Connected World.
Connected Experiences.

Tech Mahindra
BUSINESS PROCESS SERVICES

Cloud Computing: Adopting to BPaaS

Brijendra Sharma
BTS (Consulting) Head

Rahul Agarwal
Principal Consultant

Sarang Banubakde
Associate Business Consultant

Since computing got introduced to mankind, one of the biggest boons it has brought to us is data storage. From 50 kb floppy disks to 50 MB compact disks, users are now able to transfer data from one machine to another. With the advent of technology, many portable devices were introduced and data storage was no more a problem. Similarly, software licensed copies distribution turned very simple thanks to CDs and other mediums. However, as the amount of data and number of licenses started increasing, the cost to facilitate them also increased. With globalization, servers across the globe have already become loaded with data while organizations are still in need of more servers to continue storing and accessing their data. There is enormous cost in maintenance and hosting of these servers on premises. On the other hand, with the taskforce going global ,it is imperative that services and tools made available to all of them should be of same standard and without any quality outlaws.

The solution to these vivid issues is cloud computing. With cloud, it is now easy to store huge data without hosting servers on your premises termed as Infrastructure as a Service. Cloud also enables hosting software and then rendering instances to end users reducing much of the license cost, termed as SaaS - Software as a Service. Many at times, making a development or management platform available to multiple users also involves huge cost and feasibility glitches. Cloud resolves this by hosting a service that provides a platform which can help to run, develop and manage without cost for individual user and is termed as PaaS - Platform as a Service. IaaS, SaaS and PaaS have brought revolution to many businesses. Cloud has allowed many businesses to focus on their core competency rather than focusing on infrastructure, platforms and other essentials which are not core to the business. While these service models define cloud, there is a need for BPS to adopt them. BPS industry has started leveraging the power of cloud and has come with BPaaS which is Business Process as a Service. With BPaaS, BPS has gone flexible with reduced cost, increased efficiency thus delivering more value to customers. Let's have a look at three foundational As a Service models of cloud and how BPaaS has evolved from them.

SaaS:

Software as a Service is the service model wherein everything from infrastructure to environment for deployment and development of applications to data are taken care of by the vendor. So a complete software is offered through cloud without actually installing the software on the local machine or premises. The browsers provide access to software's running on servers. Client can focus on streamlining their maintenance and support as rest of the things are taken care by vendor which eliminates the need for user to install and run applications on individual computers. The examples include Google apps, Citrix, Salesforce, Office 365 and Cisco WebEx. It helps to reduce the cost involved in software licensing significantly. Once the software is updated centrally, the same can be utilized by end users using its multiple instances. Hence, many of the products owners be it FnA, Supply Chain, Retailers, Warehouse are preferring cloud solutions. It works on subscription basis and also on pay as you use basis offering a lot of flexibility to users.
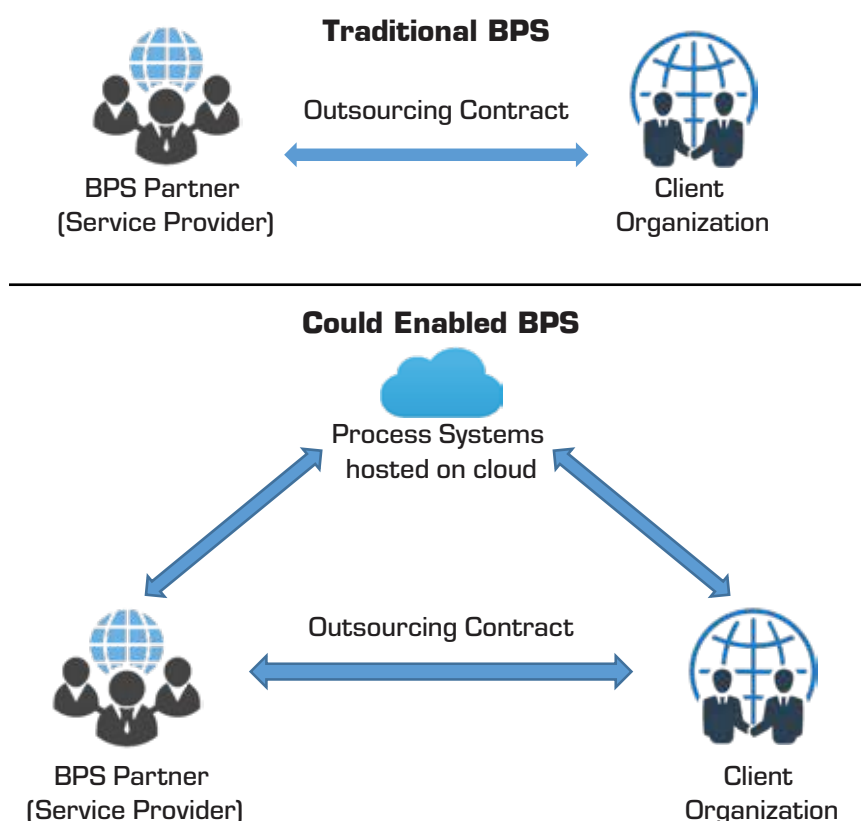
IaaS:

