Welcome to Germany's No. 1

Engineering Cloud

We empower engineers and drive our customers'
excellence and innovations! Get your dedicated
and secure cloud environment for CAE as a Service,
Engineering Web Services or Systems Engineering.

Content

What is the CPU 24/7 Engineering Cloud?

The CPU 24/7 Engineering Cloud is a secure and dedicated IT platform offering engineers and scientists various IT services for the entire product development process and product life cycle, including all relevant applications for computer-aided engineering (CAE), IoT, machine learning, deep learning, data science and more.

These services, such as high-performance computing (HPC), data sharing and measurement data platforms, applications-as-a-service and platform-as-a-service, are provisioned 'on-demand' and eliminate expensive upfront investments.

By allowing engineers and scientist to focus completely on their engineering tasks, the CPU 24/7 Engineering Cloud helps small, medium-sized and large enterprises innovate faster and become more agile.

Several organizations already rely on our IT services and solutions, e.g.:

brose Technik für Automobile   automotive engineering **iaυ**   **MEYER WERFT** PAPENBURG 1795   Mvoid   Rolls-Royce

What makes the Engineering Cloud special?

Based in Potsdam, Germany's No. 1 Engineering Cloud Provider CPU 24/7 GmbH, has been successfully supporting the digitalisation of many companies in the fields of industrial and scientific engineering since 2006.

Whether cloud solutions for single users, for temporary cloud bursting or complete outsourcing, CPU 24/7 always provides a suitable IT environment – backed by nearly 15 years of experience and technology expertise in exciting cloud projects and various industries, e.g. in the automotive, aerospace, maritime & offshore, manufacturing, chemicals, energy, and life science industries.

We empower engineers, much more quickly and securely!

01
Highest security standards

CPU 24/7 is ISO 27001 certified and TISAX accredited. In addition, the CPU 24/7 IT infrastructure is located in a high availability & high security data centre (TIER 4) in Berlin and we also set high security standards when selecting other service providers (ISO 27001).

02
Personal VIP support

Customers can completely rely on CPU 24/7's VIP support, ready to deliver personalised and fast support for almost any question or issue. Backed by a vast amount of knowledge, the engineers at CPU 24/7 get the customer's system benchmarked, configured, tested, operational, tuned-up and update quickly and reliably.

03
Longstanding expertise

With nearly 15 years of experience and technology expertise in the engineering industry, CPU 24/7 has successfully implemented numerous projects using the latest and most stable cloud technologies.

04
End-to-end responsibility

We assume end-to-end responsibility for our customers' projects, from data centre operations and the most suitable and performant physical infrastructure to the sovereignty of all system components (hardware & software) and ongoing services. Contributing to a well thought-out, scalable, individual and secured solution is of utmost importance to CPU 24/7.

We drive excellence in the delivery of our services.

CAE as a Service

Provision and management of scalable, preconfigured and ready-to-use HPC resources for CAE (CFD, CSM), as well as multi-design optimization and 3D visualisation, including the respective CAE application, to run simulations more quickly and more securely.

Engineering Web Services

Provision of various applications based on a service catalogue (application-as-a-service), container platforms (container platform-as-a-service), as well as different collaboration / groupware solutions for an optimal communication and collaboration between all domains of an engineering project. Thus, CPU 24/7 ensures customer-specific, solution-oriented and smooth integration of individual tools into the customer's IT landscape.

Systems Engineering

First-class consulting and solutions for the daily work of engineers, whose interfaces and colleague interactions are becoming increasingly complex and specialized. Here we use our experience from IT and bring data-driven solutions with us. Our future services include services for the productive design of product development (PDM), for system life cycle management (SysLM) and variant management.

Find the cloud you wish for.

Private

Engineering Cloud

Managed private cloud solution in CPU 24/7's high security data center

Features:
- CPU 24/7 cluster resources in ISO 27001 certified German data centre
- TISAX-compliant setup and operation of physical (bare-metal) HPC resources and according to customer requirements
- Implementation of company guidelines (compliance) and individual agreements
- Secured connection via VPN or dedicated line

Public

Engineering Cloud

Managed public cloud solution on AWS or Azure

Features:
Managed centralized enterprise solution on AWS for the entire company, including:
- Account management
- Implementation of company guidelines (compliance)
- Connection of company networks via secured transit zones
- Service provider control
- Monitoring, reporting and centralized billing automation

