

CYAN E-INVOICING API DOCUMENTATION

Welcome to the CYAN E-Invoicing API Documentation. This guide is designed to assist developers in understanding and integrating our API for a smooth and efficient deployment. Our APIs enable you to effortlessly submit all types of B2C invoices.

TECHNOLOGY STACK

- BACKEND

PHP: This scripting language handles the server-side operations and logic, ensuring efficient processing of requests and responses to provide a smooth user experience.

- DATABASE

MySQL: This database system is chosen for its efficiency and reliability in handling data management tasks.

- API

Our APIs follow REST architecture and use standard HTTP methods. They accept requests and return data in JSON format.

API ENDPOINT

- Method: POST
- Headers: Content-Type: application/json
- Request Body: The request body must contain JSON data as per the API data model.

API DATA MODELS (JSON)

- **B2C INVOICE WITHOUT TAX-EXEMPT PRODUCTS.**

```
{
  "invoiceHeader": {
    "invoiceType": "B2C_INV",
    "invoiceNumber": "INV-1001",
    "invoiceIssueDate": "2025-03-14",
    "invoiceIssueTime": "16:20:29",
    "paymentMeans": "CASH"
  },
  "branchDetails": {
    "crNumber": "1010010000",
    "branchStreetName": "Prince Sultan",
    "branchBuildingNumber": "2322",
    "branchPlotIdentification": "3949",
    "branchCitySubDivision": "Al-Murabba",
    "branchCity": "Riyadh",
    "branchPostalZone": "23333"
  },
  "customerDetails": {
    "customerCode": "1001",
```

```
"customerName": "Fatoora Samples LTD",
"customerArabicName": "شركة نماذج فاتورة المحدودة",
"customerVatNo": "399999999800003",
"customerCRN": "2020020000",
"streetName": "Salah Al-Din",
"additionalNo": "2222",
"buildingNumber": "1111",
"cityName": "Riyadh",
"citySubdivisionName": "Al-Murooj",
"postalZone": "12222"
},
"lineItems": [
  {
    "lineItemCode": "ITEM124",
    "lineItemName": "Service Charge",
    "lineItemNameArabic": "",
    "lineItemUnitName": "PCS",
    "lineItemQuantity": 1,
    "lineItemUnitPrice": 100.00,
    "lineItemAmt": 100.00,
    "lineItemVatPercent": 15,
    "lineItemVatAmount": 15.00,
    "lineItemAmtWithVat": 115.00
  },
  {
    "lineItemCode": "ITEM123",
    "lineItemName": "Mineral water 1.5 liters",
    "lineItemNameArabic": "مياه معدنية 1.5 لتر",
    "lineItemUnitName": "PCS",
    "lineItemQuantity": 1,
    "lineItemUnitPrice": 100.00,
    "lineItemAmt": 100.00,
    "lineItemVatPercent": 15,
    "lineItemVatAmount": 15.00,
    "lineItemAmtWithVat": 115.00
  }
],
"invoiceTotals": {
  "totalExcludingVat": 200.00,
  "totalDiscountAmount": 100.00,
  "totalAmtAfterDisc": 100.00,
  "totalVatAmount": 15.00,
  "totalAmtWithVat": 115.00
}
}
```

