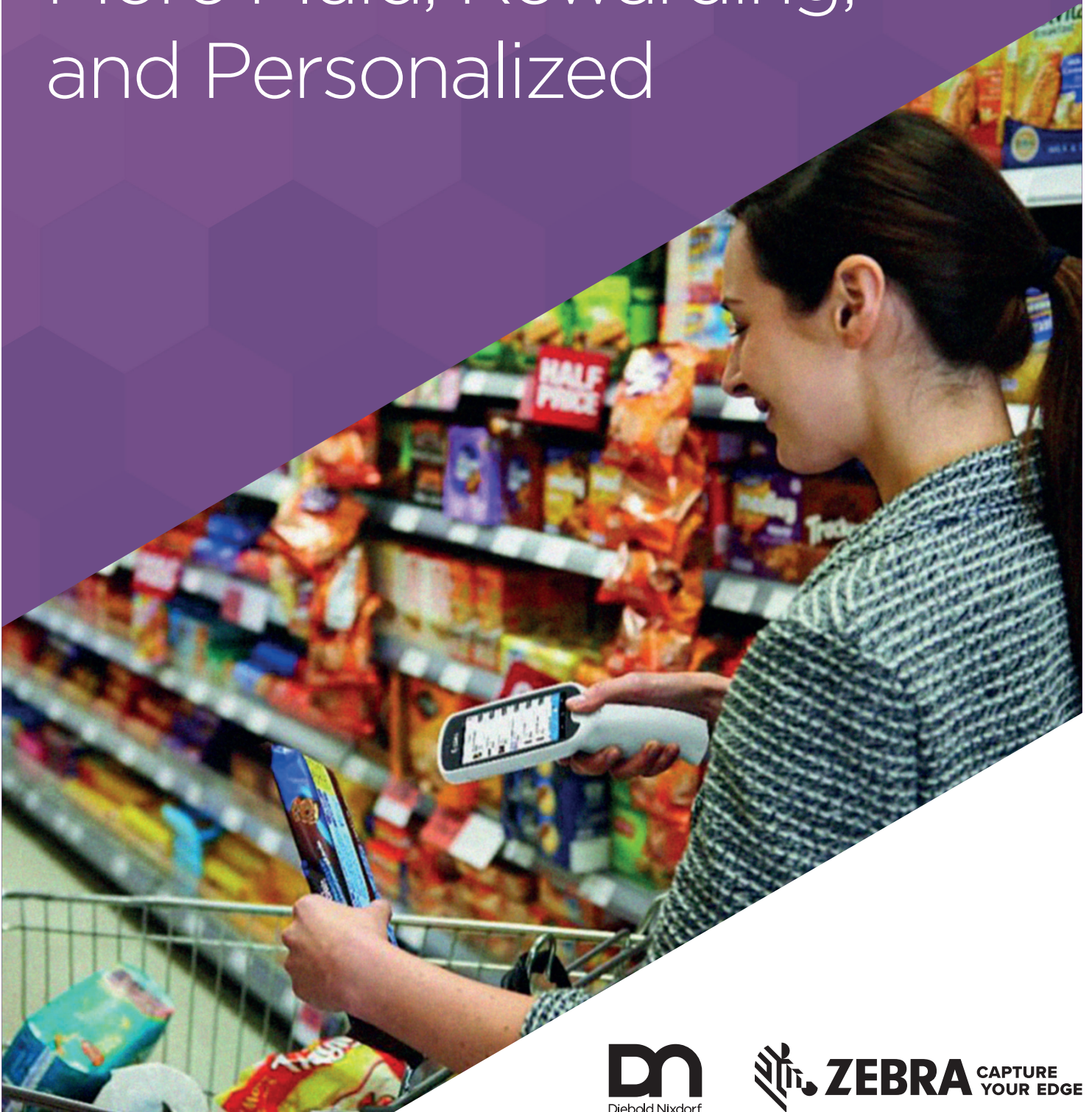


APPEALING TO PERSONAS:

How Mobile Devices Can Make Shoppers' Journeys More Fluid, Rewarding, and Personalized





Executive Summary

While shops attract a huge cross section of people, visitors can be categorized into groups that share similar values, incomes, ages, and aspirations. To identify these cohorts, Nielsen, on behalf of Diebold Nixdorf, recently spoke to 15,000 shoppers from 15 different countries, and in chapter three of this paper we look at the six audiences the research defined.

