TCP API Access Guide

Roverdyn Inc.

*** Confidential ***

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목 차

Basic Message Format

아래 이미지와 같이 메시지 구조는 Header와 Payload로 나누어져 있다.

HEADER(4바이트)	PAYLOAD(가변길이)

헤더 구조는 다음과 같다. 이때, SoF는 고정값인 0xFF 를 가진다.

SoF	Msg ID High	Msg ID Low	Payload Length

페이로드는 각 메시지에 따라서 크기가 달라지며, 모두 바이트 단위로 동작한다. 정수형은 2바이트와 4바이트로 나누어져 있으며 float형은 4바이트이다. Byte Order는 Big Endian이다. 예를들어 정수형 데이터 153420은 4바이트이며 이를 Hex로 변환하였을 때 0x00 0x02 0x57 0x4C이므로 Payload는 다음과 같이 구성된다.

0x00	0x02	0x57	0x4C

위 데이터를 파싱하기 위해서는 다음과 같이 코드를 작성하여야 한다.

In C/C++ & JAVA

```
int32_t temp = (payload[3] << 24) | (payload[2] << 16) | (payload[1] << 8) | (payload & 0xFF);
```

#1 SYSTEM CONNECTION CHECK

TCP 데이터 통신 테스트 메시지. 클라이언트가 보낸 데이터를 반송(Echo) 한다.

Message ID	0x0000	**Direction**	양방향
Payload Length	제한없음	**Return**	Echo

Header				Payload		
SoF	0x00	0x00	N	Payload 0	…	Payload N

Example	
Client > Server	FF 00 00 04 01 02 03 04
Server > Client	FF 00 00 04 01 02 03 04

#2 GET SYSTEM TIME

서버 시스템 시간을 요청 및 리턴한다.

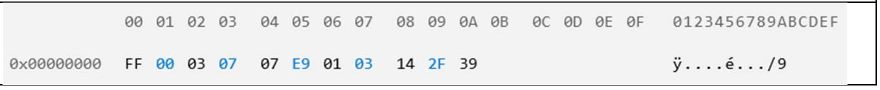
Message ID	0x0003	**Direction**	Request/Return
Payload Length	7 바이트	**Return Type**	Binary

- ■ Request Format

Header				**Payload**
SoF	0x00	0x03	0x00	보내지 않음

- ■ Return Format

Header				**Payload**						
SoF	0x00	0x03	0x07	Year_H	Year_L	Month	Day	Hour	Minute	Second

Example	
동작	클라이언트 동작 : 서버측 현재 시간 요청 서버 동작 : 클라이언트에 현재 시간(2024-12-31 11:22:33) 리턴
Client > Server	FF 00 03 00
Server > Client	 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 0123456789ABCDEF 0x00000000 FF 00 03 07 07 E9 01 03 14 2F 39 ÿ....é.../9

#3 CTRL REQUEST INPUT DATA

INPUT DATA를 요청 및 리턴한다.

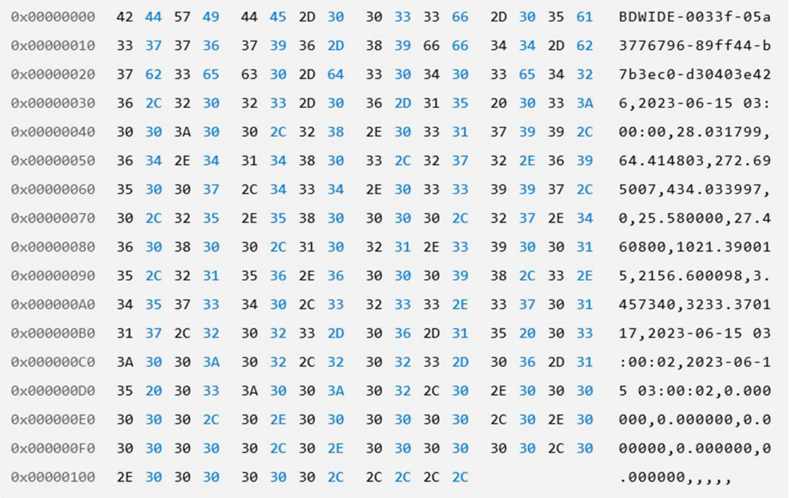
Message ID	0x0008	Direction	Request/Return
Payload Length	42	Return Type	String

- Request Format

Header				Payload							
SoF	0x00	0x08	0x2A	Year_H	Year_L	Datetime 0	…	Datetime 18	Serial Number 0	…	Serial Number 20

- Return Format(Type : String)

시리얼넘버,일시,온도,습도,PM25,PM10,MVMNT,TVOC,HCHO,CO2,CO,BENZO,RADON,수정날짜,등록날짜,TMP1,TMP2,TMP3,TMP4,TMP5,TMP6,TMP7,TMP8,TMP9,TMP10