Infrastructure as a Service is a cloud computing service model wherein a cloud service provider offers a computing infrastructure to the clients. This includes resources like storage, servers, networking and virtualization. With this type of model, client has full control over the resource and he can decide on resurrecting or scaling of resources as per his need. Organizations opt for this when they have to save cost and maintenance efforts, have full control over the environment, scale according to their needs and avoid single point of failure. Client manages remote infra resources like servers (virtual as well as bare metal), storage, network, networking resources (like firewalls) by purchasing them on need basis. The examples include VM in Azure, Google compute engine, AWS and many other. In BPS industry, many at time, clients may demand service providers to have machines issued by them exclusively. In such cases clients can opt for the IaaS mode and get rid of physical machines entirely. They can create VPNs allowing the service provider to access the client environment simply from their own systems through virtualization thus saving cost.

PaaS:

Platform as a Service is a computing service model wherein client is provided with a readymade environment for developing or customizing applications. In this, the underlying servers, OS, servers, software are taken care by the vendor so that client can focus on business logic of applications, products or services. It provides tools for developing, testing and hosting applications in the same environment with vendor managing security, operating system with patching and updates, server software and backups. The examples include app services in Azure and Google App. PaaS is very significantly used by start-ups. Since the servers, software and application development frameworks are expensive, start-ups use collaborative workspaces and PaaS as their basic setup to operate. It helps to innovate faster and deploy quicker. Given to digital era we are now in, any flaw in the system can cost customer churn hence quick fixes and quicker patching is what businesses are looking for. Since online presence has now become a major market place, it is evident that any business would opt for PaaS and cater to its ever demanding customers.

The above mentioned three services are offered in various packs and bundles or even standalone and sometimes based on the business requirement. In BPS context, all the three services offered by a service provider are hosted and operated via cloud and involves no physical asset handover like client specific machines, storage servers neither multiple software installations nor patching and versioning overhead. All one needs is machine with a browser and a stable internet connection to access the software, tools, infrastructure and platforms hosted on the cloud and your business process is outsourced with low cost and higher efficiency. This mechanism is termed as BPaaS - Business Process as a Service. Many business processes are being offered as packages just like how SaaS is. Business processes can be any step one takes or tasks/activities performed to enable delivery of services or products to the customers in B2C and B2B scenarios. These processes can be payroll management, new hire management, order management, billing and rating, feedback processing etc. All such processes which are the core part of the businesses are mostly outsourced.

Many companies offer their products/services through cloud only which are then purchased by businesses and to work upon them, they are outsourced to BPS providers. Below diagram will explain the same:

Traditional BPS

Outsourcing Contract

BPS Partner
(Service Provider)

Client
Organization

Could Enabled BPS

Process Systems
hosted on cloud

Outsourcing Contract

BPS Partner
(Service Provider)

Client
Organization

# BPaaS in Telecom – BPS Perspective

Order Management :

- Cloud services can be contributing to Order Management components
- Order booking CRM/tools can be cloud hosted eliminating the high cost of on premise installations
- Order Entry can be managed by real time data base which can be cloud hosted
- Order validation is quite a crucial process which involves activities like amendment, cancellations, revoke etc. and can be done via cloud hosted applications
- The whole order processing when hosted via cloud with access given to managed services through off shoring can save huge cost in Telecom

Network Planning :

- Network planning involves heavy use of planning applications which are difficult to handle in a managed service setup wherein they are accessible through VDI systems
- Field planners get inputs from back office to execute a task needing high speed and availability which are big factors in contributing to faster GTM and accurate planning
- Cloud set up with high scalability, availability to the applications and planners for working in managed service setup
- Cloud will ensure high degree of dependability without much investments in setting up the VDI systems and network establishment which is a huge cost to organizations

Billing and Assurance :

