



KPN

www.kpn.com

KPN B2B Integrations

ServiceNow Connect API

2: Customers

version 0.95

Contents

1	Introduction.....	3
2	Create New Ticket In ServiceNow	4
2.1	Ticket_type: Incident – Sample request.....	5
2.2	Ticket_type: Request for Information – Sample request.....	5
2.3	Ticket_type: Change Request – Sample request.....	5
2.4	Ticket_type: Service Request – Sample request	6
2.5	All – Sample responses.....	6
3	Update Existing Ticket In ServiceNow	7
3.1	Confirm-Response KPN Ticket-Update In Customer Application.....	8
4	Get operations.....	9
4.1	Retrieve Ticket-Updates from KPN	9
4.2	Get List Open Tickets.....	10
4.3	GET Ticket Details.....	11
4.3.1	Sample response: Incident.....	11
4.3.2	Sample response: Change Request.....	12
4.3.3	Sample response: Service Request	13
5	Attachment handling.....	14
5.1	Sending Attachments to KPN ServiceNow	14
5.2	Receiving Attachments from KPN ServiceNow	14
6	Overview ErrorCodes.....	15

Version Control

Version	Date	Author	Comment
0.95	2025-03-27	CTP	First Public Draft

1 Introduction

This is the second document for the KPN ServiceNow Connect API.

In this document is described how to work with tickets (Incident, Request for Information, Change Request and Service Request).

In the first document the different use cases for the ServiceNow Connect API described, and how to connect.

For details on how to work with tasks (Incident Task, Change Task and Request task) a third document is available.

Finally, there is an Addendum document containing samples of all possible message updates from KPN.

2 Create New Ticket In ServiceNow

The customer is able to submit a new ticket in ServiceNow KPN. The current version supports:

- Incidents,
- Requests for Information,
- Change Requests,
- Service Requests.

POST <https://api-prd.kpn.com/network/kpn/servicenow/Ticket>

Data-Item	Description	Max. Length	
ticket_type	Allowed values: <ul style="list-style-type: none"> • 'Incident' • 'Request for Information' • 'Change Request' • 'Service Request' 	30	Mandatory
customer_reference_number	Unique reference-number of the customer system	50	Mandatory
short_description	Short description of the ticket	160	Mandatory
description	Details of the ticket	4000	Mandatory
service	Service for which the ticket is reported	255	Mandatory
ci	Configuration item for which the ticket is reported	255	Optional (not for Service Request)
contact	Id of the contact (Reported by / Requested by)	100	Optional
user	Id of the user (Affected user / Requested for)	100	Optional
priority	Allowed values: <ul style="list-style-type: none"> • 1 - Critical • 2 - High • 3 - Moderate • 4 - Low • 5 - Planning 	20	Optional only for Incident
desired_delivery_date	Optional: The desired delivery date of a change_request, in CET "desired_delivery_date": "2024-10-18 10:26"		Optional only for Change Request
order_items	Array of following object-fields		Optional only for Service Request
item	Requested (catalog) item of KPN (SSR in ServiceNow)	100	Mandatory
customer_order_item_id	Unique reference-number of the requested (catalog) item from the source-system (can be the same as customer_reference_number)	50	Mandatory
item_attributes	Object with additional attributes required for the requested (catalog) item		Mandatory
<i>Name value pair field(s)</i>	Additional attributes (unspecified number of unique fieldnames, matching the requested (catalog) item)		Optional
attachments	Array of following object-fields		Optional
name	name of the attachment	100	Mandatory
content	Attachment Payload. Base-64 encoded string. Maximum Message-size for SN Green (including base64 encoded attachments): 80MB		Mandatory
content_type	content_type of the attachment	100	Optional

