

Key Nexus AI

_abstract

KeyNexusAI is a distributed cryptanalysis platform that leverages HPC schedulers (SLURM, PBS, LSF) and AI-driven techniques to automate and accelerate large-scale password-recovery campaigns. New datasets trigger sessions automatically, tracked end-to-end, and executed across clusters with pluggable engines like Hashcat or John the Ripper.

_supported formats & encryptions

- **Documents:** PDF, MS Word, Excel, PowerPoint, RTF,...
- **Archives:** ZIP, 7zip, RAR,...
- **Wireless:** WPA, WPA2,...
- **Database & System Files:** database files, Windows account unlock,...
- **Disk Encryption:** BitLocker, FileVault2, APFS, TrueCrypt, VeraCrypt,...
- **Customized** algorithms for new kind of encryptions or encryptions with non-standard parameters

_licensing & support

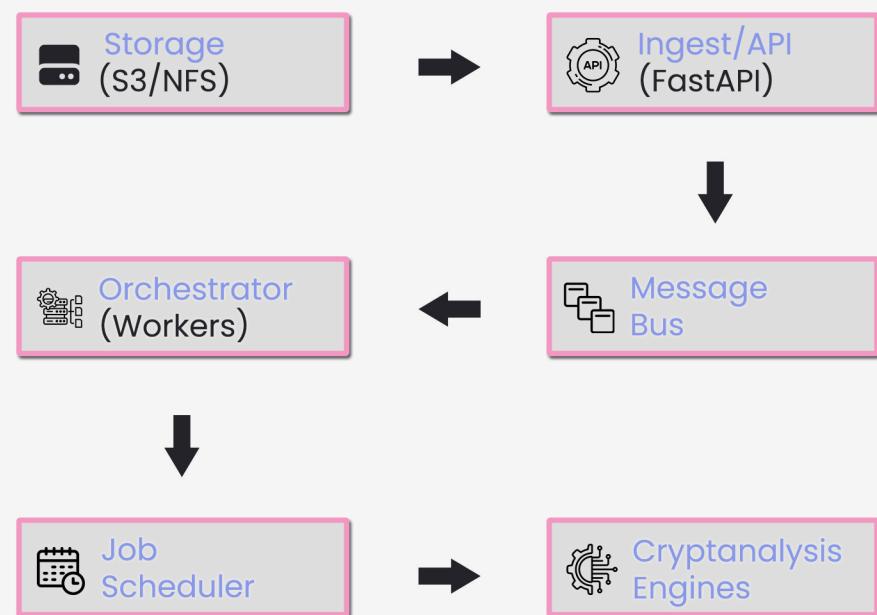
- **License:** Perpetual use
- **Updates:** Annual support included

A product by Scitex Pte. Ltd.

Contact: contact@scitex.sg

111 North Bridge Road, #20-05, Peninsula Plaza, Singapore (179098)

_reference architecture



_hash algorithms & attack modes

- Documents & Programs:

- * Adobe PDF 1.4-1.6/Acrobat 5-8, PDF 1.7 Level 3(Acrobat 9), PDF 1.7 Level 8/Acrobat 10-11
- * .doc, .docx, .xls, .xlsx, .ppt, .pptx, .rtf
- * .zip, .7zip, .rar (Rar 3.x, Rar 5.x)
- * WPA, WPA2, Windows passwords, Bitlocker, FileVault2, APFS, TrueCrypt, VeraCrypt, ...

- Extended Hash Functions:

MD4, MD5, SHA-1, SHA-2, SHA-3, RIPEMD, BLAKE2b, bcrypt, PBKDF2, DES, AES, RSA...

- Attack Types:

Brute-force, Dictionary, Hybrid, Rule Based... with auto-save and resume capability

_dictionary builder

- **AI-powered** generation of dictionaries tailored to target password habits (e.g., Vietnamese users or specific organizations).
- **Pre-built** dictionaries in English, German, Russian, French, Chinese, Spanish, and Vietnamese.
- Each dictionary contains at least **500,000 unique entries**.
- **Dictionaries management** with friendly user interface