

# Improving Mobile Security

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# Outline

- 1 Background
- 2 GSM Weakness in UMTS
- 3 Application Security Threat
- 4 EM Leaking Key Information?

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- 1 Background
  - GSM and UMTS
  - Cryptography
- 2 GSM Weakness in UMTS
- 3 Application Security Threat
- 4 EM Leaking Key Information?

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## 1 Background

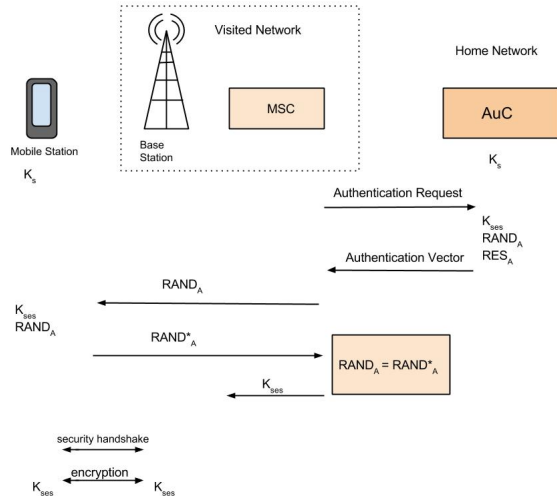
## 2 GSM Weakness in UMTS

- Authentication
- GSM and UMTS Inter-working Networks
- Man-In-The-Middle Attack
- Solution

## 3 Application Security Threat

## 4 EM Leaking Key Information?

# GSM Authentication



Authentication.jpg

# Inter-working Networks

# Man-in-the-middle weakness in GSM

# Protecting UMTS from GSM Man-in-the-middle attack



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