2.1 Ticket_type: Incident – Sample request

```
{
  "ticket_type": "Incident",
  "customer_reference_number": "INC01234567",
  "short_description": "Win11 L schijf: Kan niet worden toegevoegd",
  "description": "Some extended description\nSecond line",
  "service": "Azure Managed Cloud",
  "ci": "GSEM01300",
  "contact": "jan.jansen@customer.com",
  "user": "truus.bakker@customer.com",
  "priority": "4 - Low",
  "attachments": [
    {
      "name": "Note1.txt",
      "content": "VGVzdGluZyBpbmRlcmZhY2U="
      "content_type": "text/plain"
    }
  ]
}
```

2.2 Ticket_type: Request for Information – Sample request

```
{
  "ticket_type": "Request for Information",
  "customer_reference_number": "RFI01234567",
  "short_description": "Some information request",
  "description": "Some extended description\nSecond line",
  "service": "Azure Managed Cloud",
  "ci": "GSEM01300",
  "contact": "jan.jansen@customer.com",
  "user": "truus.bakker@customer.com",
  "priority": "4 - Low",
  "attachments": [
    {
      "name": "Note1.txt",
      "content": "VGVzdGluZyBpbmRlcmZhY2U="
      "content_type": "text/plain"
    }
  ]
}
```

2.3 Ticket_type: Change Request – Sample request

```
{
  "ticket_type": "Change Request",
  "customer_reference_number": "CHG01234567",
  "short_description": "Change short description",
  "description": "Some extended description\nSecond line",
  "service": "Azure Managed Cloud",
  "ci": "GSEM01300",
  "contact": "jan.jansen@customer.com",
  "user": "truus.bakker@customer.com",
  "desired_delivery_date": "2024-11-25 09:21",
  "attachments": [
    {
      "name": "Note1.txt",
      "content": "VGVzdGluZyBpbmRlcmZhY2U="
      "content_type": "text/plain"
    }
  ]
}
```

```
]
}
```

2.4 Ticket_type: Service Request – Sample request

```
{
  "ticket_type": "Service Request",
  "customer_reference_number": "REQ01234567",
  "short_description": "Win11 L schijf: Kan niet worden toegevoegd",
  "description": "Some extended description\nSecond line",
  "service": "Decommissioning Firewall",
  "contact": "jan.jansen@customer.com",
  "user": "truus.bakker@customer.com",
  "order_items": [
    {
      "item": "510.400 - NIO ICT Automation",
      "customer_order_item_id": "REQ01234567",
      "item_attributes": {
        "item_description": "We have decommissioned server 12345.\nPlease remove the firewall rules and objects for
12345 with following IP details:\n1.2.3.4",
        "u_company": "KPN B.V.",
        "contact_type": "Integration"
      }
    }
  ],
  "attachments": [
    {
      "name": "Note1.txt",
      "content": "VGVzdGluZyBpbmRlcmZhY2U=",
      "content_type": "text/plain"
    }
  ]
}
```

2.5 All – Sample responses

http 200 Response (Success)

```
{
  "kpn_ticket_number": "INC#11252603",
  "customer_reference_number": "INC01234567",
  "note": "Incident INC#11252603 has been created;"
}
```

http 400 Response (Failure)

```
{
  "error": {
    "code": "3000",
    "message": "Ticket not created. Error: Reference number already exist;"
  }
}
```

3 Update Existing Ticket In ServiceNow

The customer can add additional information and/or requests to open tickets in ServiceNow KPN.

PATCH <https://api-prd.kpn.com/network/kpn/servicenow/Ticket>

Data-Item	Description	Max. Length	
action	Allowed value: <ul style="list-style-type: none">Comment	10	Mandatory
customer_reference_number	unique reference-number from the application of the customer	50	Mandatory
kpn_ticket_number	Ticket-number of ServiceNow KPN	20	Mandatory
comment	Content which will be added to the Incident-ticket in ServiceNow	4000	Mandatory
attachments			Optional
name	name of the attachment	100	Mandatory
content	Attachment Payload. Base-64 encoded string. Maximum Message-size for SN Green (including base64 encoded attachments): 80MB		Mandatory
content_type	content_type of the attachment	100	Optional