- **B2C INVOICE WITH TAX-EXEMPT PRODUCTS.**

```
{
  "invoiceHeader": {
    "invoiceType": "B2C_INV",
    "invoiceNumber": "INV-1002",
    "invoiceIssueDate": "2025-03-14",
    "invoiceIssueTime": "16:25:10",
    "paymentMeans": "CASH"
  },
  "branchDetails": {
    "crNumber": "1010010000",
    "branchStreetName": "Prince Sultan",
    "branchBuildingNumber": "2322",
    "branchPlotIdentification": "3949",
    "branchCitySubDivision": "Al-Murabba",
    "branchCity": "Riyadh",
    "branchPostalZone": "23333"
  },
  "customerDetails": {
    "customerCode": "1001",
    "customerName": "Fatoora Samples LTD",
    "customerArabicName": "شركة نماذج فاتورة المحدودة",
    "customerVatNo": "399999999800003",
    "customerCRN": "2020020000",
    "streetName": "Salah Al-Din",
    "additionalNo": "2222",
    "buildingNumber": "1111",
    "cityName": "Riyadh",
    "citySubdivisionName": "Al-Murooj",
    "postalZone": "12222"
  },
  "lineItems": [
    {
      "lineItemCode": "ITEM124",
      "lineItemName": "Medicine",
      "lineItemNameArabic": "الدواء",
      "lineItemUnitName": "PCS",
      "lineItemQuantity": 1,
      "lineItemUnitPrice": 100.00,
      "lineItemAmt": 100.00,
      "lineItemVatPercent": 0,
      "lineItemVatAmount": 0.00,
      "lineItemAmtWithVat": 100.00
    },
    {
      "lineItemCode": "ITEM123",
      "lineItemName": "Mineral water 1.5 liters",
      "lineItemNameArabic": "مياه معدنية 1.5 لتر",
    }
  ]
}
```

```

        "lineItemUnitName": "PCS",
        "lineItemQuantity": 1,
        "lineItemUnitPrice": 100.00,
        "lineItemAmt": 100.00,
        "lineItemVatPercent": 15,
        "lineItemVatAmount": 15.00,
        "lineItemAmtWithVat": 115.00
    }
],
"invoiceTotals": {
    "totalExcludingVat": 200.00,
    "totalDiscountAmount": 50.00,
    "totalAmtAfterDisc": 150.00,
    "totalVatAmount": 7.50,
    "totalAmtWithVat": 157.50
}
}

```

- **B2C CREDIT NOTE WITHOUT TAX-EXEMPT PRODUCTS.**

```

{
    "invoiceHeader": {
        "invoiceType": "B2C_CRD",
        "invoiceNumber": "CR-1001",
        "invoiceIssueDate": "2025-03-14",
        "invoiceIssueTime": "08:55:12",
        "paymentMeans": "CASH",
        "documentReference": "INV-1011",
        "noteIssuanceReason": "Cancellation of supplies"
    },
    "branchDetails": {
        "crNumber": "1010010000",
        "branchStreetName": "Prince Sultan",
        "branchBuildingNumber": "2322",
        "branchPlotIdentification": "3949",
        "branchCitySubDivision": "Al-Murabba",
        "branchCity": "Riyadh",
        "branchPostalZone": "23333"
    },
    "customerDetails": {
        "customerCode": "1001",
        "customerName": "Fatoora Samples LTD",
        "customerArabicName": "شركة نماذج فاتورة المحدودة",
        "customerVatNo": "399999999800003",
        "customerCRN": "2020020000",
        "streetName": "Salah Al-Din",
        "additionalNo": "2222",
        "buildingNumber": "1111",
        "cityName": "Riyadh",
    }
}

```

```
    "citySubdivisionName": "Al-Murooj",
    "postalZone": "12222"
  },
  "lineItems": [
    {
      "lineItemCode": "ITEM124",
      "lineItemName": "Test product",
      "lineItemNameArabic": "",
      "lineItemUnitName": "PCS",
      "lineItemQuantity": 1,
      "lineItemUnitPrice": 100.00,
      "lineItemAmt": 100.00,
      "lineItemVatPercent": 15,
      "lineItemVatAmount": 15.00,
      "lineItemAmtWithVat": 115.00
    },
    {
      "lineItemCode": "ITEM123",
      "lineItemName": "Mineral water 1.5 liters",
      "lineItemNameArabic": "مياه معدنية 1.5 لتر",
      "lineItemUnitName": "PCS",
      "lineItemQuantity": 1,
      "lineItemUnitPrice": 100.00,
      "lineItemAmt": 100.00,
      "lineItemVatPercent": 15,
      "lineItemVatAmount": 15.00,
      "lineItemAmtWithVat": 115.00
    }
  ],
  "invoiceTotals": {
    "totalExcludingVat": 200.00,
    "totalDiscountAmount": 100.00,
    "totalAmtAfterDisc": 100.00,
    "totalVatAmount": 15.00,
    "totalAmtWithVat": 115.00
  }
}
```

