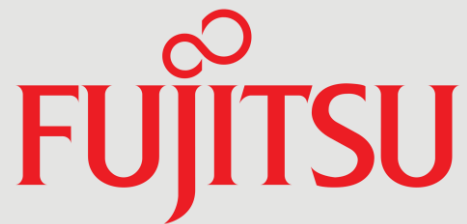




Executive Insight Paper

Commissioned by



Simplifying Multi-Cloud Service Delivery

The emerging role of the
Cloud Services Marketplace

Freeform Dynamics, 2018

About this Document

The insights presented in this document are derived from ongoing independent research, coupled with specific briefings from Fujitsu on its Enterprise Service Catalog Manager (ESCM) offering. While specific technology details are used to illustrate how key generic principles translate to practical reality, nothing in this paper should be taken as a validation or endorsement of any product or supplier.

The service integrator model is vital to the success of a service-centric IT strategy.

Management Summary

As the world of IT adopts the service-centric model exemplified by the public cloud, there is a growing need for service integration. Whether you are an independent provider delivering cloud and SaaS-type services to external customers, or an enterprise IT team delivering business-level services to internal users, service integration is a critical stage in the evolution of your IT service delivery.

The decision to adopt service-centric delivery is a strategic one, and it requires the right type of infrastructure. A key component of this is a platform capable of taking 'raw' services from multiple sources and publishing them in a robust, efficient and easy-to-consume self-service catalog. In this paper we consider just such a platform: the modern Cloud Services Marketplace.

Key points

Internal or external, it's all service provisioning

Whether you deliver IT services to customers or to colleagues, the dominant delivery model for the future is cloud, and the processes and platforms required are broadly the same.

Service fragmentation and cloud sprawl

As the number of suppliers or services involved rises, the unmanaged adoption of cloud-like services can result in friction, inefficiency and risk for the user, the business and the service provider alike.

From service provider to service integrator

The service integrator takes 'raw' services and pre-configured packages and integrates them for publication in a self-service catalog. Whether it evolves out of a service provider or an enterprise IT team, the service integrator can make the service-centric model work smoothly and efficiently.

Visibility and integration in place of discord and fragmentation

A key advantage of the service integration process is to bring visibility, unified management, accounting, and so on to a hybrid set of 'raw' services from multiple sources.

The right infrastructure is key

Having the right infrastructure, operational tools and processes is essential to effectively implementing a service-centric strategy. Core to this is a service integration and provisioning platform and self-service catalog: in other words, a Cloud Services Marketplace.

IT is shifting to a service-based delivery model, with SaaS and the public cloud as classic exemplars.

Introduction

The world of IT is becoming ever more service-centric, accelerated by digital transformation. Older delivery models will never disappear completely, of course, but in almost every workplace or industry, the dominant model for the future is the cloud.

It won't all be public cloud – other ways to deliver services include SaaS, managed services, hosting, and so on – but the underlying consumption model is broadly the same. In this model, the service is always on tap, delivered from 'somewhere', and often paid for as a subscription or rental, not as a purchase.

Anyone delivering IT therefore needs to adopt, or extend their support for, the service-centric model. This is equally true whether you are an independent service provider billing your customers, or an enterprise IT manager cross-charging other departments. Fortunately, one corollary of the service-centric model is that while the details of billing and so on may differ, the tasks and processes involved in service provision are much the same whether you are an internal or an external provider.

In this paper, we look at what's driving the changes, and at how service providers and IT organizations can transition to a service-centric model. Along the way, we introduce the concept of the service integrator, who packages services for easy consumption.

The journey to the cloud

There are many reasons for adopting a cloud-like delivery model, some more realistic than others.

The last decade has seen a dramatic growth in enterprise acceptance of cloud. There were many reasons for this: flexibility, the ability to shift costs from capital to operational expenditure, and simply the realization that pretty much any service you want is available online, somewhere. It also offered a solution to the growing problems of server sprawl, brought on by the widespread adoption of easy-to-spin-up virtual machines, and the expense of building up the necessary skillsets internally.

And over it all were two major shifts in how IT is consumed. First, the massive uptick in consumer usage – we trusted cloud at home, why not in the office too? And second, that shift to a service-centric IT governance model (Figure 1).

Figure 1
The enterprise mainstream's Cloud journey

2009: Skepticism

- "Not sure whether the cloud can be trusted"

2012: Acceptance

- "OK, it offers value and seems to work pretty well"

2015: Enthusiasm

- "Hey, having access to all of these services is great"

2018: Frustration

- "Hmm, it's getting hard to keep track of everything"

The reality has been rather different. While the public cloud in particular allows great flexibility, it gets expensive as your use scales up. Some organizations have already responded by bringing their predictable workloads back in house, keeping public cloud for the unpredictable and short-lived ones.

