
ripple Documentation

Release 0.0.2

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CHAPTER 1

Overview

Deploying the Ripple agent on a device integrates it into a distributed data management fabric. Once installed, the agent is capable of monitoring the underlying file system for data events (e.g., file being created and modified). Using the management console (<https://ripple.globuscs.info/>) you can create custom rules comprised of triggers and actions.

You need a Globus (<https://www.globus.org/>) account in order to register an agent and log into the management console.

CHAPTER 2

QuickStart

1. Download Ripple:

```
$ git clone https://github.com/globus-labs/ripple.git
```

2. Install requirements:

```
$ pip3 install -r requirements.txt
```

3. Install Ripple:

```
$ python3 setup install
```

4. Run it:

```
$ ripple
```

5. Go to <https://ripple.globuscs.info/> and create rules

CHAPTER 3

Requirements

Ripple requires the following:

- Python 3.5+

For testing:

- nose

CHAPTER 4

Usage

Once the Ripple agent has been deployed on a device it will report itself to the cloud service. It can then be selected from the management website as an agent to register triggers and perform actions.

Management Website

<https://ripple.globuscs.info/>

The management website provides a user-friendly method of defining and managing rules and monitoring events. To use the website you must login with a Globus account. This will determine which agents would will have access to.

5.1 Create Rule

When creating a rule you define must provide a name, trigger, and action. The name of the rule is used in the Manage Rules tabs to identify your rule.

5.1.1 Triggers

A trigger defines the condition on which to invoke the associated action. The trigger must specify:

- An agent to operate on - such **as** your laptop.
- A service to use to monitor **for** events - e.g., the local file system.
- The **type** of event - file create, delete, modify, etc.
- And event specific parameters. These may be a directory **and** regex file pattern,
↳ matching **in** the case of file system events, **or** endpoints **in** the case of Globus,
↳ transfer events.

5.1.2 Actions

An action specifies how and what will be performed in response to an event that matches the trigger conditions. To define an action you must specify:

- An agent to perform the action.
- A service to execute the actions - e.g. the local file system, the cloud, **or** a
↳ batch system.
- The **type** of action to perform - such **as** a transfer **or** an email

- Action specific parameters - such **as** email parameters
- Target match & replace - regex to modify the trigger event condition.

The target match and replace fields allow your actions to be performed on a different target than the target that raised the event. For example, this could be used to perform an action on the directory containing a new file, rather than the file itself.

5.2 Manage Rules

The manage rules tab lets you enable and disable rules.

5.3 View Events

As events are detected they are reported to the cloud service and will be displayed in the events tab. Status updates (such as dispatching jobs and action completion) will also be displayed in the list of events.

6.1 Ripple v0.0.2

Improve reliability

This is the current implementation of Ripple.

Integrate the execution provider library.

6.2 Ripple v0.1.0

Improve user interface.

6.3 Ripple v0.2.0

Workflow technology

CHAPTER 7

Indices and tables

- `genindex`
- `modindex`
- `search`