



Gateway Bulletin GB-2014-01 Action Recommended New Feature: Ripple Names - The New Standard

Updated: August 14, 2014

A version of this bulletin was originally released on April 23, 2014. It has since been updated to reflect the current state of the Ripple Names Standard.

Ripple names is a new feature with the following benefits:

- Simple names to identify Ripple accounts.
- Streamlines the gateway onboarding process.
- Simplifies setting trustlines.

Ripple Labs is designing a system that will eventually be embedded into the Ripple network. Because protocol level changes are irreversible, we have decided to do an off-network implementation first.

Ripple Name Format: ~tim

A Ripple name identifies a user or gateway.

Ripple name specifications:

- Have 1-15 characters, but 1 and 2 character names are currently reserved.
- Have valid characters “a” through “z”, “0” through “9”, and a dash.
- Leading, trailing, and two or more adjacent dashes are not allowed.
- Case-insensitive.

Presenting Ripple names:

- Prefixed by the tilde ‘~’ character.
- Pronounced “Ripple Tim” when reading “~tim”.

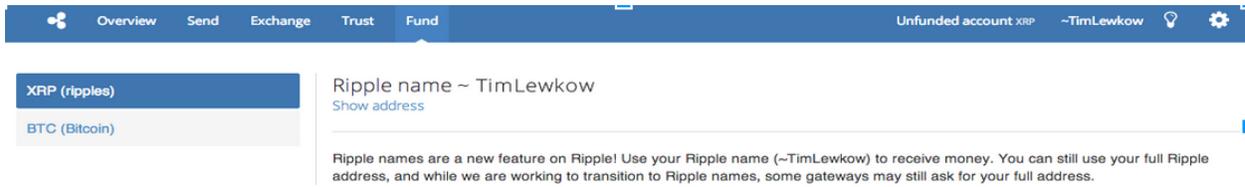
~tim instead of **rHb9CJAWyB4rj91VRWn96DkukG4bwdtyTh**

Ripple names should be allowed anywhere a Ripple address is currently specified.

Ripple addresses and [federation names](#) (like [bob@gateway.com](#)) are still supported.

Rollout: New Web Client

When users log in at www.RippleTrade.com they will be asked to choose a Ripple name to be associated with their account.



The new client utilizing Ripple names.

Gateways: Reserve your Ripple name now

Gateways should select and register Ripple names for each of their addresses.

Example Ripple name choices for Acme gateway

Ripple name	Description
acme	Cold wallet <i>Special care should be taken when naming the main gateway account (cold wallet) as this will be the name most commonly referenced by users.</i>
acme-hot	Hot wallet
acme-warm	Sole warm wallet
acme-warm-2	Multiple warm wallet scenario

Action Required

Using the instructions below, update your website to support Ripple names if necessary.

This is an experimental feature. Do not treat names as property as the System is subject to change.

Implementing Ripple Names

The current implementation of Ripple names is centralized through id.ripple.com, although Ripple plans to make this a decentralized service.

Any field that accepts a Ripple address should also accept a Ripple name.

Enter your Ripple name or address		Enter your Ripple name or address
justmoon	or	~justmoon

Ripple name lookup API

Use this API to lookup Ripple addresses for creating transactions or interacting with rippled.

Request:

GET <https://id.ripple.com/v1/user/justmoon>

Response:

```
{
  "username": "justmoon",
  "address": "rfbKLd1VLB3o6fpkhCJexckArjoMmBm2wG",
  "exists": true,
}
```

Fields:

- “exists”
 - True, if the Ripple name is registered.
 - False, if the Ripple name has not been registered.
 - Always returned.
- “address”
 - Contains the associated Ripple address.
 - Returned, if “exists” is true.
- “username”
 - Contains the specified Ripple name if exists is true.
- Additional fields are reserved.

Request:

GET <https://id.ripple.com/v1/user/rfbKLd1VLB3o6fpkhCJexckArjoMmBm2wG>

Response:

```
{
  "username": "justmoon",
  "address": "rfbKLd1VLB3o6fpkhCJexckArjoMmBm2wG",
  "exists": true,
}
```

Fields

- “exists”
 - True, if a Ripple name is registered for the Ripple address.
 - False, if address is either unfunded or misformatted.
 - Always returned.
- “address”
 - Contains the specified Ripple address.
 - Returned, if exists is true.
- “username”
 - Contains the associated Ripple name if “exists” is true.
- Additional fields are reserved.

Additional Resources

[Ripple Name Forum Post](#)

Identity on Ripple

April 23, 2014

Ripple Labs is making it easier to build on top of Ripple. Gateway developers commonly share two challenges in getting started. The first is the technical integration. We are working to make integration fast and easy by building Ripple REST (<https://dev.ripple.com/#riplerestapibeta>) and new tools, which we'll roll out soon.

