

Second edition  
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# Information technology — Storage management —

## Part 5: File systems



Reference number  
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This document was prepared by SNIA (as Storage Management Technical Specification, Part 5 Filesystems, Version 1.8.0, Revision 5) and drafted in accordance with its editorial rules. It was adopted, under the JTC 1 PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

This second edition cancels and replaces the first edition (ISO/IEC 24775-5:2014), which has been technically revised.

The main changes compared to the previous edition are as follows:

- USAGE text was revised to address code (now included in the front matter for all SNIA specifications)
- All recipes and their references were deleted.
- Instances of subprofile were changed to profile. In the annex, instances of subprofile were changed to component profile (TSG meeting voice vote).
- Profile versions and related text were updated. (TSG meeting voice vote).
- Indications have been replaced by DMTF Indications, and all affected clauses updated. (TSG meeting voice vote).
- Instances of Experimental within profiles already labeled as Experimental were removed to avoid confusion and redundancy. (Editorial change)
- CIM/XML was changed to CIM-XML (Response to ballot comments).

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- Annex: SMI-S Information Mo
- The CIM schema version was changed to 2.51 for V1.8.0 Rev3.
- Multiple profiles
  - Changed LocalAccessAvailable LocalAccessAvailableToFS, to respond to a DMTF change.
- File Export Profile (SMIS-170-Draft-SCR00004)
  - Removed the deprecated LogicalFile, ConcreteDependency and FileStorage from the diagrams.
  - Removed GetElementNameCapabilities from CIM\_EnabledLogicalElementCapabilities (moved to the File Export Manipulation Profile).
  - Changed the FileShare reference in CIM\_SAPAvailableForFileShare to ManagedElement to match the mof.
  - Added mandatory indications for FileShare.
- File Export Manipulation Profile
  - Added missing figure: FileShares and Simple Identity Management in Section 5.1.3.3.
  - Promoted all draft material to Experimental.
  - Promoted to Stable (TSG-SMIS-SCR00319).
  - Changed requirement to Mandatory and description for ProtocolVersions property in Tables 33-36.
  - Changed requirement to Mandatory for FileSharingProtocol property in Table 34.
  - Added material associated with the DMTF Simple Identity Management Profile (DS1034 rev 1.1.0 as it pertains to ACL manipulation on file shares. (TSG-SMIS-SCR00317).
  - Removed the deprecated LogicalFile, ConcreteDependency and FileStorage from the diagrams.
  - Fixed the duplicate entry for CIM\_AccountManagementService (the second one was changed to CIM\_AssociatedPrivilege).
  - Removed the deprecated CIM\_ConcreteDependency, CIM\_FileStorage and CIM\_LogicalFile from the CIM Elements table.
  - Fixed the entries for CIM\_ElementCapabilities in the CIM Elements table.
  - Added Key properties in the CIM\_AccountManagementService CIM Elements table.
  - Added the method GetElementNameCapabilities to CIM\_ExportedFileShareCapabilities.
  - Changed the FileShare reference in CIM\_SAPAvailableForFileShare to ManagedElement to match the mof.
  - Added a Key property in the CIM\_UserContact CIM Elements table.
- File Server Manipulation Profile
  - Changed CanConfigureNetworkVLSN in the class CIM\_FileServerConfigurationCapabilities to CanConfigureNetworkVLAN to match the mof.
  - Fixed the PartComponent reference in CIM\_SettingsDefineCapabilities (DNSSettingData) to refer to DNSSettingData.
  - Promoted to Stable (TSG-SMIS-SCR00319).
- File Storage Profile
  - Changed the Central Class from N/A to CIM\_LogicalDisk (SMIS-180-Errata-SCR00003).
  - Changed the Scoping Class from ComputerSystem to CIM\_LocalFileSystem (SMIS-180-Errata-SCR00003).

