



# AUDIT REPORT

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January 2025

For



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# Executive Summary

<b>Project Name</b>	Dabba Network
<b>Project URL</b>	<a href="https://dabba.com/">https://dabba.com/</a>
<b>Overview</b>	Dabba Inc has deployed thousands of hotspots across India at retail, residential, and commercial locations serving users with super fast, super cheap internet. Demand for data in India is roughly doubling every 18 months and Dabba is building a new data-only network for a data-hungry generation.
<b>Audit Scope</b>	The Scope of the Audit is to analyse the security, code quality and correctness of the Source Code and Web App ( Explorer ) of dabba network.
<b>Contracts in Scope</b>	<a href="https://new-explorer-dabba-com.vercel.app/">https://new-explorer-dabba-com.vercel.app/</a> (Source Code) <a href="https://quillaudits.new-explorer.wifidabba.com">quillaudits.new-explorer.wifidabba.com</a> 53bfcc81224dd995f3d523149312a87cde417a2e6 (Source Code) quillaudits-wifidabba-api b3169f320088c0b0a55bc2915ea6eaf943a0cdd8
<b>Review 1</b>	20th December 2024 - 1st January 2025
<b>Updated Code Received</b>	7th January 2025
<b>Final Review</b>	10th January 2025

# Number of Issues per Severity



High	3 (30%)
Medium	5 (50%)
Low	2 (20%)
Informational	0 (0%)

Issues	Severity			
	High	Medium	Low	Informational
Open	0	0	0	0
Resolved	3	5	2	0
Acknowledged	0	0	0	0
Partially Resolved	0	0	0	0

# Checked Vulnerabilities

Improper Authentication

Improper Resource Usage

Improper Authorization

Insecure File Uploads

Insecure Direct Object References

Client-Side Validation Issues

Rate Limit

Input Validation

Injection Attacks

Cross-Site Scripting (XSS)

Cross-Site Request Forgery

Security Misconfiguration

Broken Access Controls

Insecure Cryptographic Storage

Insufficient Cryptography

Insufficient Session Expiration

Insufficient Transport Layer Protection

Unvalidated Redirects and Forwards

Information Leakage

Broken Authentication and Session Management

Denial of Service (DoS) Attacks

Malware

Third-Party Components

And More..

# Techniques and Methods

Throughout the pentest of application, care was taken to ensure:

- Information gathering – Using OSINT tools information concerning the web architecture, information leakage, web service integration, and gathering other associated information related to web server & web services.
- Using Automated tools approach for Pentest like Nessus, Acunetix etc.
- Platform testing and configuration
- Error handling and data validation testing
- Encryption-related protection testing

Tools and Platforms used for Pentest:

Burp Suite

Acunetix

Nmap

DNSenum

Neucli

Metasploit

Dirbuster

Nabbu

Horusec

SQLMap

Turbo Intruder

Postman

Netcat

Nessus

And Many more..

# Types of Severity

Every issue in this report has been assigned to a severity level. There are four levels of severity, and each of them has been explained below.

## **High Severity Issues**

A high severity issue or vulnerability means that your smart contract can be exploited. Issues on this level are critical to the smart contract's performance or functionality, and we recommend these issues be fixed before moving to a live environment.

## **Medium Severity Issues**

The issues marked as medium severity usually arise because of errors and deficiencies in the smart contract code. Issues on this level could potentially bring problems, and they should still be fixed.

## **Low Severity Issues**

Low-level severity issues can cause minor impact and are just warnings that can remain unfixed for now. It would be better to fix these issues at some point in the future.

## **Informational**

These are four severity issues that indicate an improvement request, a general question, a cosmetic or documentation error, or a request for information. There is low-to-no impact.

# Types of Issues

<b>Open</b>	<b>Resolved</b>
Security vulnerabilities identified that must be resolved and are currently unresolved.	These are the issues identified in the initial audit and have been successfully fixed.
<b>Acknowledged</b>	<b>Partially Resolved</b>
Vulnerabilities which have been acknowledged but are yet to be resolved.	Considerable efforts have been invested to reduce the risk/impact of the security issue, but are not completely resolved.

# High Severity Issues

## 1. Unsanitized input in NoSQL query

Resolved

### Description

Using unsanitized data in SQL queries exposes your application to SQL injection attacks. This vulnerability arises when user input, request data, or any externally influenced data is directly passed into a SQL query function without proper sanitization.

Here the parameters - hotspotId is not sanitized and could lead to SQL injection vulnerability.

