

# Completion Codes

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This appendix contains completion codes only for the TS API and SMDR (completion codes beginning with 0xFFFFD and 0xFFFFE respectively). See the following documents for completion codes beginning with:

0xFFFFC *Storage Management Services Utilities Library*

## Alphabetized

NWSMDR_DECRYPTION_FAILURE	(0xFFFFEFFF9)	
NWSMDR_ENCRYPTION_FAILURE	(0xFFFFEFFF8)	
NWSMDR_END_ERROR_CODES	(0xFFFFEFFF1)	
NWSMDR_INVALID_CONNECTION	(0xFFFFEFFFF)	An invalid connection handle was passed to the SMDR .
NWSMDR_INVALID_PARAMETER	(0xFFFFEFFFFE)	One or more of the parameters is null or invalid.
NWSMDR_INVALID_PROTOCOL	(0xFFFFEFFF2)	
NWSMDR_MODULE_ALREADY_EXPORTED	(0xFFFFEFFFFA)	
NWSMDR_NO_MORE_CONNECTIONS	(0xFFFFEFFF1)	
NWSMDR_NO_MORE_DATA	(0xFFFFEFFF4)	
NWSMDR_NO_SOCKETS	(0xFFFFEFFF3)	
NWSMDR_NO_SUCH_SMDR	(0xFFFFEFFF6)	
NWSMDR_OUT_OF_MEMORY	(0xFFFFEFFFFD)	SMDR memory allocation failed
NWSMDR_SMDR_CONNECT_FAILURE	(0xFFFFEFFF5)	
NWSMDR_TRANSPORT_FAILURE	(0xFFFFEFFFFC)	The transport mechanism failed.
NWSMDR_TSA_NOT_LOADED	(0xFFFFEFFF7)	
NWSMDR_UNSUPPORTED_FUNCTION	(0xFFFFEFFFFB)	The requested function is not supported by the SMDR.
NWSMTS_ACCESS_DENIED	(0xFFFFDFFFFF)	Invalid user name or authentication.
NWSMTS_BINDERY_OBJECT_NAME_ERR		

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	(0xFFFFDFFFE) Unable to get bindery object name.
NWSMTS_BUFFER_UNDERFLOW	(0xFFFFDFFFD) Unable to get the entire field.
NWSMTS_CANT_ALLOC_DIR_HANDLE	(0xFFFFDFFFC) Cannot allocate a directory handle.
NWSMTS_CLOSE_BINDERY_ERROR	(0xFFFFDFFFB) Cannot close the bindery.
NWSMTS_CREATE_DIR_ENTRY_ERR	(0xFFFFDFFFA) Cannot create directory entry.
NWSMTS_CREATE_ERROR	(0xFFFFDFFF9) Cannot create a file.
NWSMTS_DATA_SET_ALREADY_EXISTS	(0xFFFFDFFF8) Data set name is already in use
NWSMTS_DATA_SET_EXCLUDED	(0xFFFFDFFF7) The data set is excluded from the session by the selection list.
NWSMTS_DATA_SET_EXECUTE_ONLY	(0xFFFFDFFF6) Cannot open an execute only file.
NWSMTS_DATA_SET_IN_USE	(0xFFFFDFFF5) Data set is currently in use and is inaccessible at this time.
NWSMTS_DATA_SET_IS_OLDER	(0xFFFFDFFF4) The target's data set is newer than the one on the media; the data set will not be restored.
NWSMTS_DATA_SET_IS_OPEN	(0xFFFFDFFF3) Attempting to open an opened data set or to alter a scan when a data set is open.
NWSMTS_DATA_SET_NOT_FOUND	(0xFFFFDFFF2) No data sets were found.
NWSMTS_DELETE_ERR	(0xFFFFDFFF1) Cannot delete the data set.
NWSMTS_EXPECTING_HEADER	(0xFFFFDFFF0) Processing a record or subrecord and could not find the header field.
NWSMTS_EXPECTING_TRAILER	(0xFFFFDFFFEF) Processing a record/subrecord and could not find the trailer field (the last field that marks the end of a section).
NWSMTS_GET_BIND_OBJ_NAME_ERR	(0xFFFFDFFEE) Unable to get the bindery object's name.
NWSMTS_GET_DATA_STREAM_NAME_ERR	(0xFFFFDFFED) Unable to get the data stream's name.
NWSMTS_GET_ENTRY_INDEX_ERR	(0xFFFFDFFEC) Unable to get the entry index.

