Breaking through the clouds

IT brokerage services offer a new IT horizon for Enterprises

A new cloud order is emerging

Enterprises are placing public cloud services in the center of their hosting strategies, next to their existing private cloud and traditional IT services. This so-called 'Hybrid IT' is driving the need for a (cloud) service brokerage model, which integrates multiple cloud service providers in an Enterprise landscape. Service brokerage implements a matching service for IT resources: providing an independent overview of qualifying cloud and traditional IT solutions, their (spot) price points and service value. This enables Enterprises to choose the best value for money for every workload.

This development is as promising as it sounds. Cloud service brokerage enables enterprises to optimize and govern cloud consumption, it empowers Enterprises to design, order, provision and control information resources across public, private and hybrid clouds.

The broker self-service portal, called a service store, allows Business and IT users to set up and manage secure virtual data centers at multiple cloud providers. Enterprises can add management services such as security, monitoring and back-up to build complete cloud solutions. Once finished composing the most fit-for-purpose combination of Hybrid IT services, the user will be presented with a complete bill of IT before ordering the services.

Cloud service brokerage brings a next wave of standardization, following up orchestration which is predominantly used to implement automated provisioning of IT standards governed within an Enterprise. Cloud service brokerage however builds on public cloud services and increases the adoption of industry standards.

It is therefore much more than just a cost driven evolution; it secures access to best-of-breed solutions without extra costs or adaptions, mitigating the risks of vendor lock-in and increasing the agility of the Enterprise.

Brokerage value proposition

Brokerage is the answer to a number of key challenges of Hybrid IT, such as the lack of visibility and control, and shadow IT. Business users are leveraging readily available cloud services on their own, bypassing central IT.

Well implemented (cloud) service brokerage will enable central IT to retain control while balancing the needs of the lines of business in use cases such as:

Preventing shadow IT. The brokerage model provides Business and IT users with a one-stop shop: the unified service store. This self-service portal allows the user to order any composition of enterprise-compliant services provisioned. This prevents users from searching elsewhere for services to their liking, thus limiting the sprawl of shadow IT in the Enterprise.

Controlling IT costs. Significant benefits of ordering Enterprise IT services though a central service broker are planning estimated cost to make informed decisions, and integration of billing from all service providers used. This enables tighter financial control over the IT services in use, and estimated future use, and enables consumption-based billing of lines of business within an Enterprise.

A single integrated service catalog. Services brokerage provides a dynamic service catalog with a multitude of infrastructure-, platform- and software as a services options. The catalog can be extended with private cloud and traditional IT services as needed, so that central IT will become the "IT-as-a-Service provider" for their Business units, managing IT services like any other supply chain.

[IBM Brokerage Solutions](), powered by cloudMatrix®, also provide planning capabilities and supports the design and creation of pre-configured service compositions known as blueprints or patterns.

The construct of brokerage

A service broker solution requires different capabilities for different user groups. The service store is the place where the brokerage users find, compose, order and manage IT services demand, the IT operations portal allows central IT to manage the supply side.

Service store

A self-service portal that supports the complete IT value chain; Plan, Buy and Manage. This is also the place where the Business, IT admins and

Developers order their IT services on-demand, and where the IT Architect composes pre-built service compositions based on services in the catalog.

Plan. When a user has a new application that needs to be deployed, the service broker will present the user with an Application Screener assessment to do an unbiased assessment of the suitability and benefit of going to the cloud. When the application is suitable, Cloud Compare will normalize the costs of various providers and offers an easy way to compare performance, SLAs and capacity. Start your order using either a single service from the catalog, a pre-defined service composition, or a service from the marketplace. Add any number of additional managed services and view an estimated bill of IT before you actually order the services.

Buy. Continuing from the Plan phase, an automated multi-cloud service fulfillment and order management process will be kicked off. When needed, the order fulfillment process will make sure all appropriate approvals are obtained in a workflow. This will provide IT Operations with the capability to track service fulfillment with configurable workflows and policy rules in real-time.

Manage. IT Operations will leverage multi-provider consolidated billing, with the ability to view bills and cost drivers by Virtual Data Center, Workload/Application and/or Business Unit. The set of executive and operational level dashboards for service monitoring and management can also be leveraged by the CIO or CFO to get a high level view of usage and cost.
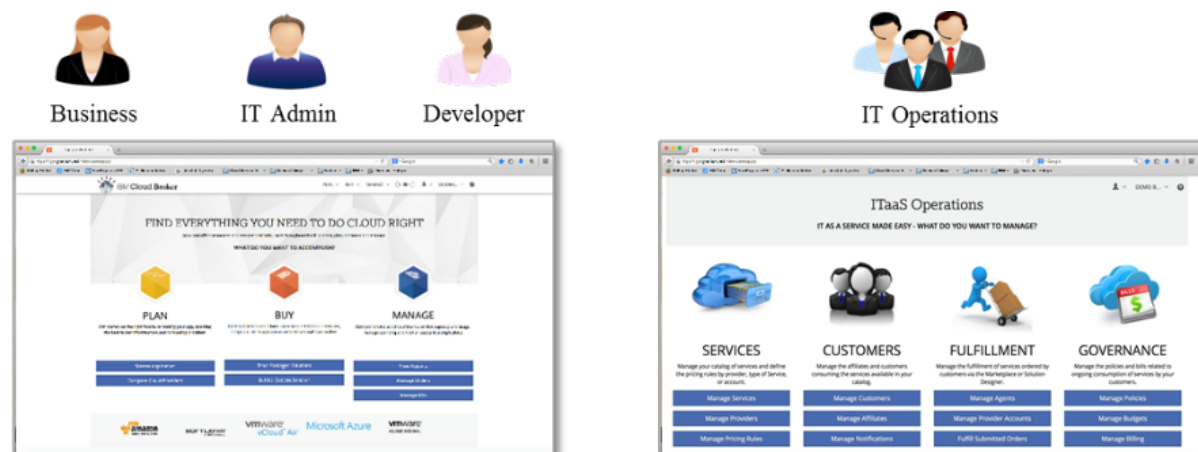

Figure 1 Service broker modules; Service store and IT operations portal

IT operations portal

This self-service portal allows managing the service catalog, the service store users, fulfillment of ordered services and governance throughout the brokerage processes.