Development and operation of managed services in AWS (+ Microsoft Azure):
- IoT solutions
- Kubernetes, Nextcloud etc.
- Highly customised solutions (e.g. SaaS)

Hybrid

Engineering Cloud

Managed hybrid cloud solution with different secure connection options

Features:
- Ad hoc scaling to cover peak loads (auto scaling)
- Connection via secure cloud connectors
- TISAX-compliant setup and operation of hybrid cloud services according to customer requirements

Connection options:
- CPU 24/7 cluster resources to on-premise customer systems
- Public cloud resources to CPU 24/7 systems
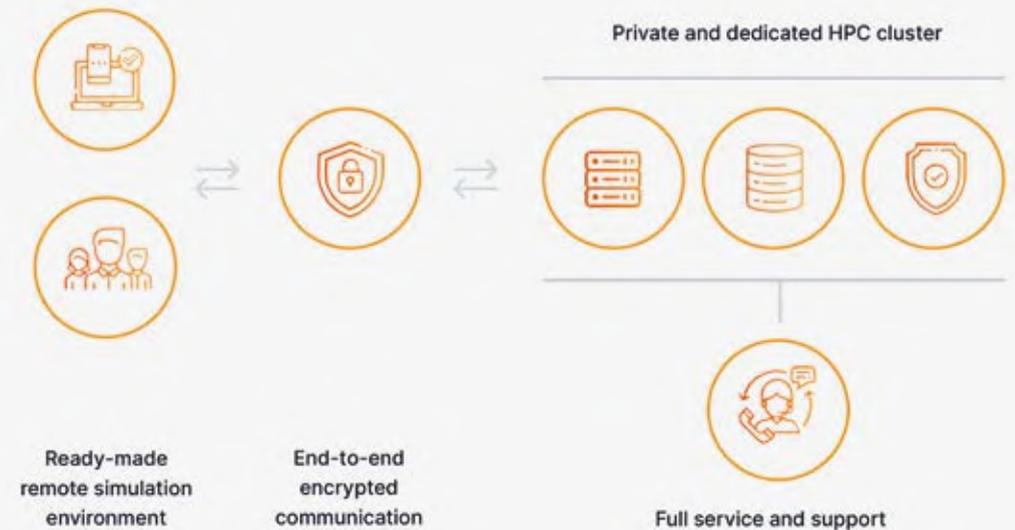- On-premise customer systems to public cloud resources

Get your flexible and ‚ready-to-use' HPC resources.

Most CAE computations require the latest and fastest high-performance computer hardware and software technologies to keep up with the demand from the ever-growing complexities in these models. And only a perfectly designed, configured and operated HPC system will be able to operate at peak performance. Such HPC systems include high performance servers, specialised high-throughput network components, specialised simulation application software, complex configuration management and – last but not least – comprehensive security measures to protect important intellectual property.

CPU 24/7 Engineering Cloud provides flexible, pre-configured and 'ready-to-use' HPC resources, including the right CAE application and licenses to run your simulations much more quickly and securely.

How it works

Private and dedicated HPC cluster

Ready-made remote simulation environment

End-to-end encrypted communication

Full service and support

CPU 24/7 is Cloud Hosting Partner of:

Ansys   AVL   DYNA MORE

HEXAGON | MSC Software   NISP   VEMECA   SIEMENS Ingenuity for life

Our core services for CAE as a Service.

HPC Essentials

- Hosting of HPC systems
- License management
- Software installation
- Operations | Maintenance | Tuning of HPC systems
- Reporting | Analysis

Consulting

- Requirements analysis
- Benchmarking
- Design of highly customised HPC clusters (test and/or productive systems)

Full Service VIP Support

- Personal and individual, in German and English by telephone, email or ticket system
- Initial user specific configuration
- Upgrading / updating of software
- Trouble shooting

IT Security

- ISO 27001 certified Information Security Management System
- TISAX-approved
- Data security
- Dedicated and private CAEaaS infrastructure
- Secure channels and protocols

Customer-specific and scalable IT platforms.

Germany's No. 1 Engineering Cloud provider supports you with first-class IT platforms and applications for the entire product development process and life cycle in the engineering field.

Whether you need infrastructure-as-a-service, container-platform-as-a-service, applications-as-a-service, secure measurement data and data exchange platforms, or several collaboration / groupware solutions, our Engineering Web Services department provides you with customised and secure solutions spanning the entire devops toolchain for all the 'smart' areas, including IoT, machine learning, deep learning and data science.

