

The Microsoft logo is displayed in a large, bold, dark blue font. To the left of the logo is a graphic consisting of several blue rectangular blocks of varying sizes and orientations, creating a sense of depth and perspective, resembling a stylized architectural structure or a path leading towards the logo.

Microsoft

Get Started on your Journey to the Cloud

Retail Industry

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The Fujitsu logo is rendered in a red, serif font. Above the 'i' in 'Fujitsu' is a red infinity symbol. The entire logo is contained within a light gray rounded rectangle with a thin black border.

FUJITSU

Microsoft Partner

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Introduction

Microsoft in partnership with the Fujitsu Center of Excellence offers this paper as a starting point for understanding how to approach development of a comprehensive cloud computing strategy. The retail enterprise IT environment serves all aspects of business operations including shopper engagement, product delivery and core business operations. To support the varied needs many retailers are embarking on a “hybrid” approach to delivering cloud services. This simply means mixing on premises service delivery with hosted or public service delivery to achieve the definition of an effective cloud computing environment.

Microsoft recognizes several driving forces behind retail cloud computing adoption. While there are many reasons why businesses might consider the cloud, our experience and research has shown 3 prevailing reasons:

1. Improved IT and business agility
2. Better economics
3. Growing user expectations

Note

The Association for Retail Technology Standards (ARTS) defines cloud in their Cloud Computing for Retail Technical Report version 1.0. “Cloud computing is an emerging computing model by which massively scalable IT-enabled computing capabilities and resources (servers, storage, networks, applications, and services) are delivered as a service to external consumers using Internet technologies.”

Improved agility



- Time to market
- New business models
- Omni-channel breadth

Better economics



- Predictable costs
- Low cost of innovation
- Reduced capex

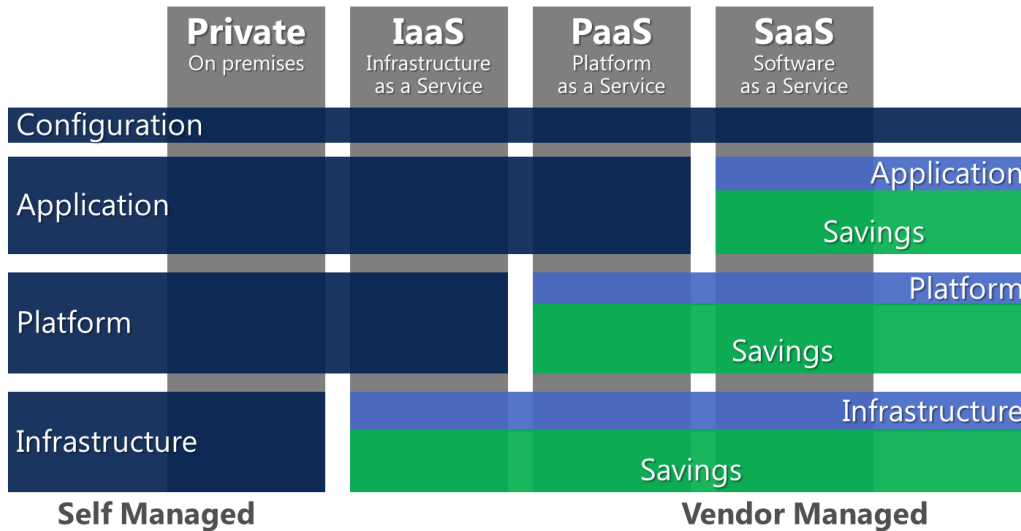
Growing expectations



- Modern workstyle
- Bring your own device
- Anytime computing

Economics of Cloud Computing

From an economic point of view cloud computing is defined by how much of the infrastructure is managed by a cloud provider versus being managed by the retailer. The graphic below shows the 4 different approaches (vertical) to cloud computing: Private, IaaS, PaaS and SaaS. The horizontal portion of the graphic shows the layers that make up enterprise solutions and the mix of self-managed versus vendor managed responsibility; as it relates to the cloud approach. This offset is where the economic benefits of scale can be realized.



Microsoft delivers solutions across all aspects of cloud computing.

 **Windows Azure**



Microsoft System Center



 **Windows Server**

Cloud Business Value

Getting business value from a cloud strategy requires planning. Cloud computing is mature enough to allow for specific guidance to retailers about leveraging the cloud. Using this four (4) step approach can ensure that you are ready to maximize business value from your cloud investment.



Step 1

Optimize your Foundation

When we look at how cloud computing can help the retail enterprise we always advocate starting with an intelligent retail foundation. Just as you would not select your product

assortment until you know what kind of retail store you will operate, so it is that there are some foundational aspects of your business that make sense to cloud enable first. Early considerations for cloud computing include solutions such as:

- Supplier collaboration – enabling a broad ecosystem to share data.
- Forecasting – the part of the business that needs the most input and has the most potential for positive outcome on profitability.
- Point of Service – which includes enabling all consumer touch points.
- Operations – building in visibility to the core metrics that run your business, no matter where a process is executed.

