



Smart Automation Manager for Hitachi (SAM4H)

Get the most out of your Hitachi Storage Systems

Smart Storage Automation

The Smart Automation Manager for Hitachi (SAM4H) is a rules-based web application that lets you manage your Hitachi storage systems with unprecedented ease-of-use. It allows customers to execute complex provisioning tasks based on easily customisable rules without requiring specific storage know-how.

If you leverage Hitachi's outstanding Global Active Device (GAD) feature, SAM4H is the tool of your choice. SAM4H lets you manage any number of GAD devices by simply selecting a predefined Configuration Template from the graphical user interface.

Thanks to a tenant-based solution, SAM4H can be used as a self-service portal. Hand over storage provisioning tasks to server and DB administrators or a business unit by restricting tasks to a defined group of users.

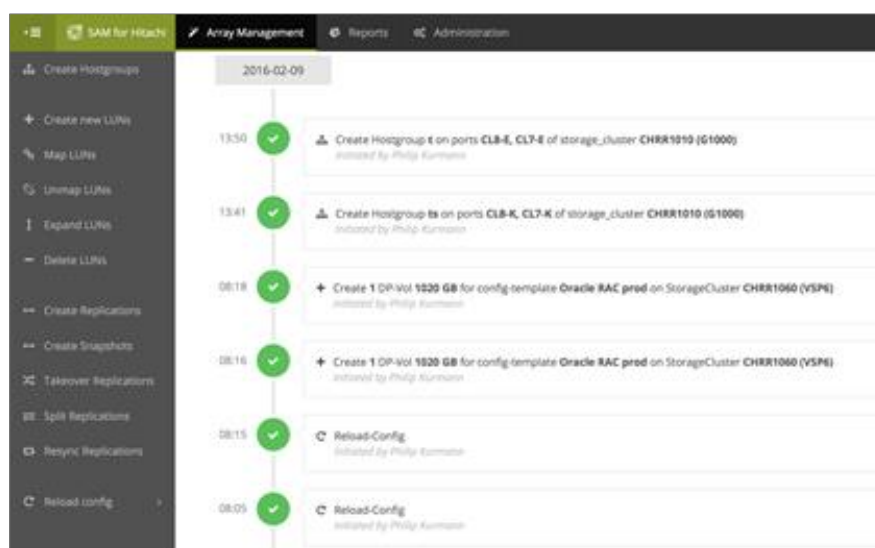
The capabilities of SAM4H are predestined to outsource daily storage management requirements. With SAM4H you may out-tasks provisioning operations according to customer defined mapping rules.

The Challenge

Today's storage market is driven by increasing service levels and requirements of advanced functionalities. At the same time there is a clear customer demand for management tools that hide the underlying complexity behind an easy-to-use graphical interface. Today's business challenges expect tools that allow to simply manage capacity and functionality. The tool processes all the dependencies consistently to avoid human errors of complex configuration execution.

The Solution

SAM4H was designed to manage the functionalities of Hitachi's market leading midrange and high-end storage systems with minimal effort. Rules that reflect the policy guidelines for your organization's storage mapping, are responsible to substantially increase the level of automation and continuity of systems management. This approach ensures high quality management together with fast time to implementation which is key in today's dynamic data centre operations.



SAM4H Mapping Rules

SAM4H was designed to define mapping rules, which are consistently applied to every provisioning operation ensuring perfect quality of all new and modified (grown) storage objects. The rules are defined as config templates and match exactly the storage and capacity management policies of each individual customer. The definition of the config templates is fully handled by the same graphical user interface but may be separated from the provisioning tasks by means of user roles. To get your organisation up to speed we offer a dedicated SAM4H Policy Definition Workshop to map your requirements.

Increase Operational Efficiency

SAM4H is as easy to use as any smart device. The authorized representative selects among features and capacities he needs to implement, which are then executed by the SAM4H automation engine. It takes care of all the dependencies in the right order without requiring any storage system specific know-how. Thanks to flexible user roles, SAM4H is ideally suited to manage your storage environments by centralised operations teams. Whether you intend to increase the level of storage automation in your organisation or want to leverage your storage systems latest software features like GAD, Tier relocation policies or ALUA (Asymmetric Logical Unit Access), SAM4H is the management tool of your choice.

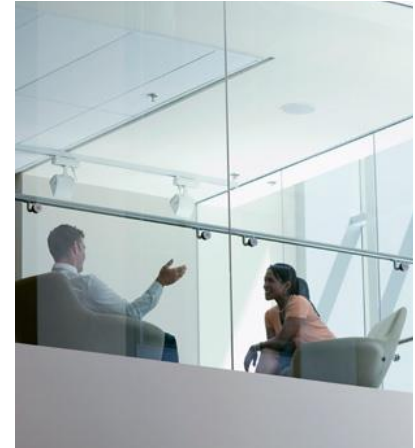
Features and Functionalities

The features and functionalities SAM4H offers are carefully designed and thoroughly tested before they are implemented to ensure maximum reliability in the data centre.

