

**Objective**

Eliminate the risk of legacy mainframe environment operations while avoiding dependence on mainframe specialists and reducing costs

**Approach**

Leverage HPE Data Center Platform Consulting services to efficiently and safely migrate mainframe apps to distributed server infrastructure

**IT Matters**

- Migrating to standards-based solutions drives cost reductions
- Shifting to open systems servers eliminates the need for hard-to-find mainframe specialists
- Standardized Linux environment streamlines development, QA, and operations

**Business Matters**

- Migration and transformation was completed on time with no downtime or disruption
- Management expects to continue to meet cost reduction and TCO objectives for the migration
- TASE expects a full return on investment for its migration within less than three years

# Tel Aviv Stock Exchange migrates critical mainframe applications with HPE

Redefines its environment by implementing a low-risk, high-return mainframe migration



The Tel Aviv Stock Exchange needed to migrate its mission-critical applications from an IBM mainframe environment and turned to HPE Data Center Platform Consulting services to help plan and implement a platform migration strategy from its older, proprietary systems. With HPE Data Center Platform Consulting, the Tel-Aviv Stock Exchange was also able to bring industry-leading availability, increased performance, and uncompromising client choice to support all of its IT needs.

The Tel Aviv Stock Exchange (TASE) is the only stock exchange in Israel. It offers a “one-stop shop” that includes trading in equities, bonds, and derivatives. TASE has 25 members including Israeli and international banks and brokers, and TASE is trading in 1,900 equities and bonds and 2,500 derivatives series. Its daily turnover in the equities market is approximately 1.5 billion Israeli shekels, which is about \$400 million

“It was very important for us to find one supplier that could provide a full integration project, including the hardware, the operating system, and the migration project itself. We approached HPE because we were familiar with HPE’s capabilities and could get the benefits of HPE’s expertise at different steps in the project.”

– Eldad Herstig, Senior Vice President, CIO, & Head of Operations for the Tel Aviv Stock Exchange

### **Migrating existing infrastructure**

The TASE Information Technology and Operations Department develops and operates all the organization’s business-critical systems, including trading, clearing and settlement, and risk management. The goal of the department is to achieve non-stop trading and invest in remaining at the forefront of technology. The importance that TASE places on IT is evident in the size of the department, which comprises some 60% of exchange employees.

“About two years ago we started looking at migrating our IBM mainframe applications to another environment,” says Eldad Herstig, Senior Vice President, CIO, & Head of Operations for the Tel Aviv Stock Exchange. “Our main reason to implement our migration project was to reduce the risk related to continuing working with the mainframe in different areas. As a non-stop operation, it’s very hard to migrate critical systems while managing the risks of avoiding system failures. In order to do so, you have to have the right partner to ensure you complete all the relevant tests to reduce the risks.”

Maintaining the legacy mainframe was expensive, and the limited availability of mainframe experts in its mainframe operating system in Israel was constraining the flexibility of its IT infrastructure. The mainframe environment was running over 10,000 programs written in Natural and over 120 programs written in COBOL, with over 2,000 batch processes activated in specific mainframe partitions by JCL. The mainframe environment was supporting development, quality assurance, testing, and production environments, and mission-critical back office applications such as those supporting clearing and settlement were on a mainframe running the VM and VSE operating systems. TASE also deployed the Adabas database management system on a mainframe.

TASE sought to eliminate the risks inherent with legacy environment operations while limiting its reliance of mainframe programs and operations specialists, which were becoming increasingly harder to find. Management needed to reduce the costs of maintaining the legacy applications while avoiding downtime or any disruption to operations. TASE also sought to standardize hardware and software deployment to drive down costs and increase IT agility.

## Customer at a glance

### Services

- HPE Data Center Platform Consulting Services

### Hardware

- HPE ProLiant DL 380 Gen8 Servers

By migrating its applications and moving to a new platform, TASE could select the right platforms for the right workloads at the right price, while consolidating its IT environment and adopting newer technologies and increasing IT security. But migrating the core platforms and moving crucial applications can be a complex and potentially disruptive undertaking, so TASE selected HPE services to help the organization develop IT strategies that minimize risk and maximize IT investments so it could achieve its migration goals safely and efficiently.

“It was very important for us to find one supplier that could provide a full integration project, including the hardware, the operating system, and the migration project itself,” explains Herstig. “We approached Hewlett Packard Enterprise (HPE) because we were familiar with HPE’s capabilities and could get the benefits of HPE’s expertise at different steps in the project.”

HPE had previously helped TASE move to a new datacenter, and offered a holistic, adaptive approach that enables smooth mainframe migrations and simplifies the migration process. HPE also offered proven experience and a track record in migrating critical mainframe applications, as well a low-risk, high-value approach to migration.

By partnering with HPE, TASE has been able to ensure business continuity without disruption. This has allowed TASE to implement application migration while avoiding the need to make changes to the business logic. Legacy applications were migrated to HPE ProLiant DL 380 Gen8 Servers running Linux, and all Adabas databases and programs written in Natural were migrated to Linux. HPE oversaw the rewriting of COBOL programs into the C language, and all JCL was rewritten to run as scripts.

HPE conducted extensive parallel testing of mainframe-based and server-based applications to ensure that there would be no discrepancies while running various production workloads over time, and conducted extensive test case development, execution, and automation to ensure the quality and consistency of the new IT environment before cutting over in early 2016. After only 20 months, the project was successfully completed and HPE educated and trained TASE development and operational staff on the use of new development tools and Linux.

All of the organization’s mission-critical systems are now running on Linux, and IT is now able to increase security, mitigate risks, and streamline operations and management by supporting the same environment for trading and back office applications. The dependency on mainframe specialists is eliminated, allowing TASE to increase operational agility. This transformation was completed on time and within budget, and management expects to continue to meet cost reduction and TCO objectives for the migration.

Herstig concludes, “I’m very happy and satisfied with HPE and the way they ran the integration project, and I recommend HPE to other organizations involved in such a complex migration project.” This migration supports TASE’s open system standards strategy, and TASE expects a full return on investment for its migration within less than three years.

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