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- Filesystem Profile
  - Added mandatory indications for LocalFileSystem (SMIS-170-Draft-SCR00004).
  - Material related to ElementCapabilities (naming) incl 8.1.2.3: Promoted to Stable (TSG-SMISSCR00319).
  - Removed the deprecated LogicalFile, ConcreteDependency and FileStorage from the diagrams.
  - Removed the deprecated CIM\_ConcreteDependency, CIM\_FileStorage and CIM\_LogicalFile from the CIM Elements table.
  - Removed GetElementNameCapabilities from CIM\_EnabledLogicalElementCapabilities (moved to the Filesystem Manipulation Profile).
- Filesystem Manipulation Profile
  - Material related to ElementCapabilities (naming) in 9.1.3.1: Promoted to Stable (TSG-SMIS-SCR00319).
  - Fixed the version numbers on the Related Profiles to match what the profiles claim.
  - Removed the deprecated LogicalFile, ConcreteDependency and FileStorage from the diagrams.
  - Fixed the description of the Capabilities reference in CIM\_ElementCapabilities (Local Access Configuration Capabilities).
  - Added descriptions to the references and property in CIM\_ElementCapabilities (Default).
  - Added descriptions to the references in CIM\_ElementCapabilities (Non-Default).
  - Added the GetElementNameCapabilities() method to CIM\_FileSystemCapabilities.
- Filesystem Performance Profile
  - Changed FileSystemStorageStatisticalData to FileSystemStatisticalData in a diagram and the CIM Element table for CIM\_FileSystemStatisticalData.
- Filesystem Quotas Profile
  - Fixed queries in CIM table 173.
  - Changed the name of the Profile from Filesystem Quotas to Filesystem Quotas.
  - Added a missing ElementCapabilities between CIM\_FSQuotaCapabilities and CIM\_FSQuotaManagementService (as depicted in the instance diagram).
  - Added a definition for CIM\_LogicalFile which is depicted in the instance diagram, but is not in the CIM Elements table.
- Filesystem Replication Services Profile
  - Changed the name of the Clause to match the name of the Profile.
  - Fixed the method named GetReplicationRelationshipInstance to be GetReplicationRelationshipInstances.
  - Added DESC to references in CIM\_ElementCapabilities, CIM\_FileSystemSynchronized, CIM\_HostedCollection, CIM\_MemberOfCollection, CIM\_OrderedMemberOfCollection and CIM\_ReplicaPoolForStorage.
  - Added a CIM Element table to describe properties for CIM\_FileSystemGroupSynchronized.
  - Changed the DESC for the ManagedElement in SettingsDefineState.
- Filesystem Quotas Profile

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- Changed the Central Class from LocalFileSystem to CIM\_FSQuotaManagementService (TSG-SMISSCR00333).
- Host Filesystem Profile
  - In the package diagram, changed Filesystem Copy Services to Filesystem Replication Services and deleted Experimental Indications.
  - Added descriptions for references in CIM\_HostedCollection (Remote Resources), NAS Head Profile (TSG-SMIS-SCR00333).
  - Changed both the Central Class and Scoping Class from ComputerSystem to CIM\_ComputerSystem (Top Level System).
- NAS Head Profile
  - Promoted 12.1.3.8.1 to Stable (TSG-SMIS-SCR00319).
  - Promoted the maturity level from DRAFT to EXPERIMENTAL: Updated profiles to remove SNIA\_ classes and use DMTF CIM\_ classes (TSG-SMIS-SCR00315.001).
  - Revised CIM\_AssociatedPrivilege; Added CIM\_UserContact, CIM\_Identity, CIM\_AccountManagementService, CIM\_AssignedIdentity.
  - Fixed the version numbers on the Related Profiles to match what the profiles claim.
  - In the package diagram, removed Cascading and added Filesystem Performance and Filesystem Replication Services.
  - Removed the deprecated LogicalFile, ConcreteDependency and FileStorage from the instance diagram.
- NAS Network Port Profile
  - Fixed the description of CIM\_FSIPInterfaceSettingData in the CIM Elements table.
  - Deleted the extra CIM\_FSIPInterfaceSettingData from the CIM Elements table
  - Deleted CIM\_MemberOfCollection (Allocated Resources) and CIM\_MemberOfCollection (Remote Resources).
  - Changed the Central Class from ProtocolEndpoint to CIM\_ProtocolEndpoint (CIFS or NFS) (TSG-SMISSCR00333).
- Self-Contained NAS Profile
  - Promoted 13.1.3.1, 13.1.3. 2 (TSG-SMIS-SCR00319).
  - Fixed the version numbers on the Related Profiles to match what the profiles claim.
  - In the package diagram, changed Filesystem Copy Services to Filesystem Replication Services.
  - Removed the deprecated LogicalFile, ConcreteDependency and FileStorage from the instance diagram.
  - Added a CIM Element table for CIM\_ElementCapabilities (ImplementationCapabilities to Service).
  - Changed both the Central Class and Scoping Class from ComputerSystem to CIM\_ComputerSystem (Top Level System) (TSG-SMIS-SCR00333).
- Annex A SMI-S Information Model
  - Deleted “Most SMI-S Profiles are primarily based on the DMTF Final MOFs” per 5/22/15 TSG meeting consensus.
  - DMTF’s CIM schema version changed to 2.45.0. (TSG meeting voice vote).

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— References

- Added DMTF DSP1054 v1.2.2, Indications Profile (and changed version to 1.2.2 throughout book).
- Updated reference to DMTF DSP1054 Indications Profile.
- Removed DSP0214.
- Removed year from DSP1034del.

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