Institute for the Wireless Internet of Things

at Northeastern University

Colosseum First-time Users

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COLOSSEUM at Northeastern University

Colosseum Credentials

When an account is created, **2 pairs** of credentials are sent:

1. **Freshdesk** Credentials:
   - Access guides.
   - Open Tickets.
2. **Colosseum** Credentials:
   - Access Colosseum Experiment website.
   - SSH in the Colosseum environment.

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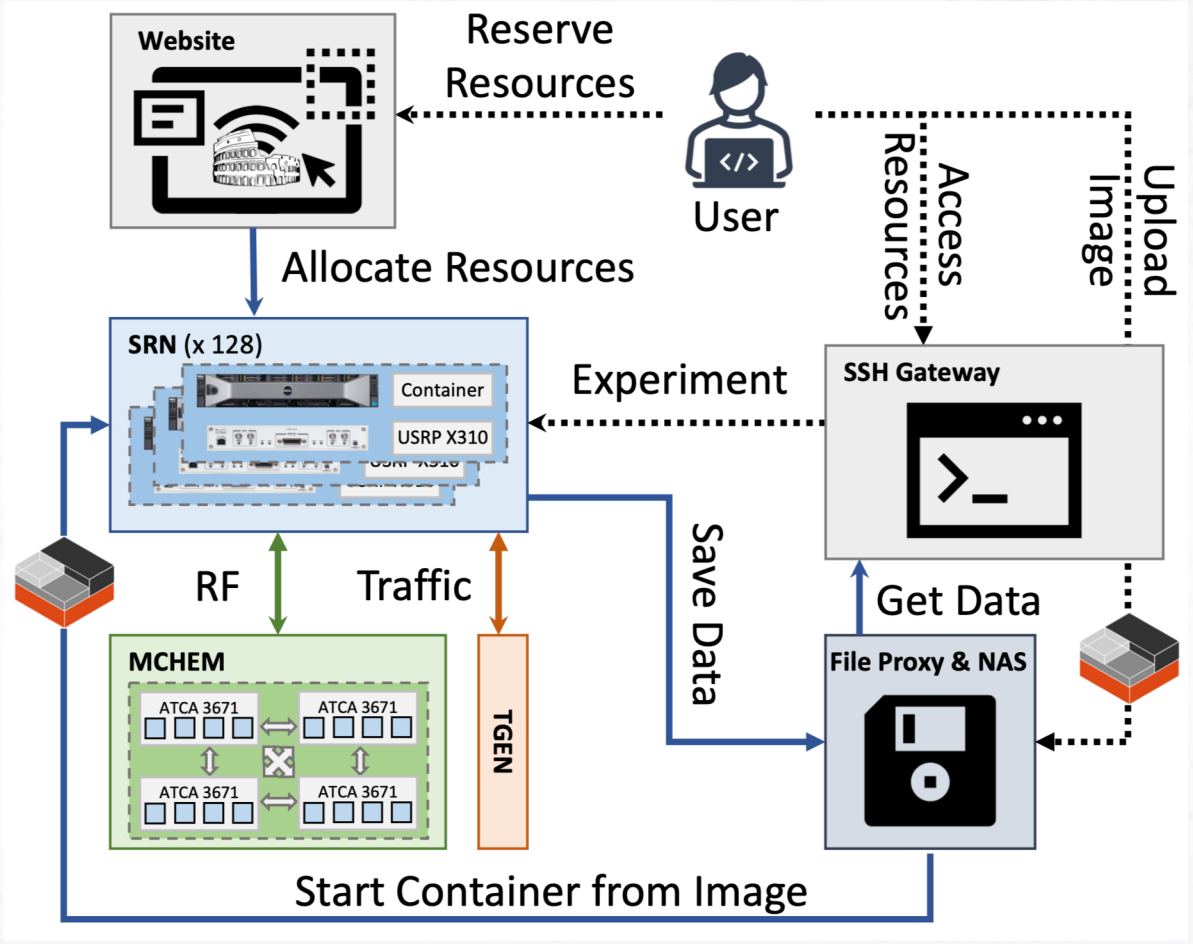
Colosseum Access Components

- **SSH gateway**
  - Allows users to access to the system
  - Allows users to log into the SRNs
- **File-proxy:**
  - Allows users to upload/download container images and configuration files
  - Allows users to retrieve experiment data



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SSH Setup (Linux/MAC)

