

# Secure Local Communication API

A RESTful API for secure local communication

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## Access

## Methods

[ [Jump to Models](#) ]

## Table of Contents

### [Default](#)

- [POST /keyexchange](#)
- [GET /qkd-historical](#)
- [POST /qkd-keys](#)

## Default

[Up](#)

### POST /keyexchange

Perform a secure key exchange (**keyexchangePost**)

#### Consumes

This API call consumes the following media types via the Content-Type request header:

- application/json

#### Request body

**body** [KeyExchangeRequest](#) (required)

*Body Parameter —*

#### Return type

[KeyExchangeResponse](#)

#### Example data

Content-Type: application/json

```
{
  "shared_secret" : "",
  "nonce" : ""
}
```

#### Produces

This API call produces the following media types according to the Accept request header; the media type will be conveyed by the Content-Type response header.

- application/json

#### Responses

**200**OK [KeyExchangeResponse](#)**400**Bad Request [Error](#)**500**Internal Server Error [Error](#)[Up](#)

## GET /qkd-historical

Retrieve historical QKD keys (**qkdHistoricalGet**)

Returns a list of historical QKD keys for a given time range

### Query parameters

**start\_date (required)***Query Parameter* — The start date of the time range to retrieve keys for (ISO-8601 format)  
format: date-time**end\_date (required)***Query Parameter* — The end date of the time range to retrieve keys for (ISO-8601 format)  
format: date-tim**Return type**[inline\\_response\\_200\\_1](#)**Example data**

Content-Type: application/json

```
{
  "keys" : [ {
    "qkd_id" : "qkd_id",
    "key" : "key",
    "timestamp" : "2000-01-23T04:56:07.000+00:00"
  }, {
    "qkd_id" : "qkd_id",
    "key" : "key",
    "timestamp" : "2000-01-23T04:56:07.000+00:00"
  } ]
}
```

**Produces**

This API call produces the following media types according to the Accept request header; the media type will be conveyed by the Content-Type response header.

- application/json

**Responses****200**A list of historical QKD keys [inline\\_response\\_200\\_1](#)**400**

Invalid request parameters

**500**

Internal server error

[Up](#)

## POST /qkd-keys

Request a QKD ID and key (**qkdKeysPost**)

Use this endpoint to request a QKD ID and key. This endpoint requires authentication with a valid

Krystals signature. Results are also encrypted with Kyber.

### Consumes

This API call consumes the following media types via the Content-Type request header:

- application/json

### Request body

**body** [qkdkeys\\_body](#) (optional)

*Body Parameter* —

### Return type

[inline\\_response\\_200](#)

### Example data

Content-Type: application/json

```
{
  "id" : "id",
  "key" : "key"
}
```

### Produces

This API call produces the following media types according to the Accept request header; the media type will be conveyed by the Content-Type response header.

- application/json

### Responses

**200**

OK [inline\\_response\\_200](#)

**401**

Unauthorized

**500**

Internal server error

## Models

[ [Jump to Methods](#) ]

### Table of Contents

1. [Error](#)
2. [KeyExchangeRequest](#)
3. [KeyExchangeResponse](#)
4. [inline\\_response\\_200](#)
5. [inline\\_response\\_200\\_1](#)
6. [inline\\_response\\_200\\_1\\_keys](#)
7. [qkdkeys\\_body](#)

### Error

[Up](#)

**error (optional)**

[String](#) The error message

### KeyExchangeRequest

[Up](#)

**public\_key**

[byte\[\]](#) The public key of the sender format: byte

**nonce**

[byte\[\]](#) A nonce for the request format: byte

**KeyExchangeResponse**

[Up](#)

**shared\_secret**

[byte\[\]](#) The shared secret key format: byte

**nonce**

[byte\[\]](#) A nonce for the response format: byte

**inline\_response\_200**

[Up](#)

**id (optional)**

[String](#) The QKD ID

**key (optional)**

[String](#) The QKD key

**inline\_response\_200\_1**

[Up](#)

**keys (optional)**

[array\[inline\\_response\\_200\\_1\\_keys\]](#)

**inline\_response\_200\_1\_keys**

[Up](#)

**qkd\_id (optional)**

[String](#) The ID of the QKD session

**key (optional)**

[String](#) The QKD key

**timestamp (optional)**

[Date](#) The timestamp when the key was generated format: date-time

**qkdkeys\_body**

[Up](#)

**username (optional)**

[String](#)

**password (optional)**

[String](#)