Technische Universität München offers fast, simple and smart hosting services with SAP and IBM

Technische Universität München (TUM) is one of the world's leading technical universities, combining top-class facilities for cutting-edge research with unique learning opportunities for more than 37,000 students. The department of informatics serves just over 3,500 students, with a strong focus on links to industry. The SAP University Competence Center location at TUM provides educational services to a total of 217 other institutions for higher education.

As the hosting partner of the SAP University Alliances program, the UCC location at TUM offers a full range of educational outsourcing services, including application outsourcing, infrastructure operations, educational services and shared services. SAP University Alliances program members benefit from problem solving, avoiding the effort of installing and maintaining both hardware and software. Members have the opportunity to acquire and strengthen SAP competence, attend trainings and learn how to apply teachings to their classes and become part of a community of academics using SAP software in teaching and research.

Fostering innovation

With a tag line of "the entrepreneurial university", TUM is committed to helping its student body and academic staff develop leading-edge skills.

As part of this commitment, the SAP University Competence Center provides educational support as well as commercial hosting services for a range of SAP applications – including highly advanced protein research capabilities. Helmut Krcmar, Professor of Information Systems at the Technische Universität München and Academic Director of the SAP University Competence Center, says: "I believe

Overview

Challenge

To make its latest hosting services offering based on SAP HANA a realistic proposition, the SAP University Competence Center at TUM needed a cost-effective platform, agile enough to meet changing customer demands at low cost.

Solution

By deploying an integrated stack of IBM solutions, Technische Universität München gained the ideal platform for high-performance, ultra-flexible SAP hosting services.

Key benefits

The solutions helps the SAP University Competence Center at TUM retain its reputation as a pioneer, enabling it to deliver reliable, competitive hosting solutions to customers while equipping staff and students with marketable skills.

Business Challenge

Technische Universität München (TUM) prides itself on going beyond research to put staff and students' skills to practical use. The SAP University Competence Center location at TUM does just that, providing commercial hosting services. To make its latest offering based on SAP HANA a realistic proposition, the center needed a cost-effective platform that is agile enough to meet changing customer demands at low cost.

that our SAP University Competence Center is one of the only ones in the world that offers commercial hosting services while carrying out in-depth research into the process of doing so."

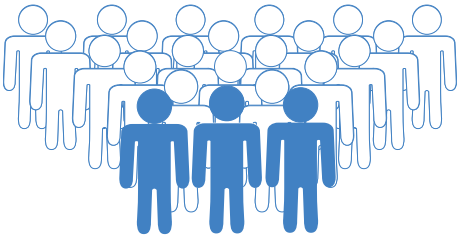
Klaus Andreas Span, Executive for Business Development for IBM Power Systems EMEA, adds: "IBM works closely with Technische Universität München within its SAP University Competence Center, sponsoring the organization with hardware, services, software and cooperation with SAP to test and develop applications built on SAP solutions. Technische Universität München and IBM have a long-standing partnership and relationship, which is based on mutual respect and taking our technology and making it accessible to a new generation of customers and academics."

> "Technische Universität München, IBM and SAP are coming together to help information services progress, equipping the next generation to meet the skills shortage in Europe."
>
> **Helmut Krcmar**
> Professor of Information Systems at the Technische Universität München and Academic Director of the SAP University Competence Center Technische Universität München

Recognizing a growing demand for in-memory, more powerful computing platforms across multiple industries, the university developed a new offering based on SAP HANA® solutions.

Helmut Krcmar comments: "When it came to choosing the platform to support our SAP HANA offering, we needed to take a variety of factors into account and find the right balance that would mean the best outcome for our staff, students and customers. The requests that we face from our customers are truly 'on-demand', with very great variation between workload types from one moment to the next, so we need a platform that can cope with that.

"Working in the educational sector, low running costs and competitive pricing is more important than ever, so aspects such as power requirements



Serve a growing customer base without adding too much to headcount

and manageability were priorities to us. We also needed to ensure that we could comply with strict SAP certification requirements."

Unleashing power and flexibility

With flexibility, scalability and low operational costs in mind, TUM chose to deploy an integrated stack of IBM hardware featuring IBM® Power® S822 servers and IBM XIV® storage, along with SUSE Linux Enterprise Server to support its new SAP HANA hosting service.

"We have partnered with IBM for a long time with great success, so IBM POWER8® was a natural choice," explains Helmut Krcmar. "Of course we looked at other options, but quickly realized that from both the perspective of performance and flexibility, IBM Power Systems™ solutions were the clear front runner. With IBM solutions, we are also able to meet the conditions for SAP certification – helping to give our customers confidence that they can fully rely on our services."

With IBM Power Systems solutions, TUM is able to dynamically adjust the ratio between memory and the number of cores being used for particular workloads, helping to ensure optimal performance for a range of requirements.

Helmut Krcmar says: "We chose to test IBM Power Systems for SAP HANA because we feel that it gives us enough performance, power and flexibility to fulfill our customer needs, and is also very cost-effective. The solution offers faster and easier data access, enabling us to provide a service to customers that is both high-quality and affordable."