Add the following to SSH config file: *~/.ssh/config*

```
# SSH Gateway
Host colosseum-gw
    Hostname gw.colosseum.net
    User <your-colosseum-user-name>
    IdentityFile <path-to-private-key-on-your-
local-machine>


# File Proxy Server
Host file-proxy
    User <your-colosseum-user-name>
    ProxyCommand ssh -W %h:%p colosseum-gw


# SRNs (User Container)
Host <your-colosseum-team-name>-???
    User root
    StrictHostKeyChecking no
    UserKnownHostsFile=/dev/null
    ProxyCommand ssh -W %h:%p colosseum-gw
```

```
# SSH Gateway
Host colosseum-gw
  Hostname gw.colosseum.net
  User <your-colosseum-user-name>
  IdentityFile <path-to-private-key-on-your-local-machine>

# File Proxy Server
Host file-proxy
  User <your-colosseum-user-name>
  ProxyCommand ssh -W %h:%p colosseum-gw

# SRNs (User Container)
Host <your-colosseum-team-name>-???
  User root
  StrictHostKeyChecking no
  UserKnownHostsFile=/dev/null
  ProxyCommand ssh -W %h:%p colosseum-gw
```

Replace these!

Note: Users need to copy their public key in the Colosseum portal

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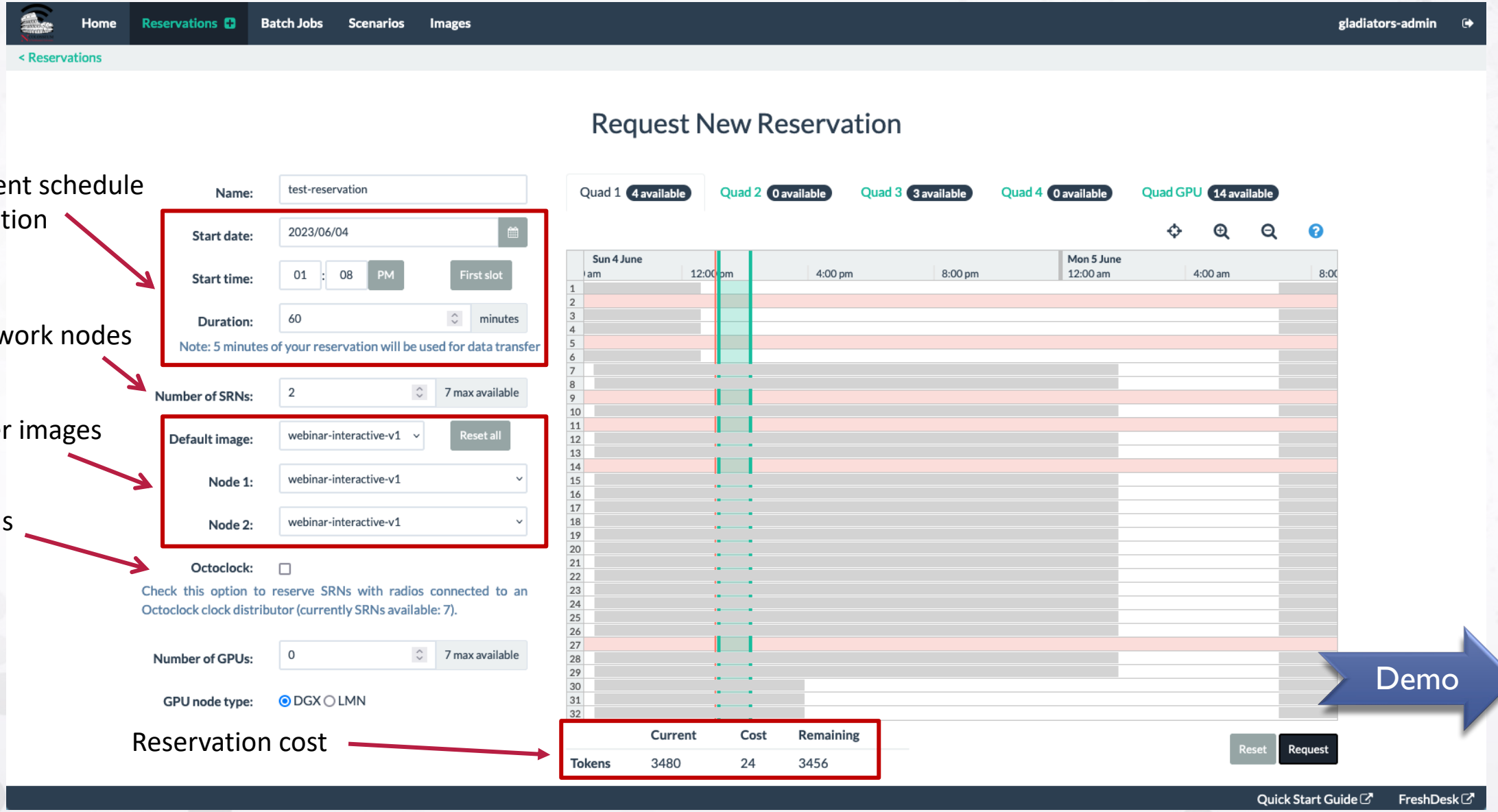
Reservation Modes

