TransNexus

OSP Toolkit

OSP Toolkit Errorcode List

Release 2.5.5

15 January 2002

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This document provides build instructions for of release 2.5.5 of the Open Settlement Protocol (OSP) Toolkit. That Toolkit, which is freely available under license from TransNexus, contains an implementation of the standard settlement protocol endorsed by the European Telecommunications Standards Institute (ETSI) and the International Multimedia Teleconferencing Consortium's Voice over IP (VoIP) Forum. The Toolkit also implements, as an option, extensions to the standard that allow access to enhanced services.

The OSP Toolkit contains eleven separate documents, including this one. The documents are:

- *Introduction*
- *Implementation Guide*
- *How to Build and Test the OSP Toolkit*
- *Errorcode List*
- *Programming Interface*
- *Cisco Interoperability Example*
- *Device Enrollment*
- *Internal Architecture*
- *Porting Guide*
- *Protocol Extensions*
- *ETSI Technical Specification TS 101 321*

The *OSP Toolkit Introduction* includes a "Document Roadmap" section that summarizes the various documents and their application. The reader is advised to read the *OSP Toolkit Introduction* and *Implementation Guide* for an overview of OSP before using this document. This document contains a list of all the error codes within the OSP Toolkit.

This document is the result of our customers questions regarding the OSP Toolkit. We thank our customers for their input, and we thank you for your interest in our software.

The OSP Toolkit Errorcode List

Error Name	Code	Description
GENERIC ERRORS		
OSPC_ERR_OS_FAILURE	-1	An unknown error occurred within the OSP.
OSPC_ERR_NO_ERROR	0	No error occurred
OSPC_ERR_BAD_SERVICE	16	The time is not measured in seconds (as required) in the XML document given to the OSP.
OSPC_ERR_MODULE	9000	Not used.
OSPC_ERR_INVALID_POINTER	9010	An invalid pointer was passed to a function within the OSP.
OSPC_ERR_TIME_ERROR	9020	An error occurred while requesting the current time from the operating system.
PROVIDER ERRORS		
OSPC_ERR_PROV_MODULE	10000	Not used.
OSPC_ERR_PROV_INIT_FAILURE	10010	OSP initialization failed.
OSPC_ERR_PROV_NULL_POINTER	10020	Could not create a provider object.
OSPC_ERR_PROV_TRANSCOLLECTION_NOT_FOUND	10030	An expected collection of transaction objects are missing from the provider object.
OSPC_ERR_PROV_NO_PROV_SPACE	10040	There are no available provider objects. This occurres when a request is made for a provider object.
OSPC_ERR_PROV_HANDLE_INVALID	10050	"The provider is either null, or it is not in use."
OSPC_ERR_PROV_MAX_PROVIDERS	10060	Not used.
OSPC_ERR_PROV_MUTEX_FAILURE	10070	Unable to lock or unlock the Provider mutex.
OSPC_ERR_PROV_INVALID_VALUE	10080	An invalid parameter found while creating a new Provider object.
TRANSACTION ERRORS		
OSPC_ERR_TRAN_MODULE	11000	An unknown error occurred within the transaction object.
OSPC_ERR_TRAN_DELETE_NOT_ALLOWED	11010	Cannot delete the transaction object while the transaction object is in this state.
OSPC_ERR_TRAN_TRANSACTION_NOT_FOUND	11020	A pointer to a transaction object was found to be null.
OSPC_ERR_TRAN_FIRST_DATA_ALREADY_DELIVERED	11030	Not used.
OSPC_ERR_TRAN_RESPONSE_NOT_FOUND	11040	Transaction Authorisation Response not found.
OSPC_ERR_TRAN_NO_TRANS_SPACE	11050	All slots to hold transaction objects are full.
OSPC_ERR_TRAN_MALLOC_FAILED	11060	Allocation of memory failed while processing a transaction object.
OSPC_ERR_TRAN_TRANSACTION_NOT_ALLOWED	11070	This type of transaction is not allowed.
OSPC_ERR_TRAN_NO_MORE_RESPONSES	11080	There are no more destinations.
OSPC_ERR_TRAN_VALUE_NOT_FOUND	11090	An error occurred while validating the S/MIME signature.
OSPC_ERR_TRAN_NOT_ENOUGH_SPACE_FOR_COPY	11100	Not enough memory to make a copy of data.
OSPC_ERR_TRAN_CALLID_DEST_MISMATCH	11110	The number of call ids do not match the number of destinations sent in.
OSPC_ERR_TRAN_INVALID_ENTRY	11120	Invalid data found in transaction

