FAQ - The Relay Project

(ask a question and it will be answered)

WHAT IS RELAY?

**Relay** is the project name for the free, [**socket-based**](https://en.wikipedia.org/wiki/WebSocket), Social Content Network known as *The Relay Network*, which is meant to be accessed by a *Client*, like a modern browser. The Relay *Client* is written in pure JavaScript and requires no download or installation to use.

WHAT DOES ‘SOCKET-BASED’ MEAN?

The Relay **Network**and **Client** are built on ‘[**WebSocket**](https://developer.mozilla.org/en-US/docs/Web/API/WebSockets_API) technology’ which is a recent protocol meant for modern browsers. While other websites and social networks load content via slow HTTP requests, which requires the browser to refresh the entire page, the Relay Client maintains an *always-on,* two-way socket connection providing near-instant browsing and a faster, more reliable user experience.

WHAT IS A SOCIAL CONTENT NETWORK?

While a Social Network allows members to communicate, a **Social *Content* Network** allows members to create and publish original *content*, build entire websites, run a shop, or maybe even just customize a public profile page. All Social Content is either generated by forms or written from scratch in HTML5 (or both). With Relay, there are many options available to the user which were only imagined before. For example, Social Content can also be *functional* and provide software as a service ([SAAS](https://en.wikipedia.org/wiki/Software_as_a_service)). All of this is accomplished by *The Relay Network* employing the powers of PGP Encryption.

WHAT IS ‘PGP’ ENCRYPTION?

*‘*[***Pretty Good Privacy***](https://en.wikipedia.org/wiki/Pretty_Good_Privacy)’ (**PGP**) is an encryption protocol developed in 1991 by Philip R. Zimmermann, Jr. that allows [**end-to-end**](https://en.wikipedia.org/wiki/End-to-end_principle) client encryption and verification features used in managing all KeySpace Content. Encryption performed on the Client cannot be viewed, tampered with, or decrypted by anyone who is not authorized by that Client. PGP gives the end user absolute control over their **KeySpace Content**.

WHAT IS RELAY KEYSPACE CONTENT?

A **Relay KeySpace** describes all content signed by a [**PGP Private Key**](https://en.wikipedia.org/wiki/Pretty_Good_Privacy) and published on the network. *As a signature cannot be faked*, all content in the KeySpace is *secured* by the creator’s (user) **PGP Identity** even after being published and relayed across the network. Therefore content signed by a PGP Identity exists in the *KeySpace* corresponding with that identity and cannot be changed by anyone else. Additionally, any users viewing *KeySpace* content can verify each content entry against that *KeySpace’s* PGP Public Key.

# WHAT ARE SOME EXAMPLES OF SOCIAL CONTENT?

* Published ‘Feed’ posts, pictures, videos, hyperlinks, etc.
* HTML5 profile pages, about pages, blogs, etc.
* e-Business cards & pages
* e-Commerce, shopping carts, etc.
* **Secret Ballot** or **Public Call-To-Action**
* Forums, replies, signatures, rating & like features, etc.
* Classified ads for services, sales, housing, etc.

# WHO IS SEEING THIS CONTENT?

Social Content is viewed in two ways. Firstly, anyone who’s subscribed to you or the channel you’re publishing on will see your published content on their feed, and visa versa. Secondly, KeySpace Content can be browsed through, similar to how websites operate. KeySpace Content can be organized into a multi-page website of unlimited size. Users may browse KeySpace content in *maximized* or full-page view for a classic browsing experience. Using WebSocket technology, KeySpace content consumed on the Relay Network is loaded near-instantly for an impressive and responsive browsing experience. *No more slow page loads.*

IS VIEWING CONTENT ON THE RELAY NETWORK SAFE?

Relay utilizes the latest in HTML5. In order to view Social Content on the Relay Network, you must “Enter the KeySpace” of the Host which the content belongs to. This process is accomplished in the background by adding the Host’s PGP Public Key Identity to the Relay Client’s keyring. PGP Ids are added any time a user subscribes or adds a contact to their contact list. Once a PGP Public Key is obtained, it is used by the Relay Client to *verify* KeySpace content on the fly as it is consumed. In other words, we guarantee that the content you’re viewing comes from the user who created it.

