

**DSD002, Annex 5 – DIP Message Validation Codes**

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## **1 Introduction**

### **1.1 Scope and purpose**

- 1.1.1 The purpose of this Annex is to detail the validation codes for Level 3, initial synchronous validation by a DIP User, and Level 4, secondary asynchronous validation by a DIP User. These validation codes support DIP Users when they send and receive messages.
- 1.1.2 Validation codes used in Level 3 and Level 4 message validation support message exchanges as well as message acceptance and/or rejection within the message channel. For DIP Users, these codes are a key requirement to ensure system operability for DIP Participants.
- 1.1.3 Level 3 and Level 4 message validation, as set out in this Annex are mandatory for all DIP Users.
- 1.1.4 The table in Section 2 details the validation codes.

## 2 Validation Codes

- 2.1 The validation codes detailed within Table 1 are for Level 3 and Level 4 message validation. These behaviours are applied to all Interfaces. These are requirements for DIP Users system.
- 2.2 Within the table columns, there are:
- a) **Quantitative check** requirement(s), which are represented by = **Qn**.
    - a. Identical checks are undertaken by those using the DIP.
  - b) **Qualitative check** requirement(s), which is represent by = **Ql**.
    - a. Not all DIP Users' systems must undertake the identical checks.
  - c) **Mandatory** requirement(s), which are represented by an **M**. These checks need to be made against a message.
  - d) **Conditional** requirement(s), these are covered by schema validation checks. These requirements are represented by a **C**. If a schema validation check is undertaken, then these checks do not need to be made.
  - e) **Optional** requirement(s) that have DIP User system architecture dependencies. The DIP Manager and the DIP Service Provider will provide support in identifying whether a system is impacted by these requirements. These requirements are represented by an **O**. Optional checks are implementation specific and hence are not mandatory.

Table 1 – Validation Code for Level 3 and Level 4 Validation

DI-979 Response Code (RCP)	Message	Description	Usage Guidance	Qn/ Ql (\$)	M/C/O
RCP0000	Message Success		Used in the response body of a 201 L3 response.		M

RCP1000	Message Processing Failed	Generic / Catch All	Used when an unspecified error is encountered.  The recommendation is that this response code be used sparingly, as it is generic and does not provide any indication of what the issue is. If used, the help text within the message should provide guidance as to what the error relates to and a clear mitigation path for resolution.	Ql	O
RCP1001	Schema Failure	The Message is malformed and failed to complete schema Validation	Validation failure against the DIP Swagger.	Qn	M
RCP1002	Interface ID Invalid	The Interface ID (..CommonBlock.S0.interfaceID) provided in the message is not valid / recognised	Would expect this to be captured by generic schema failure (RCP1001)	Qn	C
RCP1003	Event Code Invalid or Missing	Event Code (..CommonBlock.S0.eventCode) provided in the message is not valid or does not link to IF ID provided	Would expect this to be captured by generic schema failure (RCP1001)	Qn	C
RCP1004	Environment Code Invalid or Missing	Environment code (..CommonBlock.S1.environmentTag) contained in the message does not match the environment the message was presented to	Only the list of valid enumerations is presented in the DIP Swagger; hence, participants need to undertake the check. They can edit the DIP Swagger to set the enumeration to a	Qn	C

			single value, hence it could be trapped by a generic schema failure (RCP1001)		
RCP1005	Schema Version Invalid or Not Compatible	Schema version (..CommonBlock.S0.schemaVersion) provided in the message is not compatible with the current schema in use	Would expect this to be captured by generic schema failure (RCP1001)	Qn	C
RCP1006	Sender Unique Reference Missing or Duplicated	Sender Unique Reference (..CommonBlock.S1.senderUniqueReference) is not populated or has already be processed by the DIP for that Participant ID	Duplicate Sender Unique Reference check is mandatory.	Qn	M
RCP1007	Sender Sent Date/Time Invalid or Missing	Sent Date/Time (..CommonBlock.S1.senderTimestamp) provided in the message is not a valid format or not populated	Would expect this to be captured by generic schema failure (RCP1001)	Qn	C
RCP1008	Sender Sent Date/Time is in the future	Sent Date/Time (..CommonBlock.S1.senderTimestamp) provided in the message is in future	All participants should be performing this check. This check is not performed centrally by the DIP.  Additional guidance is that the DIP User should apply a tolerance on this check, as it has been observed that there is a risk that this is created erroneously in some circumstances where there is only a small variation in timestamps between participants which leads to false positives. Suggest participants apply	Ql	M

