

Nextlight[®]: Dashboard.

The Dashboard is structured in such a way as to make it possible for the user who accesses it an immediate choice of the infrastructure to be controlled, thanks to a correct organization of the various assets based for example on location. The customer, by connecting autonomously to the NEXTON[®] server, through their credentials (see Figure 1 below), will be enabled for various services (depending on the package purchased) and will be able to verify and/or modify the configuration and data collection parameters relating to their installed devices.



Figure 1 - login to access the dashboard

Each customer has the ability to access through the use of any device equipped with an internet connection. Features include the ability to check the real-time consumption (see Figure 2 below) of the different lighting fixtures in the customer's infrastructure, check for any operating anomalies, and issue annual, monthly or daily reports based on customer requests.

Among the services offered there is also the collection of various useful data such as:

- Energy consumption of each individual lighting body.
- Energy consumption of the entire group of lighting fixtures.
- Future savings forecast keeping the current configuration.
- CO2 saved based on the last operating configurations set.
- Savings forecast by adopting a different configuration.
- Check the correct functioning of each single lamp body.
- Reporting any anomalies found.
- Fault reporting.
- Check lamp status (online or offline).



Figure 2 - overview of individual light poles

Parameter configuration

The product is configured and optimized for each customer's infrastructure. If the customer needs to change operating parameters, the dashboard allows for easy modification and immediate retrofits to restore the original configuration.

There are various modifiable parameters:

- Luminous intensity of each single lamp body in the "rest" situation (in the absence of passage or people).
- Luminous intensity of each individual lamp body in the "active" situation (the moment in which the presence of a pedestrian is detected).
- Duration of the "active" mode in seconds.
- Possibility of inhibiting or not the motion sensor and, therefore, returning the line to a "classic" situation, that is, with a fixed light intensity, which can also be customized.
- Possibility to turn on/off only a single lamp or a group of lamps.

Smart Maintenance:

We're investigating new features for predictive maintenance and data feedback through AI and machine learning. Our Dashboard allows for remote system monitoring and individual device management (see Figure 3), with devices displayed on a Google Maps image. The user is able to see the individual devices, identify their name and immediately collect information about it.

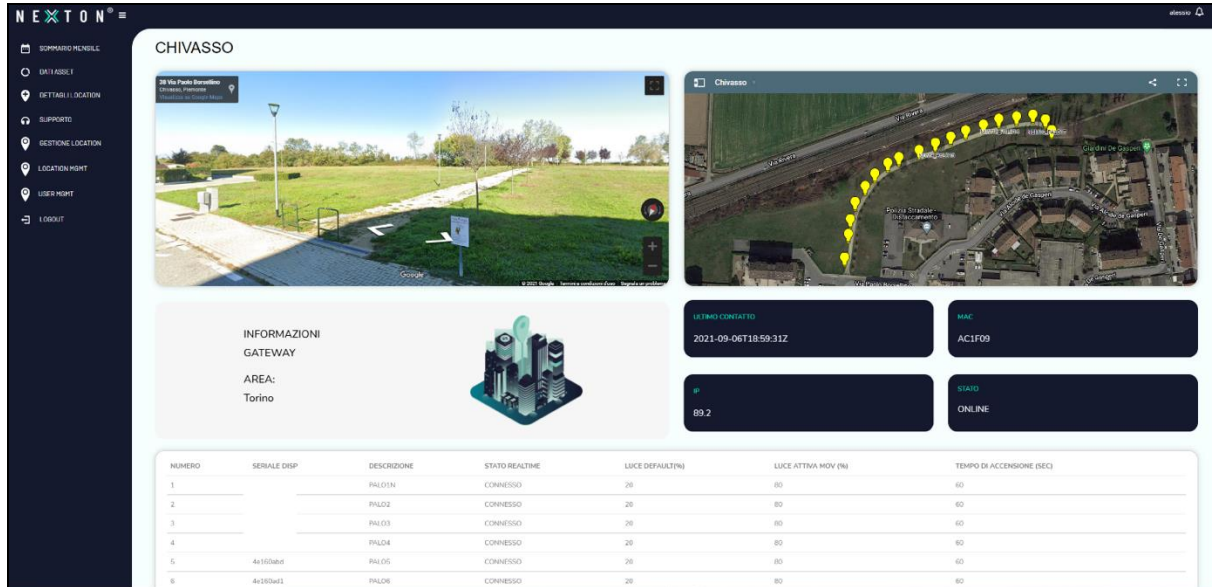


Figure 3 - Street lighting monitoring.

