

Date	Start Time (24h)	End Time (24h)	Duration (hours)	Week Subtotal	Week Overtime	Notes
<b>Week 45</b>	<b>3/5</b>	<b>3/11</b>				
2022-03-06	13:00	14:00	1			Briefing with John
2022-03-07	1:00	2:00	1			RPC reliability investigation and analysis; Sync with Timeless
2022-03-07	13:00	13:30	0.5			Response team briefing
2022-03-08	0:00	2:30	2.5			Analysis and feedback on Shashank's Security Review Analysis
2022-03-08	11:00	12:00	1			Sync with Shashank; Review of minor implementation flaw identified
2022-03-08	12:30	14:00	1.5			Debug and fix constant variable references; Response team briefing;
2022-03-08	17:30	18:30	1			Sync with SilentAuth
2022-03-08	18:00	23:00	5			Chrome Extension review, building and end-to-end testing; Relayer monitoring; Review and feedback on transaction viewer (#251), , truffle-removal changes (#240) and fix errors; Domain update functionalities Q&A
2022-03-09	1:00	2:00	1			Next generation UI review and planning (#260)
2022-03-09	20:30	21:30	1			Relayer error analysis and debugging
2022-03-10	13:30	14:30	1			Chrome Extension building, build error fixes, and hash difference investigation; Celo incident research
2022-03-10	21:30	22:00	0.5			Sync with John
2022-03-11	23:00	0:00	1			Relayer and RPC debugging and experimenting
2022-03-11	0:00	4:00	4			Relayer use managed nonce and overall improvements
2022-03-11	21:00	0:00	3	25.0		Analysis of relayer logs and interactions between relayer and Harmony transaction pool
<b>Week 46</b>	<b>3/12</b>	<b>3/18</b>				
2022-03-12	1:00	5:00	4			(Continued) and produce findings and next steps; Remove Harmony provider and use of JS SDK
2022-03-12	12:00	13:00	1			Chrome Extension building, review, and debugging
2022-03-12	16:00	17:30	1.5			Further experimentation and deployment of using websocket providers; Review and merge #261
2022-03-12	23:00	23:30	0.5			Chrome Extension further testing and debugging
2022-03-13	14:30	17:00	2.5			Experimentation with Ganache CLI setup and migration from UI version; README for env setup
2022-03-14	10:30	11:30	1			Recent theft incidents review and follow-up
2022-03-15	6:00	9:00	3			Testing PR review and feedback (#263); Chrome Extension hash review and debugging
2022-03-15	13:30	15:00	1.5			Debugging, testing, and confirming Chrome Extension Build 1.2.7; Theft amount review
2022-03-15	16:00	17:00	1			Relayer debugging; Manual resets and devops scripts; Experimenting with local setups and various RPCs
2022-03-15	19:30	23:30	4			Theft incident cause analysis; Contract staking implementation review; Adding staking contract; Remove cached Truffle artifacts; Relayer issue analysis and feedback
2022-03-16	11:00	11:30	0.5			Meeting with code4rena (crowdsourced audit)
2022-03-17	13:00	16:00	3			Probabilistic self-recover multi-account relayer implementation, experimentation, deployments
2022-03-17	18:00	22:00	4			(Continued) and review, merge #265
2022-03-17	22:00	0:00	2			Timeless initial source code review and initial security issue analysis
2022-03-18	0:00	0:30	0.5	30.0		(Continued)
2022-03-18	1:00	3:30	2.5			Theft Incident Analysis
2022-03-18	10:30	12:30	2			Chrome Extension Build and Review; Follow-up from Erfan (Project X, NFT anti-scam project)
2022-03-18	13:00	13:30	0.5			Response team briefing
2022-03-18	13:30	18:00	4.5			Theft Incident Analysis, Continued; Sync with John (5pm)
2022-03-18	18:30	0:00	5.5		15.0	(Continued)
<b>Week 47</b>	<b>3/19</b>	<b>3/25</b>				
2022-03-19	0:00	1:00	1			Theft Incident Analysis, Continued
2022-03-19	11:30	12:30	1			Relayer debugging, and retry and gas fees patch for more robustness
2022-03-19	12:30	13:30	1			Theft Incident Analysis, Continued