And instead of server sprawl we have cloud sprawl – across multiple providers, too. For example, in a Freeform Dynamics study^[1] a significant number of respondents

Unconstrained and unmonitored cloud adoption leads to service discord.

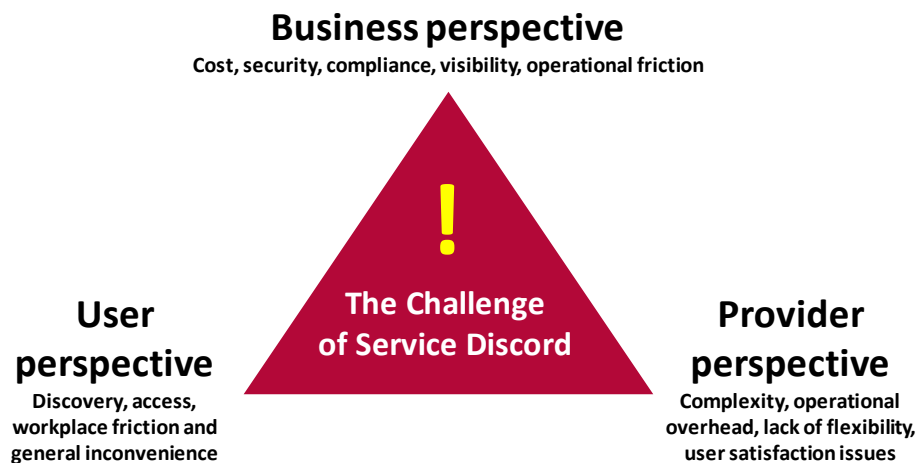
reported that their organizations had 10, 20 or more different service providers for cloud-type services. Add in the likelihood of 'shadow cloud', booked at department level, and the true number could be even higher.

The service fragmentation challenge

For all the flexibility of cloud's many shapes and options, problems are very likely to arise once service provision becomes fragmented or discordant. **Users** can find it hard to locate and access the services they require, because they need to work across multiple providers. The difference in how services look, feel and work, and the need for multiple logins, can also bring friction and general inconvenience (Figure 2).

Figure 2

The uncoordinated accumulation of disparate services from different sources is not good for anyone



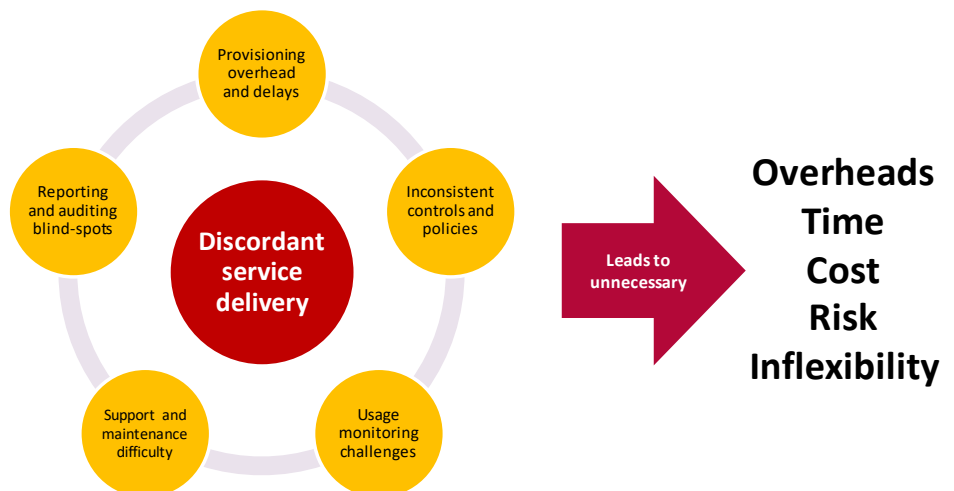
Businesses face more than just cost and visibility issues, and the operational friction of having to manage multiple supplier relationships. Most notably, having several service providers also makes security and regulatory compliance more complex to manage. How do you ensure that users do not re-use their passwords across providers, for example, and that sensitive data stays where it should?

Service providers can face problems such as complexity, higher overheads and poor operational visibility.

As a **service provider**, whether internal or external, you must deal with the above plus there are extra challenges. If different 'raw' services must be managed, provisioned to customers and operated differently, the inconsistency is likely to increase complexity, raise overheads and lower flexibility. It may bring other problems too, such as gaps or blind-spots in your ability to monitor, bill, support, audit and report (Figure 3).