- Inventory cleansing and final bill generation are central steps for the billing cycle to initiate. It should be always backed with accurate, highly scalable systems since any loss due to local premise network issue can directly affect the revenue assurance for Telcos.
- COTs products in billing can have huge on premises cost. These products when machine agnostic can hamper the work when they go down. Hosting such applications on cloud would have huge benefits to organizations in terms of no downtime which can lead to regular bill cycles and faster installations.
- Service assurance can manage leakages, outages, disruptions, downtimes effectively with analytic implementation over cloud which would be a seamless architecture assuring accuracy and in time resolutions
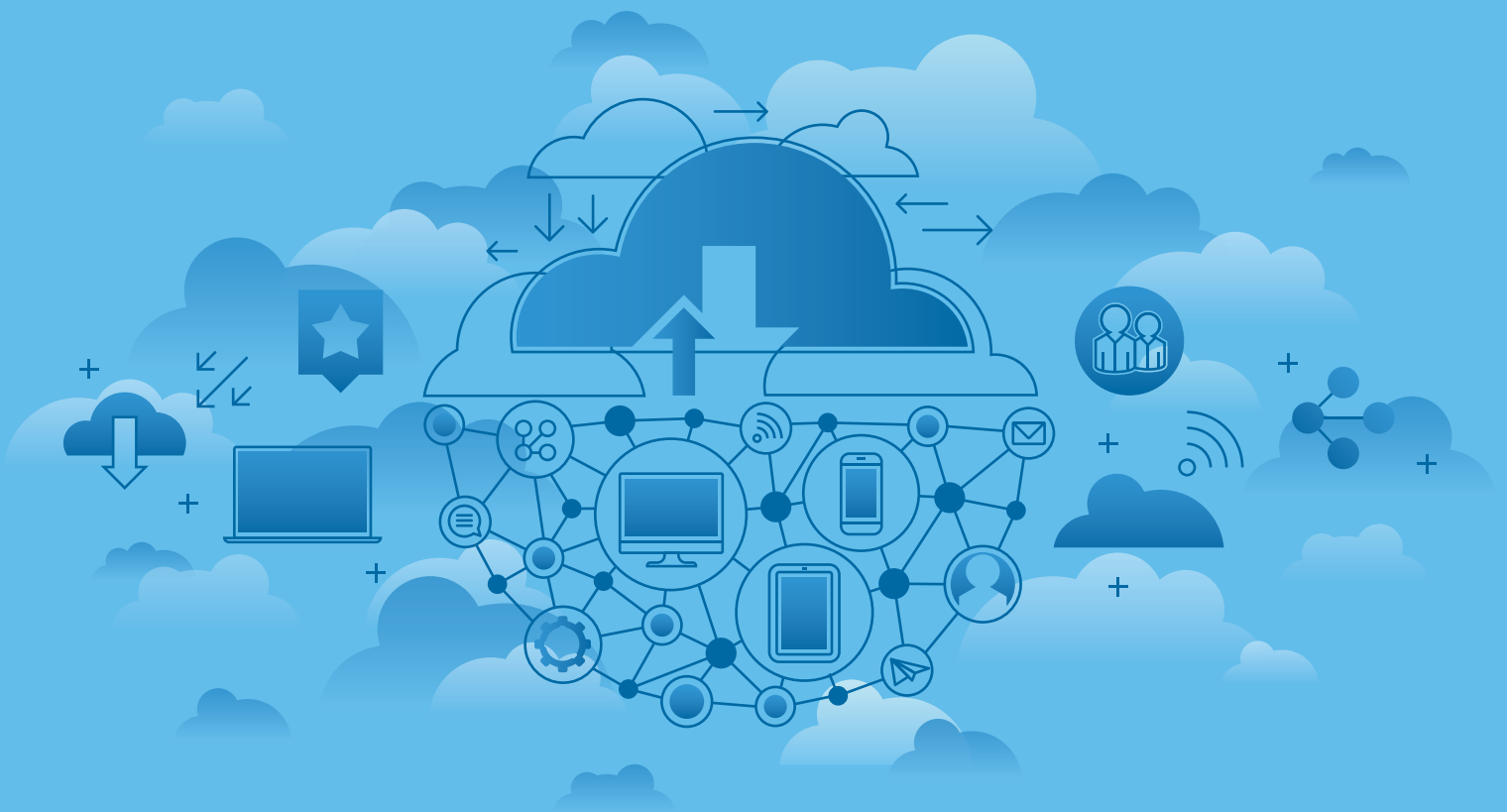
# Some benefits of BPaaS are as listed below with elaboration:

Cost Reduction:

With BPaaS implementation, there are potential huge savings on software installations and licensing. With cloud one doesn't require to purchase license individually but the instances of the system can be accessed. Also it helps saving in patching and versioning, as service users don't have to repay for newer versions. BPaaS also cuts on the cost for need of client specific machines and servers as these can be accessed through virtualization. Hence BPS can offer tremendous value to its customers adopting BPaaS and going the cloud way. Since the cost will go down, it will ultimately increase benefits resulting in better ROI. It will also help BPS business to retain its customers and cut down on maintenance cost of infrastructure which otherwise is imperative part of any BPS contract and involves much transition glitches.

