fulfilling that ambition, accelerating the emirate's economic growth through laser-focused deployment of capital in 15 global sectors in 30 countries. With assets totaling US\$226 billion, its broad portfolio permeates sectors from aerospace and healthcare to real estate and Information and Communication Technology (ICT).

A shared services company, MDC Business Management Services (MDC BMS) provides support in IT, Finance, Procurement, Facility Management and HR for the larger Mubadala Group, Abu Dhabi's premier strategic investment company. MDC BMS provides expertise in several fields—with a strong focus on ICT—to the Mubadala Group and external clients.

To support Mubadala Group and external clients, MDC BMS runs 16 applications on 1,500 virtual servers, all on the same storage architecture. Each is mission-critical and performance-intensive, so each requires reactive speed. "Storage plays a vital role in any services you provide," says Rao, an 11-year veteran of Mubadala. "Servers and analytics rely on storage; the performance of apps, the replication of data into your disaster-recovery center, your security—all rely on storage."

Previously, the team faced several major challenges in delivering optimal performance to Mubadala and non-Mubadala clients. "We had multiple disk-based storage solutions," he explains. "We managed seven storage arrays from multiple vendors, which ran to around seven racks, with a high TCO."

Technical personnel had to schedule extended downtime periods for patching, fixing, and upgrading. The high rack space was also becoming an issue, and performance of the overall ICT infrastructure was sub-optimal.

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NALLURI SUBBA RAO

SENIOR VICE PRESIDENT OF INFRASTRUCTURE AND OPERATIONS, MDC BMS

Reducing Rack Space and Total Cost of Ownership (TCO)

To overcome these constraints on business efficiency and futureproof the infrastructure—not only for MDC BMS, but for the entire Mubadala Group and its clients—the team sought a solution that could deliver easier day-to-day management, reduced rack space and market-leading IOPS.

MDC BMS selected Pure Storage FlashArray products to cover production, non-production, disaster recovery and remote-sites operations. FlashArray//X is the world's first all-flash, 100%-NVMe, shared, accelerated storage designed for mainstream enterprise deployments, and optimized for performance and density.



“With Pure Storage we managed to reduce our rack space to 1/7RU,” Rao says. “Not only that, but the TCO has been reduced, compared with our management of the seven storage systems and their associated upgrades and support.”

Rao was struck by the ease of deployment for the Pure Storage FlashArray//X solution: “With other storage vendors, it takes a minimum of a month to complete implementation, and sometimes up to two or three months. We completed this project, including patch upgrades, the migration of close to 400 TB of data and around 280 TB of disaster- recovery replication, in a single week—something that I would never have thought would be possible! Another advantage of Pure is its solutions don’t require a lot of training. Pure Storage technical resources was on site for the first two days, for protocol reasons, but after that the hardware and software were so simple, our internal team managed the rest of the implementation.”

A further benefit of the Pure Storage solution that became apparent to MDC BMS was the ease with which it could be maintained. Through the Pure1 monitoring tool, the MDC BMS team can oversee the entire infrastructure from a single point, receiving rich views and alerts in real time. Upgrades, described by Rao as “a nightmare and a black box” with other vendors, were also simplified with FlashArray//X.

“We normally need to really plan upgrades and involve the vendor, and rely on them to complete it, which is a very tense time for us,” he recalls. “With Pure Storage, not so.”

An all-flash storage architecture has also enabled MDC BMS to achieve sub-millisecond latency for all its critical apps. The company previously relied on server memory to enhance app performance, but FlashArray//X can now fulfill this need. In addition, with Pure Storage, the MDC BMS team can provision storage for new apps in just a few seconds, as opposed to the days it would take with the legacy storage infrastructure. This is ultimately helping Mubadala employees that use these business-critical applications to make better, faster real time decisions.

“Another point worth noting is that, with our legacy storage, we were facing major performance issues in pre-production,” he adds, “but now, non-production, pre-production, and production environments are all run on Pure Storage, so all environments get the same benefits as production. This allows IT to get a very accurate feel for how well apps will work in production.”

“ Because of the dedication and innovation of Pure Storage, and our own team, we can make faster, better decisions that ultimately allow us to grow our asset base.”

MANSOOR ALMARZOOQI
CIO, MDC BMS



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Through deduplication and compression, FlashArray//X has also reduced MDC BMS's cost per terabyte, even though the company migrated from a disk infrastructure.

"There is a misconception in the market that disk storage is cheaper than all-flash, but per terabyte, it is actually cheaper with flash because of the data reduction feature that Pure Storage has built into their storage solutions," Rao notes. "One rack runs about AED 250,000 (approx. US\$68,000) a year in colocation costs. But since we moved from seven racks to one seventh of a rack, we are looking at potential savings of up to AED 2 million (approx. US\$544,000) per year.

"Also, power consumption for a disk-storage rack is anywhere between 12 and 16 kW, but with the Pure solution in place, this reduces to 1 kW, so we save more than 90% in power costs. This all translates to a massive overall saving in TCO and the solution will have paid for itself within four years. We are delighted with the outcome—any remote sites we deploy in the future will be run on Pure Storage solutions."

"Mubadala Group's brand is all about the transformation of society and the laser-focused investments that make that happen," says Mansoor Almarzooqi, CIO of MDC BMS.

“ Our investment in Pure Storage is rooted in our recognition that we all now live in a digital world. Timely, accurate information and the confidence in the safety and security of that information are vital components of a successful enterprise. Because of the dedication and innovation of Pure Storage, and our own team, we can make faster, better decisions that ultimately allow us to grow our asset base.”

MANSOOR ALMARZOOQI**CIO, MDC BMS**