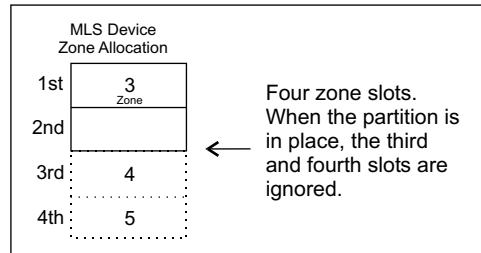


# Application Note AN4002C - Rooms with partitions

## Introduction

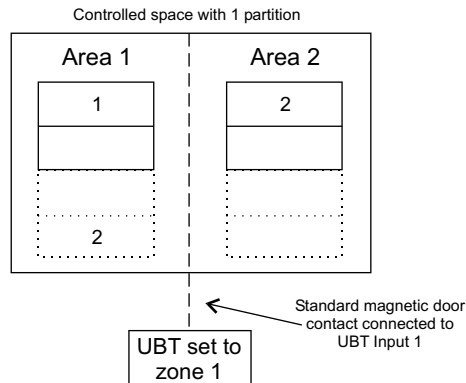
In a typical installation, an MLS device (such as a presence detector) may belong to up to four different 'zones'. After commissioning, each zone number is stored in one of four 'slots' in the device's non-volatile memory. Normally it does not matter which zone is stored in which slot.

Large areas, such as conference rooms, are often divided into two or three smaller areas by retractable partitions. In this case it would be desirable that the MLS system adapts to the changing layout of the area as partitions are opened/closed. This is achieved through the use of Universal Bus Transceivers (UBT2000/UBT2000DIN) and attention to zone allocation when commissioning. The UBT has the ability to force MLS devices to dissociate from any zones programmed into their third and fourth slots.



## Rooms with One Partition

A common scenario; a room is to be split into two temporarily. With reference to the diagram to the right, a single UBT is required in addition to the MLS devices present in the controlled area. With the partition closed, only the first two zone slots are responsive to information transmitted on the bus so each area operates independently of the other. With the partition open, the third and fourth slots become active again and the two areas now operate together, by virtue of their common membership of zone 2.

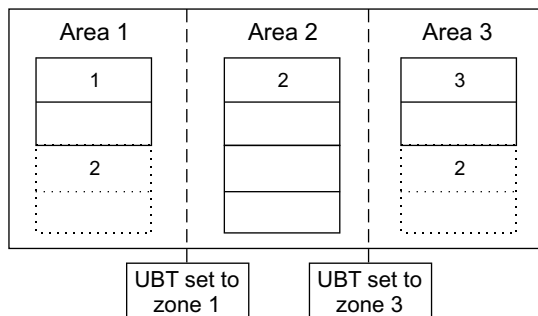


## Rooms with Two Partitions

In an area with two partitions, extra consideration must be taken when assigning zone numbers. Two UBTs are required in this application.

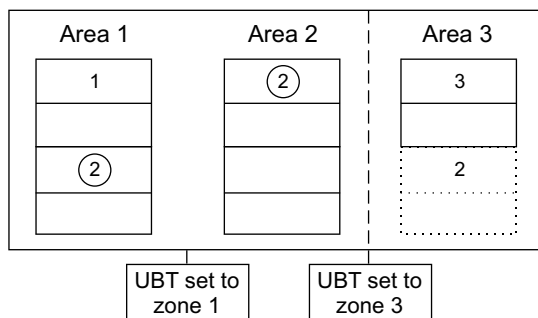
### A: Both Partitions Closed

Each area is separated from its neighbour by a partition. Each area behaves independently. With both partitions in place, slots three and four are dissociated in the areas addressed by the UBTs.



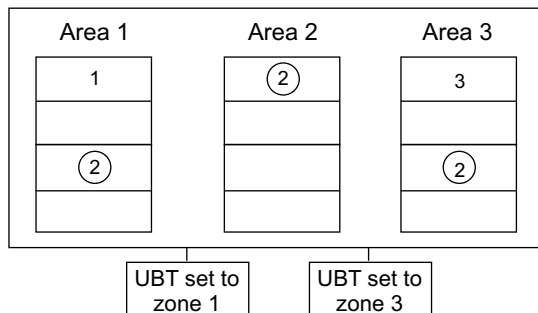
### B: One Partition Open, One Closed

With the left-hand partition opened, the three rooms now behave as two. Area 1 and Area 2 operate together as both are now on zone 2.



### C: Both Partitions Open

When both partitions are open the three areas behave as one. If an application requires more than two partitions some permutations will not be possible.



## Setting up the Universal Bus Transceiver (UBT)

The partition function is available on any of the three switch inputs and may be selected by the infrared programmer, HP2. The partition switch should be a standard, normally-open magnetic type connected between the input and common. When used as a partition controller, the link JP1 should be set in the 'Edge Triggered' position (see UBT Installation Instructions W4078). The UBT will also 'partition itself' by dissociating its own third and fourth zones when the partition is closed. Ergo, by careful allocation of zones, it may be used to control lighting and other loads at the same time as providing the interface to the partition switch.