The second challenge is compliance with local laws. Many countries regulate how companies can interact with money on the behalf of their customers. Beyond compliance with these laws, companies that transmit money must also assess their exposure to fraud. It is a heavy burden on gateways and developers to implement Know Your Customer (KYC) identity solutions.

Leveraging the distributed nature of Ripple, we realized we could help gateways with compliance by building a flexible and secure identity framework. The framework would allow gateways, developers, and other businesses building on top of Ripple to have an easier path to regulatory compliance as well as minimize their risk profile. A distributed identity system would also empower individuals to be in full control of who, if anyone, can see their personal, identifiable information.

The identity layer is a big project which will come in stages. We're learning from previous identity efforts, including Mozilla Persona (https://wiki.mozilla.org/Identity/Persona_AAR), and carefully considering their outcomes as we design Ripple's identity layer. We're also evaluating identity technologies that are gaining traction, such as OpenID Connect, and thinking about how to best leverage them.

Ripple Name

The first stage of Ripple identity is rolling out a unique namespace of Ripple names that will work in conjunction with the Ripple address system. Each gateway, user and developer will be able to reserve a Ripple name, which is unique and public, much like the current Ripple address.

A Ripple name is preceded by a '~'. For example, if your Ripple name is ~WorldGateway, other users can send you funds by using ~WorldGateway in the send field. They will also be able to see that funds were sent to them from ~WorldGateway. The Ripple name is case insensitive, so ~worldgateway works, too.

Identity Layer

The first step in the identity layer is rolling out Ripple names, but there is a lot more to come that will make it easier to operate a gateway, more secure to trade as a user, and simpler to develop products on top of Ripple.

More recognizable addresses

Just like visiting websites, it is easier to tell at a glance if you are visiting a site owned by Google if you visit <https://www.google.com> as opposed to <https://74.125.224.72/>. With the Ripple name, we are making it easier for users to know that they are sending to the correct destination and to trust that they have the correct address for a gateway when withdrawing funds from Ripple.

KYC and attestations

Gateway operators typically assume the responsibility of "know your customer" (KYC) (http://en.wikipedia.org/wiki/Know_your_customer), which is one part of assessing risk level. To comply with KYC regulations, gateways request personal information and identifying documents from their users. Gateways then know who is moving money through them, so they can file suspicious activity reports (http://en.wikipedia.org/wiki/Suspicious_activity_report) if they suspect that individuals are laundering funds. Reporting suspicious activity is often required by a country's, or even international, regulations.

We are looking at ways to build KYC and other risk assessment structures into Ripple, so gateways can implement high standard KYC with a few API calls. Users will have full control over which gateways they share information with, and how they share the information. A gateway can then accept, reject, or request more information from that user.

An early tool for KYC and risk assessment in development on Ripple is attestations. An attestation is when a third party attests to something being true about an authorized user of an account, or about the account itself. For example, a user, let's call her Alice, can request an attestation from another user, Bob, that her real name is Alice Doe. Bob, if he has sufficient evidence, can send an attestation transaction to Alice stating that "yes, this user's name is Alice Doe."

In a more complex example, Alice can request an attestation from an identity verification provider that is partnered with a gateway. If Alice's personal information and identity

documents are approved by the identity verification provider, then Alice will receive an attestation transaction from the identity verification provider stating, "Alice has been approved." Alice can take that approval message to any gateway that accepts that identity verification provider and show that the provider has already approved her documents, and she can then sign up with the gateway without having to send them further documentation.

The attestation only has to be true at that time. If the gateway checks on Alice's approval, and the identity verification provider sees that information has changed in Alice's file, then the provider can revoke the attestation. The gateway can then ask Alice to get re-approved.

OpenID Connect Authentication

Third party authentication has become standard practice for most social sites (e.g. sign in using Twitter), as well as some others. On Ripple, OpenID Connect authentication would allow users to pay for items on third party sites without revealing their payment credentials.

It will permit gateways and developers to hook into a user's Ripple account to process payments, or to enable entirely new services, all while ensuring the user retains complete control over her credentials.

Pre-transaction negotiations

In some cases, gateways and users will want to make sure that an account is within their legal jurisdiction or has an acceptable risk profile before performing any transactions.

Pre-transaction negotiations are, in a small manner, already possible, in the sense that a gateway or a user can decide to only send to a white-labeled list of Ripple addresses. However, it is a labor intensive and manual process.

An attestation system can automate the process and make pre-transaction negotiations easy. WorldGateway can say that it trusts users that have attestations from a particular provider, or set of providers, that it has a partnership with. This trusted handshake allows WorldGateway to know that it is dealing with a verified third party.

Implementation

We are designing a system that will eventually be embedded into the the Ripple network. Because protocol level changes are irreversible, we have decided to do an off network implementation first. We can use this data to make informed decisions about the usability of Ripple names. This implementation involves the web client and partners who are interested in making Ripple easier to use and more secure.

Building an identity system into Ripple is a multistage project. We've just begun the first stage and will continue to share updates as they unfold. In the meantime, we welcome your feedback and input.