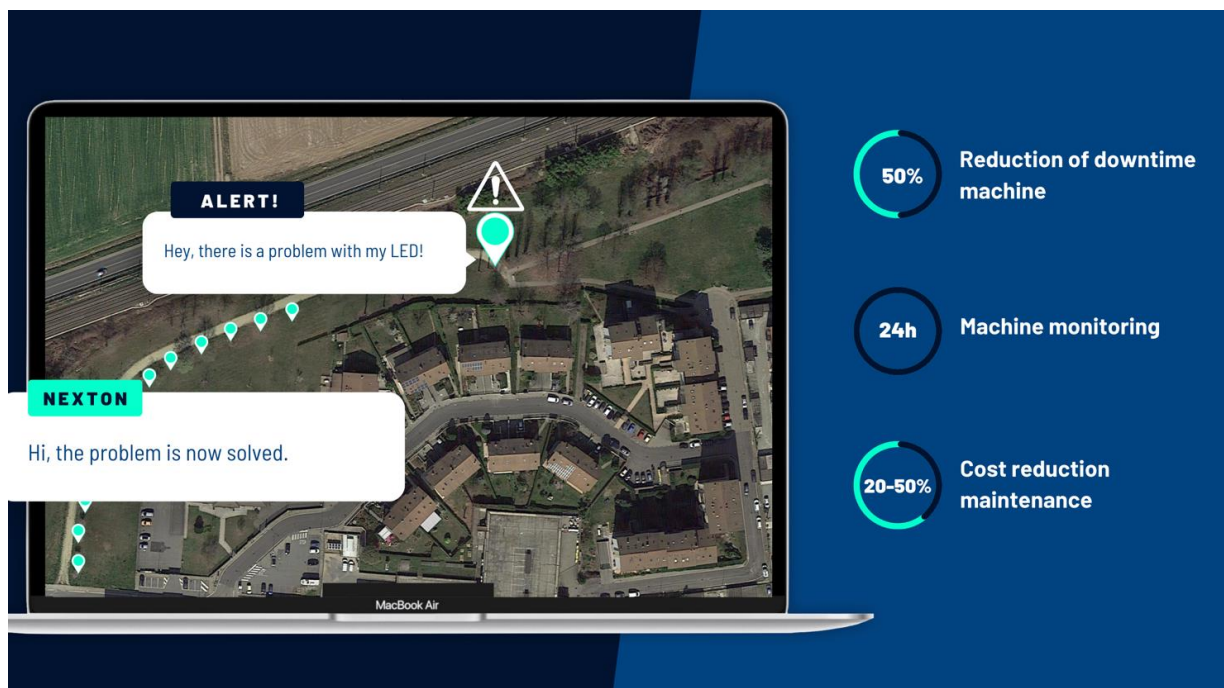


Figure 4 - Street lighting alerting function.

Report:

Finally, a monthly report is made available (see Figure 5 below) to the customer every month in Excel format (which can also be exported in PDF) showing for the current period and for each device the total consumption (TC, in Wh), the estimated consumption (EC, in Wh) without *Nextlight*[®] and total savings (in percentage) expressed as: $(EC-TC)/EC$

NEXTON[®] simplifies energy consumption data management, reducing costs and making it affordable for customers to save energy and money. It offers a flexible solution that eliminates the need for customers to learn complex platforms and take on additional responsibilities after installation. Data on consumption and LED reliability allow for *Nextlight*[®] to save on maintenance costs and develop predictive plans.

NEXTON[®] does not store sensitive data and uses non-discriminatory systems. Communication is encrypted with advanced security and adheres to modern privacy principles. Control mechanisms detect real-time anomalies in data tampering. NEXTON[®] simplifies data management, providing regular energy consumption reports for customer convenience. Please shorten this text.

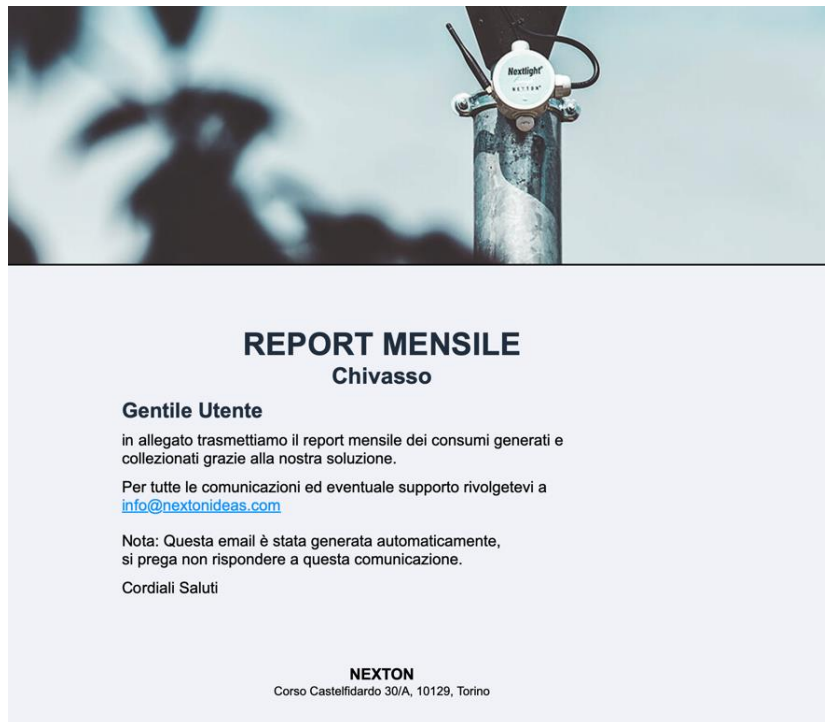


Figure 5 - Street lighting alerting function.



Software Architecture:

NEXTON® deploys on AWS by provisioning necessary resources like EC2 instances, RDS databases, and S3 buckets, selecting appropriate instance types and storage sizes based on the website's expected traffic. Security and configuration management are ensured. Nexton® provides security by implementing measures like VPC setup, security group creation, and encryption for sensitive data such as HTTPS and RDS database encryption. NEXTON® deploys website apps with a tool whenever available. These tools automate deployment and allow rollbacks as necessary. Monitoring and logging uses AWS CloudWatch to track app performance and send alerts for issues. The team logs all API calls for security and audit purposes. Configuration management uses services to track infrastructure changes for consistent configuration and auditing. We use continuous deployment to automate and update infrastructure.

Contact us to know more: info@nextonideas.com



NEXTON S.R.L.

corso castelfidardo 30/a | 10129 | torino | italia | p.iva IT12079730011
n° rea: TO-1262915 | info@nextonideas.com | [f](#) [@](#) [in](#) [t](#) [v](#) | nextonideas.com