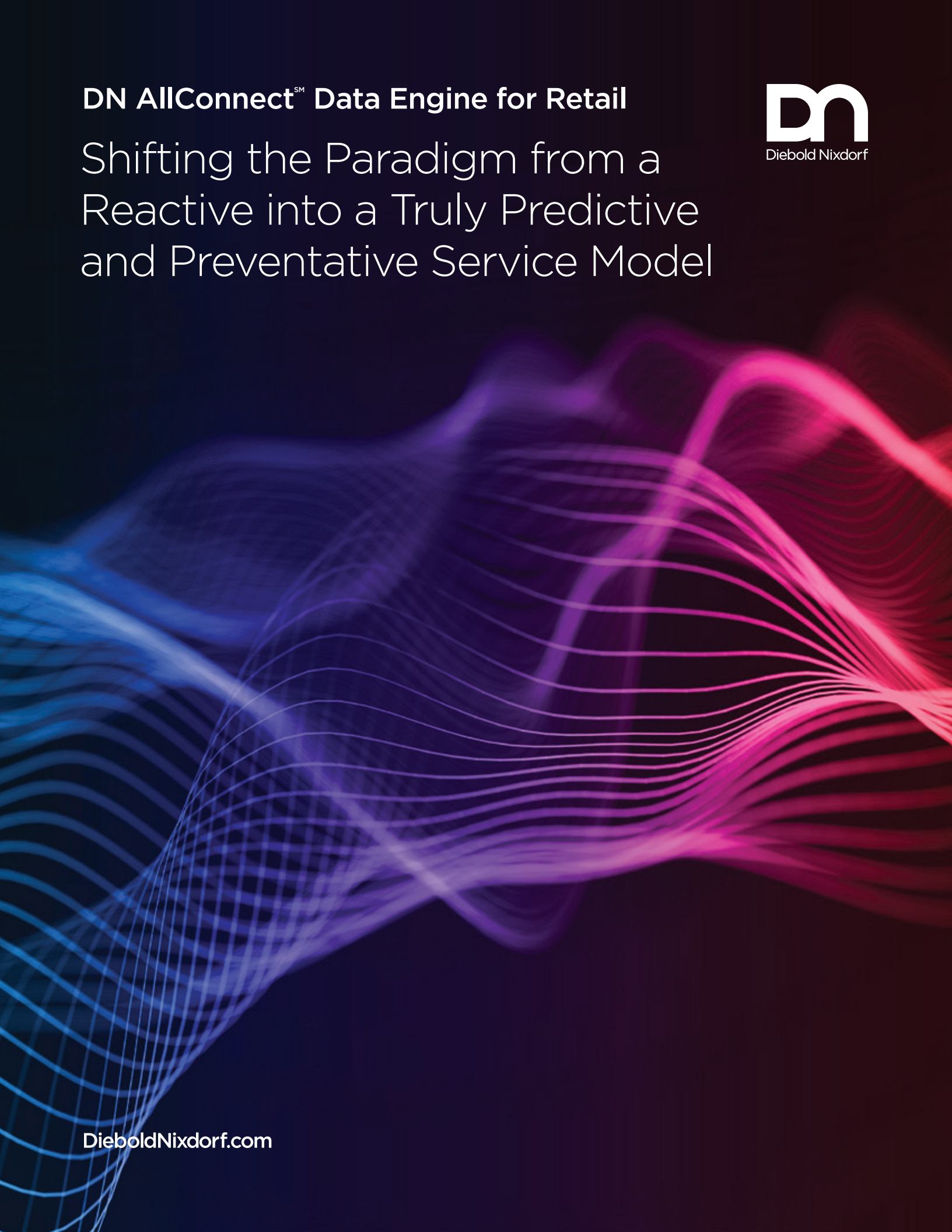
DN AllConnect℠ Data Engine for Retail

Shifting the Paradigm from a Reactive into a Truly Predictive and Preventative Service Model

Diebold Nixdorf



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Today's consumer expectations are becoming increasingly sophisticated. Retailers are under constant pressure to deliver the superior customer experience they expect – fast and efficient, easy and seamless, secure and personalized – every day.

Availability is fast becoming the key metric for device performance, and Diebold Nixdorf has continually been recognized for the sophisticated technology of our devices, and the level of reliability we deliver throughout the lifecycle.

Today, we're setting a new standard for retail solution performance with a first-to-industry, scaled, comprehensive and proven solution, which leverages real-time connection DN AllConnect℠ Data Engine (ACDE).

With ACDE the future is now: We are enabling the shift within traditional service models from reactive into predictive and preventative, **where a future failure of a device can be predicted and fixed before it occurs**. Not because of predefined parameters like number of cuts for a printer, but because of the analysis of data from thousands of devices through the use of a DN-developed Artificial Intelligence (AI), which enables a real-life prediction.

What's the end game? Drive higher device availability to enable retailers to deliver against the expectations of their customers.

Presenting the New Availability-Enabler: DN AllConnect Data Engine

Engineered completely in-house, ACDE processes data into actionable insights in real-time. The intelligence comes from a unique combination of decades of unmatched engineering experience and a global knowledge base, which have been embedded into the solution, as well as the application of the latest developments in Internet of Things (IoT), cloud computing and storage, machine-learning technologies and AI.

