



CENTERITY

Digital Transformation in Retail

It really has to work all of the time

Overview

The retail industry has changed significantly over the past decade and it keeps on evolving further and faster by adopting new, cutting edge technologies while transforming from a classic store to an omnichannel business that is not limited to one country or to the physical world at all.

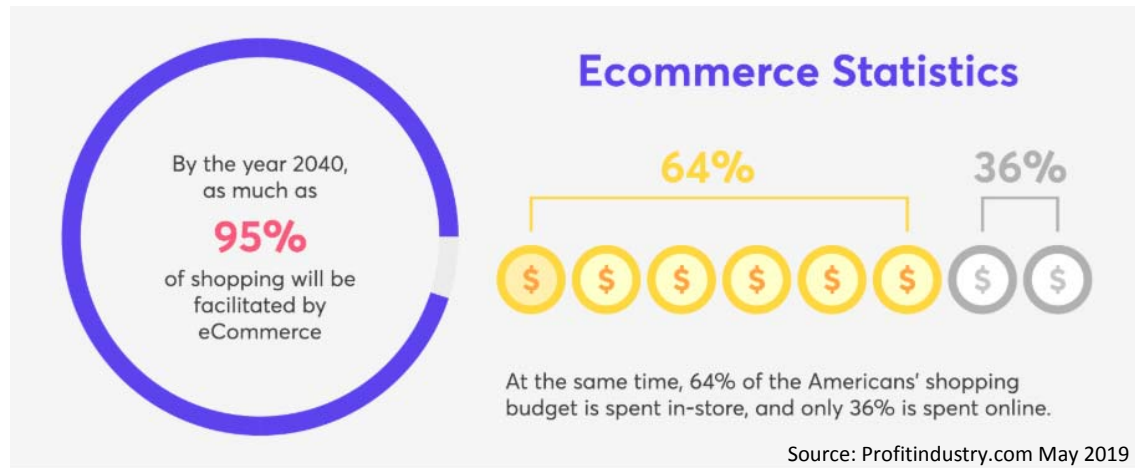
While these businesses strive forward, some of them open new online or offline stores every day, their infrastructures can't sometimes keep up with the pace.

The modern store is a vast collection of technologies: Points of Sale, Self-checkout kiosks, payment and security systems and operational technologies like refrigerators and baking ovens. Most of these technologies are not limited to the store and rely on many different backend systems which in their turn rely on other systems which often span multiple vendors and service providers. This huge, interconnected network of technologies is very hard to keep track of and when problems start you need to be ready to identify and solve them fast or suffer the consequences.

Centerity is an AIOps Platform that Delivers Dynamic Service Views and Business Service Level Analytics for Digitalization and Digital Transformation Initiatives.

The State of Online Commerce

Digital transformation is no longer about if enterprises will transform, but about when. Companies that have not embraced transformation, such as Kodak, Blockbuster or Borders have disappeared, and even technology companies like Nokia, that have failed to change with the times, are now struggling to survive.



The accelerated pace of economic change is compressing the lifecycle of businesses and those that don't digitally transform will be rendered irrelevant; and it will happen with remarkable speed, and with little warning.

Digital transformation is not just about technology; it's about redefining your entire business strategy. The degree of difficulty is compounded by the dearth of experienced resources. According to Forrester, in 2017, 74% of companies have a digital transformation strategy, but only 15% have the skills and capabilities to implement it.

The Changes Driven by Digital Transformation

Digital Transformation is a disruptive process and it will not only "transform" your IT department but also will change all aspects of your business, including; the way you relate with your customers, your partners, and your suppliers.

In this document, we will focus on the intrinsic technological requirements, not the business process aspects of the process.

At its core, Digital transformation drives some key changes:

- Every key business process of the company and the interactions with every key constituency are implemented in software and are rapidly evolved to maintain competitive advantage online.
- Data driven applications are deployed on cloud-based infrastructure and every facet of the supply chain is connected through the cloud.
- Real-time data analytics for notifications and abnormality detection (AIOps).
- Big Data to optimize system performance in reaction to change.
- Users now must have a connected device to see the necessary information on cloud.
- Applications should be able to adapt to different environments (on-premise, Cloud, containers, etc.), detect and inform environmental changes and proactively change their behavior accordingly.

