

PSS®E Hybrid Cloud

Product Sheet (Documentation)

PSS®E Hybrid Cloud provides transmission planning simulation capabilities over the cloud that enables users with on-demand computation power from their PSS®E on-premise to accelerate daily tasks and simulate even the most complex scenarios with shorter wait times. The PSS®E on-premise application has built-in access to Hybrid Cloud capability that, when subscribed, calls the cloud, on-demand, using Cloud APIs from a PSS®E's on-premise software.

PSS®E Hybrid Cloud is an optional, SaaS, add-on module to PSS®E's on-premise offering. PSS®E Hybrid Cloud runs on PSS®Cloud and sends simulations from the PSS®E on-premise software to the cloud for when additional computation power is needed.

Documentation

General

Value Proposition

Siemens PSS®E Hybrid Cloud supports PSS®E users in the following areas:

- Securely access the cloud on-demand from an on-premise PSS®E for a simulation boost to accelerate daily tasks and simulate even the most complex scenarios with shorter wait times.
- Leverage the cloud to easily scale based on business needs without complex server setups, avoiding high costs associated with implementing and maintaining extra servers, IT infrastructure or additional accounts.
- Leverage both on-premise and cloud-based access to PSS®E for enhanced reliability and availability.
- No permanent storage of CEII critical data on the cloud, reducing security concerns without sacrificing the benefits of cloud software.

Prerequisites

Operating systems and web browsers for users	PSS®E Hybrid Cloud is a Cloud Service with a web-based browser frontend for use on computers or notebooks. PSS®E Hybrid Cloud uses the PSS®Cloud backend which requires a recent version of an HTML5 capable Internet Browser, e.g. Google Chrome
Software	A separate valid subscription to the PSS®E on-premise version 36.2.0 or above is required.

Description & functionalities

PSS®E Hybrid Cloud Button	PSS®E Hybrid Cloud is accessed from the PSS®E on-premise GUI. The PSS®E on-premise application can launch PSS®E Hybrid Cloud on-demand to send studies to the cloud for simulation by the press of a button.
PSS®E Cloud API	PSS®E Hybrid Cloud uses Cloud APIs, whose Client API application is downloaded from the PSS®E Cloud X Web User Interface after signing up to the PSS®E Hybrid Cloud Subscription. The Customer's python scripts are updated with Cloud API calls to send studies to the cloud for simulation.
Use restriction	You acknowledge that simulations in Siemens PSS®E Hybrid Cloud are limited to simulations of equivalent on-premise versions which has been created by Siemens based on experience and the data or other information provided by the customer and results may not fully correspond to the real-world behavior. The interpretation, implementation and utilization of reports, concepts and results is the sole responsibility of the Customer. Siemens does not assume any liability, warranty, or guarantee for the feasibility or usability of reports, concepts, and results, nor for actions or omissions based on the reports, concepts, proposals, or recommendations. You will not use the Siemens PSS®E Hybrid Cloud in any way to create a product that provides competing functionality to the Siemens PSS®E program, or use Siemens PSS®E Hybrid Cloud for the training of artificial intelligence models

Roles and authentication services

Authentication and Access	<p>This application uses the Siemens ID digital identity system for authentication. Therefore, a personal Siemens ID user account needs to be created before the application can be used. Registration on Siemens ID will be performed automatically for PSS® Cloud with email address provided at ordering. Siemens ID accounts itself can be managed via Siemens ID self-service (https://uss.login.siemens.com). Terms and conditions for Siemens ID are available on https://id.login.siemens.com.</p> <p>Customer needs to define a technical admin (provided at ordering – email address needed). This technical admin can manage customer users, i.e. adding users up to the allowed number.</p> <p>Computation hours are reset at 12:00am on the first day of the next month.</p>
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Cybersecurity and maintenance

Cybersecurity Siemens' cloud infrastructure is operated under a cybersecurity governance model aligned with ISO 27001 and providers of Siemens' cloud infrastructure are required to (i) implement and maintain a cybersecurity program that complies, inter alia, with ISO 27001 or a successor standard (if any) that is substantially equivalent to ISO 27001 and that is designed to provide at least the same risk management and security controls as evidenced by the certification of the providers under ISO 27001 and (ii) have the adequacy of their cybersecurity measures annually verified by independent auditors. This Section contains Siemens' entire obligation regarding the security of the cloud infrastructure for the Cloud Services.

