# NORMALIZED TABLE EXAMPLE

{

"base\_payment": {

"payment\_header": {

"payment\_id": "string", // Universal unique identifier

"payment\_type": "enum", // SWIFT, ACH, WIRE, RTP, SEPA, etc.

"version": "string", // Schema version

"created\_at": "datetime",

"updated\_at": "datetime",

"status": "enum" // RECEIVED, PROCESSING, COMPLETED, etc.

},

"amount": {

"value": "decimal",

"currency": "string",

"exchange\_info": {

"target\_currency": "string",

"exchange\_rate": "decimal",

"rate\_type": "string",

"quote\_id": "string"

}

},

"parties": {

"originator": {

"party\_type": "enum", // INDIVIDUAL, CORPORATE, FINANCIAL\_INSTITUTION

"party\_id": "string",

"name": "string",

"account\_info": {

"account\_id": "string",

"account\_type": "enum",

"routing\_info": {

"type": "enum", // ABA, SWIFT, IBAN, etc.

"value": "string"

}

},

"contact\_info": {

"address": {

"street": "string",

"city": "string",

"state": "string",

"postal\_code": "string",

"country": "string"

},

"electronic": {

"email": "string",

"phone": "string"

}

}

},

"beneficiary": {

// Same structure as originator

},

"intermediaries": [

// Array of institutions involved in payment routing

{

"role": "enum", // CORRESPONDENT, CLEARING, PROCESSING

"institution\_id": "string",

"routing\_info": {} // Same as above routing\_info

}

]

},

"processing": {

"priority": "enum", // HIGH, NORMAL, LOW

"processing\_window": "enum", // SAME\_DAY, NEXT\_DAY, etc.

"scheduling": {

"submission\_date": "datetime",

"effective\_date": "datetime",

"settlement\_date": "datetime"

},

"status\_tracking": {

"current\_status": "string",

"status\_history": [

{

"status": "string",

"timestamp": "datetime",

"description": "string"

}

]

}

},

"references": {

"end\_to\_end\_id": "string",

"transaction\_id": "string",

"related\_references": [

{

"type": "string",

"value": "string"

}

]

},

"remittance\_info": {

"type": "enum", // STRUCTURED, UNSTRUCTURED

"purpose\_code": "string",

"description": "string",

"structured\_data": {

"references": [],

"line\_items": []

}

}

},

"type\_specific\_data": {

// ACH specific

"ach\_data": {

"sec\_code": "string",

"batch\_data": {},

"addenda": []

},

// Wire specific

"wire\_data": {

"message\_type": "string",

"charges\_instruction": "string"

},

// SEPA specific

"sepa\_data": {

"scheme": "string",

"mandate\_info": {}

},

// RTP specific

"rtp\_data": {

"clearing\_system": "string",

"settlement\_method": "string"

}

},

"regulatory": {

"compliance\_checks": {

"sanctions\_check": {

"status": "string",

"timestamp": "datetime",

"reference": "string"

},

"aml\_check": {},

"fraud\_check": {}

},

"reporting": {

"reporting\_requirements": [],

"regulatory\_jurisdiction": "string"

}

},

"metadata": {

"source\_system": "string",

"business\_unit": "string",

"processing\_tags": [],

"custom\_attributes": {}

}

}

# ACH EXAMPLE

{

"payment\_id": "ACH-2024-123456",

"payment\_type": "ACH",

"transaction\_details": {

"sec\_code": "CCD", // Corporate Credit/Debit

"transaction\_type": "CREDIT",

"priority": "SAME\_DAY",

"batch\_id": "BATCH2024001",

"addenda\_indicator": true

},

"amount": {

"value": 150000.00,

"currency": "USD"

},

"originator": {

"company\_id": "1234567890",

"company\_name": "ACME CORP",

"account\_number": "9876543210",

"routing\_number": "121000248",

"account\_type": "CHECKING",

"odfi\_id": "12100024"

},

"receiver": {

"account\_number": "1234567890",

"routing\_number": "122105155",

"account\_type": "CHECKING",

"name": "JOHN DOE COMPANY",

"id\_type": "EIN",

"id\_number": "12-3456789"