HOW DO I KNOW CONTENT CAN’T BE TAMPERED WITH?

PGP Signatures provide a way to validate exact content against a PGP Public Key Identity. This happens instantly and automatically on the Relay Client. Any content that isn’t verified will be ignored. Utilizing PGP Signature [Verification](https://www.gnupg.org/gph/en/manual/x135.html), The Relay Network automatically ensures nobody can change your published Social Content but you.

WHERE IS MY INFORMATION STORED?

As there is no central database in the Relay Network, all KeySpace information is stored on the Client (your browser). Only *published* KeySpace content is received and rebroadcasted by Relay servers or anywhere else. Once *published*, content is *relayed* across the network, and *cached* along the way. *Cached* content is defined as published KeySpace content that is temporarily (or permanently) stored on each client and server that encounters it. A *single* client with a *cache* of KeySpace content can serve, through Relay cache servers, an unlimited amount of visitors without encountering scaling issues or bandwidth limitations.

WHO OWNS RELAY?

In short, nobody and everybody. Relay will be licensed under a new type of Software License that will be known as Community Source. Relay is owned and maintained by the community that uses it and is therefore *unownable*. Anyone may clone the source code, make edits, submit fixes and original contributions, and become a part of Relay history.

WHY CAN’T RELAY BE OWNED?

In order for the Relay Network to exist as long as possible, it cannot be subject to [***profit motive***](https://en.wikipedia.org/wiki/Profit_motive). While there is an abundance of lucrative financial opportunities made available by the new platform, no component of the platform itself may ever be sold, shelved, repurposed, or rebranded without the community’s direct involvement and consent.

HOW ARE COMMUNITY DECISIONS MADE?

Public votes can be used to organize ideas, make decisions, or feel out public opinion. Anyone can create a *Secret Ballot* with Relay for any reason at any time; however, a tally result is only as good as the reputation of the host of that vote. Therefore, in order to be taken seriously by other users on the Relay Network, a host must build and maintain a strong *host reputation*, and adhere to the high standards of transparency, objectivity, inclusivity, and respect.

WHAT IS PARKING TO RELAY?

This is a feature made possible by the Relay Network Cache Servers. Each server caches KeySpace content indefinitely, even if the publisher’s client is offline. This means one can host a website on Relay for free forever, and only pay for the cost of buying the domain.

HOW ABOUT SEO?

[**Search Engine Optimization**](https://en.wikipedia.org/wiki/Search_engine_optimization) (SEO) may apply to parked domains that use Relay for hosting, however content available on the Relay Network is not exposed to the existing internet, and won’t be seen by SEO spiders.

WHAT ARE RELAY TEAM’S CROWDFUNDING GOALS?

Relay is clearly an ambitious project and as such, the Relay team is preparing to begin crowdfunding to bring Relay from concept to reality. Funding raised will be prioritized to the following goals:

* **Fund the first network of public Relay servers around the world to facilitate the Relay Beta launch.**Servers will be added based on usage needs as the Beta membership grows. Since The Relay Network is free, long-term funding for servers is necessary until servers become self-reliant (via donations or contributed hardware). Relay servers are purposed with *centralizing* communication and will require long-term server funding to ensure *network cohesion* on the long-term.
* **Recruit and organize the first team of contributors.**   
  This team will gradually take over development of relay from the original founders, and the transition will be organized in an inclusive and democratic manner. Examples of contribution include programming (javascript), design (css, png), content (html5), translation, quality assurance, documentation, and legal work. Examples of *core* Primary Projects that will become part of Relay include website templates, profile tools, shopping carts, democracy tools, and IRC features. Examples of *non-core* Secondary Projects include games, apps, scripts, themes, and UI tools. In order to volunteer for recruitment, registrants are required to make a $1 or greater donation. This ensures the first pool of registrants are using their real names, and are serious about helping.
* **Fund awareness and legal defense of The Relay Network.**  
  In order to assure the long-term survival of The Relay Network, efforts should be made to inform potential users of the differences between Relay and corporate-owned software. The Relay Development Team works for free and does not enjoy the security of being defended (legally and otherwise) by a rich, powerful corporation. The project is therefore vulnerable to a range of competitive tactics employed by the private sector and will require a measure of legal counsel to ensure the project can defend itself on the long-term.
* **Integrate The Relay Network into existing networks and infrastructure.**Given adequate funding, it becomes possible to port the Relay Client to other software platforms like Android, iOS, Facebook, or even fund exciting community endeavors such as a low-cost Relay Phone. Relay is not a [***walled garden***](https://en.wikipedia.org/wiki/Closed_platform)and aims to seek integration with anything and everything.