### Vulnerable Location

quillaudits-wifidabba-api/src/routes/explorer/hotspots.js:686

### Recommendation

Do not include raw, unsanitized user input in NoSQL queries. This practice can lead to NoSQL injection vulnerabilities.

```
const User = require("../models/user")
const newUser = new User(req.body); // unsafe
```

Do sanitize all input data before using it in NoSQL queries. Ensuring data is properly sanitized can prevent NoSQL injection attacks.

```
const User = require("../models/user");

username = req.params.username;
User.findOne({ name: username.toString() });
```

## POC

```
src > routes > explorer > JS hotspots.js > ⚙ hotspotUptime > [?] query
666     async function hotspotUptime(hotspotId, days = 7) {
670         const query = `> hotspotId          Aa _ab_ ■* ? of 19 ↑ ↓ ≡ ×
671             SELECT
672                 uptime_date, LEAST((SUM(heartbeats) / 200 * 100), 100) uptime_percentage
673             FROM
674                 (
675                     SELECT
676                         dabba_id,
677                         DATE(created_at) uptime_date,
678                         LEAST(COUNT(created_at), 200) AS heartbeats
679                     FROM
680                         dabba_heartbeats
681                     WHERE
682                         uptime_date >= ${formatDateToYYYYMMDD(startDate)}'
683                         | AND
684                         uptime_date < ${formatDateToYYYYMMDD(endDate)}'
685                         | AND
686                         dabba_id = '${hotspotId}'|
687                     GROUP BY
688                         uptime_date, dabba_id
689                     ORDER BY
690                         uptime_date ASC
691                 ) dabba_uptime
692             GROUP BY
693                 uptime_date
694             `;
695
696         const result = await clickhouseClient.query({
697             query,
698         });
699         const resultJSON = await result.json();`
```

## 2. Hard-coded Secrets

Resolved

### Description

It is identified that API Keys, Passwords, Secrets are hard-coded in the .env environment file. Hard-coding secrets in a project opens them up to leakage.

### Vulnerable Location

quillaudits-wifidabba-api/.env.example

### Recommendation

Do not hard-code secrets in committed code. Instead, use environment variables and a secret management system.

### POC

```
$ .env.example
31   JWT_PRIVATE_KEY=
32   JWT_EXPIRATION_SECONDS=2592000
33   BCRYPT_SALT_ROUNDS=10
34
35   #Generic token
36   WD_TOKEN="01b6c5f3-b124-44af-9a18-787ee174b57d"
37
38   #Signup token expiration in seconds
39   PASSWORD_RESET_TOKEN_EXPIRATION=1800
40
41   #Invoice details
42   INVOICE_SERIAL_TEXT="#INV-"
43   INVOICE_START_NUMBER=1000
44
45   #Razorpay payment gateway keys
46   RAZORPAY_KEY_ID=
47   RAZORPAY_KEY_SECRET=
48   #NOTE: Set random key same as that of from Razorpay website webhook.
49   RAZORPAY_WEBHOOK_SECRET=
50
51   #Stripe payment gateway keys
52   STRIPE_PUBLISH_KEY=
53   STRIPE_SECRET_KEY=
54   STRIPE_BANDWIDTH_PAYMENT_WEBHOOK_SECRET=whsec_yuql5uwRpKscYC0hX5sd3sfD6kpQYPkq
55   STRIPE_DABBA_PAYMENT_WEBHOOK_SECRET=whsec_yuql5uwRpKscYC0hX5sd3sfD6kpQYPkq
56
57   #Login attempts
58   MAX_LOGIN_ATTEMPTS=8
59   MAX_LOGIN_ATTEMPTS_BLOCK_HOURS=4
60
61   #Expiry is 30 minutes
62   SMS_TOKEN_EXPIRATION_IN_SECONDS=1800
```

### 3. Loss of funds due to misconfigured data handling

Resolved

#### Description

The following API endpoint is fetched while staking coins - <https://test-b2b-api.wifidabba.com/api/dbt-staking/stake>

Here, the parameter amount and durationInDays both accept scientific values. The application has restrictions to limit users to stake only up to 1 year (365 days). However, this could be bypassed using scientific numbers. On supplying a huge scientific value such as 1e9, the application processes the requests and deducts the amount from the wallet but does not stake it leading to loss of user's funds.

#### The API Endpoint

<https://test-b2b-api.wifidabba.com/api/explorer/my-hotspots/payments/lco-maintenance-fee-topup> to top up maintenance services. Here the application again accepts scientific numbers instead of integers and successfully processes the request. Hence, an attacker can pay lower and get higher epochs in return. Currently the top up feature is not working properly. This vulnerability is included based on analyzing the API response.

#### Vulnerable Location

<https://test-b2b-api.wifidabba.com/api/dbt-staking/stake>

<https://test-b2b-api.wifidabba.com/api/explorer/my-hotspots/payments/lco-maintenance-fee-topup>

#### Impact

Loss of user funds.

Users can cover more epoch points by paying less.

#### Recommendation

Properly verify the input from the user end. Only accept integers as valid input.

