

Toshiba's Frictionless Shopping Proof-of-Concept Unveiled at NRF 2019

The frictionless store is here – no scanning, no hassle. Your path to that future is in front of you. Toshiba's R&D Innovation Lab is leading the way toward retail transformation by embracing major enabling technologies such as computer vision, artificial intelligence, sensor technologies, edge computing and mesh networks. We recognize that retailers will evolve to this future but must also realize value each step along the journey. This includes customer tracking, inventory and planogram compliance and more, all evolving to ultimately a frictionless shopping experience. Exciting new technologies and new processes on the way toward radical transformation.



Toshiba Global Commerce Solutions demonstrates frictionless shopping to retailers at NRF 2019

UNVEILING TOSHIBA'S INNOVATION:

Toshiba's Frictionless Shopping proof-of-concept (POC) relies on a multitude of technologies including computer vision, artificial intelligence, multiple sensing technologies, edge computing and mesh networks. However, retailers can deploy these technologies over time for full effect. Implementing camera and sensor technologies alone provide value... but a frictionless shopping end state entails synchronizing multiple technologies to ensure a brilliant experience that delivers significant value to retailers and consumer-packaged goods (CPG) companies. The following explores some of the use cases Toshiba is already demonstrating, and how the solution differs from other industry trials.

At its core, Toshiba is demonstrating how technologies enable frictionless shopping by consumers. This includes selecting items off the shelf and adding them to the basket – very basic. Shoppers may also pick up and move items around the shelves, since the system ignores rigid planogram compliance. Customers may select numerous smaller items from a shelf (like three candy bars from a box containing 24). Incredibly, these scenarios still work when the cameras are fully covered.

The consumer experience is essential to revolutionizing the shopping journey. However, such a scenario minimizes the complete story by omitting the value to retailers and CPG companies. Why? Data. Today, retailers are keenly focused on understanding their point-of-sale (POS) transaction data and mirroring it with their customer loyalty information. Beyond benefiting retailers, such analysis and insights are valuable to CPG companies to drive new merchandising and product placement decisions. Now, imagine the same capabilities from the online world applied to the in-store experience. Toshiba's POC allows customer tracking and product-level comparison of in-store behavior to a retailers Transaction Log data.

Let's go a bit further to explore the specific capabilities and differentiation of Toshiba's POC:

- Inventory. Shelving technology, applied to existing store shelves, alerts store associates and CPG companies when it is time to restock shelves based on the predefined thresholds.
- Defined planogram vs. dynamic planogram. Toshiba's solution does not depend on a rigid, defined planogram. The shelving technology creates an interactive planogram for retailers even when they do not have an electronic version.
- Loss prevention and safety. Video sensors serve as the primary mechanism for loss prevention and safety replacing current closed circuit TV's (perhaps even smoke detectors) as well as creating alerts for the cleaning team when spoilage is detected.
- Evolutionary path vs. revolutionary rip & replace. Toshiba's concept adds a technology layer to existing store shelving. Over time retailers may conduct continual comparisons of the frictionless cart versus POS transaction data to ensure accuracy and optimize the solution. At some point, retailers who realize nearly 100% consistency between in-store systems may decide to remove front-of-store checkout systems, while relying on audit controls, or forgo checkout for true frictionless commerce.

Finally, the cost of technology is a major source of friction today. While cost and pricing is not yet available, Toshiba's evolutionary approach starts with the aim of minimizing impact to retailer's existing store infrastructure while allowing the value to build up over time as new technologies are deployed. We recognize that retailers will evolve to this future but must also realize value each step along the journey. This includes customer tracking, inventory and planogram compliance and more, all evolving to ultimately a frictionless shopping experience. Exciting new technologies and new processes on the way toward radical transformation.



Toshiba's solution is shown working even when all cameras block field of vision given on-shelf technologies.

About Toshiba Global Commerce Solutions

Toshiba Global Commerce Solutions is a global market share leader in retail store technology and retail's first choice for integrated in-store solutions. Together with a global team of dedicated business partners, we achieve brilliant commerce by advancing the future of retail with innovative commerce solutions that enhance customer engagement, transform the in-store experience, and accelerate digital transformation. To learn more, visit toshibacommerce.com and engage with us on [Twitter](#), [LinkedIn](#), [Facebook](#) and [YouTube](#)

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