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# Zone Control API

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- [BS2\\_SetCheckGlobalAPBViolationHandler:](#) 가
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- [BS2\\_SetGlobalAPBViolationByDoorOpenHandler:](#) [+ 2.7.0]  
가
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가

가

( , )

- [BS2\\_GetTimedAntiPassbackZone:](#) 가
- [BS2\\_GetAllTimedAntiPassbackZone:](#) 가
- [BS2\\_GetTimedAntiPassbackZoneStatus:](#) 가
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가 BioStar

BioStar

- [BS2\\_GetFireAlarmZone:](#)
- [BS2\\_GetAllFireAlarmZone:](#)
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가

가  
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- [BS2\\_GetScheduledLockUnlockZone:](#)
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- [BS2\\_RemoveAllScheduledLockUnlockZone:](#)

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가 BioStar

BioStar

- [BS2\\_GetIntrusionAlarmZone:](#)
- [BS2\\_GetIntrusionAlarmZoneStatus:](#)
- [BS2\\_GetAllIntrusionAlarmZoneStatus:](#)
- [BS2\\_SetIntrusionAlarmZone:](#)

가

가  
가

- [BS2\\_SetIntrusionAlarmZoneAlarm](#):
- [BS2\\_RemoveIntrusionAlarmZone](#):
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### [CoreStation]

#### CoreStation

- [BS2\\_GetInterlockZone](#): 가
- [BS2\\_GetInterlockZoneStatus](#): 가
- [BS2\\_GetAllInterlockZoneStatus](#): 가
- [BS2\\_SetInterlockZone](#):
- [BS2\\_SetInterlockZoneAlarm](#):
- [BS2\\_RemoveInterlockZone](#):
- [BS2\\_RemoveAllInterlockZone](#):

### Ethernet

Zone Master BioStar V2.x 가 가 (Master ↔ Member)  
 Ethernet TCP Zone 1.x Entrance Limit, Fire Alarm Zone  
 A2(FW 1.4.0 ), BS2(FW 1.5.0 ) and P2(FW 1.0.0 )

- [BS2\\_GetDeviceZone](#): Ethernet 가
- [BS2\\_GetAllDeviceZone](#): Ethernet 가
- [BS2\\_SetDeviceZone](#): Ethernet
- [BS2\\_RemoveDeviceZone](#): Ethernet
- [BS2\\_RemoveAllDeviceZone](#): Ethernet
- [BS2\\_SetDeviceZoneAlarm](#): Ethernet
- [BS2\\_ClearDeviceZoneAccessRecord](#): Ethernet
- [BS2\\_ClearAllDeviceZoneAccessRecord](#): Ethernet
- [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

## Lift /

[+ 2.7.0] Elevator

- [BS2\\_GetLiftLockUnlockZone](#): Lift / 가
- [BS2\\_GetAllLiftLockUnlockZone](#): Lift / 가
- [BS2\\_GetLiftLockUnlockZoneStatus](#): Lift / 가
- [BS2\\_GetAllLiftLockUnlockZoneStatus](#): Lift / 가
- [BS2\\_SetLiftLockUnlockZone](#): Lift /
- [BS2\\_SetLiftLockUnlockZoneAlarm](#): Lift /
- [BS2\\_RemoveLiftLockUnlockZone](#): Lift /
- [BS2\\_RemoveAllLiftLockUnlockZone](#): Lift /

## OnCheckGlobalAPBViolation

가

```
typedef void (*OnCheckGlobalAPBViolation)(uint32_t deviceId, uint16_t seq,
const char* userID_1, const char* userID_2, bool isDualAuth);
```

1. *deviceId*

2. *seq*

3. *userID\_1*

ID

4. *userID\_2*

ID

5. *isDualAuth*

## OnCheckGlobalAPBViolationByDoorOpen

가 , 1

```
typedef void (*OnCheckGlobalAPBViolationByDoorOpen)(uint32_t deviceId, uint16_t seq, const char* userID_1, const char* userID_2, bool isDualAuth);
```

1. *deviceId*

2. *seq*

3. *userID\_1*  
ID

4. *userID\_2*  
ID

5. *isDualAuth*

## OnUpdateGlobalAPBViolationByDoorOpen

가 , 2

```
typedef void (*OnUpdateGlobalAPBViolationByDoorOpen)(uint32_t deviceId, uint16_t seq, const char* userID_1, const char* userID_2, bool isDualAuth);
```

1. *deviceId*

2. *seq*

3. *userID\_1*  
ID

4. *userID\_2*  
ID

5. *isDualAuth*

## 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

APB ( ) , BS2\_ClearAntiPassbackZoneStatus 0

- 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
- 2. numAGEntranceLimit
- 3. reserved1
- 4. periodStart\_s
- 5. periodEnd\_s
- 6. numEntry
- 7. maxEntry
- 8. accessGroupID

1

가

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