Optimising Global Solution and Service Delivery Models for Retail

● Richard Clarke

Retailing is a globalised business. Both brick and mortar and online retailers, particularly those in the fashion, specialty, and hospitality sectors, are seeking value growth by replicating standardized operating models across developed and developing markets. On the basis of Fujitsu's delivery experience, we seek to present a paradigm global solution and service delivery model for modern online and stores-based retailers. Fujitsu has developed a "building block" model which comprises a set of modular global delivery components providing international online and store-based retailers with an "out of the box" solution tailored to their cross-border ICT delivery needs. Specific enablers described include Fujitsu's Global Network, the proprietary Transition Market Management toolbox for repeatable market or brand store deployments, and FUJITSU Market Place, a new point of sale (PoS) platform built to link all online and offline consumer touchpoints with back office data sets and applications to deliver new consumer services. Business benefits of the model include increased trading availability and reduced store ICT operating costs for the retailer. These are the result of an easily replicated and cost-efficient delivery model, reliable and effective service interventions to maintain business operations, and future proof enterprise ICT in the store to manage modern online and store-based consumers in accordance with the needs of the local markets. Commercial confidence prevents us from naming the retailers we have worked with in designing, building, and implementing the model components. Future global delivery models will be shaped by the growth of omni-channel retailing, the need to manage a platform of digital innovative solutions and services and the demand for "as a service" cloud-based global commercial and delivery options. This paper presents the features of the respective functions of the building block model offered by Fujitsu.

1. Introduction

Retailing is a globalised business. Both brick and mortar and online retailers, particularly those in the fashion, specialty, and hospitality sectors, are seeking value growth by replicating standardized operating models across developed and developing markets. This is being driven by increasingly homogenous consumer demand, the search for economies of scale within and across markets and a shift towards more centralized governance, operational processes, and enterprise ICT models. Although many of the largest companies still permit, if not encourage, variable or localized decision-making in areas of ranging, merchandising, and workforce management to satisfy local market or cultural requirements, the trend towards consistent delivery and operating models across all markets is clear.

Fujitsu is a global ICT solution and service provider developing and delivering ICT solutions and services to some of the largest retailers in the world. On the basis of our experience, we seek to present a paradigm global solution and service delivery model for modern online and stores-based retailers. Specific enablers include Fujitsu's Global Network, the proprietary Transition Market Management toolbox for repeatable market or brand store deployments, and FUJITSU Market Place (FJMP), a new point of sale (PoS) platform built to link all online and offline consumer touchpoints with back office data sets, and applications to deliver new consumer services.

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2. International Retail Trading

Historically, international retailers have grown via a mix of organic (company store growth) and inorganic (new business acquisition) expansion, regardless of market. This has meant business processes, supply chains, and enterprise ICT models have remained inconsistent and fragmented, limiting the deployment of best of breed ICT solutions, cost-effective delivery models, and centralized governance approaches. A small group of super-size online and stores-based fashion and specialty retailers have emerged in the last 3–5 years which have successfully "colonized" up to 100 global markets with a more standardized retail operating model. These models are now being re-used by other, sometimes, smaller international retailers.

Other retail market factors are accelerating this trend.

1) Omni-channel retailing

Consumers increasingly wish to shop via a mix of online and physical store services like "buy online, pick up in store." To deliver these new services, retailers require an integrated set of solutions and services including e-commerce, store PoS, order management, enterprise resource planning (ERP), and customer relationship management (CRM) solutions. Implementation on a market-by-market basis would be expensive and lead to service inconsistencies which can be exploited by cross-market consumers. As a result, a replicating or "cookie-cutter" approach is required.