## POC

**Request**

Pretty	Raw	Hex
<pre>1 POST /api/dbt-staking/stake HTTP/1.1 2 Host: test-b2b-api.wifidabba.com 3 Content-Length: 197 4 Sec-Ch-Ua-Platform: "macOS" 5 Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJfaWQiOiI2NzZjMDJmOTM5MmVhNDUwZDQ3NTc4MmUiLCJyb2xlcycI6WyDfVNUT01FUjdLCjpxYQ10jE3MzU2Njk1MzMsiMv4cCI6MTczNzk2MTUz30.hrnkzvBwht-u-gVI_9gFUrxxD001P1IsOKdUF2IG7E 6 Accept-Language: en-GB,en;q=0.9 7 Sec-Ch-Ua: "Chromium";v="131", "Not_A_Brand";v="24" 8 Content-Type: application/json 9 Sec-Ch-Ua-Mobile: ?0 10 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)     AppleWebKit/537.36 (KHTML, like Gecko) Chrome/131.0.6778.140     Safari/537.36 11 Accept: */ 12 Origin: https://new-explorer-dabba-com.vercel.app 13 Sec-Fetch-Site: cross-site 14 Sec-Fetch-Mode: cors 15 Sec-Fetch-Dest: empty 16 Referer: https://new-explorer-dabba-com.vercel.app/ 17 Accept-Encoding: gzip, deflate, br 18 Priority: u=4, i 19 Connection: keep-alive 20 21 {     "signature":         "YuKPUL3KUp5sFDsXHiy6fWCEKAoKZJ5m5ziEDPp3VVGdT5NESZizGFYQga1WpKtPw         WXLDoY7wg3twEtQ6iKpCp",     "amount": "100000000",     "durationInDays": 1e9,     "lcoCode": "wifidabba",     "blockchainNetwork": "Solana" }</pre>		

**Response**

Pretty	Raw	Hex	Render
<pre>1 HTTP/1.1 200 OK 2 Server: nginx 3 Date: Sat, 28 Dec 2024 07:31:07 GMT 4 Content-Type: application/json; charset=utf-8 5 Connection: keep-alive 6 Vary: Accept-Encoding 7 Access-Control-Allow-Origin: * 8 Access-Control-Expose-Headers: Authorization, Roles 9 Content-Security-Policy: default-src 'self'; base-uri 'self'; font-src 'self' https: data: form-action 'self' frame-ancestors 'self'; img-src 'self' data: object-src 'none'; script-src 'self'; script-src-attr 'none'; style-src 'self' https: 'unsafe-inline'; upgrade-insecure-requests 10 Cross-Origin-Opener-Policy: same-origin 11 Cross-Origin-Resource-Policy: same-origin 12 Origin-Agent-Cluster: ? 13 Referrer-Policy: no-referrer 14 Strict-Transport-Security: max-age=31536000; includeSubDomains 15 X-Content-Type-Options: nosniff 16 X-DNS-Prefetch-Control: off 17 X-Download-Options: noopener 18 X-Frame-Options: SAMEORIGIN 19 X-Permitted-Cross-Domain-Policies: none 20 X-XSS-Protection: 0 21 ETag: W/"47-QFzPS5zYII/xpDAMQ44QwUstJs" 22 Content-Length: 71 23 24 {     "status": "success",     "code": 200,     "message": "Stake successful",     "data": {} }</pre>			

The screenshot shows the WifiDabba Explorer web application. The left sidebar contains navigation links for DABBA Alpha, My Hotspots, Transactions (selected), Hotspot NFTs, Network Overview, Local Cable Operators, Hotspots, Consumer Devices, Getting Started, and Staking. A 'Need Help?' button is also present. The main content area displays a 'Transaction History' table with the following data:

Transaction Type	Transfer Direction	Transaction Hash	Status	Tokens transferred	Date
DBT Stake	Outgoing	284t...mGXn	SUCCESS	1 DBT	Dec 28, 2024, 01:05 PM
DBT Stake	Outgoing	YuKP...KpCp	SUCCESS	1 DBT	Dec 28, 2024, 01:01 PM
DBT Stake	Outgoing	5i2K...rfja	SUCCESS	1 DBT	Dec 28, 2024, 12:50 PM
DBT Stake	Outgoing	5xSD...fd06	SUCCESS	1 DBT	Dec 28, 2024, 12:47 PM
DBT Stake	Outgoing	5SB5...d566	PENDING		Dec 28, 2024, 12:44 PM
DBT Stake	Outgoing	3ctF...BpTY	PENDING		Dec 28, 2024, 12:42 PM

On the right side, there are several promotional and informational boxes: 'Season 2 is Live' with a 'Buy Now' button, a 'Join Discord' button with a link to the community, and a 'Learn about the Dabba Network' section with a map of the network.

