

Accident Compensation Commission

ICS Integrated Customer Services

Invoice API

Software specification

Version 09 Draft for information, 05 December 2017



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1 Invoice API: overview

This API enables a vendor to submit a schedule of invoices to be processed by the eChannel gateway. The API submits only valid, authorised schedule requests; it returns validation errors to the submitting application.

A valid schedule is passed to the eGateway, and then on to MFP, which processes it.

Vendors can also query the submission status of a schedule, the payment status of an invoice, and payment advice. These API endpoints are described separately.

1.1 Terms and abbreviations

Term	Description
ACC40	The form for invoices submitted electronically to ACC, also referred to as an eSchedule.
Facility	The building, site, or location where a health provider has treated an ACC claimant. Example: Wellington Hospital
Invoice	Although the terms 'invoice' and 'schedule' are used interchangeably, in fact each line item of a schedule is an invoice, with a contract identifier, service details, and amount.
Provider	A health professional such as a doctor or physiotherapist, with an HPI-CPN identifier like 12ABCD.
	Because ACC supports claimants to return to work or stay at work, providers also include taxi drivers, airlines, home help staff, and suppliers of certain equipment.
Schedule	Also referred to as an invoice, a schedule contains one or more line items, each one being an invoice for a given amount.
Service code	Identifies the health service that has been provided, for which the cost is charged to ACC. A service code is always linked to a contract, a purchase order, or a regulation identifier, and identified with a flat fee, or a unit, time, or distance measure.
	Sometimes called an 'unload reference'.
Vendor	A business providing health services, for instance Capital Coast Health.
	A vendor has a GST number and a bank account, and one or more contracts with ACC.

Table 1 Terms and abbreviations

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1.2 Dates and times

Dates and times follow W3C standards:

Data type	Example	Reference
Date	2018-03-31	https://www.w3.org/TR/xmlschema-2/#date
Time	15:03:30 15:03:30.153 15:03:30.153+12:00	https://www.w3.org/TR/xmlschema-2/#time
DateTime	2017-12-31T15:03:30.153 2017-12-31T15:03:30.153+12:00	https://www.w3.org/TR/xmlschema- 2/#dateTime

Table 2 Format of dates and times

The API specifies the following dates, in the order given. Limits are included for all these dates.

Earlier limit	Date of	Later limit	Section
1900-01-01	declaration	current date	3.4.2
1972-01-01	accident	declaration date	3.5.1.3
2000-01-01	service	2099-12-31	3.5.2.2
1900-01-01	patient's birth	accident date if present, otherwise the current date	3.5.4.5

Table 3 Sequence of dates

1.3 Standard error messages

When the API returns an error message that relates to a specific field, the name of that field is given before the error, for instance:

declarationDate. The date format is invalid; use YYYY-MM-DD.

1.3.1 Generic error messages

The following validation error messages are returned whenever they apply:

Condition	Error message
The field is mandatory ('required'), and no value is present	This field is required.
The value submitted was longer than the maximum length allowed for the field (when the minimum value is 1)	This field cannot be more than <maximum length=""> characters.</maximum>
The value submitted was shorter than the minimum length	This field must be at least <minimum length=""> and no more than <maximum length=""> characters long.</maximum></minimum>
The value submitted was longer than the minimum length (when the minimum value is greater than 1)	This field must be at least <minimum length=""> and no more than <maximum length=""> characters long.</maximum></minimum>

Table 4 Standard error messages

The current release doesn't verify any codes. Legacy error messages (not shown in this document) are returned.

2 Authenticate the claim request

Apigee, not the API, authenticates the request.

If the sender does not have a valid digital certificate, the SSL handshake will not be completed and the transaction will not take place; Apigee may return an error message about the SSL certificate.

3 Validate and map the request

The API transforms an invoice request into an ACC40 XML object that can be submitted to MFP, validating each field of the request. If the request fails validation, the API doesn't authorise it, but returns all relevant error messages to the sending application.

This section describes the validation rules, and the transformation, which includes creating data not supplied in the request.

The API payload comprises the following:

Structure	includes	Instances allowed	See section
Standard header	(no content)	one	3.1
Message info		one	3.2
Vendor		one	3.3
Schedule header	includes the contract ID	one	3.4
Schedule line	(that is, 'invoice')	1-200	3.4.5
	line number, claim ID, accident date	one per line	3.5.1
	line details: service date, PO number, provider, patient, billing, invoice comment, invoice amount	one set per line	3.5.2 3.5.6
	service item codes	1-5 per line	3.5.2.1
Schedule trailer	number of lines, invoice total	one	3.6
Standard trailer	End of run description	one	3.7
Message control		one	3.8

Table 5 Invoice request overview

3.1 ACC standard header

The API creates this required element.