A theme that emerges for all groups, bar one, is an increased interest in using mobile technology for shopping. And in chapters one and two we explain why mobile devices – including those used by staff and those owned by customers – are central to anchoring a fluid shopping experience across mobile, in-store, and online channels.

We also explain how mobile solutions provide a lower-cost, simpler, and accelerated way to test and deploy new services to continually change and improve the customer experience. In chapter four we take a closer look at the self-checkout experience – a technology that the Nielsen research found to be growing in popularity.

We trust you enjoy the read and, if you have any questions or observations, please contact our team and we'll be in touch as soon as possible.

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Contents

4 **CHAPTER ONE**
In-Store Innovation at Speed

5 **CHAPTER TWO**
Mobile Engagement

6 **CHAPTER THREE**
Retail Personas

11 **CHAPTER FOUR**
How We Can Help



In-store Innovation at Speed

Six in ten retail leaders say the pandemic brought forward spending plans.¹ It compressed projects too: Initiatives like the expansion of click & collect and deploying self-checkouts were achieved, in some instances, in days.

Looking ahead, a legacy of COVID-19 will be a move away from big set-piece transformation projects toward the use of agile technology that makes it simpler and quicker to pilot and deploy new services.

In particular, we're excited about the potential of mobile devices to enhance shopping experiences. There are two key reasons for this:

- **Mobile is the heartbeat of omnichannel shopping for the consumer:** The drive to achieve true omnichannel shopping is becoming reality, with flexible APIs making it easier to share common business logic and critical customer data across channels. This enables the vision of frictionless shopping, with the smartphone, in particular, at the center of personalized experiences. For example, providing the shopper has given the appropriate permissions, if they've searched for a product online, when they come in the store relevant offers can be pushed to them.

Likewise, they can build a shopping list at home and be guided to it either through their smartphone or using a store-owned device, with offers and discounts presented in-aisle based on their basket's contents, their preferences, and their previous purchases.

- **Mobile provides a cost-efficient development platform for the retailer:** Powerful store-owned enterprise-grade devices, which are typically deployed for five years or more, can be updated over-the-air. So, once you've invested in the hardware, you have an agile and cost-effective platform to easily and quickly pilot, validate, and roll out new services. For example, in just one area, Augmented Reality, a rich field of applications is becoming available. Via associates' devices, interactive kiosks, and customers' smartphones, people can:
 - See how a product may look in different environments – e.g., a sofa in their home
 - Virtually try on items
 - Point devices at a shelf to view more information (e.g., calorie, allergy, and nutrition data)
 - View (and press on-screen to select) coupons and endorsements that will materialize next to items on a shelf when a device is hovered over it
 - And much more....



"We're entering a new phase of accelerated innovation: Shoppers will find more interactive, digital, and, critically, frequently changing stores that will feel built around them and, consequently, more engaging and rewarding."

Olivier Faugere,
Head of Storevolution
Partners, Diebold Nixdorf



"We're seeing more investment in mobile technology to act as a fluid link between online and in-store services. For example, over 60% of retail leaders are planning to use store devices and apps to enable instant checkout, virtually greet customers, provide information and offers, update people in real time on how busy the store is, and guide them to items on their lists."

Mark Thomson,
Retail Lead,
Zebra Technologies

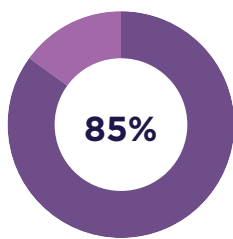
¹Zebra's 13th Annual Shopper Vision Study, 2021, based on a survey of 5,000 shoppers, associates, and retail leaders globally.

Mobile Engagement

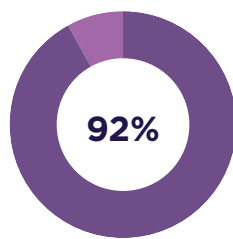
Different audiences use mobile services in different ways based on income, age, affiliation with technology, and more. In the following two chapters we've pulled data from Zebra's Shopper Vision Study, 2021,² and the shopper persona research from Nielsen,³ to identify a series of customer segments and explain how mobile technology enables you to profitably engage with them.

