

**Virtualaze** low cost simplified application virtualization platform **revives obsolete Linux Thin Clients, reduces load on School IT Systems, supports School IT-Administrators and most importantly, makes pupil and teacher access to education so much easier**

Customer Story: Ellingen Elementary and Middle School, Germany

The German elementary and middle school in the city of Ellingen, in South-Germany, has centralized its administrative IT services, freeing up resources for educational and organizational purposes. The care, maintenance and support of an existing Terminal-Server infrastructure is now fully handled by the schools administrator Udo Beckstein, a teacher dedicated to IT within the school. Currently they are using four-year-old standard Linux Thin Clients.

The German educational system is now facing numerous organizational and pedagogical challenges for many reasons e.g. all-day schools, implementing elementary and middle schools in one building, the consequences of the recent testing by the Program for International Student Assessment (PISA), and the elimination of the orientation learning stage.



**Klaus Maier, Founder and Partner at Virtualaze GmbH Europe**

said: "...the main challenge for teachers of the elementary and middle school has been to find the right, simplified and low cost software resources and

management tools needed to implement the new management structures without changing the existing hard and software infrastructure...all with limited resources.

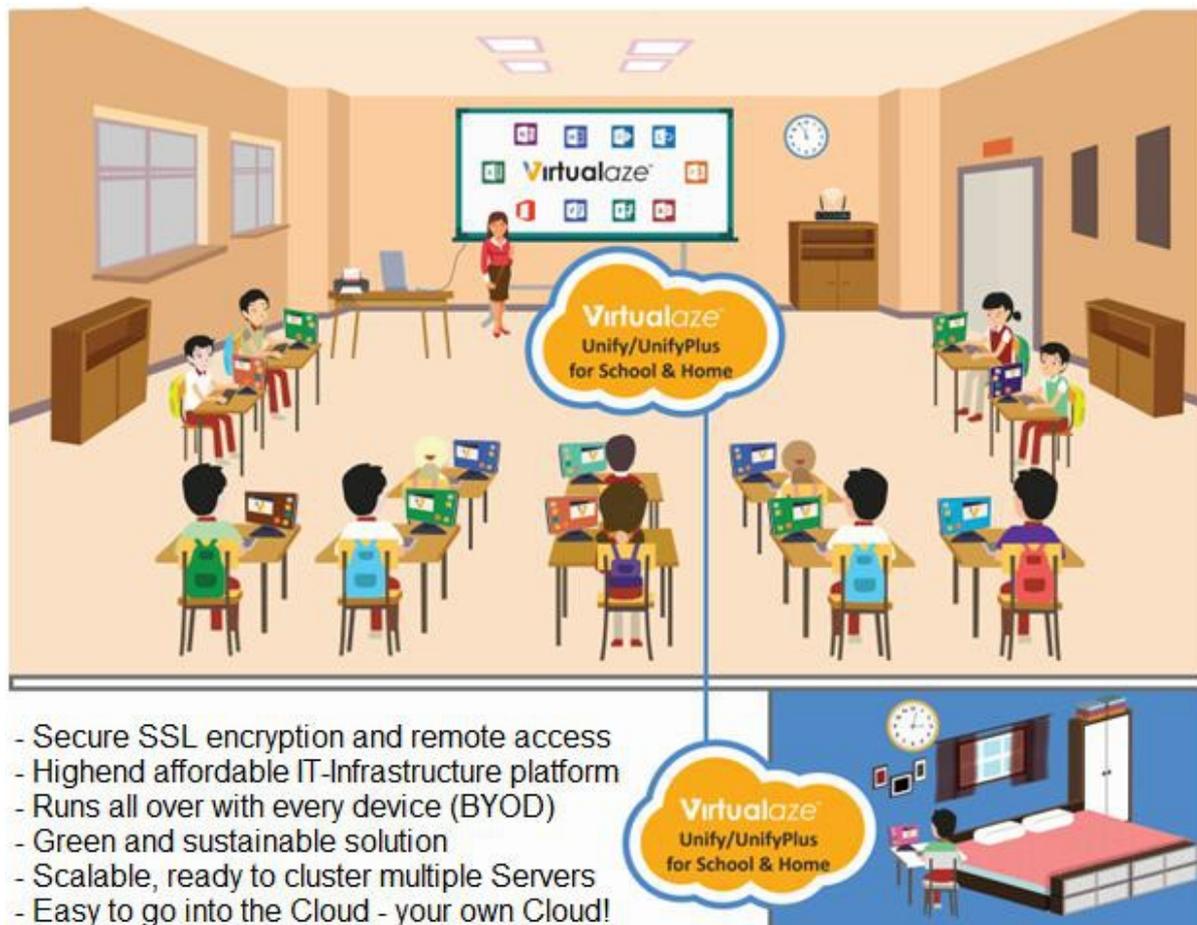


Working directly with Virtualaze headquarters in Pleinfeld/Germany, a local school in Ellingen was selected to run a pilot project by the local school council [the IT-department of "Landratsamt Weißenburg-Gunzenhausen" and the privacy officer of the entire school department."]

These leaders are constantly looking for ways of maximizing value and by finding ways to implement the latest intelligent technology solutions that will both have an immediate impact and also last in to the future, thus helping to free up crucial financial resources that can be used elsewhere.

## Internal IT Administration was simply too Involved

The elementary school operates approximately 30 Thin-clients and a similar number of existing desktop PCs. The schools IT system environment only had one option and that was the modernized route only affordable and available by adopting and installing Virtualaze across the entire system. The school had one Windows 2012R2 server, one NAS and 30 Thin Clients along with multiple independent Windows XP/Visata PCs, each running locally installed Windows based school-software.