Figure 3

Discordant delivery creates challenges for service providers



This is likely to make the business of service provision at best inefficient, with service duplication and inconsistency, and at worst risky and time-consuming. This is true whether the provision is internal to the organization consuming the services (e.g. private cloud) or as part of an external commercial relationship, e.g. a cloud or managed service provider delivering services to their business clients.

Packaging for consumption

In the service-centric world, services must be packaged for easy and effective self-service consumption.

There are various ways to solve these problems, such as adopting a single-vendor strategy in the hope – which is usually, but not always, justified – that this will provide a properly consistent approach. However, this of course limits choice, and the ability to choose is a key advantage of cloud.

It is also unlikely that a single supplier will be able to meet every need. A better route therefore may be for a service integrator to step in. Whether it is an internal department or an independent provider, the service integrator repackages the various 'raw' services into a hybrid yet easy-to-consume form, typically published via a self-service catalog. It also handles all the pre-integration and configuration needed to ensure security, interoperability, visibility, and so on (Figure 4).

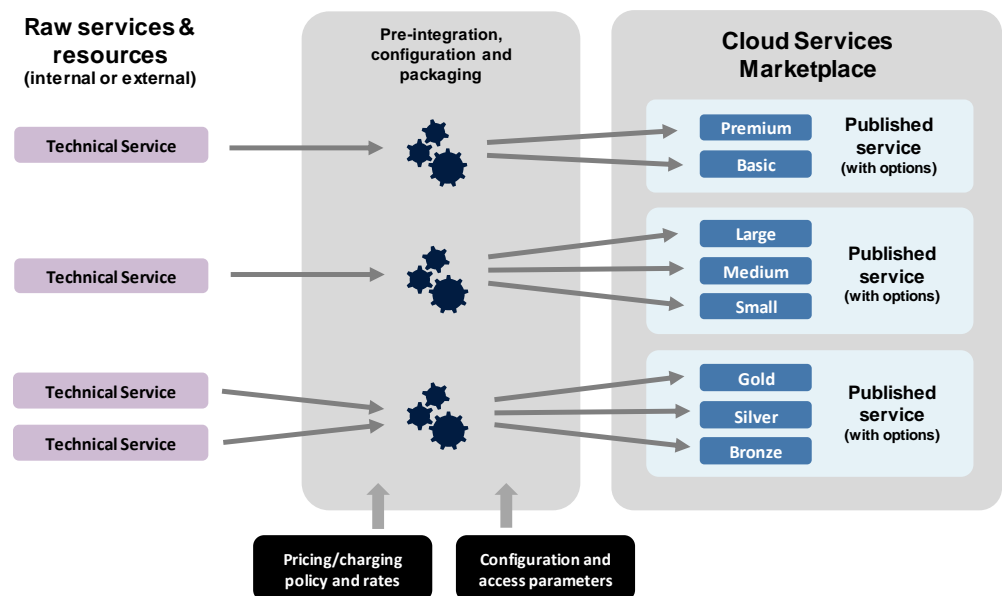


Figure 4

A framework for constructing and delivering consumable services

A Cloud Services Marketplace enables and supports service consumption and management.

The capability we require here is a Cloud Services Marketplace, which is a form of service catalog manager or portal aimed at delivering cloud-like services within the enterprise. Many other service catalog tools are aimed more towards software developers seeking re-usable services to use within (or while building) applications.

Those others may lack billing and reporting capabilities, for example, or the tooling needed to easily define different levels of end-user service access (e.g. bronze as the basic version, silver adds high-availability, and gold adds both HA and 24x7 support), without the user being aware of the technical considerations involved.

From service provider to service integrator

The requirement – and the opportunity – here is for a change of mindset and a new business model on the part of the service provider: it means evolving into a service integrator. Instead of merely providing access to a one-size-fits-all menu of technical

Service integration can transparently converge different services into a single easy-to-use catalog.

services which the customer must then provision and configure, the service integrator can pre-configure and re-package services from different suppliers so that they can be managed and consumed consistently.

In addition, because the service integrator has already carried out the re-packaging that is needed to offer self-service access via a Cloud Services Marketplace and a standardized pricing model, they can also offer options for further adaptation. For example, the customer's IT team may want to do organization-specific configuration to integrate access to the services into a business or enterprise portal (Figure 5).