NWSMTS_GET_NAME_SPACE_ENTRY_ERR	(0xFFFFDFFE9) Unable to get name space entry name.
NWSMTS_GET_NAME_SPACE_SIZE_ERR	(0xFFFFDFFE8) Unable to get the name space size information.
NWSMTS_GET_SERVER_INFO_ERR	(0xFFFFDFFE7) Unable to get the file server's information.
NWSMTS_GET_VOL_NAME_SPACE_ERR	(0xFFFFDFFE6) Unable to get the volume's supported name space information.
NWSMTS_INVALID_CONNECTION_HANDL	(0xFFFFDFFE5) The connection handle is invalid.
NWSMTS_INVALID_DATA	(0xFFFFDFFE4) Invalid data set data.
NWSMTS_INVALID_DATA_SET_HANDLE	(0xFFFFDFFE3) Data set handle is invalid.
NWSMTS_INVALID_DATA_SET_NAME	(0xFFFFDFFE2) Data set name is invalid.
NWSMTS_INVALID_DATA_SET_TYPE	(0xFFFFDFFE1) Data set type is invalid.
NWSMTS_INVALID_HANDLE	(0xFFFFDFFE0) Handle is tagged INVALID or the pointer is null.
NWSMTS_INVALID_MESSAGE_NUMBER	(0xFFFFDFFDF) Message number is invalid.
NWSMTS_INVALID_NAME_SPACE_TYPE	(0xFFFFDFFDE) Name space type does not exist or is invalid.
NWSMTS_INVALID_OBJECT_ID	(0xFFFFDFFDD) The object backed up id/name doesn't match the current object id/name.
NWSMTS_INVALID_OPEN_MODE_TYPE	(0xFFFFDFFDC) Open mode option is out of range (i.e., <0 or >23).
NWSMTS_INVALID_PARAMETER	(0xFFFFDFFDB) One or more of the parameters is null or invalid.
NWSMTS_INVALID_PATH	(0xFFFFDFFDA) An invalid path was used.
NWSMTS_INVALID_SCAN_TYPE	(0xFFFFDFFD9) Scan type is out of range (i.e., < 0 or > 31).

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NWSMTS_INVALID_SEL_LIST_ENTRY	(0xFFFFDFFDA) An invalid selection list entry was passed.
NWSMTS_INVALID_SELECTION_TYPE	(0xFFFFDFFD9) Selection type is out of range (i.e., < 0 or > 31).
NWSMTS_INVALID_SEQUENCE_NUMBER	(0xFFFFDFFD8) The sequence number is invalid.
NWSMTS_LOGIN_DENIED	(0xFFFFDFFD7) Login Denied
NWSMTS_LOGOUT_ERROR	(0xFFFFDFFD6) Unable to logout.
NWSMTS_NAME_SP_PATH_NOT_UPDATED	(0xFFFFDFFD5) The name space path has not been updated.
NWSMTS_NO_CONNECTION	(0xFFFFDFFD3) Connection is invalid or does not exist.
NWSMTS_NO_MORE_DATA	(0xFFFFDFFD2) No more data.
NWSMTS_NO_MORE_DATA_SETS	(0xFFFFDFFD1) There are no data sets left to be scanned.
NWSMTS_NO_MORE_NAMES	(0xFFFFDFFD0) There are no entries left in the list or the name space type does not exist.
NWSMTS_NO_SEARCH_PRIVILEGES	(0xFFFFDFFCF) You do not have any search privileges on the client service.
NWSMTS_NO_SUCH_PROPERTY	(0xFFFFDFFCE) No Such Property.
NWSMTS_NOT_READY	(0xFFFFDFFD4) The specified server is unable to service the request at this time.
NWSMTS_OPEN_DATA_STREAM_ERR	(0xFFFFDFFCD) Unable to open a data stream.
NWSMTS_OPEN_ERROR	(0xFFFFDFFCC) Cannot open a file.
NWSMTS_OPEN_MODE_TYPE_NOT_USED	(0xFFFFDFFCB) Open mode option is not used.
NWSMTS_OUT_OF_DISK_SPACE	(0xFFFFDFFCA) Cannot restore the data set because the target is out of disk space.
NWSMTS_OUT_OF_MEMORY	(0xFFFFDFFC9) The target is out of memory or memory allocation failed.
NWSMTS_OVERFLOW	(0xFFFFDFFC8) A UINT64 value overflowed.

NWSMTS_READ_EA_ERR	(0xFFFFDFFC7) Unable to read the extended attributes.
NWSMTS_READ_ERROR	(0xFFFFDFFC6) Cannot read a file.
NWSMTS_REDIRECT_TRANSPORT	(0xFFFFDFFB4) Indicates reconnection requirement.
NWSMTS_RESOURCE_NAME_NOT_FOUND	(0xFFFFDFFC5) No resource name was found or all resource names were found.
NWSMTS_SCAN_ERROR	(0xFFFFDFFC4) The scan failed. This is probably due to an invalid path.
NWSMTS_SCAN_FILE_ENTRY_ERR	(0xFFFFDFFC3) Unable to scan file entry information.
NWSMTS_SCAN_IN_PROGRESS	(0xFFFFDFFC2) Cannot alter the resource list while the scan(s) is in progress.
NWSMTS_SCAN_NAME_SPACE_ERR	(0xFFFFDFFC1) Unable to scan the name space information.
NWSMTS_SCAN_TRUSTEE_ERR	(0xFFFFDFFC0) Unable to scan for trustees.
NWSMTS_SCAN_TYPE_NOT_USED	(0xFFFFDFFBF) The scan type is not supported by the TSA.
NWSMTS_SELECTION_TYPE_NOT_USED	(0xFFFFDFFBE) The selection type is not supported by the TSA.
NWSMTS_SET_FILE_INFO_ERR	(0xFFFFDFFBD) Unable to set the file's information.
NWSMTS_TRANSPORT_FAILURE	(0xFFFFDFFBC) The transport mechanism failed.
NWSMTS_TRANSPORT_PACKET_SIZE_ER	(0xFFFFDFFBB) The read/write request exceeds 128kb.
NWSMTS_TSA_NOT_FOUND	(0xFFFFDFFBA) An invalid or inactive TSA was specified.
NWSMTS_UNSUPPORTED_FUNCTION	(0xFFFFDFFB9) This function is not supported by the TSA.
NWSMTS_VALID_PARENT_HANDLE	(0xFFFFDFFB8) A valid parent handle was created.
NWSMTS_WRITE_EA_ERR	(0xFFFFDFFB7) Unable to write extended attribute.
NWSMTS_WRITE_ERROR	(0xFFFFDFFB5) Could not write to a file.

