ByRep Protocol Documentation (V1)

Introduction

Overview

ByRep Protocol is a decentralized reputation layer for Web3.

The protocol transforms on-chain behavior into portable, verifiable reputation that follows users across applications, protocols, communities, and ecosystems. ByRep enables participants to establish credibility through historical actions rather than platform-specific status, social influence, or isolated activity records.

ByRep is built on a simple principle:

Trust should be earned, measurable, and portable.

Through a unified identity and reputation framework, ByRep allows users to build a reputation profile that can be consumed by applications, marketplaces, protocols, communities, and other participants throughout Web3.

Mission

To establish trust as a native primitive of Web3 through portable, verifiable, and transparent reputation.

Vision

A Web3 ecosystem where trust is not fragmented across platforms, protocols, or blockchains.

Every participant possesses a unified reputation profile that reflects historical behavior, expertise, contribution, reliability, and integrity, enabling applications and communities to make informed decisions.

Problem Statement

Trust Is Fragmented in Web3

Web3 has enabled permissionless participation at a global scale. Anyone can create a wallet, interact with protocols, trade assets, and contribute to decentralized ecosystems.

Despite this openness, trust remains fragmented.

Participants build credibility through their actions, but that credibility is rarely portable across applications, protocols, or chains. A trader with years of successful activity, a contributor with meaningful ecosystem

participation, or a user with a long history of responsible behavior often appears indistinguishable from a newly created wallet.

This creates a fundamental challenge for the ecosystem.

Current Limitations

Reputation Is Not Portable

Most reputation systems remain confined to individual platforms.

Users repeatedly rebuild credibility whenever they join a new application, community, or ecosystem.

Identity Fragmentation

Participants commonly operate across multiple wallets and protocols.

As activity becomes distributed, trust signals become fragmented.

Lack of Human Verification

Many systems struggle to distinguish unique participants from duplicate identities.

This increases exposure to Sybil attacks and reduces confidence in reputation systems.

Information Asymmetry

Applications frequently lack sufficient context when evaluating users.

Without reliable reputation signals, trust decisions become difficult and inconsistent.

The Need For A Reputation Layer

Web3 requires a shared reputation infrastructure capable of transforming historical behavior into portable and verifiable trust.

ByRep Protocol exists to provide that infrastructure.

Protocol Overview

ByRep Protocol is a decentralized reputation layer for Web3.

The protocol aggregates supported on-chain activity and transforms it into structured reputation signals that can be consumed by both users and applications.

ByRep introduces a unified identity model where reputation belongs to a verified human participant rather than an individual wallet.

The protocol is built around three core components:

Identity Layer

Every participant receives a ByRep Identity after successful human verification.

Multiple wallets may be linked to a single identity.

Reputation Layer

Supported activity contributes toward reputation.

Reputation is portable, verifiable, and publicly accessible.

Integration Layer

Applications can access ByRep reputation through public profiles, APIs, and future smart contract integrations.

ByRep does not replace existing applications.

It serves as infrastructure that enables trust-aware applications across Web3.

ByRep Identity

Overview

A ByRep Identity is the primary reputation entity within the protocol.

Reputation belongs to the identity rather than any individual wallet.

One Human, One Identity

Each verified human participant may possess only one ByRep Identity.

This principle strengthens trust, improves reputation quality, and reduces identity fragmentation.

Multi-Wallet Support

Participants may link multiple wallets to a single identity.

All supported activity generated by linked wallets contributes to the same reputation profile.

Permanent Wallet Linking

Once a wallet has been linked to a ByRep Identity, the association becomes permanent.

This prevents reputation laundering and preserves historical accountability.

Identity Ownership

The participant remains the owner of their ByRep Identity.

Reputation follows the identity across supported ecosystems and applications.

Human Verification

Why Verification Exists

Trust requires uniqueness.

ByRep Protocol enforces a one-human-one-identity model to improve reputation quality and reduce Sybil behavior.

Verification Requirement

Human verification is mandatory before a ByRep Identity can be created.

Participants who fail verification are not eligible to participate in the protocol.

Privacy

Verification information remains private.

Personal information is never exposed through public profiles, APIs, or protocol interfaces.

Verification Providers

ByRep utilizes approved third-party verification providers to validate participant eligibility.

Verification providers may evolve over time as the protocol grows.

Public Pseudonymity

Participants may remain publicly pseudonymous while maintaining a verified identity within the protocol.

Reputation Framework

Overview

Reputation represents a participant's historical behavior within supported ecosystems.

The protocol transforms activity into structured reputation signals that can be consumed by users and applications.