Typical starting point

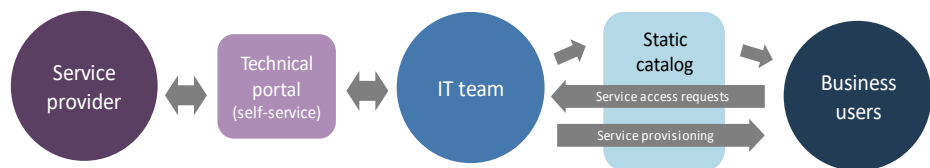
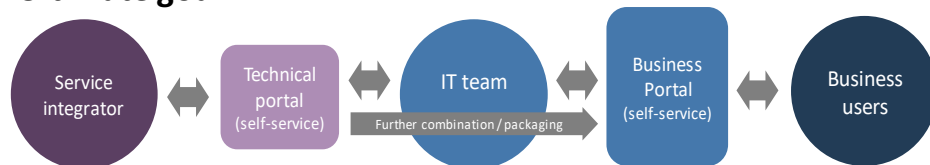


Figure 5

One potential model for the evolution from service provider to service integrator

Ultimate goal



So how can a service integrator take a bundle of raw services and resources, and build them into an integrated deliverable, complete with self-service provisioning, billing and so on?

The would-be service integrator's options include open-source and proprietary catalog platforms.

Service integrator options and practicalities

Discounting the option to build from scratch as both impractical and wasteful, we see three main routes to delivering an operationally useful Cloud Services Marketplace. They form a spectrum of sorts, where the would-be service integrator must decide which aspects – such as flexibility, costs and risk – to prioritize (Figure 6).

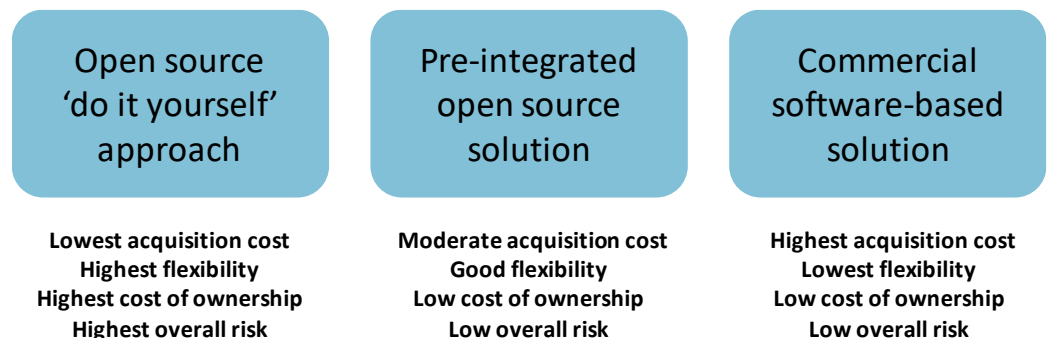


Figure 6

Delivery options and the pre-integrated open-source advantage

In each case, the would-be service integrator should take care: there are many proprietary packages and open-source projects that deal with elements of service management, in particular those derived from ITIL. However, only a small subset of them includes the additional features necessary both to link in services external to the service provider, and to operate the kind of commercial-grade, comprehensive, self-service marketplace or portal discussed above.

Adding commercial support to open-source can combine the best of two different approaches.

Fujitsu ESCM follows the increasingly popular pattern of commercial software released as a parallel open-source stream.

At one end we have those commercial service catalog platforms that support billing, an end-user self-service 'storefront' and so on, such as Ensim or Cisco Prime Service Catalog. At the other we have open-source, where the Open Service Catalog Manager project is the principal hybrid-capable and ready-integrated option.

In the middle is something that has found increasing favor within business in recent years: the pre-integrated and commercially-supported open-source solution. It combines the kind of packaging and support that was once associated only with commercial software with almost all the real benefits of open-source. Those benefits include an ecosystem and user community that can be an excellent source of advice, insights, skills and best practices, and of course access to the source code for enhancement, security verification and time-critical updates.

