Efficient Hybrid IT Operations for SAP® Customers
Consequences for Customer IT Organizations
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Operation in an on-premise landscape
If you have your complete landscape on-premise, your IT organization has full control of executing all IT operations processes and functions. With this control the accountability of providing IT services to the business goes hand in hand.

Having direct control over IT operations, other aspects such as being transparent about the status, providing IT services, and the underlying governance model are all of lesser importance. In fact, IT organizations with a lower level of maturity in managing their IT operations can overcompensate this by imposing their direct control on operation.

Operations in a hybrid landscape
Customers are moving from on-premise to hybrid solutions and are adopting different deployment models at the same time. Hybrid IT is now a reality. Each combination of deployment and operational model brings in new constraints, challenges, and opportunities for the provisioning of end-to-end business solutions. In general, the landscape becomes more distributed and reaches another level of heterogeneity.

Figure 14: High level view on the importance of operations aspects in an on-premise and hybrid landscapes

Importance of operations aspects in an on-premise landscape
- Direct control
- Transparency
- Orchestration
- Governance
- Customer’s IT accountability

Importance of operations aspects in a hybrid landscape
- Direct control
- Transparency
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- Customer’s IT accountability
However, all introductions of cloud-based elements to an on-premise landscape bring a clear shift in operations responsibilities, direct control, and the ability to execute.

**IT accountability does not change**

In an on-premise deployment model, your IT has complete accountability and responsibility for operations and has the control of execution. The responsibility to execute typical operations tasks or functions might be partially out tasked, but capability and control of execution stays with you.

With the introduction of cloud components to your landscape, your IT is still being held fully accountable of the provisioning for the end to end IT service to the business.

Your IT is no longer in charge of the working infrastructure or application of cloud-based solutions. But it is still held accountable by the business, has challenges with new complexities, and at the same time has to “keep the lights on”. Irrespective of the changes and the individual organizational responsibilities from cloud providers and partners, your IT’s accountability to provide end-to-end IT services to your business remains the same.

**Direct control on operation execution is reduced**

Still being held fully accountable by the business means you only have a very limited control about execution on cloud services. Execution obligations for the cloud components are solely with SAP as a cloud provider and managed by contractual defined SLAs. For example, IT in direct control can do day-to-day ad hoc changes, while for cloud systems ad hoc requests might not be executed in short notice outside the contractually agreed SLA.

**The need for transparency is increasing**

Along with the increasing mix of responsibilities in a hybrid world, the need for transparency is increasing. In times where customers just ran SAP-ABAP-centric on-premise solutions there was a need in transparency along system levels only.

When moving to a hybrid solution landscape, where the responsibilities move from customer’s IT to SaaS providers, transparency is given according to the defined SLAs. However, you stay responsible for the business process availability and performance towards business. Therefore, it becomes more important to have complete transparency on system landscape health, solution health, and business process health. Proactive monitoring of critical events should be visualized end-to-end along the hybrid landscape.

Due to federated responsibilities between different providers and a greater visibility on the health of the end-to-end IT and business solution, you must be able to adequately identify the impact of disruptions along critical business processes. Transparency gives IT control to orchestrate and the opportunity to transform into a role as service provider and business enabler.

**The requirements for governance are increasing**

Governance is about how your IT organization makes sure your operation is running smoothly. Aspects such as processes, roles, and responsibilities or service levels allow you IT organization to govern (administer, manage, and control). Managing a more diverse landscape introduces new challenges and requires a well-defined governance between the different SAP cloud service providers and your IT processes, such as incident management, release management or service management.
Orchestration requirements increase
In IT operations, governance is the basis to orchestrate. Orchestration is the ability to coordinate the execution of activities (for example root cause analysis) between different internal/external IT service providers based on the processes and responsibilities defined in your governance model. It is the ability to actively manage the collaboration between different involved parties. Governance is a prerequisite as a framework and platform to orchestrate.

In an IT landscape with distributed operations, the orchestration of all involved parties during a critical event to identify the root cause and to communicate the impact to all parties is becoming an essential task for your IT. Managing end-to-end business continuity and safeguarding the execution of business processes during business critical events (for example the weekly credit exposure run in a bank, or the daily mass billing for a utilities company) is becoming another key responsibility for your IT in an hybrid world.
How to *Govern the Operation of Hybrid Landscapes*

What are the requirements governing hybrid operations?
With the introduction of cloud solutions IT landscapes are becoming distributed and heterogeneous. **Changed deployment models require new models of operation.** But how can you manage multiple deployment models with multiple responsibilities for operations, where sometimes cloud solutions are directly at business hand but there is no IT department as a software gate keeper?

Considering the changes that are introduced with cloud solutions to a system landscape and the resulting consequences for IT operations, we know the following:

1. Transparency is required on the heartbeat and health of the end-to-end IT landscape and underlying software components in the aspects of availability, performance, exceptions, and disruptions.

2. You need out-of-the-box pre-defined KPIs with initial thresholds and clear documentation of their definition. These KPIs should be incorporated into pre-defined dashboards so that the status and health of SAP cloud solutions can be visualised.

3. Hybrid integration needs to be managed via a framework covering everything from data consistency to exception management.

4. Safeguarding business process execution is key especially during business-critical times. Transparency on the business process health along the IT aspects of the execution of end-to-end critical or core business processes including cloud components is needed.

5. You need a calendar to publish key events and critical processing periods so your IT and SAP can both be aware that there is a critical event within the business a. A published business event calendar can provide the much-needed transparency to safeguard critical business processes which are discreet or seasonal.

6. End user availability needs to be managed and you must be able to identify the impact of a disruption before business notices and be able to manage all relevant stakeholders to reinstate the IT service as governed by the relevant IT processes.

7. There should be one central place to manage all type of exceptions along the hybrid landscape. Therefore, you need an open framework to exchange data (for example, exceptions) between the SAP cloud providers and your IT operations system.
THE OPERATION CONTROL CENTER AS MEANS TO GOVERN HYBRID OPERATION

What is an operations control center?
Some years ago, SAP introduced the concept of the SAP Operations Control Center (OCC): A best practice to govern the operation of business critical multi on-premise system landscapes as a physical manifestation of how to “Run SAP Like a Factory”. The OCC is an operations best practice for a physical entity or a layer of an IT organization that is sitting as layer across typical IT operations departments that are usually responsible for the day-to-day IT operations. It is a holistic concept that considering the aspects of processes, people, and tools.

The SAP OCC enhances the operational capabilities of any IT organization and:
- provides the relevant transparency on health of the end-to-end IT landscape and underlying software components and business processes with the help of standard dashboards
- creates the transparency along the IT aspects of the execution of end-to-end critical or core business processes
- manages critical exceptions and continuous improvement based on data driven insights
- runs on standardized IT processes

How could a SAP Operations Control Center govern hybrid operations?
The SAP OCC concept is the perfect means to identify the relevant business critical alerts from both worlds, addressing most of the requirements for governing hybrid operations. It gives you a clearer end-to-end view on the business process health and the hybrid landscapes heartbeats. It also supports the relevant operations and monitors aspects to govern hybrid IT operations. The OCC provides the transparency across issues and incidents occurring within the hybrid solution.

Figure 15: Conceptual picture of an SAP Operations Control Center (OCC).