Error Name	Code	Description
		object.
OSPC_ERR_TRAN_TOO_SOON_TO_USE_TOKEN	11130	Token cannot be used early
OSPC_ERR_TRAN_TOO_LATE_TO_USE_TOKEN	11140	Token cannot be used after time has expired.
OSPC_ERR_TRAN_SOURCE_INVALID	11150	Source or Source Device is null or invalid.
OSPC_ERR_TRAN_DEST_INVALID	11160	Destination or Destination Device is null or invalid.
OSPC_ERR_TRAN_CALLING_INVALID	11170	Not used.
OSPC_ERR_TRAN_CALLED_INVALID	11180	Not used.
OSPC_ERR_TRAN_CALL_ID_INVALID	11190	Call Id is null or invalid.
OSPC_ERR_TRAN_AUTH_ID_INVALID	11200	Not used.
OSPC_ERR_TRAN_CALLID_NOT_FOUND	11210	Call Id is null or invalid.
OSPC_ERR_TRAN_NUMBER_CALL_IDS_INVALID	11220	Not used.
OSPC_ERR_TRAN_NOT_IMPLEMENTED	11230	"Invalid system type. It should be OSPC_SOURCE for the source, and OSPC_DESTINATION for the destination."
OSPC_ERR_TRAN_HANDLE_INVALID	11240	Unable to get a valid transaction handle.
OSPC_ERR_TRAN_INVALID_FAILURE_CODE	11250	No failure code returned or the failure code is invalid.
OSPC_ERR_TRAN_STATUS_INVALID	11260	Transaction is missing the status.
OSPC_ERR_TRAN_TOKEN_INVALID	11270	"The pointer for the token is null or invalid, or the token information does not match transaction information."
OSPC_ERR_TRAN_STATUS_NOT_FOUND	11280	Transaction status is either null or invalid.
OSPC_ERR_TRAN_VALID_AFTER_NOT_FOUND	11290	Not used.
OSPC_ERR_TRAN_DEST_NOT_FOUND	11300	No destination found.
OSPC_ERR_TRAN_VALID_UNTIL_NOT_FOUND	11310	Not used.
OSPC_ERR_TRAN_SIGADDR_INVALID	11320	Null pointer for either the signal address or the device address.
OSPC_ERR_TRAN_TXID_NOT_FOUND	11330	Transaction Id is not found.
OSPC_ERR_TRAN_SOURCE_NUMBER_NOT_FOUND	11340	Transaction Source Number not found.
OSPC_ERR_TRAN_DEST_NUMBER_NOT_FOUND	11350	Transaction Destination Number not found.
OSPC_ERR_TRAN_TOKEN_NOT_FOUND	11360	Pointer to token null or invalid.
OSPC_ERR_TRAN_LIST_NOT_FOUND	11370	List of tokens in Authorisation Indication is missing.
OSPC_ERR_TRAN_ACCUMULATE_NOT_ALLOWED	11380	Either AccumulateOneWay or AccumulateRoundTrip not allowed when the transaction is in this state.
OSPC_ERR_TRAN_USAGE_ALREADY_REPORTED	11390	Transaction usage has already been reported.
OSPC_ERR_TRAN_STATS_NOT_FOUND	11400	Not used.
OSPC_ERR_TRAN_STATS_NEW_FAIL	11410	Unable to create a new data structure to hold Transnexus statistics.
OSPC_ERR_TRAN_INVALID_CALC	11420	Invalid Calculation--NaN (Not a Number) encountered)
OSPC_ERR_TRAN_GET_DEST_NOT_ALLOWED	11430	Get destination is not allowed when the transaction is in this state.
OSPC_ERR_TRAN_AUTH_REQ_NOT_FOUND	11440	Authorisation Request not found within the transaction object.
OSPC_ERR_TRAN_TXID_INVALID	11450	Transaction Id is not valid. There is a mismatch between the transaction id and the transaction id within the reauthorisation response.
OSPC_ERR_TRAN_DATA_NOT_FOUND	11460	Reauthorisation Response is missing the time limit.