3.2 Message information

The API sets the document date and time, the application version of the document source, and the document gateway (value 'A' since the XML schema allows only one character).

3.3 Vendor

3.3.1 Vendor name

API JSON	schedule/vendor/vendorName	
Required?	Yes	
Data type	string	
Limit	1-60 characters	
Note	May contain spaces	

3.3.2 Vendor identifier

API JSON	schedule/vendor/vendorID	
Required?	Yes	
Data type string		
Limit	6-12 alphanumeric characters, also allowing forward-slash '/'	
Note	HPI format: GXXNNN, where X is a letter or number, and N is a single digit	
	ACC vendor ID example: ABCXRAY	
	One vendor per schedule	

Error condition	Code	Message
Invalid format	400	This field can only contain letters, numbers, and forward slashes.

3.3.3 Vendor's GST number

API JSON	schedule/vendor/vendorGST
Required?	Optional
Data type	string
Note	GST numbers are IRD numbers. Inland Revenue format for IRD numbers: 8 or 9 digits, consisting of a seven- or eight-digit base number and one trailing check digit
	http://www.oecd.org/tax/automatic-exchange/crs-implementation-and-assistance/tax-identification-numbers/New%20Zealand-TIN.pdf
	AICS-17 will tighten the format validation

Error condition	Code	Message
Invalid format	400	This field must be in a format like 99-999-999.

3.3.4 Vendor's phone number

API JSON	schedule/vendor/vendorPhone	
Required?	Optional	
Data type	string	
Limit	7-15 characters	
Note	eSchedule: 'only used for visual validation purposes' The API only validates the length of the value.	

3.4 Schedule header

3.4.1 Schedule number

The API creates a valid 10-character invoice identifier, unique for the vendor. The payload returned to the sender shows this ID.

3.4.2 Declaration date

schedule/declarati	on/declar	
	schedule/declaration/declarationDate	
Yes		
string date-time		
YYY-MM-DD		
Inland Revenue requires the date the invoice was issued		
Error condition Code		Message
Format not YYYY-MM-DD 400		The date format is invalid; use YYYY-MM-DD.
Invalid date 400		This date does not exist.
Date is earlier than 1900-01-01 400		The date cannot be before 1900-01-01.
n the current date	400	That date is in the future; enter a date no later than today.
	string date-time YYY-MM-DD Inland Revenue requir -MM-DD an 1900-01-01	string date-time YYY-MM-DD Inland Revenue requires the dat Code 7-MM-DD 400 400 an 1900-01-01 400

3.4.3 Whether GST is included in the invoice lines

As for the legacy system, this is automatically set to true.

3.4.4 Schedule comment

API JSON	schedule/scheduleComment	
Required?	Optional	
Data type	string	
Limit	0-255 characters	
Note	This comment refers to the whole schedule.	

3.4.5 ACC contract identifier

API JSON	schedule/contractId	
Required?	Optional; a schedule can have no more than one unique contractID	
Data type	string	
Limit	1-8 alphanumeric characters, also allowing forward-slash '/'	
Note	examples: '20 HTR015' (8 characters after removing the space); '87/22'	
	The API validates the format and uniqueness, but not the existence of the ID.	
	When a contract ID is provided, the API uses this value to populate the contract ID in every schedule line.	
	Use a new schedule for each contract ID.	

Error condition	Code	Message
Invalid format	400	This field can only contain letters, numbers, and forward slashes.

3.5 Schedule line

A schedule contains 1-200 claims, each one a schedule line (that is, an invoice) that lists:

line number, claim ID, accident date	section 3.5.1
service codes (1-5), service date, PO number	section 3.5.2
provider details	section 3.5.3
patient details	section 3.5.4
billing method and units	section 3.5.5
invoice comment and amount	section 3.5.6

Table 6 Schedule line structure

3.5.1 Line number, claim ID, accident date

3.5.1.1 Schedule line number

The API sets each line number.

3.5.1.2 Medical fees number (claim ID)

API JSON	schedule/lines/claimID
Required?	Yes
Data type	string
Limit	1-12 alphanumeric characters
Format	[A-Z0-9]{1,12}
Note	The ACC45ClaimNumber or form number. Examples:
	form number: DS34534
	claim number: 11145678901
	The API checks the format and length of the value, but not whether it exists in the database (the legacy system checks this).
	Inland Revenue requires a claim number or ACC45 number, or both.