The Omnichannel Approach

The term OmniChannel refers to better introspection of the customer experience by understanding where, when, how, and of course, what he/she wants. It means offering the customers a real-time, on-demand, cloud-based, self-service experience through the convergence of all the channels. With information coming from virtually everywhere (on premise, cloud systems, IoT, mobile applications, etc.) and in real time, it is critical to have applications that can provision these sources of information efficiently, and in real time.

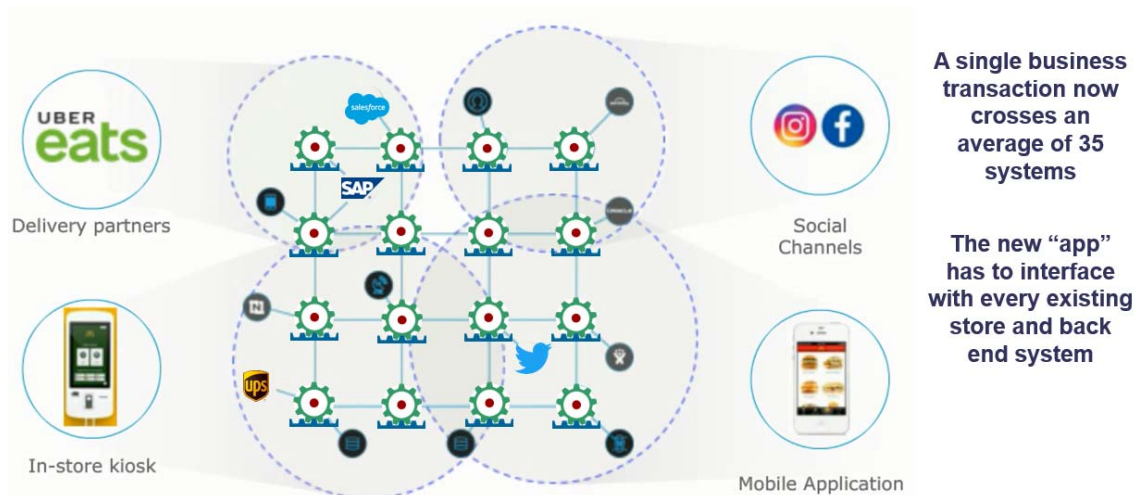
Omnichannel may include:

- Online browser based applications
- Mobile applications (owned and 3rd parties)
- Kiosks
- Telephone Interactive Voice Response
- Social media
- Help desk
- Physical locations (branches, plants, etc.)

One of the most critical components of the OmniChannel strategy is the backend.

As with any other multi-technology support (IoT, Cloud, on-premise, Mobile, etc.) it needs a myriad of connecting elements and workflows to pull, push and normalize the information flows. The business in turns needs to guarantee that these business flows are working correctly, *as they are becoming the bloodline of the digital business.*

An Omnichannel approach at a Global Fast Food Restaurant



What Happens When Things Go Wrong?

Online systems in retail directly support the revenue generation of the company, and when they are not working correctly also damage the reputation of the company, and the ability to retain customers. So an outage does not just represent a one-time loss of revenue, it often causes customers to leave and to never return.

Target's stock drops after weekend register meltdown

PUBLISHED MON, JUN 17 2019 - 10:35 AM EDT | UPDATED MON, JUN 17 2019 - 1:03 PM EDT

Starbucks lost millions in sales because of a 'system refresh' computer problem

Nationwide Outage Shuts Down Woolworths [Updated]

Jackson Ryan | [Apr 15, 2018](#) 4:30pm Filed to: [Australian Stories](#) Share [f](#) [t](#) [in](#) [j](#) [v](#) [w](#)



Image: Supplied

According to multiple reports, Woolworths supermarkets around Australia are experiencing a technical issue that prevents them from processing any transactions.

Hannaford Gives Away Groceries During POS Crash

By [Jamie Grill-Goodman](#) - [01/25/2019](#)

Point of sale (POS) failures can add up to big losses in sales and even bigger losses in shopper experience and loyalty when they happen. But on Monday, January 21, a Hannaford supermarket in West Lebanon, NH, found a way to turn a POS nightmare into a happy situation for shoppers: it gave groceries away.

