

Protect your devices and memory cards

NOKIA
Connecting People

Memory and device encryption data sheet

Business mobility made secure. Nokia makes it simple to collaborate with confidence, using hardware-accelerated encryption.

Users can feel safe in the knowledge that both the company's and their own personal data are protected. And that means they can get on with their jobs, without worrying about data security and with virtually no compromise on the speed of their device.

This is all thanks to hardware-accelerated encryption covering the device memory and memory card on a compatible Nokia Eseries device.

Vital for your business

Security of data stored on a mobile device is a business critical issue. In fact, research suggests that potential loss or theft is currently seen as a primary concern to the wider adoption of business mobility solutions.

With Nokia, however, encrypted device memory and memory cards smoothly deliver peace of mind and complete control, together with an industry-recognised level of data protection.

The security benefits include:

- Encryption of all user-accessible files on the device memory and the memory card, such as emails, attachments including Microsoft® Office documents, calendar items, tasks and contacts.
- Hardware acceleration provides unhindered speed and responsiveness on Nokia devices, when encryption is activated. In most cases, this means optimum device performance.
- Advanced encryption key sharing makes collaboration within teams simple and secure, as they can seamlessly share encrypted memory cards between devices.
- Separately available device management tools, such as Open Mobile Alliance Device Management (OMA DM) compatible solutions and Microsoft® Exchange Server for users with Mail for Exchange, enable remote security management. It's also good to know that users can quickly lock their own device by sending a pre-defined personal text message (SMS).

- Unlike others, Nokia's hardware-accelerated solution means users are more likely to adopt the encryption solution. It's unlikely they'll even notice its operation as there's negligible impact on the speed or capabilities of their device.

High-security, intelligently delivered

Nokia's encryption solution is designed to work with business and people, not hinder them. So there are a number of additional features to enhance how encryption operates:

- Encryption can be switched on and off, simply and quickly, by the user or managed remotely with a separately available compatible OMA DM device management solution. The default setting for brand new devices is 'off', so the user (or administrator via device management) will first need to activate encryption.
- Memory cards can be encrypted with an existing key, which allows multiple devices to share the same memory card encryption key so that any one card will work in all specified devices.
- To ensure adoption of the encryption solution, administrators can remotely enforce it to all users with OMA DM. Unable to switch off encryption, users will have to accept that their device memory and/or memory card will be encrypted.
- Access to the encrypted device is controlled with the device lock password.

Nokia Eseries supported devices

- Nokia E6
- Nokia E5
- Nokia E52
- Nokia E55
- Nokia E66
- Nokia E71
- Nokia E72
- Nokia E75

Technical Specifications

- Encryption cipher: Advanced Encryption Standard (AES) in the XTS mode (Institute of Electrical and Electronics Engineers (IEEE), P1619 Standard Architecture for Encrypted Shared Storage Media).
- AES operations do not slow the application processor, as they are performed separately by device hardware.
- The solution works below the file system and is therefore transparent to applications.
- Cryptographic operations are performed and keys are stored on protected hardware area.
- A hardware-based random number generator is used in key generation.
- Encryption key length: 128 bits;
Initialisation vector: 128 bits
- Key backup file format:
PKCS#5 pass-phrase protected file.

Source: RFC 2898, "PKCS #5: Password-Based Cryptography Specification Version 2.0," Internet Engineering Task Force, September 2000.



Nokia E6

NOKIA
Connecting People