WHY MOBILE MATTERS TO YOUR ASSOCIATES

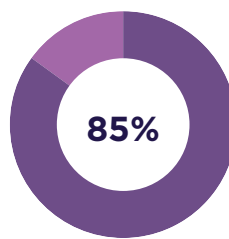
In the past shoppers could find that they had access to more product information (through their smartphone) than associates. But that's changing, with 96% of retailers expecting to provide mobile devices to staff by 2026.



85% of leaders say teams provide better service when they use the latest devices



92% of retail leaders like the flexibility of using mobile devices as payment terminals



85% of associates say technology helps them provide a safe and convenient space for shoppers



Associates cite pricing (**56%**) and inventory (**52%**) as the most valuable use of devices

All stats from:

Zebra Shopper Vision Study, the Shopper's Perspective, 2021

Zebra Shopper Vision Study, the Retailer's Perspective, 2020

²Zebra's 13th Annual Shopper Vision Study, 2021, is based on a survey of 5,000 shoppers, associates and retail leaders globally.

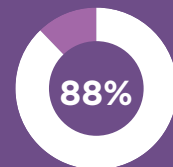
³Tech Check: Understanding Why Grocery Shoppers Adopt Technology. Based on insights from the 2020 International Grocery Shopper and Technology Survey, conducted by Nielsen and commissioned by Diebold Nixdorf. Survey covered 15,000 grocery shoppers aged 18-65 across 15 countries based on nationally representative demographic samples.

* RescueTime app. All other stats from Zebra Shopper Vision Study, 13th issue, 2021 or Zebra Shopper Vision Study, the Retailer's Perspective, 2020

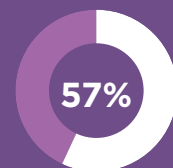


WHY MOBILE MATTERS TO CUSTOMERS

The latest device data is remarkable: Average smartphone usage is now above four hours a day globally, with people picking up their phones 58 times.* With us continuously, phones not only provide a convenient way to shop but to arrange services like returns and keep track of loyalty programs. And with 66% of shoppers preferring to shop online with retailers that have physical stores, many use their smartphones to instinctively blur the lines between physical and virtual experiences:



88% plan to use apps from grocers in future



57% have placed a mobile order for store pick-up

When in-store, shoppers also expect to see engaging mobile and self-service technology. In future:

- **91%** will use self-checkouts
- **89%** will use contactless payments
- **60%** will check out using their own device
- **59%** will use personal shopping devices
- **59%** will use kiosks and self-checkouts

Retail Personas - Personas at a Glance



ASPIRATIONAL TECH FANS

Engage them with new experiences.



MODERN CONVENIENCE SEEKERS

Capture their loyalty with seamless omnichannel shopping.



HESITANT POTENTIALS

Build their trust with compelling technology.



HANDS-ON PRAGMATISTS

Offer simple and straightforward services.



SENSIBLE SOCIALIZERS

Entice them through simple experiences.



WELL-BALANCED TRADITIONALISTS

Encourage repeat visits by respecting their habits.



Retail Personas

Nielsen has identified six retail personas that have different appetites for using new technology and in-store services. This said, two key trends emerge:

- **Convenience is crucial** – a desire to avoid queues and shop quickly means that self-checkouts are popular across most of the groups.
- **Seamless experiences are desirable** – professional, affluent, and younger audiences are embracing mobile technology, using it for seamless “cross-channel” experiences.

The personas include:

ASPIRATIONAL TECH FANS: ENGAGE THEM WITH NEW EXPERIENCES

This tribe is “on-trend”. They’re affluent city dwellers driven by emotion, with 70% always on the lookout for the latest tech and gadgets.

They shop frequently and spontaneously – 68% shop several times a week and 66% for immediate consumption. Their brand loyalty is high and they’re likely to be members of loyalty schemes. On the one hand they don’t like to queue but, on the other, they want to be seen. So, although they’ll use self-checkouts, they’re unlikely to abandon staffed terminals altogether.

