



SIMPLIFIED CONNECTIVITY FOR SOLAR MONITORING



Cachelan is a solar and energy monitoring/data acquisition company based out of Canada. With thousands of active SolarVu® distributed generation renewable energy sites, Cachelan has the infrastructure and experience to help customers manage their solar PV and smartgrid systems. With high-profile clients like Panasonic Eco Solutions (Canada), the largest municipalities in Canada, and IKEA, uptime is key when it comes to providing a seamless experience for thousands of solar projects. With the success of their clientele in Canada, more of their business has been spreading to the United States.

With this in mind, Cachelan wanted a simplified connectivity solution that they could still manage from afar. After meeting OptConnect and learning about our fully managed solution, Cachelan knew OptConnect was the answer for their connectivity needs. Utilizing OptConnect neo routers and OptConnect's robust monitoring platform Summit, Cachelan is now able to help their U.S. clients standardize performance monitoring for customer's solar energy assets in any location, of any vendor across C&I, community solar, and utility sized sites.

About Cachelan

Based in Toronto, Cachelan brings over a decade of experience monitoring thousands of solar projects. Typically, solar sites have all kinds of different industrial equipment and have many data points that need to be connected. Cachelan comes in and standardizes everything and puts it into one platform so that an asset manager can ensure that their solar assets are performing in a way that is healthy and easy to use. The software that Cachelan provides connects all the data points.

Cachelan is first and foremost a technology innovation company. They have world class software and solar experts on staff. 95% of their business comes from customer referrals. They have achieved incredible market share across greater Canada and they are making their mark to help the newly reinvigorated and rapidly accelerating solar industry in the United States.

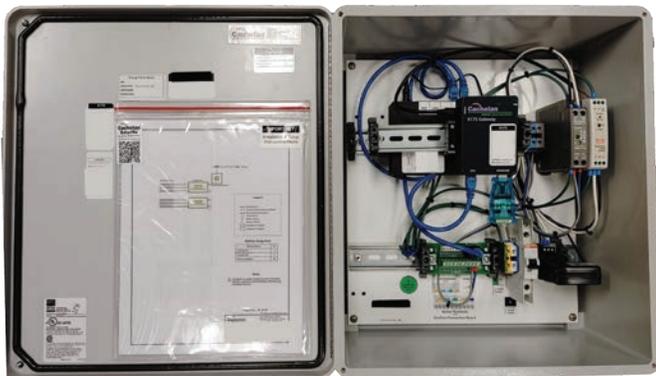
CACHELAN AT A GLANCE

2004

THE YEAR CACHELAN
WAS FOUNDED

1,000s

OF SITES CONNECTED
ACROSS CANADA & THE U.S.



// We're focused on providing the best experience possible for our customers and this includes saving them time during the setup process. With OptConnect's plug and play functionality, we were able to augment SolarVu's plug and play equipment to make connecting any kind of onsite solar equipment – inverters, meters, weather stations, trackers up and running – communicating on our cloud smoothly, and from anywhere. //

Chris Lomond
Product Developer

SolarVu® Energy Portal

SolarVu is a web energy portal that continuously monitors solar array performance displaying power, energy, revenue, status and trends. SolarVu® can be installed on systems of any size providing the easiest, most cost effective way to view and aggregate any solar sites for your O&M needs.



Why Solar Portfolios Use SolarVu® Monitoring

Maximize revenue, reduce costs: Notifications of site issues are sent in real time, minimize site visits by accurately diagnosing with their "Analyzer" tool, manage portfolio of sites, track payments and performance.

Unparalleled support & customer service: Customers come back to Cachelan because of their customer service – from design, commissioning to operations. When an issue on your site occurs, they help in sharing their expertise regarding how to best use the product and resolve your issues quickly.

Customized to your needs: Regardless of your site size, equipment used or desired, LDC SCADA requirements, or the number and variety of sites in your portfolio – Cachlan will help to integrate the right monitoring solution that lowers your cost and maximizes your performance.

