

Important Notice:

The *TI Request JSON Schema v1.1.0* must be obtained and used in its official JSON format for all development and validation activities. This PDF version is provided **for readability only**. Copying JSON code from a PDF may introduce formatting changes or errors, which can result in invalid schemas.

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "$id": "https://pdg/dscsa-trace-message-schemas/pdg-dscsa-ti-request-draft-v1.1.0.jschema",
  "title": "PDG DSCSA TI Request Schema",
  "description": "Defines requests for DSCSA Transaction Information.",
  "type": "object",
  "properties": {
    "tiRequestSet": {
      "properties": {
        "tiRequestAuditReferences": {
          "type": "object",
          "properties": {
            "tiRequestID": {"$ref": "#/definitions/uuidType"},
            "tiRequestTimestamp": {"$ref": "#/definitions/timestampType"}
          },
          "required": [
            "tiRequestID",
            "tiRequestTimestamp"
          ]
        },
        "tiRequestingPartyInformation": {
          "type": "object",
          "required": [
            "contactInformation",
            "callbackAddress"
          ],
          "properties": {
            "dscsaCredentialPresentation": {"$ref": "#/definitions/dscsaCredentialPresentationType"},
            "contactInformation": {"$ref": "#/definitions/contactInformationType"},
            "requesterGLN": {"$ref": "#/definitions/glnType"},
            "callbackAddress": {"$ref": "#/definitions/callbackAddressType"}
          }
        },
        "tiRequestParameters": {
          "type": "object",
          "properties": {
            "responseTypeRequested": {
              "type": "string",
              "enum": [
                "Transaction Information",
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        "All Known Owners",
        "Last Known Owner"
    ]
},
"investigationReasonAttestation": {
    "type": "string",
    "enum": [
        "Suspect Product Investigation",
        "Illegitimate Product Investigation",
        "Recalled Product Investigation",
        "Compliance Audit"
    ]
},
"investigationCircumstances": {"type": "string"}
},

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    "if": {
        "properties": {
            "investigationReasonAttestation": {"const": "Recalled Product Investigation"}
        }
    },
    "then": {
        "properties": {
            "3911IncidentNumber": {
                "not": {}
            },
            "recallDepth": {
                "$ref": "#/definitions/recallDepthType",
                "$comment": "Used to mitigate unnecessary returns when the recall doesn't
affect the Responder."
            },
            "recallRequestLevel": {
                "type": "string",
                "enum": [
                    "Serial Number",
                    "Lot Number"
                ]
            }
        }
    },
    "required": [
        "responseTypeRequested",
        "investigationReasonAttestation",
        "investigationCircumstances",
        "recallDepth",
        "recallRequestLevel"
    ]
}

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    },
    "else": {
      "if": {
        "properties": {
          "investigationReasonAttestation": {"const": "Illegitimate Product
Investigation"}
        }
      },
      "then": {
        "required": [
          "responseTypeRequested",
          "investigationReasonAttestation",
          "investigationCircumstances"
        ],
        "properties": {
          "3911IncidentNumber": {
            "$ref": "#/definitions/3911IncidentType",
            "$comment": "List of 3911 Incident number(s) are provided if assigned. The
3911 Incident Number(s) assigned by the FDA associated with the investigation. Responders provide 3911 Incident
Number(s) they know and do not repeat 3911 Incident Number(s) that the Requester may have included in the TI Request."
          },
          "recallDepth": {
            "not": {}
          },
          "recallRequestLevel": {
            "not": {}
          }
        }
      },
    },
    "else": {
      "required": [
        "responseTypeRequested",
        "investigationReasonAttestation",
        "investigationCircumstances"
      ],
      "properties": {
        "3911IncidentNumber": {
          "not": {}
        },
        "recallDepth": {
          "not": {}
        },
        "recallRequestLevel": {
          "not": {}
        }
      }
    }
  }
}

