EUNIS 2019: Application delivery via AppsAnywhere

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1. Summary

Thomas More is a Flemish University consisting of three former applied sciences Universities. During the summer of 2017 we were tasked with the requirement to rescale and restructure our IT department. One important caveat of the restructure was the requirement for application delivery to ALL our own devices and for BYOD (bring your own device) enablement for the staff and students.

Thomas More's IT department faced a challenge common across higher education institutions with thousands of students; the delivery of all software needed – by both academics and students – to any computer device anywhere on campus, at any time of the day.

Today's students come to university with very different expectations than ever before, especially regarding IT and technology and its use in their learning experience. The proliferation of smart devices, 'apps' and indeed app stores has set a certain standard of *anytime* on-demand access; an expectation that extends to the provision of software at university, too.

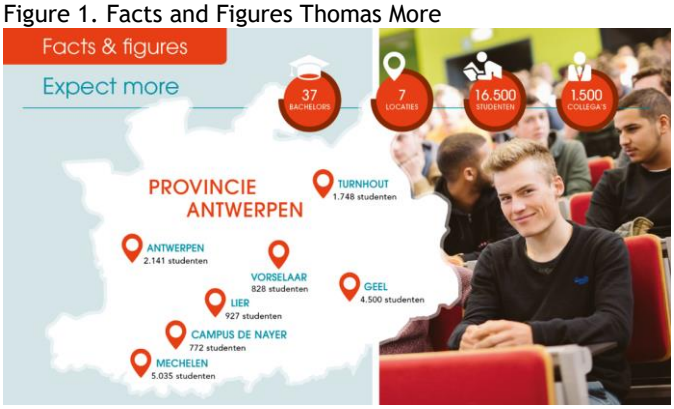
The problem sounded simple but was in fact impacting the student learning experience. The specialist software applications needed by students – wide-ranging in nature due to the university's applied sciences focus – were only available in specific computer labs in certain locations across campus, and only within a set period of time. So, in order to use the software needed to study and complete coursework, students had to go to these labs for access.

The university's IT team went about searching for a technological solution to this challenge, with the goal of increasing access to software, rethinking the entire deployment model to let the applications follow the students instead. This in turn would have a positive impact on other parts of the student experience; enabling BYOD for certain applications, increasing student mobility, and transforming existing learning areas into multi-purpose spaces.

1.1. Facts & Figures

Thomas More is a very big university of applied sciences with a lot of different faculties over several campuses in different geographical locations, all of which has an impact on the ICT Service

Figure 1. Facts and Figures Thomas More



1.2. ICTS

When we look in dept to the software or application delivery in Thomas More. ICT Service has to support both Company Devices and Bring your own devices so far as the software is concerned. In total we have ~200 software applications which is a mix of freeware and licensed software and network licensed titles that we have to deliver, support and update on a range of different devices. It was clear to us that we required a solution that could easily manage this process.

1.3. The Past

Historically there were three separate and totally independent organizations who all worked with different technologies and deployment methods which included fat images and WDS, Altiris and Ghost. All different ways to deliver applications or operating systems to managed devices, however none of those technologies were suitable for delivering software to unmanaged devices and using these technologies in isolation meant there was a lot of duplicated effort.

1.4. The Requirement

After the merge we wanted to centralize our IT department and optimize our services as much as we could. We had also reached a point where our infrastructure for managing software delivery was no longer fit for purpose. For example, completion of a new request for a software application by a user was regularly missing SLAs. Sometimes, even after testing, an increasing number of packages are not working after deployment. This is contributing to user dissatisfaction with their IT Service as a whole.

With many ambitions the University had when it came to delivering software to staff and students. Key issues being the ability to:

- Deliver applications to the desktop quickly and efficiently
- Improve timetabling and asset management
- Redistribute software license costs to enable BYOD
- Easily support applications on campus on managed and unmanaged devices
- Focus on proactive student support
- Remove the need for multiple and/or large desktop images

With a focus on the student experience; we needed a solution that was efficient in the way of delivering applications to not only our managed estate but our students unmanaged devices which enabled us to keep tight control over the licenses.

Performance on machines using CAD/GIS/STEM was essential, as we required a method of delivery with no compromises, where the application could be locally executed on the device making use of some of the powerful hardware we had purchased for labs that required heaver weight applications.

We also required a solution that would enable us to make informed decisions of what software titles were being used and by whom; the ability to structure our software purchases more efficiently by knowing how many of these titles were being used and in what quantity.

Finally, an easy way for students and staff to access this large array of software without the need for complicated installation on a University owned device or a student or staff owned device on or off campus with off line access and license control.

We compared a number of possibilities, including Altiris, SCCM and AppsAnywhere and concluded that AppsAnywhere in combination with virtualization technology called Cloudpaging fulfilled all the criteria we were looking for. We engaged an organization called Software2 in the UK, as their product AppsAnywhere had several unique advantages which included but not limited to offline working and multiple delivery methods, which for us are very important.

1.5. The Present

Two years in to this project now and we have an advanced application virtualisation technology, arguably offering greater flexibility than other application virtualisation products on the market. It has already been implemented and used extensively at some of the Europe's largest universities with significant results and have with other similar organisations in Belgium been key to building a wider community using the same technology to improve the way institutions similar to ours can collaborate and collectively share resources.

Our solution enables us to deliver, manage and virtualise applications to a client machine from a centrally administered server, reducing the cost of application delivery, while improving service levels, simplifying management, and improving reliability and user experience. Users can access and work on their applications as if they were installed locally. There are no performance issues and no complicated proprietary web interfaces they need to navigate. Just one simple intuitive AppStore they visit and regardless of our choice of delivery methods, all the end user sees is one launch button for their applications.

Key benefits for us include:

- **Faster software installation and more reliable devices.**
- **Better and faster PC performance / running of applications**
- **Improved speed and flexibility of software deployment.**
- **Improved software license purchasing decision process**
- **Enhanced user experience**
- **Branded Service, the look and feel of an institution delivered service**

1.6. The Future

How do we see our future?

We would really like to get to the Any Device, Anywhere at Any time dream and by utilizing products from different manufactures that integrate with our core delivery tool, AppsAnywhere will enable us to achieve this goal. AppsAnywhere in combination with Cloudpaging has vastly improved the way we are delivering applications to our end users, whether it be students on our devices, students on their own devices, staff and administration desktops, we now have the ability to deliver our applications to any compatible device and have vastly improved the service we provide to our end users.

AUTHORS' BIOGRAPHIES

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