

# SIEMENS

*Ingenuity for life*

## Integrated Engineering

SITIFE - Siemens Totally Integrated Power Engineering digitalizes the whole substation engineering process

[www.siemens.com/digital-substation](http://www.siemens.com/digital-substation)

### Integrated Engineering

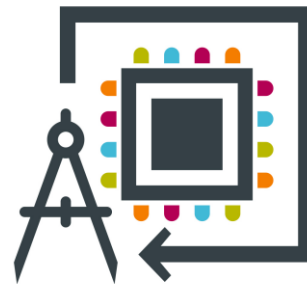
Substation engineering requires a huge amount of data. A lot of data needs to be exchanged between the grid operator and its supplier of substation systems. Exchanging this data in a defined digital format avoids manual data processing. This increases efficiency and avoids human errors.

Integrated engineering is based on the digital data exchange between grid operators and suppliers but as well throughout the supplier process, from systems planning, engineering, and parameterizing right through to testing and commissioning.

Digitalization simplifies these processes because important data can be made available throughout the entire lifecycle of a Digital Substation. Within the supplier-internal engineering process, data need to be provided for various tasks and in many different tools and systems. From primary engineering, secondary engineering, configuration of protection relays, RTUs, substation automation controllers, and control centers till test books need to be engineered.

These tasks may be simplified by a single master data set that is used by all tools and systems and for all of these work steps.

This ensures that the data used by all the various engineering disciplines involved is always correct and avoids redundant data entries. Speeding up the overall process to build a substation.



### Benefits

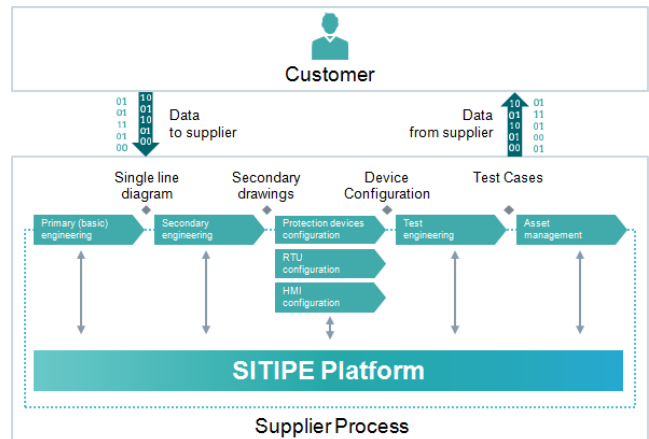
- Significantly reduced time to operation
- Reduced cost
- Fast availability and exchangeability of data
- Improved data quality through digitalized engineering process
- Interfacing to asset management.
- Reduced documentation time in case of refurbishment.

# Simple, reliable and faster

## SITIFE - our solution:

SITIFE - Siemens Totally Integrated Power Engineering enables Digital Substations through a single master data set and predefined typicals like master drawings and configuration files of bay types, to be build more quickly:

- Integrated planning – from system engineering to automation – based on a single master data set in combination with an electronic workflow.
- Improved engineering efficiency by utilization of typicals (customer specific standards).
- Increased the level of automation from project planning to testing and start-up.
- Data consistency - seamless automatic data exchange between individual engineering steps, no double entries.
- Significantly increased data quality and easier quality control.
- Optimized refurbishment process: easier updating of documentation, configuration and testing.



## Digitalization of engineering



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"This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)"

"This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)"

"This product includes software developed by Bodo Moeller."