2) Localisation

Globalization may be accelerating but local trading requirements, like language, currency, fiscalisation, and electronic payment remain important. International retailers need a cost-effective and reliable delivery model

for implementing these requirements across all their regions and markets.
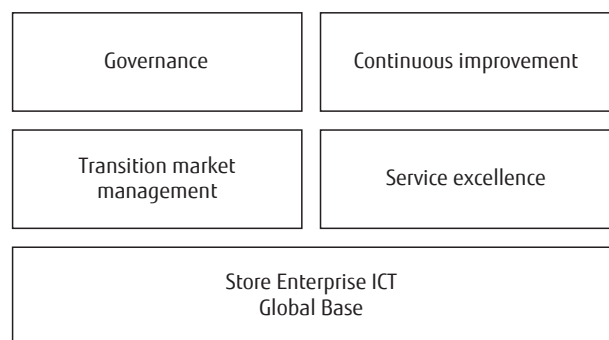
3) Service excellence

Trading is super-competitive. speed to market, in terms of store set up and innovation delivery, are critical advantages, especially in the "fast fashion" sector. Trading "availability," i.e. store registers are open and working, can significantly impact revenue and profits store by store. Retailers require the best practices for global service interventions to resolve ICT-related issues anywhere in the world. This requires a global service delivery model.

3. Deliver Globally–FUJITSU's "Building Block" Model

With the collaboration and support of its largest international retail customers, Fujitsu has developed a "building block" model (**Figure 1**). This model comprises a set of modular global delivery components which together provide international on line and stores-based retailers with an "out of the box" solution to their cross-border ICT delivery needs.

Fujitsu's model encompasses a full suite of ICT solutions and services including hardware products, software solutions, networks, datacentre services, system integration, service workflows, service desk, field service engineering, and roll out and deployment services.

Ultimately, the business benefit of this model for the retailer is its ability to provide both replicable store ICT operating models, delivery processes, and service interventions, tuned to the needs of local markets where required. This section will now describe each building block in more detail.

Figure 1
"Building block" model.

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3.1 Store Enterprise ICT

The baseline for Fujitsu's global operating model is the store enterprise ICT architecture; the pre-configured set of integrated products, software solutions, networks, and datacentre services designed to deliver a consistent set of trading, operational, and reporting requirements in each market. Fujitsu developed a Global Base layer comprising the store enterprise ICT components to be delivered in all global markets irrespective of local trading requirements. Local requirements are added in the Transition Market Management (TMM) building block during the market implementation phase.

Fujitsu's global infrastructure delivery network, including a global wide area network (WAN), is the communications link which connects the retailers' stores, datacentres, and headquarter (HQ) with Fujitsu's Global Delivery Centres for solution development, market development, and service delivery (**Figure 2**).

The store PoS solution is the most critical component in the store ICT enterprise. Historically, the PoS has provided critical trading features like transaction management, data distribution, cash management, and store performance reporting. With the emergence of omni-channel services, as well as the need to link the store register with e-commerce and other store touchpoints like self-checkout, mobile, and in store kiosk, the store PoS is transforming into a selling platform for the wider retail enterprise. No longer a "closed" in-store application with minimal back office integration, the store PoS is becoming an "open" conduit to new consumer solutions and services. It still provides core transaction management and enterprise data handling but also acts as the hub or broker between online and store touchpoints and the rich data sets and applications in the wider enterprise. Workflow tools turn data into omni-channel services for consumer and store staff including "buy online, pick up in store," "in-store order creation for delivery elsewhere," "inventory look up," and "customer loyalty handling."

