



Institute of Public Administration

<u>IPA</u> relies on Pure to meet employees' training needs, raise their productivity, and provide them with the knowledge, skills, and positive behavioural trends necessary for the development of administrative work.

Business Transformation

IPA plays a central role in the implementation of Saudi Vision 2030 and the National Transformation Plan for economic development. The industry-leading, <u>all-flash</u>, 100%-NVMe technology from Pure Storage®, coupled with its Evergreen Storage™ business model, provides 24/7 availability and high performance for IPA's most <u>critical business applications</u>, so the organization can deliver on its promise of excellence.

Challenges

- Legacy systems mixing SSDs and HDDs resulted in high latency, a large footprint, and high CAPEX and OPEX
- Disruption in availability for business-critical applications

Solution Benefits

- 40% reduction in TCO
- Sub-millisecond latency for nomination and admission process—two of IPAs most critical applications
- Evergreen business model delivers zero downtime for maintenance or upgrades





Geo

Kingdom of Saudi Arabia

Industry

Government/Public Sector

Company

Institute of Public Administration www.ipa.edu.sa/en-us/Pages/default.aspx

Use Case

- Microsoft® SQL Server
- VMware® vSphere®

"We were looking for a storage solution that was the best in its category, capable of providing consistent performance and low latency for servers and applications. With the Pure Storage NVMe technology in place, we not only achieved this, but also reduced our CAPEX and OPEX."

AHMAD AL-JEBALY, DIRECTOR – NETWORKS AND OPERATIONS DEPARTMENT

Building Digital Societies for Citizens and Businesses

Since the emergence of cloud computing and the consumerization of IT through smartphones and tablets, governments in the Arab Gulf have led the world in their response to the new technologies. Capitalizing on high device and Internet penetration rates, the region's leaders have infused their public sectors with the capacity to deliver digital societies that generate jobs and benefit economies at large. In Saudi Arabia, national programmes to diversify GDP away from oil are ongoing and focus primarily on training public-sector employees so that they can serve citizens and businesses more efficiently.

Saudi Arabia's Institute of Public Administration (IPA) was founded in 1961, under the kingdom's Royal Decree No. 93. The IPA is tasked with the continual education of public employees with a view to enhance their efficiency. IPA's 2,000 employees play a central role in the implementation of Saudi Vision 2030 and the National Transformation Plan for economic development. The IPA is also responsible for the administrative organization of government departments and undertakes frequent research projects in this area.

"The upskilling of public servants is at the heart of what we do here at the IPA," says Ahmad Al-Jebaly, director of the IPA's Networks and Operations Department. "We run training courses on a regular basis and the performance of our data-center infrastructure has the potential to have deep impact on our most important service for clients, which is the nomination and admission process. This needs to have rapid response—high latency is not an option."

Oiling the Wheels of Workflow

IPA's training programs are the primary means by which it fulfils its core objective to ensure that all public employees are working at optimum efficiency. If the online systems governing the workflow–from nomination to course completion—falter, the institute cannot deliver on its promise of excellence.

"These programs are designed to meet middle-level executives' training needs, raise their productivity, and provide them with the knowledge, skills, and positive behavioural trends necessary for the development of administrative work," Al-Jebaly adds.

The institute's legacy infrastructure was no longer sufficient to meet operational goals. Because of IPA's capacity needs, its needs a high-availability and low-latency storage system. The data center is 80% virtualized and leverages shared storage facilities to support the availability of virtual.machines. All mission-critical applications store production data—a major asset for the IPA—on those systems, so the highest availability is critical.



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"We were using legacy systems with a mixture of SSDs and HDDs, leaving us with high latency, a large footprint, and high CAPEX and OPEX," says Al-Jebaly.

IPA's procurement department began a three-month project spearheaded by Al-Jebaly and his team with input from senior IPA management. The group determined that the ability to deliver responsive systems to Saudi government employees hinged on the higher performance, lower latency, and higher density associated with all-flash storage systems. The procurement team invited bids from leading suppliers and considered solutions from several well-established legacy vendors. In the end, IPA opted to replace its existing storage with Pure FlashArray™//X50, a 100% NVMe system designed for high availability and low latency of both mainstream enterprise and next-gen webscale applications.

Evergreen Storage to the Rescue

IPA's procurement decision-makers cite <u>Pure's Evergreen Storage ownership model</u> as a major reason for selecting Pure. With Evergreen, IPA has access to a truly elastic storage system that grows with its needs, without the need for downtime, performance impact, or data migrations during upgrades. Because of Evergreen, organizations can reap the benefits of their all-flash systems for a decade or more.

"We were looking for a storage solution that was the best in its category, capable of providing consistent performance and low latency for servers and applications," Al-Jebaly explains. "With the Pure Storage NVMe technology in place, we not only achieved this, but also reduced our CAPEX and OPEX.

Once the FlashArray solution was deployed, IPA migrated its production workload to the new infrastructure. IPA's data migration process to the Pure solution was "really very quick and smooth," Al-Jebaly notes. "The migration part is not complex because all our servers are running on VMware."

"Pure storage has raised the bar," he says. "They promised to complete the implementation in a couple of days, and this is what happened. With other vendors, two to five days was required for initialization and implementation. The Pure solution fits smoothly into our environment, with no complicated requirements. And we leverage the benefits of the integration between Veritas and Pure Storage to enhance our backup process."

The New Environment: Enhanced Availability, Low Latency

Post implementation, IPA immediately noticed significant business benefits, logistically, operationally, and financially. The Evergreen business model



CASE STUDY

delivered a reported minimum 40% reduction in total cost of ownership (TCO). Al-Jebaly also highlights the avoidance of "the headache of migration and application downtime" because of Evergreen, as well as the ownership model's ability to provide 100% availability for applications during upgrade and maintenance, which is a critical component of IPA's promise of excellence to its public-sector clients.

Following the successful deployment of the Pure Storage solution, IPA has plans to integrate Pure technology even deeper into its operations. Al-Jebaly reveals that the institute:

- Intends to imbed a FlashArray system for disaster recovery
- · Plans to implement storage-based replication and automated failover and failback on Pure
- · Is considering a test of Pure solutions in its VDI environment for possible future deployment

"With the Pure Storage FlashArray//X50 serving as the backbone of our data-center infrastructure, we are able to get consistent performance and latency across all our workloads. We have managed to eliminate the stumbling blocks that slowed our nomination and admission processes for our clients," concludes Al-Jebaly. "This is a vital step forward in our continuing journey to fulfil our obligations under Vision 2030 and the National Transformation Plan—to enhance the skills of public-sector employees and ready them for service in the age of the new global digital economy."