Certificates Cybersecurity certificates like ISO 27001 as well as other documents like STAR Registry Listings, can be found on Siemens' website (www.siemens.com/system-certificates) or external websites like <https://cloudsecurityalliance.org/star/registry/siemens-ag>. Cybersecurity certificates can also be obtained upon request.

Securities Advisories Siemens investigates reports of security issues and publishes Security Advisories for validated security vulnerabilities that directly involve Siemens products and require applying an update, performing an upgrade, or other customer action. As part of the ongoing effort to help managing security risks and help keep systems protected, Siemens discloses the required information necessary to assess the impact of a security vulnerability under www.siemens.com/cert.

Entitlement Metrics and Limitations

Entitlement Metrics The subscriber of PSS®E Hybrid Cloud has the following entitlements:

- Subscription Package
- Number of users
- Number of workers
- Computation hours

Subscription Packages The PSS®E modules that can be simulated using PSS®E Hybrid Cloud are included with their Subscription Packages in the table below. The descriptions of each PSS®E Modules can be found in the Modules section of the PSS®E website: www.siemens.com/pss-e

Subscription Package	Included Modules
PSS®E Hybrid Cloud Basic	<ul style="list-style-type: none"> • Graphical User Interface and Contour Plotting • Power Flow • Contingency Analysis • Voltage Stability (PV/QV) Analysis • Python and IPLAN Scripting • Transmission Reliability Assessment
PSS®E Hybrid Cloud Standard	<ul style="list-style-type: none"> • All Modules in the PSS®E Hybrid Cloud Basic Package plus: • Line Properties • Dynamic Analysis • Short Circuit Analysis
PSS®E Hybrid Cloud Advanced	<ul style="list-style-type: none"> • All Modules in the PSS®E Hybrid Cloud Standard Package plus: • Advanced Contingency Analysis and RAS

	<ul style="list-style-type: none"> • Optimal Power Flow • Geomagnetically Induced Currents • Advanced Linear Analysis
PSS®E Hybrid Cloud Expert	<ul style="list-style-type: none"> • All Modules in the PSS®E Hybrid Cloud Advanced Package plus: • Harmonics • Time Series Power Flow

Users All PSS®E Hybrid Cloud packages will include the same number of users that are available on the on-premise PSS®E. The on-premises PSS®E is managed in a separate set of Terms and Conditions.

Workers All PSS®E Hybrid Cloud packages will include a maximum number of workers. The workers allow for parallelization of work on the cloud to provide the computational power to speed up simulations.

Computation Hours The PSS®E Hybrid Cloud Packages will include computation hours as part of the subscription. These hours are used to run simulations on the cloud. These are monthly computation hours that are reset on the 1st of each month and terminate at the end of the subscription term. Computation hours are not carried over.

Add On Computation Hours PSS®E Hybrid Cloud Add-On Computation Hours can be purchased at any time during the subscription term. Computation hours are added to the existing monthly allocation every month for the remainder of the subscription term.

Limits The limits of PSS®E Hybrid Cloud are based on the PSS®E on-premise offering because it is an add-on to it. The PSS®E on-premise has it's own terms and conditions.

Subscription Packages	PSS®E Hybrid Cloud Basic PSS®E Hybrid Cloud Standard PSS®E Hybrid Cloud Advanced PSS®E Hybrid Cloud Expert	
Users	Number of users is based on PSS®E on-premise, maximum 300 users	
Computation Hours	Monthly Computation hours are based on the number of users.	
	1-2 Users	250 computation hours per month
	3-10 Users	500 computation hours per month
	11-30 Users	750 computation hours per month
	30+ Users	1,500 computation hours per month
Workers	Maximum 800 workers for all users across entire organization	
Add-on Computation Hours (optional)	250 additional computation hours per month that are purchased separately.	

Changes between Subscription Packages (Upgrade / Downgrade)

Any changes to PSS®E Hybrid Cloud subscription packages depend on the equivalent PSS®E on-premise version as a pre-requisite. Upon customer's request, and only if on-premise PSS®E is adapted, Siemens may adapt the selected PSS®E Hybrid Cloud subscription package to a higher value subscription package (Upgrade). Lower value subscription packages (Downgrade) can only be requested by the Customer prior to renewal of the Subscription Term, and match the subscription package of the on-premise PSS®E.