Error Name	Code	Description
OSPC_ERR_TRAN_NO_NEW_AUTHREQ	11470	Authorisation Request was built incomplete.
OSPC_ERR_TRAN_TOKEN_REUSE	11480	Attempt to reuse a token for a different transaction.
OSPC_ERR_TRAN_CLIENT_ERROR	11481	4XX HTTP Error: Unknown Client Error
OSPC_ERR_TRAN_BAD_REQUEST	11482	400 HTTP Error: Bad Transaction Request
OSPC_ERR_TRAN_UNAUTHORIZED	11483	401 HTTP Error: Unauthorized Transaction
OSPC_ERR_TRAN_CHAR_ENC_NOT_SUPD	11484	410 HTTP Error: Transaction Character Code not Supported
OSPC_ERR_TRAN_PARS_UNSUCCESSFUL	11485	411 HTTP Error: Transaction Parsing Unsuccessful
OSPC_ERR_TRAN_UNSUPD_CRIT_ELEM	11486	412 HTTP Error: Unsupported Critical Element
OSPC_ERR_TRAN_SECURITY_PROBLEM	11487	420 HTTP Error: Security Problem
OSPC_ERR_TRAN_SIG_INVALID	11488	421 HTTP Error: Signature Invalid
OSPC_ERR_TRAN_CRYPTO_ALG_NOT_SUPD	11489	422 HTTP Error: Crypto Algorithm not Supported
OSPC_ERR_TRAN_CERT_INVALID	11490	423 HTTP Error: Certificate Invalid
OSPC_ERR_TRAN_CERT_REVOKED	11491	424 HTTP Error: Certificate Revoked
OSPC_ERR_TRAN_ENCRYPTION_REQD	11492	425 HTTP Error: Encryption Required
OSPC_ERR_TRAN_SERVER_ERROR	11493	5XX HTTP Error: Unknown Server Error
OSPC_ERR_TRAN_INTERNAL_SRVR_ERR	11494	500 HTTP Error: Internal Server Error
OSPC_ERR_TRAN_UNIMPLEMENTED	11495	501 HTTP Error: Not Implemented
OSPC_ERR_TRAN_SERVICE_NOT_AVAIL	11496	503 HTTP Error: Service Unavailable
OSPC_ERR_TRAN_TRANSIENT_SRVR_PROB	11497	510 HTTP Error: Transient Server Problem
OSPC_ERR_TRAN_LONG_TERM_SRVR_PROB	11498	520 HTTP Error: Long Term Server Problem
OSPC_ERR_TRAN_TIME_PROB	11499	530 HTTP Error: Time Problem on Server
OSPC_ERR_TRAN_VALID_TIME_TOO_SOON	11500	531 HTTP Error: Validation Time Too Soon
OSPC_ERR_TRAN_TIME_INTERVAL_TOO_SMALL	11501	532 HTTP Error: Validation Interval Too Small
OSPC_ERR_TRAN_GENERIC_FAILURE	11502	XXX HTTP Error: Unknown HTTP Error
SECURITY ERRORS		
OSPC_ERR_SEC_MODULE	12000	Security Object is null or invalid. (This contains the certificates)
OSPC_ERR_SEC_NOT_ENOUGH_SPACE_FOR_COPY	12010	Not enough space provided for key or the certificate.
OSPC_ERR_SEC_INVALID_ARG	12020	Invalid pointer to new security object
OSPC_ERR_SEC_PRIVATE_KEY_NOT_FOUND	12030	Private key not found.
OSPC_ERR_SEC_NOT_IMPLEMENTED	12040	Not used
OSPC_ERR_SEC_NO_MEMORY	12050	Memory allocation failed within the security object.
OSPC_ERR_SEC_INVALID_SIG	12060	Not used
OSPC_ERR_SEC_SSL_INIT_DB_FAILED	12065	Not used
OSPC_ERR_SEC_NO_SPACE_FOR_CERTIFICATE	12070	Unable to create X509 certificate authority
OSPC_ERR_SEC_LOCAL_CERTINFO_UNDEFINED	12080	Unable to get Local Certificate
OSPC_ERR_SEC_ZERO_LENGTH_CERTIFICATE	12090	The size of the certificate has zero length
OSPC_ERR_SEC_CERTIFICATE_TOO_BIG	12100	Private Key or Certificate is too big
OSPC_ERR_SEC_INVALID_CERTIFICATE	12110	Not used
OSPC_ERR_SEC_NULL_CERTIFICATE	12120	Certificate is null.
OSPC_ERR_SEC_TOO_MANY_CERTIFICATES	12130	Too many authority certificates found
OSPC_ERR_SEC_NO_STORAGE_PROVIDED	12140	Not used

