The small and medium enterprises (SMEs) in the O&G space are largely managing their IT needs using home-grown or bespoke applications, most commonly Excel spreadsheets. They are not averse to adopting best-of-breed ERP solutions if the two major challenges of time and cost are addressed.

Pre-configured, prescriptive SCM solutions offered on a subscription basis that conform to industry best practices, using ERP applications such as SAP, can help enterprises reduce implementation time and also reduce overall costs with the solution-in-a-box model. This solution suits SMEs looking for simple-to-use and lower time-to-implement options.

The concept of using the Supply Chain solution as a subscription service over cloud covers infrastructure hosting, product licenses and SI services, including Warranty, and can be deployed in less than 6 months to meet a majority of the Supply Chain business processes typically applicable to refineries, terminals, depots and downstream O&G companies.

The pre-configured solution covers all key SCM processes such as Contracts Management, Inventory Management and Visualization, Primary Supply Distribution, Custody Transfer, Terminal Sales and Distribution, Invoicing and Financial Consolidation, as well as key Reporting needs.

SAP’s industry-specific solution for the Oil & Gas Industry – SAP-IS-Oil – is one of the largely used solutions for most of the Supply Chain business processes and helps in execution of all above cited Supply Chain processes (see Figure 1).

Packaging the entire Downstream Oil Supply Chain “Solution-in-a-box” can help the SMEs lower their TCO and minimize overheads. CIOs of these small and medium enterprises can roll out significantly more powerful supply chain functions at an affordable operating cost, with no capital expenditure, by subscribing to the SCM-Solutions-as-a-Service (SoaaS).

Service providers or SIs, with their deep understanding of the O&G industry, build an SAP prescriptive solution for rapid deployment. Downstream Oil in a Box – DOiB – is an SAP-based Supply Chain solution pre-configured to 75%, with a prescriptive solution based on industry best practices, designed...
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Abstract

Small and medium O&G enterprises do not have the appetite for long duration SAP implementations, that typically span over 12-18 months. They also do not find it prudent to make huge capital expenditures on such implementations, thereby requiring System Integrators (SIs) to offer pre-built solutions and services on cloud technology as a subscription service. This paper throws light on the challenges that small and medium O&G enterprises face in investing in best-in-class supply chain solutions using ERP systems and shows how they can opt for Rapid Deployment Solutions (RDS). The paper proposes a subscription-based service option to mitigate these challenges. It also explores various deployment options for pre-configured solutions such as Downstream Oil Supply Chain Solution-in-a-Box (DOiB).

Subscription is name of the Game

The small and medium enterprises (SMEs) in the O&G space are largely managing their IT needs using home-grown or bespoke applications, most commonly Excel spread sheets. They are not averse to adopting best-of-breed ERP solutions if the two major challenges of time and cost are addressed.

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Over the past few decades, SIs, together with product owners such as SAP, have continuously been improving the deployment models. Moving from implementing RDS on traditional on-premise servers owned by customers, hosting services have gained importance, thus reducing the risk and infrastructure maintenance overheads.
The service offering has now matured to a state where the entire solution is offered on subscription basis, with cloud hosting as the central component. And this model has the capacity to completely eliminate the need for any capital expenditure from the customer’s end. The journey of evolution of solution deployment has steadily moved from a CAPEX-driven market to an OPEX-driven market (see Figure 2).
Service providers or SIs that are SAP partners can leverage SAP’s offering of Managed-Cloud-as-a-Service (MCaaS) and, in turn, offer relevant solutions such as DOiB-as-a-Service to SMEs in the O&G industry that are interested in SAP-based solutions but are otherwise averse to making large capital investments.

Based on the infrastructure deployment, there are four options for pre-built DOiB solutions

On premise – Customer owns the infrastructure, product licenses, and also hosts the application setup on the servers. SI deploys the solution built on the application product (SAP)

Hosted on-premise – Customer owns the infrastructure and product licenses. SI hosts the application setup on the servers and deploys the solution built on SAP

Hosted on Private Cloud – Customer owns the product licenses. SI hosts the application on the infrastructure hired from cloud providers and deploys the solution built on SAP

Subscription-based-Solution-in-a-Box – SI owns the infrastructure, product licenses, hosts the application setup on the servers, and also deploys the solution built on SAP. Customer subscribes to the entire package as a service

The underlying feature of these options is that it can be scalable and be hybridized as per the customer’s needs. The scope of processes, user licenses can be scalable as and when required and the servers can be a mix of infrastructure – for example, on-premise for production environments with development environments on cloud.
DOiB: The Way to Go

DOiB is a near-ready solution packaged to be delivered and supported as a managed cloud service. The high level scope of services for the solution offered on a subscription model, for an agreed term, is:

- Infrastructure hosting and maintenance
- SAP and related product licenses and maintenance
- Solution implementation services and application support for the solution deployed

The customer pays just the subscription fees for a term that would be agreed upon before the engagement (see Figure 3).

**DOiB on cloud – Subscription Model**

What are the cost components included in this service offering on cloud?

- **Infrastructure Hosting**
  - Infrastructure Hosting on Cloud
  - Infrastructure Maintenance Services

- **Licenses**
  - SAP Licenses + AMC for the required components (on SAP mCaas model)
  - Quantity Ware Licenses + AMC for Quantity Conversation
  - TMW Licenses + AMC for Easy upload of Terminal Lifting/Loadings

- **SI Services**
  - Fast Track Implementation of Solution based on Industry Best Practice
  - Application Support (Warranty) Service – Post Go-live

- **Subscription Term**
  - Minimum of 3 Years, extendable thereafter

How does it convert to the client?

- **Subscription Charges**
  - Just a monthly fee as Operating Expenditure, for the SAP solution usage term

Figure 3: DOiB on Cloud – Subscription Model
Vantage point

Implementing Rapid Deployment Solutions such as SAP-based Downstream Oil Supply Chain Solution-in-a-Box can help deliver substantial benefits.

- Up and running in 6 months – Hosted system with the solution fully deployed
- No CAPEX – Avoid a large CAPEX and manage just as a subscription (OPEX)
- 40% to 50% reduction in time and cost to deploy the solution
- No hassles of infrastructure procurement, setting up and maintenance
- Nil or minimal program management efforts from customer’s end
- SAP HANA – Cutting-edge technology to leverage faster processing or analytics and reporting

Flexible and Scalable:
- Hosting options - On cloud/on-premise
- Infrastructure - Can be owned by customer or by the service provider
- Scalable scope to include additional processes beyond SCM such as EAM, EHS, QM, etc. based on customer needs
Conclusion

For SMEs operating on tight margins, subscription-based SAP solutions are a good option. While the service providers are responsible for the entire package (right from infrastructure to licenses to implementation and support), the customer has to enter into a service agreement and just pay a subscription fees for the term of agreement.

However, this model needs to evolve further to be able to effectively provide answers to a scenario where the customer plans to switch over from the subscription model to a complete takeover plan. In such cases, there is considerable cost duplication on infrastructure and license components.
About the Author

Chandrasekhar Chebiyyam has more than 24 years of industry experience with 11 years in SAP consulting, specializing in SAP for Oil & Gas and Project Management. He currently heads Wipro’s Oil & Gas Downstream CoE and is responsible for developing new technology solutions in the SAP O&G space. Chandra has played various delivery roles for clients in the UK, Spain, Portugal, KSA, and the UAE before taking up the solutions development role.
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