Sample Request

```
{
  "action": "Comment",
  "customer_reference_number": "INC01234568",
  "kpn_ticket_number": "INC#34567890",
  "comment": "New comment update",
  "attachments": [
    {
      "name": "test.txt",
      "content":
        "IQ0KZW5hYmxlIHNIY3JldCBjaXNjbw0KIQ0KIQ0KIQ0KIQ0KIQ0KIQ0KIQ0Kbm8gaXAgc291cmNILXJvdXRIDQohDQohDQo
        hDQohDQohDQohDQohDQohDQoNCg0KIQ0KaXAgd1ZXVlIDFwMjBvdCIBWZltaXQgdWQogdHJhbnNwb3J0IGlucHV0I
        HRlbg5ldA0KIQ0KZW5k",
      "content_type": "text/plain"
    }
  ]
}
```

http 200 Response (Success)

```
{
  "kpn_ticket_number": "INC#34567890",
  "customer_reference_number": "INC01234568",
  "note": "Incident INC#34567890 has been updated;"
}
```

http 400 Response (Failure)

```
{
  "error": {
    "code": "2000",
    "message": "Update failed. Ticket is already closed."
  }
}
```

3.1 Confirm-Response KPN Ticket-Update In Customer Application

For Ticket-Updates from KPN (retrieved by the customer via GET Ticket-Updates) the result of processing the data in the application of the customer is being returned back to KPN.

Example: in case the customer retrieved a new Incident-ticket created by KPN and processes that new ticket in the system of the customer then the customer returns their ticket-number via the 'Response'-message.

[PATCH https://api-prd.kpn.com/network/kpn/servicenow/Ticket](https://api-prd.kpn.com/network/kpn/servicenow/Ticket)

Data-Item	Description	Max. Length	
action	Allowed value: <ul style="list-style-type: none">Response	10	Mandatory
customer_reference_number	unique reference-number from the application of the customer	60	Optional*
kpn_ticket_number	Ticket-number of ServiceNow KPN	20	Mandatory
transaction_id	Transaction ID received in the Ticket-update from KPN	40	Mandatory
status	Allowed values: <ul style="list-style-type: none">SuccessFailure		Mandatory
error_details	Details of the reason/cause of 'failure'	4000	Optional

Sample Request (success)

```
{
  "action": "Response",
  "customer_reference_number": "INC01234567",
  "kpn_ticket_number": "INC#34567890",
  "transaction_id": "e1d7f2bc-8906-4b11-a19a-8d51a98c32c7",
  "status": "Success"
}
```

http 200 Response (Success)

```
{
  "kpn_ticket_number": "INC#34567890",
  "customer_reference_number": "INC01234567",
  "note": "Incident INC#34567890 has been updated;"
}
```

Sample Request (Failure)

```
{
  "action": "Response",
  "kpn_ticket_number": "INC#34567890",
  "transaction_id": "e1d7f2bc-8906-4b11-a19a-8d51a98c32c7",
  "status": "Failure",
  "error_details": "Some specific error details"
}
```

http 200 Response (Failure)

```
{
  "kpn_ticket_number": "INC#34567890",
  "customer_reference_number": "INC01234567",
  "note": "Incident INC#34567890 has been updated;"
}
```


4 Get operations

4.1 Retrieve Ticket-Updates from KPN

The customer will retrieve the ticket-updates which are available in the 'Ticket Updates' queue (*GET Ticket-updates*).

GET <https://api-prd.kpn.com/network/kpn/servicenow/TicketUpdates>

Response will be an array with 0 or more ticket updates. Each update exists of a JSON object containing common fields and a ticket-Attributes object with action specific fields.

Below an overview of the common fields.