Key features and functionalities:

- ✓ **LUN Management**
Create, map and resize LUNs based on config templates (rules).
- ✓ **Host Group Management**
Define config templates for new host groups. Enable GAD support with preferred path configuration.
- ✓ **Manage Replications**
Create, Split, Sync, Resync Copy-on-Write, TrueCopy and Global Active Devices based replications. Provide detailed status of replications.
- ✓ **Multitenancy**
Offer your inhouse customers a self-service portal to fully autonomously manage the capacity of their servers.
- ✓ **REST-API**
Integrate the execution of the majority of your storage provisioning tasks into your preferred orchestration tool via the SAM4H REST-API.
- ✓ **Reports**
Provides detailed capacity and configuration reports on storage system, pool, port and server level with cost centre awareness.
- ✓ **Audit**
SAM4H keeps track of all storage manipulations, allowing to exactly identify who did what when at any time.

Together, We Set the Storage Objectives and a Standard of Excellence for Your Organization



Demo

Contact us for a demo. In our demo-lab we can demonstrate how you can master your Hitachi storage management tasks with unprecedented speed and ease-of-use.

For more details visit:

www.hitachivantara.com



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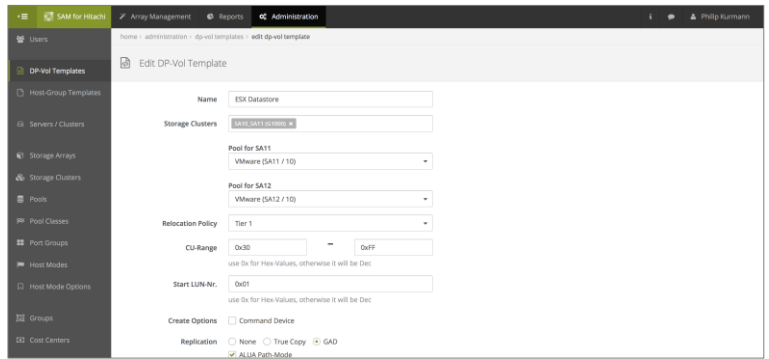
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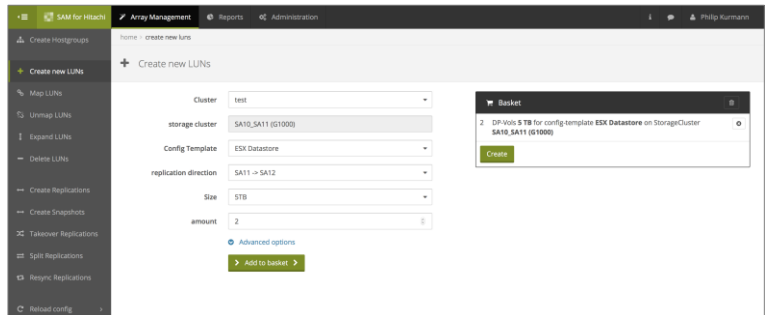
Managing LUNs

Create, map and resize LUNs according to rules. The config templates, specifically setup for each customer environment, define technical details of the LUNs, like host mode, but also functionalities like replication. For replicated LUNs the rule-engine ensures that all required objects are created for each storage system involved and replication is activated for each LUN with the replication property defined in its respective config template.



Managing Host Groups

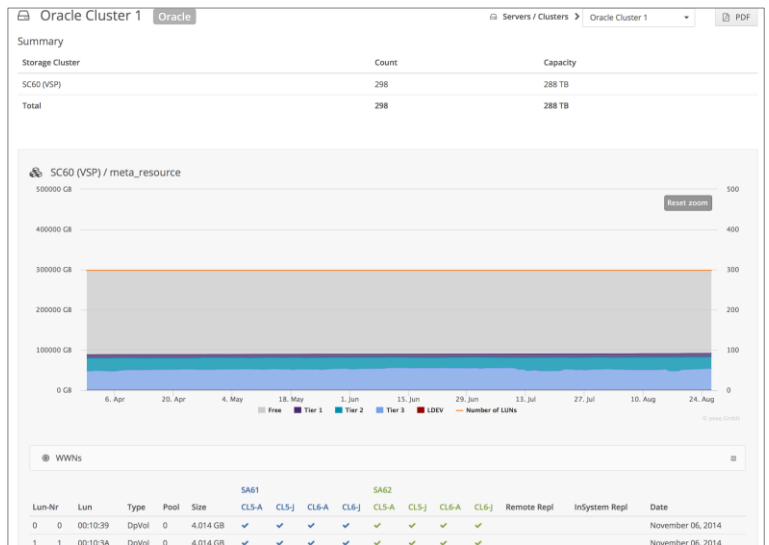
Each operating system of connected servers requires its own set of specific settings in the Hitachi storage systems setup, called host mode. Within SAM4H each set of host mode settings is defined within a host group configuration template with its own unique host mode name. When mapping LUNs, the storage operator simply selects among the host mode names to define every detail for all the LUNs being mapped.



Managing Replications

Replications are defined within the config templates to ensure that all data is automatically and consistently replicated as intended, from the moment when the LUNs are created. This is absolutely crucial for databases and other applications where disaster recovery critically depends on complete and consistent replication of all their data objects.

Managing replications with SAM4H significantly reduces the risk of handling errors, that could lead to data loss with likely negative business impact for your organisation. Different replication types may be chosen from Global Active Device (GAD), TrueCopy (TC) and Copy-on-Write (CoW). SAM4H executes all atomic operations like Create, Sync, Resync and Split. It also provides the status of each replication relation between LUNs.



Reports

Today, every business is faced with the challenge to manage the use of capacity of their storage systems. SAM4H provides detailed capacity reports on logical level, including cost centre awareness. This may be the basis for your storage capacity cross charging process.