[NBC5 reported](#) that the store's cash register systems started to fail around 2 p.m. As lines got longer store manager Shawn Quelch told [NBC5](#) the store decided to let those stuck in line take their



Day after a nationwide register outage, Target's tech troubles continue on a smaller scale

[Kelly Tyko](#), USA TODAY Published 6:36 p.m. ET June 16, 2019 | Updated 7:19 p.m. ET [June 16, 2019](#)

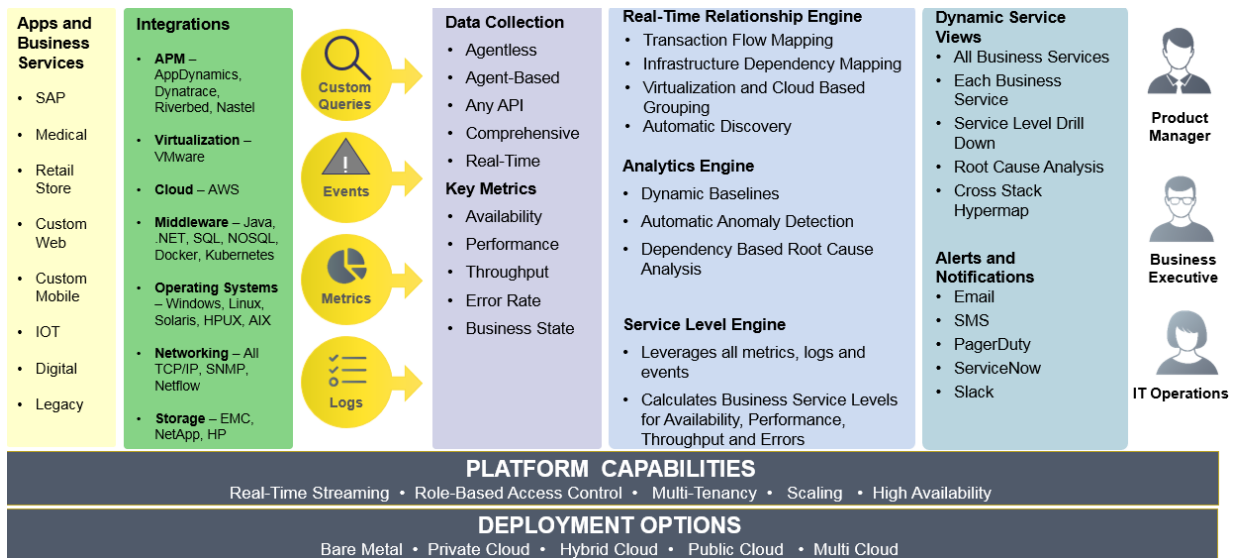
Immediate revenue loss, stock market crashes and reputation damage cause retailers billions of dollars of damage every year!

The Centerity Solution

The Centerity AIOps Platform has a proven history in supporting business service outcomes across complex enterprise and managed service environments. Centerity is built on strong operational analytics and data mining, as well as powerful discovery, visualization, and dependency insights. Highlighted features include the following:

- **Deep and Broad Integrations:** Centerity integrates with the tools and platforms that you rely upon.
- **Dynamic Service Views:** Simple to understand gauges that show the service quality for each critical business service
- **Real-time Analytics:** Advanced management & tactical dashboards maintain SLAs for critical processes.
- **In Context:** Constant alignment between IT data and business objectives.
- **Consistent User Experience:** Detect user experience degradation before your users do.
- **Traffic Analysis:** Analyze bandwidth consumption and data flow; filter by application, packets, protocols, etc.
- **AI-driven Anomaly Detection:** Machine learning for digital services moves the performance discipline beyond thresholds