- B2C CREDIT NOTE WITH TAX-EXEMPT PRODUCTS.

```
{
  "invoiceHeader": {
    "invoiceType": "B2C_CRD",
    "invoiceNumber": "CR-1002",
    "invoiceIssueDate": "2025-03-14",
    "invoiceIssueTime": "09:21:10",
    "paymentMeans": "CASH",
    "documentReference": "INV-1012",
    "noteIssuanceReason": "Cancellation of supplies"
  },
  "branchDetails": {
    "crNumber": "1010010000",
    "branchStreetName": "Prince Sultan",
    "branchBuildingNumber": "2322",
    "branchPlotIdentification": "3949",
    "branchCitySubDivision": "Al-Murabba",
    "branchCity": "Riyadh",
    "branchPostalZone": "23333"
  },
  "customerDetails": {
    "customerCode": "1001",
    "customerName": "Fatoora Samples LTD",
    "customerArabicName": "شركة نماذج فاتورة المحدودة",
    "customerVatNo": "399999999800003",
    "customerCRN": "2020020000",
    "streetName": "Salah Al-Din",
    "additionalNo": "2222",
    "buildingNumber": "1111",
    "cityName": "Riyadh",
    "citySubdivisionName": "Al-Murooj",
    "postalZone": "12222"
  },
  "lineItems": [
    {
      "lineItemCode": "ITEM124",
      "lineItemName": "Medicine",
      "lineItemNameArabic": "الدواء",
      "lineItemUnitName": "PCS",
      "lineItemQuantity": 1,
      "lineItemUnitPrice": 100.00,
      "lineItemAmt": 100.00,
      "lineItemVatPercent": 0,
      "lineItemVatAmount": 0.00,
      "lineItemAmtWithVat": 100.00
    },
    {
      "lineItemCode": "ITEM123",
```

```

    "lineItemName": "Mineral water 1.5 liters",
    "lineItemNameArabic": "مياه معدنية 1.5 لتر",
    "lineItemUnitName": "PCS",
    "lineItemQuantity": 1,
    "lineItemUnitPrice": 100.00,
    "lineItemAmt": 100.00,
    "lineItemVatPercent": 15,
    "lineItemVatAmount": 15.00,
    "lineItemAmtWithVat": 115.00
  }
],
"invoiceTotals": {
  "totalExcludingVat": 200.00,
  "totalDiscountAmount": 50.00,
  "totalAmtAfterDisc": 150.00,
  "totalVatAmount": 7.50,
  "totalAmtWithVat": 157.50
}
}

```

REQUEST PARAMETERS

PARAMS	REQUIRED	DATATYPE	DESCRIPTION	EXAMPLE
invoiceHeader	YES	Object	Contains all header-level details for the invoice	
invoiceType	YES	String	1) "B2C_INV" for Business-to-Consumer Invoices 2) "B2C_CRD" for Business-to-Consumer Credit Notes 3) "B2C_DBT" for Business-to-Consumer Debit Notes 4) "B2B_INV" for Business-to-Business Invoices 5) "B2B_CRD" for Business-to-Business Credit Notes 6) "B2B_DBT" for Business-to-Business Debit Notes	B2C_INV
invoiceNumber	YES	String	Unique number for the invoice	INV-1010