Data-Item	Description	Max. Length	
message_datetime_utc	Creation date-time of the update. Format: 2024-09-23T11:08:32Z	20	Mandatory
transaction_id	Unique transaction-message identifier	40	Mandatory
ticket_type	Possible values: <ul style="list-style-type: none">'Incident''Request for Information''Change Request''Service Request''Incident Task''Change Task''Request Task'	30	Mandatory
action	Action taken on the ticket.	20	Mandatory
kpn_ticket_number	Ticket-number of ServiceNow KPN	20	Mandatory
customer_reference_number	Unique reference-number of the customer system	50	Mandatory
ticket_attributes	JSON object containing fields depending on ticket_type & action		

The field 'ticket_type' defines the process and the field 'action' the possible update for the ticket.

Note: See the Addendum document "4 ServiceNow CC-API Addendum" for details of all the possible updates for the different ticket types.

Sample Ticket-Update (In Progress)

```
[
  {
    "message_datetime_utc": "2024-11-25T08:16:15.877Z",
    "ticket_type": "Incident",
    "action": "In Progress",
    "kpn_ticket_number": "INC#11361768",
    "customer_reference_number": "CTP-20241125-689",
    "transaction_id": "fc591868-2d14-4374-b47a-426bb5bfa439",
    "ticket_attributes": {
      "state": "In Progress",
      "comments": "Comment with in Progress\n\n"
    }
  }
]
```

4.2 Get List Open Tickets

List of open tickets from ServiceNow Green (active = true).

GET <https://api-prd.kpn.com/network/kpn/servicenow/ListOpenTickets>

Data-Item	Description	Max. Length	
kpn_ticket_number	Ticket-number of ServiceNow KPN	20	Mandatory
customer_reference_number	Unique reference-number of the customer system	50	Mandatory
ticket_type	Possible values: <ul style="list-style-type: none"> 'Incident' 'Request for Information' 'Change Request' 	30	Mandatory
state	State of the ticket in the KPN system. Possible values for incidents and Request for information: <ul style="list-style-type: none"> "New" "In Progress" "On Hold" "Resolved" Possible values for change requests: <ul style="list-style-type: none"> "New" "Assess" "Authorize" "Scheduled" "Implement" "Review" Possible values for Service Requests: <ul style="list-style-type: none"> "New" "In Progress" "On Hold" "Resolved" 	30	Mandatory
short_description	Short description / Summary of the ticket	160	Mandatory
link	url to retrieve the details of the ticket	255	Mandatory

Sample Get List Open Tickets

```
{
  "result": [
    {
      "kpn_ticket_number": "INC#34567890",
      "customer_reference_number": "INC01234567",
      "ticket_type": "Incident",
      "state": "In Progress",
      "short_description": "Win11 L schijf: Kan niet worden toegevoegd",
      "link": " https://api-prd.kpn.com/network/kpn/servicenow/Ticket?kpn_ticket_number=INC%2334567890"
    }
  ]
}
```

4.3 GET Ticket Details

Details of a specific ticket in ServiceNow Green.

GET https://api-prd.kpn.com/network/kpn/servicenow/Ticket?kpn_ticket_number=INC%2311306222

Note: The kpn ticket number should be url encoded as it contains a '#' symbol.

The response will contain the details of the ticket, the fields in the response depends on the ticket type

4.3.1 Sample response: Incident

Sample Get Ticket Details for Incident

```
{
  "result": [
    {
      "category": "Incident",
      "ci": "",
      "company": "Customer B.V.",
      "contact": "Unknown User",
      "description": "test",
      "impact": "1 - High",
      "on_hold_reason": "Awaiting User",
      "priority": "3 - Moderate",
      "customer_reference_number": "INC01234567",
      "resolution_code": null,
      "resolution_notes": "",
      "service": "Not contracted",
      "short_description": "test",
      "sla_due": "2024-10-18 10:26",
      "state": "On Hold",
      "kpn_ticket_number": "INC#11252428",
      "urgency": "3 - Low",
      "user": "Unknown User",
      "comments": [
        {
          "comment": "Looks fine. SNOW can be closed .Thank you.",
          "date_time": "2024-10-18 10:26",
          "user": "via integration"
        },
        {
          "comment": "As you requested i restored the link for you please check details and let me know if any issue.",
          "date_time": "2024-10-18 10:26",
          "user": "KPN"
        }
      ]
    }
  ]
}
```

