MTU Aero Engines gives engineers remote access to Linux-hosted CAD/CAE applications and databases

"The remote users are happy with the Teradici PCoIP Remote Workstation Solution with true zero clients. Management is happy that we no longer have to rely exclusively on a single-vendor solution, and that our engineers as well as other employees have the choice of several lower-cost end-points."

DR. STEFAN GRASWALD
DIRECTOR ENGINEERING SYSTEMS
MTU AERO ENGINES AG

MTU Aero Engines is Germany's leading engine manufacturer and an established global player in the industry with 8,700 employees. The company engages in the development, manufacture, marketing, and support of commercial and military aircraft engines in all thrust and power categories, and industrial gas turbines. In the years ahead, MTU will focus its resources on its core business, seek stakes in emerging engine programs, and expand its service offerings.

AT A GLANCE

Challenge

- Central data center in Munich; remote development offices in Germany and Rzeszow (Poland); marketing presence in all significant regions and markets worldwide
- High-performance WAN access to central Linux environment (CAD/CAE applications and design database)
- Risks associated with single-vendor solution
- Unsatisfactory software support, especially for Linux, and limited hardware choices

Solution

- PCoIP Remote Workstation Solution
- PCoIP Zero Clients

Results

- **Strong working relationship:** MTU and Teradici jointly enhanced the PCoIP host software for Linux; improved level of support (full support for Teradici solution in Linux environments)
- **Lower risk:** PCoIP solution eliminates reliance on a single-vendor
- **Lower costs:** Remote offices can now choose lower-cost PCoIP Zero Clients over full workstations or traditional thin clients
- **Ultimate security:** PCoIP technology ensures that all business information remains locked in the data center (no unauthorized access, tampering or malware introduction); encryption supports AES 256 for the highest level of security required by governments

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MTU Aero Engines became an early adopter of remote workstation capabilities to give employees in Rzeszow, Poland access to a central design database and CAE/CAD applications hosted in the Munich data center. Accessing remote workstations avoided the need for duplicating a large database and building out a Linux infrastructure at the remote site. However, at the time only one vendor could provide a Windows and Linux-compatible solution with adequate performance over the WAN. That was several years ago, and the single-vendor solution has since created challenges for MTU:

- MTU management considers it an unacceptable business risk to rely on a single-vendor solution for mission-critical capabilities such as remote workstation access
- Vendor support for the in-place solution had deteriorated, especially for SUSE Linux
- MTU's management was not happy being locked into the existing vendor's client hardware and wanted lower-cost alternatives

Erwin Pignitter, Senior Vice President and CIO, set up an MTU internal project to evaluate alternatives in anticipation of an upcoming desktop technology refresh.

The MTU technology team thought that the Teradici PCoIP solution could be the answer to their problems. Since the deployment of MTU's original remote workstation solution, Teradici had introduced PCoIP Host Software for Linux. By equipping racked workstations in the Munich data center with Teradici PCoIP Remote Workstation, dual display cards (based on the TERA2220 processor), MTU could give remote engineers a choice of PCoIP zero clients.

In 2013, MTU worked closely with the local Teradici team, and even collaborated to expand the Teradici PCoIP Host Software's local cursor functionality for Linux users. After that, a proof of concept was successfully carried out, first at the University of Stuttgart (200 kilometers from the MTU site in Munich) and then in Poland (approximately 1,000 kilometers from Munich).

The testing convinced MTU engineers in Rzeszow that the Linux host software with local cursor functionality provided a superior experience to the previously used technology, even under heavy processing. Aside from meeting the expectations for performance, bandwidth and responsiveness over the WAN, the solution provides true 3-D remote capabilities without any restrictions compared to a local workstation.

Upon completion of the proof of concept, engineers have had the option of choosing the PCoIP Remote Workstation Solution. By the end of 2014, MTU expects to migrate 50 seats to PCoIP Zero Clients equipped with a Remote

Products used

- PCoIP Remote Workstation card
- PCoIP Host Software for Linux
- PCoIP Zero Clients
- LEOSTREAM connection broker (managing Remote Workstation card to Zero Client connections)

Workstation card for research and engineering teams. The global deployment includes the University of Stuttgart and MTU sites in Germany (Munich headquarters, Ludwigsfelde and Langenhagen sites), Poland (Rzeszow) and North America (Rocky Hill, Connecticut), to name a few.

"The remote users are happy with the Teradici PCoIP Remote Workstation Solution with true zero clients – the performance is just as good as or even better than the previous solution," said Dr. Graswald. "We are happy that we no longer have to rely exclusively on a single-vendor solution, and that our engineers as well as other employees have the choice of several lower-cost end-points."

Besides creating a multi-vendor environment, the PCoIP solution has simplified installation and administration procedures.
Although MTU is quite satisfied with the initial end-points selected for the deployment, they now have the flexibility to explore alternatives.

"Our engineers are happy, but when it comes to our overall satisfaction, we have to credit Teradici for their responsiveness and support for meeting our Linux requirements with the PCoIP Host Software in particular," said Dr. Graswald. "Good support for Linux is critical to our business, particularly to our affiliate in Poland. If support is not perfect for them, we have a problem. Now, after the successful collaboration with Teradici, we have confidence that we are in a much better position."

Dr. Graswald expanded on the benefits of many vendor options for PCoIP Zero Clients: "A broad selection of zero clients is a big advantage, compared to the past when we were bound to clients from one vendor. Now we have the cost advantage of multiple sources. Add to that the simplicity, flexibility and security of the PCoIP solution as well as the fact that users cannot tamper or alter the solution. Administration is easy. We know how to duplicate it, and we can make it available to all of our partners."

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