**Facility-Controller Packet**

시스템 생성 대체 텍스트:
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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Start Symbol** | **Garage No.** | **Code** | **Value** | **End Symbol** |
| 1byte($) | 4byte | 1byte | Variable length | 1byte(\0) |

1. **Send Information(I) from Controller to Facility**

**\*** Once a controller connects a facility, a controller send information to a facility.

\* if information is changed, controller send it again.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $ | Garage Id | I | Slot No. | \0 |

Ex) $0001I4\0 (Garage 1 consists of 4 stalls.)

1. **Send slot status(S) from Facility to Controller**

\* Basically, a facility has to send slot status to a controller every 1 minute.

This is for checking facility's alive. If a controller cannot receive this packet until 2 minutes, a controller has to notify it to attendant. (TODO: how to notify attendant)

\* if slot status is changed, facility has to send it again.

\* value 0 means a slot is opened.

\* value 1 means a slot is occupied.

\* value 2 means a slot is broken.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| $ | Garage No. | S | Slot 0 | Slot 1 | ... | Slot N | \0 |

Ex1) $0001S1001\0 (Slot 0 and slot 3 are occupied.)

Ex2) $0001S0000\0 (All slots are opened.)

1. **Request to open the Entry Gate(G) from Controller to facility**

\* A controller send below packet to request to open the entry gate.

|  |  |  |  |
| --- | --- | --- | --- |
| $ | Garage No. | G | \0 |

Ex1) $0001G\0 (Open an entry gate.)

1. **Send to the Entry Gate(G) status from facility to controller**

\* A facility send the entry gate status to controller.

\* If the entry gate is not opened, a controller has to notify to attendant. (TODO: how to notify attendant)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $ | Garage No. | G | 1 | \0 |

Ex1) $0001G1\0 (The entry gate is opened.)

Ex2)$0001G0\0 (The entry gate is not opened.)

1. **Send what stall LED has to get "Green" status(L) from Controller to facility**

\* a controller send what slot's LED has to change from "Red" to "Green".

\* value is a number of slot.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $ | Garage No. | L | Slot No. | \0 |

Ex1) $0001L1\0 (Slot 1's LED has to get "Green".)

Ex2) $0001L0\0 (Slot 0's LED has to get "Green".)

NOTE!

1. Protocol security: Packet Encryption

Setup Information

[Manager]

1. Facility IP, PORT, Garage ID, Stall Number
2. 통신이 끊겼을 경우 시나리오

- 최초는 자동 연결

- 중간에 통신 끊겼을 때 - 10 retry/5sec 하고, 그래도 연결이 안되면, Notify to Attendant.