# Forward Rewrite Cloudlet

Forward Rewrite is a Cloudlet, a value-added application which complements Akamai's core delivery solutions to solve specific business challenges. Cloudlets bring a site's business logic closer to the end user by placing it on the edge of the content delivery platform.

The Forward Rewrite Cloudlet helps customers create human-readable and search engine optimization-friendly (SEO-friendly) URLs for dynamically-generated pages based on in-bound request information.

Forward Rewrite provides:

- **Self-Service:** An easy-to-use user interface (UI) and OPEN APIs that provide self-service capabilities.
- **Flexible Rule Creation:** Using either the Cloudlets Policy Manager or the OPEN API, you can create rewrite rules that meet your business needs.
- **Faster Propagation Times:** The Cloudlets Policy Manager allows you to make changes to your configurations on the fly and then propagate those changes quickly.

How Forward Rewrite Works
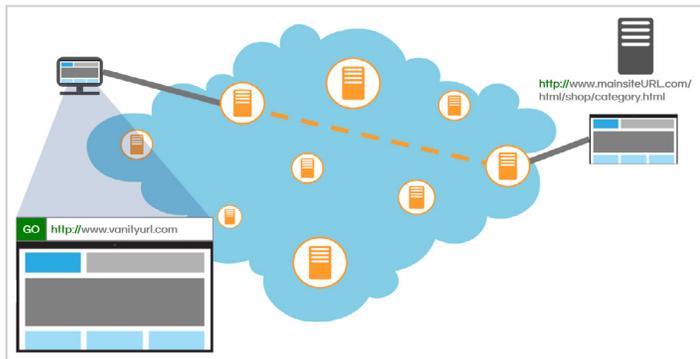
This diagram shows how Forward Rewrite works.

Based on the rules set up, Akamai rewrites the requested URL and returns a different asset from an alternate origin. The rewrite is not visible to the visitor: the URL shown to the visitor stays the same.

Forward Rewrite Configuration Overview

Once Forward Rewrite is added to your contract, you have to complete these tasks:

1. If using Cloudlets Origins with this Cloudlet, set them up in Property Manager. (See the *Forward Rewrite User Guide* for more information about Cloudlets Origins.)
1. In the Cloudlets Policy Manager, configure a Phased Release policy and rules, then activate the policy version. (See the *Cloudlets Quick Reference* for activation information.)
2. In Property Manager, select the appropriate property, set up the Phased Release behavior, and then activate the property.

Creating a Policy for Forward Rewrite
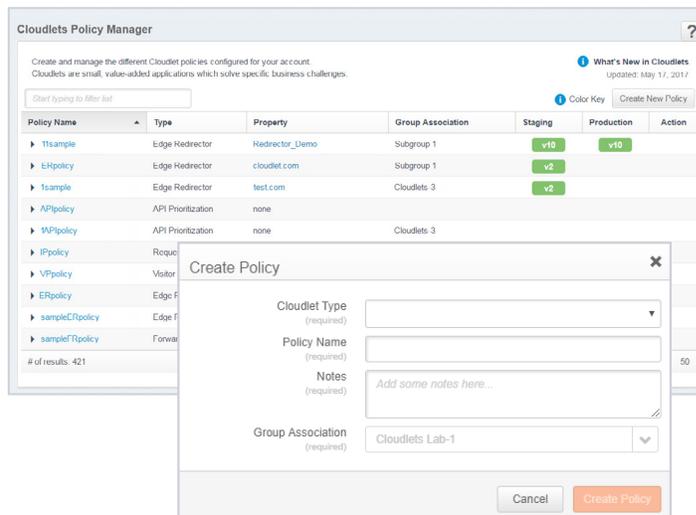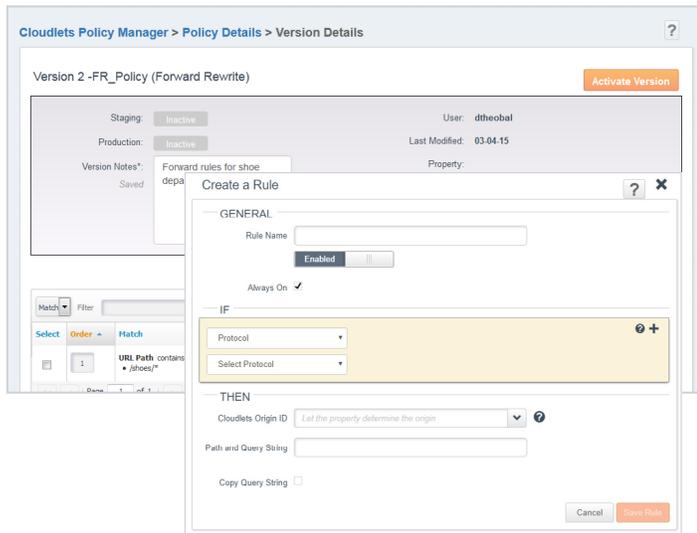