HOW CAN I DONATE TO THE PROJECT?

Use our BountySource crowd-funding page to donate in USD or bitcoin!

<https://www.bountysource.com/teams/relay-project>

HOW CAN I FUND A NEW FEATURE I WANT TO SEE IN RELAY?

Anyone can create a funding request for a new Relay feature they would like to see. In order to create a bounty for a feature you want to fund, follow these instructions:

1. Find or create an Issue for your new bounty  
   <https://github.com/clevertree/relay/issues>
2. Create a bounty on that issue at bountysource.com:  
   <https://www.bountysource.com/>  
     
   Tutorial:  
   <https://github.com/bountysource/core/wiki/How-To---Post-a-Bounty>
3. Developers will see your bounty and attempt to contribute the feature in order to claim your bounty.  
   Example:  
   <https://www.bountysource.com/issues/28668606-feature-android-host-app>

WHAT IS THE RELAY BETA?

The Relay Beta is the first public launch of Relay for testing purposes. Only members with an invite will be able to connect to The Relay Network. Members are given a limited set of invites to invite anyone they wish. Upon the conclusion of the Beta, The Relay Network will allow unlimited invites for all users indefinitely.

WHAT ARE NETWORK INVITES?

The Relay Network requires an invite to register on the network. During the Beta, invites are limited. This is necessary for testing purposes in order to grow the network with a measured approach. Invites may be obtained from registered users or by making a donation. Invites are required in order to meet the following goals:

* **Reduce registration fraud.**  
  Anyone who makes a donation will receive a priority invite to The Relay Network. This ensures the first pool of users are serious about early adoption and reduces the potential for abuse accounts. By requiring invites, the likelihood of multiple registrations and *identity fraud* are significantly reduced.
* **Build a *Reputation Tree*.**The only way to use The Relay Network is to be invited to register. This makes every user *responsible* for each member they invite. Abuse committed under invited accounts might cause the invitor account to be flagged for abuse as well. Instances of large-scale abuse can be flagged at the source, rather than flagging each individual account on the *Reputation Tree*.
* **Facilitate Measured network growth**.  
  By controlling the number of activated invites, server performance can be observed. This facilitates a steady network growth during testing. Invites will be prioritized and batched in groups. Users will be notified when their invite is ready

HOW DO I CONTRIBUTE?

Donate! Whether you’re looking to throw down your skills, or just want to be an early adopter, start with a small (or large) donation. Making a donation is also the best way to signal a serious bid for contribution. Simply select the appropriate tier when making a donation to indicate interest in contributing to relay. Contributors will gradually take over [development](https://github.com/Protricity/relay) of relay from the original founders, and the transition will be organized in an inclusive and democratic manner. Examples of contribution include programming (javascript), design (css, png), content (html5), translation, quality assurance, documentation, and legal work. Examples of *core* Primary Projects that will become part of Relay include website templates, profile tools, shopping carts, democracy tools, and IRC features. Examples of *non-core* Secondary Projects include games, apps, scripts, themes, and UI tools. In order to volunteer for recruitment, registrants are required to make a $1 or greater donation. This ensures the first pool of registrants are using their real names, and are serious about helping.

Feature Status:

<https://github.com/clevertree/relay/issues>

HOW DO YOU COMBAT ANONYMOUS ABUSE?

TODO: donate/invite allows us to trace abuse to identifiable accounts. Free users can’t create public channels, only join existing channels and host direct peer-to-peer services

DO YOU HAVE A POLITICAL POSITION?

If the vision behind Relay can be attributed a political position on any issue, it would likely be that all parties to that issue should enter into inclusive public dialog using tools of democratic *best practice* available (like relay) so that every last voice is counted, every plan has time to be vetted, and every conceivable concern given a chance to surface. As such, Relay is *nonpartisan*.