This clearly goes beyond automating and orchestrating with the key capabilities needed to operate service brokerage across six key areas: provider management, asset management, user management, marketplace management, policy management, and billing and reporting. Examples of IBM cloudMatrix®, before known as Gravitant cloudMatrix™, capabilities are:

Provider management. Out-of-the-box certified integrations with leading cloud infrastructure providers such as Amazon AWS, Microsoft Azure, IBM SoftLayer, as well as enterprise systems management solutions such as ServiceNow®. It also includes options for extension with Docker, Puppet and Chef for continuous delivery deployment processes.

Billing and reporting. A complete cost management capability which allows tracking of actual costs and policy-based notifications and alerts on actual or projected deviations. With integrated budget allowances and alerting, users are aware when they get close to a budget limit.

Brokerage for your Enterprise

But, in IT there is not such a thing as a free lunch. The complexity is hidden in the transformation needed to place public cloud in the center of your hosting strategy. Only cloud native applications are made for 'cloud hopping'; to migrate traditional applications, which are still in the majority, means a majeure effort in costs and time.

A solid cloud strategy

Will your Enterprise benefit most from a revolutionary or evolutionary adoption? Most organizations can take either approach or even a combined strategy. The factors that will influence the decision are obviously risk, cost, timeline and the ability to change. IBM has skilled consultants and leveraged proven methods that cover all of these factors, learn more in whitepaper "*Creating a cloud computing strategy* " at http://ibmurl.hursley.ibm.com/NOJF.

Migration

A second essential step is to define the migration strategy ´per application´ towards the Hybrid IT. IBM assesses on two key attributes: cloud readiness and cloud benefit, to determine the infrastructure that will deliver the best results. For this, IBM leverages experiences from successful migrations worldwide, using an industrialized method based on automated, optimized migration processes. Learn more in whitepaper "*Analyzing your workloads: The foundation of a successful cloud implementation*" at http://ibmurl.hursley.ibm.com/NOJD.

Architecture and Governance

The design phase for an application architecture is usually time consuming. It's needed for getting all stakeholders on board, and in agreement on the additional managed services required to complement the service designs.

Decrease design time and increase standardization with solution prints, leveraging an existing architecture saves time and improves consistency in planning and ordering of solutions. Learn more in the IBM developerWorks® article "*IBM's open cloud architecture*" at http://ibmurl.hursley.ibm.com/NOJG.
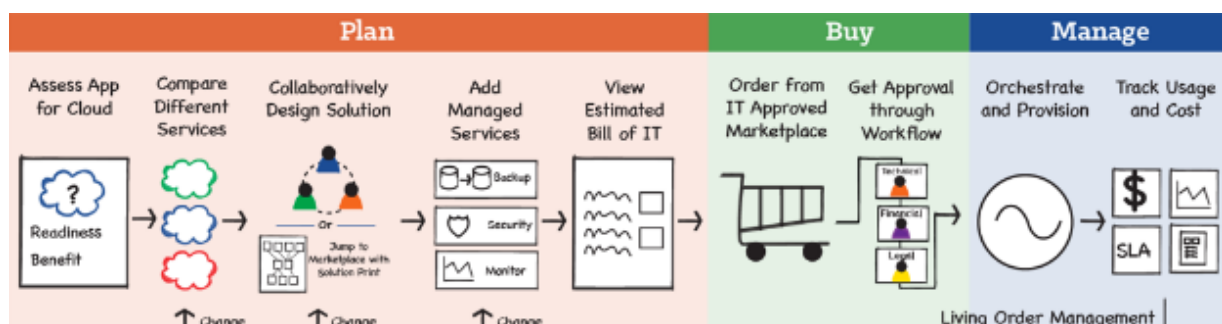

Figure 2 Managing IT as a value chain

Integrated service management

Brokerage is a valuable solution to manage your IT as a supply chain, however it does not provide integrated service management. Part of a composition of services can be management services, which most likely report incidents, problems and change into an Enterprises central service management solution. Learn more in whitepaper "*All roads lead to hybrid cloud; Creating a foundation for an integrated IT service delivery*" at http://ibmurl.hursley.ibm.com/NOJE.

Concluding

Cloud service brokerage is here to stay, emerging in the world of cloud and multi sourcing and it is as promising as it sounds. This evolution deserves to be evaluated and to be part of the IT roadmap for the Enterprise.

In the case of a Greenfield situation the use is trivial, but when responsible for a complex IT landscape the integration of a service brokerage function in the central IT transformation agenda is often the right decision.

If you are working on your IT brokerage strategy and you would like to discuss its potential for your organization, please do not hesitate to contact IBM and strengthen your strategy.

For more information

To learn more about IBM Cloud, please contact your IBM representative or visit the following website: ibm.com/cloudcomputing

About the authors

Edwin Schouten is an IBM Executive IT Architect and Senior Cloud Advisor. He advises clients on their optimal journey towards Hybrid IT and how to put the transformation in practice across all aspects such as business, technology and organization. Edwin is a member of the IBM Academy of Technology, and a council member of the IBM Benelux Technical Experts Council.

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