			an up to 1 minute tolerance on these times before raising this error.		
RCP1009	Sender DIP ID Invalid or Missing	Sender DIP ID (..CommonBlock.S1.DIPID) Invalid or Missing	Missing value would be trapped by generic schema failure (RCP1001). Invalid would be an incorrect value i.e. not expecting a message from this sender, hence not a schema failure	Qn	M/C
RCP1010	Sender Role Invalid or Missing	Sender Role (..CommonBlock.S1.senderRoleID) provided is invalid or Role is not valid for message	All participants should be performing this check. This check is not performed by DIP Swagger.	Qn	M
RCP1021	Msg Mandatory Data Item Missing	The absence of any mandatory data item with a message/report	Missing value also trapped by generic schema failure (RCP1001). See Table 2 for interface applicability.	Qn	C
RCP1022	Msg Contains Invalid Value for Value Restricted Field	Value of data item provided is not in the list of valid values/ISD for that data item	Enumerations exist in DIP Swagger hence these can be trapped via a RCP1001, however those defined external to the DIP Swagger, e.g. ISD, EMDS. See Table 2 for interface applicability.	Qn	C/O

RCP1023	Msg Contains Invalid Valid Value Combination(s)	Can also be used for instances where Date/Time fields are not populated/formatted per the design guidance.	Would expect this type of error to be trapped via a schema failure RCP1001. See Table 2 for interface applicability.	Qn	C
RCP1041	Recipient ID Invalid, Unexpected or Missing	Recipient Id is used in status messages.	Status message check only	Qn	M
RCP1042	Publication ID Invalid or Missing	Publication Id (..CommonBlock.D0.publicationID) provided in the message is not valid or not populated.	Missing value also be trapped by generic schema failure (RCP1001). Invalid would be an incorrect value hence not a schema failure. Invalid value would be when Publication Id and Interface Id are not aligned.	Qn	C
RCP1043	DIP Txn ID Invalid or Missing	Transaction Id (..CommonBlock.D0.transactionID) provided in the message is not a valid format or not populated	Missing value also be trapped by generic schema failure (RCP1001).	Qn	C
RCP1044	DIP Txn Timestamp Invalid or Missing	Transaction timestamp (..CommonBlock.D0.transactionTimestamp) provided in the message is not a valid format or not populated	Invalid/missing value could also be trapped by RCP1001.	Qn	C
RCP1045	DIP Txn Timestamp is in the Future	Transaction Timestamp (..CommonBlock.D0.transactionTimestamp) provided in the message is in the future	If DIP TXH timestamp is a minute beyond current time	Ql	M

RCP1046	DIP Correlation ID Invalid, Unexpected or Missing	Correlation Id (..CommonBlock.D0.correlationID) provided in the message is not a valid format or not populated	If a correlation ID was unexpected then should be ignored by recipient.	Qn	C
RCP1047	Replay Indicator Invalid or Unexpected	Replay Indicator (..CommonBlock.D0.replayIndicator) provided in the message is 'true' when 'false' expected, or 'false' when 'true' expected	Invalid value would be trapped by generic schema failure (RCP1001). Raised if received a replayed message when not expected.	Qn	C
RCP1051	R0 Response Code Invalid	Response Code (..CommonBlock.R0.responseCode) is not within the defined set. (For IF-034 & IF-035 (..CustomBlock.B007.responseCode))	Response Codes needs to be checked as per the design. The following interfaces IF-006, IF-008, IF-020, IF-026 IF-028, IF-032, IF-034, IF-039 & IF-061 the Response code should only be either 'A' or 'R' (accept or reject) (or can be 'x' is the data are obfuscated). For IF-014 the response code can either be 'R' or 'W' (Reject or Warning). For IF-035 the Response code should only be either 'A', 'R' or 'L' (accept, reject or lapsed) (or can be 'x' is the data are obfuscated). Not currently enforced by a schema check as the Response Code type is enumerated against the superset of	Qn	M

