NTFS.com Structure of $Secure File

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The table below describes the MFT record structure of the file named $Secure.

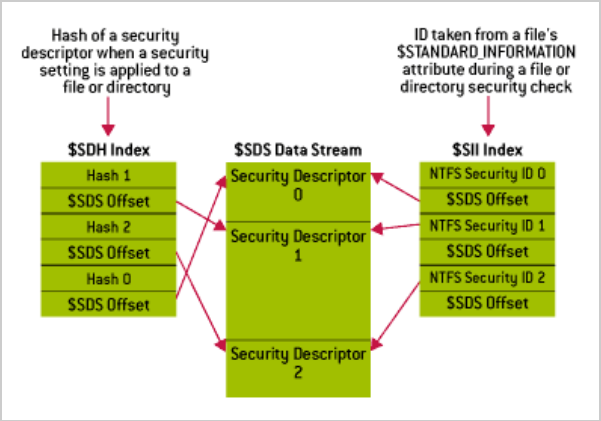
$Secure file MFT record structure

Attribute Type	Name	Description
$STANDARD_INFORMATION		
$FILE_NAME	$Secure	
$DATA	$SDS	*Security Descriptor Stream*. Named data stream that contains a list of all the Security Descriptors on the volume.
$INDEX_ROOT	$SDH	*Security Descriptor Hash* index root
$INDEX_ROOT	$SII	*Security ID* index root
$INDEX_ALLOCATION	$SDH	*Security Descriptor Hash* index storage allocation table
$INDEX_ALLOCATION	$SII	*Security ID Index* storage allocation table
$BITMAP	$SDH	*Security Descriptor Hash* index bitmap
$BITMAP	$SII	*Security ID Index* bitmap

The figure below shows the $SDS and two indexes that provide access to the data stream: $SDH (Security Descriptor Hash) and $SII (Security ID Index).

$SDS Data Stream

NTFS Permissions
Glossary



The picture illustrates that each entry in the file is accompanied by two indexes:

- a Security Descriptor Hash for indexing purposes
- a Security ID, related to the MFT file record; this ID is unique for the NTFS volume and is used as a reference to the $SII index

The $SII index is sorted in ascending order by Security ID and maps each Security ID to the security descriptor's storage location in the $SDS data attribute.

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