invoiceIssueDate	YES	String	The date the invoice was issued (YYYY-MM-DD)	2024-07-17
invoiceIssueTime	YES	String	The time the invoice was issued (HH:mm:ss) The time must be in HH:mm:ss format and follow Asia/Riyadh (Saudi local time) .	14:30:15
paymentMeans	YES	String	The payment means used	CREDIT / CASH
documentReference	CONDITIONAL	String	Unique number of the original document for which this document is generated. Applicable for: B2C_CRD (Tax Invoice Credit Note), B2B_CRD If the invoiceType is B2C_CRD or B2B_CRD, the documentReference should be Invoice number for which this credit note is being created. Mandatory if invoiceType is B2C_CRD or B2B_CRD. Not required for B2C_INV, B2B_INV.	INV-1010
noteIssuanceReason	CONDITIONAL	string	Reason for issuing credit Note Mandatory if invoiceType is B2C_CRD, B2B_CRD. Not required for B2C_INV, B2B_INV.	Cancellation or suspension of the supplies / goods or services refund. / change in Seller's or Buyer's information
branchDetails	YES	object	Contains details of the branch from which the invoice is generated.	
crNumber	YES	String	10digit CR number of the branch	1010010000
branchStreetName	YES	String	Street name of the branch	Prince Sultan
branchBuildingNumber	YES	String	4digit building number of the branch	2322
branchPlotIdentification	YES	String	4digit Addl No (PlotIdentification)	3949
branchCitySubDivision	YES	String	City subdivision/ district	Al-Murabba
branchCity	YES	String	City name of the branch	Riyadh
branchPostalZone	YES	String	5digit postal code of the branch	23333
customerDetails	YES	Object	Contains all customer-related details.	If B2B then all customerDetails fields are required

customerCode	CONDITIONAL	String	Unique code for your customer	CUST001
customerName	CONDITIONAL	String	The registered name of your customer's business entity or the individual's name	ABC Traders LLC
customerArabicName	CONDITIONAL	String	Customer's name in Arabic	ايه بي سي تریدرز ذ.م.م
customerVatNo	CONDITIONAL	String	<ul style="list-style-type: none"> If the customer is a B2C (Business-to-Consumer) customer, then there is no need to pass this parameter. 	
customerCRN	CONDITIONAL	String	<ul style="list-style-type: none"> If the customer has a Commercial Registration Number, it is required to be provided. If the customer does not have a Commercial Registration Number, then there is no need to pass this parameter. 	1010010000
streetName	CONDITIONAL	String	The name of the street where your customer is located	Al Jamiah Street
additionalNo	CONDITIONAL	String	Additional No for your customer	8959
buildingNumber	CONDITIONAL	String	The number of the building where your customer is located	2106
cityName	CONDITIONAL	String	The name of the city where your customer is located	Riyadh
citySubdivisionName	CONDITIONAL	String	Subdivision or neighborhood name for your customer	Al Malaz
postalZone	CONDITIONAL	String	ZIP code for your customer	11461
lineItems	YES	Array	Contains all line item details for the invoice	
lineItemCode	NO	String	Unique code for each item	ITEM123
lineItemName	YES	String	The name or description of the line item	Mineral water 1.5 liters
lineItemNameArabic	YES	String	Name or description of the line item in Arabic	مياه معدنية 1.5 لتر
lineItemUnitName	YES	String	The unit of measure for the quantity	PCS, KG, ...

lineItemQuantity	YES	Number	Quantity of item/ The number of units being invoiced, no need to round to two decimal places	1
lineItemUnitPrice	YES	Number	Price per unit, no need to round to two decimal places	100.00
lineItemAmt	YES	Number	Total amount before discount and tax (Invoice Line), lineItemAmt = lineItemQuantity * lineItemUnitPrice rounded to two decimal places	100.00
lineItemVatPercent	YES	Number	VAT percentage applied (Invoice Line) (15 or 0)	15
lineItemVatAmount	YES	Number	Amount of VAT applied (Invoice Line), lineItemVatAmount = (lineItemAmt * lineItemVatPercent)/100 rounded to two decimal places	15.00
lineItemAmtWithVat	YES	Number	Total amount including VAT of the line item, lineItemAmtWithVat = lineItemAmt + lineItemVatAmount rounded to two decimal places	115.00
totalExcludingVat	YES	Number	Sum of all Invoice Line total amounts before discount and tax(lineItemAmt), rounded to two decimal places	100.00
totalDiscountAmount	YES	Number	Discount Amount applied to totalExcludingVat , If the invoice contains both tax-exempt products (0% VAT) and standard-rated products (15% VAT), then totalDiscountAmount should be less than or equal to the sum of all lineItemAmt for line items with 15% VAT. rounded to two decimal places	50.00
totalAmtAfterDisc	YES	Number	totalAmtAfterDisc = totalExcludingVat - totalDiscountAmount , rounded to two decimal places	95.00