Payment Terms

General	<p>The fee for the ordered Subscription package is invoiced annually in advance. Additional fees for Upgrades will be calculated on a daily basis and are fully invoiced immediately after activation of the Upgrade.</p> <p>In the case of three-year packages paid upfront, the fee for the booked subscription is invoiced three years in advance or invoiced annually as stated in the Order.</p> <p>If nothing is stated in the Order the entire fee will be invoiced in advance.</p>
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No-Charge and Trial Offerings	<p>The Subscription Term for No-Charge and Trial Offerings is limited to 1 (one) month and will automatically terminate after expiry of this one-month period unless a different date is agreed in writing by both parties</p>
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Support and service levels

Agreed Service Level	<p>Commercially reasonable efforts will be used to provide at least 98% Monthly Uptime Percentage. "Monthly Uptime Percentage" means the percentage of the Service being available on average during a calendar month, based on internal availability measurements. Monthly Uptime Percentage excludes downtime resulting directly or indirectly from any SLA Exclusions. The Service is defined to be available if at least 4 out of 5 times within a 5- minutes interval the User interface is accessible at the exit of the wide area network of the data center used by us.</p>
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Service level exclusions ("SLA Exclusions").	<p>Service level commitments exclude downtime resulting directly or indirectly from any SLA Exclusions. "SLA Exclusions" means unavailability or any other performance issue causing downtime of the Cloud Services as a result of:</p> <ul style="list-style-type: none"> (i) scheduled maintenance; (ii) downtime for which at least 24 hours prior notice is provided to Customer; (iii) factors outside Siemens' reasonable control; (iv) actions or inactions of Customer or any third party; (v) any equipment, software or other technology not provided by Siemens; or (vi) suspension or termination of the Cloud Services in accordance with the Agreement
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Remedies for not meeting service level.	<p>Customer must submit to Siemens a support case within 30 days after the end of each relevant Month in which Siemens did not meet the Monthly Availability. Any claims not submitted by Customer within the specified time period may be denied by Siemens, and Siemens will have no further obligation to Customer with respect to such failure to meet the Monthly Availability. If Siemens is unable to meet the Monthly Availability for Cloud Services three or more times in a calendar year, then Customer will have the right to terminate the Order for the non-conforming Cloud Services. In the event of such termination, Siemens will refund any prepaid fees for the terminated Cloud Services on a pro-rata basis for the remainder of the Subscription Term for that Cloud Services. The</p>
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remedies provided in this section will be Customer's sole and exclusive remedies with respect to availability of the Cloud Services.

Support

Contact

Customer may contact Siemens' Technical Support organization as primary point of contact for support in relation to the Cloud Services. Unless otherwise directed by Siemens, all Support inquiries must be made through:

- <https://siemens-pss.freshdesk.com> (Customer Care Portal)

Scope of Technical Support

Subject to availability Siemens offers Customer support services via a service desk Monday to Friday, 9:00 am to 6:00pm (EST) on Business Days, excluding national and local holidays in USA.

Siemens will respond to Customer's support inquiry at Siemens' sole discretion via e-mail, hotline or remotely as described in this clause. Customer must ensure remote access to its local networks for e.g. remote diagnoses, upon request by Siemens. The following types of incidents are excluded from the scope of support for Cloud Services, but Customer may revert such requests to the sales team(s) for resolution:

- incidents regarding a release, version, and/or functionalities of a service developed or configured specifically for Customer (unless otherwise expressly set forth in an Order);
- incidents ascribed to a consulting or training request ("how-to"). These are covered by the online user documentation;
- incidents ascribed to a custom development request.
- Functional enhancements, upgrades, or software licenses to non-PSS®E Hybrid Cloud products
- Emergency or after-hours works

The Customer Support is available in English.

To receive support services hereunder, Customer shall reasonably cooperate with Siemens' Support to resolve support incidents and shall have adequate technical expertise and knowledge of its Cloud Services configuration to provide relevant information to enable Siemens' Support to reproduce, troubleshoot and resolve the experienced error such as, by way of an example, instance name, username, form name and screenshot. Such support services may require that Siemens gets access to Customer Content in which case, Customer is required to issue temporary Credentials to Siemens to permit that access.

Additionally, Siemens may provide an emergency phone number for major system incidents for customers upon request.

Export control regulations

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