},

"addenda": {

"type\_code": "05",

"payment\_related\_info": "INVOICE 123456",

"addenda\_sequence\_number": 1,

"entry\_detail\_sequence\_number": 1

},

"scheduling": {

"effective\_date": "2024-03-10",

"processing\_window": "MORNING",

"settlement\_date": "2024-03-11"

},

"status": {

"current\_status": "PENDING",

"status\_timestamp": "2024-03-09T10:30:00Z",

"reversible": true

}

}

# WIRE TRANSFER EXAMPLE

{

"payment\_id": "WIRE-2024-789012",

"payment\_type": "WIRE",

"wire\_type": "DOMESTIC", // or INTERNATIONAL

"transaction\_details": {

"priority": "HIGH",

"transfer\_type": "CUSTOMER\_TRANSFER",

"message\_type": "MT103",

"category\_purpose": "BUSINESS"

},

"amount": {

"value": 1000000.00,

"currency": "USD",

"exchange\_rate": null, // Used for international wires

"charges": {

"type": "OUR", // OUR, BEN, SHA

"amount": 45.00

}

},

"originator": {

"name": "GLOBAL TECH INC",

"account\_number": "12345678901",

"routing\_number": "121000248",

"address": {

"street": "100 Technology Pkwy",

"city": "San Francisco",

"state": "CA",

"postal\_code": "94105",

"country": "US"

},

"bank": {

"name": "CHASE",

"swift\_code": "CHASUS33",

"fedwire\_code": "021000021"

}

},

"beneficiary": {

"name": "EURO SUPPLIES GMBH",

"account\_number": "DE89370400440532013000",

"bank": {

"name": "DEUTSCHE BANK",

"swift\_code": "DEUTDEFF",

"branch": "FRANKFURT MAIN"

},

"address": {

"street": "Mainzer Landstrasse 100",

"city": "Frankfurt",

"postal\_code": "60325",

"country": "DE"

}

},

"intermediary\_bank": {

"name": "CITIBANK NA",

"swift\_code": "CITIUS33",

"account\_number": "36001234"

},

"references": {

"sender\_reference": "SFGB2024789012",

"beneficiary\_reference": "INV2024001",

"originator\_reference": "PO2024005"

},

"regulatory\_reporting": {

"purpose\_code": "TRADE",

"customer\_type": "CORPORATE",

"screening\_status": "APPROVED",

"compliance\_checks": {

"ofac\_status": "CLEARED",

"sanctions\_status": "CLEARED",

"timestamp": "2024-03-09T10:15:00Z"

}

}

}

# REAL TIME PAYMENT EXAMPLE

{

"payment\_id": "RTP-2024-901234",

"payment\_type": "RTP",

"transaction\_details": {

"priority": "HIGH",

"settlement\_method": "INSTANT",

"clearing\_system": "TCH\_RTP",

"message\_type": "CREDIT\_TRANSFER",

"processing\_mode": "REAL\_TIME"

},

"amount": {

"value": 15000.00,

"currency": "USD",

"max\_amount\_limit": 100000.00

},

"originator": {

"participant\_id": "123456",

"bank\_id": "121000248",

"account\_number": "1234567890",

"name": "TECH STARTUPS INC",

"category": "BUSINESS",

"account\_type": "CHECKING"

},

"receiver": {

"participant\_id": "789012",

"bank\_id": "122235821",

"account\_number": "0987654321",

"name": "JOHN SMITH",

"category": "PERSONAL",

"proxy\_id": {

"type": "EMAIL",

"value": "john.smith@email.com"

}

},

"remittance\_data": {

"type": "STRUCTURED",

"purpose\_code": "SALA",

"end\_to\_end\_id": "E2E-123456789",

"remittance\_info": {

"reference\_numbers": ["INV001", "PO789"],

"free\_text": "March 2024 Salary"

}

},

"timing": {

"submission\_timestamp": "2024-03-09T14:30:00.123Z",

"expiry\_timestamp": "2024-03-09T14:35:00.123Z",

"settlement\_timestamp": "2024-03-09T14:30:02.456Z"