The Centerity AIOps Platform



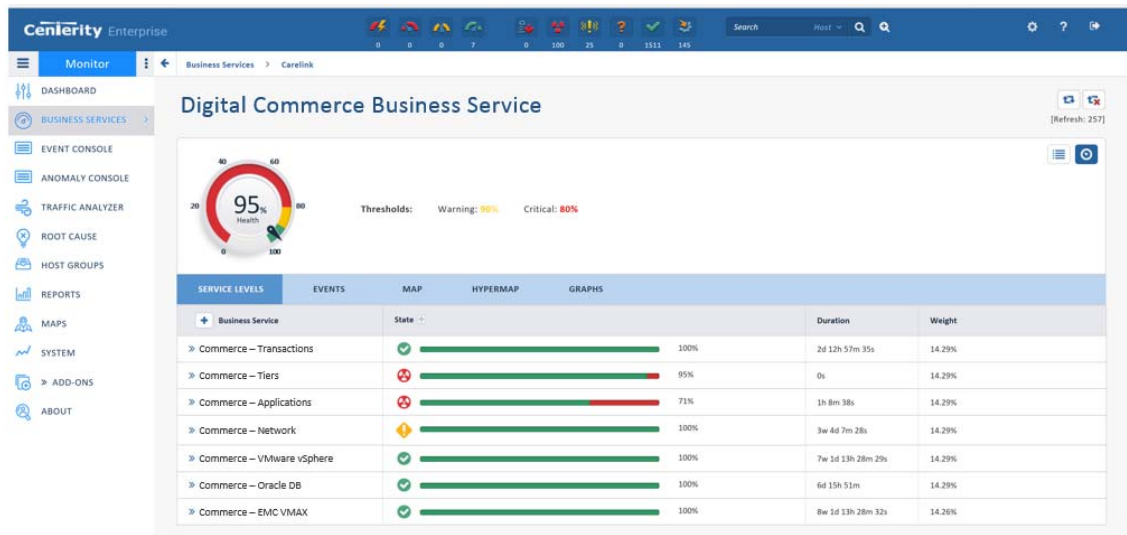
Centerity's Dynamic Service Views translate technical metrics and their impact on business services and resultant consequences. Each gauge represents the availability, performance, throughput and error rate of the entire stack of software and hardware supporting each digital business service.

Unified Dynamic Business Service Views



When service levels degrade, Centerity provides a bird's eye view of how the operation of each layer that supports the digital business service is impacting the overall service level.

Drill Down Into Each Layer of a Digital Business Service



Learn More about Centerity

To learn more about the Centerity AIOps Platform please visit - <https://performance.centerity.com/aiops-and-aiops-platforms>

To learn more about Centerity and Digital Transformation, please visit –

<https://performance.centerity.com/digitization-digitalization-and-digital-transformation>

Business Benefits of an AIOps Platform

If you are a typical enterprise you already have between 20 and 200 different monitoring and management tools. Why do you need another one (an AIOps Platform) on top of what you already have? The AIOps Platform will offer you the following unique benefits that are not available from the point monitoring tools and platforms that feed it:

- An AIOps Platform combines multiple applications and their supporting software and hardware stacks into Business Services that support the operations of business constituents who are responsible for the revenue, market share, and customer satisfaction of these critical online services.
- An AIOps Platform organizes the hardware and software components that support digitalization and digital transformation initiatives into business service views that are relevant to the business owners and Product Managers of these digital initiatives.
- An AIOps Platform creates and manages the service levels of each of these critical business services
- An AIOps Platform applies AIOps (AI and ML) across all of the metrics, logs and events across the entire stack of software and hardware that supports each critical business service
- The AI in the AIOps Platform automatically learns the normal state of each critical business service and the normal underlying behavior of the support hardware and software services, and automatically flags anomalies.
- The AIOps Platform has a real-time understanding of how each business service is composed which dramatically facilitates root cause analysis when issues occur.

Summary

Modern business services are composed of new applications, existing applications, custom developed applications and purchased applications. The software and hardware infrastructure for these new business services is updated frequently and operates in a dynamic manner. This creates a new imperative to be able to monitor the resulting business services in a continuous and full-stack manner across the entire stack. The AIOps platform is uniquely suited to meet this new need.

About Centerity Systems

Centerity's AIOps Platform delivers Dynamic Business Service Views of the full technology stack to the executives responsible for technology-driven business services, ensuring the performance, availability, and security of critical processes. Centerity displays real-time, consolidated business analytics for complex on-prem, cloud, and hybrid technology environments generating SLA Executive Dashboards that identify performance anomalies and isolate faults across applications, operating systems, infrastructure, and cloud assets.

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