Reputation Principles

Reputation Must Be Earned

Reputation is earned through behavior rather than ownership, influence, or capital.

Quality Over Volume

The protocol prioritizes quality and consistency over raw activity volume.

Public Reputation

Reputation outcomes are publicly visible.

Portable Reputation

Reputation belongs to the participant rather than any individual application or chain.

Explainable Reputation

Participants should be able to understand the primary factors contributing to their reputation.

Reputation Characteristics

Reputation begins at zero.

Reputation can increase or decrease.

Reputation is non-transferable.

Reputation is non-delegable.

Reputation is non-saleable.

Reputation may partially decay over time.

Reputation follows the participant across supported ecosystems.

Reputation Dimensions

ByRep evaluates participants across five dimensions:

Trust

Measures trustworthiness based on historical behavior.

Expertise

Measures demonstrated competence within supported domains.

Contribution

Measures value created for protocols, communities, and ecosystems.

Reliability

Measures consistency and long-term participation.

Integrity

Measures ethical behavior and resistance to malicious activity.

Reputation Sources

ByRep expands reputation coverage through phased releases.

Phase 1 — Trading Activity

The initial version of the protocol evaluates supported trading activity.

The protocol prioritizes:

Consistency

Quality

Historical behavior

Long-term participation

The protocol does not directly reward raw trading volume.

Phase 2 — NFT Activity

Future releases will incorporate NFT-related reputation signals.

Potential areas include:

Collection participation

Holding behavior

Marketplace activity

Creator activity

Phase 3 — Prediction Market Activity

Future releases will incorporate prediction market participation and performance.

Potential areas include:

Participation quality

Accuracy

Historical consistency

Future Expansion

Additional reputation sources may include:

Governance Participation

Protocol Contributions

DeFi Activity

Community Reputation Signals

Ecosystem Integrations

Reputation Transparency

Public Information

ByRep makes reputation information publicly accessible.

Examples include:

Overall Reputation

Reputation Dimensions

Reputation Tier

Supported Reputation Sources

Public Reputation Summary

Private Information

The following information is not publicly disclosed:

Verification data

KYC documents

Internal investigations

Reviewer notes

Appeal discussions

Operational procedures

ByRep prioritizes public reputation transparency while preserving participant privacy.

Architecture

Hybrid Architecture

ByRep utilizes a hybrid architecture that combines on-chain verification with off-chain computation.

This design enables scalability while maintaining verifiability.

On-Chain Components

Examples include:

Identity ownership

Wallet linking

Verification references

Protocol interfaces

Off-Chain Components

Examples include:

Activity indexing

Reputation computation

Analytics

Abuse detection

Risk analysis

Reputation Engine

The reputation engine aggregates supported activity and transforms it into structured reputation signals.

The exact implementation may evolve over time as the protocol expands.

Core Principles

One Human, One Identity

Each verified human participant may possess only one ByRep Identity.

Reputation Must Be Earned

Reputation is acquired through actions rather than influence or ownership.

Quality Over Volume

Quality matters more than raw activity volume.

Public Reputation

Reputation outcomes remain publicly visible.

Private Verification

Verification remains private while reputation remains public.

Portable Trust

Trust should follow participants wherever they contribute.

Explainable Reputation

Reputation should be understandable.

Verifiable Reputation

Reputation must be derived from documented methodologies and supported evidence.

Roadmap

Phase 1

ByRep Identity

Human Verification

Wallet Linking

Trading Reputation

Public Reputation Profiles

Phase 2

NFT Reputation

Expanded Analytics

Additional Ecosystem Integrations

Phase 3

Prediction Market Reputation

Advanced Reputation Signals

Broader Reputation Coverage

Long-Term Vision

Establish a universal reputation standard for Web3 where trust becomes portable across applications, protocols, and ecosystems.

FAQ

What is ByRep Protocol?

ByRep Protocol is a decentralized reputation layer for Web3.

Why is human verification required?

Verification improves reputation quality, reduces Sybil behavior, and supports the one-human-one-identity model.

Can I have multiple ByRep Identities?

No. Each verified participant may possess only one ByRep Identity.

Can I link multiple wallets?

Yes. Multiple wallets may be linked to a single identity.

Can I remove a linked wallet?

No. Wallet links are permanent.

Is my personal information public?

No. Verification information remains private.

Can reputation be transferred?

No. Reputation is non-transferable.

Which reputation sources are currently supported?

Phase 1 focuses on trading activity. Additional sources will be introduced in future releases.

Does reputation belong to a wallet?

No. Reputation belongs to the ByRep Identity.

Is reputation public?

Yes. Reputation is publicly visible, while verification data remains private.