Lifecycle Management for SAP HANA

Simplify workflows with automated SAP system copies

Key Benefits

- Shortened project timelines
- Fast and space-efficient SAP system provisioning through storage cloning technology
- Simplification through automation with application-integrated workflows
- Tight integration into SAP management tools such as SAP Landscape Management (SAP LaMa)
- Flexibility to choose any source dataset from a primary site, an off-site backup, or a disaster recovery location, on premises or in the cloud

The Challenge

Today, enterprises are looking at ways to increase competitiveness by accelerating projects and speeding time to market. To reach this goal, they need to improve the lifecycle of their enterprise applications by automating tasks and simplifying processes. Traditional SAP lifecycle management approaches to development and test-system provisioning are primarily based on manual processes. These manual processes are often error prone and time consuming, delaying innovation and the ability to respond to business requirements.

The main challenges IT organizations face today are:

- Slow implementation of new features
- Lack of automation
- Lost productivity through lack of integration among orchestration tools

The Solution

NetApp is addressing these challenges by providing a lifecycle management solution that is fully integrated into the tools that SAP administrators use for day-to-day operations, such as SAP Landscape Management (SAP LaMa). The goal is to simplify the provisioning workflow from preprocessing to postprocessing, including all the software and storage layer tasks needed to create a copy of the production system. With this solution, administrators can create a development and test environment in a couple of mouse clicks, which results in improved lifecycle management.

Fully automated, end-to-end provisioning of SAP development and test systems
Fundamental to full automation of SAP development and test-system provisioning is a deep integration of the storage layer into SAP LaMa. This integration is achieved by deploying the NetApp Storage Services Connector (SSC), which acts as a gateway between SAP LaMa and the storage systems. The benefit is that administrators can automate the full workflow from preprocessing to postprocessing within the standard SAP LaMa UI. For instance, storage operations such as cloning can be executed directly from SAP LaMa. SAP LaMa accesses the FlexClone® feature through the SSC and can create a copy of a production system on the NetApp storage systems.

To increase the solution's flexibility, NetApp has added cloud support to SSC. SSC can provision storage clones in the cloud on hyperscalers, such as Amazon Web Services (AWS) and Microsoft Azure, where NetApp Cloud Volumes ONTAP® software is running.
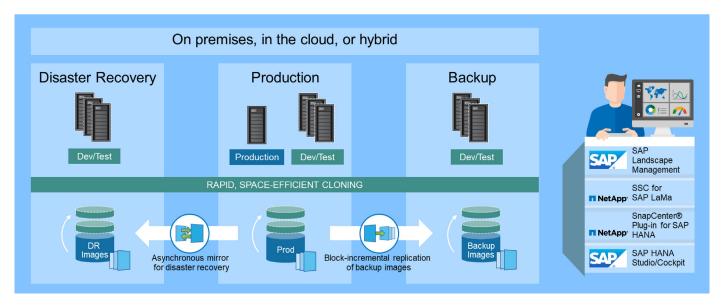
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Figure 1) Lifecycle management for SAP HANA.

Semiautomatic provisioning of SAP HANA development and test systems

If you have different administrators taking care of tasks on the three different layers—SAP application, database, and storage—you can use SAP LaMa to control and automate the tasks for SAP systems. Then you can use NetApp SnapCenter® software for all the other tasks on the storage and database layer. The SAP HANA plug-in for SnapCenter brings application consistency to the solution and can be used to automate the SAP development and test-system provisioning, including the required steps on the HANA database layer.

Fast and space-efficient SAP system provisioning using storage cloning technology

FlexClone is the part of the solution that creates fast system copies. Traditional copies can take many hours to make. With FlexClone thin-cloning technology, even the largest volumes can be cloned in a matter of seconds. This innovative technology also makes sure that a clone uses a small amount of space for metadata and then consumes additional space only as data is changed or added. These clones can be created from either the production, disaster recovery, or backup storage system.

Solution components

The NetApp lifecycle management solution is based on three components:

- **SnapCenter.** NetApp SnapCenter provides centralized control and oversight, allowing you to use a single tool to manage backup, restore, and clone operations for a variety of applications and databases, such as SAP HANA.
- **Storage Services Connector.** SSC is NetApp's implementation of the SAP storage adapter in SAP LaMa.
- **FlexClone.** NetApp FlexClone technology allows you to make fast, space-efficient copies of your storage volumes and LUNs. Create as many copies of your full production dataset as you need. If a test corrupts the data, you can start again in seconds.

Get More Technical Details
- TR-4667: Automating SAP System Copies
- TR-4018: Integrating NetApp ONTAP Systems with SAP Landscape Management

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About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation, and optimize their operations. For more information, visit **www.netapp.com**. #DataDriven