Error Name	Code	Description
OSPC_ERR_SEC_NO_PRIVATE_KEY	12150	Unable to load RSAPrivate Key
OSPC_ERR_SEC_INVALID_CONTEXT	12160	Security context is null pointer
OSPC_ERR_SEC_UNABLE_TO_ALLOCATE_SPACE	12170	Unable to allocate memory for the content of the signature.
OSPC_ERR_SEC_CA_CERTIFICATES_DONT_MATCH	12180	Certificate does not match any of the trusted certificates.
OSPC_ERR_SEC_NO_AUTHORITY_CERTIFICATES	12190	There are no CA Certificates available
OSPC_ERR_SEC_CACERT_INDEX_OVERFLOW	12200	CA Index is out of range. The index is larger than the total number of certificates.
MIME ERRORS		
OSPC_ERR_MSG_MODULE	13000	Not used.
OSPC_ERR_MIME_BUFFER_TOO_SMALL	13110	Not used.
OSPC_ERR_MIME_MALLOC_FAILED	13115	"Attempt to allocate memory for pieces of the MIME header failed. (e.g. content, connection, etc.)"
OSPC_ERR_MIME_VAR_NOT_FOUND	13120	The pointer for mime message is null -- no space allocated.
OSPC_ERR_MIME_NO_INPUT	13125	The message part is zero in length.
OSPC_ERR_MIME_INVALID_ARG	13130	Memory comparison failed. One or both memory spaces are null.
OSPC_ERR_MIME_NO_MORE_SPACE	13135	"While parsing one of the parameters in the MIME message, the OSP ran out of memory allocated for the parameter."
OSPC_ERR_MIME_INVALID_TYPE	13140	Header type does not exist.
OSPC_ERR_MIME_INVALID_SUBTYPE	13145	The MIME subtype does not match what was expected
OSPC_ERR_MIME_PROTOCOL_NOT_FOUND	13150	Protocol parameter not found in MIME header.
OSPC_ERR_MIME_MICALG_NOT_FOUND	13155	Micalg parameter not found in MIME header.
OSPC_ERR_MIME_BOUNDARY_NOT_FOUND	13160	Boundary part of MIME message not found.
OSPC_ERR_MIME_CONTENT_TYPE_NOT_FOUND	13165	Not used.
OSPC_ERR_MIME_MSG_PARTS_NOT_FOUND	13170	There are key parts of the MIME message missing.
XML ERRORS		
OSPC_ERR_XML_INCOMPLETE	13301	Unable to deduce the character encoding in the XML document.
OSPC_ERR_XML_BAD_ENC	13302	Unknown character encoding used in the XML document.
OSPC_ERR_XML_BAD_ENTITY	13303	Malformed XML entity
OSPC_ERR_XML_BAD_NAME	13304	The first character is not valid in an XML name.
OSPC_ERR_XML_BAD_TAG	13305	The first non-whitespace character wasn't a trailing slash or a closing tag in an XML tag.
OSPC_ERR_XML_BAD_ATTR	13306	Missing an equals sign in an attribute within an XML tag.
OSPC_ERR_XML_BADCID_ENC	13307	"if it's not CDATA or base64, the OSP can't interpret it."
OSPC_ERR_XML_BAD_ELEMENT	13308	An unexpected element was encountered in the XML document.
OSPC_ERR_XML_NO_ELEMENT	13309	"While creating an XML document, the OSP was unable to create an element; the data is missing."
OSPC_ERR_XML_NO_ATTR	13310	"While creating an XML document, the OSP was unable to create an attribute within an element; the data is missing."
OSPC_ERR_XML_INVALID_ARGS	13311	An invalid argument was passed to a function creating/parsing an XML document.

Error Name	Code	Description
OSPC_ERR_XML_BUFR_NEW_FAILED	13312	Attempt to create a new buffer for the XML document failed.
OSPC_ERR_XML_BFR_SZ_FAIL	13313	Attempt to find the size of the XML buffer failed.
OSPC_ERR_XML_BFR_READ_BLOCK_FAIL	13314	Unable to read a block of data.
OSPC_ERR_XML_MALLOC_FAILED	13315	Attempt to allocate memory for the XML document failed.
OSPC_ERR_XML_INVALID_TYPE	13316	"An invalid type of XML document was encountered. (In other words, it was not an AuthReq, AuthRsp, UsageInd, etc)"
OSPC_ERR_XML_PARENT_NOT_FOUND	13317	Parent element missing.
OSPC_ERR_XML_CHILD_NOT_FOUND	13318	Child element missing.
OSPC_ERR_XML_DATA_TYPE_NOT_FOUND	13319	"An invalid type of XML data was encountered within the OSP. (In other words, it was not AuthorizationResponse, etc.)"
OSPC_ERR_XML_BFR_WRITE_BLOCK_FAILED	13320	Unable to write a block of data.
DATA ERRORS		
OSPC_ERR_DATA_NOCALLID	13410	CallId data is missing.
OSPC_ERR_DATA_NO_TOKEN	13415	Token data is missing.
OSPC_ERR_DATA_BAD_NUMBER	13420	Value from an XML element was not a valid decimal number.
OSPC_ERR_DATA_NO_DEST	13425	Destination Object data is missing.
OSPC_ERR_DATA_NO_USAGEIND	13430	Usage Indication data is missing
OSPC_ERR_DATA_NO_STATUS	13435	"CSAudit, TNAudit, or status data is missing."
OSPC_ERR_DATA_NO_USAGECNF	13440	Usage Confirmation data is missing.
OSPC_ERR_DATA_NO_AUTHIND	13445	Not used.
OSPC_ERR_DATA_NO_AUTHREQ	13450	Authorisation Request data missing.
OSPC_ERR_DATA_NO_AUTHRSP	13455	Authorisation Response data missing.
OSPC_ERR_DATA_NO_AUTHCNF	13460	Not used.
OSPC_ERR_DATA_NO_REAUTHREQ	13465	Reauthorisation Request data missing.
OSPC_ERR_DATA_NO_REAUTHRSP	13470	Reauthorisation Response data missing.
OSPC_ERR_DATA_INVALID_TYPE	13475	"An invalid type of data was encountered within the OSP. (In other words, it was not AuthorizationResponse, etc.)"
OSPC_ERR_DATA_NO_USAGE	13480	Usage data is missing.
OSPC_ERR_DATA_NO_TOKENINFO	13485	Token info data is missing.
OSPC_ERR_DATA_INVALID	13490	"An invalid type of data was encountered within the OSP. (In other words, the role is not source, destination, or other)"
OSPC_ERR_DATA_NO_ALTINFO	13500	Altinfo data is missing.
OSPC_ERR_DATA_NO_STATS	13510	Statistics data is missing.
OSPC_ERR_DATA_NO_DELAY	13520	Delay data is missing.
MISCELLANEOUS CERTIFICATE ERROR		
OSPC_ERR_CERT_MALLOC_FAILED	13610	Attempt to allocate memory for a certificate failed.
COMMUNICATION ERRORS		
OSPC_ERR_COMM_MODULE	14000	Not used.
OSPC_ERR_COMM_INVALID_SIZE	14010	Size of the service point is too large
OSPC_ERR_COMM_BAD_VALUE	14020	Not used.
OSPC_ERR_COMM_PARSER	14030	An error occurred in the parser of the Communication manager.
OSPC_ERR_COMM_NO_MEMORY	14040	Attempt to allocate memory for a new Communication manager failed.
OSPC_ERR_COMM_INUSE	14050	Not used.
OSPC_ERR_COMM_INVALID_ARG	14060	Invalid data was passed to a communication manager object's