Screenshot of the WiFiDabba Explorer interface showing the Staking section and a Network Monitor tool.

**WiFiDabba Explorer** - <https://new-explorer-dabba-com.vercel.app/staking>

To exit full screen, press and hold **esc**

**DABBA Alpha**

My Hotspots

- Overview
- Rewards
- Deploy
- Transactions
- Hotspot NFTs
- Network Overview
- Local Cable Operators
- Hotspots
- Consumer Devices
- Getting Started
- Staking**

Your current stakes

Staked (DBT)	Rewards (DBT)	LCO	Blockchain Network	Unlocks on	Compound rewards	Early Unstake
1	0	wifidabba	Solana	30/12/2024	Compound rewards	Early Unstake
1	0	wifidabba	Solana	08/04/2025	Compound rewards	Early Unstake

Stake your tokens

Tokens to stake: 1

Time period in days: 30

APY offered by LCOs

Need Help?

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**Repeater**

Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder Comparer Logger Organizer Extensions Learn payment exploit + : Settings

Send Cancel < > Target: https://test-b2b-api.wifidabba.com HTTP/1 Inspector Request attributes Request query parameters Request cookies Request headers Response headers

**Request**

Pretty Raw Hex

```
POST /api/explorer/my-hotspots/payments/lco-maintenance-fee-topup
HTTP/1.1
```

1 POST /api/explorer/my-hotspots/payments/lco-maintenance-fee-topup
2 Host: test-b2b-api.wifidabba.com
3 Content-Length: 209
4 Sec-Ch-Ua-Platform: "macOS"
5 Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJfaWQiOiI2NzJlMDJmOTMSMmVhNDUwZDQ3NTc4MmU1IjYzb2cyIcyIBWjdCpXQI0JE3MrUaNjk1NzIsImV4cCI6M
TccNzk2MTU3MnB.LxbUR5RK7ja-3g3BgBwLlkX0jXOnnst0a3z725004
6 Accept-Language: en-GB,en;q=0.9
7 Sec-Ch-Ua: "Chromium";v="131", "Not\_A Brand";v="24"
8 Content-Type: application/json
9 Sec-Ch-Ua-Mobile: 70
10 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)
AppleWebKit/537.36 (KHTML, Like Gecko) Chrome/131.0.6778.140
Safari/537.36
11 Accept: \*/
12 Origin: https://new-explorer-dabba-com.vercel.app
13 Sec-Fetch-Site: cross-site
14 Sec-Fetch-Mode: navigate
15 Sec-Fetch-Dest: empty
16 Referer: https://new-explorer-dabba-com.vercel.app/
17 Accept-Encoding: gzip, deflate, br
18 Priority: u4, i
19 Connection: keep-alive
20
21 {
 "signature": "511V00072qdYfLph9xpSaAnbVYbChw4veQ2VpYd1JMzKDrn2KZhruRaChQuYX05
bf1itw605K6CmIfix8r7o1q",
 "tokenAmount": "100000000000",
 "lcoCode": "jadhab\_broadband",
 "numberOfEpochs": "10",
 "hotspotCount": "1e5",
 "blockchainNetwork": "Solana",
 "existingMaintenanceFeeValidity": "2025-01-27T00:00:00.000Z"
}

**Response**

Pretty Raw Hex Render

```
HTTP/1.1 200 OK
Server: nginx
Date: Mon, 10 Dec 2024 08:15:14 GMT
Content-Type: application/json; charset=utf-8
Connection: keep-alive
Vary: Accept-Encoding
Access-Control-Allow-Origin: *
Access-Control-Expose-Headers: Authorization,Roles
Content-Security-Policy: default-src 'self';base-uri 'self';font-src 'self' https;form-action 'self';frame-ancestors 'self';img-src 'self' https;script-src 'self';script-src-attr 'none';style-src 'self' https;
unsafe-inline;upgrade-insecure-requests
Cross-Origin-Opener-Policy: same-origin
Cross-Origin-Resource-Policy: same-origin
Origin-Agent-Cluster: 71
Referer-Policy: no-referrer
Strict-Transport-Security: max-age=31536000; includeSubDomains
X-Content-Type-Options: nosniff
X-Frame-Options: deny
X-Download-Options: filename
X-Frame-Options: SAMEORIGIN
X-Permitted-Cross-Domain-Policies: none
X-XSS-Protection: 0
ETag: W/"5d-UW1oy8Cayf004AT0Ef5/0LMB0Tq"
Content-Length: 93
{
  "status": "success",
  "code": "200",
  "message": "LCO fee Payment registered successfully",
  "data": {
    }
}
```

0 highlights 0 highlights

Done Event log (48) \* All issues 1,067 bytes | 199 millis Memory: 1.48GB

## 4. Unsanitized user input in dynamic HTML insertion (XSS)

Resolved

### Description

Unsanitized user input in dynamic HTML insertion can lead to Cross-Site Scripting (XSS) attacks. This vulnerability arises when user-provided data is directly inserted into the DOM without proper sanitization, potentially allowing attackers to execute malicious scripts.