Message

This field can only contain letters and numbers.

Code

400

3.5.1.3 Date of the accident

Error condition

Invalid format

Error condition		Code	Message	
Note				
Format	YYYY-MM-DD			
Data type	string date			
Required?	Optional			
API JSON	schedule/lines/acc	identDate	2	

Error condition	Code	Message
Format not YYYY-MM-DD	400	The date format is invalid; use YYYY-MM-DD.
Invalid date	400	This date does not exist.
Date is earlier than 1972-01-01	400	The date cannot be before 1972-01-01.
Date is later than the declaration date	400	The date cannot be later than the declaration date.

3.5.2 Line details

3.5.2.1 Service item codes

A schedule line includes a list of 1-5 service item codes, for instance for GP and radiology services.

API JSON	schedule/lines/lineDetails/serviceCode
Required?	One required, up to four more optional
Data type	list
Limit	1-5 list items
Format	1-10 alphanumeric characters, for each list element included
Note	Inland Revenue requires the correct service codes. The API validates the format of the service code, and the maximum number allowed. It makes any alphabetic characters uppercase, and removes leading zeroes.
	The legacy system verifies the existence of each code, and whether codes are consistent and are valid for this invoice.

Error condition	Code	Message
No entries in the list	400	You must specify at least 1 service item code, and no more than 5, for each schedule line.
A service code is repeated	400	Duplicate found. Each service item code must be unique.
More than five list elements provided	400	You must specify at least 1 service item code, and no more than 5, for each schedule line.
Value is not alphanumeric	400	Each list element must have letters and numbers only.

3.5.2.2 Service date

API JSON	schedule/lines/lin	eDetails,	/serviceDate
Required?	Yes		
Data type	string date		
Format	YYYY-MM-DD		
Note			
Error condition	1	Code	Message
Format not YYY	Y-MM-DD	400	The date format is invalid; use YYYY-MM-DD.
Invalid date		400	This date does not exist.
Date is earlier t	han 2000-01-01	400	The date cannot be before 2000-01-01
Date is later th	an 2099-12-31	400	The service date cannot be later than 2099-12-31.

3.5.2.3 ACC contract identifier

This is where the API copies the value from section 3.4.5.

3.5.2.4 Purchase order number (purchase approval number)

API JSON	schedule/lines/lineDetails/purchaseOrderNumber		
Required?	Optional		
Data type	string		
Limit	6-7 digits		
Note	Enter the purchase order number for the service being claimed. The API stores this value in the schedule line comment, section 3.5.6.1.		
Error condition Code Message		Message	
invalid format		400	This field can only contain numbers.
Value has fewer digits	than 6 or more than 7	400	This value must be 6 or 7 digits long.

3.5.3 Provider details and facility code

3.5.3.1 Provider identifier

API JSON	schedule/lines/lineDetails/provider/providerId
Required?	Optional
Data type	string
Limit	2-8 alphanumeric characters
Note	ACC vendor ID example: ABCXRAY
	HPI format: GXXNNN, where X is a letter or number, and N is a single digit
	The API validates the format of the ID only; the legacy system validates existence.

Error condition	Code	Message
Value is not alphanumeric	400	This field can only contain letters and numbers.

3.5.3.2 Provider's given name

API JSON	schedule/lines/lineDetails/provider/firstName
Required?	Optional
Data type	string
Limit	1-50 characters
Note	

3.5.3.3 Provider's middle name or initials

API JSON	schedule/lines/lineDetails/provider/middleName
Required?	Optional
Data type	string
Limit	0-50 characters
Note	

3.5.3.4 Provider's family name

API JSON	schedule/lines/lineDetails/provider/surname
Required?	Optional
Data type	string
Limit	1-50 characters
Note	

3.5.3.5 Facility code

API JSON	schedule/lines/lineDetails/provider/facilityID		
Required?	Optional		
Data type	string		
Limit	1-6 alphanumeric characters		
Note	HPI format not essential		
Error condition Code Message			Message
Value is not alphanumeric 400		400	This field can only contain letters and numbers.

3.5.4 Patient details

3.5.4.1 Claimant's NHI number

API JSON	schedule/lines/lineDetails/patient/nhi
Required?	Optional
Data type	string
Limit	exactly 7 characters
Note	

Error condition	Code	Message
The value has fewer or more than 7 characters	400	This field must have exactly 7 characters.

3.5.4.2 Claimant's given name

API JSON	schedule/lines/lineDetails/patient/firstName
Required?	Yes
Data type	string
Limit	1-20 characters
Note	Inland Revenue requires the claimant's full name.