			codes (‘A’, ‘R’, ‘L’, ‘W’, ‘x’).		
RCP1052	R0 Response Code Inconsistent with Error Condition(s)	Response Code is 'Accepted' but error conditions also provided, Response code is 'Rejected' but no error conditions exist	Need to be checked as per design.	Qn	M
RCP1061	MPAN Invalid or Unknown	This error message should be issued by the recipient in any circumstances where the MPAN (..CommonBlock.M0.MPANCore or ..CommonBlock.M1.principalMPAN)	Only to be used in limited processes - See Table 2.	Ql	M
RCP1062	PUB Unexpected given MPAN Process Status/Condition	Unexpected message within context of business process	Only to be used in limited processes - See Table 2.	Ql	M
RCP1063	PUB Unexpected given MPAN Process Status/Condition	Unexpected message within context of business process	Only to be used in limited processes - See Table 2	Ql	M
RCP1064	MDR provided not valid	Used to allow Registration Service to reject IF-034 containing invalid MDR	Only to be used by REGS role for rejecting IF034 messages; BSCP706	Ql	M
RCP9999	Message Signature Invalid	Signature provided in message is invalid	Can be reported by a 403 response	Ql	C

### 3 Application of Specific Validation Codes

3.1 The application of specific validation codes detailed within Table 2 is for Level 3 and Level 4 message validation. The codes are set out as follows: response code, message. These are:

- a) RCP1021 Msg Mandatory Data Item Missing;
- b) RCP1022 Msg Contains Invalid Value for Value Restricted Field;
- c) RCP1023 Msg Contains Invalid Valid Value Combination(s);
- d) RCP1061 MPAN Invalid or Unknown Invalid MPAN- is unknown or has a status (Migrated/Reverse Migrated) at which the IF type is not expected; and
- e) RCP1062 Unexpected message within the context of the business process.

3.2 Each of these codes is defined at the interface level. These are requirements for the DIP Users system.

Table 2 - Application of RCP Codes 1021, 1022, 1023, 1061 & 1062 by interface

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
IF-001	Notification of Change of Supplier	[ChangeOfSupplier]	N	N	N
		[InitialRegistration]	N	N	N
IF-002	Notification to New Supplier of Site Information	[GainMPANInfo]	N	N	N
IF-003	Notification of Reverse Migration and Deappointment	[ReverseMigNotification]	N	N	N
		[MSDeAppRM]	N	N	N
		[DSDeAppRM]	N	N	N
IF-004	Comms Hub Information (Optional)	[CommsHubInfo]	Y	Y	N
IF-005		[MeterInstall]	Y	Y	N

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
	Metering Service MTD Updates to Registration	[MeterRemoval]	Y	Y	N
		[MeterExchange]	Y	Y	N
		[MeterUpdate]	Y	Y	N
		[MeterHistoryUpdate]	Y	Y	N
IF-006	Notification of Metering Service MTD Update to Registration	[MeterInstall]	N	N	N
		[MeterExchange]	N	N	N
		[MeterRemoval]	N	N	N
IF-007	Change of Energisation Status Outcome	[MeterUpdate]	N	N	N
		[MeterHistoryUpdate]	N	N	N
		[EnergisationStatusFailure]	Y	Y	N
IF-008	Registration Service Notification of Change of Energisation Status	[EnergisationStatusChange]	N	N	N
IF-009	Notification of Metering Service MTD Update to Registration	[MPANDisconnection]	N	N	N
		[MPANReconnection]	N	N	N
IF-013	MDS Defaults Applied	[CSSDeRegistration]	N	N	N
		[ActivePowerDefaulted]	N	N	N
IF-014	UTC Settlement Period Consumption Data (Warnings & Rejections)	[ActivePowerRejected]	N	N	N
IF-015	Request Historic Consumption Replay (ADV Sites only)	[ConsumptionOnDeEnergisedMPAN]	N	N	N
		[ConsumptionReplay]	N	N	N
IF-016	Settlement Period Consumption Data - REPLAY	[ActivePower]	Y	Y	N
		[ReactivePower]	Y	Y	N
		[ActivePowerRejected]	Y	Y	N