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NWSMTS\_WRITE\_ERROR\_SHORT (0xFFFFDFFB6) A partial write occurred.

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0xFFFFDFFB4 NWSMTS\_REDIRECT\_TRANSPORT: Indicates reconnection requirement.

0xFFFFDFFB5 NWSMTS\_WRITE\_ERROR: Could not write to a file.

0xFFFFDFFB6 NWSMTS\_WRITE\_ERROR\_SHORT: A partial write occurred.

0xFFFFDFFB7 NWSMTS\_WRITE\_EA\_ERR: Unable to write extended attribute.

0xFFFFDFFB8 NWSMTS\_VALID\_PARENT\_HANDLE: A valid parent handle was created.

0xFFFFDFFB9 NWSMTS\_UNSUPPORTED\_FUNCTION: This function is not supported by the TSA.

0xFFFFDFFBA NWSMTS\_TSA\_NOT\_FOUND: An invalid or inactive TSA was specified.

0xFFFFDFFBB NWSMTS\_TRANSPORT\_PACKET\_SIZE\_ER: The read/write request exceeds 128kb.

0xFFFFDFFBC NWSMTS\_TRANSPORT\_FAILURE: The transport mechanism failed.

0xFFFFDFFBD NWSMTS\_SET\_FILE\_INFO\_ERR: Unable to set the file's information.

0xFFFFDFFBE NWSMTS\_SELECTION\_TYPE\_NOT\_USED: The selection type is not supported by the TSA.

0xFFFFDFFBF NWSMTS\_SCAN\_TYPE\_NOT\_USED: The scan type is not supported by the TSA.

0xFFFFDFFC0 NWSMTS\_SCAN\_TRUSTEE\_ERR: Unable to scan for trustees.

0xFFFFDFFC1 NWSMTS\_SCAN\_NAME\_SPACE\_ERR: Unable to scan the name space information.

0xFFFFDFFC2 NWSMTS\_SCAN\_IN\_PROGRESS: Cannot alter the resource list while the scan(s) is in progress.

0xFFFFDFFC3 NWSMTS\_SCAN\_FILE\_ENTRY\_ERR: Unable to scan file entry information.

0xFFFFDFFC4 NWSMTS\_SCAN\_ERROR: The scan failed. This is probably due to an invalid path.

0xFFFFDFFC5 NWSMTS\_RESOURCE\_NAME\_NOT\_FOUND: No resource name was found or all resource names were found.

0xFFFFDFFC6 NWSMTS\_READ\_ERROR: Cannot read a file.

0xFFFFDFFC7	NWSMTS_READ_EA_ERR: Unable to read the extended attributes.
0xFFFFDFFC8	NWSMTS_OVERFLOW: A UINT64 value overflowed.
0xFFFFDFFC9	NWSMTS_OUT_OF_MEMORY: The target is out of memory or memory allocation failed.
0xFFFFDFFCA	NWSMTS_OUT_OF_DISK_SPACE: Cannot restore the data set because the target is out of disk space.
0xFFFFDFFCB	NWSMTS_OPEN_MODE_TYPE_NOT_USED: Open mode option is not used.
0xFFFFDFFCC	NWSMTS_OPEN_ERROR: Cannot open a file.
0xFFFFDFFCD	NWSMTS_OPEN_DATA_STREAM_ERR: Unable to open a data stream.
0xFFFFDFFCE	NWSMTS_NO_SUCH_PROPERTY: No Such Property.
0xFFFFDFFCF	NWSMTS_NO_SEARCH_PRIVILEGES: You do not have any search privileges on the client service.
0xFFFFDFFD0	NWSMTS_NO_MORE_NAMES: There are no entries left in the list or the name space type does not exist.
0xFFFFDFFD1	NWSMTS_NO_MORE_DATA_SETS: There are no data sets left to be scanned.
0xFFFFDFFD2	NWSMTS_NO_MORE_DATA: No more data.
0xFFFFDFFD3	NWSMTS_NO_CONNECTION: Connection is invalid or does not exist.
0xFFFFDFFD4	NWSMTS_NOT_READY: The specified server is unable to service the request at this time.
0xFFFFDFFD5	NWSMTS_NAME_SP_PATH_NOT_UPDATED: The name space path has not been updated.
0xFFFFDFFD6	NWSMTS_LOGOUT_ERROR: Unable to logout.
0xFFFFDFFD7	NWSMTS_LOGIN_DENIED: Login Denied
0xFFFFDFFD8	NWSMTS_INVALID_SEQUENCE_NUMBER: The sequence number is invalid.
0xFFFFDFFD9	NWSMTS_INVALID_SELECTION_TYPE: Selection type is out of range (i.e., < 0 or > 31).
0xFFFFDFFDA	NWSMTS_INVALID_SEL_LIST_ENTRY: An invalid selection list entry was passed.
0xFFFFDFFDB	NWSMTS_INVALID_SCAN_TYPE: Scan type is out of range (i.e., < 0 or > 31).