3.5.4.3 Claimant's middle names or initials

API JSON	schedule/lines/lineDetails/patient/middleName
Required?	Optional
Data type	string
Limit	1-80 characters
Note	

3.5.4.4 Claimant's family name

API JSON	schedule/lines/lineDetails/patient/surname
Required?	Yes
Data type	string
Limit	1-25 characters
Note	The surname of the claimant, who has suffered a personal injury arising from at least one accident that has been registered with ACC.
	Inland Revenue requires the claimant's full name.

3.5.4.5 Claimant's date of birth

API JSON	schedule/lines/lineDetails/patient/dateOfBirth		
Required?	Optional		
Data type	string date		
Format	YYYY-MM-DD		
Note	Enter this date if possible; otherwise the API will use 1800-01-01.		
Error condition		Code	Message
Format not YYY	Y-MM-DD	400	The date format is invalid; use YYYY-MM-DD.
Invalid date		400	This date does not exist.
Date is not 180 than 1900-01-0	0-01-01, but is earlier 1	400	The date cannot be before 1900-01-01.
	dent date, and this in the accident date	400	The date cannot be later than the accident date
Date is later tha	an the current date	400	That date is in the future; enter a date no later than today.

3.5.5 Billing method and details

3.5.5.1 Billing method

Error condition	Code Message
	Note that MFP ensures there is a single billing method, even with multiple service codes.
	When 'flat fee' is selected, the API automatically sets units to 1.
Note	Inland Revenue requires the quantity or volume of the goods and services supplied
Format	enum (time, distance, units, flat fee)
Data type	string
Required?	Yes
API JSON	schedule/lines/lineDetails/billing/billingMethod

Value not in the enum list 400 This value must be one of [time, distance, units, flat fee].

3.5.5.2 Hours claimed

API JSON	schedule/lines/lineDetails/billing/hoursClaimed
Required?	Required if billingMethod is time; otherwise not permitted
Data type	integer
Range	00-99
Note	Hours, minutes, or both required for time-billed services (either can be 00). Hours are generally less than 24.

Error condition	Code	Message
billingMethod 'time' is selected, but this value is not supplied	400	This value is required when the billing method is 'time'.
Value is less than 0 or greater than 99	400	This value must be between 00 and 99.
Hours and minutes are both set to 00	400	When the billing method is 'time', either hours or minutes (or both) must be greater than 0.
billingMethod 'time' is not selected, but this field is present	400	This field is only allowed when the billing method is 'time'.

3.5.5.3 Minutes claimed

API JSON	schedule/lines/lineDetails/billing/minutesClaimed		
Required?	Required if billingMe	thod is tir	ne; otherwise not permitted
Data type	integer		
Range	00-59		
Note	Hours, minutes, or both required for time-billed services (either can be 00)		
Error condition		Code	Message
billingMethod this value is not	f 'time' is selected, but supplied	400	This value is required when the billing method is 'time'.
Value is less tha	an 0 or greater than 59	400	This value must be from 00 to 59 inclusive.
Hours and minu	utes are both set to 00	400	When the billing method is 'time', either hours or minutes (or both) must be greater than 0.
billingMethod but this field is	l 'time' is not selected, present	400	This field is only allowed when the billing method is 'time'.

3.5.5.4 Distance claimed

API JSON	schedule/lines/lineDetails/billing/travelClaimed
Required?	Required if billingMethod is 'distance'; otherwise not permitted
Data type	integer
Range	1-99,999
Note	Required for travel-billed services. Must be whole kilometres.
	An input value like 101,000.12 will meet two error conditions and cause two error messages.

Code	Message
400	This value is required when the billing method is 'distance'.
400	This value must be a whole number.
400	This value must be a whole number greater than 0 and less than 100,000.
400	This field is only allowed when the billing method is 'distance'.
	400 400

3.5.5.5 Units claimed

API JSON	schedule/lines/lineDetails/billing/unitsClaimed			
Required?	Required if billingMethod is 'units'; otherwise not permitted			
Data type	decimal number			
Format	999.99			
Range	0.01—999.99			
Note	Required for unitary services; normally a whole number.			
	(For 'flat fee', the API sets the value of unitsClaimed to '1'.)			
	An input value like 1,00 messages.	01.123 wi	ll meet two error conditions and cause two error	
Error condition		Code	Message	
billingMethod this value is not	'units' is selected, but supplied	400	This value is required when the billing method is 'units'.	
Invalid format		400	This value must be a number with two decimal	

3.5.5.6 Flat fee claimed

but this field is present

Value is less than 0.01 or greater than

billingMethod 'units' is not selected,

999.99

If billing method 'flat fee' is selected (section 3.5.5.1), the API sets the value of units to '1'; no other billing details are needed.

