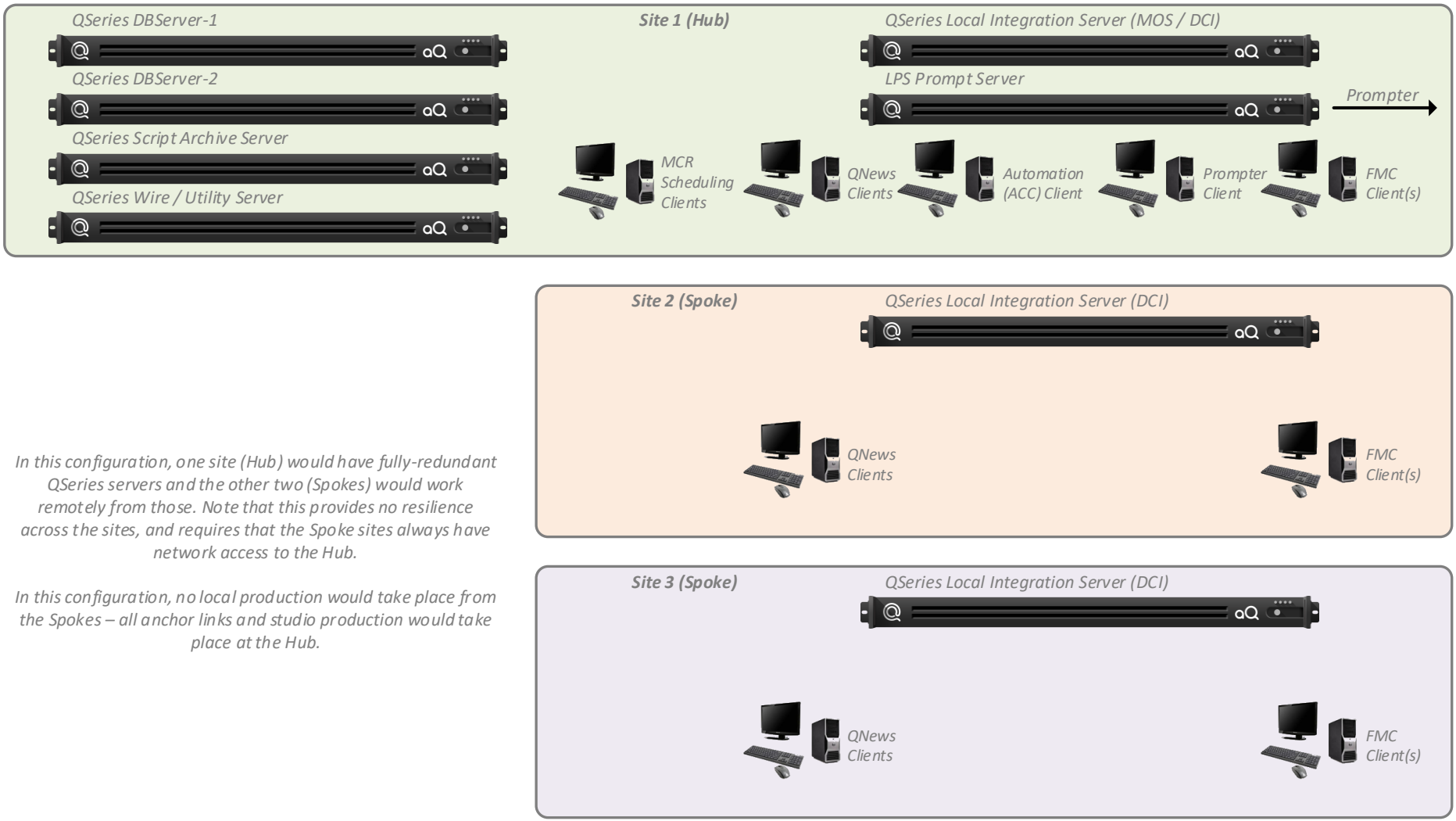
Centralised News (no local production whatsoever) - QNews system outline



In this configuration, one site (Hub) would have fully-redundant QSeries servers and the other two (Spokes) would work remotely from those. Note that this provides no resilience across the sites, and requires that the Spoke sites always have network access to the Hub.

In this configuration, no local production would take place from the Spokes – all anchor links and studio production would take place at the Hub.

