

**openapi:** '3.0.2'

**info:**

**title:** DEFAS Connection Demand Interface

**description:** Json interface for handling connection demand requests

**version:** '1.0'

**servers:**

- **url:** https://test.bayern-fahrplan.de/v1.0

**components:**

**schemas:**

**StopIdStructure:**

**type:** object

**properties:**

**stopId:**

**type:** string

**stopIdType:**

**type:** string

**enum:** [DHID, Ds100, EvaNr]

**requestId:**

**type:** object

**description:** Structure to identify the request; AnfrageID

**properties:**

**messageId:**

**type:** integer

**description:** identifier for message; each message will have a specific

identifier

**example:** 1

**connectionId:**

**type:** string

**description:** (replaces "Kontextnummer") the connectionId is assigned by the

requestor (middleware) and defines a specific pair of feeder and distributor journeys; a

message with a higher messageId replaces an earlier message with the same connectionId

**example:** 0

**required:**

- messageId

- connectionId

**connectionRequestStructure:**

**type:** object

**description:** Structure with connection information

**properties:**

**feederLine:**

**type:** string

**description:** (replaces "zubringerLinie") published Line name of the feeder as

known in the DEFAS data

**example:** "930"

**feederFinalDestinationRef:**

**type:** array

**items:**

**\$ref:** '#/components/schemas/StopIdStructure'

**description:** (replaces "zubringerRichtung") stop ID in the respective format

of the feeder's final destination

**minItems:** 1

**maxItems:** 3

**feederConnectionStopPointRef:**

**type:** array

**items:**

**\$ref:** '#/components/schemas/StopIdStructure'

**description:** (replaces "zubringeridDHID") stop ID in the respective format of

the stop where the feeder arrives with the passengers that need a connection

**minItems:** 1

**maxItems:** 3

**feederConnectionPlatformName:**

**type:** string

**description:** (replaces "zubringerAnschlussbereich") Platform name (Gleis) where

the feeder arrives; optional, but will be filled in the context of train traffic

**example:** "Gleis 3"

**feederAimedArrivalTime:**  
**type:** string  
**description:** (replaces "zubringerSollAnkunft") Arrival time of the feeder according to the schedule  
**format:** date-time  
**example:** "2021-12-24T17:00:00Z"

**neededInterchangeDuration:**  
**type:** integer  
**description:** (replaces "zubringerUebergangszeit") time the passengers need for this interchange

**distributorOperatorRef:**  
**type:** string  
**description:** (replaces "abbringerServiceId" ID of the operator which operates the distributor

**distributorProductCategoryRef:**  
**type:** string  
**description:** (replaces "abbringerGattung") product category of the required distributor

**distributorOriginRef:**  
**type:** array  
**items:**  
**\$ref:** '#/components/schemas/StopIdStructure'  
**description:** (replaces "abbringerStartbahnhofDs100", "abbringerStartbahnhofDHID" and "abbringerStartbahnhofEvaNr")  
**minItems:** 1  
**maxItems:** 3

**distributorOriginAimedDepartureTime:**  
**type:** string  
**format:** date-time  
**description:** (replaces "abbringerErsteAb") scheduled departure time of the distributor at its origin

**distributorOriginVehicleJourneyRef:**  
**type:** string  
**description:** (replaces "abbringerZugnummer") identifier of the vehicle journey (e.g., train number) of distributor at its origin; if there are several origins in the case of coupled journeys, only one is given

**distributorConnectionStopPointRef:**  
**type:** array  
**items:**  
**\$ref:** '#/components/schemas/StopIdStructure'  
**description:** (replaces "anschlussBetriebsstelleDs100 and anschlussBetriebsstelleEvaNr")  
**minItems:** 1  
**maxItems:** 3

**distributorAimedDepartureTime:**  
**type:** string  
**format:** date-time  
**description:** (replaces "abbringerSollAbfahrt") scheduled departure time of the distributor at the connection stop

**distributorVehicleJourneyRef:**  
**type:** string  
**description:** (replaces "abbringerBetriebsstelleZugnummer") identifier of the distributor's vehicle journey (e.g., train number) when leaving the connection stop; in case of a coupled journey, only one is given

**distributorLine:**  
**type:** string  
**description:** published Line name of the feeder as known in the DEFAS data

**distributorSuggestedDepartureTime:**  
**type:** string  
**format:** date-time  
**description:** (replaces "abbringerWunschAbfahrt") suggested new departure time of the distributor such that passengers who require the connection can reach it

**suggestedWaitDecisionTime:**  
**type:** string  
**format:** date-time  
**description:** (replaces "antwortErwartetBis") time until a decision concerning the distributor's waiting is needed

