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# Zone Control API

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BioStar

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## Ethernet

Zone Master BioStar V2.x 가 Zone 가 (Master ↔ Member)  
 Ethernet TCP 1.x Entrance Limit, Fire Alarm Zone

- [BS2\\_GetDeviceZone:](#) Ethernet 가 .
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## BS2ZoneStatus

```
typedef struct {
    uint32_t id;
    uint8_t status;
    uint8_t disabled;
    uint8_t reserved[6];
} BS2ZoneStatus;
```

1. *id*

2. *status*

0	
1	
2	scheduled lock
4	scheduled unlock

3. *disabled*

flag

4. *reserved*

## BS2ApbMember

```
typedef struct {
    uint32_t deviceID;
    uint8_t type;
    uint8_t reserved[3];
} BS2ApbMember;
```

1. *deviceID*

2. *type*

APB reader

-1	

0	
1	

3. reserved

### BS2TimedApbMember

```
typedef struct {
    uint32_t deviceID;
    uint8_t reserved[4];
} BS2TimedApbMember;
```

1. deviceID

2. reserved

### BS2FireSensor

```
typedef struct {
    uint32_t deviceID;
    uint8_t port;
    uint8_t switchType;
    uint8_t duration;
} BS2FireSensor ;
```

1. deviceID

2. port

3. switchType

0	
1	

4. duration

millisecond

### BS2AntiPassbackZone

```
typedef struct {
```

```

uint32_t zoneID;
char name[BS2_MAX_ZONE_NAME_LEN];
uint8_t type;
uint8_t numReaders;
uint8_t numBypassGroups;
uint8_t disabled;
uint8_t alarmed;
uint8_t reserved[3];
uint32_t resetDuration;
BS2Action alarm[BS2_MAX_APB_ALARM_ACTION];
BS2ApbMember readers[BS2_MAX_READERS_PER_APB_ZONE];
uint8_t reserved2[512];
uint32_t bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_PER_APB_ZONE];
} BS2AntiPassbackZone;

```

1. zoneID

1 가 .

가 .

2. name

BioStar .

3. type

0	Hard APB( 가 )
1	Soft APB( )

4. numReaders

APB reader .

5. numBypassGroups

APB .

6. disabled

flag .

7. alarmed

8. reserved

9. resetDuration

가 APB			
0			BioStar
10. alarm			
가 APB		5	
11. readers			
		64	
12. reserved2			
13. bypassGroupIDs			
APB		16	

### BS2TimedAntiPassbackZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t type;
    uint8_t numReaders;
    uint8_t numBypassGroups;
    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[3];
    uint32_t resetDuration;
    BS2Action alarm[BS2_MAX_TIMED_APB_ALARM_ACTION];
    BS2TimedApbMember readers[BS2_MAX_READERS_PER_TIMED_APB_ZONE];
    uint8_t reserved2[320];
    uint32_t bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_PER_TIMED_APB_ZONE];
} BS2TimedAntiPassbackZone;
```

1. zoneID

1 가

2. name

BioStar

3. type

0	Hard APB( 가 )
1	Soft APB( )

4. numReaders



reader

5. *numBypassGroups*6. *disabled*

flag

7. *alarmed*8. *reserved*9. *resetDuration*

가

0

BioStar

10. *alarm*

가

5

11. *readers*

64

12. *reserved2*13. *bypassGroupIDs*

16

## BS2FireAlarmZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t numSensors;
    uint8_t numDoors;
    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[8];
    BS2FireSensor sensor[BS2_MAX_FIRE_SENSORS_PER_FIRE_ALARM_ZONE];
    BS2Action alarm[BS2_MAX_FIRE_ALARM_ACTION];
    uint8_t reserved2[32];
    uint32_t doorIDs[BS2_MAX_DOORS_PER_FIRE_ALARM_ZONE];
} BS2FireAlarmZone;
```

1. *zoneID*

1

가

2. *name*

BioStar

3. *numSensors*

4. *numDoors*

5. *alarmed*

6. *disabled*  
flag

7. *reserved*

8. *sensor* 8

9. *alarm* 5

10. *reserved2*

11. *doorIDs* 32

## BS2ScheduledLockUnlockZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint32_t lockScheduleID;
    uint32_t unlockScheduleID;
    uint8_t numDoors;
    uint8_t numBypassGroups;
    uint8_t numUnlockGroups;
    uint8_t bidirectionalLock;
    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[6];
    BS2Action alarm[BS2_MAX_SCHEDULED_LOCK_UNLOCK_ALARM_ACTION];
    uint8_t reserved2[32];
    uint32_t doorIDs[BS2_MAX_DOORS_IN_SCHEDULED_LOCK_UNLOCK_ZONE];
    uint32_t
bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_IN_SCHEDULED_LOCK_UNLOCK_ZONE];
    uint32_t
unlockGroupIDs[BS2_MAX_UNLOCK_GROUPS_IN_SCHEDULED_LOCK_UNLOCK_ZONE];
} BS2ScheduledLockUnlockZone;
```

1. *zoneID*

1 가

2. *name*

BioStar

3. *lockScheduleID*

4. *unlockScheduleID*

5. *numDoors*

6. *numBypassGroups*

7. *numUnlockGroups*

가

8. *bidirectionalLock*

9. *disabled*

flag

10. *alarmed*

11. *reserved*

12. *alarm*

5

13. *reserved2*

14. *doorIDs*

32

15. *bypassGroupIDs*

16

16. *unlockGroupIDs*

가

16

### BS2IntrusionAlarmZone

