

# HPE Helion Eucalyptus

## Key benefits

**Security and control:** Maintain sensitive data in house and comply with government and industry regulations

**Cost management:** Easily shift workloads between private and public cloud to balance OPEX and CAPEX

**Organizational agility:** Reduce delays and accelerate time to market with self-service resource provisioning

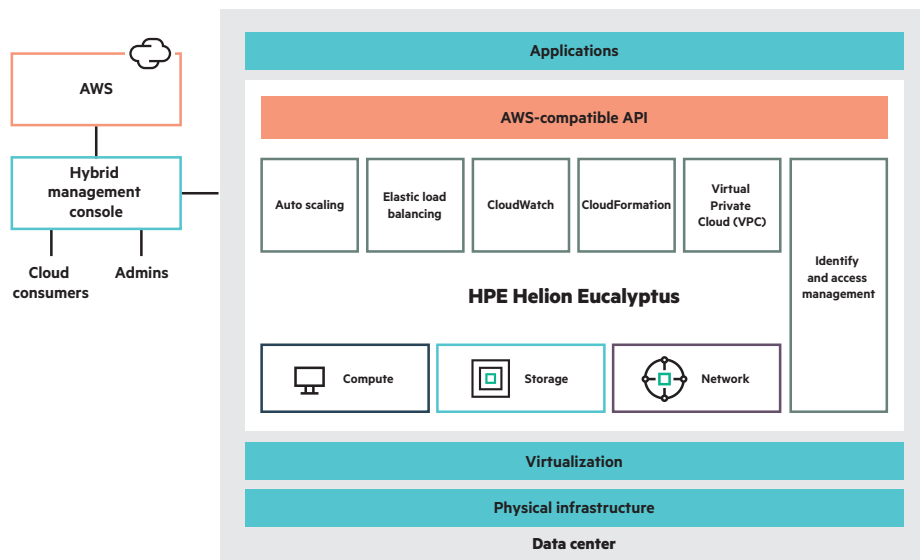
**Operational efficiency:** Leverage existing AWS ecosystem and management tools with HPE Helion Eucalyptus

**Improved performance:** Gain precise control of cloud resources and performance on your own hardware

**Infrastructure flexibility:** Build private clouds using your existing IT infrastructure

**Dynamic scalability:** Benefit from built-in elasticity that allows scaling up and down of resources based on demand

**Hybrid capability:** Build hybrid clouds between HPE Helion Eucalyptus private cloud and the AWS public cloud



HPE Helion Eucalyptus is open source software for building Amazon Web Services (AWS)-compatible private and hybrid clouds. It leverages your existing IT infrastructure to create a self-service private cloud behind your firewall. Infrastructure as a service (IaaS) is enabled with the private cloud by abstracting the available heterogeneous compute, network, and storage resources. HPE Helion Eucalyptus creates an elastic resource pool that can dynamically scale up or down depending on application workload demands. It has the strongest API compatibility with AWS enabling users to easily shift workloads between public and private cloud environments. The benefits include greater security and control of data, improved cost management, and increased organizational agility.

## AWS compatibility

HPE Helion Eucalyptus is the only solution that can transform your IT infrastructure into a private cloud that works like AWS. HPE Helion Eucalyptus is compatible with AWS APIs like Elastic Compute Cloud (EC2), Elastic Block Store (EBS), Simple Storage Service (S3), Virtual Private Cloud (VPC), Identity and Access Management (IAM), Elastic Load Balancing (ELB), Auto Scaling, CloudWatch and CloudFormation. With HPE Helion Eucalyptus, you can leverage common APIs across both public and private clouds to shorten delivery cycles and accelerate time to market.

**Key features**

- AWS API compatibility with EC2, EBS, S3, VPC, IAM, Auto Scaling, ELB, CloudWatch and CloudFormation
- AWS Ecosystem
- Scalable Object Storage
- Hybrid cloud management console
- Role-based access control
- Management and Accounting Resource Tagging
- Customizable Instance Types
- Rolling upgrade support
- Network management, security groups, traffic isolation
- KVM hypervisor support
- Microsoft Windows® and Linux® Guest OS support
- Robust SAN integration<sup>1</sup>

## Powerful identity management

User identity management is supported within HPE Helion Eucalyptus with capabilities to control virtual resource pools using fine-grained Role-Based Access Control mechanisms for each resource pool. HPE Helion Eucalyptus user identity management is compatible with the AWS Identity and Access Management API and can be integrated with existing Microsoft® Active Directory or LDAP systems.

## Scalable object storage

HPE Helion Eucalyptus Scalable Object Storage service gives cloud administrators the flexibility to implement scale-out storage on top of commodity resources using open source and commercial solutions that implement the S3 interface. Similarly for block storage, administrators have the freedom to use commodity storage or supported SAN solutions.

## Cloud account administration

The HPE Helion Eucalyptus Management Console provides cloud administrators with a graphical console for managing cloud accounts, users, groups, security, quotas, and policies. The integrated policy editor helps administrators easily create and validate complex policies with just a few clicks.

The screenshot shows the Eucalyptus console interface for creating an access policy. The main heading is "Add access policy for: Group myGroup". Below this, there are two tabs: "Select a template" and "Create a custom policy". The "Create a custom policy" tab is active, showing a "Use the policy generator" section with a list of actions categorized by "ALLOW" and "DENY". The "ALLOW" section includes: All EC2 actions, All Load Balancing actions, All Autoscaling actions, All CloudWatch actions, All S3/Walrus actions, All IAM actions, and All Security Token Service actions. Below this is an option to "Upload or write a file (advanced)".

