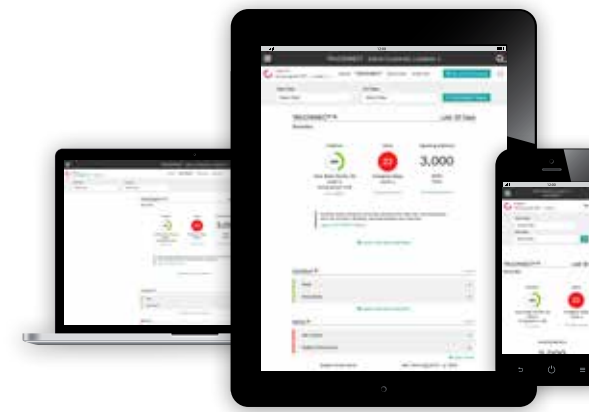


# TRUCONNECT® Remote Service

TRUCONNECT is a suite of remote service products and applications to support maintenance operations and drive improvements in safety and productivity. It is an important building block in delivering Lifecycle Care in Real Time and the foundation for predictive maintenance.



## Your data – online, any time

TRUCONNECT Remote Monitoring data is available any time and anywhere on our customer portal – yourKONECRANES.com.

TRUCONNECT and yourKONECRANES have been awarded ISO/IEC 27001:2013 certification for information security management. The ISO/IEC 27001 certificate demonstrates a commitment to proactively manage the information security of Konecranes digital services and ensure compliance with legal and customer requirements.

WHAT IT DOES	BENEFITS	DATA	AVAILABILITY	RECOMMENDED FOR
<p><b>TRUCONNECT Remote Monitoring</b></p> <p>Collects condition, usage and operating data from control systems and sensors on an asset and provides alerts of certain anomalies.</p> <p>Remote Monitoring data is used in maintenance planning and in predicting possible component or equipment failure.</p>	<ul style="list-style-type: none"> <li>• Supports predictive maintenance</li> <li>• Maintenance actions can be planned based on estimated component condition i.e. estimated remaining life</li> <li>• Provides knowledge of the remaining design working period (DWP) and remaining service life of selected components such as hoist, brakes, structures and contactors</li> <li>• Provides asset usage and operating information that is used to assess crane condition and safety</li> <li>• Notifies you of brake service life, hoist overloads, emergency-stops and over-temperature occurrences through text or email alerts, allowing for prompt response</li> </ul>	<p>Collected data varies depending on asset make and model but typically covers:</p> <ul style="list-style-type: none"> <li>• Condition and expected service life of critical components</li> <li>• Running time</li> <li>• Lifted loads</li> <li>• Motor starts</li> <li>• Work cycles</li> <li>• Emergency stops</li> <li>• Additional TRUCONNECT options allow certain assets to be equipped with hoisting brake and/or inverter monitoring</li> </ul>	<p>Can be delivered with new Konecranes cranes such as CXT hoists, CXT SMART, SMARTON, UNITON, new waste to energy cranes and select engineered cranes, to sites where mobile network coverage is available.</p> <p>The remote service hardware can also be retrofitted on some existing cranes including Konecranes equipment, Demag hoists with SafeControl, and non-Konecranes brand hoists.</p>	<p>A single crane or an entire fleet. Ideal partner to a preventive maintenance program and a requirement in order to effectively implement predictive maintenance.</p>
<p><b>TRUCONNECT Brake Monitoring</b></p> <p>Uses a condition monitoring device to collect the status of brake air gap, mechanical and electrical faults from the electromagnetic disc brakes.</p> <p>The service provides visibility into current brake condition, estimates remaining service life and indicates brake faults.</p>	<ul style="list-style-type: none"> <li>• Provides visibility to brake condition between normal inspection visits</li> <li>• Helps minimize the risk of load drop with the detection of brake faults</li> <li>• Helps you avoid unnecessary brake disassembly for inspection</li> <li>• Enables predictive brake maintenance</li> <li>• Assists in further optimization of maintenance activities to reduce unplanned downtime and to improve equipment safety, productivity and lifecycle value</li> </ul>	<ul style="list-style-type: none"> <li>• Indirect measurement of brake air gap status and friction material wear</li> <li>• Alerts of electrical faults</li> <li>• Alerts of mechanical faults</li> </ul>	<p>Delivered with new SMARTON, UNITON AND RTG cranes.</p> <p>A retrofit is available for Konecranes CXT, SMARTON, UNITON, RTG and selected engineered cranes, to sites where mobile network coverage is available.</p> <p>Can also be retrofitted on existing cranes, including non-Konecranes brands, if the crane is equipped with electromagnetic disc brakes.</p>	<p>Ideal for cranes in heavy use, especially if safety is a high priority. Brake Monitoring information is used in predictive maintenance and can also be used for brake maintenance planning.</p>
<p><b>TRUCONNECT Wire Rope Monitoring</b></p> <p>Reveals both visible exterior defects as well as internal defects that are not detectable with a visual inspection.</p> <p>Specialized and patented sensors continuously monitor the wire rope while the crane is in normal operation and alerts via text or email occur when rope condition deteriorates below set limits.</p>	<ul style="list-style-type: none"> <li>• Know the condition of your wire ropes in an instant and at any time</li> <li>• Helps you discover defects that are not visible in periodic inspections</li> <li>• Assists in reducing the risk of load drop and other safety risks related to wire ropes</li> <li>• No shutdown needed to inspect rope condition</li> <li>• Offers potential to optimize rope change intervals – plan ahead to have the wire rope replaced during a planned shutdown</li> <li>• Rope safety can be monitored remotely without interrupting crane operations</li> </ul>	<ul style="list-style-type: none"> <li>• Condition of the wire rope</li> <li>• Number of broken wires and risk indicated with traffic light indicators</li> <li>• Detailed view of rope defects and location in the full rope length</li> </ul>	<p>Can be pre-installed on new ETO cranes with a wire rope diameter of 22-28 mm.</p> <p>Wire Rope Monitoring is available as a retrofit for Konecranes SMARTON cranes.</p>	<p>Ideal for cranes in process critical use, especially if safety is a high priority.</p>
<p><b>TRUCONNECT Remote Support</b></p> <p>24/7 access to a global network of crane experts and specialists, offering problem solving and troubleshooting to help reduce unplanned downtime.</p> <p>In controlled circumstances, two-way communication with the machines and their operators can be established in order to expedite corrective action.</p>	<ul style="list-style-type: none"> <li>• Short lead time to begin troubleshooting helps minimize downtime</li> <li>• Troubleshooting for problems that require high-level technical expertise</li> <li>• Quick response support for even extremely remote locations</li> <li>• Support 24/7 from one easy point of contact, available by phone</li> <li>• Helps identify the need for corrective on-site maintenance actions and spare parts which may eliminate unnecessary site visit</li> </ul>	<ul style="list-style-type: none"> <li>• Konecranes Global Technical Support has remote access to crane diagnostic unit for fault history and events</li> </ul>	<p>Available on rubber-tired gantry cranes and select Programmable Logic Controlled (PLC) engineered industrial or standard cranes in selected regions.</p>	<p>Ideally suited for extremely remote locations. Complements a preventive maintenance program for critical ETO cranes.</p>