

IaaS

Dedicated Infrastructure

The large bank

Regulated major UAE bank implements a sophisticated wealth portfolio management system on a dedicated, secure and redundant infrastructure.

Overview



Our client is one of the top five retail banks in the United Arab Emirates. For this project, Penta worked in close partnership with a world-class international fintech software developer to provide the bank with a fully secure solution for their wealth management division.

The hosted applications enable a streamlined experience for the bank's staff and end-users to create, execute and reconcile orders on the stock market, and maintain and manage their portfolios. With several integrations with renowned organizations such as Bloomberg for fetching real-time market data, the hosted solution enables end-to-end order management, from the end-users placing orders on a publicly available website to the back-office staff reconciling the orders at the end of the day – and everything in between.



Challenges



One of the key challenges for the bank that Penta had to address was the issue of data residency. The bank needed the software and data to be hosted locally in the country, and required the solution to be based in a private cloud and provided as-a-service.

While our software partner in this project had their own data centers in Europe and in the United States, there were no plans to set up a data center in the UAE. Therefore, Penta needed to work closely with the partner to host and deliver the adequate IT infrastructure for their solution to the bank, and had to do it against the clock due to stringent deadlines.



Solution



Together with our partners, Penta was able to offer the bank a dedicated Infrastructure-as-a-Service solution by building a state-of-the-art enterprise-scale IT infrastructure to match their requirements, all with built-in compliance, guaranteed uptime with a Service Level Agreement (SLA), bank-level security guarantees, and a first of its kind active-active implementation for backup and disaster recovery. The solution was audited by EY (Ernst & Young) for regulatory compliance and data protection.

The infrastructure was architected for an initial 50 internal users from the bank and from our partner software provider. This number was expected to double over the next 12 months, so a robust expansion plan was put in place. The bank also had more than 10,000 external users – their own clients – using the system and that base was also expected to grow significantly in the coming years. Penta future-proofed the system to allow for this growth in the user base by scaling out while still maintaining the strict levels of security required for this type of installation.

The isolated and locked IT infrastructure features multiple virtualized environments of the solution for development and testing along with the production and disaster recovery environments. The entire solution is delivered to the bank with optimum security using encrypted traffic between the hosting data centers and the bank's offices.

Solution



Strict security controls were deployed in line with the UAE's central bank's regulations to ensure that all data is secured from external attacks with a constant backup service provided to guarantee the maximum time between backups – the Recovery Point Objective or RPO.

The solution also includes two-factor authentication, secure file transfer services, web application firewalls and email service for transactional messages. To ensure that the strict security standards of the bank are followed, encryption of all data with custom keys and privileged access management with capabilities to monitor, audit and record all administrator activities were deployed in the hosted environment enabling secure operations for the client.

Penta also offered added levels of encryption through a Bring Your Own Key (BYOK) solution, letting the bank control the encryption using their own keys, giving them an added guarantee for data protection. Both the BYOK solution and the Privileged Access Management (PAM) solution were included in the audit process by EY.

To further strengthen security, the solution included Penta Sentinel, our next generation security monitoring system. Penta Sentinel is a managed Security Information Event Management (SIEM) solution that features comprehensive collection and analysis of all security events, multi-source threat intelligence, and a 24/7/365 Security Operations Center (SOC) run by our team of top cybersecurity experts.

Why Penta



Our client carried out a thorough due diligence process to assess the levels of quality, security, and experience that Penta offers. There were several reasons why they decided to work with us for this project:

- Being the only provider with a data center in the Dubai International Financial Centre (DIFC) district and having a track record of experience in operating data centers across multiple locations including the financial district in Geneva, Switzerland.
- Having the right team of experts to architect highly secure and scalable IT infrastructures for clients in the banking and financial sectors.
- The ability to quickly build and deploy the infrastructure, a challenge that other providers often struggle with, especially when it comes to securing hardware components.
- Penta's long-term expertise in working in the financial sector internationally with a wide spectrum of financial companies including banks.
- The regulatory compliance coverage, governance, and data protection offered through Penta's infrastructure and specifically adapted for financial companies.
- Penta's infrastructure is continuously audited by EY, which provides clients the required guarantees and assurances that their IT is run and managed using best practices.
- Penta's clear and predictable pricing models for accurate IT expenditure budgeting.

Benefits



Our partnership with the software solution provider to the bank proved to be a successful solution for all parties through a highly secure, scalable, and cost-effective infrastructure.

For the bank, the key benefit was in having the data hosted locally using a dedicated state-of-the-art infrastructure that is compliant with rules and regulations, and the ability to execute their corporate strategy and vision of making future-proof IT investments at a fraction of the cost of an in-house solution.

By using Penta's private cloud solution instead of other public cloud options, the bank was able to maintain full control of their clients' data privacy and ensured that any data held did not fall under the jurisdiction of any other country.

The solution also helped the bank to be an early adopter of the cloud for this type of solution in the Middle East. The private cloud-based solution delivered as-a-service and hosted on Penta's infrastructure offered guarantees that are far superior to what the bank would have had internally.

The hosted environment is also easily reproduced which would enable our solution partner to rapidly deploy services for more clients in the Middle East, thereby enabling their business growth and expansion to new markets.



Penta Corporate Cloud



Dedicated, mirrored infrastructure across two data centers



Multi-site coverage – more than 10,000 users



Windows and Linux licensing



Fully managed services



CTO-as-a-Service, weekly IT strategical meetings



Dedicated technical support team



24/7 monitoring and on-call



More than five years', enterprise backup and restore



On-going auditor-ready, regulatory compliant reports



99.999% Service Level Agreement (SLA) guarantees on the infrastructure



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