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Zone Control API

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가
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가 (,)

- [BS2_GetTimedAntiPassbackZone:](#) 가
- [BS2_GetAllTimedAntiPassbackZone:](#) 가
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가 BioStar

BioStar

- [BS2_GetFireAlarmZone:](#)
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가
가

가
가

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- [BS2_GetScheduledLockUnlockZone:](#)
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가 BioStar

가

BioStar

- [BS2_GetIntrusionAlarmZone:](#)
- [BS2_GetIntrusionAlarmZoneStatus:](#)
- [BS2_GetAllIntrusionAlarmZoneStatus:](#)
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- [BS2_SetIntrusionAlarmZoneAlarm:](#)

가

가
가

- [BS2_RemoveIntrusionAlarmZone](#):
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[CoreStation]

CoreStation

- [BS2_GetInterlockZone](#): 가
- [BS2_GetInterlockZoneStatus](#): 가
- [BS2_GetAllInterlockZoneStatus](#): 가
- [BS2_SetInterlockZone](#):
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- [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

- [BS2_GetDeviceZoneMasterConfig](#): Ethernet master 가 .
- [BS2_SetDeviceZoneMasterConfig](#): Ethernet master .
- [BS2_RemoveDeviceZoneMasterConfig](#): Ethernet master .

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

()

0

, BS2_ClearAntiPassbackZoneStatus

- 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;
```


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

BS2LiftFloors

```
typedef struct {
    uint32_t liftID;
    uint16_t numFloors;
    uint16_t reserved;
    uint8_t floorIndices[256];
} BS2LiftFloors;
```

1. *liftID*
lift 1 가 .
2. *numFloors*
floorIndices .
3. *reserved*
.
4. *floorIndices*
BS2Lift BS2LiftFloor 255 floor
, 1, 3, 5, 9 BS2LiftFloor scheduled lock/unlock floor

floorIndices[0] 1, 3, 5, 9

BS2LiftLockUnlockZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint32_t unlockScheduleID;
    uint32_t lockScheduleID;

    uint8_t numLifts;
    uint8_t numBypassGroups;
    uint8_t numUnlockGroups;
    uint8_t unused;

    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[6];

    BS2Action alarm[BS2_MAX_LIFT_LOCK_UNLOCK_ALARM_ACTION];

    uint8_t reserved2[32];

    BS2LiftFloors lifts[BS2_MAX_LIFTS_IN_LIFT_LOCK_UNLOCK_ZONE];
    uint32_t bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_IN_LIFT_LOCK_UNLOCK_ZONE];
    uint32_t unlockGroupIDs[BS2_MAX_UNLOCK_GROUPS_IN_LIFT_LOCK_UNLOCK_ZONE];
} BS2LiftLockUnlockZone;
```

1. zoneID

1 가

2. name

BioStar

3. unlockScheduleID

lift floor

4. lockScheduleID

lift floor

5. numLifts

lifts

6. numBypassGroups

lift

7. numUnlockGroups

lift 가

8. *unused*

9. *disabled*

flag

10. *alarmed*

11. *reserved*

12. *alarm*

5

13. *reserved2*

14. *lifts*

lift floor

15. *bypassGroupIDs*

lift

16

16. *unlockGroupIDs*

lift

가

16

From:

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