Example	
동작	클라이언트 동작 : 읽고자 하는 INPUT DATA의 연도, 시리얼넘버, 시간값을 전달하여 값 요청 - 전달 연도 : 2023 - 전달 Datetime : 2023-06-15 03:00:00 - 전달 product_serial_number : BDWIDE-0033f-05a3776796-89ff44-b7b3ec0-d30403e426 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client > Server	FF 00 08 46 07 E7 32 30 32 33 2D 30 36 2D 31 35 20 30 33 3A 30 30 3A 30 30 42 44 57 49 44 45 2D 30 30 33 33 66 2D 30 35 61 33 37 37 36 37 39 36 2D 38 39 66 66 34 34 2D 62 37 62 33 65 63 30 2D 64 33 30 34 30 33 65 34 32 36
Server > Client	

```
0x00000000  42 44 57 49  44 45 2D 30  30 33 33 66  2D 30 35 61   BDWIDE-0033f-05a
0x00000010  33 37 37 36  37 39 36 2D  38 39 66 66  34 34 2D 62   3776796-89ff44-b
0x00000020  37 62 33 65  63 30 2D 64  33 30 34 30  33 65 34 32   7b3ec0-d30403e42
0x00000030  36 2C 32 30  32 33 2D 30  36 2D 31 35  20 30 33 3A   6,2023-06-15 03:
0x00000040  30 30 3A 30  30 2C 32 38  2E 30 33 31  37 39 39 2C   00:00,28.031799,
0x00000050  36 34 2E 34  31 34 38 30  33 2C 32 37  32 2E 36 39   64.414803,272.69
0x00000060  35 30 30 37  2C 34 33 34  2E 30 33 33  39 39 37 2C   5007,434.033997,
0x00000070  30 2C 32 35  2E 35 38 30  30 30 30 2C  32 37 2E 34   0,25.580000,27.4
0x00000080  36 30 38 30  30 2C 31 30  32 31 2E 33  39 30 30 31   60800,1021.39001
0x00000090  35 2C 32 31  35 36 2E 36  30 30 30 39  38 2C 33 2E   5,2156.600098,3.
0x000000A0  34 35 37 33  34 30 2C 33  32 33 33 2E  33 37 30 31   457340,3233.3701
0x000000B0  31 37 2C 32  30 32 33 2D  30 36 2D 31  35 20 30 33   17,2023-06-15 03
0x000000C0  3A 30 30 3A  30 32 2C 32  30 32 33 2D  30 36 2D 31   :00:02,2023-06-1
0x000000D0  35 20 30 33  3A 30 30 3A  30 32 2C 30  2E 30 30 30   5 03:00:02,0.000
0x000000E0  30 30 30 2C  30 2E 30 30  30 30 30 30  2C 30 2E 30   000,0.000000,0.0
0x000000F0  30 30 30 30  30 2C 30 2E  30 30 30 30  30 30 2C 30   00000,0.000000,0
0x00000100  2E 30 30 30  30 30 30 2C  2C 2C 2C 2C                .000000,,,,,
```

#4 CTRL REQUEST MEMBER

MEMBER 데이터를 요청 및 반환한다.

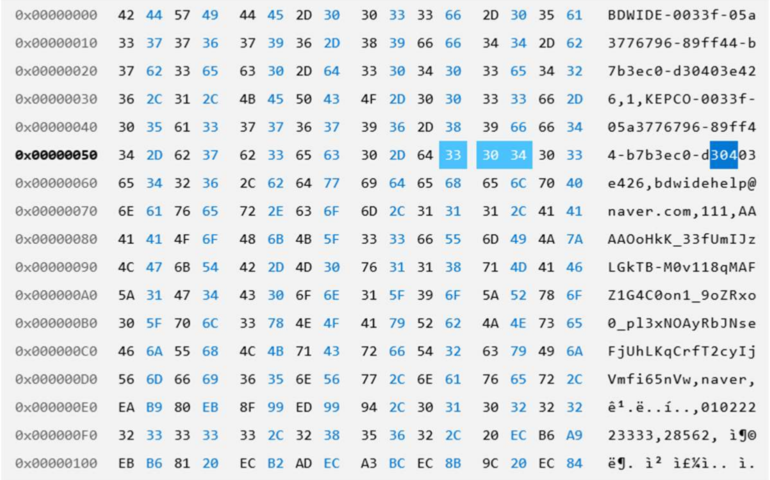
Message ID	0x0010	Direction	Request/Return
Payload Length		Return Type	String

■ Request Format

Header				Payload					
SoF	0x00	0x10		customer_link_number 0	…	customer_link_number 3	product_serial_number0	…	product_serial_number20

■ Return Format(Type : String)

product_serial_number,customer_link_number,kepco_api_key,sns_id,sns_pwd,sns_key,sns_type,user_name,phone_number,zip_number,address,address_dtl,longitude,latitude,house_area,male_cnt,female_cnt,room_cnt,tv_cnt,air_condictioner_cnt,washing_machine_cnt,dryer_cnt,rice_cooker_cnt,fan_cnt,disk_washer_cnt,computer_cnt,rate_plan,use_yn,mod_date,reg_date