Step 2

Create a Seamless Platform

The next step is to connect all of your consumer experiences to the foundation. These consumer touch points include:

- Retail store or others
- Web
- Catalog
- Customer call center

Each of these touch points will need to take advantage of the foundation of information that is provided to the right device; based on the use case. This is where the foundational return on investment (ROI) investment begins to take shape. By connecting these experiences retailers are able to:

- Achieve a seamless relationship with their customers.
- Take advantage of the best cloud enabled device for the job.
- Enable associates to be well informed with critical customer service information such as product availability and specifications.

Step 3

Engage Customers

Customer Engagement is often the goal for any cloud based strategy. At this point we have enabled the business to support a single view of the customer across all touch points

which enables a differentiated experience through aspects such as:

- Loyalty
- Digital Signage – targeted or customized by demographic
- Interactive in-store applications
- Personalized shopping experiences including promotions

Step 4










Innovate and Learn

Finally augmentation or growth of the entire retail business model is possible which enables the business to explore additional channels, social media connection and consumer mobility options which can drive differentiation for a brand.

Value can be achieved by adding unstructured data as a “sensor”, on the platform that you’ve created, so that you can pull in social information and allow consumer mobility to know where and how consumers are consuming information. This includes information about consumers such as: Are they responding most to ads on print media? Are they consuming online? What time of day is most active? All of these are sensors that you can use to get real business value out of the cloud.

Modernization Plan

After addressing the considerations related to moving towards a cloud model, the next step is to identify the profile of the candidate applications. Defining the application profile will further define the approach to cloud enabling an application.

Application Profiles	Devices	Data	Compute	Examples
New (Digital, Mobile, Consumer)				Consumer Mobile, Digital Marketing, Sales Assistant, Clienteling
Strategic (Collaborative, New UI, Remote)				Labor Scheduling, PLM, Merchandise Planning
Legacy (Complex, Sensitive, Internal)				Financials, WMS, HR

New Applications

New applications that are targeted at a broad consumer base or that need to be consumed by employees wherever they engage consumers, are definite candidates for cloud based delivery. With this, you still have the choice to provide the compute and the data either on premises or on a platform as a service (PaaS) offering such as Windows Azure.

Strategic Applications

Applications in the Strategic category consist of solutions that you want to enable for broader access; but are part of your core line of business application offerings. Applications such as labor scheduling or merchandise forecasting may benefit from cost savings in a multi-tenant environment while allowing

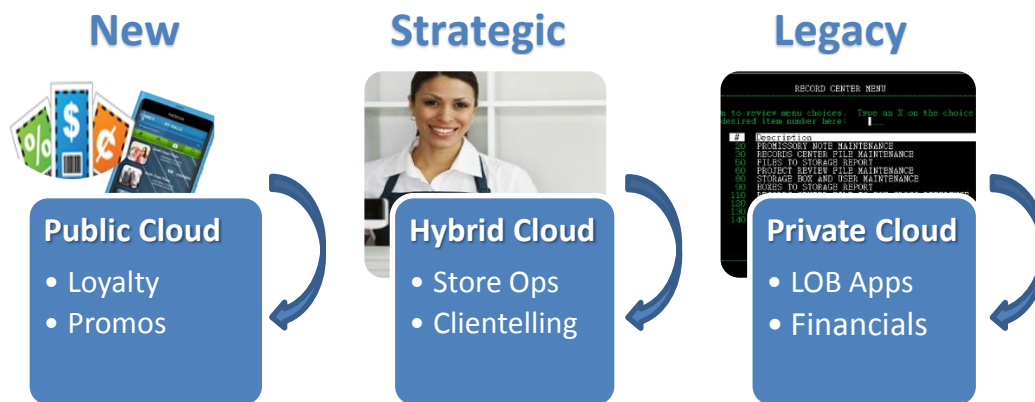
high scalability for peak times. Again, there is choice on whether you provide that scalability on premises or in the cloud. The main objective is to ensure that the applications are “cloud ready” and can run in a virtualized, scalable environment.

Legacy Applications

Legacy applications that require complex integration with other internal systems and/or have very sensitive information may be best served by a private cloud environment that is highly scalable yet is only accessible from a secure device.

Selecting an Approach

With the information about basic considerations and the application profile, selecting an approach to modernizing an application becomes clearer. The simplest form of selection is to align application type to a specific cloud approach.



Microsoft’s cloud platform allows extreme choice for how you deploy. You can choose any combination of:

- **Public Cloud** – generally delivered as a platform as a service (PAAS)
- **Hybrid Cloud** – choosing to put either data or compute resources in the public cloud.
- **Private Cloud** – a similarly managed environment within your datacenter with the choice to expand as the needs of the business changes.

The real benefit of this type of strategy is that it can encompass 100% of your application delivery assets, whether they are on the mainframe today, running on servers in your datacenter or hosted in an external datacenter.

Selecting a Delivery Partner

One of the most challenging cases to consider is the fact that legacy systems are not ready for the cloud. This shortcoming also prohibits you from taking advantage of modern applications such as mobility and social media. By transforming your legacy systems you have a modern platform to address the increasing demands of the technology savvy shopper.

