

A grayscale photograph of a city skyline, likely Chicago, with a thick layer of fog or low clouds at the base of the buildings. The Willis Tower is the most prominent structure. Three colored circles are overlaid on the image: a yellow one near the top of Willis Tower, a red one in the middle ground, and a green one in the lower right. A large blue circle is on the left side, partially overlapping the text.

Nuances of managed services in a cloud economy



Digital transformation challenges the way we manage Information Technology (IT). IT is looked as an enabler, which drives innovation, enhances competitive advantage, and reduces cost. Businesses are demanding IT to have a service-centric approach, which makes IT operating models obsolete and requires them to reinvent themselves. Cloud technology plays a key role in enabling most of current IT demands. While Cloud computing provides infrastructure and software services on a subscription model, it brings in different sets of challenges. Here

we will discuss few of the nuances to leverage Cloud while managing IT systems successfully.

Cloud supports ITIL processes and brings significant optimization on every pillar. For example, enterprises need not carry an elaborate exercise on infrastructure sizing part of the planning stage. Also, we can eliminate demand management process as infrastructure is scalable on requirement without any prior planning.

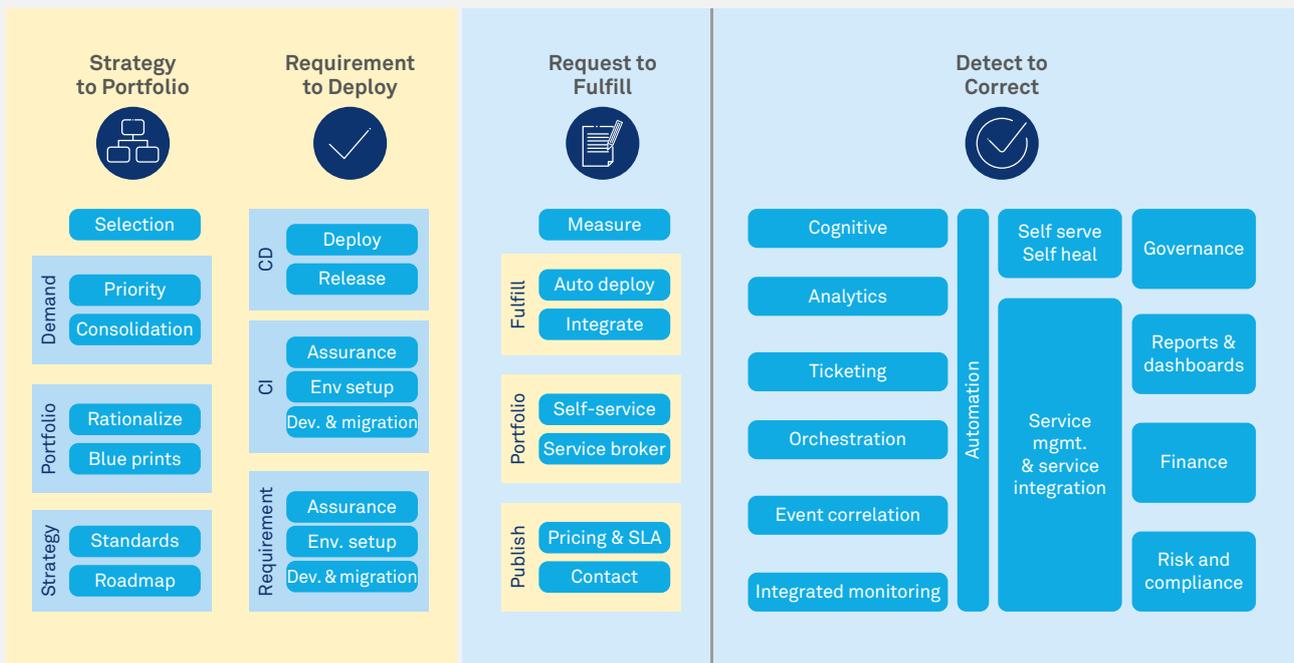


Figure 1: IT4IT reference architecture.