Example	
동작	클라이언트 동작 : 읽고자 하는 MEMBER 데이터의 customer_link_number와 product_serial_number를 전달하여 값 요청 - 전달 Customer_link_number : 0000 - 전달 product_serial_number : BDWIDE-0033f-05a3776796-89ff44-b7b3ec0-d30403e426 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client -> Server	FF 00 10 35 00 00 00 01 42 44 57 49 44 45 2D 30 30 33 33 66 2D 30 35 61 33 37 37 36 37 39 36 2D 38 39 66 66 34 34 2D 62 37 62 33 65 63 30 2D 64 33 30 34 30 33 65 34 32 36
Server -> Client	

```
0x00000000  42 44 57 49  44 45 2D 30  30 33 33 66  2D 30 35 61  BDWIDE-0033f-05a
0x00000010  33 37 37 36  37 39 36 2D  38 39 66 66  34 34 2D 62  3776796-89ff44-b
0x00000020  37 62 33 65  63 30 2D 64  33 30 34 30  33 65 34 32  7b3ec0-d30403e42
0x00000030  36 2C 31 2C  4B 45 50 43  4F 2D 30 30  33 33 66 2D  6,1,KEPCO-0033f-
0x00000040  30 35 61 33  37 37 36 37  39 36 2D 38  39 66 66 34  05a3776796-89ff4
0x00000050  34 2D 62 37  62 33 65 63  30 2D 64 33  30 34 30 33  4-b7b3ec0-d30403
0x00000060  65 34 32 36  2C 62 64 77  69 64 65 68  65 6C 70 40  e426,bdwidehelp@
0x00000070  6E 61 76 65  72 2E 63 6F  6D 2C 31 31  31 2C 41 41  naver.com,111,AA
0x00000080  41 41 4F 6F  48 6B 4B 5F  33 33 66 55  6D 49 4A 7A  AAOoHkK_33fUmIJz
0x00000090  4C 47 6B 54  42 2D 4D 30  76 31 31 38  71 4D 41 46  LGkTB-M0v118qMAF
0x000000A0  5A 31 47 34  43 30 6F 6E  31 5F 39 6F  5A 52 78 6F  Z1G4C0on1_9oZRxo
0x000000B0  30 5F 70 6C  33 78 4E 4F  41 79 52 62  4A 4E 73 65  0_pl3xNOAyRbJNse
0x000000C0  46 6A 55 68  4C 4B 71 43  72 66 54 32  63 79 49 6A  FjUhLKqCrfT2cyIj
0x000000D0  56 6D 66 69  36 35 6E 56  77 2C 6E 61  76 65 72 2C  Vmfi65nVw,naver,
0x000000E0  EA B9 80 EB  8F 99 ED 99  94 2C 30 31  30 32 32 32  ê¹.ë..í..,010222
0x000000F0  32 33 33 33  33 2C 32 38  35 36 32 2C  20 EC B6 A9  23333,28562, ì¶©
0x00000100  EB B6 81 20  EC B2 AD EC  A3 BC EC 8B  9C 20 EC 84  ë¶. ì² ì£¼ì.. ì.
```

#5 CTRL REQUEST IOT PRDCT AUTH

IOT_PRDCT_AUTH 데이터를 요청 및 반환한다.

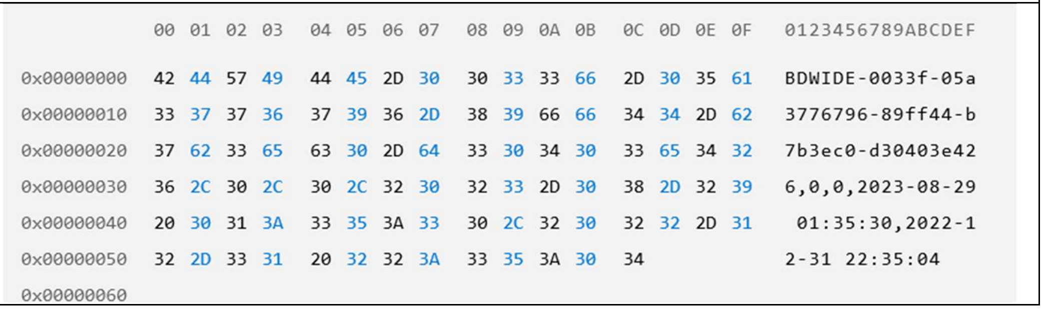
Message ID	0x0011	**Direction**	Request/Return
Payload Length		**Return Type**	String

- Request Format

Header				**Payload**		
SoF	0x00	0x11	0x15	product_serial_number0	...	product_serial_number20

- Return Format(Type : String)

product_serial_number,auth_yn,use_yn,mod_date,reg_date

<table>
<tr><th colspan="2">Example</th></tr>
<tr><td>동작</td><td>클라이언트 동작 : 읽고자 하는 MEMBER 데이터의 customer_link_number와 product_serial_number를 전달하여 값 요청
- 전달 product_serial_number : BDWIDE-0033f-05a3776796-89ff44-b7b3ec0-d30403e426
서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴</td></tr>
<tr><td>Client -> Server</td><td>FF 00 11 15 42 44 57 49 44 45 2D 30 30 33 33 66 2D 30 35 61 33 37 37 36 37 39 36 2D 38 39 66 66 34 34 2D 62 37 62 33 65 63 30 2D 64 33 30 34 30 33 65 34 32 36</td></tr>
<tr><td>Server -> Client</td><td>

```
            00 01 02 03  04 05 06 07  08 09 0A 0B  0C 0D 0E 0F  0123456789ABCDEF

0x00000000  42 44 57 49  44 45 2D 30  30 33 33 66  2D 30 35 61  BDWIDE-0033f-05a
0x00000010  33 37 37 36  37 39 36 2D  38 39 66 66  34 34 2D 62  3776796-89ff44-b
0x00000020  37 62 33 65  63 30 2D 64  33 30 34 30  33 65 34 32  7b3ec0-d30403e42
0x00000030  36 2C 30 2C  30 2C 32 30  32 33 2D 30  38 2D 32 39  6,0,0,2023-08-29
0x00000040  20 30 31 3A  33 35 3A 33  30 2C 32 30  32 32 2D 31   01:35:30,2022-1
0x00000050  32 2D 33 31  20 32 32 3A  33 35 3A 30  34           2-31 22:35:04
0x00000060
```
</td></tr>
</table>

#6 CTRL REQUEST KEPCO API AUTH

KEPCO API AUTH 데이터를 요청 및 반환한다.