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}
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```
},  
"tiRequests": {  
  "type": "array",  
  "items": {  
    "type": "object",  
    "properties": {  
      "requestLineNumber": {"type": "number"},  
      "productID": {  
        "type": "object",  
        "properties": {  
          "gtin": {  
            "$ref": "#/definitions/gtinType",  
            "$comment": "The GS1 Global Trade Item Number (GTIN) identifying the product.  
See Implementation Guideline: Applying GS1 Standards for DSCSA and Traceability Conditional based on Product ID choice  
(GTIN or NDC)."  
          },  
          "ndc": {  
            "$ref": "#/definitions/ndcType",  
            "$comment": "The FDA National Drug Code. Conditional based on Request Product  
ID choice (GTIN or NDC)."  
          }  
        }  
      },  
      "oneOf": [  
        {  
          "required": ["gtin"]  
        },  
        {  
          "required": ["ndc"]  
        }  
      ]  
    },  
    "serialNumberOrLotNumber": {  
      "type": "object",  
      "properties": {  
        "serialNumber": {"$ref": "#/definitions/serialNumberType"},  
        "lotNumber": {  
          "$ref": "#/definitions/lotNumberType",  
          "$comment": "The Lot number assigned by the Manufacturer or Repackager found in  
the original Transaction Information."  
        }  
      },  
      "oneOf": [  
        {
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        "required": ["serialNumber"]
    },
    {
        "required": ["lotNumber"]
    }
]
}

},
"required": [
    "requestLineNumber",
    "productID",
    "serialNumberOrLotNumber"
]
}
}

},
"type": "object",
"required": [
    "tiRequestAuditReferences",
    "tiRequestingPartyInformation",
    "tiRequestParameters",
    "tiRequests"
]
}
},
"definitions": {
    "3911IncidentType": {
        "type": "string",
        "$comment": "3911 Incident number is provided if it has been assigned. 3911 Incident Number is assigned by
the FDA and there may be instances where the number has yet to be assigned by the time of the request."
    },
    "apiType": {
        "type": "string",
        "format": "uri",
        "pattern": "^((https?|wss?|ftp)://[^\s/$.?\#].+|^\s)*$"
    },
    "callbackAddressType": {
        "type": "object",
        "properties": {
            "apiCallbackAddress": {
                "$ref": "#/definitions/apiType",
                "$comment": "The URI address where the TI Response is to be sent."
            },
            "emailCallbackAddress": {
                "$ref": "#/definitions/emailType",

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        "$comment": "The email address where the TI Response is to be sent."
    },
    },
    "$comment": "The methods and addresses where the responder is to send the TI Response message or where the
requester can contact is to send exception information.",
    "required": ["emailCallbackAddress"]
},
"companyNameType": {
    "type": "string",
    "maxLength": 50
},
"contactInformationType": {
    "properties": {
        "personOrDepartmentName": {"$ref": "#/definitions/nameValueType"},
        "organizationName": {"$ref": "#/definitions/companyNameType"},
        "contactMethod": {
            "type": "object",
            "$comment": "Phone number or email address that the Requester or Responder can be contacted with.",
            "properties": {
                "phone": {
                    "$ref": "#/definitions/phoneType",
                    "$comment": "The phone number of the Requester or Responder."
                },
                "email": {"$ref": "#/definitions/emailType"}
            },
            "anyOf": [
                {
                    "required": ["phone"]
                },
                {
                    "required": ["email"]
                }
            ]
        }
    },
    "type": "object",
    "required": [
        "personOrDepartmentName",
        "organizationName",
        "contactMethod"
    ]
},
"digitalSignatureType": {"type": "string"},
"drugNameType": {
    "type": "string",
    "maxLength": 50,
    "pattern": "^[a-zA-Z ]*$"
}

