

UPGRADES MADE BY NORDEX

Customer Interface—OPC XML DA

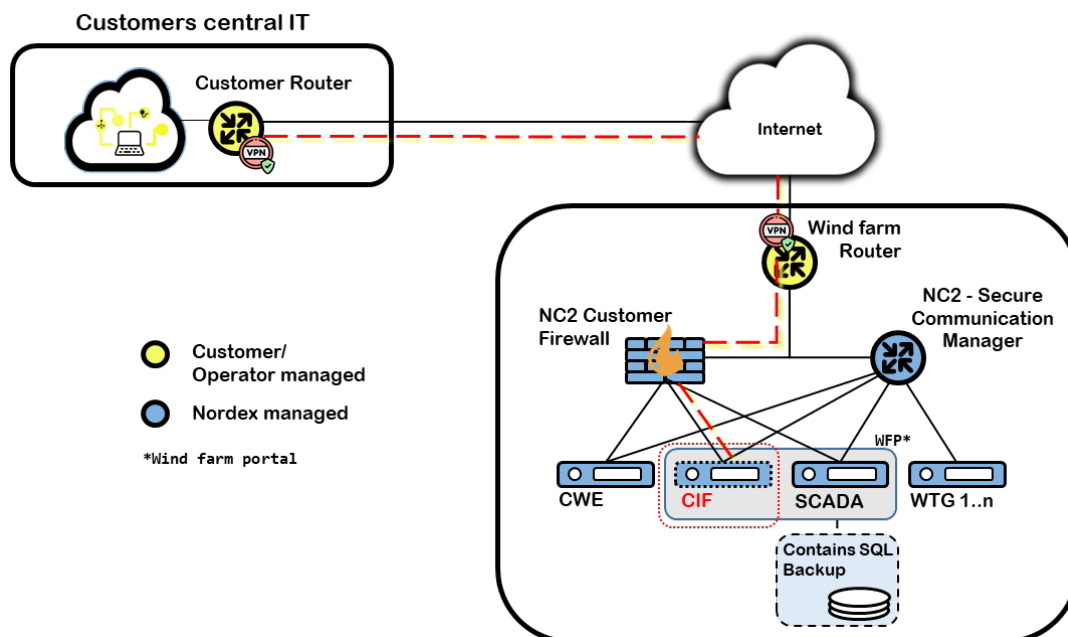
As the manufacturer, we know your turbines best. With our **Upgrades made by Nordex** we provide individually tailored retrofits. These upgrades improve the performance, the availability and the safety of your turbines, helping you to achieve even larger yields.

➤ Brief technical description

The Customer Interface (CIF) allows the customer to access the wind farm online data and services in real time. By integration into the customers SCADA-system the wind farms data becomes available for analysis and monitoring.

As an integrated part of the Wind Farm Portal (WFP) the CIF will be delivered on an industrial and high performance hardware platform. The CIF uses the OPC XML DA specification to realise an interface for customers to receive data from turbines and all other SCADA modules.

The CIF-server receives data from the existing NC SCADA systems via the SCADA server (also known as Farm-Server). As both the SCADA Server and the CIF-server are built into the Wind Farm Portal it is a prerequisite to have a Wind Farm Portal in the wind farm to use the CIF. Additionally a free port in the customer firewall is needed to establish a save connection from the customer network to the CIF-server.



➤ Benefits

- Access to real-time data
- Extensive data from the different SCADA systems
- In general the CIF-OPC XML DA provides analogue values, several counter and timer, events and alarms
- Possibility to integrate data in customer SCADA system