

About Raiffeisen Bank Aval

Raiffeisen Bank Aval is one of the Top 5 commercial banks in Ukraine. The Bank offers a wide range of standard and up-to-date banking services used by more than 2.5 million customers.

Partnered with Densify, Raiffeisen Bank Aval avoided significant expenses in additional hardware procurement by ensuring private cloud resources are perfectly aligned to workload demand patterns and business cycles.

The Challenge

Raiffeisen Bank Aval had an initiative to modernize their private cloud infrastructure, but the team had difficulties in validating hardware requirements against purchase recommendations made by the hardware vendor. As a result, **an additional 33% in hardware cost was expected** for this transformation project.

The existing cloud environment had a **VM to Host ratio** of **24:1**, and it consisted of 38 VMware Host and 923 Virtual Machines.

The Solution

Having ingested all historical VM utilization metrics across the private cloud infrastructure, Densify leveraged machine learning analytics to model the utilization patterns, establishing unique workload profiles for 923 of their VMs.

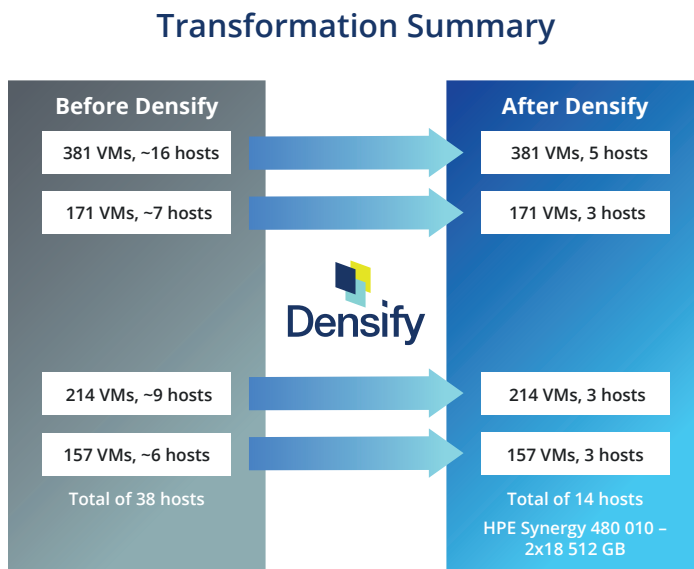
Understanding the workload profiles and new hardware benchmarks, Densify performed in-depth predictive analysis across the infrastructure to **scientifically place these workloads onto fewer hosts**, while at the same time **right-sized the VMs based on demand patterns**.

Densify considered the following factors for the **multi-dimensional permutation analyses**:

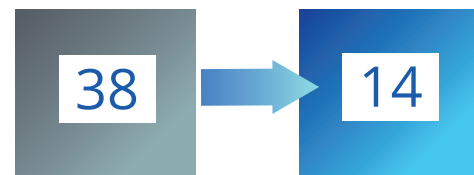
- CPU and Memory thresholds and overcommit ratios
- Time of day utilization patterns
- Recurring transaction activities
- Production vs. Test/Dev environments
- Windows and Linux Software licencing
- Benchmarks of new HPE Synergy 480 Gen10 hardware
- High Availability

Results

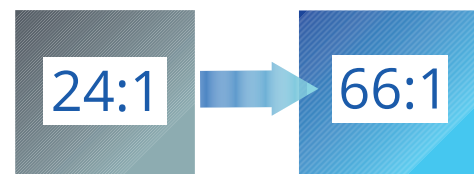
Having implemented Densify's recommendations, Raiffeisen Bank Aval right-sized the VMs with optimal placement across the private cloud infrastructure, achieving:



The **"Before & After"** of Densify's right sizing and optimal placement of VMs across the private cloud infrastructure.



The provisioning of **14 ESXi hosts** of HPE Synergy 480, compared to an original of **38 hosts**.



VM to Host Ratio safely increased by 63% - now at **66:1** as opposed to **24:1** before