Error Name	Code	Description
		function.
OSPC_ERR_COMM_NO_SVC_PTS	14070	There are no service points available
OSPC_ERR_COMM_NO_SVC_PTS_AVAIL	14080	There are no service points available
OSPC_ERR_COMM_THREAD_INIT_FAILED	14085	Thread initialization failed.
MESSAGE QUERY ERROR		
OSPC_ERR_MSGQ_NO_MEMORY	14110	Attempt to allocate memory for the message queue failed.
HTTP ERRORS		
OSPC_ERR_HTTP_BAD_HEADER_100	14210	Not used.
OSPC_ERR_HTTP_BAD_HEADER_200	14220	HTTP 200: OK
OSPC_ERR_HTTP_BAD_QUEUE	14230	"The HTTP message queue is either missing, corrupted, or prematurely empty."
OSPC_ERR_HTTP_BAD_MESSAGE	14240	The HTTP message could not be built.
OSPC_ERR_HTTP_INVALID_ARG	14250	Invalid data was passed to an HTTP manager function.
OSPC_ERR_HTTP_MALLOC_FAILED	14260	Attempt to allocate memory within the HTTP manager failed.
OSPC_ERR_HTTP_NEWCONN_FAILED	14270	Creating a new HTTP connection failed.
OSPC_ERR_HTTP_CONN_SRCH_TIMEOUT	14275	Not used.
OSPC_ERR_HTTP_SERVER_ERROR	14280	An error occurred on the server side.
OSPC_ERR_HTTP_SHUTDOWN	14290	HTTP Manager shutting down.
OSPC_ERR_HTTP_SSL_NEW_FAILED	14292	Unable to initialize the SSL Session object.
OSPC_ERR_HTTP_SSL_CTX_NEW_FAILED	14295	Unable to create a new SSL Context.
OSPC_ERR_HTTP_SERVICE_UNAVAILABLE	14297	503: Service Unavailable
SOCKET ERRORS		
OSPC_ERR_SOCK_SELECT_FAILED	14300	Unable to select socket. Reading and writing data is not possible.
OSPC_ERR_SOCK_RECV_FAILED	14310	Receiving data from the socket failed.
OSPC_ERR_SOCK_SEND_FAILED	14315	Sending data to the socket failed.
OSPC_ERR_SOCK_RECVBUF_MALLOC_FAILED	14320	Not used.
OSPC_ERR_SOCK_RESET	14321	Not used.
OSPC_ERR_SOCK_CREATE_FAILED	14330	Unable to create a new socket object.
OSPC_ERR_SOCK_CLOSE_FAILED	14340	Unable to close socket connection.
OSPC_ERR_SOCK_CONNECT_FAILED	14350	Attempt to create a new socket connection failed.
OSPC_ERR_SOCK_BLOCKIO_FAILED	14360	An error occurred setting the blocking mode of a socket.
OSPC_ERR_SOCK_DISABLE_NAGLE_FAILED	14370	Unable to disable Nagle.
OSPC_ERR_SOCK_CONN_IN_PROGRESS	14380	Socket connection in progress.
SSL ERRORS		
OSPC_ERR_SSL_MALLOC_FAILED	14400	Attempt to allocate memory for new SSL Context failed.
OSPC_ERR_SSL_INIT_CTX_FAILED	14410	SSL Context initialization failed.
OSPC_ERR_SSL_VERSION_FAILED	14420	Unable to set protocol version.
OSPC_ERR_SSL_INIT_SESSION_FAILED	14430	A failure occurred while initializing the SSL session.
OSPC_ERR_SSL_ATTACH_SOCK_FAILED	14440	Unable to attach a connection with SSL.
OSPC_ERR_SSL_HANDSHAKE_FAILED	14450	An SSL handshake with the server failed.
OSPC_ERR_SSL_CLOSE_FAILED	14460	Unable to close SSL.Unable to terminate SSL properly.
OSPC_ERR_SSL_READ_FAILED	14470	Unable to read from the SSL buffer.
OSPC_ERR_SSL_WRITE_FAILED	14480	Unable to write to the SSL buffer.
OSPC_ERR_SSL_GETCERT_FAILED	14490	Attempt to obtain a certificate failed.