The best way to engage them is by:

- **Being price consistent** – they value consistent pricing across channels (in-store, online, mobile).
- **Being digital first** – offers and discounts are best provided, and transacted, digitally – 90% prefer to redeem points via smartphones.
- **Being versatile with payment options** – their smaller basket sizes are ideally paid for by mobile devices, self-checkouts, personal shopping, or mobile payment solutions. Indeed, 88% use their smartphones or store-owned devices while shopping and value a range of payment options.
- **Being innovative** – these early adopters are an inquisitive audience on which to pilot concepts. Examples of solutions that may appeal include “endless aisles” and Augmented Reality (AR). With endless aisles, a range of products related to the one that the shopper has just scanned can pop up on their device’s screen. Using AR, additional items could also become visible on the screen when the shopper points a store’s personal shopping device toward shelves. These technologies allow stores to sell the entire inventory. Shoppers can buy items there and then, or arrange a home delivery or a pickup the next time they’re in.



CHAPTER THREE

MODERN CONVENIENCE SEEKERS: CAPTURE THEIR LOYALTY WITH SEAMLESS OMNICHANNEL SHOPPING

City dwellers, career-focused and family members, Modern Convenience Seekers are high earners. Digital natives, they're pragmatic when it comes to purchasing and will often base shopping visits on where has the best deals.

Time is of the essence for Modern Convenience Seekers who are more likely to shop online, value seamless omnichannel experiences, and avoid queues. The best way to engage these "efficiency-driven" shoppers is by:

- **Being versatile** – a versatile checkout mix – comprising personal shopping, self-checkout, and mobile point of sale – will appeal to them; 84% will gravitate toward the self-checkout, rising to 97% if there's a queue. They also prefer digital payments.
- **Being integrated** – blend mobile, online, and physical experiences as much as possible, such as BOPIS and returns, and use convenient mobile technology in-store to help accelerate transactions. The top five services that Modern Convenience Seekers would prefer to manage on mobile devices are:
 - **92%** – accelerating shopping via self-scanning or self-checkout
 - **92%** – using coupons
 - **92%** – keeping a running tally of basket cost
 - **91%** – making payments
 - **90%** – checking availability.
- **Being helpful** – Modern Convenience Seekers like to be in the know and value detailed information (such as a product's origin, ingredients, and allergen data). They're also open to sharing data – such as their shopping list prior to a visit. As 96% use their smartphones when in-store, offering smart VR-based services that flag offers, products, and hints and tips when pointing a mobile device at a shelf appeals to this audience.



HESITANT POTENTIALS: BUILD THEIR TRUST WITH COMPELLING TECHNOLOGY

Likely to live outside of cities, aged in their thirties, and building toward a more comfortable financial position, Hesitant Potentials like the idea of new technology. However, they need to build their trust in it.

Indeed, they'd like to continue to use cash and, although they have an average of two grocery mobile apps, they're not big users of mobile devices in-store (either personal or store-owned devices). In terms of shopping habits, Hesitant Potentials shop more often for smaller baskets. With technology, the audience exhibits curiosity mixed with a little anxiety around privacy. So, for example, they will use mobile devices but only if they are proven to be secure and demonstrably improve their journey.

The best ways to connect with these curious but hesitant shoppers is by:

- **Being supportive** – active on-boarding, such as having teams introduce personal shopping devices and guiding people in how to use them, will engage this audience.
- **Being convenient** – these shoppers are comfortable in using self-checkouts and, in common with other cohorts, use them to skip queues.
- **Being enlightening** – as they're interested in technology, but not wholly convinced by it, a good approach is to educate them about how new services will benefit them (e.g., with attractive offers) while also protecting and respecting their privacy.



CHAPTER THREE

HANDS-ON PRAGMATISTS: OFFER SIMPLE AND STRAIGHTFORWARD SERVICES

Hands-On Pragmatists come from smaller households, are financially well-off, and value healthy lifestyles: 41% do one big weekly shop, 48% pop in for top-ups, while 51% shop for immediate consumption.

These are busy people who visit stores for immediate gratification, and are frustrated by queues or out of stocks. Also, privacy is a concern. So, they're not especially keen to download or install apps (seeing this as something of a fuss) and are not (yet) attracted to omnichannel services.