4.3.2 Sample response: Change Request

Sample Get Ticket Details for Change Request

```
{
  "result": {
    "ticket_type": "Change Request",
    "ci": "",
    "company": "Aan B.V.",
    "description": "test",
    "on_hold_reason": "",
    "priority": "4 - Low",
    "customer_reference_number": "CTP-20241112-421",
    "service": "Not contracted",
    "short_description": "test",
    "sla_due": "UNKNOWN",
    "planned_start_date": "",
    "planned_end_date": "",
    "type": "Normal",
    "state": "New",
    "kpn_ticket_number": "CHG#10488730",
    "comments": [
      {
        "comment": "Looks fine. SNOW can be closed .Thank you.",
        "date_time": "2024-10-18 10:26",
        "user": "via integration"
      },
      {
        "comment": "As you requested i restored the link for you please check details and let me know if any issue.",
        "date_time": "2024-10-18 10:26",
        "user": "KPN"
      }
    ]
  }
}
```

4.3.3 Sample response: Service Request

Sample Get Ticket Details for Service Request

```
{
  "result": {
    "ticket_type": "Service Request",
    "customer_reference_number": "TDN-REQ20250221-202",
    "kpn_ticket_number": "RITM#10551843",
    "company": "KPN B.V.",
    "short_description": "test short description",
    "description": "test long description",
    "service": "Decommissioning Firewall",
    "contact": "unknown.user@8001206483",
    "user": "unknown.user@8001206483",
    "state": "Closed Complete",
    "resolution_notes": "Close notes complete",
    "order_items": [
      {
        "item": "510.400 - NIO ICT Automation",
        "customer_order_item_id": "TDN-REQ20250221-202"
      }
    ],
    "comments": [
      {
        "comment": "Looks fine. SNOW can be closed .Thank you.",
        "date_time": "2024-10-18 10:26",
        "user": "via integration"
      },
      {
        "comment": "As you requested i restored the link for you please check details and let me know if any issue.",
        "date_time": "2024-10-18 10:26",
        "user": "KPN"
      }
    ]
  }
}
```

5 Attachment handling

5.1 Sending Attachments to KPN ServiceNow

All POST and PATCH messages towards the ServiceNow Connect API support the possibility to add an attachment to the ticket or task.

In the sample for the different messages an attachment is added.

If the customers system uses a dedicated message to send an attachment, it is advised to use the comment message without a comment.

5.2 Receiving Attachments from KPN ServiceNow

If an attachment is added by KPN to a ticket or task, a message will be placed in the queue containing a link to retrieve the attachment. See the addendum for details of the message

6 Overview ErrorCodes

Below an overview of the possible error-codes.

ErrorCode	Type of Error	Suggested action
1000	Schema validation	Mandatory data is missing to create or update the ticket
1010	Service not found	Service is not supported (existing/active) in KPN ServiceNow
1040	Unknown ticket type	The kpn_ticket_number is of a not supported type
1050	Unknown transaction_id	For response, a message with the received transaction_id could not be found
1100	Order not created because Item not found	The Order Item is not supported (existing/active) for the company in KPN ServiceNow; contact KPN Service Develivry Manager to align on expected values
1110	Order not created because Service not found	The Order Service is not supported (existing/active) for the company in KPN ServiceNow; contact KPN Service Develivry Manager to align on expected values
1190	Order not created for unknown reason	The Order could not be created for an unknown reason in KPN ServiceNow
2000	No valid ticket found	The combination of kpn_ticket_number & customer_reference_number does not exists in KPN ServiceNow
3000	Double ticket	Reference number already exists
6010	Attachment not found	Check the attachment id in the link
6050	Endpoint failure	Please try to resend the message
9000	Default	See the message for the details