We will cover some of the key nuances of managed service in Cloud ecosystem, which falls under 'Request to Fulfill' (Deploy) and 'Detect to Correct' (Run) from IT4IT reference architecture.

Request to Fulfill (Deploy):

Request to Fulfill (Deploy) focus on repeatability, optimization and scale. This pillar concentrates on an interactive self-serviced portal for the service catalog for repeatability and service broker for optimization and scalability.

Below are four points that one should consider while deploying cloud:

- **Avoid vendor lock-in:** Increasingly, enterprises are opting for multiple Cloud services to avoid vendor lock-in to manage cost and mitigate availability risks. Devise a strategy to distribute workload across multiple Cloud and regularly cross provision workload. Cloud pricing model is complex, provides various discounts and changes frequently. Also, every service provider has a different method of pricing – from per minute to per hour. Public Cloud offers a market place to choose various services and some third-party software, which provides a unified window to manage multiple Cloud environments.



Cloud technology plays a key role in enabling most of current IT demands.

- **Setup is not everything:** While dynamic scaling is the need of the hour, one needs to keep an eye on budget spend options that are available. Cloud offers various purchase options like reserved and on-need. It also provides various deployment models like SaaS, PaaS, Server-less or using IaaS. Each model has its advantages regarding cost and service levels. It is recommended to keep upgrading the deployment and maturity model.
- **Give agility to the developer:** Rollout of SLA management is optimized by having service catalog with an efficient administrative model, budget based auto approvals and auto provisioning.
- **Performance management:** Cloud offers various choices on Core, Input Output throughput, Input Output Busts, etc., which need to match application performance expectations.

Detect to Correct (Run):

Detect to Correct (Run) phase focuses on

increasing efficiency, reducing the cost, minimizing the risks and driving continuous service improvements. We will cover few of those concerning cloud.

- **Storage:** In an era where data is equivalent to money, storage needs are growing. Cloud offers various storage options based on the frequency of access and speed of access. One must define data lifecycle to keep the data storage and performance optimal.
- **Runtime optimization:** Each unutilized processor time wastes money. There is a need to apply the right strategy on provisioning and de-provisioning – be it development, testing or production. Data synchronization between production system and disaster system needs to be carefully set based on business needs and cost of running.
- **Auto-remediation:** Cloud provides various methods to set alerts and trigger necessary actions that are useful for notification and remediation. Below table summarizes various traditional IT environment processes against modern Cloud IT environments

IT Stage	Traditional IT model	Cloud IT Environment
Architecture	Design for success, stateful and sizing defined	Design for failure, stateless architecture, best of the breed service, architectures that can monitor continuously, no predefined sizing
Sizing	Time consuming and detailed	Mostly for budgeting and short
New service development	Pull and build, pre-defined target deployment	Pushed from version control, supports dynamic targets (SaaS, Hybrid Cloud) based on cost
Service delivery	Wave based	Continuous Integration/ Continuous Delivery
Provisioning/rollout	Time consuming process	Based on service catalog, provisioned in short time
Service stability and availability	Predefined and static	Dynamic, design to handle failure
Support agreements	Fixed	Flexible
Control	Complete control	Limited control
Automation	Limited	Choices are growing exponentially (DevOps, Infra as-a-code and server-less)

Figure 2: A summary of the various Traditional IT Environments processes against Modern Cloud IT Environments

About the author

Balaji Thanigaiarasu Lead Architect, Wipro

He has more than 18 years of experience in implementation and consulting of Cloud technologies and integration technologies and on domains like private banking, investments, life/health insurance

risk management, foreign exchange, online market places and underwriting. He is involved in migrating enterprise applications to cloud and hosting on cloud as-a-Service model.



Wipro Limited

Doddakannelli, Sarjapur Road,
Bangalore-560 035,
India

Tel: +91 (80) 2844 0011

Fax: +91 (80) 2844 0256

wipro.com

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For more information,
please write to us at
info@wipro.com