},

"status\_tracking": {

"current\_status": "COMPLETED",

"status\_history": [

{

"status": "RECEIVED",

"timestamp": "2024-03-09T14:30:00.123Z"

},

{

"status": "VALIDATED",

"timestamp": "2024-03-09T14:30:01.234Z"

},

{

"status": "COMPLETED",

"timestamp": "2024-03-09T14:30:02.456Z"

}

]

},

"confirmation": {

"confirmation\_id": "CONF123456",

"confirmation\_timestamp": "2024-03-09T14:30:02.789Z",

"settlement\_confirmation": "TCH123456789"

}

}

# CHECK PAYMENT SCHEMA

{

"payment\_id": "CHECK-2024-345678",

"payment\_type": "CHECK",

"check\_details": {

"check\_number": "1001",

"check\_type": "BUSINESS",

"issue\_date": "2024-03-09",

"presentation\_type": "PAPER", // or IMAGE

"memo": "Contract Payment March 2024"

},

"amount": {

"value": 25000.00,

"currency": "USD",

"amount\_in\_words": "Twenty Five Thousand and 00/100"

},

"drawer": {

"account\_number": "12345678901",

"routing\_number": "121000248",

"bank\_name": "CHASE",

"account\_type": "CHECKING",

"name": "TECH SOLUTIONS INC",

"address": {

"street": "200 Business Ave",

"city": "Chicago",

"state": "IL",

"postal\_code": "60601"

}

},

"payee": {

"name": "OFFICE SUPPLIES CO",

"endorsement\_type": "BUSINESS",

"deposit\_account": {

"account\_number": "9876543210",

"routing\_number": "122105155",

"bank\_name": "US BANK"

}

},

"processing": {

"capture\_type": "REMOTE\_DEPOSIT",

"processing\_status": "PENDING",

"clearing\_channel": "FED",

"hold\_policy": {

"hold\_type": "REGULATORY",

"hold\_days": 2,

"release\_date": "2024-03-11"

}

},

"image\_data": {

"front\_image": "base64\_encoded\_image\_front",

"back\_image": "base64\_encoded\_image\_back",

"micr\_line": "121000248:12345678901:1001",

"image\_quality": {

"front\_quality\_score": 98,

"back\_quality\_score": 95,

"micr\_confidence": "HIGH"

}

}

}

# SEPA TRANSFER

{

"payment\_id": "SEPA-2024-567890",

"payment\_type": "SEPA\_CREDIT\_TRANSFER",

"scheme": "SCT\_INST", // or SCT for regular

"transaction\_details": {

"instruction\_id": "INSTR2024001",

"end\_to\_end\_id": "E2E2024001",

"service\_level": "SEPA",

"local\_instrument": "INSTANT",

"category\_purpose": "SUPP"

},

"amount": {

"value": 45000.00,

"currency": "EUR",

"charge\_bearer": "SLEV"

},

"originator": {

"name": "FRENCH TECH SARL",

"iban": "FR7630006000011234567890189",

"bic": "BNPAFRPP",

"address": {

"street": "123 Rue de la Paix",

"city": "Paris",

"postal\_code": "75001",

"country": "FR"

},

"organisation\_id": {

"type": "SIREN",

"value": "123456789"

}

},

"beneficiary": {

"name": "DEUTSCHE SERVICES GMBH",

"iban": "DE89370400440532013000",

"bic": "DEUTDEFF",

"address": {

"street": "Hauptstrasse 123",

"city": "Berlin",

"postal\_code": "10115",

"country": "DE"

}

},

"remittance\_information": {

"unstructured": "Invoice 123456",

"structured": {

"creditor\_reference": "RF18539007547034",

"type": "SCOR"

}

},

"regulatory": {

"batch\_booking": false,

"purpose\_code": "SUPP",

"regulatory\_reporting": [

{

"authority\_name": "EUROPEAN\_CENTRAL\_BANK",

"details": "STATISTICAL\_REPORTING"

}

]

