

Audit Report

Core Unit Name: TechOps-001

Audit ID: 2022-08-TechOps-001

Audit Cycle: 2022-08/2

Audit Result: Needs CU action

Audit Date: 09-21-2022

Submission Date: 09-16-2022

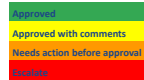
Facilitator contact: @eskp

Core Unit Clarification Received on Date: 09-21-2022

Transparency Report: <https://github.com/MakerOps/tech-001-transparency-reporting/blob/main/2022-08.md>

MIP40c3-SP53: <https://forum.makerdao.com/t/mip40c3-sp53-techops-core-unit-dai-budget/12072>

MIP40c3-SP54: <https://forum.makerdao.com/t/mip40c3-sp54-techops-core-unit-mkr-budget/12079>



#	Audit Question	Approved	Approved with comments	Needs action before approval	Audited	Audit Assessment	Core Unit's Clarification	Immediate CU Action to improve transparency report	Medium Term CU Action to improve transparency report
	Audit Questions to the Structure of the transparency report and consistency with MIP40c3-SP53.								
0.1	Are the sections in the transparency report in the right order: Actuals, Forecast, MKR vesting and Transfers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.2	Does the actual section include breakdowns per Budget Category, Forecast, Actuals, Difference and Payments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.3	Does the budget forecast cover 3 months with summary and budget category breakdown?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.4	Does the budget forecast summary and breakdown contain the quarterly budget caps for comparison?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.5	Does the budget forecast summary contain the Global/total budget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.6	Are the budget forecast categories in the transparency report the same as in the MIP40c3-SP53?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
0.7	Is the Multi-sig operational wallet setup the same as described in MIP40c3-SP53?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes: TechOps/TOCU-001 Operational Wallet quorum (2:2) Controlled by the TechOps Core Unit team Eth Address: 0x1a3DA79ee7d830466cA752DE6a75DEf5e635b2f6 Signers: eth:0xA60C77efe539166F1C4a6cE2512F3cBF451fBbc5 eth:0xcEb44Fa8c2c6014F2F7924De3Ae617BdD42ca25B			
0.8	Is the TechOps operational wallet controlled by more than 1 signer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the TechOps operational wallet has a current policy of 2 out of 2 signers			
0.9	Has the TechOps operational wallet received the funds requested in the last Budget Statement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes: TechOps received the requested 141,526.85 on September 2nd, 2022. https://etherscan.io/address/0x2dC0420A736D1F40893B9481D8968E4D7424bC0B#tokenxns			
0.10	Is the Multi-sig auditor wallet setup the same as described in the Techops Auditor Flow?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes: Techops Auditor Wallet quorum (2:2) Controlled by the SES Core Unit. Address: eth:0x2dC0420A736D1F40893B9481D8968E4D7424bC0B Signers: Accountant Role Wallet 0xA2A855Ac8D2a92e8A5a437690875261535c8320C Auditor Role Wallet 0xB2da57e224949acDDe173a5B8A8160c023ea86e6			
0.11	Has the Auditor wallet received the funds from the protocol?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The TechOps Auditor wallet received the initial funds of 1,069,250 DAI on Jan 31, 2022.			
0.12	Has the TechOps Auditor wallet sufficient funds to send to the TechOps operational wallet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The TechOps Auditor wallet balance is 187,513.96 DAI on September 21st, 2022.			
	Audit Questions to Transparency Report - Section 1. Last Month Actuals -								
1.1	Is the actuals budget category breakdown the same as in the MIP40c3-SP53?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, except the budget category Gas fees and Bank fees, these are new budget categories.			
1.2	Is the transparency report actual's forecast the same as the last published forecast for the same month?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The travel category and the conference and education category are not reported in the actuals table, however, other budget categories and total amounts are the same as forecasted in the previous month.			
1.3	Are the differences between forecast and actuals explained in the transparency report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
1.4	Are the TechOps CU actual expenses within the monthly approved MIP40c3-SP53 budget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
1.5	Are the TechOps CU actual expenses within the Global/total MIP40c3-SP39 budget cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			