Fujitsu has developed FJMP to perform this role. Built on a service-oriented architecture (SOA)-based modular application architecture, with API connectors, it provides the flexible integration of enterprise-wide
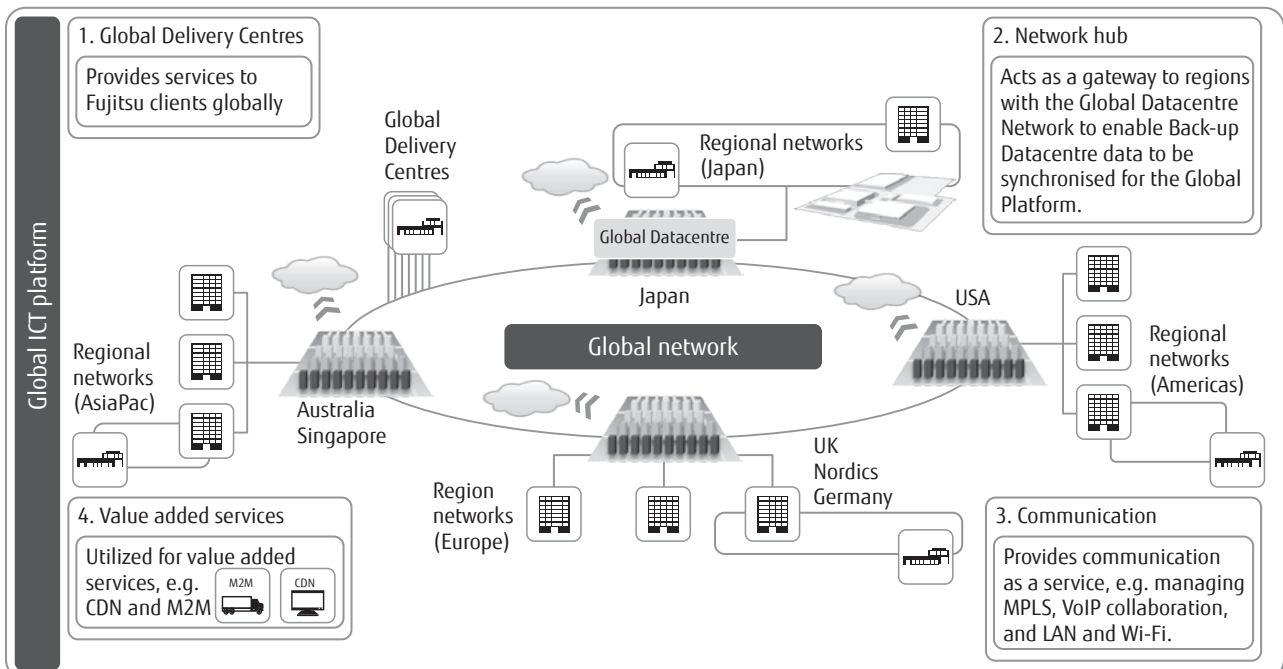
Figure 2
Fujitsu global infrastructure delivery Network.

applications and data, supporting Fujitsu's global solution and service delivery model. Connected via Fujitsu's global infrastructure delivery network, it both acts as the "glue" between multiple selling toolsets and connects the stores in the field with the data, applications, and processes in the centre or HQ.

3.2 Transition Market Management (TMM)

International retailers are demanding not just a unified commerce platform founded on solutions like FJMP, but also an easily deployable and customisable operating model, country by country, brand by brand. The model needs to be effective for both new market entry, new release management and innovation introductions for a subset or for all stores.

Fujitsu has developed TMM, a toolbox of repeatable processes and activities with defined inputs, outputs, acceptance criteria, and templates. TMM investigates, details, designs, develops, and tests all the required market-specific adaptations of the Global Base. The goals of the TMM block are standardisation across projects, a factory approach in implementation, profiting from lessons learnt, best practices, standard terminology, and project management toolkits.

TMM is, therefore, critical not just for replicating the Global Base enterprise ICT model in a new market or new brand deployment, but in ensuring local country trading or brand requirements are met. Market intelligence, trading rules, store site surveys, local partner engagements, and roll out planning with local store teams are vital in delivering a successful outcome.

FJMP, as the unifying commerce hub based in the store, has been designed to simplify and speed this customisation process in each market and for each brand. Built using a "layered" application model, FJMP adds a country or brand layer to the application base layer to accommodate local requirements (payment, currency, languages and brand UI, fiscalisation) without the need for significant recoding within the end-to-end application. This means that future modifications–new functionality, software releases and innovation "drops" to test, roll out, and withdraw–can be delivered regularly and cost-effectively, enabling FJMP to be a significant enabler within the global solution and service delivery model for retail.

3.3 Service Excellence

Delivery models and their individual components are not static or self-surviving past the implementation/TMM phase. New store openings and closings, new brand entries, new software releases, and most critically addressing hardware, software, and service failures need to be managed and delivered. This requires a set of well-formulated, globally applicable and tested service management assets and capabilities.