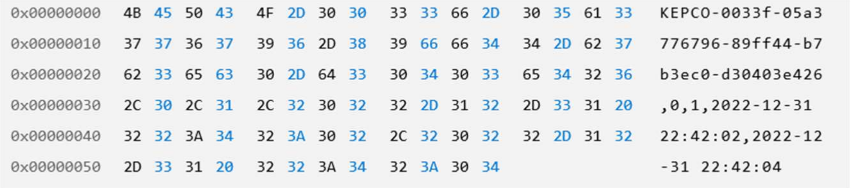
Message ID	0x0012	**Direction**	Request/Return
Payload Length		**Return Type**	String

- Request Format

Header				Payload		
SoF	0x00	0x12	N+1	Kepco_api_key0	...	Kepco_api_keyN

- Return Format(Type : String)

Kepco_api_key,auth_yn,use_yn,mod_date,reg_date

Example	
동작	클라이언트 동작 : 읽고자 하는 KEPCO API를 전달 - 전달 KEPCO_API_KEY : KEPCO-0033f-05a3776796-89ff44-b7b3ec0-d30403e426 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client -> Server	FF 00 12 30 4B 45 50 43 4F 2D 30 30 33 33 66 2D 30 35 61 33 37 37 36 37 39 36 2D 38 39 66 66 34 34 2D 62 37 62 33 65 63 30 2D 64 33 30 34 30 33 65 34 32 36
Server -> Client	 0x00000000 4B 45 50 43 4F 2D 30 30 33 33 66 2D 30 35 61 33 KEPCO-0033f-05a3 0x00000010 37 37 36 37 39 36 2D 38 39 66 66 34 34 2D 62 37 776796-89ff44-b7 0x00000020 62 33 65 63 30 2D 64 33 30 34 30 33 65 34 32 36 b3ec0-d30403e426 0x00000030 2C 30 2C 31 2C 32 30 32 32 2D 31 32 2D 33 31 20 ,0,1,2022-12-31 0x00000040 32 32 3A 34 32 3A 30 32 2C 32 30 32 32 2D 31 32 22:42:02,2022-12 0x00000050 2D 33 31 20 32 32 3A 34 32 3A 30 34 -31 22:42:04

#7 CTRL REQUEST MSG INFO

MSG INFO 데이터를 요청 및 반환한다.

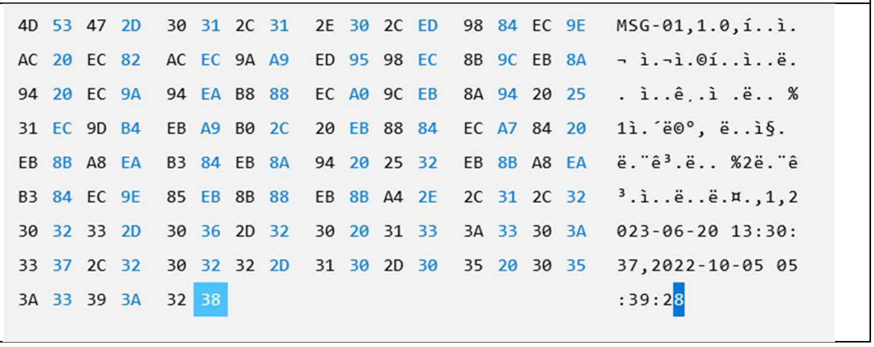
Message ID	0x0013	Direction	Request/Return
Payload Length		Return Type	String

- ■ Request Format

Header				Payload		
SoF	0x00	0x13	N+1	MSG_CODE 0	...	MSG_CODE N

- ■ Return Format(Type : String)

msg_code,msg_version,msg_cont,use_yn,mod_date,reg_date

Example	
동작	클라이언트 동작 : 읽고자 하는 Message Code를 전달 - 전달 MSG_CODE : MSG-01(=4D 53 47 2D 30 31) 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client -> Server	FF 00 13 06 4D 53 47 2D 30 31
Server -> Client	 4D 53 47 2D 30 31 2C 31 2E 30 2C ED 98 84 EC 9E MSG-01,1.0,í..ì. AC 20 EC 82 AC EC 9A A9 ED 95 98 EC 8B 9C EB 8A ¬ ì.¬ì.©í..ì..ë. 94 20 EC 9A 94 EA B8 88 EC A0 9C EB 8A 94 20 25 . ì..ê¸.ì .ë.. % 31 EC 9D B4 EB A9 B0 2C 20 EB 88 84 EC A7 84 20 1ì.´ë©°, ë..ì§. EB 8B A8 EA B3 84 EB 8A 94 20 25 32 EB 8B A8 EA ë.¨ê³.ë.. %2ë.¨ê B3 84 EC 9E 85 EB 8B 88 EB 8B A4 2E 2C 31 2C 32 ³.ì..ë..ë.¤.,1,2 30 32 33 2D 30 36 2D 32 30 20 31 33 3A 33 30 3A 023-06-20 13:30: 33 37 2C 32 30 32 32 2D 31 30 2D 30 35 20 30 35 37,2022-10-05 05 3A 33 39 3A 32 38 :39:28

- ■ 비고
  - ✓ MSG CODE는 DB에 적재되어 있음.(담당자에게 문의해야 함)
  - ✓ 리턴 값은 한글이 포함되어 있음.
  - ✓ 리턴 한글 포맷 : UTF-8

#8 CTRL REQUEST OUTPUT DATA

OUTPUT DATA 데이터를 요청 및 반환한다.