2022-03-19	20:30	21:30	1			Sync with John
2022-03-19	23:00	0:00	1			Staking functionalities in contract
2022-03-20	17:00	21:00	4			Relayer, deployment, scripts updates related to Staking; Sync with John; Sync with Timeless
2022-03-21	14:30	15:00	0.5			Theft investigation suspect finding review
2022-03-21	16:30	17:00	0.5			Follow up meeting from Protego (Project X)
2022-03-21	19:00	20:00	1			Sync with Timeless regarding upgrade and tokens
2022-03-21	20:00	0:00	4			Staking client-side implementations, contract improvement, and debugging
2022-03-22	0:00	1:00	1			(Continued)

2022-03-22	11:30	13:00	1.5		2022 Q1 Summary and Assessment
2022-03-22	13:00	13:30	0.5		Response team briefing
2022-03-22	16:00	20:00	4		Simplify reveal calls; Remove dependency to Harmony JS SDK and providers; Fix provider setup for resolver contracts; Fix bugs related to operation code; Fix Enums.OperationType.UNTRACK executor logic; Event hash script update and new events related to staking; Working version of Staking from UI; Use websocket for truffle executions
2022-03-22	21:00	0:00	3		Staking api and its own rpc base; Improved staking UI, Stake table and reward display; Integration into main UI; Review Timeless custom implementation of Red Packet
2022-03-23	0:00	4:00	4		(Continued) Unstake functionalities, debugging, testing
2022-03-23	13:00	14:00	1	30.0	Collect reward page for staking; Common components; Fix bugs related to collect reward; Simplify utility functions; Compute funds available for redelegation
2022-03-23	14:00	19:00	5		(Continued)
2022-03-24	0:00	2:30	2.5		Review of Timeless response to security issues; Review Timeless Merkle Tree creation implementation; Experimenting and debugging with different collect reward reveal implementations
2022-03-24	11:30	12:00	0.5		Condensed Q1 assessment
2022-03-24	12:30	13:30	1		Sync with Tao and discuss next steps of developments
2022-03-24	19:30	20:00	0.5		Sync with cylim on next frontend developments
2022-03-24	21:00	23:30	2.5		Transaction viewer (#251) review and cleanup
2022-03-25	11:00	12:00	1		MetaMask Security Protocol Review
2022-03-25	13:00	13:30	0.5		Response team briefing
2022-03-25	15:30	16:30	1		Sync with John
2022-03-25	18:00	18:30	0.5		Sync with Timeless regarding NFT and MADNFT
2022-03-25	21:00	22:00	1	16.0	Review and debug testing issues (John)
<b>Week 48</b>	<b>3/26</b>	<b>4/1</b>			
2022-03-26	1:00	5:00	4		Review staking (#268) and detailed feedback on testing (#263)
2022-03-26	10:00	11:00	1		Review of theft incidents related to Ogre and others
2022-03-26	11:00	12:00	1		Transaction viewer: review, feedback, and planning (#251); Merge conflict resolution; new APIs for RPC methods
2022-03-26	20:00	0:00	4		Transaction viewer fixes, transaction log parser fixes, support multiple events per transaction, fix staking events; Show commit transactions; Fix display pagination errors; Zero-day vulnerability research and its relation to theft incidents
2022-03-27	0:00	2:00	2		(Continued)
2022-03-27	16:00	20:00	4		More powerful and consistent log parser; Add message template and amount formatting capability in event library; Transaction viewer rendering fixes and use event library; Fix issues with parsing external payments; Update TODO;
2022-03-27	22:00	0:00	2		(Continued)
2022-03-28	1:00	4:00	3		(Continued) review and next steps for (#251)
2022-03-28	17:00	19:00	2		Review and detailed feedback on Testing (#263)
2022-03-28	21:00	22:00	1		Sync with John and resolve key testing development issues
2022-03-28	22:00	23:00	1		Ogre theft incident investigation
2022-03-29	0:00	1:00	1		Local testing and debugging, and documenting solution to Safari HTTPS issue