The application directly parses the value of html parameter into the setHTML. Any insecure input value in the html parameter from the user will be directly executed by the setHTML function leading to XSS attack.

### Vulnerable URL

[quillaudits.new-explorer.wifidabba.com-main/src/components/common/Map.jsx:176](http://quillaudits.new-explorer.wifidabba.com-main/src/components/common/Map.jsx:176)

### Impact

Do use an HTML sanitization library to clean user input before inserting it into the HTML. This step helps prevent XSS attacks by removing or neutralizing any potentially harmful scripts.

```
import sanitizeHtml from 'sanitize-html';
const html = `<strong>${user.Input}</strong>`;
document.body.innerHTML = sanitizeHtml(html);
```

### POC

```
map.on("click", "hotspot-layer", (e) => [
  const coordinates = e.features[0].geometry.coordinates[0][0].slice();
  const properties = e.features[0].properties;
  const html = userId ? `<div style="padding-bottom:0px" class="pb-0 min-w-[200px] flex flex-col gap-2 justify-between items-center">
    <span class="text-xs font-bold">${properties.name}</span>
    <hr class="w-full"/>
    <span class="text-sm">${properties.bandwidthConsumedInGb?.toFixed(2)} GB</span>
    <hr class="w-full"/>
  </div>` :
  `<div style="padding-bottom:0px" class="pb-0 min-w-[200px] flex flex-col gap-2 justify-between items-center">
    <span class="text-xs font-bold">${properties.name}</span>
    <hr class="w-full"/>
    <span class="text-sm">LCO: ${properties.lco}</span>
    <hr class="w-full"/>
    <span class="text-sm">Total Hotspots: ${properties.totalHotspots}</span>
    <hr class="w-full"/>
    <span class="text-sm">Bandwidth consumed: </span>
    <span class="text-sm">${properties.bandwidthConsumedInGb?.toFixed(2)} GB</span>
    <a href="/map/${properties.id}" class="text-white text-center text-xs w-full py-2 px-4 rounded bg-[#7284FF]">Visit Location</a>
  </div>
`,

  const newPopup = new mapboxgl.Popup({ closeButton: false })
    .setLngLat(coordinates)
    .setHTML(html)
    .addTo(map);

  setPopup(newPopup);
]);
```



## 5. Unsanitized dynamic input in regular expression

Resolved

### Description

Creating regular expressions from dynamic input can lead to a vulnerability known as Regular Expression Denial of Service (ReDoS). This issue arises because some regular expressions can be processed with exponential time complexity. When attackers exploit this, it can significantly drain CPU resources, effectively causing a denial of service.

### Vulnerable Endpoint

quillaudits-wifidabba-api-develop

/src/services/coupon.service.js:6  
/src/services/customer.service.js:28  
/src/services/customer.service.js:37

### Recommendation

Do validate all dynamic and user-supplied input against a strict safelist of allowed characters before using it in regular expressions. This step helps prevent attackers from injecting malicious patterns.

Do restrict the length of input that can be processed. Limiting input size is a straightforward way to mitigate many ReDoS vulnerabilities.

Do implement timeouts for regular expression evaluation to avoid excessive resource consumption. This can be achieved using JavaScript environments or libraries that allow setting execution time limits.

Do simplify complex regular expressions to reduce the risk of catastrophic backtracking. Breaking down expressions into simpler parts makes them safer and more manageable.

Do not directly concatenate user input into regular expressions. This practice can introduce unsafe patterns and lead to vulnerabilities.

```
var dynamicRegex = new RegExp('^' + userInput); // unsafe
```

## POC

```
src > services > JS coupon.service.js >  findByCoupon  >  coupon 
1   const { couponRepository } = require("../repository");
2
3   async function findByCoupon(couponCode) {
4       const currentDate = new Date().toISOString();
5
6       couponCode = new RegExp(`^${couponCode}$`, "i");
7
8       const coupon = await couponRepository.findOne({
9           code: couponCode,
10          start_date: { $lte: currentDate },
11          end_date: { $gte: currentDate },
12          deleted_at: null,
13      });
14
15      if (!coupon) {
16          throw new Error("COUPON_NOT_FOUND");
17      }
18
19      return coupon;
20  }
21
```

```
src > services > JS customer.service.js > ...
10  async function isValidUserToken(customerId, token) {
11
12      if (!customer) {
13          throw new Error("CUSTOMER_NOT_FOUND_EXCEPTION");
14      }
15
16      return customer;
17  }
18
19
20  async function findByEmailWithoutError(email) {
21
22      email = new RegExp(`^${email}$`, "i");
23
24
25      return await customerRepository.findOne({
26          email: email,
27          deleted_at: null,
28      });
29  }
30
31
32  async function findByEmail(email) {
33
34      email = new RegExp(`^${email}$`, "i");
35
36
37      const customer = await customerRepository.findOne({
38          email: email,
39          deleted_at: null,
40      });
41
42
43      if (!customer) {
44          throw new Error("CUSTOMER_NOT_FOUND");
45      }
46  }
```