}

}

# CARD PAYMENT EXAMPLE

{

"payment\_id": "CARD-2024-901234",

"payment\_type": "CARD\_PAYMENT",

"transaction\_details": {

"type": "PURCHASE",

"card\_present": true,

"entry\_mode": "CHIP",

"terminal\_id": "TERM123456",

"merchant\_id": "MERCH789012"

},

"amount": {

"transaction\_amount": 156.78,

"currency": "USD",

"tip\_amount": 20.00,

"cashback\_amount": 0.00

},

"card\_data": {

"pan\_last\_4": "1234",

"token": "TOKEN123456",

"expiry": "12/25",

"card\_type": "CREDIT",

"network": "VISA"

},

"authorization": {

"auth\_code": "AUTH123",

"response\_code": "00",

"avs\_result": "Y",

"cvv\_result": "M"

}

}

# STANDING ORDER EXAMPLE

{

"standing\_order\_id": "SO-2024-345678",

"payment\_type": "STANDING\_ORDER",

"schedule": {

"frequency": "MONTHLY",

"execution\_day": 15,

"start\_date": "2024-03-15",

"end\_date": "2025-03-15",

"next\_execution": "2024-04-15",

"previous\_execution": "2024-03-15"

},

"payment\_details": {

"amount": 1000.00,

"currency": "GBP",

"reference": "RENT PAYMENT"

},

"status\_tracking": {

"current\_status": "ACTIVE",

"last\_execution\_status": "SUCCESS",

"failed\_attempts": 0,

"next\_retry\_date": null

}

}

# MOBILE P2P PAYMENTS

{

"payment\_id": "P2P-2024-789012",

"payment\_type": "P2P",

"service\_provider": {

"name": "ZELLE", // or VENMO, PAYPAL

"transaction\_id": "ZL123456789",

"service\_type": "INSTANT"

},

"transfer\_details": {

"amount": 500.00,

"currency": "USD",

"purpose": "SPLIT\_BILL",

"message": "Dinner last night"

},

"sender": {

"id": "user123@bank.com",

"name": "JANE SMITH",

"device\_id": "DEVICE123",

"phone": "+1234567890",

"bank\_details": {

"bank\_id": "123456789",

"account\_number": "\*\*\*\*\*\*\*\*1234",

"account\_type": "CHECKING"

}

},

"receiver": {

"id": "john@email.com",

"name": "JOHN DOE",

"phone": "+1987654321",

"proxy\_type": "EMAIL" // or PHONE, USERNAME

},

"risk\_assessment": {

"device\_fingerprint": "FP123456",

"ip\_address": "192.168.1.1",

"risk\_score": 15,

"velocity\_check": "PASSED"

}

}

# DIRECT DEBIT

{

"payment\_id": "DD-2024-456789",

"payment\_type": "DIRECT\_DEBIT",

"scheme": {

"type": "SEPA\_DIRECT\_DEBIT", // or ACH\_DEBIT, BACS\_DIRECT\_DEBIT

"service\_type": "CORE", // or B2B

"recurring\_type": "RCUR" // FRST, RCUR, FNAL, OOFF

},

"mandate": {

"mandate\_id": "MNDT2024001",

"date\_of\_signature": "2024-01-15",

"status": "ACTIVE",

"amendment\_indicator": false,

"max\_amount": 5000.00,

"frequency": "MONTHLY",

"final\_date": "2025-01-15"

},

"collection\_details": {

"amount": 1500.00,

"currency": "EUR",

"collection\_date": "2024-03-15",

"sequence\_type": "RECURRING",

"purpose\_code": "UTIL"

},

"creditor": {

"name": "UTILITY COMPANY SA",

"identifier": "FR123ZZZ456789", // Creditor ID

"iban": "FR7630006000011234567890189",

"bic": "BNPAFRPP",

"scheme\_identifier": "FR12ZZZ123456"

},

"debtor": {

"name": "JOHN DOE",

"iban": "DE89370400440532013000",

"bic": "DEUTDEFF",

"address": {

"street": "Musterstrasse 123",

"city": "Berlin",

"postal\_code": "10115",

"country": "DE"

}

}

}