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    },
    "dscsaCredentialPresentationType": {
      "type": "object",
      "properties": {
        "dscsaATPCredentialPresentation": {
          "type": "string",
          "format": "jwt",
          "$comment": "A W3C standard verifiable credential conformant to the OCI DSCSA ATP Credential
specification."
        },
        "dscsaATP-EquivalentCredentialPresentation": {
          "type": "string",
          "format": "jwt",
          "$comment": "A W3C standard verifiable credential conformant with the OCI DSCSA ATP Equivalent
Credential specification."
        },
        "dscsaAuthorityCredentialPresentation": {
          "type": "string",
          "format": "jwt",
          "$comment": "A W3C standard verifiable credential conformant with the OCI DSCSA Authority
Credential specification."
        }
      },
      "oneOf": [
        {
          "required": ["dscsaATPCredentialPresentation"]
        },
        {
          "required": ["dscsaATP-EquivalentCredentialPresentation"]
        },
        {
          "required": ["dscsaAuthorityCredentialPresentation"]
        }
      ],
      "$comment": "Requester or Responder signed presentation of an ATP, ATP-Equivalent or DSCSA Authority
credential. See latest OCI Schema Version."
    },
    "emailType": {
      "type": "string",
      "format": "email"
    },
    "glnType": {
      "type": "string",
      "minLength": 13,
      "pattern": "^\\d{13}$",
      "maxLength": 13,
      "$comment": "The GS1 Global Location Number (GLN) as recorded in the TI record. See Implementation

```

Guideline: Applying GS1 Standards for DSCSA and Traceability."

```
    },
    "gtinType": {
      "type": "string",
      "minLength": 14,
      "pattern": "^\\d{14}$",
      "maxLength": 14
    },
    "lotNumberType": {
      "type": "string",
      "minLength": 1,
      "maxLength": 20,
      "$comment": "The Lot number assigned by the Manufacturer or Repackager found in the original Transaction
Information."
    },
    "nameValueType": {
      "type": "string"
    },
    },
    "ndcType": {
      "oneOf": [
        {
          "type": "string",
          "pattern": "^([0-9]{4}-[0-9]{4}-[0-9]{2})$",
          "$comment": "4-4-2"
        },
        {
          "type": "string",
          "pattern": "^([0-9]{5}-[0-9]{3}-[0-9]{2})$",
          "$comment": "5-3-2"
        },
        {
          "type": "string",
          "pattern": "^([0-9]{5}-[0-9]{4}-[0-9]{1})$",
          "$comment": "5-4-1"
        },
        {
          "type": "string",
          "$comment": "6-4-2",
          "pattern": "^([0-9]{6}-[0-9]{4}-[0-9]{2})$"
        }
      ],
      "$comment": "The FDA National Drug Code. Conditional based on Request Product ID choice (GTIN or NDC).",
    },
    "phoneType": {"type": "string"},
    "reasonAttestationOptions": {
      "enum": [
        "Suspect",
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        "Illegitimate",
        "Recall",
        "Audit"
    ]
},
"recallDepthType": {
    "type": "string",
    "enum": [
        "Wholesale Distributor",
        "Pharmacy",
        "Patient"
    ]
},
"recallDepthOptions": {
    "enum": [
        "Wholesaler",
        "Pharmacy",
        "Patient"
    ]
},
"serialNumberType": {
    "type": "string",
    "maxLength": 20,
    "minLength": 1,
    "pattern": ""
},
"timestampType": {
    "$comment": "A timestamp to millisecond precision, with an explicit timezone indicator (+/-hh:mm) relative
to UTC",
    "type": "string",
    "pattern": "^([0-9]{4}-(0[1-9]|1[0-2])-(0[1-9]|[1-2][0-9]|3[0-1])T(2[0-3]|[01][0-9]):[0-5][0-9]:[0-5][0-9]\\.([0-9]{3}|Z|((\\+|\\-)((0[0-9]|1[0-3]):([0-5][0-9]|14:00)))))"
},
"uuidType": {
    "type": "string",
    "pattern": "^[a-fA-F\\d]{8}-[a-fA-F\\d]{4}-4[a-fA-F\\d]{3}-[89abAB][a-fA-F\\d]{3}-[a-fA-F\\d]{12}$",
    "$comment": "Universally Unique Identifier (UUID)"
}
},
"required": ["tiRequestSet"]
}

```