Fujitsu has built a comprehensive library of workflows which map to the interventions required for the continuous running of the global delivery model. Underpinned by service level agreement options with the customer (for example, failing registers in store A need to be fixed within one day; failing software X needs to be fixed within 4 hours etc.), Fujitsu utilizes a suite of Global Delivery Centres (**Figure 3**) and other facilities to deliver the following global managed services.

1) Global Service Desks

These desks provide the first and second "line" local language support for customer end users whatever their location or time zone.

2) Retail Solution Centres of Excellence

Each centre is based in major continents cities (Durham, North Carolina, Helsinki, Kazan, Bangalore, and Manilla), providing more technical third and fourth "line" support for software, hardware, and system integration issues.

3) Global Program Management Office (GPMO)

Based in Brussels, this office provides a global service integration management function for "on site" services. The GPMO orchestrates responses to service incidents on a 24/7, "follow the sun" basis via additional hubs based in Manilla and Costa Rica.

4) Field Service Engineering

Teams of engineers are established to travel to store-based or datacentre incidents where service desk interventions are unable to resolve the issue. The teams will also provide store opening, closure, and IMAC services.

5) Application Management Services

These services provide dedicated technical support for software-related development, release management, and store-based imaging and deployment.

6) Hardware Spares Management

Dedicated facilities and service management

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Costa Rica GDC
- Over 350 employees
- Service Desk GDC
- Supporting 4 languages

Portugal GDC
- Over 1,000 employees
- Service Desk GDC
- Supporting 23 languages

Poland GDC
- Over 1,150 Employees
- RIM, R&D, BPO, and Service Desk GDC
- Supporting 15 languages

Russia GDC
- Over 800 Employees
- Applications & RIM GDC
- Supporting 4 languages

China GDC
- Over 360 Employees
- Application Development

Philippines GDC
- Over 750 Employees
- Apps, RIM, BPO, and Service Desk GDC
- Supporting 3 languages

India GDC
- Over 3,350 Employees
- Applications, BPO, and RIM GDC

Malaysia GDC
- Over 90 Employees
- Service Desk GDC
- Supporting 9 languages

RIM: Remote infrastructure management
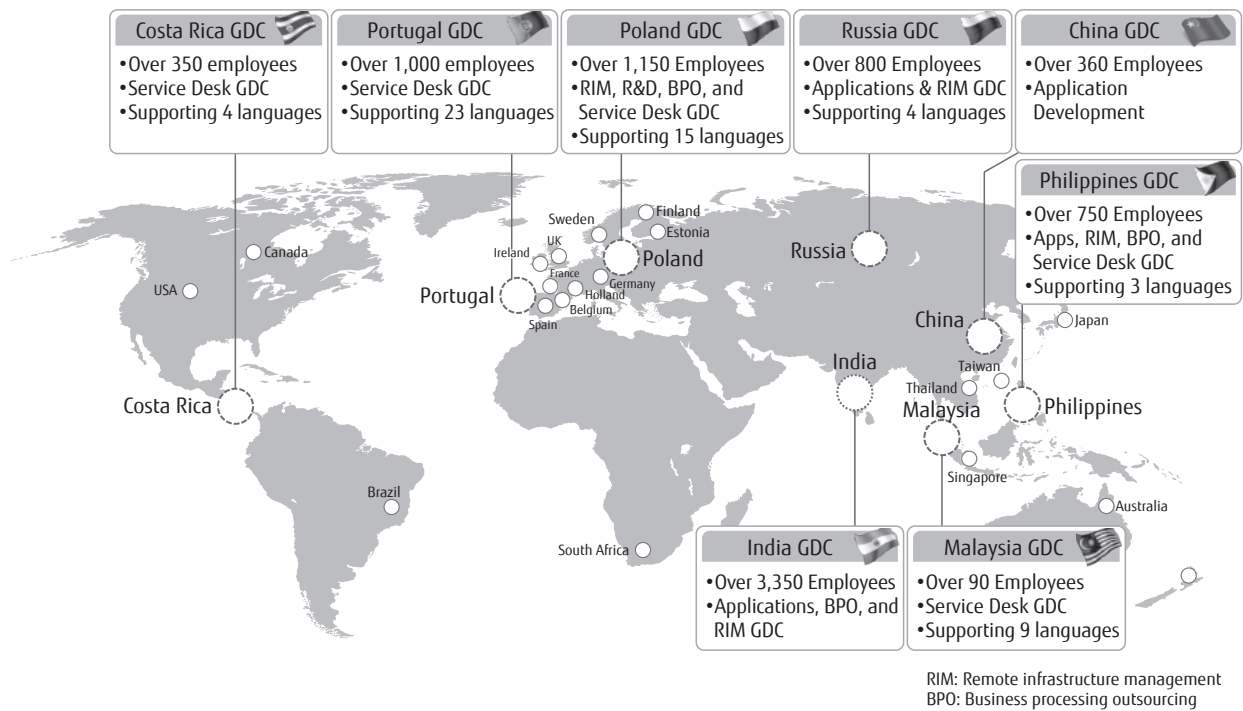BPO: Business processing outsourcing