## 6. Usage of insecure HTTP connection

Resolved

### Description

Your application is at risk when it connects to APIs using insecure HTTP connections. This vulnerability occurs because HTTP does not encrypt data, making it susceptible to interception and alteration. Ensure that your application uses HTTPS, which encrypts data in transit, for all connections.

### Vulnerable Endpoint

quillaudits-wifidabba-api-develop

/src/routes/network/network.js:56

/src/routes/network/network.js:104

### POC

```
src > routes > network > JS network.js > Route.get("/dabba-has-internet/:dabbaId") callback > dabbaHasInternetReponse
  9   get("/dabba-has-internet/:dabbaId", async (request, response) => {
10     const dabba = request.params.dabbaId;
11     const baseDabbaVpnIpAddress = dabba.base_dabba.client_vpn_ip_address;
12     const accessPointIpAddress = dabba.ip_address;
13   }
14
15   const dabbaHasInternetUrl = `http://${process.env.WIREGUARD_SERVER_IP}:3000/api/network/dabba-has-internet`;
16
17   const dabbasHasInternetData = {
18     baseDabbaVpnIpAddress,
19     accessPointIpAddress,
20   };
21
22   const options = {
23     headers: {
24       "Content-Type": "application/json",
25     },
26   };
27
28   const dabbaHasInternetReponse = await axios.post(dabbaHasInternetUrl, dabbasHasInternetData, options);
29
30   const dabbaHasInternet = dabbaHasInternetReponse.data.data.dabbaNetworkStatus;
31
32   return success200(response, "Dabba details found successfully.", {
33     dabba,
34     dabbaHasInternet,
35   });
36   catch (error) {
37     log(
38       "error",
39     );
40   }
41 }
```

### Recommendation

- Do not use HTTP for outgoing connections or API calls. This practice leaves your data vulnerable to eavesdropping and tampering.

```
const response = axios.get('http://insecure-api.com') // unsafe
```

- Do ensure all external connections, especially API calls, use HTTPS to protect data in transit.

```
const response = axios.get('https://secure-api.com')
```



## 7. Unsanitized user input in format string

Resolved

### Description

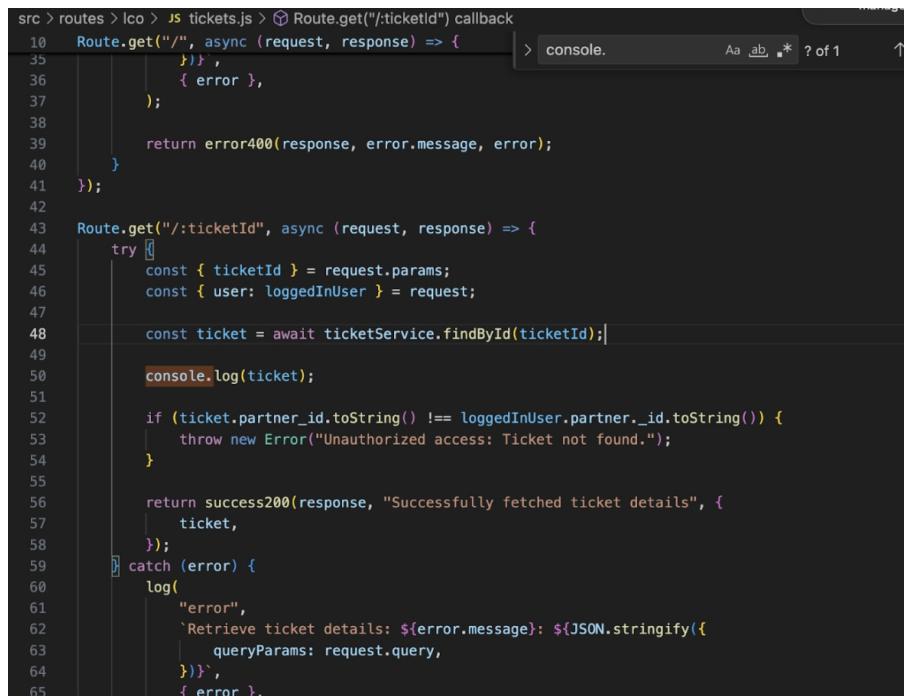
Including user input directly in a format string can lead to security vulnerabilities. This issue arises when an attacker manipulates the format specifiers in the user input, resulting in misleading or fabricated messages.

