



ABOUT NETENT

NetEnt is a premium supplier of online casino games used by many of the world's most successful online casino operators. The product CasinoModule™ is a leading edge gaming system which includes high quality online casino games, powerful bonus programs and a sophisticated Back Office. CasinoModule™ creates the ultimate gaming experience for the player, while managing billions of transactions every year giving online casino operators full control and management of their casino activities. Operators are provided with a customized casino that is easily integrated ensuring short time to market and a cost efficient operation. NetEnt is listed on Nasdaq OMX Stockholm (NET-B).

www.netent.com

NetEnt

NetEnt proves Business Value of Software-Defined Storage infrastructure supporting over 16 Billion Commercial Transactions a Year

For NetEnt, one of the world's leading suppliers of online casino games, secure customer data remains priority number one. After having identified the existing storage infrastructure as single points of failure, the company decided to implement DataCore's Software-defined Storage, SANsymphony-V platform. With growth rates of 30% quarter on quarter, by deploying DataCore Software, NetEnt have not only improved their productivity and high availability, they have also overcome IT specific challenges within their industry including rapidly emerging and changing regulations. Today, DataCore enables NetEnt's business to perform over 16 billion transactions a year in one of the most tightly regulated markets, in a flexible, hardware independent storage infrastructure for current and coming requirements.

The Customer

NetEnt was founded in 1996 by one of Scandinavia's leading off-line casino operators and became one of the pioneers in online gambling. Today, the company is publicly listed on the Nasdaq Stockholm stock market with a steady growth of share price since the organisation's IPO in April 2007.

As a premium supplier of online casino games, NetEnt services are used by many of the world's most successful online casino operators. NetEnt CasinoModule™ is a leading-edge gaming system which includes high-quality online casino games, powerful bonus programs and sophisticated Back Office functions. CasinoModule is able to manage billions of transactions and gives online casino operators full control of their business operations with a customized, easy to integrate online casino system ensuring short time to market and a cost efficient operation for the customers.

"No known hardware based solution could be identified to offer improvement in regard to our exacting storage requirements. In fact, amongst all well-known storage vendors, there was no real encompassing solution until we evaluated DataCore's SANsymphony-V software. DataCore's SDS platform gives NetEnt all the storage flexibility, high availability, performance and functionality required and improves our overall data security with an adaptable design for future requirements, which is a key priority for us"

- Anders Redander,
Infrastructure Architect, NetEnt

The Challenge

NetEnt operates its business from several data centers across the globe. One of the biggest locations is the company's data center in Malta. Particular challenges for NetEnt is not only that the online gaming market is fast emerging and rapidly growing, but also underlying local and fast changing compliance regulations in the different markets. The different sizes of customers require a flexible and highly performant IT infrastructure.

100% safety of the customer data and high availability of the hosted services is the highest priority for NetEnt and its customers in this 24/7 business. Driven by business growth rates of around 30% each quarter, ongoing reviews highlighted that the storage infrastructure was identified as inefficient in many ways. Though the existing storage arrays worked with market standard redundancy within one array, they operated as isolated islands within the SAN and therefore could present single point of failures considering the extraordinary levels of business continuance.

Another pain point surrounded lack of flexibility. With high capacity storage arrays being too expensive for smaller customer configurations, the addition of smaller systems turned out to be inefficient as the IT staff had to support and handle different types of models for different scenarios. NetEnt had to spend too much time on migrating customer systems between arrays while even firmware upgrades could not be guaranteed with 100% data security and availability.

Overall, management, performance and capacity issues proved hard to solve and costly to fix. NetEnt decided the time had come for a fundamental overhaul of the storage architecture. Anders Redander, Infrastructure Architect at Net Entertainment, and his team defined the targets for this strategic project:

- 100% customer data security and high availability with no risk of data loss
- Higher flexibility for storage performance and capacity management
- An adaptable design for future requirements
- Better cost efficiency

The Solution

After an intensive risk analysis on NetEnt's infrastructure and the internal business requirements as well as an evaluation of current and future customer needs for size, performance and regulations. NetEnt evaluated several storage solutions proposed by vendors like HP, IBM, HDS, NetApp, EMC and others. But what they could not identify was either the right levels of flexibility or the scalability to adapt the future solution to any size of Casino platform using customer with one comprehensive solution.