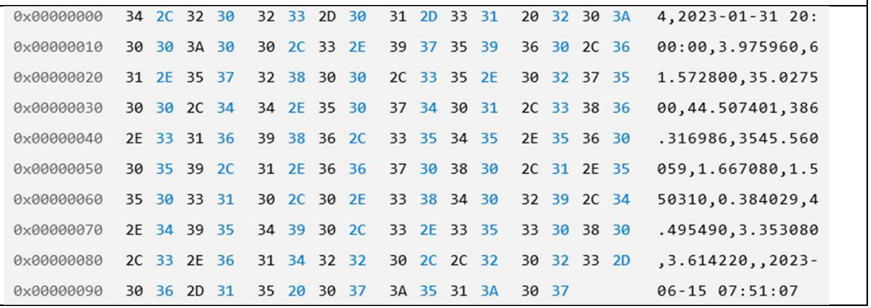
Message ID	0x0014	Direction	Request/Return
Payload Length		Return Type	String

- Request Format

Header				Payload								
SoF	0x00	0x14	0x19	Year_H	Year_L	Customer_link XH	Customer_link H	Customer_link L	Customer_link XL	Datetime 0	...	Datetime 18

- Return Format(Type : String)

Customer_link_number,date_time,temp,hmdty,pm25,pm10,dust,co2,pwr,gas,water,prd_pwr,prd_gas,prd_water,mod_date,reg_date

<table>
<tr><th colspan="2">Example</th></tr>
<tr><td>동작</td><td>클라이언트 동작 : 연도, customer_link_number, date_time을 전달
- 전달 연도 : 2023
- Customer_link_number : 4
- Date_time : 2023-01-31 20:00:00
서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴</td></tr>
<tr><td>Client -> Server</td><td>FF 00 14 19 07 E7 00 00 00 04 32 30 32 33 2D 30 31 2D 33 31 20 32 30 3A 30 30 3A 30 30</td></tr>
<tr><td>Server -> Client</td><td>
<pre>
0x00000000 34 2C 32 30 32 33 2D 30 31 2D 33 31 20 32 30 3A 4,2023-01-31 20:
0x00000010 30 30 3A 30 30 2C 33 2E 39 37 35 39 36 30 2C 36 00:00,3.975960,6
0x00000020 31 2E 35 37 32 38 30 30 2C 33 35 2E 30 32 37 35 1.572800,35.0275
0x00000030 30 30 2C 34 34 2E 35 30 37 34 30 31 2C 33 38 36 00,44.507401,386
0x00000040 2E 33 31 36 39 38 36 2C 33 35 34 35 2E 35 36 30 .316986,3545.560
0x00000050 30 35 39 2C 31 2E 36 36 37 30 38 30 2C 31 2E 35 059,1.667080,1.5
0x00000060 35 30 33 31 30 2C 30 2E 33 38 34 30 32 39 2C 34 50310,0.384029,4
0x00000070 2E 34 39 35 34 39 30 2C 33 2E 33 35 33 30 38 30 .495490,3.353080
0x00000080 2C 33 2E 36 31 34 32 32 30 2C 2C 32 30 32 33 2D ,3.614220,,2023-
0x00000090 30 36 2D 31 35 20 30 37 3A 35 31 3A 30 37   06-15 07:51:07
</pre></td></tr>
</table>

- 비고

#9 CTRL REQUEST OUTPUT STAT DATA

OUTPUT STAT DATA 데이터를 요청 및 반환한다.

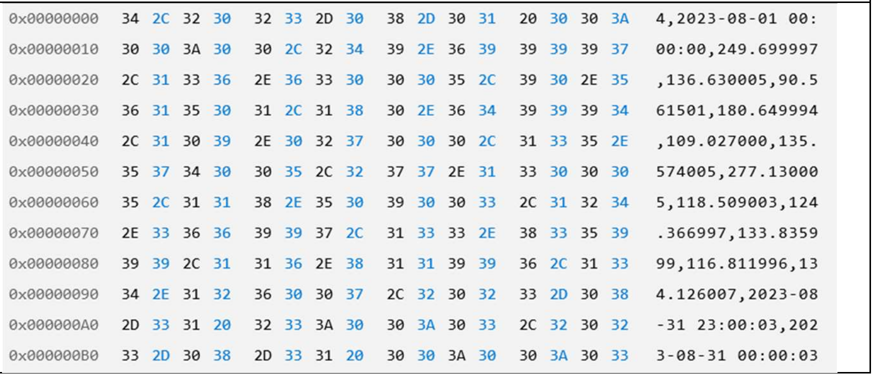
Message ID	0x0015	Direction	Request/Return
Payload Length		Return Type	String

- Request Format

Header				Payload		
SoF	0x00	0x15	N+1	MSG_CODE 0	...	MSG_CODE N

- Return Format(Type : String)

Customer_link_number,date_time,prv_pwr,prv_gas,prv_water,prd_prv_pwr,prd_prv_gas,prd_prv_water,pre_pwr,_pre_gas,pre_water,prd_pre_pwr,prd_pre_gas,prd_pre_water,mod_date,reg_date

Example	
동작	클라이언트 동작 : 연도, customer_link_number, date_time을 전달 - 전달 연도 : 2023 - Customer_link_number : 4 - Date_time : 2023-08-01 00:00:00 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client -> Server	FF 00 15 19 07 E7 00 00 00 04 32 30 32 33 2D 30 38 2D 30 31 20 30 30 3A 30 30 3A 30 30
Server -> Client	

```
0x00000000  34 2C 32 30  32 33 2D 30  38 2D 30 31  20 30 30 3A  4,2023-08-01 00:
0x00000010  30 30 3A 30  30 2C 32 34  39 2E 36 39  39 39 39 37  00:00,249.699997
0x00000020  2C 31 33 36  2E 36 33 30  30 30 35 2C  39 30 2E 35  ,136.630005,90.5
0x00000030  36 31 35 30  31 2C 31 38  30 2E 36 34  39 39 39 34  61501,180.649994
0x00000040  2C 31 30 39  2E 30 32 37  30 30 30 2C  31 33 35 2E  ,109.027000,135.
0x00000050  35 37 34 30  30 35 2C 32  37 37 2E 31  33 30 30 30  574005,277.13000
0x00000060  35 2C 31 31  38 2E 35 30  39 30 30 33  2C 31 32 34  5,118.509003,124
0x00000070  2E 33 36 36  39 39 37 2C  31 33 33 2E  38 33 35 39  .366997,133.8359
0x00000080  39 39 2C 31  31 36 2E 38  31 31 39 39  36 2C 31 33  99,116.811996,13
0x00000090  34 2E 31 32  36 30 30 37  2C 32 30 32  33 2D 30 38  4.126007,2023-08
0x000000A0  2D 33 31 20  32 33 3A 30  30 3A 30 33  2C 32 30 32  -31 23:00:03,202
0x000000B0  33 2D 30 38  2D 33 31 20  30 30 3A 30  30 3A 30 33  3-08-31 00:00:03
```

- 비고

#10 CTRL REQUEST SYS INFO

SYSTEN INFO 데이터를 요청 및 반환한다.