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0xFFFFDFFDC	NWSMTS_INVALID_PATH: An invalid path was used.
0xFFFFDFFDD	NWSMTS_INVALID_PARAMETER: One or more of the parameters is null or invalid.
0xFFFFDFFDE	NWSMTS_INVALID_OPEN_MODE_TYPE: Open mode option is out of range (i.e., < 0 or > 23).
0xFFFFDFFDF	NWSMTS_INVALID_OBJECT_ID: The object backed up id/name doesn't match the current object id/name.
0xFFFFDFFE0	NWSMTS_INVALID_NAME_SPACE_TYPE: Name space type does not exist or is invalid.
0xFFFFDFFE1	NWSMTS_INVALID_MESSAGE_NUMBER: Message number is invalid.
0xFFFFDFFE2	NWSMTS_INVALID_HANDLE: Handle is tagged INVALID or the pointer is null.
0xFFFFDFFE3	NWSMTS_INVALID_DATA_SET_TYPE: Data set type is invalid.
0xFFFFDFFE4	NWSMTS_INVALID_DATA_SET_NAME: Data set name is invalid.
0xFFFFDFFE5	NWSMTS_INVALID_DATA_SET_HANDLE: Data set handle is invalid.
0xFFFFDFFE6	NWSMTS_INVALID_DATA: Invalid data set data.
0xFFFFDFFE7	NWSMTS_INVALID_CONNECTION_HANDL: The connection handle is invalid.
0xFFFFDFFE8	NWSMTS_GET_VOL_NAME_SPACE_ERR: Unable to get the volume's supported name space information.
0xFFFFDFFE9	NWSMTS_GET_SERVER_INFO_ERR: Unable to get the file server's information.
0xFFFFDFFEA	NWSMTS_GET_NAME_SPACE_SIZE_ERR: Unable to get the name space size information.
0xFFFFDFFEB	NWSMTS_GET_NAME_SPACE_ENTRY_ERR: Unable to get name space entry name.
0xFFFFDFFEC	NWSMTS_GET_ENTRY_INDEX_ERR: Unable to get the entry index.
0xFFFFDFFED	NWSMTS_GET_DATA_STREAM_NAME_ERR: Unable to get the data stream's name.
0xFFFFDFFEE	NWSMTS_GET_BIND_OBJ_NAME_ERR: Unable to get the bindery object's name.

0xFFFFDFFF	NWSMETS_EXPECTING_TRAILER: Processing a record/subrecord and could not find the trailer field (the last field that marks the end of a section).
0xFFFFDFFF0	NWSMETS_EXPECTING_HEADER: Processing a record or subrecord and could not find the header field.
0xFFFFDFFF1	NWSMETS_DELETE_ERR: Cannot delete the data set.
0xFFFFDFFF2	NWSMETS_DATA_SET_NOT_FOUND: No data sets were found.
0xFFFFDFFF3	NWSMETS_DATA_SET_IS_OPEN: Attempting to open an opened data set or to alter a scan when a data set is open.
0xFFFFDFFF4	NWSMETS_DATA_SET_IS_OLDER: The target's data set is newer than the one on the media; the data set will not be restored.
0xFFFFDFFF5	NWSMETS_DATA_SET_IN_USE: Data set is currently in use and is inaccessible at this time.
0xFFFFDFFF6	NWSMETS_DATA_SET_EXECUTE_ONLY: Cannot open an execute only file.
0xFFFFDFFF7	NWSMETS_DATA_SET_EXCLUDED: The data set is excluded from the session by the selection list.
0xFFFFDFFF8	NWSMETS_DATA_SET_ALREADY_EXISTS: Data set name is already in use
0xFFFFDFFF9	NWSMETS_CREATE_ERROR: Cannot create a file.
0xFFFFDFFFA	NWSMETS_CREATE_DIR_ENTRY_ERR: Cannot create directory entry.
0xFFFFDFFFB	NWSMETS_CLOSE_BINDERY_ERROR: Cannot close the bindery.
0xFFFFDFFFC	NWSMETS_CANT_ALLOC_DIR_HANDLE: Cannot allocate a directory handle.
0xFFFFDFFFD	NWSMETS_BUFFER_UNDERFLOW: Unable to get the entire field.
0xFFFFDFFFE	NWSMETS_BINDERY_OBJECT_NAME_ERR: Unable to get bindery object name.
0xFFFFDFFFF	NWSMETS_ACCESS_DENIED: Invalid user name or authentication.
0xFFFFEFFF1	NWSMDR_NO_MORE_CONNECTIONS
0xFFFFEFFF2	NWSMDR_INVALID_PROTOCOL
0xFFFFEFFF3	NWSMDR_NO_SOCKETS
0xFFFFEFFF4	NWSMDR_NO_PARAMETERS_DATA
0xFFFFEFFF6	NWSMDR_NO_SUCH_SMDR