To create a policy for API Prioritization:

1. From the Luna Control Center, select **Configure ▸ Cloudlets ▸ Cloudlets Policy Manager**.
2. Select **Create New Policy**.
3. Complete the following fields:

Field	Entry
Cloudlet Type	Select **Forward Rewrite**.
Policy Name	Enter the name of the policy.
Notes	Enter a meaningful description for the policy.

4. Click **Create Policy**. The Policy Details page displays for new policy.

    Note: You can create multiple versions of a policy to meet different business needs.

Configuring Rules for Forward Rewrite

To configure rules for Forward Rewrite:

1. From the Luna Control Center, select **Configure ▸ Cloudlets ▸ Cloudlets Policy Manager**.

2. Click the name of the policy you want to add a rule to.

3. Click the policy version number you are adding rules to.

4. Select **Add Rule**.

5. Complete the following fields:

Field	Entry
General Fields	
Rule Name	Name this rule. This field is required.
Always On	Select if the rule is always applied.
Start Date/Time	If the rule is for a fixed time, enter the start date and time.
End Date/Time	If the rule is for a fixed time, enter the end date and time.
Match Fields	
Match Type	Select the type of match to use for this rule.
Operator	Select whether to use positive match criteria or negative match criteria.
Match Criteria	Enter the match criteria for this rule.
Case Sensitive	Select if the match criteria is case sensitive.
Action Fields	
Cloudlets Origin	Change the incoming request to use the origin you select. You have the option of choosing a Cloudlets Origin configured for the associated property, or letting the property decide which origin to use. **Note:** Only Cloudlets Origins defined within activated properties will display.
Path and QS	Enter the path and/or query string of the origin object to serve for the request. Type a forward slash (/) first.
Copy Query String	Select to include all query parameters from the source URL.

6. Click **Save Rule** once all changes are complete, then click **Save Changes** on the rule manager page.

Enabling Forward Rewrite in Property Manager

To enable Audience Segmentation in Property Manager:

1. From the Luna Control Center, select **Configure ▸ Manage Properties** (under **Property Manager**).

1. Navigate to the property you will be adding Forward Rewrite to.

3. Open the version of the property configuration, then select the default rule you want to add Forward Rewrite to.

4. Click **Add Behavior**, then select Forward Rewrite.

5. Set **Enable** to **On** and specify the appropriate policy in the **Policy Name** field.

6. Save your changes to the rule, then activate the newly-updated property.

Using Regular Expressions with Forward Rewrite

For Forward Rewrite you can use regular expressions (regex) to match on the fully qualified incoming request URL, and use regex capture groups to form the redirect URL.

The regex can be up to 256 characters to match on the inbound URL, excluding the port. Substitution patterns use the backslash character ("****") followed by a number to refer to the capture groups. For example, **\1** is the first capture group, **\2** is the second, etc.

Note: Cloudlets supports the RE2 regex library. See **https://github.com/google/re2/wiki/Syntax** for more information.

If you want to set up a rule for forwarding both HTTP and HTTPS traffic from the same inbound URL to a different outbound URL, you might set it up in the Cloudlets Policy Manager so that the Regular Expression value is **(?:http|https)://(?:[A-z0-9|\.]*)/(.*)** and the Redirect URL (substitution pattern) value is **/\1&extra_param=bar**. When this rule is activated, all requests to

http://www.example.com/path1/path2/home.html?query=foo would retrieve content from

http://www.example.com/path1/path2/home.html?query=foo&extra_param=bar without changing the URL.