Securely share, collaborate, communicate and manage

Sharing Services to securely exchange data with customers or external project partners, for example with Nextcloud hosted by CPU 24/7

Collaboration Services to develop together with customers or external project partners, for example in a project-related Gitlab or Jira/Confluence securely hosted by CPU 24/7

Communication Services for both internal and external purposes as well as for events, or to communicate on a project-related basis, for example via Rocket.Chat or Jitsi securely hosted by CPU 24/7

Platform-as-a-Service options for customers to, for example, orchestrate or deploy their own container solutions in their Kubernetes cluster, which is managed safely and securely by CPU 24/7

Customer's devices

Customer's users

Security Appliances

Multi AD connector

Share

Collaboration

Communication

Platform

Common Data Pool

Highly secure, failure-resistant high availabilty infrastructure

Our core services for Engineering Web Services.

EWS Essentials

- Setup and operation of test and/or productive platforms /applications
- Integration and networking of several individual tools
- Setup and operation of a VPN connection (VPN as a Service)
- Setup and operation of databases
- Setup and operation of a Docker registry
- Reporting | Analysis (Monitoring as a Service)

Consulting

- Requirements analysis
- Design of the most suitable platform / infrastructure as test and/or productive system

Full Service VIP Support

- Personal and individual, in German and English by telephone, email or ticket system
- Administration services tailored to your needs
- Initial user specific configuration
- Upgrading / updating of software
- Trouble shooting

IT Security

- ISO 27001 certified Information Security Management System
- TISAX-approved
- Data security
- Dedicated and private IT infrastructure
- Secure channels and protocols

Consulting services and solutions to resolve product complexity.

Systems Engineering copes with ever-increasing complexities of a specific product which is under development. Growing hardware and software interdependencies, along with continually releasing new functions and updates with state-of-the-art technological approaches, renders Systems engineering indispensable.

Besides your product inherits new challenges and requirements with its ability to connect to the outside world and its transition to being one of a million IoT (Internet of things) devices. This change involves not only constrains but also more data and hence, more possibilities to create more customer values. The development from a simple offline product to a highly connected and smart mechatronic system is the focus of CPU 24/7's Systems Engineering team: We focus on data-driven systems development. And we understand data as a chance to:

- Reveal dark data of your product's environment
- Enable your team to think of what they can do with data
- Make dependencies to your product's surrounding visible

CPU 24/7 helps companies resolve the complexity and create new perspectives by predominantly offering consultation, a problem-centric analysis of the current system as well as plausible improvements and potential benefits.

Fields of work at CPU 24/7

We enable you to develop sustainably by putting data into the right context:

- Creating and maintaining a context map
- Hosting your context map as a service
- Training your mechanical-focussed developer to realize what doors data-driven development opens

Context Map gives you...

- Better overview of the features placed in the system
- Faster access to contextual knowledge to drive an idea and to assess: Is there necessary data?
- Quicker availability of detailed information, simulations, requirements, and tests
- Easier implementation of features involving several systems

Your Benefits

- Enable your product to become an IoT device
- Enter data-driven development of your products
- Occupy new markets by incorporating digital business models with your core products as a starting point

We comply with the highest security requirements.

The security of your data is at the centre of our services. Our services comply with the strictest security requirements.

CERTIFIED INFORMATION SECURITY
CPU 24/7's information security management system (ISMS) is ISO 27001 certified and TISAX-accredited (highest level).

DATA SECURITY
Your data is processed in our high-availability and high-security data centre (TIER 4) in Berlin, Germany, and is handled in accordance with the GDPR.

SECURE CHANNELS AND PROTOCOLS
For communication, we always use secure, industry-standard, and authenticated connections and protocols with basic encryption (e.g. SCP, SSH, or FTPS). As part of individual security agreements, encrypted VPN connections or dedicated lines are also a valid option. With most of our solution, we set up individual, enterprise-class security and availability agreements as well as wide-ranging confidentiality agreements, service level agreements or a system security policy.

DEDICATED AND PRIVATE IT INFRASTRUCTURE
CPU 24/7 solutions are based on dedicated and private IT infrastructure and thus its use is confined to the specific client. Customers and their data are isolated by completely separate systems.

Okay, let's do this!

Get in touch and contact us:

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