Scalability and Availability:

When the number of users accessing a system or server is high, it may crash and not be available until all the queued up requests are first served. With cloud this problem gets resolved to a great extent. In BPaaS, major factors for opting for cloud are scalability and availability. Vendors providing cloud services to BPS make sure that there is strong and robust mechanism of load balancing which would look after the availability issues. It makes sure that the system/servers /applications are up and running without any down time even at the time of patching and update release. This will help BPS businesses serve their customers without any lag. Continuously up system will improve the market credibility of the BPS customers leading to customer delight.
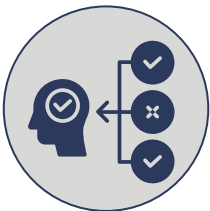
Focus on core competency:

In the digital era any organization tends to have a huge IT infrastructure. This eventually leads to diversion of focus towards privacy and security of the systems as there are many cyber threats which cannot be denied thanks to the same digital era. BPaaS model completely eliminates this worry by offering cloud hosting. Cloud is secure and safety and preservation of data and other sensitive information is important clause of any BPaaS offerings. This help businesses focus on their core competency rather than focusing on security and safety of systems. There are heavy penalties and fines involved in the contracts between the vendors and BPaaS providers. This relieves customers and its BPaaS partner by transferring all responsibilities of data security to the cloud vendor.

Optimized human resources:

Most of the BPS organizations employ infrastructure maintenance staff either directly on pay-roll or on contract basis. The cost of these resources is bore by clients of BPS business. By adopting BPaaS, BPS businesses gain full independence of making decision for optimizing the staff for infrastructure maintenance. Some may opt to completely eliminate this layer as cloud vendor takes care of it while others may opt to keep some manpower handy for run time requirements. Also BPaaS can help with optimizing the count of agents on the floor. Since there won't be direct application maintenance and development, number of agents working on floor can be further reduced. This can give additional value to customers with minimal human resources and value billing.

While BPaaS is very lucrative, there are some factors which one need to consider while adopting it. These are not shortcomings but are some factors which decide the success of BPaaS implementation. There are many such, but below discussed are more contemporary and vivid:

Adopting Correct Cloud Strategy:

Creating a clear and correct cloud strategy does not mean selecting just an appropriate vendor. It means understanding underlying business, data and various sets of application. Identification of important services to be moved on cloud is very crucial. A correct mix of private and public with correct as-a-service model is must to sustain an effective cloud strategy. CIO should have strong governance in place to monitor pre and post cloud implementation challenges and their solutions.

Security and Privacy:

Security is a vital factor for BPaaS. In many lifts and shifts wherein complete process is lifted from premises to make it available on cloud there should be strong mechanism validated with provider and agreed by security team of BPaaS provider, its client and cloud vendor. While private cloud at many time serves privacy, it may not offer scalability and availability as applications in public cloud do. Hence a right mix of public and private cloud with correct measures for security and privacy in place will be a win.

Handling OCM:

Whenever there is any change in the organization there is resistance to it and BPaaS providers may face this challenge in their client's organization specially when there are migration of legacy systems to cloud. However this can be mitigated with good knowledge sessions and training from BPaaS providers to its clients. There can workshops planned and case studies showcase to create an optimistic ripple which would mitigate the resistance to greater extent. However one cannot deny the possibility of some percentage of resistance.

With some challenges which can be very well taken care of and many benefits around, BPaaS is the future of BPS industry. No wonder many big names in BPS have already started their journey towards BPaaS and hence BPS have started adopting this model with its cloud vendors, existing and new clients to continue delivering value and emerge as business partners and not just a BPaaS provider!

Brijendra Sharma, BTS (Consulting) Head

Brijendra heads Business Transformation Services, the consulting arm of TechM BPS. He has 20+ years of work experience in BPS industry across various domains ranging from BFSI, Supply Chain, Telecom to name a few. He has helped clients in their front, middle and back office transformations. He has 19+ years of experience in BPS industry across many domains. He is Lean Six Sigma Master Black Belt holder.
sbrijendra@techmahindra.com

Rahul Agarwal, Principal Consultant

Rahul is an accomplished Lean Six Sigma Black Belt certified consultant with 12+years of experience across multiple domains and verticals as Telecom, E-commerce, Retail Banking, Investment Banking, Supply Chain and Manufacturing. He has an extensive experience of consulting on technologies as RPA, IoT, Analytics, Next Gen Platforms etc. He is a Graduate in Chemistry and certified ISO auditor as well.
rahul.agarwal22@techmahindra.com

Sarang Banubakde, Associate Business Consultant

Sarang is highly experienced in IT delivery, consulting and training. He is a management graduate with experience in Pharma, Telecom, SCM and Retail & CPG. A techno-functional, he has experience in technology with hands on. He has worked on lean projects and has also been a trainer in Digital stream and has trained more than 1000+ associates on digital.
sarang.banubakde@techmahindra.com