Error Name	Code	Description
OSPC_ERR_SSL_NO_ROOT_CA	14495	Not used.
OSPC_ERR_SSL_SET_PRIVKEY_FAILED	14496	Unable to set private key in the SSL Context data structure.
OSPC_ERR_SSL_PARSE_PRIVKEY_FAILED	14497	Unable to parse the private key.
OSPC_ERR_SSL_ADD_CERTS_FAILED	14498	Unable to add certificates.
OSPC_ERR_SSL_ADD_DN_FAILED	14499	Unable to add distinguished name in the private key.
UTILITY ERRORS		
OSPC_ERR_UTIL_MODULE	15400	Not Used.
OSPC_ERR_UTIL_NOT_ENOUGH_SPACE_FOR_COPY	15410	Not Used.
OSPC_ERR_UTIL_NO_TIME_STAMP_CREATED	15420	Not Used.
OSPC_ERR_UTIL_VALUE_NOT_FOUND	15430	Invalid arguments entered into function.
OSPC_ERR_UTIL_MALLOC_FAILED	15440	Unable to allocate memory in an OSP utility function.
OSPC_ERR_UTIL_INVALID_ARG	15450	Invalid arguments entered into function.
BUFFER ERRORS		
OSPC_ERR_BUF_EMPTY	15500	Unexpected empty buffer.
OSPC_ERR_BUF_INCOMPLETE	15510	Data in a buffer is incomplete
FAIL REASON ERRORS		
OSPC_ERR_FAILRSN_MODULE	15600	Not used.
OSPC_ERR_FAILRSN_NO_DATA	15610	Failure code is missing.
OSPC_ERR_FAILRSN_INVALID	15620	Unknown failure reason.
MISCELLANEOUS ERRORS		
OSPC_ERR_POW	15980	An error occurred while using the standard "pow" function. (calculating one number raised to the power of another number)
OSPC_ERR_OS_CONDVAR_TIMEOUT	15990	Timeout waiting for a conditional variable to be available.
X509 CERTIFICATE ERRORS (PUBLIC KEY)		
OSPC_ERR_X509_MODULE	16000	Not used.
OSPC_ERR_X509_SERIAL_NUMBER_UNDEFINED	16010	Not used.
OSPC_ERR_X509_CERTIFICATE_UNDEFINED	16020	Not used.
OSPC_ERR_X509_INVALID_CONTEXT	16030	The pointer to an X509 CertInfo context is null.
OSPC_ERR_X509_DECODING_ERROR	16040	Not used.
OSPC_ERR_X509_UNABLE_TO_ALLOCATE_SPACE	16050	Unable to allocate memory for the X509 certificate.
OSPC_ERR_X509_INVALID_DATE	16060	The length of the date in the X509 certificate is not the required 13 characters.
OSPC_ERR_X509_CERTIFICATE_EXPIRED	16070	The current date is outside the range of valid certificate dates.
OSPC_ERR_X509_CA_NOT_FOUND	16080	CA Certificate not found
KCS1 SPECIFICATION ERROR (KEY DEFINITIONS)		
OSPC_ERR_PKCS1_MODULE	17000	Not used.
OSPC_ERR_PKCS1_INVALID_PRIVATE_KEY_POINTER	17010	Not used.
OSPC_ERR_PKCS1_UNABLE_TO_ALLOCATE_SPACE	17020	Not used.
OSPC_ERR_PKCS1_INVALID_CONTEXT	17030	Not used.
OSPC_ERR_PKCS1_NULL_POINTER	17040	Not used.
OSPC_ERR_PKCS1_PRIVATE_KEY_OVERFLOW	17050	Not used.
PKCS7 ERRORS		
OSPC_ERR_PKCS7_MODULE	18000	Not used.
OSPC_ERR_PKCS7_SIGNER_MISSING	18010	Not used.
OSPC_ERR_PKCS7_INVALID_SIGNATURE	18020	The PKCS7 signature is invalid.
OSPC_ERR_PKCS7_UNABLE_TO_ALLOCATE_SPACE	18021	Not used.
OSPC_ERR_PKCS7_ENCODING_ERROR	18030	Unknown case encountered encoding a PKCS7 key.
OSPC_ERR_PKCS7_INVALID_POINTER	18040	Invalid input or output pointers.
OSPC_ERR_PKCS7_BUFFER_OVERFLOW	18050	Not used.
ASN1 PARSING ERRORS		
OSPC_ERR_ASN1_MODULE	19000	Not used.
OSPC_ERR_ASN1_NULL_POINTER	19010	Invalid parameters to

