



# **Stellar Dolphin**

## **Whitepaper**

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Revision 1.0, 14 July 2018, Stellar Dolphin Commonwealth

This document is intended to formally describe the features and concepts of the Stellar Dolphin (XDM) cryptocurrency and thoroughly explain the technical details of the Stellar Dolphin Protocol, Antispam memo, Official Smart-contract Auditing Department of XDM.

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<https://stellar-dolphin.org>

# Abstract

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A cryptocurrency (or crypto currency) is a digital asset designed to work as a medium of exchange that uses cryptography to secure its transactions, to control the creation of additional units, and to verify the transfer of assets. Cryptocurrency mainly uses decentralized control with all transactions recorded in a database called Blockchain. The first decentralized cryptocurrency created was Bitcoin in 2009. Since then, the crypto world has grown exponentially in the last couple years.

Massive adoption of blockchain technology cannot be evaded in the coming years as cryptocurrency is becoming increasingly easier to access and own. There are at least 1500 cryptocurrencies currently in the market. One of these is Stellar Lumen. Stellar Lumen implemented a decentralized platform that runs a smart contract, which is a decentralized application that runs on blockchain.

Stellar Dolphin is a project created on the open source code of Stellar Lumen that's been researched and designed, and has developed a reference implementation of a self-sustained, self-governed, self-funded blockchain ecosystem. It also improves the security of the ecosystem of crypto industry by improving smart-contract development methods and environment, protection from memo spam transactions.

Another goal of Stellar Dolphin is the implementation of experimental protocols, which are a combination of core features implemented in smart-contracts and merged protocol-level configuration.

An important point is the ability to implement key platform features using built-in mechanisms: ie smart-contracts. Stellar Dolphin aims to standardize protocol for a governance system and a development funding mechanism based upon smart-contracts.

# Stellar Dolphin Overview

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Stellar Dolphin is a decentralized open source crypto platform based on go-Stellra source code with its own cryptocurrency 'XDM'.

The main goal of Stellar Dolphin is to research and develop a reference implementation of a self-sustaining, self-governed, self-funded blockchain ecosystem and development environment. Stellar Dolphin aims to establish a secure and contribution-friendly environment for further protocol development and improvements. It will rely on a built-in system of smart-contracts to achieve this goal.

One of the main problems of Stellar Lumen smart contracts is the lack of tools to make them secure. Stellar Dolphin is intended to solve this problem for XDM and XLM ecosystems with an "Official Smart-contract Auditing Department of XDM & XLM". This represents a completely free opportunity for a professional smart-contract developer to audit their smart-contract.

Recently, in the network Stellar Lumen you can notice a lot of spam-transactions with the spread of links to malicious sites in the memo. In the Stellar Dolphin, we will fix this problem and users do not need to be afraid for the preservation of their funds.

# Official Smart-contract Auditing Department

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A standard procedure of secure smart-contract development for the XLM & XDM ecosystem will be developed. This standard procedure will include auditing of smart-contracts. Usually, auditing is quite expensive and some developers neglect it before launching their smart contracts.

Utilizing capabilities of the Stellar Dolphin, we aim to establish a free-for-all system of smart-contract auditing.

1. A registration of audited smart-contracts will be created. Every smart-contract that successfully passes the security audit will receive an official audited status. Otherwise, the contract will remain non-audited by default.
2. Everyone will be allowed to submit auditing requests and this is completely free for smart-contract developers.
3. A full-time team of smart-contract auditors will be hired to review each request for a smart-contract. This takes time, but it is better to do this than to launch a smart-contract with a critical vulnerability that will result in millions of dollars with the potential to be lost or stolen.
4. XLM and XDM smart-contract auditing requests will be accepted for free. We aim to improve the security of XLM ecosystem.

This is even more important since we plan to implement Stellar Dolphin core features with built-in Stellar Dolphin capabilities i.e. smart-contract systems.

# Stellar Dolphin Auditing Procedure

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This represents an abstract set of rules that can be implemented in solidity smart-contracts and serve to ensure a transparent process of smart-contract audits in a decentralized community.

## Abstract

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Smart-contract security is critical for most blockchain DApp development platforms. The main goal of this organization is to improve the security of the Stellar Lumen and Stellar Dolphin ecosystem by providing free security audits for smart-contract developers.

The smart-contract auditing organization is scalable, which means it allows to hire, manage and pay security audits of any smart-contracts written in any language depending on demand and community needs.

# Structure

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There are two types of participants in the described organization: Managers and Auditors.

The main task of a manager is to control and verify the work of the auditors.

The main task of an auditor is to review the code of smart-contracts and submit reports. Auditors receive karma for reviewing contracts. They also receive penalties for making mistakes. These statistics reflect each auditors results and determines their reward.

Both managers and auditors are paid from Stellar Dolphin treasury.

The audit process will be managed through GitHub so that it will be transparent and available to everyone. A smart-contract developer should open an issue to submit his/her smart-contract for auditors to review. At this point the manager will verify the security audit request details and mark the issue as approved. The manager should not mark dummy requests; requests that aim to spam the security audit queue or any requests that do not meet coding standard requirements. These requests will not be processed, and once these are identified and removed, every auditor will start reviewing the code.

An auditor with a contribution in the code review of a certain contract must create a private gist and send the gist URL to the corresponding issue manager via email. E-mail address of each manager or auditor is transparent and available in the smart-contract of this organization.

# Stellar Consensus Protocol

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The Stellar Consensus Protocol (SCP) provides a way to reach consensus without relying on a closed system to accurately record financial transactions. SCP has a set of provable safety properties that optimize for safety over liveness—in the event of partition or misbehaving nodes, it halts progress of the network until consensus can be reached. SCP simultaneously enjoys four key properties: decentralized control, low latency, flexible trust, and asymptotic security.

# XDM Peer-to-Peer Marketplace

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Stellar Dolphin created user-friendly, peer-to-peer marketplace. We're free, fast, and list every asset class imaginable. Crypto, fiat, bonds, commodities, and more.

First of all, Stellar Dolphin Peer-to-Peer marketplace lets you live the inter-chain dream of swapping your Philippine Pesos for Litecoin for municipal bonds for xdm, and all of those trades settle in seconds.

# Roadmap

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## 2018 Q3

- 1) Snapshot of Stellar Lumen for XDM airdrop 1:1
- 2) Launch XDM Mainnet (Est. 30 August 2018)
- 3) Launch mainnet block explorer explorer.
- 4) Release smart-contracts API

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## 2018 Q4

- 1) Release peer-to-peer marketplace
- 2) Release mobile client with marketplace