Engie Solar becomes more agile thanks to Cisco’s solutions

Engie Solar : a subsidiary of Engie group

Engie group is the French leader in Energy, supplying natural gas and electricity to individuals and professionals around the world. For several years, it has invested in renewable energies, in order to promote a serene energy transition. Engie focuses in particular on solar energy, because it is clean, sustainable and inexhaustible. That is why in 2015, it acquired SolaireDirect, now renamed Engie Solar.

Its mission is to develop solar farm projects, while ensuring their implementation, commissioning, management and maintenance. Founded in 2006, the company has several offices and plants around the world and generates more than 3GW in 2018 to meet the energy needs of its customers.

Transforming for a better growth

As part of its development, Engie Solar encountered three main issues:

1. **Network reliability and data archiving**: as an energy supplier, it is committed to recording its activities to its investors and customers.
2. **Information systems agility**: to make new solar farms installation and configuration easier, the IT team needs visibility, flexibility and simplicity.
3. **Standardization, industrialization and security**: solar farms equipment must fit the industrial environments to ensure an optimal continuity of service.

Cisco has supported Engie Solar in the digital transformation of its offices (challenge 1), and its production sites (challenge 2).
Case study

Main issues

Unify IT solutions within the group
After its acquisition by Engie group, Engie Solar needed to connect all its solar farms to the global network, while standardizing the IT solutions used.

Improve visibility on the network
With all its implementations scattered around the world, the company requires global visibility on its IT systems to help its IT team be more responsive.

Their Chief Information Officer, Gaël Sitzia, explains: “We needed a global visibility on our network to detect issues in real time.”

Facilitate equipment management and maintenance
For each new installation, configuration or maintenance operation, a member of the IT team had to be onsite. This caused operational and travel costs.

Secure the network to ensure quality of service
An expected outcome from an acquisition by a large corporation is the increase of brand reputation. As a result, Engie Solar got exposed to more cyber threats that needed to be guarded against.

Quality and continuity of service are essential for an energy supplier. The network has to be stable and secure.

Solutions :  
- Secured network solution Cisco Meraki

Results :
- Simple network management
- Secure global network

Challenge 1 : Transforming the workplace to gain more agility

IT - at a glance

Main issues :
- Unify IT solutions within the group
- Improve visibility on the network
- Facilitate equipment management and maintenance
- Increase global network cybersecurity

Solutions :
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Challenge 1: Transforming the workplace to gain more agility

Solutions
Cisco Meraki: a secure network solution
Engie Solar equips its offices with Cisco Meraki to ensure network stability and security.

Cisco Meraki is a cloud managed solution. It offers unified management through a web portal, which provides global visibility of the network infrastructure, while facilitating its administration.

Its intuitive interface allows IT users to take control of it very quickly. With a feature that allows network devices to be configured even before they are physically installed, teams are saving time. Problem solving is also simplified, thanks to remote troubleshooting capabilities on the cables.

Network security and stability are assured by European datacenters that have a 99.99% availability SLA and comply with European data protection laws.

Results
More agile network management
Cisco Meraki network solutions are managed in the cloud, facilitating the work of the global IT team on a daily basis. Thus, they get a global visibility of the network activities, in real time, and can manage it remotely.

Gaël confirms: “In a few clicks, I can install a networking device or change its configuration, regardless of the site.”

Secure global network
Cisco solutions include a security layer that reduces the risk of cyber threats.

The network is secure, as Gaël explains: “I am informed in real time about issues happening on the network, including cyberattacks. We can solve them really quickly via the interface.”

Decrease of operational costs
Thanks to Cisco Meraki, Engie Solar managed to reduce operational costs thanks to IT equipment management, saving money.

Gaël testifies: “There is no longer a need to allocate a local resource for each site since now everything can be managed remotely. Cisco Meraki has appeared to be a true saver in terms of operating costs.”

“The management of the network is cloud-based. Even remotely, I have full visibility, regardless of the site. In a few clicks, I can install a network device or change its configuration.”