```
typedef struct {
```

```
uint32_t zoneID;
char name[BS2_MAX_ZONE_NAME_LEN];
uint8_t armDelay;
uint8_t alarmDelay;
uint8_t disabled;
uint8_t reserved[1];
uint8_t numReaders;
uint8_t numInputs;
uint8_t numOutputs;
uint8_t numCards;
uint8_t numDoors;
uint8_t numGroups;
uint8_t reserved2[10];
} BS2IntrusionAlarmZone;
```

1. *zoneID*

1 가

2. *name*

BioStar

3. *armDelay*

4. *alarmDelay*

5. *disabled*

flag

6. *reserved[1]*

7. *numReaders*

8. *numInputs*

9. *numOutputs*

10. *numCards*

11. *numDoors*

12. *numGroups*

13. *reserved*

## BS2IntrusionAlarmZoneBlob

```
typedef struct {
    BS2IntrusionAlarmZone IntrusionAlarmZone;
    BS2AlarmZoneMember* memberObjs;
    BS2AlarmZoneInput* inputObjs;
    BS2AlarmZoneOutput* outputObjs;
    BS2CSNCard* cardObjs;
    BS2_D00R_ID* doorIDs;
    BS2_ACCESS_GROUP_ID* groupIDs;
} BS2IntrusionAlarmZoneBlob;
```

1. *IntrusionAlarmZone*

2. *memberObjs*

**IntrusionAlarmZone.numReaders**

3. *inputObjs*

**IntrusionAlarmZone.numInputs**

4. *outputObjs*

**IntrusionAlarmZone.numOutputs**

5. *cardObjs*

**IntrusionAlarmZone.numCards**

[Smartcard API](#)

6. *doorIDs*

**IntrusionAlarmZone.numDoors**

7. *groupIDs*

**IntrusionAlarmZone.numGroups**

## BS2InterlockZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t disabled;
    uint8_t numInputs;
    uint8_t numOutputs;
    uint8_t numDoors;
    uint8_t reserved[8];
}
```

```

} BS2InterlockZone;

```

1. *zoneID*

1 가

2. *name*

BioStar

3. *disabled*

flag

4. *numInputs*

5. *numOutputs*

6. *numDoors*

7. *reserved*

### BS2InterlockZoneBlob

```

typedef struct {
    BS2InterlockZone InterlockZone;
    BS2InterlockZoneInput* inputObjs;
    BS2InterlockZoneOutput* outputObjs;
    BS2_D00R_ID* doorIDs;
} BS2InterlockZoneBlob;

```

1. *InterlockZone*

2. *inputObjs*

**InterlockZone.numInputs**

3. *outputObjs*

**InterlockZone.numOutputs**

4. *doorIDs*

**InterlockZone.numDoors**

### BS2DeviceZoneEntranceLimitMaster

```

typedef struct {
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t type;
    uint8_t reserved1[3];
    uint32_t entryLimitInterval_s;
    uint8_t numEntranceLimit;
    uint8_t numReaders;
    uint8_t numAlarm;
    uint8_t numBypassGroups;
    uint8_t maxEntry[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint32_t periodStart_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint32_t periodEnd_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    BS2DeviceZoneEntranceLimitMemberInfo
    readers[BS2_MAX_READERS_PER_DEVICE_ZONE_ENTRANCE_LIMIT];
    BS2Action alarm[BS2_MAX_DEVICE_ZONE_ENTRANCE_LIMIT_ALARM_ACTION];
    BS2_ACCESS_GROUP_ID
    bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_PER_DEVICE_ZONE_ENTRANCE_LIMIT];
    uint8_t reserved3[8 * 4];
} BS2DeviceZoneEntranceLimitMaster;

```

1. *name*

BioStar

2. *type*

1	Soft EntranceLimit( )	가
2	Hard EntranceLimit( )	

3. *reserved1[3]*

4. *entryLimitInterval\_s*

5. *numEntranceLimit*

6. *numReaders*  
reader

7. *numAlarm*

8. *numBypassGroups*

9. *maxEntry*

- 10. *periodStart\_s*  
가 . ( )
- 11. *periodEnd\_s*  
가 . ( )
- 12. *readers*  
64 .
- 13. *alarm*  
5 .
- 14. *bypassGroupIDs*  
16 .
- 15. *reserved3*  
.

