NRK MA-2864/15

NEW STORAGE-SOLUTION FOR NRK

SUMMARY OF NRK'S RFI-PROCESS SPRING 2016

Content

Introduction

Norwegian Broadcasting Corporation Ltd, subsequently named NRK, invited interested contenders to participate in a technical market dialogue with the objective to simplify and improve our overall storage architecture on the basis of a more future proof and comprehensive storage strategy.

Our goal was to describe a new storage strategy and begin the procurement process by the end of Q2 in 2016 as provided in the Basis for Qualification with the reference number NRK MA-2864/15.

As a kick-of, NRK arranged an open RFI information meeting at Marienlyst 15. March 2016. The huge participation showed a considerable interest in the market. 80 participants from 21 different vendors attended the meeting. This was followed by 16 individual 1:1 meetings with different vendors. We would like to help those who did not have the opportunity to participate in this process to take part in what NRK learned from this process.

You can watch the presentations held by NRK at the RFI meeting at NRK on YouTube:
https://www.youtube.com/playlist?list=PLoSILDnmxDUWUyTloEdaF7R5C_AmIRpLp

To summarize our impressions from this process, we would like to use the areas of particular interest in the invitation to this RFI to tag our learnings:

The storage system should be well suited for media production

Relevant references within professional media production is of big importance to us. Among the vendors attending the RFI meeting there are different approaches to this. Some already have good experience and references within in M&E, while others are working their way into the market.
As technology has evolved in both areas of storage and networking, the distinction between traditional NAS and SAN storage has increasingly diminished. Hence we see less of a gap between production storage and administrative storage today compared to 5-6 years ago.

Standardization

We want to reduce the number of storage systems and storage vendors. We see from the response that this is achievable. There are different opinions among the vendors of how many systems that are needed to achieve our goal.
The use of standard interfaces and protocols will be of high importance for NRK. After over 7 years with proprietary file system drivers, we see an opportunity to standardize on open network protocols like SMB3/NFSv4/HTTP etc. The RFI process has confirmed that this is possible with today's technology.

Simplification of management and administration

The internal resources for managing/administrating storage systems at NRK are limited, and this makes simplification a key point for us. This is also an area where we see significant differences among the vendors. Most vendors have taken steps forward compared to some of the solutions we have in-house today, but we have also seen some unnecessarily complicated solutions.

With new types of production, a faster pace and an increasing amount of data, the reduction of downtime (e.g. by software- / firmware upgrades and expansions) will have strong focus from our side. Most of the vendors have good solutions here, but we see a difference in complexity.

Through the RFI process we clearly see the advantages and opportunities for more automated processes and the importance of analytics. We need to know more details about our data and how they are used to be able to automate as much as possible. Good analytics are crucial to be able to gain proper insight to our data usage and patterns. There are significant differences between vendors when it comes to analytics. The scale goes from none up to extensive functionality that can be used as a tool for us in daily production.

Increased security in the form of high redundancy and backup

High redundancy in hardware is well handled by most vendors. We do however see a difference in level of robustness on a software level. Some still rely on traditional RAID technology, while others have adopted more modern and robust approaches like erasure coding. Some vendors support snapshots, while others don't.

Backup is a big challenge with the ever increasing amount of data we need to handle. We see no clear and easy solution to this challenge from any vendors. However, some vendors have a stronger portfolio in terms of security and backup than others (e.g. built-in support for automated replication and tiering to private/public cloud).

We have learned from the RFI process that object storage could be well suited for a "least accessed files" tier because of the robustness and near unlimited scaling capabilities. We do not have a private cloud or any object storage solution today, but this is very interesting for us to look at on a long term if we are to bring our tape archive onto disk in the future as well.

Simple scaling of performance and capacity / Future oriented.

is a big difference in the complexity of dealing with expansion of capacity and performance. We also see a difference between vendors in how they deal with adopting new technology. Some vendors have a clear strategy for flash storage technology, while others have vague or non-existent plans.

Even though the first investment will be a replacement of many of our current storage systems, we expect a continuous growth and a growing need for performance and storage density.

Economy / Support

Different pricing models will be a part of the tender. We need to know the options from the vendors. So far we have not locked onto only one model.

Through the RFI process we have learned that a customer like NRK may choose a business model we believe best fitted for our future. Another interesting dimension we discovered, is that some manufacturers could be willing to advance the use of all flash storage solution in the perspective of the total contract lifespan. We also see that support options will be an important part. Local presence in Norway is necessary.

Overall summary

The RFI-process has been very useful for NRK. The picture of what can be delivered from the industry today is more clearly defined.

After several years of specialized storage solutions customized for video production, we now see opportunities for a simplification of the current storage infrastructure with a more extensive and unified storage strategy. This can be done without sacrificing performance and response times in production.

NRK would also like to thank all participants from the industry for contributing to improve our learnings.

Kind Regards from the NEW STORAGE-SOLUTION project in NRK