

3rd-Degree Product Verification Module: Explanation and Issues

Now, 3rd-Degree Company products come with a new product authentication process featuring a highly secure QR-based method called **Veify®**.

Secure Product Verification with Veify®: Ensuring Trust and Safety

At 3rd-Degree, we prioritize the authenticity and safety of our products, which is why we have adopted **Veify®**, a cutting-edge technology for product verification. Each 3rd-Degree product is equipped with a unique, tamper-proof QR code that allows consumers to instantly verify its authenticity. By simply scanning the code with a smartphone, users can access real-time verification, ensuring that the product they have purchased is genuine and safe. This streamlined, user-friendly process eliminates the need for manual input, making product validation accessible to all, regardless of technical expertise.

Veify® leverages advanced cryptographic systems such as **HMAC (Hash-Based Message Authentication Code) and Elliptic Curve Cryptography (ECC)** to secure and protect QR codes against duplication or tampering by counterfeiters. This dual-layer security provides unparalleled protection, offering peace of mind to consumers. By integrating **Veify®'s secure verification process**, 3rd-Degree ensures that every product delivered is authentic, reinforcing our commitment to consumer trust and safety. With this innovative solution, we are setting a new benchmark for product authenticity in the market. For more information about Veify® visit www.veify.org

Why Veify® is Superior to Other Verification Systems

- **Dual-Layer Security:** Veify® employs a combination of **HMAC and ECC cryptographic systems** to prevent QR code duplication and counterfeiting.
- **Real-Time Authentication:** Unlike traditional methods, Veify® provides instant verification through a secure digital pathway.
- **Tamper-Proof Technology:** Each QR code is unique and resistant to cloning, ensuring that counterfeiters cannot replicate genuine codes.
- **User-Friendly Process:** With a simple QR scan, users can verify their product without requiring any additional software or manual input.
- **Data Transparency:** The system logs each scan, allowing users and the company to track verification history, adding an extra layer of trust and accountability.

How the 3rd-Degree Product Verification Works

3rd-Degree has introduced a system to help you verify products using QR codes through the Veify® method. Each product comes with a unique QR code. Here's how it works:

1. **Peel** the paper on the product labeled "Peel Here" to reveal the QR code.
2. **Scan** the QR code with your phone.
3. **Tap** on the link that appears on your mobile screen.
4. **You will be redirected** to our official website (3rd-degree.com), where you can check the product verification status:
 - **1st Scan:** The product is verified.
 - **2nd Scan:** The product has been verified once before.
 - **3rd Scan:** The product has been verified twice before.
 - **4th Scan and beyond:** The product is not verified.

This process is simple, but sometimes issues such as network problems and cached data may cause confusion. Let's explain why this happens and how to resolve it.

Common Issues and Their Causes

1. Network Problems and Multiple Requests

- **Problem:** Sometimes, when you scan the QR code, it may say "The product has been verified once before," even though it's your first scan. This can happen due to network problems. When you scan, fluctuations in network signals can cause your phone to send multiple requests to the server.
- **Effect:** The server receives duplicate requests and mistakenly registers multiple scans, causing the system to display incorrect verification results.

2. Cache Memory and Old Data

- **Problem:** After multiple scans, results may remain unchanged despite server updates. This occurs due to cache memory, where your browser stores previous data for faster loading but may display outdated results.
- **Effect:** Cached data can cause:
 - Display of outdated verification results.
 - Multiple scans being counted incorrectly.
 - Mismatched records between the browser and server.

How Cache Memory Affects the Verification Process

Cache memory can cause the following problems:

- **Old Information:** Your browser might show outdated data even though the server has updated it.
- **Confused Results:** If the cache isn't updated properly, incorrect verification statuses may be displayed.
- **Multiple Scans Counted:** Cached data may cause duplicate scan counts without reflecting the latest verification status.
- **Mismatched Records:** If the cache isn't refreshed, your scans may not match the server's records, leading to confusion.

Suggested Solutions and Tips

To avoid confusion and ensure a smooth verification process, follow these tips:

- **Clear Your Cache:** Periodically clear your browser's cache to view the most up-to-date information.
- **Check Your Network:** Ensure a stable internet connection before scanning. A weak signal may cause duplicate scan requests.
- **Inform Users About Cache Issues:** If discrepancies occur, refresh the page or clear the cache to get updated results.
- **Wait Between Scans:** Allow a few seconds between scans to let the system process each request correctly.
- **Contact Customer Support:** If issues persist, e-mail info@3rd-degree.com or consult a **3rd-Degree authorized reseller**. They can provide scan history, IP addresses, and timestamps for verification troubleshooting.

How Network Signals Affect the Verification Process

Network fluctuations can impact QR code verification. Here's how:

- **Fluctuating Signals:** When scanning a QR code, your device connects to varying network signals (Wi-Fi, mobile data, etc.). These fluctuations can interrupt the verification process.
- **Multiple Requests Sent:** If the signal weakens and then strengthens, your device may send duplicate requests unknowingly.
- **Confusing Results:** Due to network interruptions, the verification system may register multiple scans instead of one.

What You Can Do:

- **Ensure Strong Network Signal:** Scan in an area with a stable **Wi-Fi** or **mobile data connection**.
- **Clear Cache and Refresh:** If you see the same result repeatedly, refresh the page or clear your browser cache.
- **Wait Before Retrying:** If an error occurs, wait a few seconds before scanning again to allow the system to process previous scans correctly.

Tracking Your Scan History

To help users track their scan history, **3rd-Degree** provides the IP address associated with each scan, along with the date and time of the scan. This enables users to:

- Verify scan records accurately.
- Confirm product authentication.
- Investigate verification issues effectively.

If you encounter any confusion or verification issues, our support team can assist by providing scan details for further clarity.

Conclusion

The **Veify®** product verification system is designed to be simple and secure. However, network issues and cached data may occasionally cause confusion. By following these best practices and understanding the impact of **network signals and cache memory**, users can ensure a smooth and reliable verification experience. If problems persist, **3rd-Degree** can provide **IP address logs, timestamps, and scan history** to assist with troubleshooting and verification.

For further assistance, e-mail info@3rd-degree.com or speak with a **3rd-Degree authorized reseller**.