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
IF-018	Notification of Registration Data Item Changes	[AddressChg]	N	N	N
		[GSPChg]	N	N	N
		[GDUOSTariffDChg]	N	N	N
		[DomPremInd]	N	N	N
		[EnergyDirection]	N	N	N
		[DCCEnrolment]	N	N	N
		[MUMIndicator]	N	N	N
IF-019	Maintain MPAN Relationships	[LinkedImportExportCase]	Y	Y	N
		[LinkedImportExportAdd]	Y	Y	N
		[LinkedImportExportRemove]	Y	Y	N
		[RelatedCase]	Y	Y	N
		[RelatedAdd]	Y	Y	N
		[RelatedRemove]	Y	Y	N
IF-020	Maintain MPAN Relationships Outcome	[LinkedImportExportCreate]	N	N	N
		[LinkedImportExportAdd]	N	N	N

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
		[LinkedImportExportRemove]	N	N	N
		[RelatedCreate]	N	N	N
		[RelatedAdd]	N	N	N
		[RelatedRemove]	N	N	N
IF-021	UTC Settlement Period Consumption Data	[ActivePower]	Y	Y	N
		[ReactivePower]	Y	Y	N
		[LSSPeriodData]	Y	Y	N
IF-022	LSS Period Data	[LSSTotalsData]	N	N	N
IF-023	LSS Totals Data	[SN-Vacant]	N	N	N
IF-024	Supplier Advisory Notification to DS	[SN-NoComms]	Y	Y	N
		[SN-RemoteEnabled]	Y	Y	N
		[SN-RemoteDisabled]	Y	Y	N
		[SN-SupplierAC]	Y	Y	N
		[SN-OffPeakDec]	Y	Y	N
		[ConsentGranularity]	Y	Y	N
IF-025	Supplier Updates to Registration	[IHDInfo]	Y	Y	N
		[SMSO]	Y	Y	N
		[SSCandProfileClass]	Y	Y	N
		[ConsentGranularity]	Y	Y	N
IF-026	Registration Service Notification of Supplier Data Chg	[IHDInfo]	N	N	N
		[SMSO]	N	N	N

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
		[SSCandProfileClass]	N	N	N
		[ConsentGranularity]	N	N	N
IF-027	Consumption Amendment Request	[ConsumptionAmendment]	Y	Y	N
IF-028	Consumption Amendment Request Response	[ConsumptionAmendment]	Y	Y	N
IF-031	Supplier Service Provider Appointment Request	[MSApp]	Y	Y	N
		[DSApp]	Y	Y	N
IF-032	Supplier Service Provider Appointment Request Response	[MSAppInitialResp]	N	N	N
		[DSAppInitialResp]	N	N	N
IF-033	Registration Service Request for Service Appointment	[MSAppSPRequest]	N	N	N
		[DSAppSPRequest]	N	N	N
IF-034	Service Provider Appointment Request Response	[MSAppSPResponse]	Y	Y	N
		[DSAppSPResponse]	Y	Y	N
		[SDS-MDRUpdate]	Y	Y	N
IF-035	Registration Service Appointment Status Notification	[MSAppAccepted]	N	N	N
		[MSAppRejected]	N	N	N
		[MSAppLapsed]	N	N	N
		[DSAppAccepted]	N	N	N
		[DSAppRejected]	N	N	N
		[DSAppLapsed]	N	N	N
		[IMS-SendMTD]	N	N	N
		[SDS-MDROutcome]	N	N	N
[DCC-MDROutcome]	N	N	N		
IF-036		[MSAppActive]	N	N	N