Klaus Andreas Span continues: "By running SAP HANA on IBM Power Systems, TUM can take advantage of a platform that has been purpose-built for resilience, speed, power and efficiency. Incorporating SUSE Linux Enterprise Server, it is also an open and stable environment. Ultimately, this combination is ideally suited for those working with mission-critical data."

Technische Universität München

Solution

The university chose to deploy an integrated stack of IBM solutions, including IBM Power S822 servers and IBM XIV storage, to support its SAP HANA hosted solutions. Drawing on the in-built virtualization capabilities of the IBM Power Systems platform, TUM can now offer exceptionally flexible services to rapidly meet a wide range of customer demands, while maintaining a low management burden.

Key Solution Components

Industry

Education

Applications

SAP HANA®

Hardware

IBM® Power® S822,

IBM XIV® Storage System

Software

SUSE Linux Enterprise Server

Fast, simple and smart

Based on a fully integrated stack of solutions, the IBM platform enables TUM to deliver on a wide range of customer requirements while keeping things simple.

Harald Kienegger, co-executive director of the SAP University Competence Center at Technische Universität München, explains: "There are many benefits to working with the latest IBM POWER8 technology in our data centers. On one hand, the flexibility and scalability allows us to serve a diverse range of customer needs at once. On the other, SAP HANA on IBM POWER8 also offers us agility, an advantage when we cannot always predict what our customers might need."

Additionally, by giving the university's students and staff access to the latest technology, the solution is helping TUM make a wider impact, while enhancing its own reputation as an appealing place to study and work.

Helmut Krcmar says: "Technische Universität München, IBM and SAP are coming together to help information services progress, equipping the next generation to meet the skills shortage in Europe.

"We have partnered with IBM for a long time with great success, so IBM POWER8 was a natural choice. We chose to test IBM Power Systems for SAP HANA because we feel that it gives us enough performance, power and flexibility to fulfill our customer needs, and is also very cost-effective."

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SAP HANA on IBM POWER8 gives us the ability to scale up flexibly and economically to serve worldwide programs while pursuing our educational goals, and we can run the way our customers need us to: fast, simple and smart."

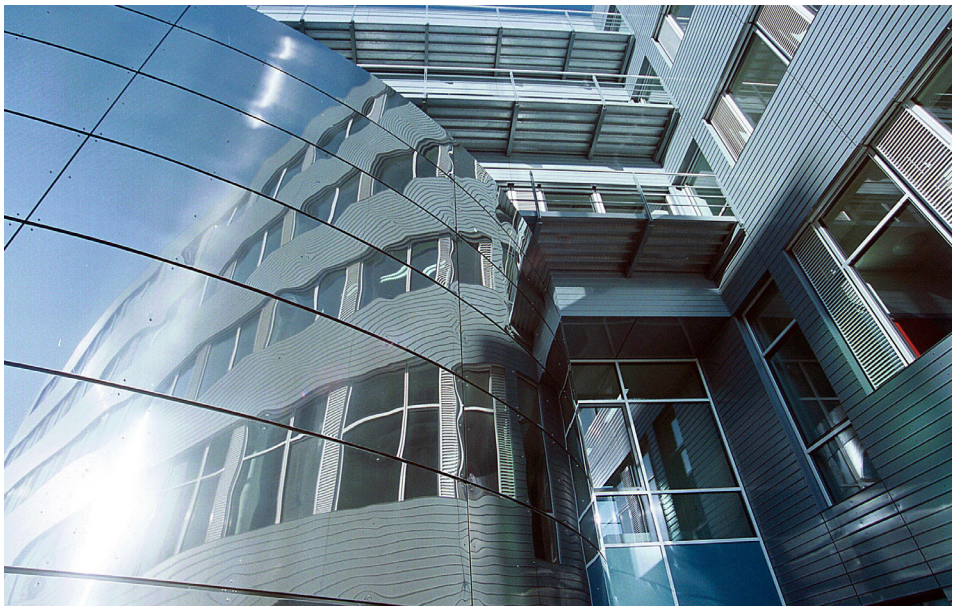
Enhances the university's reputation

Looking to the future

The IBM and SAP solution will form the basis for a significant new offering at TUM, which will contribute to the university's reputation as a pioneer.

In particular, Technische Universität München is recognized for its leading work in assisting research into proteins and chromosomes, a potential breakthrough area for human medicine.

Helmut Krcmar concludes: "We will host a global database called ProteomicsDB on SAP HANA and IBM Power Systems, which will enable users from industry and research to browse proteins and chromosomes to explore the human proteome. By providing an insight into how different proteins work and fill in the gaps in the human proteome, the database is expected to make a very real contribution to progress in pharmaceutical research. This is just one of the many exciting and practical applications for our new SAP HANA on Power Systems solutions that we foresee making waves in the educational sector and beyond."



Business Benefits

- **Helps TUM play its part in addressing the European skills crisis by training staff and students to use state-of-the-art technology**
- **Enables the university to provide cost-effective services that meet the needs of a growing customer base without adding too much to headcount**
- **Enhances the university's reputation as a pioneer with strong industry links, attracting new students and funding**

Watch the video on Technische Universität München

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