Redfish Tools

Or How to Use Redfish in the Real World

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Redfish

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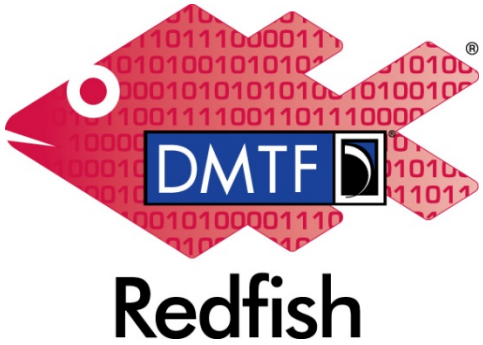
Agenda

- Why Redfish
- Redfish Tacklebox
- Redfish Trawler

Why Redfish?



To enable simple and secure management of modern hardware in data centers and large-scale enterprise environments.

Redfish is designed to replace older, less secure, and less efficient interfaces with a modern, RESTful API that uses JSON for data representation.

Enabling more advanced integrated management functions.

Benefits of Redfish

integrated management functions.

Redfish Tacklebox

- Contains a set of Python3 command line utilities to perform common management operations with a Redfish service
- Published to PyPI (The Python Package Index)
  - https://pypi.org/project/redfish-utilities/
- How to install:

```
> pip install redfish_utilities -U
```

Scripts in Redfish Tacklebox

- Discovery
  - rf_discover.py
- Firmware Update
  - rf_update.py
- Redfish Configuration
  - rf_accounts.py
  - rf_manager_config.py
  - rf_event_service.py
  - rf_licenses.py
  - rf_certificates.py
- System Management
  - rf_sys_inventory.py
  - rf_sensor_list.py
  - rf_logs.py
  - rf_power_reset.py
  - rf_boot_override.py
  - rf_virtual_media.py
  - rf_bios_settings.py
- Infrastructure Management
  - rf_power_equipment.py
  - rf_thermal_equipment.py

rf_accounts.py Examples

```
> rf_accounts.py -u root -p root -r https://192.168.1.100

  Name                  | Role                  | Locked      | Enabled
  root                  | Administrator         | False       | True

> rf_accounts.py -u root -p root -r https://192.168.1.100 \
      -add Bob BobsPassword ReadOnly
Adding new user 'Bob'

> rf_accounts.py -u root -p root -r https://192.168.1.100 \
      -setpassword root MyN3wP@ssword
Changing password of user 'root'
```

rf_boot_override.py Examples

```
> rf_boot_override.py -u root -p root -r https://192.168.1.100

Boot Override Settings:
  Target: None; Allowable Values: None, Pxe, Cd, Usb, Hdd, BiosSetup,
Utilities, Diags, SDCard, UefiTarget
  Enabled: Disabled
  Mode: UEFI
  UEFI Target:

> rf_boot_override.py -u root -p root -r https://192.168.1.100 \
      -t Pxe -reset
Setting a one time boot for Pxe...
Resetting the system...
```

Redfish Trawler

- Browser client (GUI) built on top of Flask to perform management operations with one or more Redfish services
  - Requires Python3
- How to install:

```
> git clone https://github.com/DMTF/Redfish-Trawler.git
> cd Redfish-Trawler
> pip install -r requirements.txt
```

- How to run:

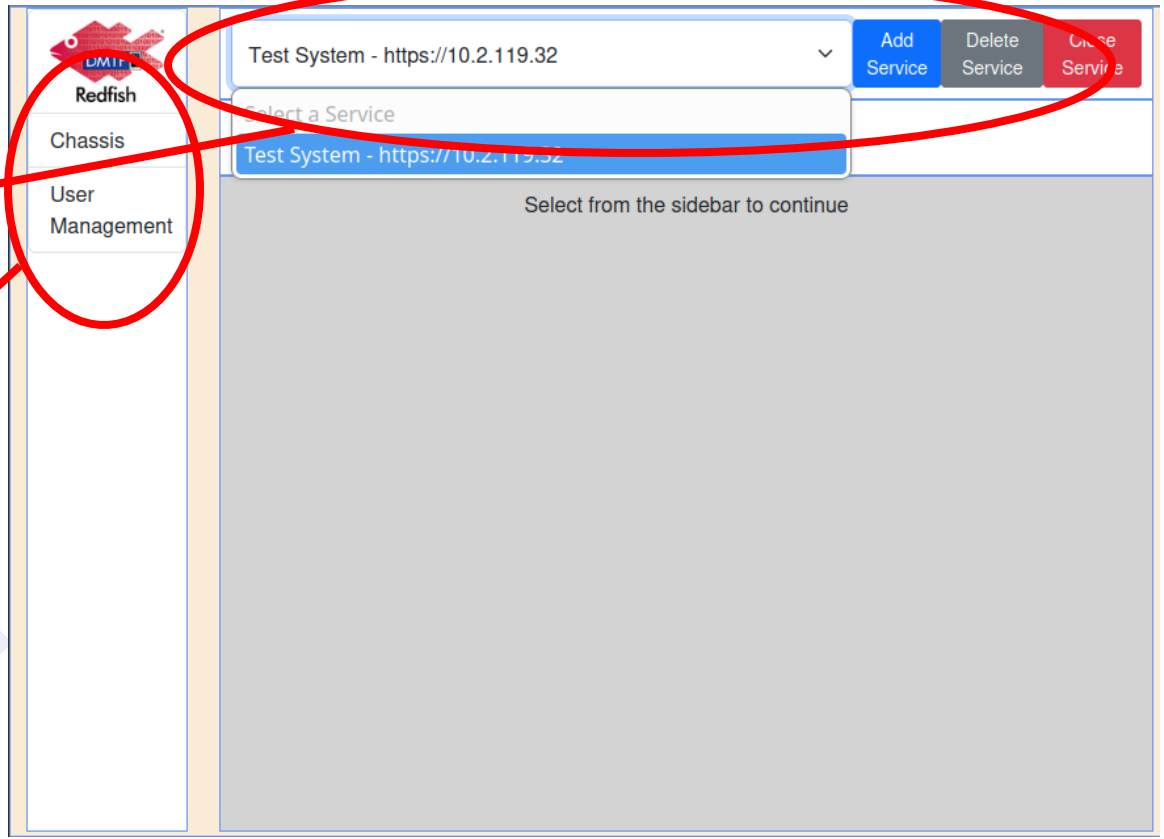
```
> flask --app redfish_trawler.py run
```