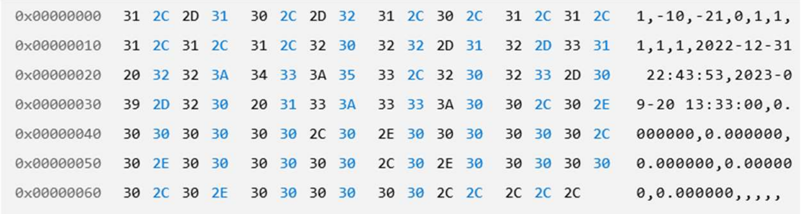
Message ID	0x0016	**Direction**	Request/Return
Payload Length		**Return Type**	String

- Request Format

Header				Payload			
SoF	0x00	0x16	0x04	Customer_link XH	Customer_link H	Customer_link L	Customer_link XL

- Return Format(Type : String)

Customer_link_number,pwr_svn_trg,gas_svn_trg,wtr_svn_trg,alarm_use_yn,alarm_sound_yn,alarm_푹수_yn,alarm_optm_yn,use_yn,reg_date,mod_date,tmp,tmp2,tmp3,tmp4,tmp5,tmp6,tmp7,tmp8,tmp9,tmp10

Example	
동작	클라이언트 동작 : customer_link_number 을 전달 - Customer_link_number : 1 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client -> Server	FF 00 16 04 00 00 00 01
Server -> Client	

```
0x00000000  31 2C 2D 31  30 2C 2D 32  31 2C 30 2C  31 2C 31 2C   1,-10,-21,0,1,1,
0x00000010  31 2C 31 2C  31 2C 32 30  32 32 2D 31  32 2D 33 31   1,1,1,2022-12-31
0x00000020  20 32 32 3A  34 33 3A 35  33 2C 32 30  32 33 2D 30    22:43:53,2023-0
0x00000030  39 2D 32 30  20 31 33 3A  33 33 3A 30  30 2C 30 2E   9-20 13:33:00,0.
0x00000040  30 30 30 30  30 30 2C 30  2E 30 30 30  30 30 30 2C   000000,0.000000,
0x00000050  30 2E 30 30  30 30 30 30  2C 30 2E 30  30 30 30 30   0.000000,0.00000
0x00000060  30 2C 30 2E  30 30 30 30  30 30 2C 2C  2C 2C 2C      0,0.000000,,,,,
```

- 비고

#11 CTRL REQUEST TERMS COND

OUTPUT STAT DATA 데이터를 요청 및 반환한다.

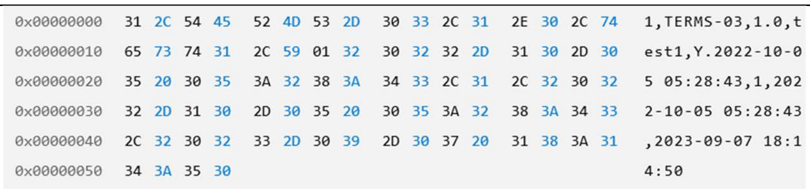
Message ID	0x0017	**Direction**	Request/Return
Payload Length		**Return Type**	String

- Request Format

Header				**Payload**			
SoF	0x00	0x17	0x04	Customer_link XH	Customer_link H	Customer_link L	Customer_link XL

- Return Format(Type : String)

Customer_link_number,terms_code,terms_cont,agrtr_cndtn_yn,use_yn,mod_date,reg_date

Example	
동작	클라이언트 동작 : customer_link_number 을 전달 - Customer_link_number : 1 서버 동작 : 전달받은 데이터를 DB에 쿼리하여 결과값 리턴
Client -> Server	FF 00 17 04 00 00 00 01
Server -> Client	 0x00000000 31 2C 54 45 52 4D 53 2D 30 33 2C 31 2E 30 2C 74 1,TERMS-03,1.0,t 0x00000010 65 73 74 31 2C 59 01 32 30 32 32 2D 31 30 2D 30 est1,Y.2022-10-0 0x00000020 35 20 30 35 3A 32 38 3A 34 33 2C 31 2C 32 30 32 5 05:28:43,1,202 0x00000030 32 2D 31 30 2D 30 35 20 30 35 3A 32 38 3A 34 33 2-10-05 05:28:43 0x00000040 2C 32 30 32 33 2D 30 39 2D 30 37 20 31 38 3A 31 ,2023-09-07 18:1 0x00000050 34 3A 35 30 4:50

- 비고

#12 CTRL CREATE INPUT DATA

INPUT DATA DB에 데이터를 입력한다.