- **Interactive**: control Colosseum resources through the command line interface
- **Batch**: automatically perform (preconfigured) experiments on Colosseum

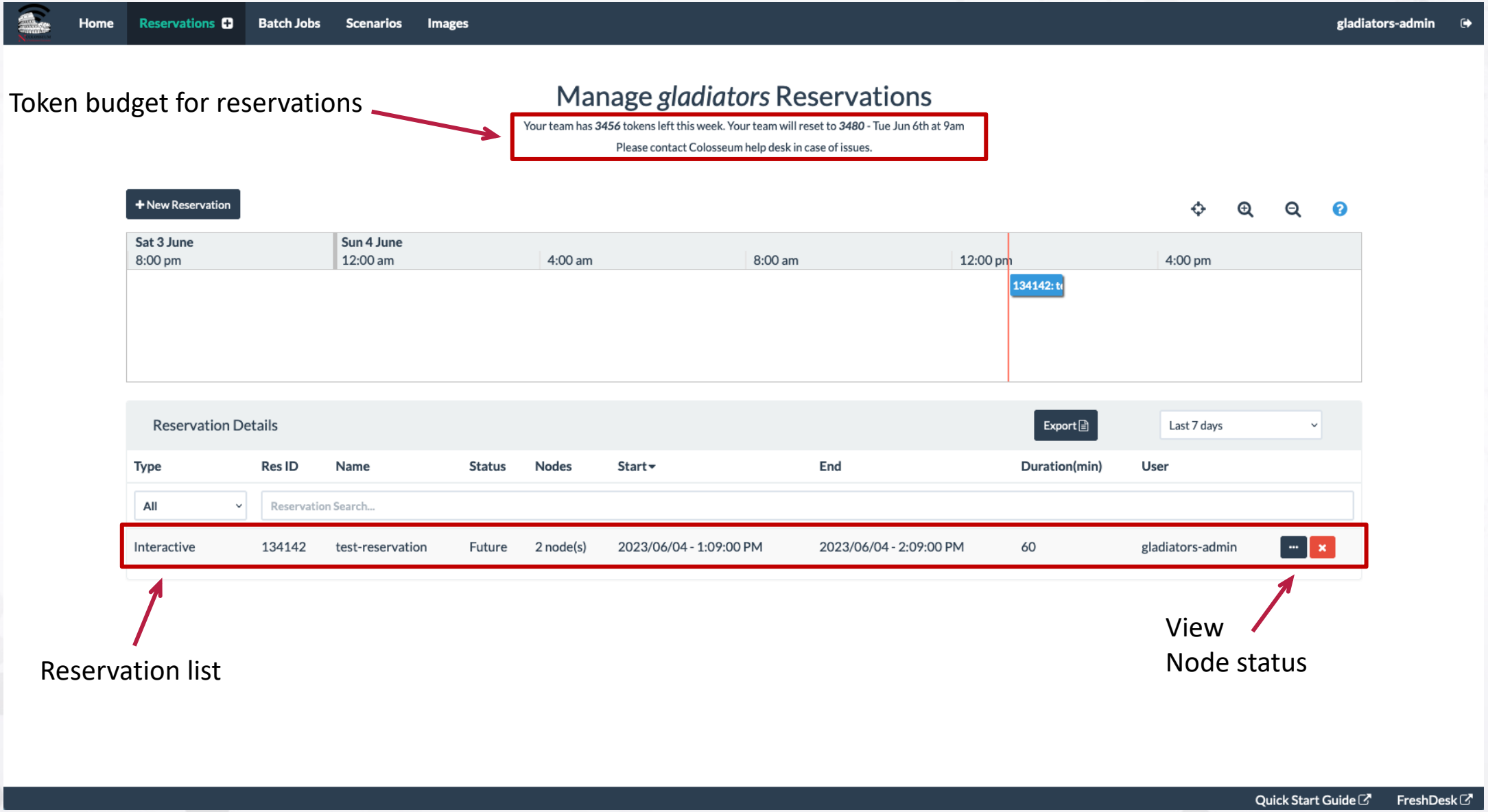
Interactive Mode	
Pros	**Cons**
Can verify status of MCHEM and TGEN before running experiment	Experiment must be run in real time and require user input to instantiate RF and TG scenarios.
Allows to debug programs on-the-fly	CLI mode uses more tokens per experiment than batch mode