Then at a trade show, learning about DataCore and its pure Software-defined Storage platform which seemed like a great viable alternative after an initial proof of concept. To prove stability, performance and scalability the NetEnt's infrastructure experts conducted an intense proof of concept (POC) for SANsymphony-V. This evaluation ran without problems and gave NetEnt all the functionality and enhanced security it was looking for. Matching the original objectives, the search ended in DataCore's Software defined Storage (SDS) platform:

"Our current hardware vendor offered no alternatives that would improve the current situation in regards to all the requirements. No known hardware based solution could be identified to offer improvement in regard to our exacting storage requirements. In fact, amongst all well-known storage vendors, there was no real encompassing solution until we evaluated DataCore's SANsymphony-V software. DataCore's SDS platform gives NetEnt all the storage flexibility, high availability, performance and functionality required and improves our overall data security with an adaptable design for future requirements, which is a key priority for us", comments Anders Redander, NetEnt's Infrastructure Architect.

With the decision made for DataCore, NetEnt also evaluated most of the large storage vendors and several smaller ones for new storage hardware for the DataCore environment. This evaluation was won by Hitachi Data Systems to replace the legacy HP storage, as they prioritized data security, performance, cost and enterprise world wide support as required. Another important aspect was the price/performance ratio of the storage hardware that was eased through the fact that the SANsymphony-V software layer would bring the necessary functionality and performance for the infrastructure. In this case, NetEnt benefited immediately from the hardware independence of the Software-defined Storage architecture:

Anders Redander: "We decided for the supporting hardware that was the right immediate decision and for the foreseeable future. High quality hardware. But with DataCore we are free of a hardware vendor lock-in and the migration from one platform to the next will be easy. This is one of the big gains we achieved with the DataCore Software defined Storage platform. The migration from one hardware to another is usually combined with a lot time, effort and money. In the future we will not have this issue. With the decision to adopt DataCore we can now easy migrate without interruptions and we can rely on not being in a vendor Lock-In for future decisions."

The DataCore SANsymphony-V was implemented on HP Proliant servers, equipped with 256 GB RAM for DataCore caching. In a testing environment some of the DataCore servers were additionally equipped with SSD PCIE cards to get an impression on DataCore's auto-tiering.

Today's SANsymphony-V architecture provides high availability to the CasinoModule™ production systems with underlying Microsoft SQL data bases and systems under Windows, Linux and VMware. SANsymphony-V is used to synchronous mirror production data secure between datacenters or fire sections in data centers.

"The combination of Datacore SANsymphonyV with dual HDS Arrays setup gives NetEnt a very secure and high available solution with that can handle all current and coming requirements from its flexible topology. We achieved full redundancy independent from storage systems and gained the flexibility to scale, migrate or change the hardware exactly to our needs"

- Anders Redander,
Infrastructure Architect, NetEnt

ABOUT DATACORE

DataCore is a leader in software-defined storage. The company's storage virtualization and Virtual SAN solutions empower organizations to seamlessly manage and scale their data storage architectures, delivering massive performance gains at a fraction of the cost of solutions offered by legacy storage hardware vendors. Backed by 10,000 customer sites around the world, DataCore's adaptive and self-learning and healing technology takes the pain out of manual processes and helps deliver on the promise of the new software defined data center through its hardware agnostic architecture.

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The Benefits

"The combination of Datacore SANsymphonyV with dual HDS Arrays setup gives NetEnt a very secure and high available solution with that can handle all current and coming requirements from its flexible topology. We achieved full redundancy independent from storage systems and gained the flexibility to scale, migrate or change the hardware exactly to our needs", summarizes Anders Redander.

Net Entertainment concludes the strategic targets achieved by DataCore's Software-Defined Storage approach with SANsymphony-V:

1. Secure Customer data at all costs.
2. 100% High availability by removing all single point of failures logical and physical, giving NetEnt and customer optimized storage experience.
3. Work with a more flexible solution reducing workload and working hours for management, changes and migrations.
4. Built an adaptable design for future unknown regulations requirements.
5. Enabled service on storage infrastructure without downtime and less risks.
6. Enabled the same enterprise thinking at big datacenters and small installations.
7. Kept costs in check.

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