Novotek

AB InBev
Case Study

Novotek Solutions upgraded and migrated key production systems with a bespoke implementation plan to ensure the absolute minimum downtime

Painfree Migration with Novotek Solutions

The Magor brewery is AB InBev's largest brewery in the UK, producing over one billion pints annually. Given the sites' importance in meeting the demand of consumers who enjoy their world-famous brands, such as Stella Artois, Corona, Budweiser, Becks and Leffe, maintaining a current operation is vital.

The site last completed a significant upgrade of its GE-based software systems in 2014 and, as such, ran on physical hardware and versions of iFIX and Historian that were out of date and no longer supported. An important driver for the upgrade was to bring the operating systems and software platform up to current versions, enabling more rigorous patching to mitigate against cybersecurity attacks and vulnerabilities.

A virtual infrastructure was provisioned, utilising Nutanix servers to host all of the critical software elements in a controlled and managed environment. The brewery consisted of 8 separate areas, with individual iFIX servers dedicated to each area. The iFIX clients however were capable of managing all areas of the plant and this introduced a particular challenge for the upgrade. AB InBev wished to upgrade each area individually to mitigate risk and enable them to continue operating, gradually integrating new systems to minimise downtime. However, due to the vintage of the iFIX software, this was not possible because the latest iFIX server versions required clients at the same or higher version as themselves, preventing clients in other areas of the brewery from visualising data from upgraded sections.

Through discussions with Novotek, AB InBev decided this was not viable as visibility of the entire platform was paramount. Therefore Novotek designed a programme which saw all of the clients across the entire brewery upgraded in a single phase, running in parallel with the legacy systems to build operator confidence in the upgraded client platform and ensure rapid detection of issues.

Novotek introduced Terminal Servers to host the clients, enabling multiple instances of client sessions hosted across 5 Terminal Server nodes, with read-only and engineering specific client workstations available from within the pool of client licences. Taking this approach also allowed for the utilisation of much cheaper thin-client hardware, offering reduced maintenance and allowing the replacement of any failed client hardware components in minutes, with no software downloads required.

During the migration and upgrade process, Novotek built a sandbox to enable the initial testing and verification of screens internally, enabling any third-party ActiveX controls and custom scripting to be verified and proven to be operating successfully. This was invaluable in the upgrade of the systems and left AB InBev with a future environment for testing operating system and vendor-specific software patches before deployment within the production environment.

Novotek have completed dozens of successful upgrades and software migrations from physical to virtual environments in the past and this experience helped inform the plan for the proposed phased adoption. Once the clients were upgraded successfully across the whole of the brewery, the servers were then upgraded individually. The high-priority areas such as brewhouse and fermentation were tackled initially and once successfully upgraded, the packing lines and shared utilities areas were upgraded. The approach taken by the Novotek team significantly reduced the level of risk and ensured the brewery could continue operating while the server rollout was being performed.

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