**waitingExpected:**  
**type:** boolean

**description:** (replaces "gehaltenErwartet") indicates that this is an "important" connection where waiting for passengers is expected if possible; optional, but will be filled in the context of train traffic

**agreedWaitingTimeWithoutNotification:**

**type:** string

**format:** date-time

**description:** (replaces "vereinbarteWartezeit") latest time until distributor can wait without notification to DB Netz; optional, but will be filled in the context of train traffic

**waitingPermissionNeeded:**

**type:** boolean

**description:** (replaces "anschlussWartezeitueberschreitung") if true, the distributor may only wait after permission by DB Netz; optional, but will be filled in the context of train traffic

**numberOfTransferPassengers:**

**type:** integer

**description:** (replaces "anschlussUmsteiger") number of passengers who requested this connection

**required:**

- feederLine
- feederFinalDestinationRef
- feederConnectionStopPointRef
- feederAimedArrivalTime
- distributorOperatorRef
- distributorProductCategoryRef
- distributorOriginRef
- distributorOriginAimedDepartureTime
- distributorVehicleJourneyRef
- distributorConnectionStopPointRef
- distributorAimedDepartureTime
- distributorSuggestedDepartureTime
- suggestedWaitDecisionTime

**ConnectionDecision:**

**type:** object

**description:** Structure with connection decision information

**properties:**

**requestId:**

**\$ref:** '#/components/schemas/requestId'

**connectionDecisionId:**

**type:** integer

**description:** (replaces "anschlussEntscheidungId")

**connectionDecisionStatus:**

**type:** integer

**description:** (replaces "anschlussStatus")

**example:** "1"

**refusalReason:**

**type:** string

**description:** (replaces "ablehnungsBegrueundung") Reason for refusal of the connection request

**decisionTimestamp:**

**type:** string

**format:** date-time

**description:** (replaces "erstellungZeitpunkt") Timestamp of the connection decision; should be increasing in the deliveries, as it is referred to in the requestDecisions request.

**distributorExpectedDepartureTime:**

**type:** string

**format:** date-time

**description:** (replaces "abbringerGeplanteAbfahrtszeit") Expected (new) departure time according to the despatcher's decision

**required:**

- requestId
- connectionDecisionId
- connectionDecisionStatus
- decisionTimestamp

**paths:**

**/requestConnection:**

**post:**

**summary:** request connection for passengers

**requestBody:**

**required:** true

**description:** Sends connection demand request to AVM

**content:**

**application/json:**

**schema:**

**type:** object

**properties:**

**requestId:**

**\$ref:** '#/components/schemas/requestId'

**connectionRequest:**

**\$ref:** '#/components/schemas/connectionRequestStructure'

**required:**

- requestId
- connectionRequest

**responses:**

**'200':**

**description:** Accepted connection demand is being registered

**content:**

**application/json:**

**schema:**

**type:** string

**'400':**

**description:** bad request for instance distributor trip unknown

**content:**

**application/json:**

**schema:**

**type:** string

**description:** Error description

**example:** distributor trip unknown

**/requestConnection/{connectionId}:**

**parameters:**

- **name:** "connectionId"

**in:** "path"

**required:** true

**schema:**

**type:** integer

**description:** (replaces "Kontextnummer") the connectionId is assigned by the requestor (middleware) and defines a specific pair of feeder and distributor journeys;

**delete:**

**summary:** cancel connection request by given connectionId

**responses:**

**'200':**

**description:** Accepted Cancellation is on the way

**content:**

**application/json:**

**schema:**

**type:** string

**'400':**

**description:** bad request, for instance because request id unknown

**content:**

**application/json:**

**schema:**

**type:** string

**description:** Error description

**example:** request id unknown

**/connectionDecision:**

**get:**

**summary:** request to retrieve all connection decisions from AVM

**parameters:**

- **in:** query

**name:** connectionDecisionsSince

**required:** true

**schema:**

**type:** string

**format:** date-time

**description:** All decisions which have been taken since the timestamp given in connectionDecisionsSince are requested. The element refers to the ConnectionDecision.decisionTimestamp.

- **in:** query

**name:** maxNumberOfConnectionDecisions

**required:** false

**schema:**

**type:** integer

**responses:**

'200':

**description:** Accepted available connection decisions are returned

**content:**

**application/json:**

**schema:**

**type:** array

**items:**

**\$ref:** '#/components/schemas/ConnectionDecision'

'400':

**description:** bad request for instance connection decision id unusable

**content:**

**application/json:**

**schema:**

**type:** string

**description:** Error description

**example:** connection decision id unusable