0xFFFEFFF7	NWSMDR_TSA_NOT_LOADED
0xFFFEFFF8	NWSMDR_ENCRYPTION_FAILURE
0xFFFEFFF9	NWSMDR_DECRYPTION_FAILURE
0xFFFEFFFA	NWSMDR_MODULE_ALREADY_EXPORTED
0xFFFEFFFB	NWSMDR_UNSUPPORTED_FUNCTION: The requested function is not supported by the SMDR
0xFFFEFFFC	NWSMDR_TRANSPORT_FAILURE: The transport mechanism has failed
0xFFFEFFFD	NWSMDR_OUT_OF_MEMORY: SMDR memory allocation failed
0xFFFEFFF5	NWSMDR_SMDR_CONNECT_FAILURE
0xFFFEFFFE	NWSMDR_INVALID_PARAMETER: One or parameters of the paremeters is null or invalid
0xFFFEFFFF	NWSMDR_INVALID_CONNECTION: An invalid connection handle was passed to the SMDR



# Revision History

Added:

- NWSMTSGetTargetServiceAddress
- NWSMTSGetUnsupportedOptions
- NWSMTSGetTargetServiceType

New introduction chapter.

The following terms were defined:

- Exclude
- Include
- Parent
- Child or children
- Sibling

Deleted:

- NWSMTSChangeToClientRightsOnTS

NWSMTSConvertError, this function is replaced by NWSMConvertError (see *Storage Management Services Library*).

NWSMTSGetTSAVersionInfo, this function is replaced by NWSMGetSMSModuleInfo (see *Storage Management Services Library*).

NWSMTSGetTSAFilterVersionInfo, this function is replaced by NWSMGetSMSModuleInfo (see *Storage Management Services Library*).

Changed:

Moved data structures description to appendix.

Changed names for data set directory information and data set information. These are now data set information and data set data, respectively.

NWSMListTSAs:

- Added improved search pattern and completion codes NWSMTS\_NO\_MORE\_NAMES and NWSMDR\_OUT\_OF\_MEMORY.

NWSMTSListTargetServices:

- Added improved search pattern functionality and change functionality description.

NWSMConnectToTSA:

- Added completion codes NWSMDR\_NO\_SUCH\_SMDR and NWSMDR\_INVALID\_PARAMETER.

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Removed parameters `targetUserName` and authentication.

Removed completion codes `NWSMTS_ACCESS_DENIED` and `NWSMTS_TSA_NOT_FOUND`. Replaced `NWSMTS_OUT_OF_MEMORY` with `NWSMDR_OUT_OF_MEMORY`.

**NWSMTSScanTargetServiceName:**

Corrected parameter list `"*serviceName"` is now `"serviceName"`.

Removed completion code `NWSMTS_TARGET_SERVICE_NOT_FOUND`.

Replaced `NWSMDR_OUT_OF_MEMORY` with `NWSMDR_OUT_OF_MEMORY`.

**NWSMTSListTargetServices:**

Removed completion code `NWSMTS_TARGET_SERVICE_NOT_FOUND`.

Replaced `NWSMTS_OUT_OF_MEMORY` with `NWSMDR_OUT_OF_MEMORY`.

**NWSMTSConnectToTargetService:**

Added completion codes `NWSMDR_INVALID_CONNECTION`, `NWSMDR_UNSUPPORTED_FUNCTION`, `NWSMDR_INVALID_CONNECTION`, `NWSMDR_INVALID_PROTOCOL`, `NWSMDR_ENCRYPTION_FAILURE`, and `NWSMDR_INVALID_PARAMETER`.

**NWSMTSScanTargetServiceResource:**

Added completion codes `NWSMDR_INVALID_PARAMETER`, `NWSMDR_INVALID_CONNECTION`, `NWSMDR_UNSUPPORTED_FUNCTION`, and `NWSMDR_TRANSPORT_FAILURE`.

Removed completion codes `NWSMTS_INVALID_PARAMETER`, `NWSMTS_GET_SERVER_INFO_ERROR`, `NWSMTS_OUT_OF_MEMORY`, `NWSMTS_GET_VOL_NAME_SPACE_ERR`, `NWSMTS_SCAN_IN_PROGRESS`, and `NWSMTS_GET_DATA_STREAM_NAME_ERR`.

