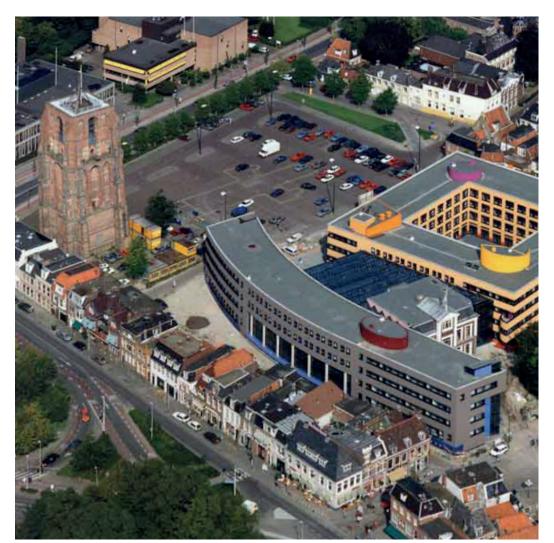


Success Story | Regional Archives (Netherlands) | Silent Bricks

Municipality of Leeuwarden

For the safe and long-term storage of historical and semihistorical data, the Municipality of Leeuwarden was looking for a storage infrastructure that could meet its requirements in an energy-efficient and flexible manner, while also offering simple and affordable opportunities for further growth. The system should last as long as possible to minimize migration steps. Any necessary migrations must be demonstrably carried out without loss of data.



"They are quite unknown in the Netherlands, but in my opinion this is a solution that fits very well in an archive."

Jeen Oppedijk, Senior IT Specialist, Municipality of Leeuwarden

Alle photos:

Municipality of Leeuwarden

SB Story Leeuwarden | Feb 2020



Immutable digital preservation of historical data

Why Leeuwarden chose Silent Bricks as long-term storage

The Historical Centre Leeuwarden (HCL) is the information and activity centre for the history of Leeuwarden and its surroundings. It originates from the former Municipal Archives of Leeuwarden - the oldest city archive in the Netherlands. Originally this was the legal repository for the archives of the city council. In the course of time, archives of municipal institutions, churches, businesses and private individuals also ended up in the Municipal Archives. In this way, the archive repository gradually developed into a historical information centre. The HCL also has the task of digitising and making collections and archives accessible to the public. The Municipality of Leeuwarden manages the IT infrastructure of the Historical Centre of Leeuwarden, among others, thus providing a safe and responsible repository for the historical data.

Jeen Oppedijk is a Senior IT Specialist at the municipality of Leeuwarden. In 2016 he was approached by the HCL, the Historical Centre of Leeuwarden, to look for a solution for archiving large amounts of data. "The main challenge was to store data in a more sustainable way. Incidentally, historical archives throughout the country face the same problem. They are offered a lot: photos, slides, negatives and documents. Many of these items are scanned by volunteers to the best of their knowledge and belief. This sometimes includes irreplaceable collections. There are slides that have decayed, but have been scanned at the last minute".

Looking for long-term storage

The point is that all this now digital data is stored in different ways and systems - on USB drives and CDs, for example. "Not very sustainable," Jeen says. It's not for nothing that the archive sector speaks of 'the Middle Ages of archiving', to indicate that good archiving is only in its infancy. "There's a lot going from paper to digital at the moment, but there's not much thought being given to long-term storage. Or eternity. It's right that archivists worry about that." The HCL was looking for a sustainable way to store data, without being tied directly to a supplier and format that you can't access at any given time. In addition, the storage itself had to meet certain requirements.

The Requirements

In 2017, a project leader was appointed to map out what was needed. This included at least a number of functional requirements, which led to a number of starting points:

- Separate USB drives are no longer a digital archive repository
- A backup is not an archive
- Archive data must be preserved for eternity
- Storage must be energy efficient
- Integrity must be ensured and checked
- All data must be stored redundantly
- The data must be accessible
- Migration should be possible without loss of data
- Keeping data storage in-house
- Storage of data must be scalable
- Storage must be compliant with open formats and standards
- Once data has been written, it must not be possible to change it on hardware.

In the preliminary investigation Jeen discovered that only the Silent Bricks of FAST LTA with the Dutch representative Comex could meet all requirements. Especially the latter requirement weighed heavily. During a 'minicompetition' after a European tender, the result of the preliminary investigation turned out to be correct. Moreover, it became clear that the Silent Bricks have a lifespan of at least ten years, which significantly mitigates the need for migration. This resulted in a cooperation between the Municipality of Leeuwarden and Comex. "They are quite unknown in the Netherlands, but in my opinion this is a solution that fits very well in an archive.

"This system is energy efficient, all data is audited every week, everything is three times redundant. And the hardware WORM. That was crucial for our decision."

Jeen Oppedijk, Senior IT Specialist, Municipality of Leeuwarden



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The Process

After choosing Comex as a partner, the system was ordered through the purchasing department, delivered, installed and now in use in cooperation with the reseller NoRISK IT. "The configuration took only an hour. In the meantime I have installed some extensions myself, which indicates that the system is easy to work with". HCL uses a so-called staging area, the phase in which metadata is added, after which two persons are authorised to copy to the WORM. "Once written, data is stored forever, so there is a minimum number of people who are authorised to do so. The expansion was necessary, among other things, to be able to store videos for the inspection of sewers, for example. Such films take up a lot of storage space and need to be kept for ten years. Silent Bricks are perfectly suited for this purpose. It is fast enough to be able to play the film, not super fast, but it doesn't have to be. And it is relatively inexpensive. So that kind of data is now also stored this way." The HCL uses the system for archiving, the Municipality of Leeuwarden also uses it for 'semi-archives'. This concerns data that has to be kept for a long time, but not perpetually. The mentioned videos of the sewer, for example. Or financial data that is kept for seven years.



The Future

The digital archive of the HCL is expected to expand further. "There are still miles of archives that have not yet been digitized," says Jeen. There are 35 volunteers busy scanning everything, so that expansion is necessary. It is also clear that no cloud storage has been chosen. "One of the HCL's requirements was that the data had to be stored locally. As the Municipality of Leeuwarden, we also apply the maxim 'not in the cloud, unless'. If we need the cloud for certain reasons, a number of requirements must be met, for example in terms of security and clarity where the data is stored. As a government, we obviously have to deal



Gemeente <u>ee</u>uwarden

with the VGA to a large extent. And in the event of a major internet crisis, the cloud is of little use to you, you can no longer access your personal data, and that's a big issue".

Challenges

The Municipality of Leeuwarden was looking for a sustainable solution for the archiving of digital data for the Historical Centre of Leeuwarden. The challenge was to find a storage solution that preserves the data delivered and acquired in different ways. This without being tied to a supplier or a certain storage format. The aim is to keep the data that is ultimately stored unchanged for eternity; security and a data migration without loss of data are therefore a must.

In addition, the municipality of Leeuwarden is creating a digital 'semi-archive', with data that must be kept for the duration of the legal storage obligation, but not for eternity. Handy if this data can be archived on the same storage solution as the historical data of the HCL. With the Silent Bricks, the Municipality of Leeuwarden has found just this solution.

Solution

2 Silent Brick Systems, each with

1x Controller G5000

1x Extension Shelf

1x Silent Brick 8/12 TB

4x Silent Brick 16/24 TB

1x Silent Brick WORM 8/12 TB

1x Silent Brick WORM 16/24 TB

Industry

Government / Municipality / Archives

Applications

MAIS-Flexis

Various DMS and enterprise systems

Partner

COMEX



Hello.

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