Hewlett Packard Enterprise

Getting started with HPE GreenLake for Compute Ops Management API

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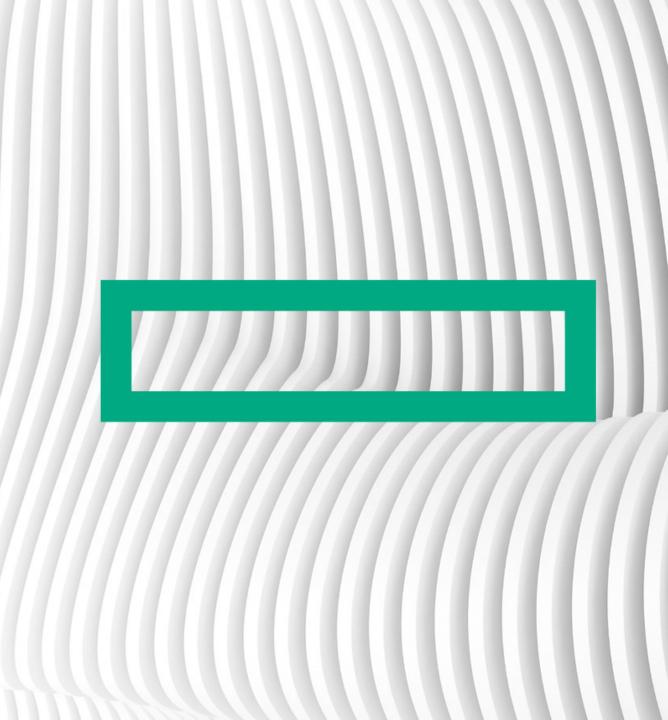Compute Software Group
HPE

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Agenda

Getting Started

API Features

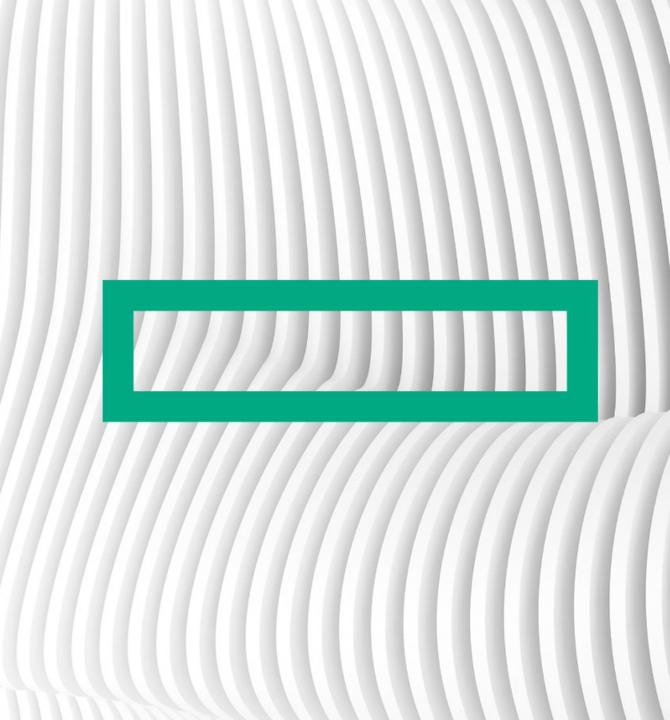Compute Ops Management Resources

Demos

Q & A

How frequently do you use any of the HPE GreenLake APIs?

- I do not use them

- Sometimes

- Monthly

- Weekly

- Daily

Have you used the HPE GreenLake for Compute Ops Management API?

- I do not have an HPE GreenLake account

- I do not have Compute provisioned

- Yes

- No

Getting started

- HPE GreenLake for Compute Ops Management
  - https://www.hpe.com/us/en/hpe-greenlake-compute-ops-management.html

- HPE GreenLake for Compute Ops Management Getting Started Guide
  - https://www.hpe.com/info/com-gsg

- HPE Developer Portal
  - https://developer.hpe.com/greenlake/hpe-greenlake-for-compute-ops-management/home/

- HPE GreenLake Developer Portal
  - https://developer.greenlake.hpe.com/

- HPE GreenLake for Compute Ops Management API documentation
  - https://developer.greenlake.hpe.com/docs/greenlake/services/compute-ops/public/