NWSMSTListTSResources:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
PARAMETERS\_RESOURCE\_NAME\_NOT\_FOUND,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Replaced NWSMTS\_OUT\_OF\_MEMORY with  
NWSMDR\_OUT\_OF\_MEMORY.

NWSMTSBuildResourceList:

Added completion codes  
NWSMDR\_INVALID\_CONNECTION and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Removed completion code  
NWSMTS\_SCAN\_IN\_PROGRESS.

Replaced NWSMTS\_INVALID\_PARAMETER with  
NWSMDR\_INVALID\_PARAMETER.

NWSMTSGetTargetResourceInfo:

Added parameters migratedSectors,  
precompressedSectors, and compressedSectors.

Changed data type of *resourceIsRemovable* from a  
UINT8 to a NWBOOLEAN.

Added completion codes  
NWSMTS\_NO\_MORE\_NAMES,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_UNSUPPORTED\_FUNCTION, and  
NWSMTS\_GET\_SERVER\_INFO\_ERR.

NWSMTSGetTargetScanTypeString:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMTSGetTargetSelectionTypeStr

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED FUNCTION.

NWSMTSScanSupportedNameSpaces:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION,



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NWSMDR\_UNSUPPORTED\_FUNCTION, and  
NWSMDR\_TRANSPORT\_FAILURE.

NWSMTSListSupportedNameSpaces:

Added completion codes  
NWSMTS\_NO\_SUCH\_PROPERTY,  
NWSMTS\_INVALID\_CONNECTION\_HANDL,  
NWSMTS\_NO\_MORE\_NAMES,  
NWSMTS\_INVALID\_DATA\_SET\_NAME,  
NWSMDR\_INVALID\_CONNECTION,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_UNSUPPORTED\_FUNCTION, and  
NWSMDR\_OUT\_OF\_MEMORY.

NWSMTSGetNameSpaceTypeInfo:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMTSGetOpenModeOptionString:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_NAME.

NWSMTSScanDataSetBegin:

Corrected scanInformation and dataSetNames' valid  
values.

Added completion codes  
NWSMTS\_INVALID\_SEL\_LIST\_ENTRY,  
NWSMUT\_OUT\_OF\_MEMORY,  
NWSMDR\_INVALID\_CONNECTION,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_UNSUPPORTED\_FUNCTION, and  
NWSMUT\_INVALID\_PARAMETER.

Added how to read skipped data set file information to  
"Remarks."

Removed completion codes  
NWSMTS\_GET\_NAME\_SPACE\_ENTRY\_ERR,  
NWSMTS\_INVALID\_SEQUENCE\_NUMBER,  
NWSMTS\_NAME\_SP\_PATH\_NOT\_UPDATED,  
NWSMTS\_NO\_MORE\_DATA\_SETS,  
NWSMTS\_NO\_SEARCH\_PRIVILEGES,  
NWSMTS\_SCAN\_ERROR,  
NWSMTS\_DATA\_SET\_EXCLUDED, and  
NWSMTS\_CANT\_ALLOT\_DIR\_HANDLE.

Replaced completion codes  
NWSMUT\_NO\_MORE\_NAMES with  
NWSMUT\_NO\_MORE\_NAMES and  
NWSMUT\_INVALID\_HANDLE with  
NWSMUT\_INVALID\_HANDLE.

NWSMTSScanNextDataSet:

Corrected scanInformation and dataSetNames' valid values.

Added completion codes  
NWSMUT\_INVALID\_PARAMETER,  
NWSMUT\_OUT\_OF\_MEMORY,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMTSScanDataSetEnd:

Corrected last parameter data type.

Corrected remarks to read "However, do not call this function if the scan functions returned an error."

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMTSOpenDataSetForBackup:

Added completion codes NWSMUT\_WRITE\_ERROR,  
NWSMUT\_OPEN\_DATA\_STREAM\_ERR,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Removed completion code  
NWSMUT\_INVALID\_PARAMETER.

NWSMTSOpenDataSetForRestore:

Added TSA-specific open mode  
NWSM\_UPDATE\_DATA\_SET.

Added completion codes  
NWSMUT\_INVALID\_PARAMETER,  
NWSMUT\_OUT\_OF\_MEMORY,  
NWSMUT\_NO\_MORE\_NAMES,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Added misplace data sets information to "Remarks."

Removed completion codes  
NWSMETS\_NO\_CONNECTION and  
NWSMETS\_INVALID\_MODE.

NWSMETSReadDataSet:

Added completion codes NWSMETS\_ACCESS\_DENIED,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Removed completion codes  
NWSMETS\_SCAN\_NAME\_SPACE\_ERR,  
NWSMETS\_SCAN\_TRUSTEE\_ERR,  
NWSMETS\_NAME\_SPACE\_ERROR,  
NWSMETS\_GET\_ENTRY\_INDEX\_ERR,  
NWSMETS\_READ\_EA\_ERROR,  
NWSMETS\_INVALID\_NAME\_SPACE\_TYPE,  
NWSMETS\_NO\_MORE\_NAMES, and  
NWSMETS\_INVALID\_HANDLE.