Message ID	0x0030	**Direction**	Request
Payload Length		**Return Type**	No return

■ Request Format

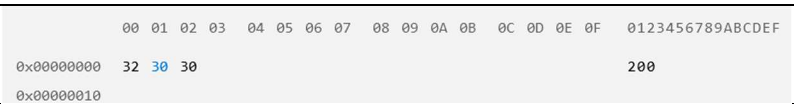
Header				**Payload**			
SoF	0x00	0x30		Year_H	Year_L	Product_serial_number 0	…
Payload							
Product_serial_number 48	Datetime0	…	Datetime 18	TEMP_XH	TEMP_H	TEMP_L	TEMP_XL
Payload							
HMDTY_XH	HMDTY_H	HMDTY_L	HMDTY_XL	PM25_XH	PM25_H	PM25_L	PM25_XL
Payload							
PM10_XH	PM10_H	PM10_L	PM10_XL	MVMNT0	…	MVMNT19	TVOC_XH
Payload							
TVOC_H	TVOC_L	TVOC_XL	HCHO_XH	HCHO_H	HCHO_L	HCHO_XL	CO2_XH
Payload							
CO2_H	CO2_L	CO2_XL	CO_XH	CO_H	CO_L	CO_XL	BENZO_XH
Payload							
BENZO_H	BENZO_L	BENZO_XL	RADON_XH	RADON_H	RADON_L	RADON_XL	

■ Return Format(Type : String)

✓ 성공 시 : 200

✓ 실패 시 : 400

Example	
동작	클라이언트에서 서버로 다음 값을 전송 - Year : 2025 - Product_serial_number : BDWIDE-0033f-05a3776796-89ff44-b7b3ec0-d30403e426 - Date_time : 2025-01-01 10:00:00 - Temp : 24.2 - Hmdty : 88.2 - Pm25 : 10.6 - Pm10 : 2.4 - Mvmnt : movement

<table>
<tr><td></td><td>- Tvoc : 4.5
- Hcho : 46.2
- Co2 : 2.9
- Co : 72.1
- Benzo : 22.3
- Radon : 56.1</td></tr>
<tr><td>Client -> Server</td><td>FF 00 30 82 07 E8 42 44 57 49 44 45 2D 30 30 33 33 66 2D 30 35 61 33 37 37 36 37 39 36 2D 38 39 66 66 34 34 2D 62 37 62 33 65 63 30 2D 64 33 30 34 30 33 65 34 32 36 32 30 32 35 2D 30 31 2D 30 31 20 31 30 3A 30 30 3A 30 30 41 C1 99 9A 42 B0 66 66 41 29 99 9A 40 19 99 9A 6D 6F 76 65 6D 65 6E 74 00 00 00 00 00 00 00 00 00 00 00 40 90 00 00 42 C8 CC CD 40 39 99 9A 42 90 33 33 41 B2 66 66 42 60 66 66</td></tr>
<tr><td>Server -> Client</td><td>
<pre>
            00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 0123456789ABCDEF
0x00000000 32 30 30   200
0x00000010
</pre></td></tr>
</table>

■ 비고

#13 CTRL CREATE MEMBER

MEMBER 데이터를 DB에 입력한다.

(현재 기능은 구현되어 있으나 어떠한 값을 입력 받을지 정의가 되어 있지 않아 사용 불가)

Message ID	0x0031	**Direction**	Request
Payload Length		**Return Type**	No return

- ■ Request Format

Header				**Payload**			
SoF	0x00	0x31					

- ■ Return Format(Type : String)

반환 값 없음.

Example	
동작	
Client -> Server	
Server -> Client	

- ■ 비고

#14 CTRL CREATE IOT PRDCT AUTH

MEMBER 데이터를 DB에 입력한다.

(현재 기능은 구현되어 있으나 어떠한 값을 입력 받을지 정의가 되어 있지 않아 사용 불가)

Message ID	0x0032	Direction	Request
Payload Length		Return Type	No return

- Request Format

Header				Payload			
SoF	0x00	0x32					

- Return Format(Type : String)

반환 값 없음.

Example	
동작	
Client -> Server	
Server -> Client	

- 비고

#15 CTRL CREATE KEPCO API AUTH

KEPCO API AUTH 데이터를 DB에 입력한다.

(현재 기능은 구현되어 있으나 어떠한 값을 입력 받을지 정의가 되어 있지 않아 사용 불가)

Message ID	0x0033	**Direction**	Request
Payload Length		**Return Type**	No return

■ Request Format

Header				**Payload**			
SoF	0x00	0x33					

■ Return Format(Type : String)

반환 값 없음.

Example	
동작	
Client -> Server	
Server -> Client	

■ 비고

#16 CTRL CREATE MSG INFO

MSG INFO 데이터를 DB에 입력한다.

(미구현 기능)

Message ID	0x0034	**Direction**	Request
Payload Length		**Return Type**	No return

- Request Format

Header				**Payload**			
SoF	0x00	0x31					

- Return Format(Type : String)

반환 값 없음.

Example	
동작	
Client -> Server	
Server -> Client	

- 비고

#17 CTRL CREATE OUTPUT DATA

OUTPUT DATA DB에 데이터를 입력한다.

Message ID	0x0035	Direction	Request
Payload Length		Return Type	String

■ Request Format

Header				Payload					
SoF	0x00	0x35		Year_H	Year_L	customer_link_number XH	customer_link_number H	customer_link_number L	customer_link_number XL
Payload									
DateTime0	...	Datetime 18	TempXH	TempH	TempL	TempXL	HmdtyXH	HmdtyH	HmdtyL
Payload									
HmdtyXL	PM25XH	PM25H	PM25L	PM25XL	PM10XH	PM10H	PM10L	PM10XL	DustXH
Payload									
DustH	DustL	DustXL	CO2XH	CO2H	CO2L	CO2XL	PwrXH	PwrH	PwrL
Payload									
PwrXL	GasXH	GasH	GasL	GasXL	WaterXH	WaterH	WaterL	WaterXL	Prd_pwr_XH
Payload									
Prd_pwr_H	Prd_pwr_L	Prd_pwr_XL	Prd_gas_XH	Prd_gas_H	Prd_gas_L	Prd_gas_XL	Prd_water_XH	Prd_water_H	Prd_water_L
Payload									
Prd_water_XL									