API Features

An overview of common API features

API Features

URI path (incl. version)
Common properties
Query parameters
Pagination
Error responses

- Example:
  - `/compute-ops/v1beta2/groups/915410f3-1e5f-43c6-bff9-7a189d112d0c`
- Version stages and examples
  - Alpha
    - `/compute-ops/v1alpha2/servers`
  - Beta
    - `/compute-ops/v1beta3/jobs`
  - Stable
    - `/compute-ops/v1/activities`

API Features

URI path (incl. version)
Common properties
Query parameters
Pagination
Error responses

- All resources share the following common properties:

  - `id, type`
    - Required

  - `generation, createdAt, updatedAt`
    - Required, except for dynamic resources

  - `resourceUri, name, tags`
    - Optional

API Features

URI path (incl. version)

Common properties

Query parameters

Pagination

Error responses

- `sort`
  - Sort a resource collection in ascending or descending order using one or more properties
  - `name, createdAt asc`
- `filter`
  - Filter a resource collection using a filter expression using a filter grammar that is a subset of OData 4.0
  - See *Guide > Filtering* for more details and examples!
  - `name eq 'Production Group'`

API Features

URI path (incl. version)
Common properties
Query parameters
Pagination
Error responses

- Resource collections may implement offset-based pagination
- Query parameters
  - `offset`: Zero based resource offset
  - `limit`: number of results to be returned
- Resource collection response
  - `total`: number of items in the result set
  - `offset`: offset of the returned page
  - `count`: number of returned items
  - `items`: array of returned items

API Features

URI path (incl. version)
Common properties
Query parameters
Pagination
Error responses

- All API endpoints implement common error responses

- Error Object

  - `httpStatusCode`: HTTP status

  - `errorCode`: Unique machine-friendly but readable error identifier

  - `message`: User-friendly error message

  - `debugId`: Unique identifier for this error instance

  - `errorDetails`: Additional detailed information
    - Bad Request, Retry Information, General Metadata

Compute Ops Management - Resources

An overview of the resources provided by the API

Compute Ops Management - Resources

- **Activities**
  - Events and tasks

- **Groups**
  - Manage and organize servers

- **Jobs**
  - Perform actions on resources

- **Schedules**
  - Schedule REST operations

- **Server settings**
  - Configure server settings

- **Servers**
  - Properties, Health, Inventory

- **Webhooks**
  - HTTPS webhook for events

- **Filters**
  - Save a filter for servers

- **External services**
  - Configure external services

- **Firmware bundles**
  - HPE published firmware bundles

- **Job templates**
  - Job definitions

- **Metrics configurations**
  - Configure metrics collection

- **Reports**
  - Create and view reports

- **User preferences**
  - Notification preferences

Compute Ops Management - Resources

Servers
Groups & Settings
Jobs & Activities
Schedules
Webhooks

- Server properties, health, inventory
- Sub-resources:
  - Alerts
  - Inventory
  - Notifications
  - Adapter / Switch port mapping
- Servers version:
  - v1beta2

Compute Ops Management - Resources

Servers
Groups & Settings
Jobs & Activities
Schedules
Webhooks

- Organization, policies, and settings configuration
- Group Sub-resources:
  – Devices
  – Compliance
- Groups version:
  – v1beta2
- Server settings version:
  – v1beta1

Compute Ops Management - Resources

Servers

Groups & Settings

Jobs & Activities

Schedules

Webhooks

- Jobs perform actions on resources
- Activities include events and tasks
- Job Definitions
  - https://developer.greenlake.hpe.com/docs/greenlake/services/compute-ops/jobs/
- Jobs version:
  - v1beta3
- Activities version:
  - v1beta2

Compute Ops Management - Resources

Servers

Groups & Settings

Jobs & Activities

Schedules

Webhooks

- Scheduling REST operations
- Schedules sub-resources:
  – History
- Schedules version:
  – v1beta2

Compute Ops Management - Resources

Servers
Groups & Settings
Jobs & Activities
Reports
Webhooks

- Register an HTTPS endpoint to receive events
- Event Webhook Guide
- Webhooks sub-resources:
  - Deliveries
- Webhooks version:
  - v1beta1
  - New compute-ops-mgmt API group

Demos

Jobs, Activities, Groups, Server Settings

How many regions does HPE GreenLake for Compute Ops Management support?

- 1
- 2
- 3
- 4
- 5

Any Questions?

Thank you

—

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