Replaced completion code  
NWSMETS\_INVALID\_PARAMETER with  
NWSMDR\_INVALID\_PARAMETER.

NWSMETSScanDataSetEnd:

Removed completion code  
NWSMETS\_NO\_CONNECTION.

NWSMETSRenameDataSet:

Corrected parameter description for nameSpaceType  
(value is taken from NWSM\_DATA\_SET\_NAME\_LIST  
instead of NWSM\_SCAN\_CONTROL).

Added completion codes  
NWSMETS\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMETSDeleteDataSet:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMETSSetRestoreOptions:

Added completion codes  
NWSMETS\_INVALID\_SEL\_LIST\_ENTRY,

NWSMUT\_OUT\_OF\_MEMORY,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Replaced completion codes  
NWSMUTS\_INVALID\_PARAMETER with  
NWSMUT\_INVALID\_PARAMETER, and  
NWSMUTS\_INVALID\_HANDLE with  
NWSMUT\_INVALID\_HANDLE.

NWSMUTSReleaseTargetService:  
Removed NWSMUTS\_INVALID\_HANDLE.

NWSMReleaseTSA:  
Added completion code  
NWSMDR\_INVALID\_PARAMETER.

NWSMUTSSetArchiveStatus:  
Changed data type of *setFlag* from a UINT16 to a  
UINT32.

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMUTSIsDataSetExcluded:  
Changed data type of *isParent* from a UINT8 to an  
NWBOOLEAN.

Added completion codes  
NWSMUTS\_INVALID\_PARAMETER,  
NWSMUTS\_INVALID\_PATH,  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMUTSReleaseTargetService:  
Changed *connection* to a pointer.

Removed completion code  
NWSMUTS\_INVALID\_HANDLE.

NWSMUTSCloseDataSet:  
Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Removed completion code

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NWSMTS\_INVALID\_HANDLE.

NWSMFreeNameList:

Removed completion code  
NWSM\_TRANSPORT\_FAILURE.

Replaced NWSMTS\_INVALID\_PARAMETER with  
NWSMUT\_INVALID\_PARAMETER.

NWSMTSWriteDataSet:

Added completion codes NWSMTS\_INVALID\_DATA,  
NWSMTS\_ACCESS\_DENIED,  
NWSMTS\_READ\_ERROR,  
NWSMTS\_DATA\_SET\_IS\_OLDER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

Removed completion code  
NWSMTS\_OPEN\_DATA\_STREAM\_ERR.

Replaced completion code  
NWSMTS\_INVALID\_PARAMETER with  
NWSMDR\_INVALID\_PARAMETER.

NWSMTSCatDataSetName:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER,  
NWSMDR\_INVALID\_CONNECTION, and  
NWSMDR\_UNSUPPORTED\_FUNCTION.

NWSMTSParseDataSetName:

Added completion codes  
NWSMUT\_INVALID\_PARAMETER,  
NWSMUT\_INVALID\_HANDLE,  
NWSMUT\_NO\_MORE\_NAMES,  
NWSMDR\_INVALID\_CONNECTION,  
NWSMDR\_UNSUPPORTED\_FUNCTION,  
NWSMUT\_OUT\_OF\_MEMORY, and  
NWSMDR\_INVALID\_PARAMETER.

Removed completion codes  
NWSMDR\_TRANSPORT\_FAILURE,  
NWSMTS\_INVALID\_PARAMETER,  
NWSMTS\_NO\_MORE\_NAMES,  
NWSMTS\_OUT\_OF\_MEMORY, and  
NWSMTS\_INVALID\_HANDLE.

NWSMTSSeparateDataSetName:

Added completion codes  
NWSMDR\_INVALID\_PARAMETER and

NWSMDR\_INVALID\_CONNECTION.

NWSM\_SCAN\_CONTROL:

Changed reserved from seven elements to six elements.

Added two scan types:

NWSM\_EXCLUDE\_MIGRATED\_CHILD

NWSM\_EXPAND\_COMPRESSED\_DATA

Changed scan type

NWSM\_EXCLUDE\_EXTENDED\_ATTRIBUTE to

NWSM\_EXCLUDE\_EXTENDED\_ATTRIBUTES.

callScanFilter is not supported in the current release of NetWare 4.0.

NWSM\_SELECTION\_LIST:

Wild card matching for parents and children are now allowed for NetWare 3.x and 4.0.