2022-03-29	10:00	11:00	1		Sync with Tao on various PRs (WalletConnect, TransactionViewer, hotfixes) and frontend development issues
2022-03-29	13:00	13:30	0.5		Response team briefing
2022-03-29	14:00	16:30	2.5	30.0	Research and design on proxy mechanisms and same-address upgrade (#189)
2022-03-29	16:30	19:00	2.5		(Continued)
2022-03-30	6:00	8:00	2		Relayer overall error handling improvements; Better handling of cases when a contract is already deployed
2022-03-30	9:00	14:00	5		Continued research and design on proxy mechanisms and same-address upgrade (#189)
2022-03-30	14:00	16:00	2		Ogre theft incident investigation (establishing theft amounts and events)
2022-03-31	10:00	11:00	1		Manual querying and analysis of all possible DFK contract addresses for theft investigation
2022-03-31	13:00	15:00	2		Sync with John on testing; Fix two security issues (#275)
2022-03-31	18:00	23:00	5		Continued research and design on proxy mechanisms and same-address upgrade (#189)
2022-03-31	22:00	23:30	1.5		Debug and fix issues with command; Add command tests; Finalize security patch #275
2022-04-01	8:00	12:30	4.5		Security issue (#276); Event parsing library issue (#277); Command library issue (#278); Verifying Reliable Relayer (#259); Security Vulnerability (#253); Testing (#279); Test Framework (#282); Test Coverage (#283) Self-hosted RPC nodes (#281); Deliverable documentation and organization
2022-04-01	13:00	14:00	1		Response team briefing

2022-04-01	18:00	0:00	6		32.5	Command library design, implemetation, debugging
<b>Week 49</b>	<b>4/2</b>	<b>4/8</b>				
2022-04-02	0:00	1:00	1			Use command library wherever applicable; Unify commit-reveal
2022-04-02	10:00	12:30	2.5			(Continued) Implement command library in core flow
2022-04-03	21:00	0:00	3			(Continued) and fixing red packet, upgrade core library for intelligently flow with commands, fix issues with core flow
2022-04-03	0:00	5:30	5.5			(Continued) and debug, testing, live testing in production of key features related to command; Validate security patch and implications
2022-04-03	14:00	15:00	1			Merge conflict resolution with testing branch; Validate and review tests and test framework
2022-04-03	15:00	22:00	7			Ogre theft incident investigative report (report #4)
2022-04-04	0:00	4:00	4			Simplify tests, fix issues and implementation errors; Validate all tests
2022-04-04	12:00	14:00	2			Review of Ogre theft incident report; Dispatch report to FBI and provide comments
2022-04-04	17:00	21:00	4	30.0		Further bug fixes and simplification of tests; Fix testing framework README and documentations (#273, #274, #282, #283, #279)
2022-04-04	21:00	0:00	3			(Continued)
2022-04-05	0:00	3:00	3			(Continued) Final review and testing of v16. Release v16; Release testing and documentation of issues (#287)
2022-04-05	11:00	12:00	1			Provide opinion and analysis to FBI follow-up questions
2022-04-05	13:00	13:30	0.5			Response team briefing
2022-04-05	11:30	12:00	0.5			Response and investigation to Timeless inquiry regarding wallet creation slowness on Android
2022-04-05	21:30	22:00	0.5			Sync with Timeless on RPC issues and solutions
2022-04-06	12:30	13:30	1			Response to Timeless inquiry of issues related to an NFT contract and review the contract
2022-04-06	13:30	14:30	1			Token Testing review (#274)
2022-04-06	21:00	21:30	0.5			Further review and response to Timeless NFT contract
2022-04-06	23:00	0:00	1			Continued Token Testing review (#274)
2022-04-07	0:00	1:00	1			Continued Token Testing review (#274)
2022-04-07	18:30	19:30	1			Recent major theft incident tracing, analysis, and TODO suggestions