Legacy modernization can have a significant impact on a retailer's ability to compete in today's market. The effort to modernize requires a unique discipline within the IT ecosystem. The effort to modernize applications and keep the business logic intact has become a critical enabler to reduce operational costs and improve operational efficiency. Microsoft has partnered closely with Fujitsu Enterprise Business Services to deliver solutions towards a global cloud strategy.

"Fujitsu values the nature and depth of the strategic partnership it boasts with Microsoft. This has repeatedly enabled both companies to jointly bring leading edge solutions to the retail market utilizing the skills and talent in each organization."

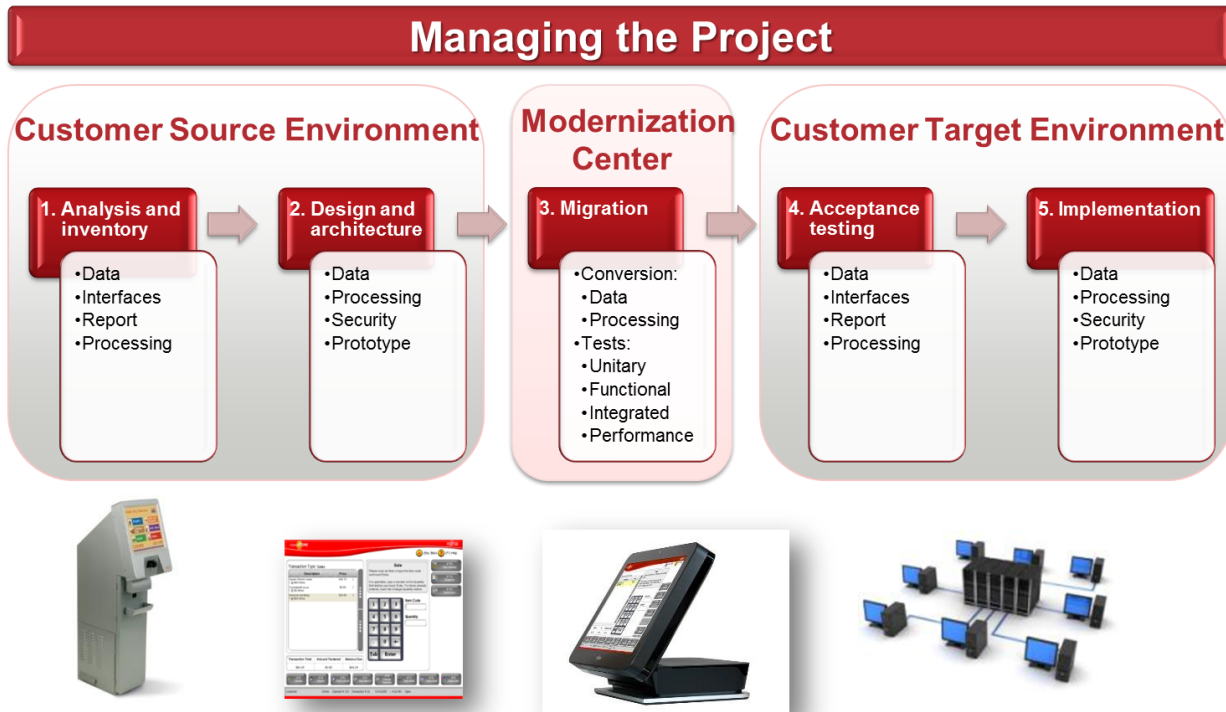
*Cameron McNaught
SVP Cloud
Fujitsu Australia Ltd.*

Disciplined Methodology

Fujitsu has developed a 5 step delivery process (see graphic below) that is delivered through their global services organization. This process is targeted at applications from point of service to mainframe line-of-business applications. Application modernization has the effect of moving an application from a high operating cost and ridged data structure implementation to an agile, lower cost implementation that is cloud ready. This modern platform can easily take advantage of social media, mobility and business analytics by giving near real-time access to your meaningful data; which helps to better serve the shoppers needs.

Modernization Benefits

Many organizations see benefits beyond cost as they transform their business to meet the demands of the modern consumer. One such example is a project Fujitsu delivered to a multinational retailer, based in France. Using the 5 step process for project execution, Fujitsu was able to modernize the POS solution to a service oriented architecture (SOA). This application can now be more easily integrated into third-party systems while reducing the annual IT maintenance support. The Fujitsu approach to modernization involves standard project execution phases. The uniqueness is found in the *Migration* and *Conversion* process, where the system is transformed while maintaining all existing business logic. The chart below depicts the process. Contact a local Microsoft or Fujitsu representative to learn more about this innovative process.







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"A recent example of our collaboration is Fujitsu's new Retail as a Service point of sale solution using the technologies of Fujitsu's Point of Sale technology and Microsoft's Azure platform to deliver a compelling customer solution in flexibility and lower TCO for our retail clients."

Cameron McNaught, Fujitsu Australia, Ltd., Sr. Vice President Cloud