  - Open a browser, go to http://127.0.0.1:5000

Main Menu

Service Settings

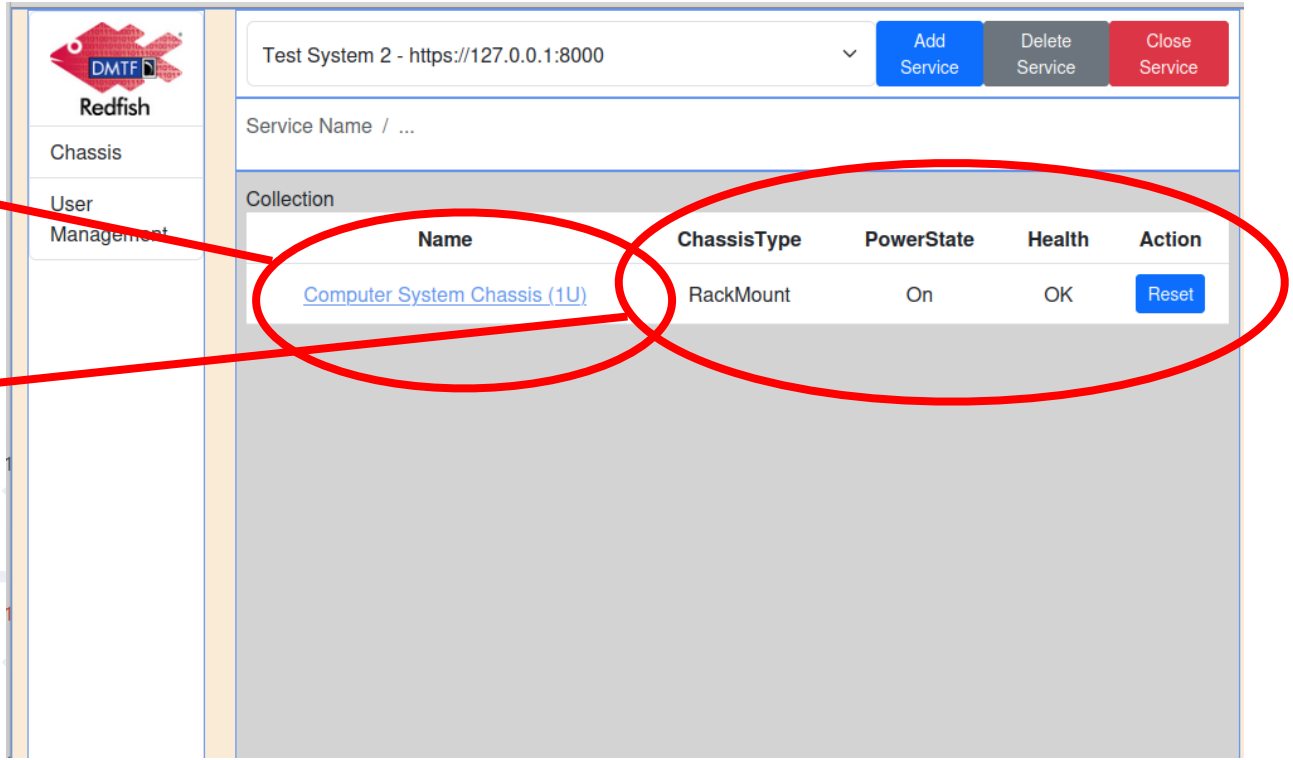
Management Pages



Chassis List

Chassis Link

Quick Info

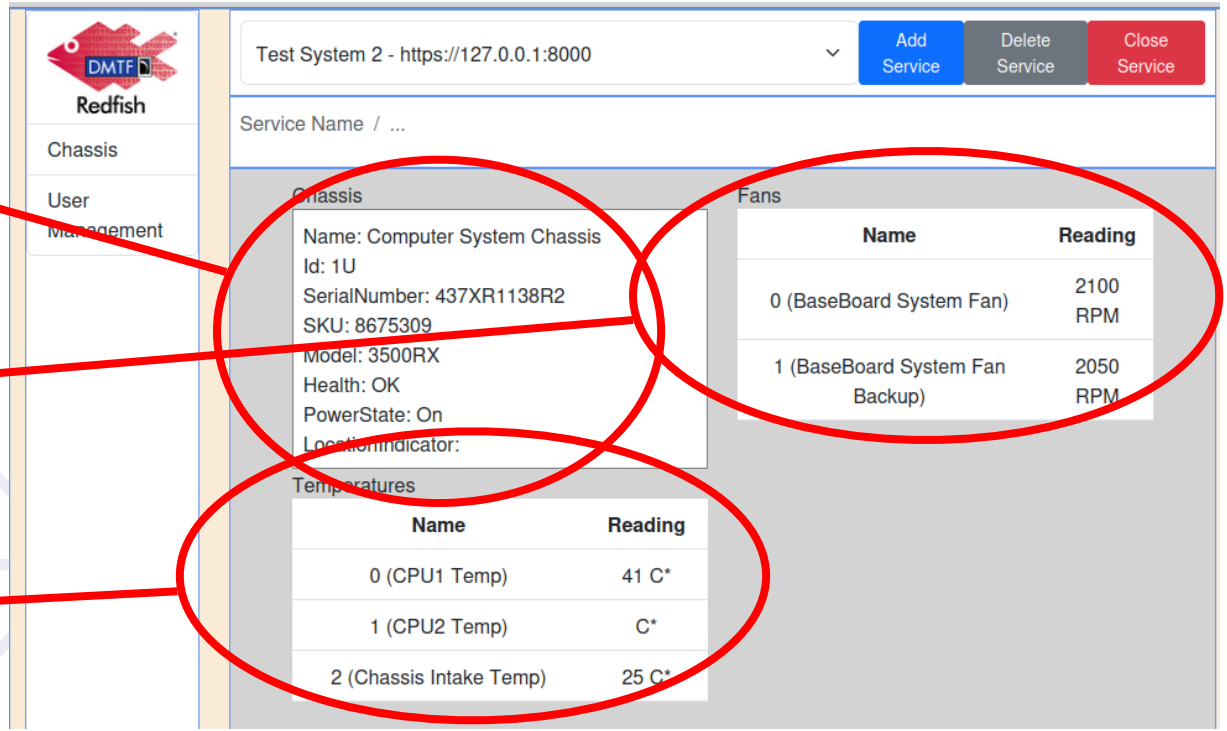


Chassis Info

Chassis Status

Fan Info

Temperature Info

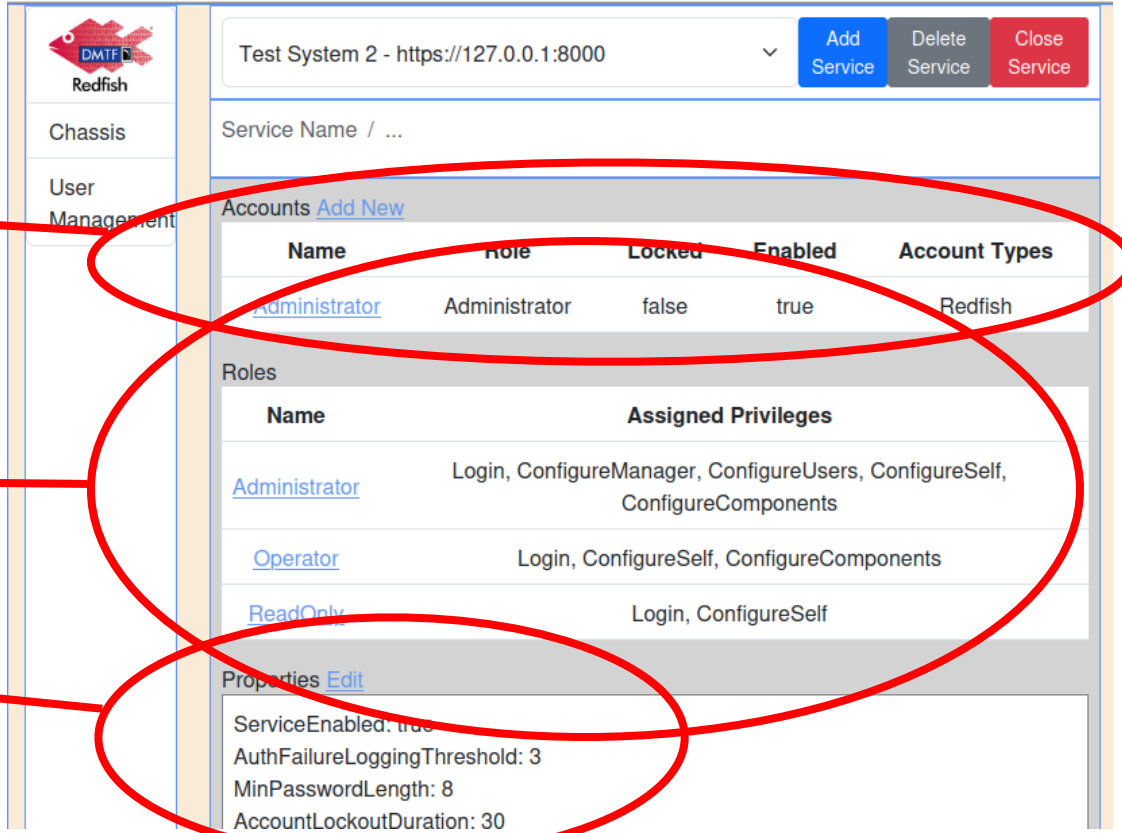


User Management

User Accounts

Role Info

Service Settings



Call to Action

- Try our client tools!
- Bugs, questions, feature requests?
  - File an issue on GitHub, or make a pull request
  - The Redfish Forum reviews issues and pull requests during meetings
- GitHub links
  - https://github.com/DMTF/Redfish-Tacklebox
  - https://github.com/DMTF/Redfish-Trawler

Thank you!

For more information,
visit us online at
dmtf.org

Visit the
Redfish Developers Hub at
redfish.dmtf.org