Asset Management Tools

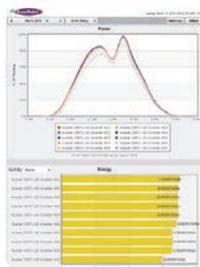
- Manage all solar sites in a single view.
- Organize portfolio with custom groups
- Download performance and financial reports
- External access and connect other apps to your sites via APIs
- Email alerts as issues occur
- Site status reports

Add-on to your site

- Live Camera
- Weather Station
- Revenue Grade Meters
- SCADA & Site Control Options
- Educational content for schools
- Tracker Control Systems
- Transformer monitoring
- Agency Reporting
- Energy Storage
- Lobby View

O&M Features – Identify and Diagnose Issues

Be alerted of, compare and identify issues between inverters and individual strings.
View relevant details to determine the solution.



PowerWatch



Smart Strings



Inverter Status



WeatherTrak

THEIR SOLUTION

Using OptConnect neo routers for connectivity and having access to OptConnect's robust monitoring platform, Summit, has given Cachelan the ability to manage and monitor their customer's activity. Specifically, Cachelan notes that Summit has been helpful in diagnosing issues in remote locations. In addition to being able to see device statuses, Cachelan also says that OptConnect's flexible data plans allowed them to not worry about equipment going over their usage plan.



// In one instance, a customer's 2MW community solar site in upstate NY was just not working for them with their existing 3rd party monitoring system on so many levels. The site was underperforming, and there was a 'Frankenstein' of 3 different non-integrated data sources that were not providing the right insights. With OptConnect's product, tools, and managed support we were able to easily and quickly get everything talking with Modbus TCP/IP and integrated onto a single SolarVu portal. Most importantly, we got the asset performing as forecast by providing the end customer the tools to root cause the issues and manage it easily. //

Chris Lomond
Product Developer

Moving Toward neo2

As Cachelan continues to utilize OptConnect, they are now looking into replacing their neo routers with the neo2. With nearly twice the speed, twice the carrier coverage, and twice the connectivity power, neo2 is the next evolution in OptConnect's fully managed cellular connectivity for the Internet of Things. neo2 is a compact LTE Category 4 multi-carrier cellular router perfectly suited for solar monitoring, kiosks, micro markets, digital signs and other applications that require high-speed connectivity and the peace of mind of redundant carrier connections. OptConnect took everything customers love about neo and made it twice as good.



Specifically, Cachelan is interested in the dual-carrier functionality of the neo2, especially for their remote sites. With dual-carrier, the router will automatically switch between Verizon and AT&T for the best connection possible. This failover ability makes neo2 very useful to Cachelan as routers will be hard for technicians to reach in rural locations. The creation of neo2 has set the bar high for solar connectivity.

"Particularly given the remoteness of many larger solar sites, we are very excited to deploy OptConnect's Neo2 with dual carrier support. This should help further improve continuous uptime." - Chris Lomond

To learn more about neo2, visit optconnect.com/neo2

Working with Cachelan

What sets Cachelan apart from other companies is that they are able to come onto a site and provide internet access as well as monitoring features to bring all of their customers data into a cohesive view to ultimately organize the sites and bring them to health. Moving forward, Cachelan plans to refresh their design and provide new performance analytics features to help with the management of these sites. "When someone chooses Cachelan, we want them to be a long-term partner," said Lomond. "Being able to provide them with OptConnect's managed service solutions means we can focus more efforts on using our resources to make valuable improvements, rather than spending more time on the little things."

"Cachelan's world class SolarVu solar systems management software and OptConnect's managed secure cellular internet connectivity services work hand in hand for the solar customers we serve together," said Matt Warner, Sr. Director of Sales at OptConnect who works directly with Cachelan. "It is such a pleasure to work with this team of highly competent, technology first oriented engineers and developers. This team quickly recognized the customer support value of integrating OptConnect's secure cell internet connectivity for their SolarVu software monitoring solar solutions customers."



"I recommend OptConnect because it's a plug & play, hassle-free connectivity solution. This has really helped us when it comes to networking setups and device monitoring."

Chris Lomond
Product Manager

Solar Connectivity



As the premier wireless data provider for the solar monitoring space, OptConnect has the hardware, the network connections, the software, and the monitoring and support to make your solar deployment simple and secure. Additionally, our managed, end-to-end service allows solar operators to add OptConnect to solar monitoring systems without introducing a complicated, time consuming new step in the process.

To learn more, please contact us at 1.877.678.3343.