totalVatAmount	YES	Number	<ul style="list-style-type: none"> If the invoice does not contain any tax-exempt product: $\text{totalVatAmount} = (\text{totalAmtAfterDisc} * 15) / 100$ If the invoice contains both tax-exempt products (0% VAT) and standard-rated products (15% VAT): <ol style="list-style-type: none"> Take the sum of all lineItemAmt for line items with 15% VAT. Subtract the totalDiscountAmount from this sum. Calculate 15% VAT of the resulting amount: $\text{totalVatAmount} = ((\text{sum of lineItemAmt with 15\% VAT} - \text{totalDiscountAmount}) * 15) / 100$ If the invoice contains only tax-exempt products (0% VAT), then $\text{totalVatAmount} = 0$ rounded to two decimal places	14.25
totalAmtWithVat	YES	Number	$\text{totalAmtWithVat} = \text{totalAmtAfterDisc} + \text{totalVatAmount},$ rounded to two decimal places	109.25

API RESPONSES

- B2C Invoice/ B2C creditNote successfully submitted to zatca (REPORTED) and the invoice have no error and warning messages

```
{
  "status": "B2C_REPORTED",
  "zatcaApiResponse": {
    "validationResults": {
      "infoMessages": [
        {
          "type": "INFO",
          "code": "XSD_ZATCA_VALID",
          "category": "XSD validation",
          "message": "Complied with UBL 2.1 standards in line with ZATCA specifications",
          "status": "PASS"
        }
      ],
      "warningMessages": [],
      "errorMessages": [],
      "status": "PASS"
    },
    "reportingStatus": "REPORTED"
  },
  "base64Invoice": "PD94bWwgdmVyc2lvcyYw1lczo8L01udm9pY2U+Cg==",
  "base64QrValue": "QVJWRVFWSkRU1qTXpNemN3TURBd013TVRNakF5TkMwd055MHhOMV"
}
```

→ Key Fields

Field	Description	Notes
status	Overall status of the invoice submission.	B2C_REPORTED means successful submission and reported.
zatcaApiResponse	Contains ZATCA's detailed response.	
reportingStatus	Confirms if the invoice was reported by ZATCA.	REPORTED means successfully reported. Always check this for confirmation from your side to verify the invoice status with ZATCA.
base64Invoice	Base64-encoded XML of the reported invoice.	Decode and embed in PDF for compliance.
base64QrValue	Base64-encoded QR code for the invoice.	Decode and generate QR code for PDF inclusion.

→ Response Code

HTTP Status Code	Description
200 OK	Indicates successful submission and reported.

- B2C Invoice/ B2C creditNote successfully submitted to zatca (REPORTED WITH WARNINGS) and the invoice have no error but have some warning messages
 - ❖ Warnings occur due to calculation mistakes (e.g., rounding errors).
 - ❖ Check the warningMessages field for details on the warnings. It is advisable to resolve these warnings for future invoices.
 - ❖ The invoice is still reported (reportingStatus: "REPORTED"), but warnings should not be ignored. You do not need to resubmit the invoice, as it is already successfully submitted to ZATCA. However, it is advisable to resolve the warnings from the next invoice submission.

```
{
  "status": "B2C_REPORTED_WITH_WARNING",
  "zatcaApiResponse": {
    "validationResults": {
      "infoMessages": [
        {
          "type": "INFO",
          "code": "XSD_ZATCA_VALID",
          "category": "XSD validation",
          "message": "Complied with UBL 2.1 standards in line with ZATCA specifications",
          "status": "PASS"
        }
      ],
      "warningMessages": [
```

```

    {
      "type": "WARNING",
      "code": "BR-S-08",
      "category": "EN_16931",
      "message": "[BR-S-08]-In a VAT breakdown (BG-23) where the VAT category code (BT-118)
is ' Standard rated' the VAT category taxable amount (BT-116) shall equal the sum of Invoice line net
amounts (BT-131) minus the sum of Document level allowance amounts (BT-92) plus the sum of Document level
charge amounts (BT-99) where the VAT category codes (BT-151, BT-95, BT-102) are 'Standard Rate'.",
      "status": "WARNING"
    },
    {
      "type": "WARNING",
      "code": "BR-CO-13",
      "category": "EN_16931",
      "message": "Invoice total amount without VAT (BT-109) = S Invoice line net amount
(BT-131) - Sum of allowances on document level (BT-107)",
      "status": "WARNING"
    }
  ],
  "errorMessages": [],
  "status": "WARNING"
},
"reportingStatus": "REPORTED"
},
"base64Invoice": "PD94bWwgdmVyc2lvbW9InVybjpvYXNpczpuYW1lczo8L0ludm9pY2U+Cg==",
"base64QrValue": "QVJWRVFWSkRwOENEek14TURFM01qTXpNemN3TURBd013TVRNakF5TkMwd055MHhOMV
}