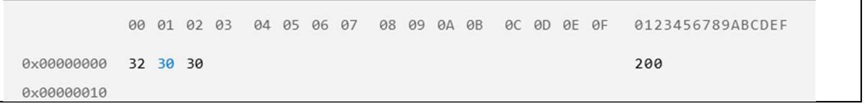
■ Return Format(Type : String)

✓ 성공 시 : 200

✓ 실패 시 : 400

Example	
동작	클라이언트에서 서버로 다음 값을 전송 - Year : 2025 - Customer_link_number : 4 - Datetime : 2025-01-01 10:00:00 - Temp : 25.2 - Humidity : 78.8 - PM25 : 10.2 - PM10 : 2.2

	- Dust : 3.2 - CO2 : 11.1 - pwr : 22.2 - Gas : 10.0 - Water : 16.8 - Prd_pwr : 11.1 - Prd_gas : 22.2 - Prd_water : 33.3
Client -> Server	FF 00 35 45 07 E9 00 00 00 04 32 30 32 35 2D 30 31 2D 30 31 20 31 30 3A 30 30 3A 30 30 41 C9 99 9A 42 9D 99 9A 41 23 33 33 40 0C CC CD 40 4C CC CD 41 31 99 9A 41 B1 99 9A 41 20 00 00 41 86 66 66 41 31 99 9A 41 B1 99 9A 42 05 33 33

Server -> Client	
	`            00 01 02 03  04 05 06 07  08 09 0A 0B  0C 0D 0E 0F  0123456789ABCDEF`
	`0x00000000  32 30 30                                                200`
	`0x00000010`

■ 비고

#18 CTRL CREATE OUTPUT STAT DATA

OUTPUT STAT DATA DB에 데이터를 입력한다.

Message ID	0x0036	**Direction**	Request
Payload Length		**Return Type**	String

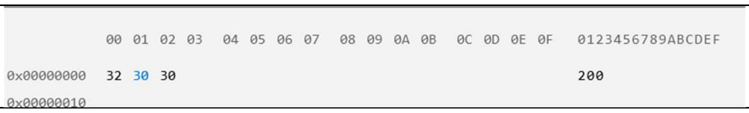
■ Request Format

Header				**Payload**			
SoF	0x00	0x36	0x49	Year_H	Year_L	customer_link_number XH	customer_link_number H
Payload							
Customer_link_number_L	Customer_link_number_XL	PRV_PWR_XH	PRV_PWR_H	PRV_PWR_L	PRV_PWR_XL	PRV_GAS_XH	PRV_GAS_H
Payload							
PRV_GAS_L	PRV_GAS_XL	PRV_WATER_XH	PRV_WATER_H	PRV_WATER_L	PRV_WATER_XL	PRD_PRV_PWR_XH	PRD_PRV_PWR_H
Payload							
PRD_PRV_PWR_L	PRD_PRV_PWR_XL	PRD_PRV_GAS_XH	PRD_PRV_GAS_H	PRD_PRV_GAS_L	PRD_PRV_GAS_XL	PRD_PRV_WATER_XH	PRD_PRV_WATER_H
Payload							
PRD_PRV_WATER_L	PRD_PRV_WATER_XL	PRE_PWR_XH	PRE_PWR_H	PRE_PWR_L	PRE_PWR_XL	PRE_GAS_XH	PRE_GAS_H
Payload							
PRE_GAS_L	PRE_GAS_XL	PRE_WATER_XH	PRE_WATER_H	PRE_WATER_L	PRE_WATER_XL	PRD_PRE_PWR_XH	PRD_PRE_PWR_H
Payload							

PRD_PRE_PWR_L	PRD_PRE_PWR_XL	PRD_PRE_GAS_XH	PRD_PRE_GAS_H	PRD_PRE_GAS_L	PRD_PRE_GAS_XL	PRD_PRE_WATER_XH	PRD_PRE_WATER_H
Payload							
PRD_PRE_WATER_L	PRD_PRE_WATER_XL						

- Return Format(Type : String)
  - ✓ 성공 시 : 200
  - ✓ 실패 시 : 400

Example	
동작	클라이언트에서 서버로 다음 값을 전송 - Year : 2025 - Customer_link_number : 4 - DATE_TIME : 2025-01-01 10:00:00 - PRV_PWR : 10.5 - PRV_GAS : 20.5 - PRV_WATER : 30.5 - PRD_PRV_PWR : 40.5 - PRD_PRV_GAS : 60.3 - PRD_PRV_WATER : 22.3 - PRE_PWR : 55.4 - PRE_GAS : 28.2 - PRE_WATER : 21.2 - PRD_PRE_PWR : 83.2 - PRD_PRE_GAS : 87.1 - PRD_PRE_WATER : 99.2
Client -> Server	FF 00 36 49 07 E9 00 00 00 04 32 30 32 35 2D 30 31 2D 30 31 20 31 30 3A 30 30 3A 30 30 41 28 00 00 41 A4 00 00 41 F4 00 00 42 22 00 00 42 71 33 33 41 B2 66 66 42 5D 99 9A 41 E1 99 9A 41 A9 99 9A 42 A6 66 66 42 AE 33 33 42 C6 66 66

Server -> Client	
	`            00 01 02 03  04 05 06 07  08 09 0A 0B  0C 0D 0E 0F  0123456789ABCDEF`
	`0x00000000  32 30 30                                                200`
	`0x00000010`

- 비고