### BS2DeviceZoneEntranceLimitMember

```
typedef struct {
    uint16_t masterPort;
    BS2_DEVICE_ZONE_ENTRANCE_LIMIT_DISCONNECTED_ACTION_TYPE
actionInDisconnect;
    uint8_t reserved1[1];
    BS2_IPV4_ADDR masterIP;
} BS2DeviceZoneEntranceLimitMember;
```

1. *masterPort*  
master port .

2. *actionInDisconnect*  
Disconnect .

1	Soft EntranceLimit Disconnected action( 가 )
2	Hard EntranceLimit Disconnected action( )

3. *reserved1[3]*  
.

4. *masterIP*  
master IP .



## BS2DeviceZoneFireAlarmMaster

```
typedef struct {
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t numReaders;
    uint8_t numAlarm;
    uint8_t reserved1[2];
    BS2DeviceZoneFireAlarmMemberInfo
readers[BS2_MAX_READERS_PER_DEVICE_ZONE_FIRE_ALARM];
    BS2Action alarm[BS2_MAX_DEVICE_ZONE_FIRE_ALARM_ALARM_ACTION];
    uint8_t reserved2[8 * 40];
} BS2DeviceZoneFireAlarmMaster;
```

1. *name*

BioStar

2. *numReaders*

3. *reserved1*

4. *readers*

5. *alarm*

5

6. *reserved2*

## BS2DeviceZoneFireAlarmMember

```
typedef struct {
    BS2_PORT masterPort;
    uint8_t reserved1[2];
    BS2_IPV4_ADDR masterIP;
    uint8_t numSensors;
    uint8_t numDoors;
    uint8_t reserved2[2];
    BS2DeviceZoneFireSensor
sensor[BS2_MAX_FIRE_SENSORS_PER_DEVICE_ZONE_FIRE_ALARM_MEMBER];
    union {
        BS2_DOOR_ID
doorIDs[BS2_MAX_DOORS_PER_DEVICE_ZONE_FIRE_ALARM_MEMBER];
        BS2_LIFT_ID
liftIDs[BS2_MAX_DOORS_PER_DEVICE_ZONE_FIRE_ALARM_MEMBER];
    };
};
```

```
} BS2DeviceZoneFireAlarmMember;
```

1. *masterPort*

master port

2. *reserved1*

3. *masterIP*

master IP

4. *numSensors*

5. *numDoors*

6. *reserved2*

7. *sensor*

8

8. *doorIDs*

8

9. *liftIDs*

Lift

8

## BS2DeviceZoneFireAlarmMemberInfo

```
typedef struct {  
    uint32_t readerID;  
} BS2DeviceZoneFireAlarmMemberInfo;
```

1. *readerID*

## BS2DeviceZoneFireSensor

```
typedef struct {  
    uint32_t deviceID;  
    uint8_t port;  
    uint8_t switchType;  
    uint16_t duration;  
} BS2DeviceZoneFireSensor;
```

1. *deviceID*

2. *port*

3. *switchType*

0	
1	

4. *duration*

millisecond

### BS2DeviceZone

```
typedef struct {
    uint32_t zoneID;
    uint8_t zoneType;
    uint8_t nodeType;
    uint8_t enable;
    uint8_t reserved[1];
    union {
        BS2DeviceZoneEntranceLimitMaster entranceLimitMaster;
        BS2DeviceZoneEntranceLimitMember entranceLimitMember;
        BS2DeviceZoneFireAlarmMaster fireAlarmMaster;
        BS2DeviceZoneFireAlarmMember fireAlarmMember;
    };
} BS2DeviceZone;
```

1. *zoneID*

1 가

2. *zoneType*

3. *nodeType*

4. *enable*

flag

5. *reserved[1]*

### BS2DeviceZoneAGEntranceLimit

```
typedef struct {
```

```

uint32_t zoneID;
uint16_t numAGEntranceLimit;
uint16_t reserved1;
uint32_t periodStart_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
uint32_t periodEnd_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
uint16_t numEntry[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
uint16_t
maxEntry[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE][BS2_MAX_ACCESS_GROUP_ENTRANCE_LIMI
T_PER_ENTRANCE_LIMIT];
uint32_t
accessGroupID[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE][BS2_MAX_ACCESS_GROUP_ENTRANCE
_LIMIT_PER_ENTRANCE_LIMIT];
} BS2DeviceZoneAGEntranceLimit;

```

1. zoneID

1 가

2. numAGEntranceLimit

3. reserved1

4. periodStart\_s

가

5. periodEnd\_s

가

6. numEntry

7. maxEntry

8. accessGroupID

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Last update: **2018/03/12 08:29**