- Secure SSL encryption and remote access
- Highend affordable IT-Infrastructure platform
- Runs all over with every device (BYOD)
- Green and sustainable solution
- Scalable, ready to cluster multiple Servers
- Easy to go into the Cloud - your own Cloud!

To administer the entire school/training IT administrator and teachers had to spend a lot of their leisure time managing all end user devices with only the basic Microsoft delivered support tools. The IT Teacher(s) often commented: "The maintenance and updating of the school specific software was very time-consuming and required additional time to create backups or to ensure that the Windows Terminal-Server was up to date. Since we only had standard 'totally open' Windows Desktops, pupils



were able to modify system/application settings and this had to be sorted out on a daily basis. In addition there were ongoing problems with inconsistent data which occurred frequently and caused lessons delays or postponed. All of this was due to a non-productive standard Terminal-Windows Desktop environment.....but what choice did they have?

Now, with benefits of Virtualaze, enabled the School administrators to revive their faith in technology and the role as the schools IT administrator where historically more and more of their time was dedicated to sorting out IT problems on a voluntary basis. Using the Virtualaze Software platform of both Unify and UnifyPlus the school was able to reduce access to unnecessary yet available Windows Applications on the Windows desktop. They were also able to manage and complete the entire installation in only a matter of hours. Most of the maintenance can now be carried out remotely so via the single Virtualaze management tool, called the "Deployment Center".

Behind the centralized management tool, which also works remotely from any location (or with any device, on demand) is a whole suite of functions and features which were not provided by the likes of the Microsoft Terminal-Server software.

<b>Table: Costs/Benefit Analysis for Virtualaze/Client/IT-Management</b>		
Acquisition Costs	No	Future
Client devices:	Reused Thin Clients or donated PCs	None/BYOD
Additional Service:	None, easy installation and self managed IT	
Virtualaze Software:	School Site License	Update/Subscription Fee
Virtualaze Service:	None, easy to manage, self explainable	
Third Party Support:	Low Cost, Hardware Replacements, Optional: Monthly Service Fee from Cloud Service Providers	
Third Party Licenses:	Mirosoft RDSH or VDI School Licensing	

Virtualaze simply shrinks the management focus to just one or multiple clustered Applications. At their fingertips they can now remotely manage Servers, Users (Active directory support), simple & driverless remote printing, automated user data synchronization, group management and clustered application deployment on demand.



Virtualaze UnifyPlus is enabled via Windows and browser based HTML5 access clients running through a dedicated Web/Cloud Gateway server. The solution even gives the administrator the option to reuse or integrate existing PCs, tablets, Chromebooks, Zero/Thin Clients, Pi and laptops. By default, Virtualaze is 'Cloud-ready' and even pupils, teachers, administrators or other users could work on the specific school applications from home. A 128 Bit SSL encryption protects the data traffic between the Application Launcher (Access client) and the Virtualaze Application Server infrastructure.



**Virtualaze** Media-Corner PCs

Historically even the use of the school-based data was a complex and time consuming process which the Virtualaze software was able to support and simplify....and all within less than an hour and with the addition of an additional 'low-cost' W2012R2 Virtualaze Application Server. Also very important was the fact that the school required very little training or costly maintenance agreements. It is now expected that no on-going support will be required as the user interfaces are well organized, intuitive and self explanatory.

The Virtualaze Workspace is a 'locked' desktop which means the pupils (and teachers) can't modify anything on the desktop or change icon settings etc. Most importantly this means that the pupils and teachers can be more productive and can concentrate on delivering education in line with the governments staregy and targets....the original hope for IT within Education and Industry!

## **Centralized Application Servers, Applications, Data and Thin Clients**

To address these problems and the excessive workloads faced by IT personnel, the school district saves lots of money as it no longer needsto outsource the maintenance, support and administration of its IT system...they may just need to contact Virtualaze from time to time to get software updates. Klaus Maier, CEO of Virtualaze said: "Virtualaze provides highest simplicity in IT-infrastructure platforms for schools, organizations and companies with multiple computing workplaces within the IT sector!" With a huge dedicated developer and support team, today Virtualaze serves and support over 50 official distributors and agencies around the world. They are also supplying fschools, universities, government departments and enterprises as well as SMB and corporate clients.



The Ellingen elementary and middle school is one of multiple schools in the district that can demonstrate huge savings by bringing previously obsolete (or existing) computers and peripherals back to life which also helps to reduce and eliminate the chaos that the schools find themselves facing. All of this means that they can redirect budget to other important areas e.g. better software, special digital whiteboards or document scanners etc. "This initial step alone partnering with Virtualaze took a huge burden off our IT personnel," Mr. Gradl recalls. In the near future the school will get a managed and controlled Wifi access provision for all pupils to hook on the Virtualaze Application Server IT-platform. Currently, up to 200 pupils or more can use thin clients, tablet, laptops or PCs to access the application servers over an extremely secure DSL line. The solution is easily scalable and affordable, we just have to buy a new low cost server, install Microsoft Windows along with the Virtualaze software/licenses and that's it. We don't require expensive managed service contracts."

### **Virtualaze - Data Centre ready**

Of course as an alternative the Virtualaze software can be installed on any trusted Cloud Service Provider in Germany in order to save further costs e.g. hardware purchasing, additional peripherals or things like electricity.

### **Virtualaze - Power-User**

To take away other issues from school administrators, Virtualaze has also implemented another management layer in order to give the teachers the right to manage their own classes, users and applications. They are even able to add and deploy lesson specific data to the user accounts and in specific cases, the teachers can also supply a Windows desktop to both pupils or adult education courses.

Environment – Green

As the school can re-use old hardware devices which ordinarily would be thrown away, they are helping to reduce their carbon footprint enormously.

End of text, 2-2018.

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