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
	Registration Service Notification of Service Appointment & Supporting Info	[DSAppActive]	N	N	N
IF-037	Registration Service Notification of Service De-Appointment	[MSDeApp]	N	N	N
		[DSDeApp]	N	N	N
		[MSDeAppUpdate]	N	N	N
		[DSDeAppUpdate]	N	N	N
IF-038	Customer Direct Contract Advisory	[DirectContractMSAdd]	Y	Y	N
		[DirectContractDSAdd]	Y	Y	N
		[DirectContractMSRemove]	Y	Y	N
		[DirectContractDSRemove]	Y	Y	N
IF-039	Customer Direct Contract Advisory Response	[DirectContractMSAdd]	N	N	N
		[DirectContractDSAdd]	N	N	N
		[DirectContractMSRemove]	N	N	N
		[DirectContractDSRemove]	N	N	N
IF-040	Notification of Annual Consumption	[AnnualConsumption]	Y	Y	N
IF-041	Smart / Advanced Readings	[ReadingRemv]	Y	Y	N
		[ReadingInstl]	Y	Y	N
		[ReadingEnergisationChg]	Y	Y	N
		[ReadingCOR]	Y	Y	N
		[ReadingOnSite]	Y	Y	N
		[ReadingCOS]	Y	Y	N
		[DSEstimate]	Y	Y	N
[SupplierAgreedCOS]	Y	Y	N		

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
		[ReadingOverride]	Y	Y	N
		[ReadingRemote]	Y	Y	N
IF-043	Registration Service Notification of Change of Connection Type	[ConnectionTypeChange]	N	N	N
IF-044	Registration Service Notification of Change of Segment	[MarkletSegmentChange]	N	N	N
IF-045	Registration Service Reminder Notification	[InvalidMarketSegment]	N	N	N
		[ConsentGranularityInvalid]	N	N	N
		[NoMSAppointed]	N	N	N
		[NoDSAppointed]	N	N	N
IF-047	Notification of the Publication of a Downloadable Asset	[ISD]	N	N	N
IF-050	EES Updates	[MPANCreation]	N	N	N
		[MPStatusChange]	N	N	N
		[GreenDeal]	N	N	N
IF-061	MDR Start Request	[MDRStart]	N	Y	N
IF-062	MDR Start Request Response	[MDRStartResponse]	N	Y	N
IF-063	MDR Stop Request	[MDRStop]	N	Y	N
IF-064	MDR Provide Consumption	[MDRConsumption]	N	Y	N
IF-065	MDR Request / Provide Meter Reading	[ReadingRemote]	N	Y	N
		[MDRInstantaneous]	N	Y	N
		[MDRTOU]	N	Y	N
		[MDRConsumption]	N	Y	N

Interface	Interface Name	Event Code(s)	RCP1021 - RCP1022 - RCP1023	RCP1061 - Invalid MPAN	RCP1062 - Out of Sequence
REP-002	Supplier report fo DUoS - aggregated data	[DUoSSupplierAggData]	N	N	N
REP-002A	Embedded Network report for DUoS - aggregated data	[DUOSEmbeddedLDSOAggData]	N	N	N
REP-002B	LDSO report for DUoS - aggregated data	[DUoSLDSOAggData]	N	N	N
REP-003	BM Unit Allocated Demand Volumes to Suppliers	[BMUnitAllocatedDemand VolumesToMarketParticipants]	N	N	N
REP-003A	Aggregated BM Unit Allocated Demand Volumes to Suppliers	[AggregatedBMUnitAllocatedDemand Volumes]	N	N	N
REP-004	Supplier Deemed Take Report	[SupplierDeemedTakeReport]	N	N	N
REP-006	Aggregated Uncorrected volumes by CCC to Suppliers	[UncorrectedConsumptionAndLossesBy CCCID]	N	N	N
REP-007	VAS exception report to Suppliers	[BMUnitDefaultsToSuppliers]	N	N	N
REP-008	MDS Exception Repor to LDSOs	[LDSOLLFDefaultData]	N	N	N
REP-009	EMRS report for Suppliers	[EMRSReportForSuppliers]	N	N	N
REP-900	Distribution Invoice	[DUoSSupplierInvData]	N	N	N
REP-901	Aggregated DUoS Charges	[DUOSEmbeddedLDSOAggInvData]	N	N	N
		[DUoSSupplierAggInvData]	N	N	N

**AMENDMENT RECORD**

<b>Version</b>	<b>Date</b>	<b>Description of Changes</b>	<b>Changes Included</b>	<b>Mods/ Panel/ Committee Refs</b>
0.1	XX/XX/XXXX		XX	XX

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