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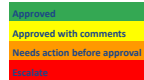
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1.6	Has the TechOps CU Compensation fees any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No. The forecast is 74,343.20 and the actuals is 74,343.20.			
1.7	Has the TechOps CU Cloud Infrastructure fees any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the forecast is 20,000 and the actual expense is 19,931.31 this gives a positive difference of 68.69.	TechOps explains in the budget statement that the difference is due to "AWS bills depend on usage that month."		
1.8	Has the TechOps CU Tools' fees any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the forecast is 2,300 and the actual expense is 4,410.90 there is a negative difference of -2,110.90.	TechOps explained in the budget statement that the tools' expenses depend on its monthly usage.		
1.9	Has the TechOps CU Accounting fees any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the forecast is 1,000 and the actual expense is 4,450.65, this gives a negative difference of 3,450.65.	TechOps explains in the budget statement that the difference is due to "Sent more funds to Accountable than expected."		
1.10	Has the TechOps CU Legal Consultancy fees any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The forecast is 1,000 and the actual expense is 485.54, this gives a positive difference of 514.46.	TechOps expected to be charged more for legal services.		
1.11	Has the TechOps CU Gas fees any significant deviations between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the forecast is 100 and the actual expense is 0.	TechOps explains in the budget statement that the difference is due to "No gas costs due to big gas investment the previous month."		
1.12	Has the TechOps CU Bank fees any significant deviation between forecast and actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the forecast is 100 and the actual expense is 114.65, this gives a negative difference of 14.65.	The difference is due to "Expected lower bank fees."		
1.13	Has the TechOps CU Travel any significant deviation between the forecast and the actuals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The travel category was not reported in the August 2022 Budget Statement.			
1.14	Has the TechOps CU Recruiting fees any significant deviation between the forecast and the actuals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The forecast is 60,000 and the actual expense is 61,200, this gives a negative difference of 1,200.	TechOps explains in the budget statement that the difference is due to "Expected lower recruiting fee."		
1.14	Has the TechOps CU any significant deviation between the total actuals and the total payments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the total actuals is 86,367.84 and the total payment is 93,227.25 DAI.	The difference is due to "Difference between Actuals total and Payments total due to positive balance with Accountable"		
1.15	Has the TechOps CU presented the correct calculation of amounts for the actuals, forecast and difference?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. Techops made the requested corrections in the audit report V1.			
1.16	Has the TechOps CU budget statement any budget category that seems inconsistent and needs further investigation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No.			
1.17	Other Observations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Techops made the requested corrections to point 1.9 and 1.15 in the audit report V1.			
Audit Questions to Transparency Report - Section 2. Budget Forecast -									
2.1	Does the transparency report display the summary of the MIP40c3-SP53 approved caps for both total and budget categories?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
2.2	Are the monthly and quarterly budget caps (both totals and per category) the same as in the MIP40c3-53?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TechOps has forecasted only the relevant budget categories for September, October and November 2022.			
2.3	Are the monthly forecast totals within the MIP40c3-53 monthly budget caps?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The compensation forecast and the compensation and the travel budget categories are above the qly forecast but within the global forecast.			
2.4	Is the quarterly forecast within the bounds of the MIP40c3-39 budget caps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
2.5	Has the TechOps CU presented the correct calculation of amounts in the forecast table?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Yes. Techops made the requested corrections in the audit report V1.			

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Audit Questions to Section Transparency Report - Section 3. MKR Vesting Overview -									
3.1	Has the TechOps CU indicated the number of FTE in the transparency report's MKR vesting overview?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.			
3.2	Has the MKR vesting overview the same FTE comparing it to the MIP40c3-SP38?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No. The FTE has increased from 4.7 to 5.7 due to new hires.			
3.3	Are the MKR vesting dates the same as in the MIP40c3-SP38?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No, the Vesting dates are change for better alignment and new vesting dates are added due to new hires.			
3.4	Has TechOps CU changed the MKR amounts comparing it to the MIP40c3-SP38?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Yes, the amounts have changed due to correction and new hires. However Techops needs to review the MKR vesting dates, the December 2024 is missing in the MKR table.		Techops needs to review the MKR vesting dates and total amount.	
3.5	Has TechOps CU explained the MKR change in the transparency report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes.	*Correction exercise: we did correction exercise based on our MIP submission: previously we used Lock-in price (agreed in MIP in December 2021)\$2,852.87 for MKR and now we used MKR price floor (p. floor - price floor is lowered by Max Repricing Drop = 30% also agreed in our MIP) \$1,997.01.*		
3.60	Other Observations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Techops made the requested corrections to point 3.3 in the audit report V1.			
Audit Questions to Transparency Report - Section 4. Transfers -									
4.1	Does the TechOps operational wallet balances match the transparency report current balance in the calculation made for the new transfer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the TechOps operational wallet balance is 95,729.61 DAI on September 21st, 2022.			
4.2	Are the payments from the operational wallet the same as in the actual section payments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, the total payments is 111,224.22. https://etherscan.io/tx/0x0b1315da979a8ec02d296b755d4da714607328b729e9ade2e600f895b			
4.3	Are the values in the TechOps Auditor wallet table correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The auditor wallet received 1,069,250 DAI since inception from the protocol and 1 DAI from an external wallet for wallet test.			
4.4	Does the TechOps Auditor wallet balance match the transparency report auditor current balance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes. The auditor wallet balance in the budget statement is 187,513.96 DAI and the wallet balance is 187,513.96 DAI on September 21st, 2022.			