# **Glossary**

API	Application Programming Interface. This interface presents the open system for the SMS.
Bay	One object among a <i>fixed</i> number of objects, as seen by the device. For instance, a changer can only have five bays, each holding one media. A bay differs from a slot because the bay has a fixed number of objects.
Changer	A machine containing one or more devices and one or more bays.
Data Set	A generic term meaning a collection of related data. For example, each directory or file on a file server is a data set.
Data Set Data	Contains the data set's data, path information, attributes, etc. Under SMS, this is the target's data formatted by the TSA (see <i>System Independent Data Format</i> for more information).
Data Set Information	Information needed to help an application (e.g., SME). For example, this information can be the data set's name, creation date, etc. An application can use this to display the data set that is being serviced. Under SMS, this is the scan and scan control information (see <i>System Independent Data Format</i> for more information).
Device	An object that, under SDI, can mount, read, or write to the media. A device does not contain any slots or bays.
DR API	Data Requestor API. The older version of SMS referred to the Target Service Agent API and connectivity functions as the DR API. The DR API now refers only to connectivity functions (i.e., functions to connect to another module) and functions that list other modules. The Target Service Agent API is now known as the Target Service API.
Emancipate	To release the device or media.
Empty Media	Media with no SIDF header.
End of Recorded Data	The end of the last session on the medium.
FID	Field IDentifier. A data format that allows the identification of data sets. For more information, see <i>System Independent Data Format</i> .
Fix-up	The setting of one or more pointers. Under SMS, this refers to setting up function pointers at call time.
Fully Qualified Data Set Name	A complete path that includes the data set (i.e., primary resource, parent(s), and an optional terminal node name). For



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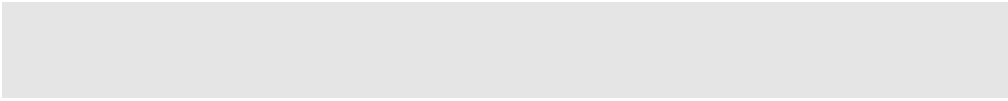
example, in NetWare v3.11 this could be "volume:dirName/dirName/fileName" or "volume:dirName/dirName/." This name may or may not have been verified.

Handle	An unsigned 32-bit integer. Do not pass a null pointer to functions. You must pass a zeroed variable (i.e., handle = 0).
Internetwork	Comprises all LANs of an organization or groups of organizations.
Media	This may refer to the smallest object that can physically be managed by a device. Managing the media consists of mounting, moving, or accessing as a unit. A single medium includes a single tape (even if the tape is partitioned) for sequential devices, a single disk for Magneto-Optical (MO) and Write Once Read Many (WORM) devices, and a single partition on hard disk devices. The media handle returned by SDI refers to this object. This document uses the term media to suggest either a single medium or many media, unless there is a need to clarify which is which.
Media Handle	See Media.
Media Label	See Media Set.
Media Set	One logical object consisting of one or more sequentially numbered media. Each medium in the media set has the same name and a sequence number. The sequence number establishes the medium's uniqueness in the media set. These are called the media label. A media set is treated as one logical group.
Medium	The singular of media.
Module	An abstraction of a particular set of functions or idea (e.g., TSA or SME).
NLM	NetWare Loadable Module.
Nonwaiting	A type of function call that starts the operations required for the function and returns a pending status. At some asynchronous time after the call, SDI sets a variable to indicate the call's completion status. Applications must poll this variable, until SDI sets to a nonwaiting value.
Object	Under SDI, a bay, device, slot, or media. A changer is not an object.
Packetization	The process of stuffing data into packets.

Primary Resources	Main objects on a target. For example, in NetWare v3.11 these are the bindery and volumes; on a workstation these are the drives (A:, B:, etc.).
Public API	An exported API from a module under the NetWare OS. The public API allows applications external to the module to call its functions.
Resource	A data set on the target. For example, in DOS, resources are drives, directories, and files. For a detailed explanation of resources, see <i>Target Service API</i> .
RPC	Remote Procedural Call
Sector Address	Sector addresses are physical and session relative (e.g., the sector address following a session header is sector one [1]).
SD API	Storage Device API
SDI	Storage Device Interface
Sibling Device	A device that can access the same set of media that its parent can.
SIDR	Service Independent Data Requestor. This is replaced by the SMDR.
Slot	An area within an object, as seen by the device, to hold a medium (the number of areas can vary from object to object). For example, a magazine object may have 5 slots, while another may have 10 slots. Also, two-sided media used in a device with one head, is seen by the device as two media or as an object with two slots (e.g., WORM). If the media is used in a device with two heads, the media has 1 slot.
SMDR	Storage Management Data Requestor (formerly known as SIDR)
SME	Storage Management Engine. Its main function is to manage the user's storage management affairs and to direct each module to accomplish this desired task (e.g., have the TSA send the data specified by the user to the media).
SMS	Storage Management Services
SMSP	Storage Management Services Protocol
Storage Management	Refers to the backing up, archiving, restoring, and scanning of data found on a target service.

Subjugate	To assign to an application.
Target	See Target Service
Target Service	Any network entity that needs storage management. The SMS views all services (e.g., print services, communication services, workstations, etc.) as targets.
TS API	Target Service API.
TSA	Target Service Agent. A target agent that processes the target's unique data for an SME.
Unpacketization	The process of pulling data out of packets and reassembling the data.
Waiting Functions	A type of function call that returns to the calling application after having completed all operations.





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