

**Zone Control API** ..... 1

..... 1

..... 1

..... 2

..... 2

..... 2

..... 3

Ethernet ..... 3

Lift / ..... 4

..... 4

OnCheckGlobalAPBViolation ..... 4

OnCheckGlobalAPBViolationByDoorOpen ..... 5

OnUpdateGlobalAPBViolationByDoorOpen ..... 5

..... 6

BS2ZoneStatus ..... 6

BS2ApbMember ..... 6

BS2TimedApbMember ..... 7

BS2FireSensor ..... 7

BS2AntiPassbackZone ..... 7

BS2TimedAntiPassbackZone ..... 9

BS2FireAlarmZone ..... 10

BS2ScheduledLockUnlockZone ..... 11

BS2IntrusionAlarmZone ..... 12

BS2IntrusionAlarmZoneBlob ..... 13

BS2InterlockZone ..... 14

BS2InterlockZoneBlob ..... 15

BS2DeviceZoneEntranceLimitMaster ..... 15

BS2DeviceZoneEntranceLimitMember ..... 17

BS2DeviceZoneFireAlarmMaster ..... 17

BS2DeviceZoneFireAlarmMember ..... 18

BS2DeviceZoneFireAlarmMemberInfo ..... 19

BS2DeviceZoneFireSensor ..... 19

BS2DeviceZone ..... 20

BS2DeviceZoneAGEntranceLimit ..... 20

# Zone Control API

, BioStart

4

가

가

( , )

- [BS2\\_GetAntiPassbackZone:](#) 가
- [BS2\\_GetAllAntiPassbackZone:](#) 가
- [BS2\\_GetAntiPassbackZoneStatus:](#) 가
- [BS2\\_GetAllAntiPassbackZoneStatus:](#) 가
- [BS2\\_SetAntiPassbackZone:](#)
- [BS2\\_SetAntiPassbackZoneAlarm:](#)
- [BS2\\_RemoveAntiPassbackZone:](#)
- [BS2\\_RemoveAllAntiPassbackZone:](#)
- [BS2\\_ClearAntiPassbackZoneStatus:](#)
- [BS2\\_ClearAllAntiPassbackZoneStatus:](#)
- [BS2\\_SetCheckGlobalAPBViolationHandler:](#) 가
- [BS2\\_CheckGlobalAPBViolation:](#)
- [BS2\\_SetGlobalAPBViolationByDoorOpenHandler:](#) [+ 2.7.0]  
가
- [BS2\\_CheckGlobalAPBViolationByDoorOpen:](#) [+ 2.7.0]

가

가

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- [BS2\\_GetTimedAntiPassbackZone:](#) 가
- [BS2\\_GetAllTimedAntiPassbackZone:](#) 가
- [BS2\\_GetTimedAntiPassbackZoneStatus:](#) 가
- [BS2\\_GetAllTimedAntiPassbackZoneStatus:](#) 가
- [BS2\\_SetTimedAntiPassbackZone:](#)
- [BS2\\_SetTimedAntiPassbackZoneAlarm:](#)
- [BS2\\_RemoveTimedAntiPassbackZone:](#)

- [BS2\\_RemoveAllTimedAntiPassbackZone:](#)
- [BS2\\_ClearTimedAntiPassbackZoneStatus:](#)
- [BS2\\_ClearAllTimedAntiPassbackZoneStatus:](#)

가 BioStar

BioStar

- [BS2\\_GetFireAlarmZone:](#)
- [BS2\\_GetAllFireAlarmZone:](#)
- [BS2\\_GetFireAlarmZoneStatus:](#)
- [BS2\\_GetAllFireAlarmZoneStatus:](#)
- [BS2\\_SetFireAlarmZone:](#)
- [BS2\\_SetFireAlarmZoneAlarm:](#)
- [BS2\\_RemoveFireAlarmZone:](#)
- [BS2\\_RemoveAllFireAlarmZone:](#)

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가

가  
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- [BS2\\_GetScheduledLockUnlockZone:](#)
- [BS2\\_GetAllScheduledLockUnlockZone:](#)
- [BS2\\_GetScheduledLockUnlockZoneStatus:](#)
- [BS2\\_GetAllScheduledLockUnlockZoneStatus:](#)
- [BS2\\_SetScheduledLockUnlockZone:](#)
- [BS2\\_SetScheduledLockUnlockZoneAlarm:](#)
- [BS2\\_RemoveScheduledLockUnlockZone:](#)
- [BS2\\_RemoveAllScheduledLockUnlockZone:](#)

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가 BioStar

BioStar

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

가

가

가

- [BS2\\_SetIntrusionAlarmZoneAlarm](#):
- [BS2\\_RemoveIntrusionAlarmZone](#):
- [BS2\\_RemoveAllIntrusionAlarmZone](#):
- [BS2\\_SetIntrusionAlarmZoneArm](#):

### [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 (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_DOOR_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* 16

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