Origin Authentication on QR codes

Powered by Ozge, Esref

Agenda

- **QR Code**
  - Structure
  - Usages
- Problem
- Solution
  - Key Generation
  - Encoding
  - Decoding
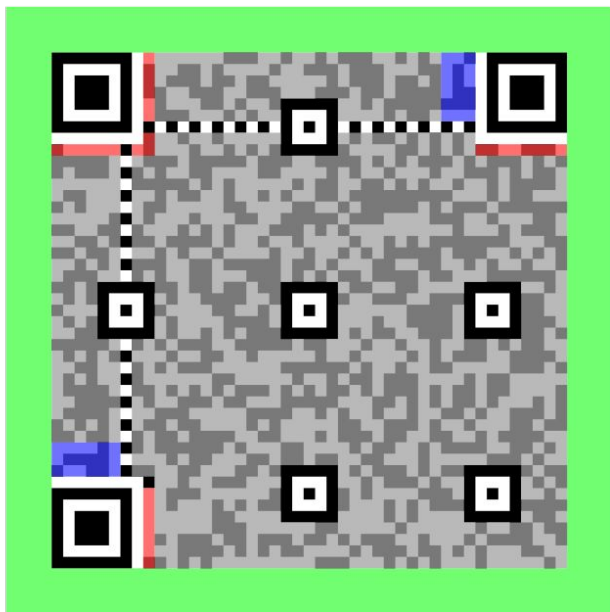- Conclusion
- Q&A

QR Code (Quick Response Code)

- "Hello, World!" QR Code:

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Structure

1. Version information
2. Format information
3. Data and error correction keys
4. Required patterns
   4.1. Position
   4.2. Alignment
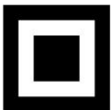   4.3. Timing
5. Quiet zone

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Usages

- Website login

Usages

- Website login
- URLS

Usages

- Website login
- URLS
- Payment

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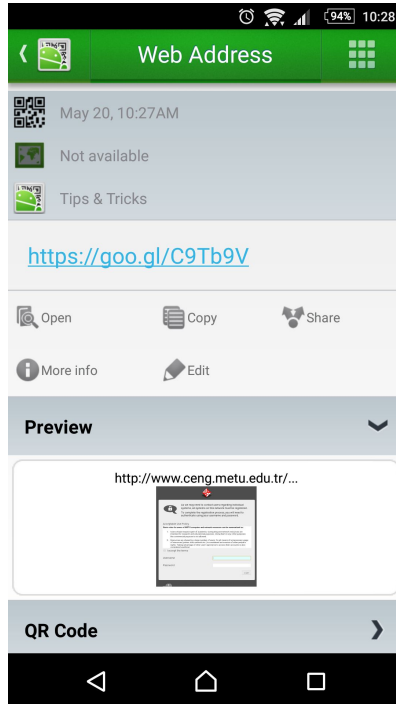
Problem

Problem

Problem

- **https://goo.gl/C9Tb9V**

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SOLUTION

Data Origin Authentication on QR Codes.

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Key Generation

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ENCODING
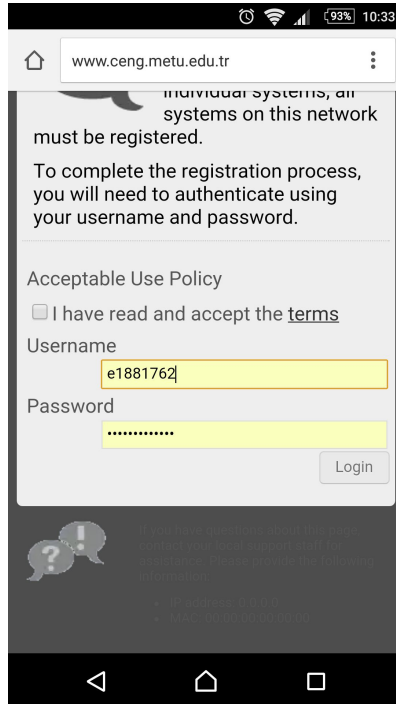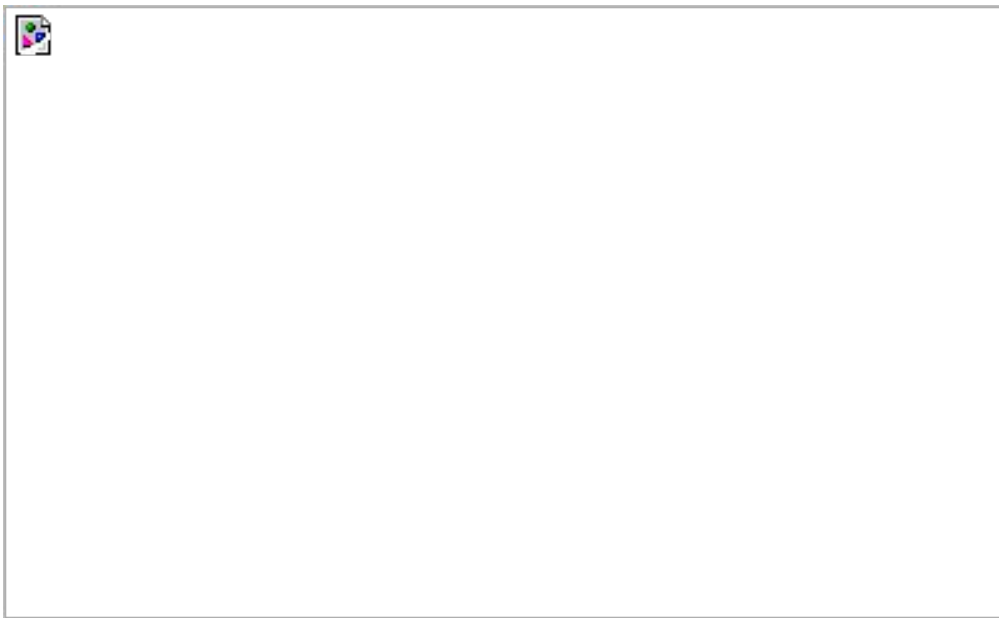
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Decoding

CONCLUSION

- QR Code can be used to do evil
- You cannot really be sure if a QR Code is really generated by Google
- Origin Authentication can be used to validate QR Code.
  - Downside: Actual message length will be smaller
  - Downside: New apps will be needed

Q&A