### Vulnerable Endpoint

quillaudits-wifidabba-api-develop

/src/routes/lco/tickets.js:50

### POC



```
src > routes > lco > js tickets.js > ↗ Route.get("/:ticketId") callback
10   Route.get("/", async (request, response) => {
35     ...
36     ...
37   );
38 
39   return error400(response, error.message, error);
40 }
41 });
42 
43 Route.get("/:ticketId", async (request, response) => {
44   try {
45     const { ticketId } = request.params;
46     const { user: loggedInUser } = request;
47 
48     const ticket = await ticketService.findById(ticketId);
49 
50     console.log(ticket);
51 
52     if (ticket.partner_id.toString() !== loggedInUser.partner._id.toString()) {
53       throw new Error("Unauthorized access: Ticket not found.");
54     }
55 
56     return success200(response, "Successfully fetched ticket details", {
57       ticket,
58     });
59   } catch (error) {
60     log(
61       "error",
62       `Retrieve ticket details: ${error.message}: ${JSON.stringify({
63         queryParams: request.query,
64       })}`,
65       { error }
66     );
67   }
68 });


```

### Recommendation

- Do not incorporate user input directly into format strings. This approach can be exploited by attackers to manipulate output or execute malicious code.  
console.log(`The value was \${req.params.value}`); // unsafe
- Do use a literal format string and pass user input as additional arguments. This method safely incorporates user input without exposing the application to format string vulnerabilities.

```
console.log("The value was %s", req.params.value);
```



## **8. Information Disclosure**

## Resolved

## Description

The API Endpoint <https://test-b2b-api.wifidabba.com/api/explorer/my-hotspots/unclaimed-hotspots?network=Etherum> discloses unwanted information about WiFi Hotspots about to be deployed on other networks (in-progress). This information includes - customer\_id, order\_id, name, currency, when the value of network parameter is changed to any other value except Solana.

Send a GET request to <https://test-b2b-api.wifidabba.com/api/explorer/my-hotspots/unclaimed-hotspots?network=Etherum>

Check the response disclosing information about product, customer, currency, and in-progress deployments of WiFi on other networks.

## Vulnerable Endpoint

<https://test-b2b-api.wifidabba.com/api/explorer/my-hotspots/unclaimed-hotspots?network=Etherum>

POC

The screenshot shows a NetworkMiner interface with the following details:

- Header Bar:** Dashboard, Target, Proxy, Intruder, Repeater, Collaborator, Sequencer, Decoder, Comparer, Logger, Organizer, Extensions, Learn.
- Toolbar:** Send, Cancel, and various navigation icons.
- Request Section:** Shows a GET request to `/api/explorer/my-hotspots/unclaimed-hotspots?network=Ethernet`. The response status is 200 OK.
- Response Section:** Shows the JSON response from the server. The response body includes:
  - Status: "success"
  - Code: 200
  - Message: "Unclaimed Hotspot details fetched successfully"
  - Data:
    - lcoUnclaimedDabbas:[
      - jadhav\_broadband":234,
      - wifidabba":658
    - lcoOnboardingPaymentPendingDabbas":0,
    - burnDbtPendingDabbas":0,
    - nftMintPendingDabbas":0,
    - inprogressDeploymentsOnOtherNetwork":[]
    - lco:{
      - id":6764de48392ea458d4757c82",  
customer\_id":1660219392ea458d475782e",  
dabba\_id":null,  
lco\_code":null,  
order\_id":6764de3f392ea458d4757c79",  
product\_details":
        - id":1438d4abc67498aa87e8b",  
name": "Dabba Lite (Managed Hotspot)",  
currency\_id:{
          - id":233,  
name": "United States",  
iso": "USA",  
iso3": "US",  
numeric\_code": "840",  
phone\_code": "+1",  
capital": "Washington",  
currency": "USD",  
currency\_name": "United States dollar",  
currency\_symbol": "\$",  
ltd": 1577600000000,  
native": "United States",  
region": "Americas",  
subregion": "Northern America",  
timezones": [
            - zoneName": "America/Adak",  
gmtOffset": -36000,  
gmtOffsetName": "UTC-10:00".
- Inspector Section:** Shows the response headers:
  - Request attributes: 2
  - Request query parameters: 1
  - Request body parameters: 0
  - Request cookies: 0
  - Request headers: 17
  - Response headers: 21
- Bottom Navigation:** Event log (28), All issues, Search, and Done.
- Bottom Status:** Target: https://test-b2b-api.wifidabba.com, HTTP/1, Memory: 1.2GB.

