NAME

logksi - Log signature command-line tool of KSI Blockchain.

SYNOPSIS

logksi [**-h**][**--version**]

logksi command -h

logksi command [*service_parameters*] [*options*]

DESCRIPTION

Guardtime's KSI Blockchain is an industrial scale blockchain platform that cryptographically ensures data integrity and proves time of existence. The KSI signatures, based on hash chains, link data to this global calendar blockchain. The checkpoints of the blockchain, published in newspapers and electronic media, enable long term integrity of any digital asset where only trusted publications file or a publication string in printed media is needed to perform the verification.

Log signature tool is used to perform operations related to log signature files created according to the log signature specification, for instance by KSI Rsyslog module. It provides the following functions:

- Extending of KSI signatures in a log signature file (**logksi-extend**(1)).

- Verifying of log signatures (**logksi-verify**(1)).

- Recovery signing of unsigned blocks in a log signature file (**logksi-sign**(1)).

- Integrating of temporary files containing log signature blocks and KSI signatures into one final log signature file (**logksi-integrate**(1)).

- Extracting log records to be individually verified (**logksi-extract**(1)).

LOGKSI COMMANDS

extend　Extends KSI signatures in an existing log signature file to the given publication. See **logksi-extend**(1) for more information.

verify　Verifies the log using corresponding log signatures. See **logksi-verify**(1) for more information.

sign　Signs any unsigned block in a given log signature file. Used for recovery signing if due to service unavailability some blocks remained unsigned. See **logksi-sign**(1) for more information.

integrate
　　　　　Integrates temporary blocks file and signatures file (created as a result of asynchronous signing) into a standard log signature file. See **logksi-integrate**(1) for more information.

extract　Extracts log records and corresponding hash chains from the log files protected by KSI signatures. See **logksi-extract**(1) for more information.

conf　Prints the KSI service parameters. See **logksi-conf**(5) for more information.

OPTIONS

-h　Print help text. Use **logksi command -h** to print help for the specific command.

--version
　　　　　Print version info.

EXIT STATUS

0　**Exit success.** Returned if everything is OK.

1　**Exit failure.** A general failure occurred.

3　**Invalid command-line parameter.** The content or format of a command-line parameter is invalid or a parameter is missing.

4　**Invalid format.** Input data to KSI library is invalid, for example signature or publication file format is invalid.

5　**Network error.** KSI log signature tool is unable to connect to the service, connection is timed out or an HTTP error was returned from the KSI service.

6   **Verification error.** Verification of signature or document/block hash failed.

7   **Extending error.** Error in extending a signature or an error was returned by KSI Extender.

8   **Aggregation error.** Error returned by KSI Aggregator.

9   **Input/output error.** Unable to read or write file.

10   **Cryptographic error.** Error may be generated due to mistrusted or unavailable hash algorithm or by an invalid PKI signature/mistrusted certificate.

11   **HMAC error.** HMAC of aggregation or extend response does not match.

12   **No privileges.** Operating system did not grant privileges to perform an operation.

13   **System out of memory.**

14   **Authentication error.** KSI Aggregation or Extending service did not accept the provided access credentials.

16   **Invalid configuration.** KSI log signature tool configuration or KSI C API library configuration is invalid.

ENVIRONMENT

The **KSI_CONF** environment variable points to the KSI configuration file containing the KSI service related parameters such as the URLs to the KSI Aggregator and Extender service and the corresponding access credentials. See **logksi-conf**(5) for more information.

AUTHOR

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SEE ALSO

logksi-extend(1), **logksi-extract**(1), **logksi-integrate**(1), **logksi-sign**(1), **logksi-verify**(1), **logksi-conf**(5)