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aQ Broadcast system examples – centralised QNews NRCS system		
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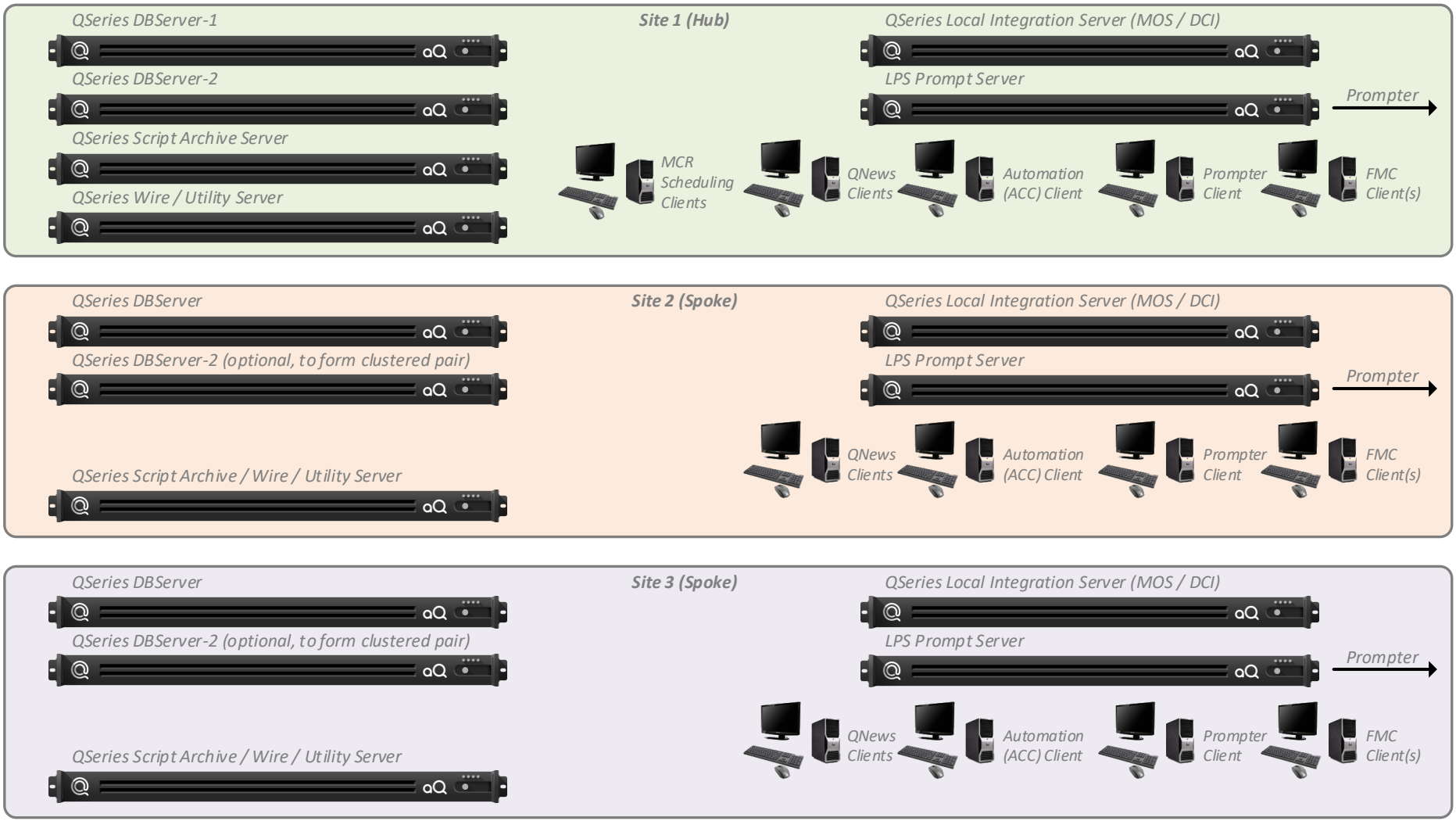
Distributed News (news production at each site) - QNews system outline



In this configuration, the Hub site would have fully-redundant QSeries servers and the two Spoke sites would have simpler configurations, but could operate locally regardless of inter-site network access. In the event of a DBServer failure at one site, users could work from another DBServer instead (assuming internet connectivity is still available).