The best way to engage these “efficiency-driven” shoppers is by:

- **Being efficient** – they prefer to pay with cash and if there's a queue they're likely to move to self-checkout aisles to complete transactions.
- **Being transparent** – as pragmatists they like to know what everything is going to cost – at all times - so a live tally offered via self-scanning services is valued by them. They also prefer to use retailers' technology when self-scanning because the devices are seen to be more powerful and accurate and they can preserve their smartphone's data allowance and battery power.
- **Being hands-off** – human interaction isn't hugely important to this group; 99% will use a self-checkout if available.



SENSIBLE SOCIALIZERS: ENTICE THEM THROUGH SIMPLE EXPERIENCES

Sensible Socializers live in households of more than three people, have a medium to high income, and are in their forties. “Dreamers” – they want to make the world a better place, they shop for enjoyment but they will not spend frivolously. In terms of habits, 43% do a weekly shop, 46% shop for top-ups, and 50% shop for immediate consumption. They are not lovers of technology but, in common with most groups, will use it for convenience. The best ways to engage with Sensible Socializers include:

- **Being available** – this audience likes engaging with staff and will gravitate to the fixed checkout if they have time. Similarly, they like being able to ask questions and get help from staff, while the research also uncovered a lot of interest in being able to contact nearby associates via help buttons on conveniently placed kiosks.
- **Being convenient** – like most audiences this tribe will avoid the queue if they can, especially when they have a few items, and will use self-checkouts where available.
- **Being personal** – Sensible Socializers are unlikely to adopt super-fancy solutions. This said, they are interested in value and like to interact with people. So, in common with Hands-On Pragmatists, having associates provide “education days” around the use of store-owned devices will appeal to them – especially where they can be shown how they would receive enticing offers and personalized services.



WELL-BALANCED TRADITIONALISTS: ENCOURAGE REPEAT VISITS BY RESPECTING THEIR HABITS

Close to, or in retirement, this audience is similar to Sensible Socializers, in that they value experiences over material things. They are likely to be “empty nesters” or live in two-person households. They are in a reflective period in life and are not interested in the latest tech trends. But they do value a healthy lifestyle and invest in it.

With income lower than other cohorts, Well-Balanced Traditionalists look for value and exhibit traditional shopping patterns, including a preference for a large weekly shop and rarely buying for immediate consumption. They are more tolerant of frustrations (e.g., queues and out-of-stocks), perhaps because they have more time, and although they are interested in offers and discounts they tend to be more loyal shoppers and buy the same things consistently, from the same store.

To engage Well-Balanced Traditionalists think about:

- **Being convenient** – convenience for this audience means help from associates and they will always head for a checkout managed by an associate, suggesting that traditional lanes should remain a part of the checkout mix. They love cash, too, showing no affinity for digital payments, so will remain dedicated followers of person-run tills.
- **Being helpful** – like Sensible Socializers Well-Balanced Traditionalists would like to be able to call associates from conveniently placed buttons in-store (e.g., on kiosks).



THE GROWING IMPORTANCE OF SELF-CHECKOUTS

According to the Gartner Group, “Self-service is becoming the norm as customers increasingly expect an effortless experience at scale.”

Indeed, the personas reveal that the age-old dislike of queuing is as strong as ever. What’s more, in the post-COVID-19 age, more of us will want to shop without close contact with people. This places a renewed emphasis on using voice assistants, and tools like AI, to ease the shopping experience. Indeed, as we look forward, the days of clunky user experiences at the self-checkout are over. Here are some advances to think about in your stores:

- **Remote management:** Associates can use mobile devices or wearables (e.g., smart watches) to easily manage a large number of self-checkouts from a distance – verifying people’s ages, clearing exceptions, checking item weight discrepancies, and much more – to accelerate checkout.
- **The touchless checkout:** New technology means that gestures can be used to process items. For example, with smart control technologies, entirely touchless self-service processes are made possible. Sensors can recognize the presence of a customer and shift to awake mode; the shopper can then scan items and, when finished, they can wave a payment card close to the EFT to use contactless payment – all without touching a thing.
- **Streamlined item processing:** Self-checkouts with 3D cameras and deep-learning algorithms can recognize items that aren’t barcoded (e.g., fruit) and automatically calculate the price based on weight. After customer approval, the fresh produce is added to the transaction so simplifying the checkout process, reducing exceptions, and improving stock accuracy.