Batch Mode	
Pros	**Cons**
Can be scheduled to run at a given time, without requiring specific user input during experiment runtime	The container cannot be accessed by the user
Automatically perform experiments and large data-collection campaigns	Takes a longer setup time

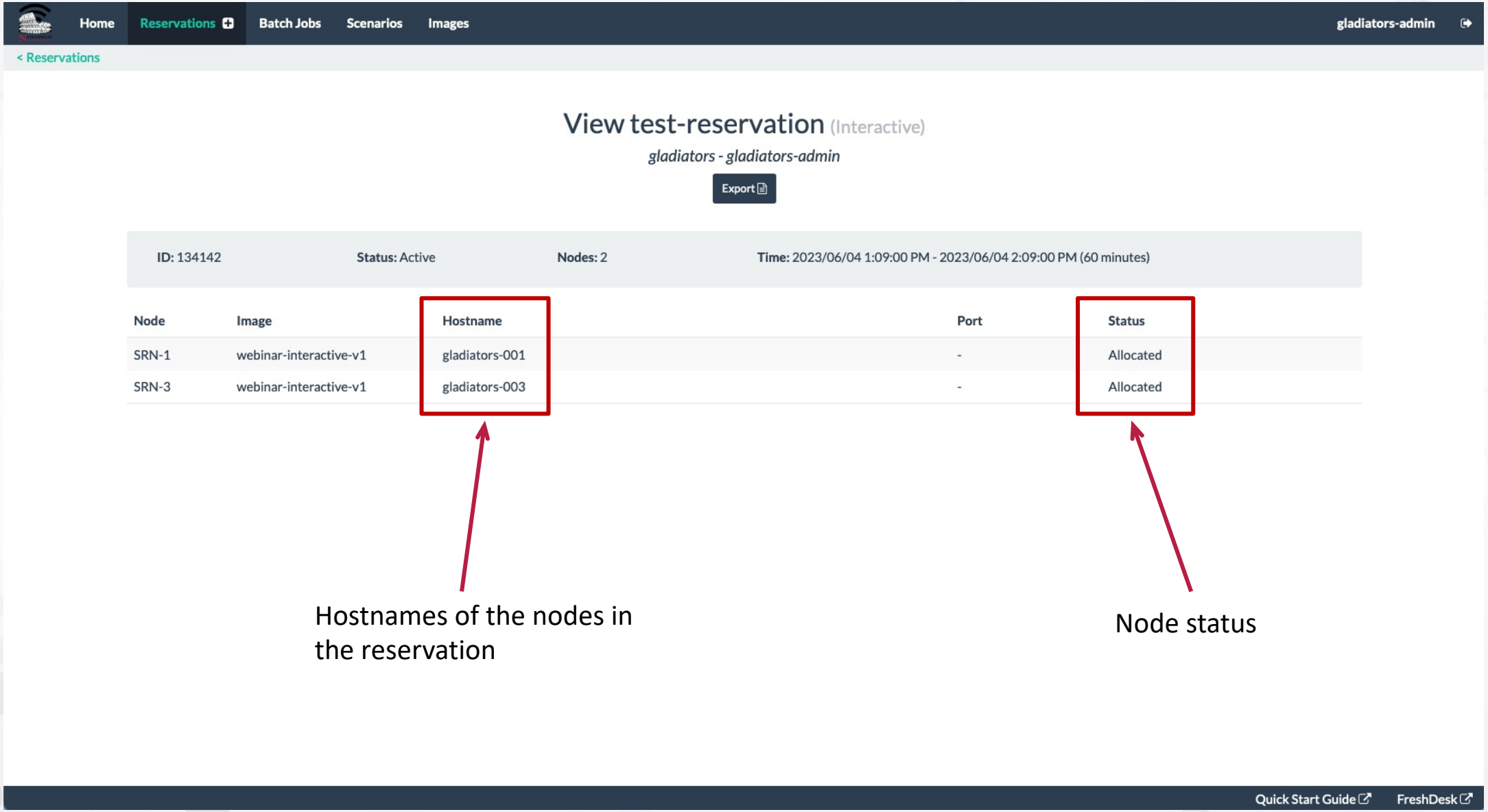
Start an Interactive Reservation



View Existing Reservations

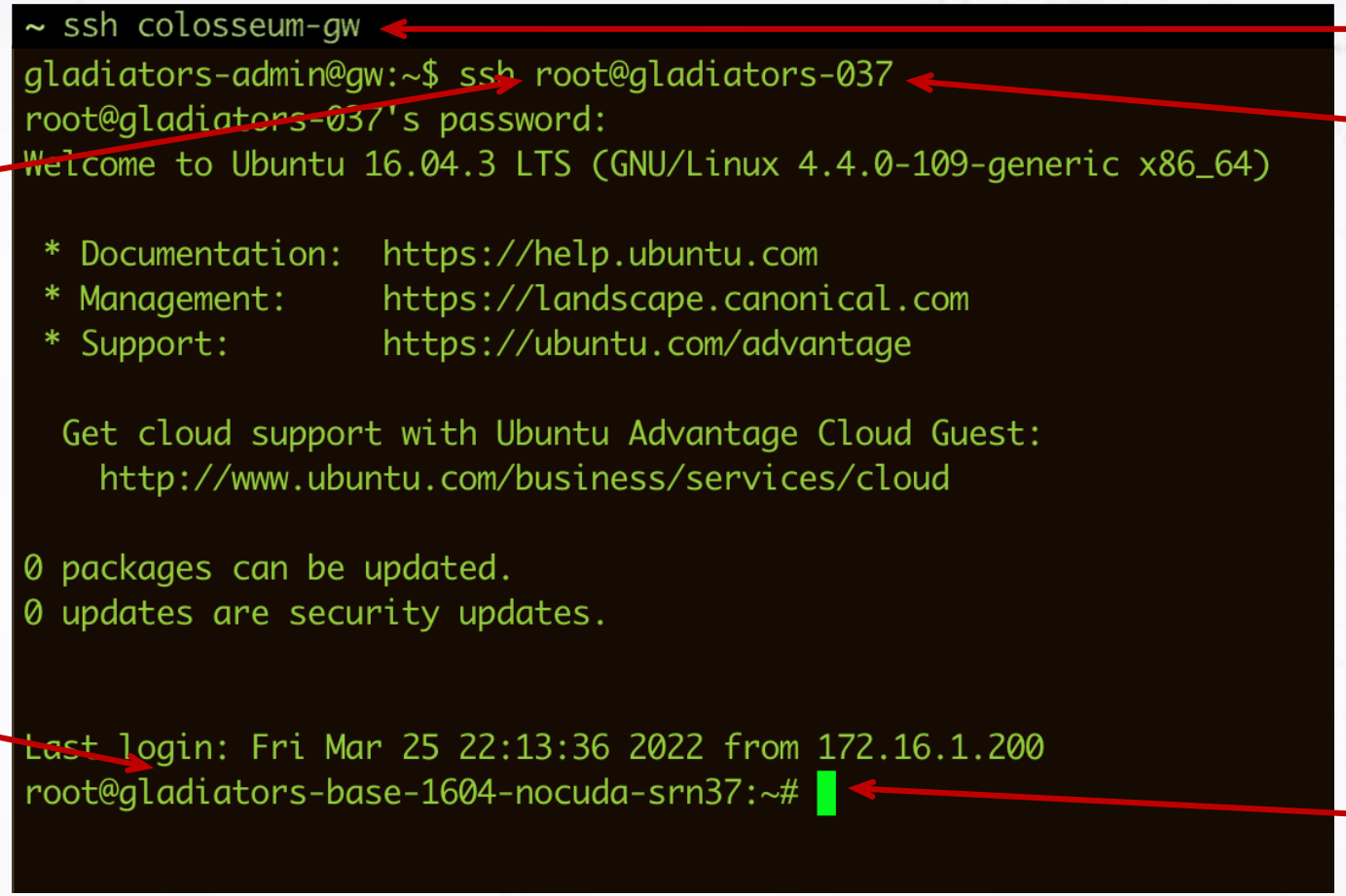


View Reservation Details



Login to an SRN

- Option 1:



Access Gateway

Node hostname

Access as root from gateway

Container name

Successfully logged-in!

- Option 2:

Node hostname

From your pc (need ssh config)

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Links to Colosseum Resources and Documentations

- Young Gladiator GitHub Page
  - https://github.com/colosseum-wiot/colosseum-school-2023
- Colosseum Home Page
  - http://colosseum.net
  - https://northeastern.edu/colosseum
- Colosseum Experiment Portal
  - https://experiments.colosseum.net
- Freshdesk Users Support
  - Knowledge Base: https://colosseumneu.freshdesk.com/support/solutions
  - Helpdesk: https://colosseumneu.freshdesk.com/support/tickets
- Colosseum Users Google Group
  - https://groups.google.com/g/colosseum-users

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Thank You!

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