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# Zone Control API

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BioStar

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가 BioStar

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BioStar

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## Ethernet

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

- [BS2\\_GetDeviceZone](#): Ethernet 가
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- [BS2\\_GetAllAccessGroupEntranceLimit](#): 가
- [BS2\\_SetAccessGroupEntranceLimit](#):
- [BS2\\_RemoveAccessGroupEntranceLimit](#):
- [BS2\\_RemoveAllAccessGroupEntranceLimit](#):
- [BS2\\_GetDeviceZoneAGEntranceLimit](#): Ethernet Access Group 가
- [BS2\\_GetAllDeviceZoneAGEntranceLimit](#): Ethernet Access Group 가
- [BS2\\_SetDeviceZoneAGEntranceLimit](#): Ethernet Access Group
- [BS2\\_RemoveDeviceZoneAGEntranceLimit](#): Ethernet Access Group
- [BS2\\_RemoveAllDeviceZoneAGEntranceLimit](#): Ethernet Access Group

## 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. <i>alarm</i>			
가		5	.
11. <i>readers</i>			
		64	.
12. <i>reserved2</i>			
13. <i>bypassGroupIDs</i>			
		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. <i>zoneID</i>			
	1	가	.
2. <i>name</i>			
BioStar			
3. <i>numSensors</i>			
4. <i>numDoors</i>			
5. <i>alarmed</i>			
6. <i>disabled</i>			
flag			
7. <i>reserved</i>			
8. <i>sensor</i>			
		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_DOOR_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**

## 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*



```

    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*

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;
    };
};
```



7. *maxEntry*

8. *accessGroupID*

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