Error Name	Code	Description
		ElementGetContent.
OSPC_ERR_ASN1_INVALID_ELEMENT_TAG	19020	Invalid/Unsupported ASN1 element tag.
OSPC_ERR_ASN1_UNEXPECTED_HIGH_TAG	19030	Unsupported high tag encountered.
OSPC_ERR_ASN1_INVALID_PRIMITIVE_TAG	19040	Invalid/Unsupported primitive tag
OSPC_ERR_ASN1_UNABLE_TO_ALLOCATE_SPACE	19050	Unable to allocate memory for ASN1 data.
OSPC_ERR_ASN1_INVALID_CONTEXT	19060	Invalid ASN1 ElementInfo pointer.
OSPC_ERR_ASN1_INVALID_TIME	19070	Not used.
OSPC_ERR_ASN1_PARSE_ERROR	19080	Error parsing an ASN1 object.
OSPC_ERR_ASN1_PARSE_COMPLETE	19090	No Error: Parsing ASN1 object successful
OSPC_ERR_ASN1_PARSE_DEFAULTED	19100	An ASN1 element was not processed.
OSPC_ERR_ASN1_LENGTH_OVERFLOW	19110	Not used.
OSPC_ERR_ASN1_UNSUPPORTED_TAG	19120	"Unsupported, high-order tag (size != 1) encountered"
OSPC_ERR_ASN1_OBJECTID_NOT_FOUND	19130	Object Id out of range.
OSPC_ERR_ASN1_OBJECTID_MISMATCH	19140	ID definitions and reference enums are out-of-sync
OSPC_ERR_ASN1_UNEXPECTED_INT_BASE	19150	A base other than 128 or 256 specified when converting from a small int to an unsigned char.
OSPC_ERR_ASN1_BUFFER_OVERFLOW	19160	Need to increase the size of OSPC_ASN1_DATAREF_MAXLENGTH.
OSPC_ERR_ASN1_INVALID_DATAREFID	19170	An invalid data reference id value encountered.
OSPC_ERR_ASN1_NO_CONTENT_VALUE_FOR_ELEMENT	19180	Not used.
OSPC_ERR_ASN1_INTEGER_OVERFLOW	19190	An overflow occurred while processing an ASN.1 encoded integer.
CRYPTOGRAPHIC ERRORS		
OSPC_ERR_CRYPTO_MODULE	20000	Not used.
OSPC_ERR_CRYPTO_INVALID_PARAMETERS	20010	An invalid parameter was found in the signature.
OSPC_ERR_CRYPTO_UNABLE_TO_ALLOCATE_SPACE	20020	Unable to allocate space within the Crypto manager.
OSPC_ERR_CRYPTO_SIGNATURE_DID_NOT_VERIFY	20030	The Crypto Signature failed verification.
OSPC_ERR_CRYPTO_IMPLEMENTATION_SPECIFIC_ERROR	20040	An error occurred with the third party software.
OSPC_ERR_CRYPTO_INVALID_POINTER	20050	Unable to allocate space within the Crypto manager.
OSPC_ERR_CRYPTO_NOT_ENOUGH_SPACE	20060	Not enough space allocated for some Crypto data.
PKCS8 CERTIFICATE ERRORS (PRIVATE KEY)		
OSPC_ERR_PKCS8_MODULE	21000	Not used.
OSPC_ERR_PKCS8_INVALID_PRIVATE_KEY_POINTER	21010	The PKCS8 private key is NULL.
OSPC_ERR_PKCS8_UNABLE_TO_ALLOCATE_SPACE	21020	Not used.
OSPC_ERR_PKCS8_INVALID_CONTEXT	21030	The PKCS#1 Private Key context is a null pointer.
OSPC_ERR_PKCS8_NULL_POINTER	21040	Not used.
OSPC_ERR_PKCS8_PRIVATE_KEY_OVERFLOW	21050	Not used.
BASE64 ERRORS		
OSPC_ERR_B64_MODULE	22000	Not used.
OSPC_ERR_B64_ENCODE_FAILED	22010	An error occurred encoding a B64 string.
OSPC_ERR_B64_DECODE_FAILED	22020	An error occurred decoding a B64 string.
AUDIT ERRORS		
OSPC_ERR_AUDIT_MODULE	22500	Not used.
OSPC_ERR_AUDIT_MALLOC_FAILED	22510	Unable to allocate memory within the Audit module.
OSPC_ERR_AUDIT_NOT_FOUND	22520	Audit data null or invalid.
OSPC_ERR_AUDIT_THREAD_INIT_FAILED	22530	Audit thread initialization failed.
OSPC_ERR_AUDIT_DUMP_FAILED	22540	Not used.