Figure 3
Fujitsu Global Delivery Centres (GDCs).

is established to address parts replacement in on site hardware.

3.4 Continuous Improvement

Global delivery models need continuous measurement and improvement to address changing end-user needs and market trends. Social media, for example, is transforming the communication speed and resolution expectations of end users for ICT faults and failures.

Fujitsu has long invested in the more traditional "lean"-based continuous improvement, stripping out any variability in delivery workflows to simplify speed and reducing the cost of service interventions. The more consistent and simpler it is to work across multiple sites, the easier it is to fix any faults found.

Fujitsu' global delivery model is now leveraging the benefits of data analytics to improve global delivery service management. Intelligent support (**Figure 4**) is designed for business needs and to service all technology through intelligent thinking and focused proactive teams. Through real-time visualisation of the core metrics, predictive, automated, and proactive support can be delivered whilst ensuring that customers are kept informed, enabling the availability of not only the status of the technology that underpins the customer journey but also patterns through each period of the day.

3.5 Governance

Governance is the final building block in Fujitsu's global solution and service delivery model for retail. We advise our retail customers to establish a governance framework on three "levels."

1) Strategic – focus on the global delivery model, long term planning, business and ICT innovation, and the relationship between the customer and Fujitsu; injecting global ICT trends into customer delivery.

2) Tactical – focus on service improvements, service delivery evaluation, contract management, long terms service plans, and business forecast.

3) Operational – focus on operational status, delivery follow up, performance reporting, change requests, and major incidents and issues.