Gaël Sitzia
Chief Information Officer, Engie Solar
Case study
Public document

Challenge 2 : Transform the industrial sites to increase productivity

Main issues

- Standardize industrial IT equipment
- Ruggedize industrial IT hardware to fit critical environments
- Facilitate the installation and implementation of each new solar farm
- Ensure recording of the activities on the network

Solutions

- Industrial ruggedized switches : Cisco IE 2000 and 4000
- Industrial ruggedized routers : Cisco IR807 et IR809
- Industrial firewalls : Cisco ISA 3000
- Centralized network management platform : Cisco Prime

Results

- Setting up a secure and ruggedized IT infrastructure
- Optimization of installation time and costs
- Facilitation of park management around the world
- Optimization of operations thanks to data insights

Main issues

Standardize industrial IT equipment
Engie Solar needs to comply with industry standards, including ISO standards, to equip its solar farms.

Ruggedize industrial IT hardware to ensure the quality of service
In order to provide its customers with a service that is continuous and of quality, their IT equipment must fit into any type of industrial environment.

Gaël says : “Our industrial hardware is installed in critical environments all around the world. It has to resist to dust, sea salt, altitude, high temperatures... Our previous infrastructure was not suitable for this type of conditions.”

Simplify the installation and the implementation of new solar farm
Engie Solar is currently growing : 20 solar farms are under construction around the world. The installation of new parks as well as the extension of existing ones must be facilitated. Sometimes, these are operated by other companies.

That is why Engie Solar needs agile and scalable IT systems to make their installation and management easier.

Record the network’s activity logs
As an energy supplier, Engie Solar is committed to recording its activities to its investors and customers. Thus, even when there is an electrical or a network issue in a solar farm, the information must be continuously escalated.

The network must be reliable and the data should be systematically recorded.

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Challenge 2 : Transform the industrial sites to increase productivity

Solutions

Cisco industrial network solutions
Engie Solar has equipped its new solar farms with a Cisco industrial network architecture, which includes industrial switches Cisco IE 2000 and IE4000, industrial routers Cisco IR807 and IR809 and industrial firewalls Cisco ISA 3000.

These solutions are secure and ruggedized, to fit industrial environments: high and low temperatures, dust, vibrations, etc. Equipment are multiple to ensure continuity of service in case of failure.

To avoid passing on the costs of this investment to their end customers, a pilot was successfully implemented to test the solutions beforehand.

Cisco Prime: network management platform
Engie Solar chose Cisco Prime to manage its network and the events remotely from France.

Notifications are sent via collaborative tools to the appropriate teams on the field in order to solve connectivity issues in real time.

Results

Industrial and secured infrastructure
The implemented infrastructure is reliable: it resists to industrial environments, allows continuity of service in case of failure and is secure.

Engie Solar’s IT and OT teams worked together with Cisco to put it in place. Thanks to the international presence of Cisco and its partners, Engie Solar benefits from global support.

Faster installation
The scalability of Cisco solutions reduced the installation time: from 2 or 3 weeks to 2 days. Another benefit from this architecture: the IT cabinet height has decrease, from 4’59” to 65”. It facilitates the equipment’s transportation and installation.

Better IT systems visibility
The industrial infrastructure is managed and monitored thanks to Cisco Prime, a centralized platform hosted in Engie Solar private cloud.

Feedbacks from the field
The IT teams are more responsive to solve connectivity issues on the network. They have more time to work on high valued projects.

“Now, the equipment can be installed in 2 days, managed in the cloud, and its lifetime has greatly increased.”

Gaël Sitzia
CIO, Engie Solar

What are the next steps?
Engie Solar teams are working on different projects:

1. Integration of this new industrial network architecture in the solar farm renewal, and provisioning to the entire group.
2. Study of remote expertise applications for maintenance. The idea is to use collaborative tools to make solving issues easier remotely on all Engie Solar sites.
3. Study of predictive maintenance applications, empowering the data thanks to Cisco Kinetic, in order to increase productivity and reduce costs.

The Engie Solar digital transformation is just at its beginning and will continue over the next years.

More information
Cisco solutions for the Energy industry: cisco.com/go/energy
About Engie group: engie.com
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