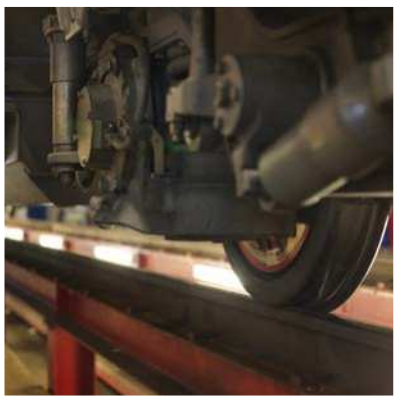
24/7 monitoring for reduced operational costs

SKF Multilog On-line System IMx-Rail



SKF IMx-Rail is a multichannel system designed for continuous performance monitoring in railway applications

IMx-Rail – benefit from reliable railway performance

Under pressure to drive costs down, railway operators need reliable trains that arrive on time. Continuous monitoring with IMx-Rail is one easy way to achieve both.

IMx-Rail is a cost-efficient multichannel condition monitoring system that can be integrated into an existing system in a wide range of railway applications. IMx-Rail comes with decades of SKF knowledge attached and the option for SKF Remote Diagnostic Services.

24/7

24/7 monitoring

Individually mounted multichannel sensors provide remote condition monitoring, including collection, analysis and hosting of vibration and temperature data

Minimize unplanned stops

Save money and get more satisfied passengers by increasing accuracy in alarms for rotating parts and fixing potential issues before they develop into failures

TCO

Reduce total cost of ownership

Fewer unplanned stops and longer intervals for planned maintenance are the starting point for significant savings. IMx-Rail also opens the door to a business model tailored to your individual KPIs, allowing you to avoid large one-time investments

Increase maintenance intervals

90% of refurbished bearings could actually have run longer. Data from IMx-Rail can help harmonize – and thus reduce – the number of maintenance operations between components

Low entry cost for total monitoring solution

Lower cost by integrating only one type of monitor into existing systems per bogie for monitoring traction motors, axleboxes and gearboxes

The IMx-Rail setup

IMx-Rail is mounted in either internal or external locations, depending on the equipment being monitored. The system then can relay performance data to the cloud via WIFI or back-up wireless transmission systems. The data is processed, and in the case of anomalies, alarms are sent to a web interface used to view the data.

The IMX-Rail solution has open communication standards like Modbus TCP/IP and RS 485. It can be integrated into existing systems and the Train Control & Management System. It has a user-friendly interface and can provide fleet status in an instant. Today, 95% of hot box alarms are false. With the SKF algorithms developed over several decades, the risk of misinterpretation is minimal.

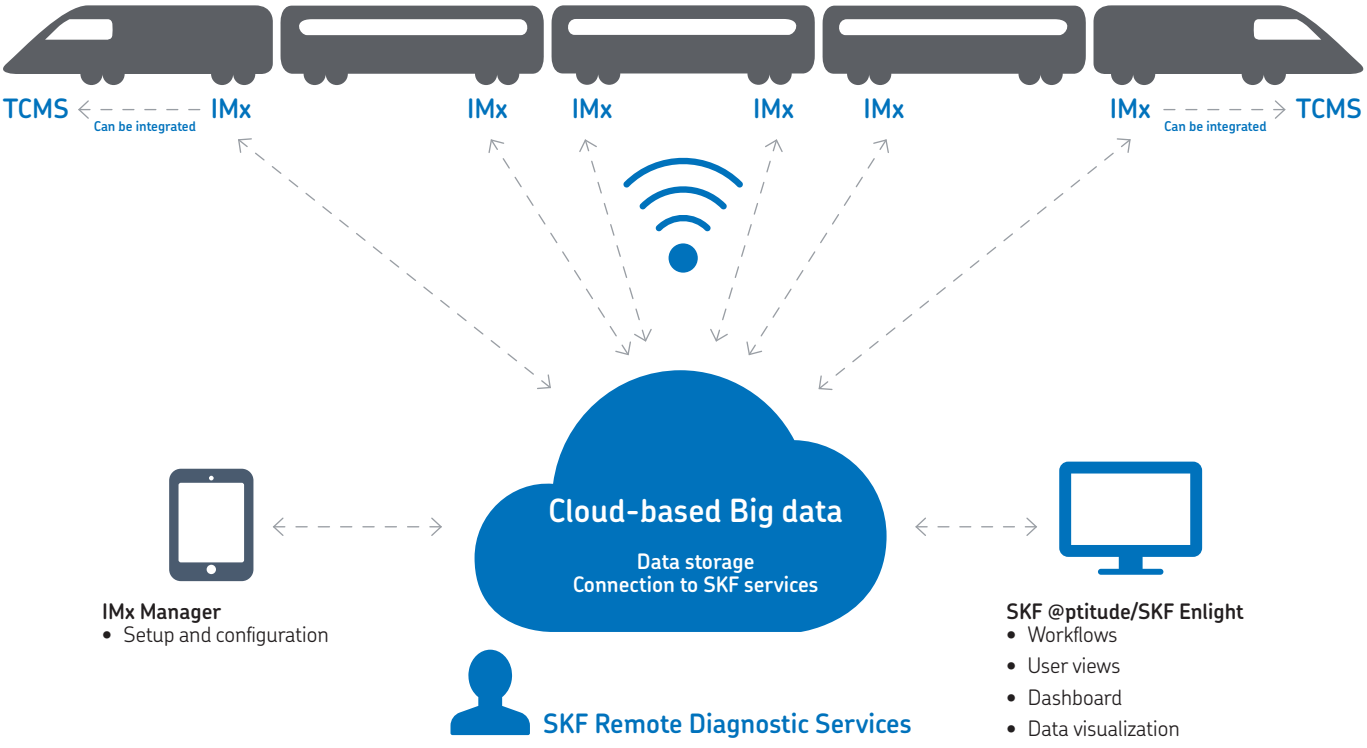
The multichannel setup enables a minimized risk of signal deterioration. Sophisticated signal processing and algorithms also separate the signal from surrounding noise. If the network is unavailable, the system can store the data for later analysis.

IMx-Rail is a solution for

- Passenger mainlines
- Suburban lines
- Metro lines
- Freight locomotives

IMx-Rail can monitor

- Axleboxes
- Gearboxes
- Traction motors
- Track
- Others (e.g. air compressors)



SKF Multilog On-line System IMx-Rail

The SKF Multilog IMx-Rail packs a high-specification condition monitoring product for railway applications into a compact form. It offers several possibilities for internal or external mounting including bogie, car chassis or internal couch/car mounting, depending on what is being monitored.

Integrates easily with SKF's Cloud service for data storage and data sharing

Mobile data connectivity (LTE/GSM) or Ethernet (RJ45 or Wi-Fi) connectivity

2 GB used for measurement data: vibration, temperature, speed, location including track monitoring data buffering in non-volatile memory when communication is down

Simultaneous measurement on channels 16 analogue inputs (typically vibration but up to 8 directly connected temperature sensors and 4 digital inputs (speed)

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