Error Name	Code	Description
TRANSID ERRORS		
OSPC_ERR_TRANSID_MODULE	23000	Not used.
OSPC_ERR_TRANSID	23010	An error occurred with the transaction ids.
ENROLLMENT ERRORS		
OSPC_ERR_ENROLL	24000	Not used
OSPC_ERR_ENROLL_PARAMS_FUNCTION	24010	Unknown parameter problem with the function type.
OSPC_ERR_ENROLL_PARAMS_USERNAME	24011	Unknown parameter problem with the username.
OSPC_ERR_ENROLL_PARAMS_PASSWORD	24012	Unknown parameter problem with the password
OSPC_ERR_ENROLL_PARAMS_DEVICEID	24013	Unknown parameter problem with the device ID
OSPC_ERR_ENROLL_PARAMS_CUSTOMERID	24014	Unknown parameter problem with the customer ID
OSPC_ERR_ENROLL_PARAMS_SSL_URL	24015	Unknown parameter problem with the SSL URL
OSPC_ERR_ENROLL_PARAMS_CA_URL	24016	Unknown parameter problem with the CA URL
OSPC_ERR_ENROLL_PARAMS_CACERT	24017	Unknown parameter problem with the CACERT
OSPC_ERR_ENROLL_PARAMS_CERTREQ	24018	Unknown parameter problem with the CERTREQ
OSPC_ERR_ENROLL_PARAMS_CA_FPRINT	24019	Unknown parameter problem with the certificate's fingerprint.
OSPC_ERR_ENROLL_BAD_USERNAME	24030	Missing Parameter: Username not found.
OSPC_ERR_ENROLL_BAD_PASSWORD	24031	Missing Parameter: Password not found.
OSPC_ERR_ENROLL_BAD_DEVICE_ID	24032	Missing Parameter: Device ID not found.
OSPC_ERR_ENROLL_BAD_CUSTOMER_ID	24033	Missing Parameter: Customer ID not found.
OSPC_ERR_ENROLL_BAD_CERT_B64	24034	Missing Parameter: Base64 Certificate not found.
OSPC_ERR_ENROLL_BAD_CERT	24035	Unable to find information about the public key in the certificate.
OSPC_ERR_ENROLL_BAD_CERT_REQ	24036	Unable to find information about the public key in the certificate request.
OSPC_ERR_ENROLL_BAD_FPRINT	24037	The fingerprint verification failed.
OSPC_ERR_ENROLL_INVALID_ARG	24040	An invalid argument was encountered
OSPC_ERR_ENROLL_NO_MEMORY	24041	An attempt to allocate memory failed.
OSPC_ERR_ENROLL_NULL_PTR	24042	Not Used
OSPC_ERR_ENROLL_CREATE_NONCE_BAD_PARAMS	24050	Not Used
OSPC_ERR_ENROLL_GEN_NONCE	24051	Unable to generate or create nonce
OSPC_ERR_BAD_ALNUM_STR	24060	Not Used
OSPC_ERR_BAD_ASCII_STR	24061	Non ASCII characters have been encountered.
OSPC_ERR_ENROLL_BAD_DIGIT_STR	24062	Unexpected non-digits encountered.
OSPC_ERR_ENROLL_VALUE_NOT_FOUND	24070	Not Used
OSPC_ERR_ENROLL_SEARCH_FIELD_NOT_FOUND	24071	Unable to find a field
OSPC_ERR_ENROLL_INVALID_REQUEST_PARAMS	24080	At least one parameter is invalid
OSPC_ERR_ENROLL_CREATE_REQUEST_BODY	24081	Unable to create a request body.
OSPC_ERR_ENROLL_INVALID_RESPONSE	24082	An invalid response was encountered when working with certificates.
OSPC_ERR_ENROLL_ASN1_CMP_LENGTH_MISMATCH	24090	The lengths of two ASN.1 objects do not match.
OSPC_ERR_ENROLL_ASN1_CMP_MISMATCH	24091	"While comparing ASN.1 objects, a comparison revealed they are not equal."
OSPC_ERR_ENROLL_ASN1_PARSE	24092	Unable to reverse-engineer parse

Error Name	Code	Description
		results from the given information
OSPC_ERR_ENROLL_APPENDING_NAME_VALUE_PAIR	24100	Unable to append a parameter to the request body.
OSPC_ERR_ENROLL_SOURCE_STRING_EMPTY	24101	A string that needs to be copied is found to be empty.