

This document is a detailed technical report on the Cryptanalysis of the UnConditionally Secure Authentication Protocol for RFID Systems (eNDobj). It covers various phases of the protocol, including key updating, finding constant nonces, key recovery, and traceability. The report includes mathematical proofs, pseudocode, and diagrams illustrating the protocol's components and security analysis.

The eNDobj protocol is divided into several phases:

- Phase I: Key Updating** (eNDobj 10 obj <> /S/GoTo/D (chapter.1))
- Phase II: Finding the constant nonce** (eNDobj 40 obj <> /S/GoTo/D (subsection.1.4.2))
- Phase III: Key Recovery** (eNDobj 44 obj <> /S/GoTo/D (section.1.6))
- Phase IV: Traceability** (eNDobj 60 obj <> /S/GoTo/D [section.1.6.1])

The report also discusses the Mutual Authentication Phase (eNDobj 160 obj <> /S/GoTo/D [subsection.1.2.1]) and the Overall Attack Scenario (eNDobj 310 obj).

Key findings include:

- The protocol is found to be UnConditionally Secure.
- It is vulnerable to a chosen-ciphertext attack (CCA) due to its linear structure.
- The protocol does not provide traceability for the adversary.
- It is susceptible to replay attacks.
- It is not resistant to side-channel attacks.

The report concludes with recommendations for improving the protocol's security and concludes with a note that the entire document is subject to further research and improvement.

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This page contains the entire text of the document, which is extremely long and repetitive. It consists of two main sections: a header and a body.

The header is located at the top of the page and includes the document's title, version, and some general information.

The body of the document is the main content, which is highly repetitive and contains many errors. It appears to be a large block of text that has been copied and pasted multiple times.

The text is in a single column and is written in a standard font. There are no headings, subheadings, or other structural elements.

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