2022-04-07	21:30	22:00	0.5			Sync with John
2022-04-07	22:00	0:00	2			Review of LittleSnitch safety and feasibilities of using VPN to restrict network connections for major asset transactions
2022-04-08	12:30	13:00	0.5			Response and investigation into Timeless inquiries related to RPC issues
2022-04-08	13:00	13:30	0.5			Response team briefing
2022-04-08	14:00	14:30	0.5			Upgrade failure issue debugging
2022-04-08	18:30	19:00	0.5			Letter of Acknowledgement review and suggestions
2022-04-08	21:30	22:00	0.5			Response to Timeless inquiries related to domain registration and pricing mechanisms
2022-04-08	23:00	0:00	1	20.0		Continued Token Testing review (#274)
<b>Week 50</b>	<b>4/9</b>	<b>4/15</b>				
2022-04-10	18:00	19:00	1			Debugging relay issues; Manual restart and inspections; Sync with Timeless on RPC issue
2022-04-10	19:00	20:30	1.5			Sync with Timeless
2022-04-11	14:00	14:30	0.5			Sync with John
2022-04-11	17:00	18:00	1			Relayer stability improvement
2022-04-11	20:00	0:00	4			RPC node custom compiling, setup, data sync, and debugging
2022-04-12	1:00	4:00	3			(Continued)
2022-04-12	13:00	13:30	0.5			Response team briefing
2022-04-12	15:30	16:00	0.5			Sync with John
2022-04-12	18:00	19:30	1.5			Assist Timeless in meeting regarding NFT and its external partner; Sync with Timeless
2022-04-12	20:00	0:00	4			(Continued) RPC node and validator setup and debugging; Produce more messages in relay
2022-04-13	0:00	4:00	4			(Continued) Compile script bug fixes, debugging cross-compile and dependency issues, and others; Setup validator
2022-04-13	12:00	14:00	2			Debugging and profiling RPC and validator node data sync issues
2022-04-13	17:00	18:30	1.5			(Continued)
2022-04-13	20:30	0:00	3.5			Harmony core / RPC node I/O issue debugging and experiments; Sync with John on testing
2022-04-14	0:00	1:30	1.5	30.0		(Continued)
2022-04-14	1:30	2:30	1			(Continued)
2022-04-14	11:00	13:00	2			(Continued) and experiments with GCP network SSD, local NVME SSD and merges
2022-04-14	15:00	18:00	3			(Continued) conclusion of the experiments and confirmed final, stable RPC node / validator setup

2022-04-14	18:00	22:00	4			Debug and fix an ambiguous method call in relay that is present for older versions; Review and fix a bug with invoking contract call in web client (causing multisig authorization issue #291)
2022-04-15	11:00	11:30	0.5			Review Timeless NFT avatar proposals and provide feedback
2022-04-15	12:30	16:00	3.5			Debugging panic issue of private RPC node; Experiment and tests with private RPC nodes in production and confirmation of working node
2022-04-15	19:00	0:00	5		19.0	Relayer analytics API and private RPC health check API
<b>Week 51</b>	<b>4/16</b>	<b>4/22</b>				
2022-04-16	0:00	3:00	3			(Continued) ElasticSearch setup and persistence; Add more QR code supported formats (#233)
2022-04-16	20:00	22:00	2			Prompt warning about sending funds to exchanges; README update
2022-04-18	13:00	23:00	10			Relayer analytics ElasticSearch setup, schema, persistence implementation, data capturing, fingerprint (user agent and IP) capturing, request parsing, debugging and testing; Fix Relayer early abort errors; Sync with John
2022-04-19	0:00	2:30	2.5			(Continued)
2022-04-19	11:30	12:00	0.5			Review Timeless Proposal
2022-04-19	13:00	13:30	0.5			Response team briefing
2022-04-19	16:00	21:00	5			Review, debug, and fix Create component refactoring (#292)
2022-04-20	1:00	5:00	4			v16 release notes and detailed updates and notes on several issues pertaining to v16; Require recovery address before upgrading; Integration with Transak USD gateway and Apple Pay; Security AMA preparation; USDC theft investigation