## Recommendation

Limit disclosure of information as much as possible. Implement error handling on the API endpoint to showcase a simple error string when any wrong input is entered.

# Low Severity Issues

## 9. Unsanitized input in NoSQL query

Resolved

### Description

Using unsanitized data in NoSQL queries exposes your application to NoSQL injection attacks. This vulnerability arises when user input, request data, or any externally influenced data is directly passed into a NoSQL query function without proper sanitization.

### Vulnerable Location

/src/routes/explorer/hotspots.js:429  
/src/routes/explorer/maps.js:44  
/src/routes/explorer/maps.js:257  
/src/routes/lco/bandwidth-plans.js:42  
/src/routes/lco/bandwidth-plans.js:128  
/src/routes/payments/payments.js:19  
/src/services/bandwidth-plan.service.js:6  
/src/services/bandwidth-plan.service.js:65  
/src/services/customer.service.js:11  
/src/services/customer.service.js:65  
/src/services/customer.service.js:209  
/src/services/dabba-heartbeat.service.js:5  
/src/services/dabba-model.service.js:5  
/src/services/dabba-provisioning-status.service.js:5  
/src/services/dabba.service.js:120  
/src/services/dabba.service.js:750  
/src/services/partner.service.js:6  
/src/services/partner.service.js:20  
/src/services/product.service.js:5  
/src/services/ticket.service.js:119  
/src/services/user.service.js:71  
/src/services/user.service.js:255  
/src/services/user.service.js:338

### Recommendation

Do sanitize all input data before using it in NoSQL queries. Ensuring data is properly sanitized can prevent NoSQL injection attacks.

```
const User = require("../models/user");
username = req.params.username;
User.findOne({ name: username.toString() });
```

## 10. Clickjacking

Resolved

### Description

The application is vulnerable to clickjacking attacks. Clickjacking occurs when an attacker tricks a user into clicking on something different from what they perceive by embedding a legitimate web page within an iframe, often with opacity or style manipulation. This allows attackers to potentially carry out unauthorized actions on behalf of users without their knowledge, such as submitting forms, clicking on buttons, or navigating to malicious sites.

The lack of protection against clickjacking allows attackers to embed the web page inside an iframe, exposing the application to this attack vector.

### Vulnerable Location

<https://clickjacker.io/test?url=https://new-explorer-dabba-com.vercel.app/>

### Recommendation

Add the X-Frame-Options HTTP header to instruct the browser to prevent the page from being loaded in an iframe.

#### Example header values:

X-Frame-Options: DENY: Completely prevents the page from being embedded in an iframe.

X-Frame-Options: SAMEORIGIN: Allows embedding only if the request comes from the same origin as the application.

#### Use Content Security Policy (CSP) Frame Ancestors Directive:

Implement a Content Security Policy (CSP) that includes the frame-ancestors directive. This provides more granular control over which domains are allowed to embed the application.

# Closing Summary

In this report, we have considered the security of the WifiDabba. We performed our audit according to the procedure described above.

Some issues of High, medium, low, and Informational severity were found. Some suggestions and best practices are also provided in order to improve the code quality and security posture. In the End, Wifi Dabba Network team Resolved all Issues.

# Disclaimer

QuillAudits Pentest security audit provides services to help identify and mitigate potential security risks in Wifi Dabba. However, it is important to understand that no security audit can guarantee complete protection against all possible security threats. QuillAudits audit reports are based on the information provided to us at the time of the audit, and we cannot guarantee the accuracy or completeness of this information. Additionally, the security landscape is constantly evolving, and new security threats may emerge after the audit has been completed.

Therefore, it is recommended that multiple audits and bug bounty programs be conducted to ensure the ongoing security of Wifi Dabba. One audit is not enough to guarantee complete protection against all possible security threats. It is important to implement proper risk management strategies and stay vigilant in monitoring your smart contracts for potential security risks.

QuillAudits cannot be held liable for any security breaches or losses that may occur subsequent to and despite using our audit services. It is the responsibility of the Wifi Dabba Team to implement the recommendations provided in our audit reports and to take appropriate steps to mitigate potential security risks.

# About QuillAudits

QuillAudits is a leading name in Web3 security, offering top-notch solutions to safeguard projects across DeFi, GameFi, NFT gaming, and all blockchain layers. With six years of expertise, we've secured over 1000 projects globally, averting over \$30 billion in losses. Our specialists rigorously audit smart contracts and ensure DApp safety on major platforms like Ethereum, BSC, Arbitrum, Algorand, Tron, Polygon, Polkadot, Fantom, NEAR, Solana, and others, guaranteeing your project's security with cutting-edge practices.



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<b>\$30B+</b> Secured in Digital Assets	<b>1K+</b> Projects Secured

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# AUDIT REPORT

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January 2025

For



Canada, India, Singapore, UAE, UK

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