```

→ Key Fields

Field	Description	Notes
status	Overall status of the invoice submission.	B2C_REPORTED_WITH_WARNING means the invoice was reported but has warnings.
warningMessages	Warnings generated during validation.	Check this for details on warnings (e.g., rounding errors) and resolve them in the next invoices. There is no need to resubmit the current invoice, as it is already successfully submitted to ZATCA.
reportingStatus	Confirms if the invoice was reported by ZATCA.	REPORTED means successfully reported. Always check this for confirmation from your side to verify the invoice status with ZATCA.

→ Response Code

HTTP Status Code	Description
202 Accepted	Indicates the invoice was reported with warnings.

- B2C Invoice / B2C creditNote rejected by zatca due to errors (NOT_REPORTED)

```
{
  "status": "B2C_NOT_REPORTED",
  "zatcaApiResponse": {
    "validationResults": {
      "infoMessages": [
        {
          "type": "INFO",
          "code": "XSD_ZATCA_VALID",
          "category": "XSD validation",
          "message": "Complied with UBL 2.1 standards in line with ZATCA specifications",
          "status": "PASS"
        }
      ],
      "warningMessages": [
        {
          "type": "WARNING",
          "code": "BR-KSA-51",
          "category": "KSA",
          "message": "The line amount with VAT (KSA-12) must be Invoice line net amount (BT-131) + Line VAT amount (KSA-11).",
          "status": "WARNING"
        }
      ],
      "errorMessages": [
        {
          "type": "ERROR",
          "code": "BR-CO-15",
          "category": "EN_16931",
          "message": "Invoice total amount with VAT (BT-112) ",
          "status": "ERROR"
        }
      ],
      "status": "ERROR"
    },
    "reportingStatus": "NOT_REPORTED"
  }
}
```

→ Key Fields

Field	Description	Notes
status	Overall status of the invoice submission.	B2C_NOT_REPORTED means the invoice was rejected due to errors.
errorMessages	Errors generated during validation	Check this for details on errors.
reportingStatus	Confirms if the invoice was reported by ZATCA.	NOT_REPORTED means the invoice was rejected. Always check this for confirmation from your side to verify the invoice status with ZATCA. You need to resubmit this invoice after solving the errors.

→ Response Code

HTTP Status Code	Description
400 Bad Request	Indicates the invoice was rejected due to errors.

- Invoice / creditNote Not Submitted to zatca Due to Errors

```
{
  "status": "ERROR",
  "message": "Missing parameters in the request JSON."
}
```

→ Key Fields

Field	Description	Notes
status	Overall status of the invoice submission.	ERROR indicates that the request failed due to missing parameters.
errorMessages	A human-readable message describing the error.	Provides details about the missing parameters in the request JSON. Resubmit the same invoice after correcting errors. This invoice is not submitted to zatca.

→ Response Code

HTTP Status Code	Description
422 Unprocessable Entity	Indicates the invoice was not submitted due to errors.