1,000.00.

is 'units'.

This value must be greater than 0 and less than

This field is only allowed when the billing method

400

400

3.5.6 Schedule line comment and amount

3.5.6.1 Schedule line comment

API JSON	schedule/lines/lineDetails/serviceComments
Required?	Optional
Data type	string
Limit	1-255 characters, including a key-value pair for the purchase order number, if there is one
Note	If you entered a purchase order number (section 3.5.2.4), the API automatically puts it into this comment field, like this:
	PO number = 1234567, Comment = Your comment goes here.

Error condition	Code	Message
This value is longer than 255 characters	400	This field only allows 255 characters in total. If there is a purchase order number, the actual comment can be no longer than 224 characters.

3.5.6.2 Amount claimed for this schedule line

API JSON	schedule/lines/lineDetails/invoiceAmount
Required?	Yes
Data type	decimal
Format	999,999.99
Range	0.01—999,999.99
Note	Must be positive (credits not allowed). Example: 123456.12 Inland Revenue requires the amount (excluding GST). An input value like 1,000,001.123 will meet two error conditions and cause two error messages.

Error condition	Code	Message
Invalid format	400	This value must be a number with two decimal places.
Value is less than 0.01 or greater than 999,999.99	400	This value must be greater than 0 and less than 1,000,000.00.

3.6 Schedule trailer

3.6.1 Number of lines

API JSON	-
Required?	No; derived by the API
Data type	positive integer
Range	1-200
Note	

Error condition	Code	Message
Number of claimIDs is < 1	400	You must include at least one claim.
Number of claimIDs is > 200	400	You can't include more than 200 claims in a single schedule.

3.6.2 Claimed amount

API JSON	
Required?	No; derived by the API
Data type	positive decimal number
Format	2 decimal places
Range	0.01 – 999,999,999.99
Note	The sum of the claims in each invoice line, which is the total amount invoiced to ACC.
	Legacy validation: greater than 0 and less than 100 billion
	Inland Revenue requires the total amount payable with a GST statement.

Error condition	Code	Message
Total amount less than 0 or greater than 999,999,999.99	400	The total claimed amount must be between 0.00 and 999,999,999.99.

3.7 Standard trailer

The API sets the end-of-run time to the current date and time, and the end-of-run description to 'End of job'.

3.8 Message control

The API stores the name of the API service, the vendor ID, and schedule number.

4 Authorise the request

For an authenticated request, Apigee passes the email address from the digital certificate to the API. When a claim request has been successfully validated, the API verifies that the sender with this email address is authorised to make a claim request.

If the user is not authorised, a log file records the specific error, but the error message returned to the sender is the same in all cases: 'You are not authorised to access this service. Please contact the eBusiness Support Team on 0800 222 994 option 1 for assistance.'

4.1 Email address

Value	sender's email address	sender's email address, from Apigee	
Condition	maps to a unique user account in LDAP		
Note	Kaaran emailed on 29 Aug 2017: second error condition cannot occur		
Error conditio	n	Code	Log file message
Email address	not found in LDAP	403	No user account found for <email address="">.</email>
More than on with this emai	e account found in LDAP il address	403	Sender's email address belongs to more than one user account
with this emai	ii address		user account

4.2 User account

Value	unique user account from LDAP		
Conditions	 unique ACC organisation attached user account is active user account is in the group authorised to submit invoices 		
Note	The ACC identifier must be valid and active, and the digital certificate used must be authorised to use the vendor ID.		
Error condition		Code	Log file message
The user accourt organisation	nt has no ACC	403	Provider is not associated with an ACC organisation.
The user account ACC organisation	nt has more than one on attached	403	Provider belongs to more than one ACC organisation
The user account in LDAP	nt is marked as inactive	403	Provider is not active in LDAP
User account is schedule-reque	not a member of the est group	403	Provider is not authorised to submit a schedule of invoices.

5 Submit the invoice request

When an invoice request is valid and authorised, the API:

- submits it as an ACC40 to MFP
- returns a copy of the request to the sender, with code 202 'accepted'.

Summary of response codes that a sender may see:

Code	Indicates
201	created
202	accepted
400	invalid data
401	authentication error
403	authorisation error
404	not found
500	internal server error

Table 7 Response codes