Sitting across these three levels is an architecture board which owns the system roadmap, release plans,
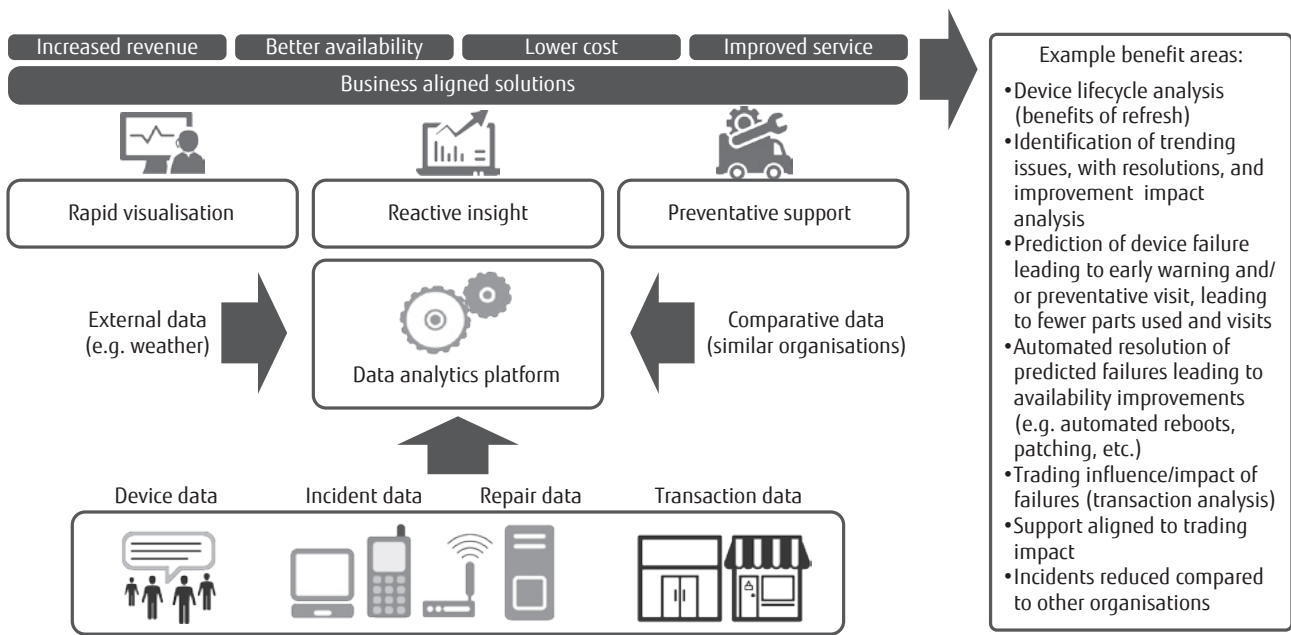
Figure 4
Fujitsu intelligent engineering.

enhancements, problem management, service innovation, and sustainability.

Relevant executives (management, service-led, or system integration-based) from both Fujitsu and the customer populate the various governance boards.

4. Conclusion

This paper described Fujitsu's global solution and service delivery model for retail. Models are not static entities; they evolve and change in response to market trends, corporate strategies, and end user requirement. However, the core building blocks outlined above are, we believe, consistent and continuous in delivering ICT on a global basis to online and stores-based retailers.

The key enablers or differentiators within the model are as follows:

1) FJMP—a new selling platform providing both core PoS and omni-channel services for the modern consumer, store assistant and HQ operator; FJMP is the key connector between customer touch-points (store, mobile, call centre), back off data sets and applications and enterprise level data repositories—it is a truly globalizing application;

2) Fujitsu's Global Network—a tightly linked set of delivery centres, service facilities, data centres,

and stores unifying data flows between assets in different geographies and times zones; built on the Fujitsu global WAN; Fujitsu's status as global ICT provider with global reach in 150+ markets;

3) Fujitsu's TMM—a toolbox of repeatable processes and activities with defined inputs, outputs, acceptance criteria, and templates. The TMM investigates, details, designs, develops, and tests all the required market-specific adaptations of the Global Base.

Fujitsu's global delivery model will continue to evolve; in our view, certain factors will significantly influence the global delivery models we deploy in the future for online and stores-based retailing:

1) omni-channel retailing—consumer preference for shopping services which span both online and offline environments will continue to grow; this will mean global delivery models will require more advanced system integration, API-based connectors, and workflow management tools, with the associated service management and interventions, to meet shopper and staff expectations;

2) digital innovation platforms—retailers want to innovate fast, regularly and with minimal disruption; the growth in AI/IoT, mobile, social and

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cloud-based solutions and services, provided in many cases by multiple independent software vendors (ISVs), will oblige solution and service aggregators like Fujitsu to develop digital delivery platforms; these platforms will provide "plug and play" innovation as new solutions are piloted, tested, rolled out, or withdrawn; services providers like Fujitsu will manage multiple ISVs on behalf of the retailer;

3)   "as a service" models—cloud-based "turn on/turn off" solution and service delivery models, on a global scale, are still relatively immature; this will change as connectivity risk declines, as "as a service" commercial models become more viable with scale, and technology enables faster and more reliable ICT delivery around the globe.

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Mr. Clarke is currently Executive Director for Fujitsu's global retail business, responsible for retail strategy, portfolio development and collaboration between Fujitsu's central and regional retail sales, solution and delivery teams.