Strategy for BSS/OSS of the Future

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Where Should The Future BSS/OSS Be Headed?

Future BSS/OSS need to continue to evolve and become the core enabler of service providers’ digital transformation journey to support new complex services & business models.
10 New Requirements For Future BSS/OSS

01 Digital Services Partner-Supplier Ecosystem Enablement

- Being a core enabler to digital transformation, future BSS/OSS has to organically support partner onboarding and lifecycle management as opposed to having it handled traditionally by the SDP coming from the first era of digital content services.

02 Native Support For Multi-Tenancy

- Future BSS/OSS must provide support for multi-tenancy natively for core services, wholesale services, cross-industry services, etc all under a single instance and allow flexible aggregation of product offering to support the different business models (B2C, B2B, B2B2x).

- Typically, services such as wholesale are supported by separate BSS/OSS solutions or at best spin off as separate instances from core service BSS/OSS instances. Such deployments have high TCO and are not sustainable. Furthermore, computing resources are also not fully optimized.

Sample Multi-Tenant Business Architecture

Source: Openet
03 Unify Product, Service & Resource Catalog Management

- Achieving a seamless orchestration for the fulfillment of complex digital services across all layers of order decomposition requires a unified product, service & resource (PSR) catalog management.

- Managing the end-to-end PSR data model along with associated fulfillment configurations from a single console will enhance the collaboration between product managers and fulfillment designers which allows design-time validation prior to runtime deployment and eliminate discrepancies.

- Disparate PSR catalogs might still exist due to constraints such as product maturity and performance reasons but the unified management layer would mitigate the underlying complexity in managing the different data sets.

04 Rating, Charging & Billing For Complex Services

- Future BSS must be able to rate, charge and bill new and evolving complex services such as ICT cloud solutions, cross-solution solutions, NFV/SDN solution, IoT solutions.

- Future BSS must be able to support near real time rating of such services to reflect true usage consumption to customers where applicable given the elasticity nature of such services.
## Flow-Through Service Creation

- Future BSS/OSS must support seamless flow-through service creation to truly reduce lead time-to-market and to minimize human errors.
- Future BSS/OSS must provide an unified digital service creation user interface in which product information, related service and resource parameters could be defined and get pushed to the unified PSR catalog (in turn pushed to slave catalogs of concern) as well as other downstream systems such as PCRF, PCEF and TDF with workflows built-in for testing in staging and production environment deployments.

## Flow-Through Order Fulfillment

- The Customer Order Management (COM) module of the future BSS must be able to receive order requests from various channels such as online marketplace and orchestrate seamlessly the fulfillment of these orders to the OSS with no human intervention (zero back office). These include partner supplied services as well.
- The interface of COM towards the future OSS must be future-proof and be flexible enough to cater to the evolving number of service parameters without the need for interface contract changes.
10 New Requirements For Future BSS/OSS

07 Cloud Native Support For Elasticity & Scalability

• To support the speed of growth of service providers in the digital economy, future BSS/OSS codebase must be rewritten to natively support cloud computing environments and fully leverage on the characteristics of elasticity and scalability.

• Such cloud native BSS/OSS must be able to be deployed in a hybrid cloud environment. Vendors have started to introduce BSS/OSS in a public cloud solutions in 2016. However, such a model is not customization friendly. Furthermore, operators would need to incur high cost in linking up to the public cloud for traffic to be rated.

• Thus, a hybrid cloud model would be more feasible with transactional BSS/OSS modules deployed on-premise. A SaaS model for non-transactional modules such as CRM could be considered.

08 Extensible Business Rules/Logic & True Open Architecture

• In order to avoid vendor lock-in with huge bills for change requests, future BSS/OSS must be built on a true open architecture and be extensible by the service providers themselves to a certain extend.

• Future BSS/OSS should expose fit-for-purpose APIs to support business use cases rather than just exposing low level APIs which requires detail know-how of orchestrating these APIs.

• Future BSS/OSS should also allow business rules or logic to be extensible either through configuration by application hooks or SDKs to cater to specific needs of the operators.

• Future BSS/OSS should also provide backward compatibility support for such service providers’ customization in new version rollouts.
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09 Automate Testing Process For Regression & Production Support

• With lead time-to-market expected to be within days and a week, testing of new changes to future BSS/OSS as well as regression testing need to be automated.

• There are already tools in the market which could readily support test automation through creation and execution of test scripts but future BSS/OSS need play a role to provide application hooks to facilitate such test automation.

• Such application hooks would greatly reduce the complexity of the test scripts to focus on testing the functionalities of concern rather than trying to simulate real traffic paths.

10 Manage Business Operation & Gain Competency To Extend BSS/OSS

• Service providers have been turning to managed services for their BSS/OSS to optimize operating cost and human resources. Given the dynamic momentum in the digital economy, operators need to review the current operating model of the BSS/OSS and to take back the control of its business operations (from partner onboard, service creation) as well as taking on the task of BSS/OSS customization where feasible.