OPTIMIZING SELF-CHECKOUT AT IKEA IN FRANCE

IKEA in France uses 3D smart vision technology, driven by AI, to detect any scan errors and notify the customer to rescan if necessary. The technology will learn over time and can help customers to self-solve the majority of exceptions to accelerate transactions and reduce queues. Integrated with Diebold Nixdorf’s DN Series™ EASY self-checkout solution, iCheck was awarded the “Retail Technology Award Europe 2021.”



How We Can Help

To create a shopping basket without boundaries, it's necessary to centralize and share the same business logic for key domains, including products, prices, and promotions. It's much easier to make this happen with Diebold Nixdorf publishing open and flexible APIs to connect complex retail environments.

Moreover, our Managed Services team will support you with a wide range of global services. These ensure your store devices are always available for an ultimate customer experience at the lowest TCO. By simplifying the operations, your store associates will be available for consumer-facing tasks in the store. DN AllConnect ServicesSM for Retail are future-proof and can be easily adapted for whatever comes next. Our team is on-hand 24/7 and operates your stores' mission-critical processes in real time through a set of standardized and modular services, such as:

- **Implementation services** – including site surveys and preparation, device, staging and cloud-based configuration. We ensure a seamless hand-over to stores combined with associate training.
- **Maintenance services** – overseeing device usage, real time, at store level and acting accordingly when the journey availability is at risk. E2E incident resolution, international SWAP coverage, and a dedicated field engineer app, to achieve the highest first-visit-fix rate.
- **Support services** – covering up to 24/7 help desk support and speaking retail in more than 25 languages, our agents know your business and have your success at heart. Our remote and proactive monitoring of the entire store ecosystem helps you secure your best TCO. DN can act as a multivendor Single Point of Contact or easily integrate with your IT infrastructure. Through our advanced toolset and a living knowledge base, we ensure up to 70% first-call resolution, while providing a significant ticket reduction.
- **Operations services** – providing a data-driven and real-time overview on device location, usage, status, and health using a hardware and software agnostic cloud platform. With data analytics, we can proactively detect incidents and solve them efficiently and right away, before they turn into major issues.
- **Application services** – through a variety of automated processes, we make sure that your devices run on the latest software and have the current patches and updates installed to enhance security and compliance.



THE ALL NEW EC50: A SINGLE DEVICE WITH A BIG COST-SAVING

Many retailers use multiple devices in stores such as phones, scanners, and two-way radios. This increases costs (e.g., for airtime and maintenance). A more cost-efficient approach is to deploy a device like the EC50. Designed to be assigned to individual associates, it includes a fast, accurate scanner, voice services, two powerful cameras, and many more features that mean it can manage all key tasks on its own.

A single associate with an EC50 can also remotely manage a large number of self-checkout lanes - clearing exceptions, approving ages, and much more.

And with intuitive and immediate presence and messaging tools, such as the option of Push-to-Talk, it helps your team work and collaborate in instinctive ways – from checking stock for customers, to managing inventory, viewing merchandising videos, taking payments, and many more.

A TRANSFORMATIONAL TECHNOLOGY – WITHOUT THE COSTS ASSOCIATED WITH TRANSFORMATION PROJECTS

"With flexible APIs, your checkouts and mobile devices can seamlessly connect to different technology domains (e.g., CRM and pricing systems) to make it easier to create, test, and roll out new in-store services at a fraction of the cost that it used to take. This is true whether you're deploying a mobile Point of Sale solution on associates' devices, launching an interactive store map that a shopper will access through the app on their smartphone, or adding zero-touch services to a self-checkout. It's also much faster to pilot too, enabling stores to roll out new services in days or weeks, to see what works before launching services across store estates. For this reason, we see self-checkouts and mobile solutions as transformational technologies; however, they don't come with the price-point associated with traditional transformation projects."

Olivier Faugere, Head of Storevolution Partners, Diebold Nixdorf

Two Industry Leaders Working for You

Diebold Nixdorf and Zebra can help you deploy your systems more quickly and with less risk. By putting your shoppers in control of how they interact with you, and offering them convenient and personalized experiences, we see opportunities to increase loyalty, drive-up throughput, and grow basket sizes.

For more on how, together, Diebold Nixdorf and Zebra can help you build engaging and frictionless store experiences, please visit:

www.retailexperience.store

If you'd prefer to speak to us, please let us know and we'll be in touch as soon as possible:

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