With the power of ACDE as the core enabler for DN AllConnect Services℠, field technicians can not only increase their efficiency in resolving incidents and completing scheduled maintenance, but also leverage the predictive failure intelligence to undertake preventative maintenance activities.

Data-Driven Intelligence Powering Actionable Insights

Deep technical and firmware-level data is continuously retrieved from all sensors and data points by a lightweight, data-collection software agent within every connected, deployed device.

The data is securely sent to DN servers where it is aggregated with the data of tens of thousands of devices across a broad range of use cases and geographies, which enables us to identify and monitor patterns that occur through the device lifecycle.

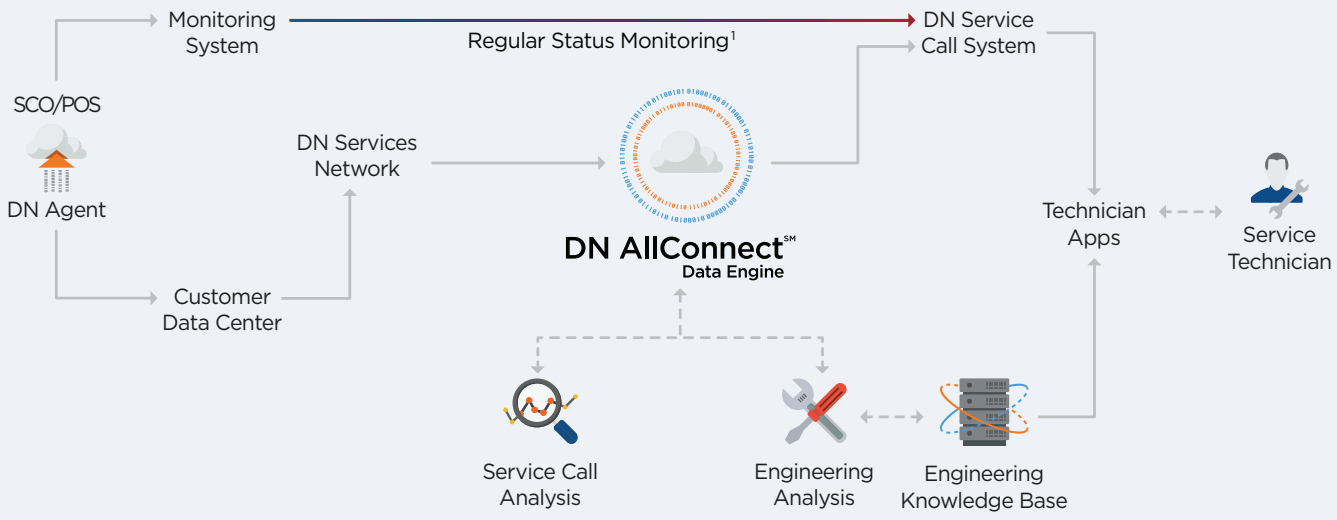
Further data correlation with historic incident data, inventory data and our engineering knowledgebase provides added intelligence.

ACDE is collecting the following retail data: base inventory data at hardware level, such as device identification (e.g electronic material number, electronic serial number, electronic revision level). ACDE goes further and also collects monitoring and statistics data components, which are specific monitoring points and error history (e.g KPI, error accuracy, error history, usage history and statistics).

This vast amount of information—including modules installed, historic performance, fault records, firmware and patch information, the age of individual modules and replacement parts, and the usage patterns it is experiencing — enables us to build a precise and constantly refined personality profile for every single device and to generate personalized, actionable insights for each of them.

A particular benefit of the analysis is that it highlights patterns that indicate an impending failure for a device, which means we can move from a reactive service model to one that predicts potential future hardware failures and schedule preventative activities to ensure the failure does not occur.

High Level Architecture



[1] Status monitoring may be DN, Customer or Third-Party

Our 3 P's – Prescriptive, Predictive, Preventative

Prescriptive

Fixing incidents faster and better: When an incident is reported, ACDE leverages its unique knowledge of the failing device, analyzing the latest data collected, and diagnosing the precise root cause. The support ticket is enhanced with a prescriptive resolution approach, which may include: the required level of skills and experience of the technician, the spare parts needed and the time the repair should take. It is what we call the **right tech - right part - right time - right fix** approach.

Predictive

Identifying potential future device failures: ACDE analyzes data patterns, trends, leading indicators, and identifies a potential impending failure. This actionable insight triggers a recommendation for preventative activities to mitigate against the future failure.

Preventative

Resolving predicted future failures: Preventative activities can be undertaken at the same time as a scheduled field engineer visit, or as a one-off dedicated visit. Either way, the field engineer acts on the insight provided and undertakes necessary activities to prevent future failures.

Delivering Outstanding Business Benefits for Retailers

As of January 2022, there are over 150,000 Diebold Nixdorf devices already connected to DN AllConnect Data Engine across the globe. That figure is set to further increase as ACDE is being fully deployed for many of our retail customers.

DN ACDE: a world of great metrics

- Increased availability
- Reduced number of incident tickets
- Decreased number of service calls
- Fast incident resolution
- Higher first-time fix rate

DN ACDE: a world of great benefits

- Increased **revenue**
- Increased **availability**
- More **transactions**
- Better **control** and **uptime** of off-premises locations

Winner in the "Best Practices in the Delivery of Field Services" category

Are you ready to benefit from DN AllConnect Data Engine?

To learn more about our retail managed services plans and receive information about deployment, contact your DN representative today.

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