

## Smart Reliability Solutions

Reduce customer spending through Reliability by increasing mean time between repair (MTBR) and eliminating failure

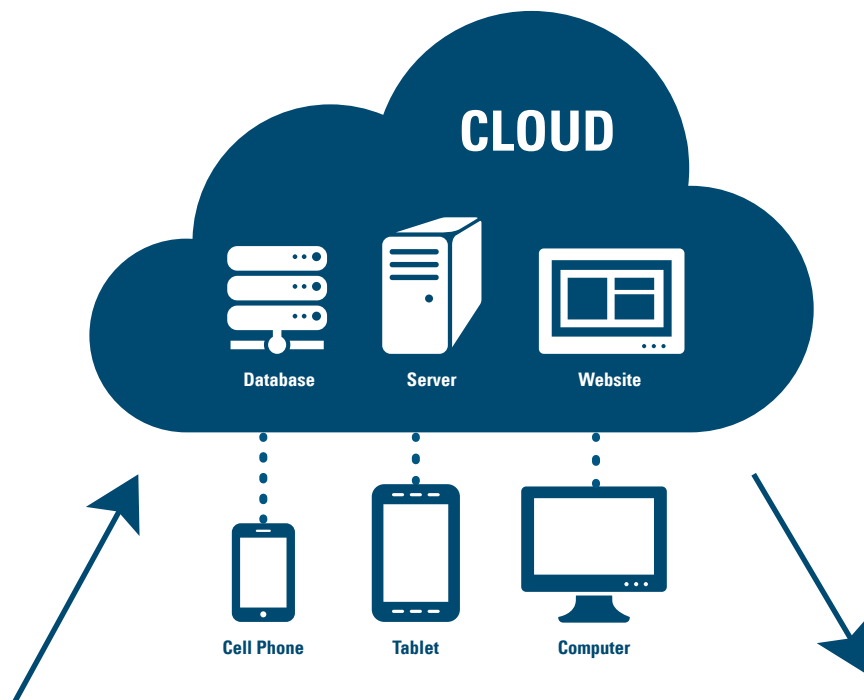


# DXP's Smart Reliability Solutions

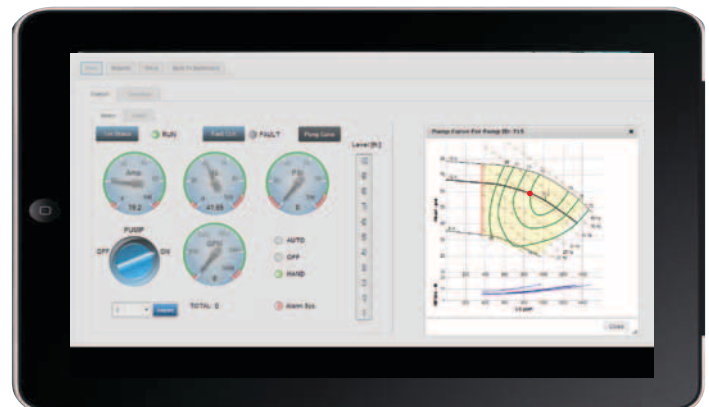
Smart Reliability Solutions is a service that optimizes the latest condition monitoring technology, proven systems, cloud computing, rotating equipment knowledge and expertise from DXP, bearing frame expertise from SKF and seal chamber expertise from John Crane.

The process starts by capturing read-only outputs from customers' existing PLC's, SCADA systems, drives, starters, flow meters, accelerometers, RTD's or any other onboard condition monitoring device.

The DXP Vapor Unit shown below collects the data and sends it to the cloud via cellular or satellite signals. Dashboards are then created that graphically display real-time condition measurement on smartphones, tablets or laptop computers. If flow, inlet pressure and outlet pressure are available for pumps, real-time pump curves can be displayed that show where the pump is running on its curve. Alarm levels can be established for each element on the dashboard and when alarm conditions exist text messages, emails or work orders from the DXP work management system can be sent to designated individuals to take corrective actions or in some cases shut the equipment down to prevent catastrophic failure.



**DXP Vapor Unit**



**Smartphone or Tablet Interface**

# Our Process



## Step 1 : Customer Assessment

The development of a customized solution begins with a rotating equipment assessment that documents expected system performance based on design, operations and maintenance. After analyzing the data, it is then benchmarked against industry best practices.



## Step 2: SmartReliability Solutions Plan

Based on the findings from the previous step as well as data collected from predictive and preventive devices, a **Smart Reliability Solutions** plan is created outlining opportunities for improved asset reliability and cost reduction. This report proposes a customized solution with contractually guaranteed, measurable results.



## Step 3: Implementation

If the findings of the assessment and the **Smart Reliability Solutions** plan indicates the program can drive substantial value to the customer and a plan is agreed upon; the implementation process will begin.



## Step 4: Reporting and Optimization

DXP will provide the customer with extensive reporting for continuous optimization of the equipment. Asset monitoring and improvements will then be implemented based on key performance indicators.

## DID YOU KNOW?

Unplanned outages costs up to **10-15X MORE** than a planned outage!

### Smart Reliability Solutions Key Benefits:

- Reduces your total spend on operations and maintenance
- Improves efficiency and asset reliability
- Increases mean time between repair (MTBR)
- Increases productivity through improved asset utilization
- Reduces the risk of environmental, health and safety incidents
- Provides a competitive advantage by reducing cost to manufacture products

### Typical Dashboard Elements

- Pump Curve
- Inlet Pressure
- Outlet Pressure
- Flow
- Speed
- Frequency (VFD)
- On/Off
- Motor Current
- Voltage
- Vibration
- Temperature
- Oil Level
- Tank Level
- Valve Position



DXP is a leading provider of technical products and services for the industrial MROP customer. Their national presence, customer-driven approach, technical expertise and breadth of MROP products and services give DXP a competitive advantage by allowing them to design unique solutions for their customers.



As the world leader in developing new bearing technology for over a century, SKF has developed a unique understanding of rotating equipment and how machine components and industrial processes are interrelated. Today, SKF provides a wide range of technologies and products to customers around the world, in every major industry, at each phase of the asset lifecycle.



John Crane's range of mechanical seals and seal support systems are the widest available in today's market. Combining advanced, thoroughly proven technologies with extensive industry experience has created products characterized by innovative design concepts and outstanding manufacturing quality.



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