The "VIEW/EDIT POLICY" section on the right shows a JSON policy document with the following content:

```

1  {
2    "Version": "2012-10-17",
3    "Statement": [
4      {
5        "Action": "ec2:*",
6        "Resource": "*",
7        "Effect": "Allow"
8      },
9      {
10       "Action":
11       "elasticloadbalancing:*",
12       "Resource": "*",
13       "Effect": "Deny"
14     },
15     {
16       "Action": "autoscaling:*",
17       "Resource": "*",
18       "Effect": "Allow"
19     },
20     {
21       "Action": "cloudwatch:*",
22       "Resource": "*",
23       "Effect": "Allow"
24     },
25     {
26       "Action": "s3:*",
27       "Resource": "*",
28       "Effect": "Allow"
29     },
30     {
31       "Action": "iam:*",

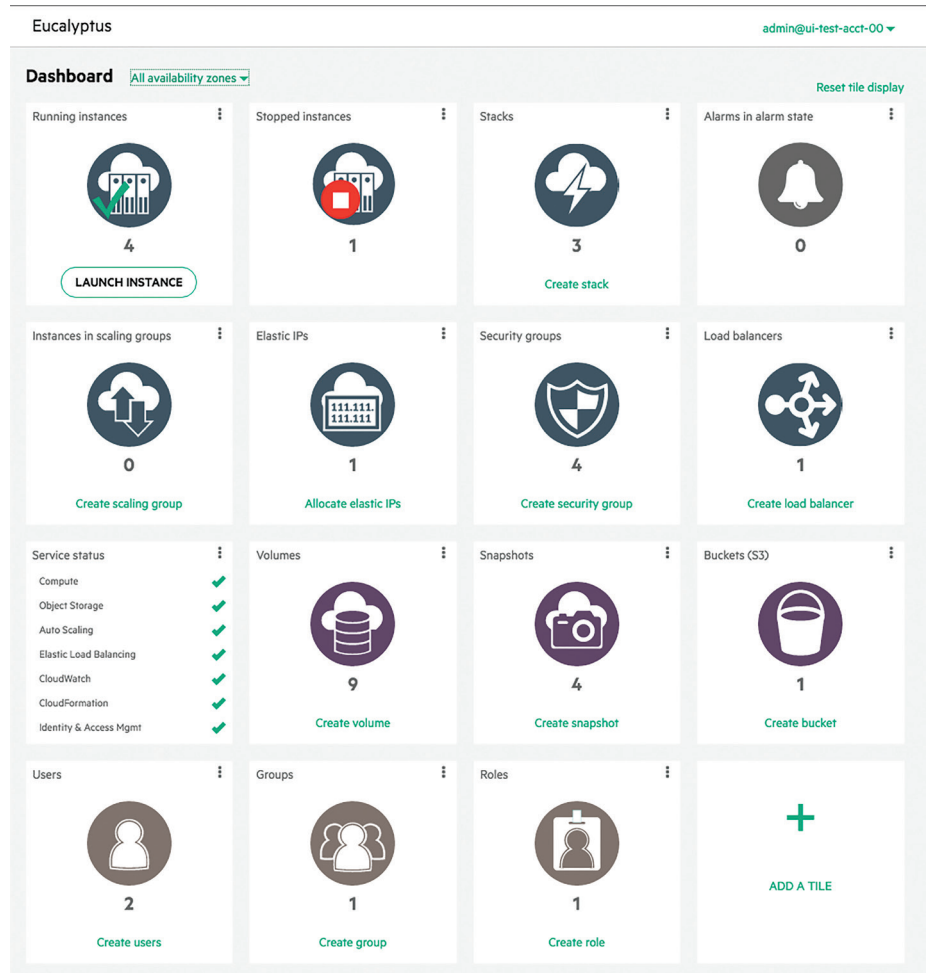
```

At the bottom of the console, there are "CREATE POLICY" and "Cancel" buttons.

<sup>1</sup> Available with an HPE Helion Eucalyptus subscription

## Hybrid cloud management

HPE Helion Eucalyptus includes a Web-based interface to manage both HPE Helion Eucalyptus and AWS cloud resources. The interface uses responsive design, making it easy to use on any computer, tablet, or mobile device. For command-line or scripting needs, euca2ools are an ideal set of hybrid cloud management utilities.



## Network options for growth

HPE Helion Eucalyptus is designed to operate and scale within existing environments and supports multiple networking modes to meet customer-specific needs. This includes the AWS-compatible Virtual Private Cloud configuration and Edge Networking mode that enable cloud infrastructure administrators avoid bottlenecks and provide a direct connection between cloud applications and their users.

## Windows and Linux support

Organizations can run multiple versions of Windows and Linux virtual machine images on HPE Helion Eucalyptus. Likewise, Amazon Machine Images (AMIs) are also compatible with HPE Helion Eucalyptus. You can build a library of HPE Helion Eucalyptus Machine Images (EMIs) with application metadata that are decoupled from infrastructure details to allow them to run on HPE Helion Eucalyptus clouds as well as on the AWS public cloud.

## Cloud usage reporting

Leverage HPE Helion Eucalyptus resource accounting to analyze your cloud usage patterns. Compute and storage usage data are available in various formats for visualization, reporting, and analysis by business systems for both enterprises and for integration with chargeback and billing platforms.

Learn more at  
[hpe.com/helion/eucalyptus](https://hpe.com/helion/eucalyptus)



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