2022-04-20	19:30	20:00	0.5			Sync with John
2022-04-20	20:30	22:30	2		30.0	Fingerprint IP tracing manual review for theft investigation; Fix v2ui wallet header; Review new UI theming #299;
2022-04-20	22:30	0:00	1.5			(Continued) Fix and simplify tests pertaining to upgrade, innerCore, security, and spending limit; Simplify test utilities
2022-04-21	0:00	5:00	5			(Continued) and fix buggy implementation of BATCH operation in contract; Feature request for staked-transfer; RPC Log review for theft investigation
2022-04-21	12:00	13:00	1			Debugging and sync on InnerCore related tests
2022-04-21	18:00	19:00	1			Security AMA written responses
2022-04-22	11:00	13:00	2			Security AMA (Twitter Space)
2022-04-22	14:00	15:00	1			Security Reddit AMA and Medium blog review
2022-04-22	17:00	19:00	2		13.5	Research and experiments with OS-managed verification code
<b>Week 52</b>	<b>4/23</b>	<b>4/29</b>				
2022-04-23	19:00	0:00	5			Experiment with OS-managed verification code; Backend for user signup; Data validation; Autofill OTP in all pages wherever applicable
2022-04-24	0:00	5:30	5.5			(Continued) and various implementations for minimizing of user frictions
2022-04-24	19:00	23:00	4			(Continued) and extending signup to components where new verification code is set up;
2022-04-25	22:00	0:00	2			Review and debugging and fixing various issues with innerCore testing and adjustment of time in testing (#298);
2022-04-26	0:00	3:30	3.5			(Continued) and updating testing README; review dynamic custom theming (#301); Review recovery issue (#309)
2022-04-26	11:30	13:00	1.5			Fix recovery issues (#309); v2ui review (#304)
2022-04-26	12:00	13:00	1			Review and revise v2 routes and components (#310)
2022-04-26	13:00	13:30	0.5			Response team briefing
2022-04-26	16:00	17:00	1			Sync with John on testing, statistics generator, and web3 integration
2022-04-26	17:00	21:00	4			Debug and fix set-recovery-address and general operation issue; Fix major cause of failures in relay (upgrading from old versions); Sync with Brayden Ooi (prosecutive frontend development)
2022-04-27	1:00	2:00	1			Review v2 routes and components (#310)
2022-04-27	18:00	19:00	1		30.0	Review stats generator first draft (#312); Revise and debugging stats generator, simplify implementation, and significantly optimize the performance; Research on fast statistics retrieval and computation methods
2022-04-27	19:00	20:00	1			(Continued)
2022-04-27	22:00	0:00	2			(Continued)
2022-04-28	1:00	3:00	2			(Continued)
2022-04-28	10:00	12:00	2			Fix stats bugs with balance update and address caching; add scripts to refresh all balance
2022-04-28	22:00	0:00	2			Resolve merge conflict; Debugging with zero balance issues; Sync with John; Factory deployed transaction extraction and address computation
2022-04-29	5:00	7:00	2			Debugging stats generator; Fix stats issues related to factory deployed address; Identify root cause of zero-balance issues; Address deduplication
2022-04-29	13:30	18:00	4.5			(Continued) and deploy stats in production relay; add api for stats in relay; update client side stats retrieval and caching; More address and balance deduplication
2022-04-29	20:00	21:00	1			Stats histogram script and improvements; Granular stats counter including overall counter and balance and those related to Timeless

2022-04-29	11:00	12:00	1		17.5 (Continued)	
			Regular	235.0		
			Overtime		133.5	Spent more time in March and April, as requested and promised, to catch up with a decrease of activities in February due to conference and events, and to meet goals and deliverables set for March and April
			Total	368.5		