A real-world example: Fujitsu ESCM

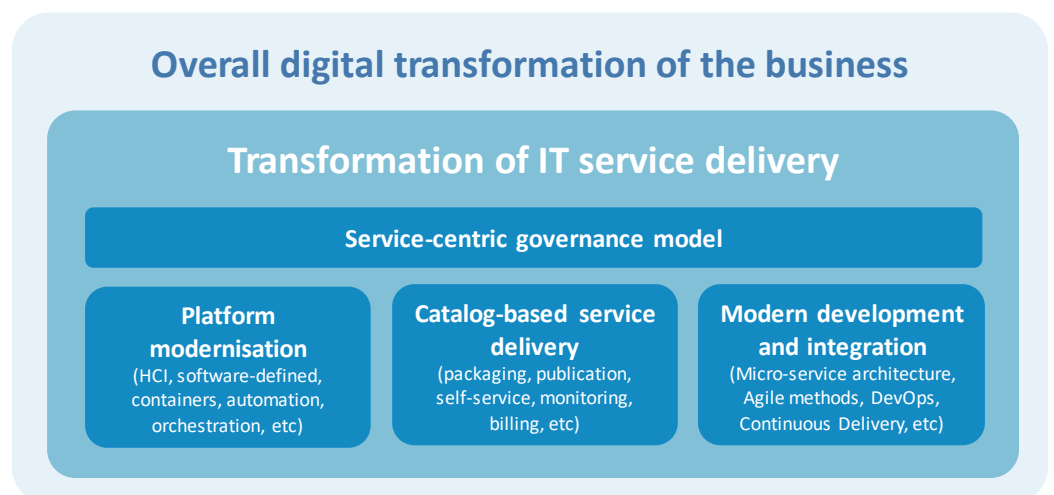
For a demonstration of how this 'middle way' can operate, let us take a real example from the sponsor of our paper: the Fujitsu ESCM (Enterprise Service Catalog Manager). While nothing we say should be interpreted as an endorsement or recommendation of this solution, talking around a specific offering like this enables us to move beyond the theory, and illustrate how some of the key principles we have been discussing can be translated into operational reality.

In practical terms, Fujitsu ESCM is a commercial version of the Open Service Catalog Manager mentioned above. Indeed, the latter was originally developed and then made open-source by Fujitsu. This is an increasingly common pattern in open-source, where a commercial organization releases a free and user-supported version for others to use, adapt and update. It can then feed selected updates into its own paid-for release of the software, which is supported like any other commercial application.

In the digitally-transformed enterprise or service provider/integrator, a service catalog and marketplace solution like ESCM is one of three core pillars underpinning a modern service-based approach to IT governance and delivery. It is the element that provides the necessary cost-transparency, consistency and rapid provisioning (Figure 7).

Figure 7

Putting ESCM into the broader context



From application to service

An important reason for using a framework such as Fujitsu ESCM is that it deals with many of the key issues around operationalizing a business application. These issues are common to anyone seeking to move to a service model, whether for internal or

Catalog-based service delivery is a key pillar of transformed IT.

The service integrator needs to hybridize multiple raw services into a single delivery – and a single bill.

external use, and the biggest is how to add all the features needed to enable an operational marketplace. This includes functionality such as:

- user authentication and management,
- adaptive pricing and discounting,
- usage metering, invoicing and charging,
- provisioning, right-sizing and de-provisioning resources,
- multi-tenant and account management.

Significantly, Fujitsu ESCM can provide individual views for each customer organization at several levels – for example, it can tailor the service catalog to a customer's needs, and then aggregate its usage of multiple services into a unified report and bill.

Equally important is the role ESCM plays in building a hybrid, yet coherent and consistent, one-stop cloud store or portal for infrastructure and applications from a range of sources. As discussed earlier, these sources might include public or private cloud, SaaS, virtualized applications, and so on.

In conclusion: a service-centered strategy

The service catalog manager abstracts and manages the complexity involved in service integration.

A service-centric approach is a key component of a digital transformation strategy. The ability to deliver IT resources in a cloud format – whether that's virtual servers, business applications, developer tools or pretty much anything else – can provide the flexibility and user-empowerment that digital transformation aims for.

However, it is hard to be flexible and service-centric if you are suffering from cloud sprawl, and must deal with multiple service sources, each with its own provisioning, management and billing scheme. And of course this is indeed how many business-level services are built today, often though with the addition behind the scenes of large amounts of "glue and duct-tape".

A Cloud Services Marketplace acts as an abstraction layer, managing and concealing the complexity involved in service integration. You could develop your own, if you have the resources, buy one off-the-shelf, or combine the benefits of both approaches by choosing supported open-source.

Moving to a service-centric future is a strategic decision.

Either way, whether you are an enterprise setting up your own self-service portal to provide users with access to applications and infrastructure, or a service provider looking to take the next step and become a service integrator, acquiring a commercial-grade Cloud Services Marketplace will be a strategic decision that sets you up for the service-centric future of IT.

References

The following report is available free of charge from www.freeformdynamics.com:

1. Managing Cloud Complexity

The emerging role of converged services

About Freeform Dynamics

Freeform Dynamics is an IT industry analyst firm. Through our research and insights, we aim to help busy IT and business professionals get up to speed on the latest technology developments, and make better-informed investment decisions.

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