Migrating to SDK V4

This guide provides instructions for migrating from v3 to v4. It outlines the changes introduced in the new version and offers guidance on updating your codebase to ensure compatibility.

Migration Steps

info Make sure you have minimum es2020 set as target in the compilerOptions 1. Update dependencies: Install the latest V4 version of@biconomy/account 2. package. All transaction functionalities are now accessible by simply importing the account package without the need for any other Biconomy package. 3. BiconomyPaymaster 4. is now namedPaymaster 5. and could be imported from@biconomy/account 6. instead of@biconomy/paymaster 7. . 8. When usingbuildTokenPaymasterUserOp 9. method, the spender cannot be undefined. The BiconomyTokenPaymasterRequestspender 10. type has changed from string to0x{string} 11. , users need to convert spender to0x{string} 12. like following. 13. // V3 14. const 15. spender 16. = 17. feeQuotesResponse 18. . 19. tokenPaymasterAddress 20. || 21. "" 22. ; 23. finalUserOp 24. = 25. await 26. biconomySmartAccount 27. . 28. buildTokenPaymasterUserOp 29. (30. partialUserOp 31. , 32. { 33. feeQuote 34. : 35. selectedFeeQuote 36. , 37. spender 38. : 39. "0x" 40. , 41. maxApproval 42. : 43. false 44. , 45. } 46.) 47. ; 48. // V4 49. const 50. spender 51. = 52. feeQuotesResponse 53. . 54. tokenPaymasterAddress 55. ; 56. finalUserOp 57. = 58. await 59. biconomySmartAccount 60. . 61. buildTokenPaymasterUserOp 62. (63. partialUserOp 64. , 65. { 66. feeQuote 67. : 68. selectedFeeQuote 69. , 70. spender 71. : 72. spender 73. , 74. // needs to be 0x{string} 75. maxApproval 76. : 77. false 78. , 79. } 80.) 81. ; 82. When using viem's wallet as the signer explicitly set the signer to the walletClient. It is no longer necessary or encouraged that the walletClient be wrapped using alchemy's wrapper as per v3 83. // V3 84. import 85. { 86. WalletClientSigner 87. } 88. from 89. "@alchemy/aa-core" 90. ; 91. const 92. smartAccount 93. = 94. await 95. BiconomySmartAccountV2 96. . 97. create 98. (99. { 100. ... 101. , 102. signer 103. : 104. new 105. WalletClientSigner 106. (107. walletClient 108. , 109. "json-rpc" 110.) 111. , 112. ... 113. } 114.) 115. ; 116. // V4 117. const 118. smartAccount 119. = 120. await 121. createSmartAccountClient 122. (123. { 124. ... 125. , 126. signer 127. : 128. walletClient 129. , 130. ... 131. } 132.) 133. ; 134. Pass rpcUrl while creating the smart account for signers that are not a viem wallet or ethers. 135. const 136. smartAccount 137. = 138. await 139. createSmartAccountClient 140. (141. { 142. signer 143. , 144. bundlerUrl 145. : 146. "" 147. , 148. // <-- Read about this at https://docs.biconomy.io/dashboard#bundler-url 149. biconomyPaymasterApiKey 150. : 151. "" 152. , 153. // <-- Read about at https://docs.biconomy.io/dashboard/paymaster 154. rpcUrl 155. : 156. "" 157. // Recommended for signers that are not a viem wallet or an ethers signer. It's advised to pass RPC url in case of custom signers such as privy, dynamic etc. If rpcUrl is not provided then a default public rpc will be used - which will likely be heavily throttled and can often silently fail 158. } 159.) 160. ;

Thoroughly test your application with the new SDK version to ensure that all functionalities work as expected. Pay close attention to any areas of your application that interact with the SDK.

Additional recommendations

- Use thesendTransaction
- method directly instead of buildUserOp and sendUserOp.
- PaymasterMode
- to be imported from@biconomy/account
- DEFAULT_ECDSA_OWNERSHIP_MODULE, DEFAULT_SESSION_KEY_MANAGER_MODULE, DEFAULT_MULTICHAIN_MODULE, DEFAULT_BATCHED_SESSION_ROUTER_MODULE to be imported from@biconomy/account
- package.
- Bundler
- to be imported from@biconomy/account
- instead of@biconomy/bundler
- in order to keep using just one package.

If you encounter any compatibility issues or unexpected behavior after migrating to the new SDK version, refer to the release docs or seek assistance from the SDK's support channels.