aQ Broadcast system examples – three-site QNews NRCS system		
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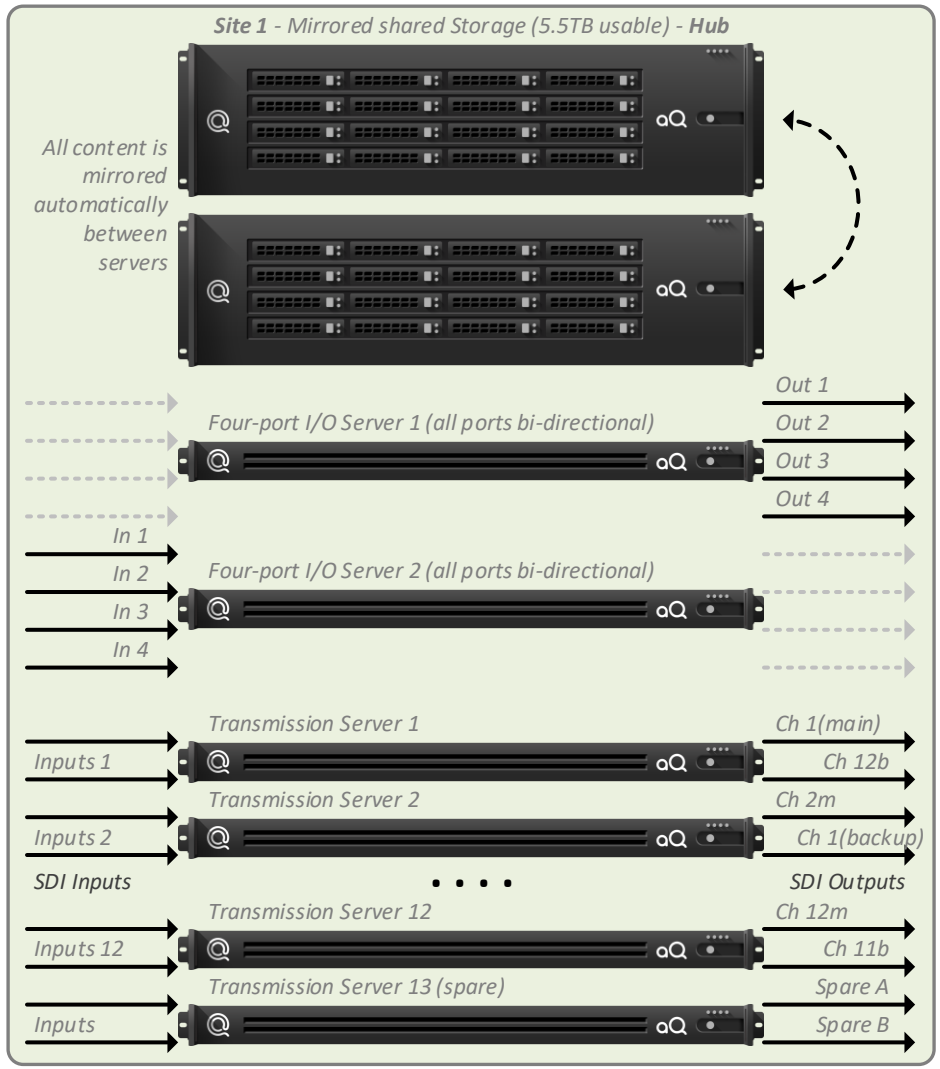
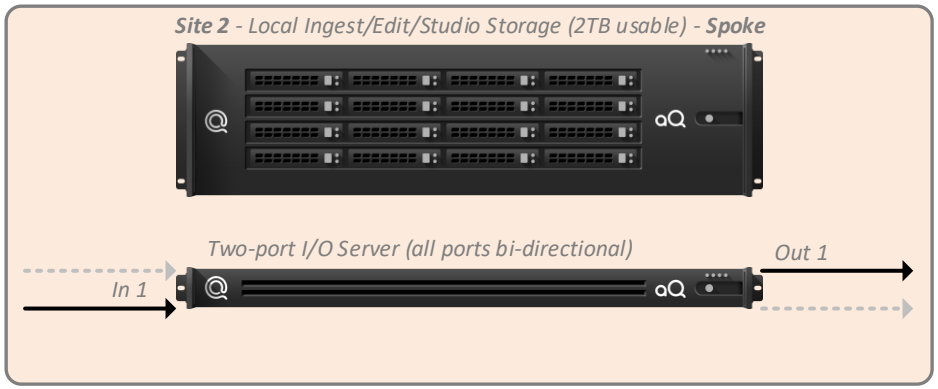
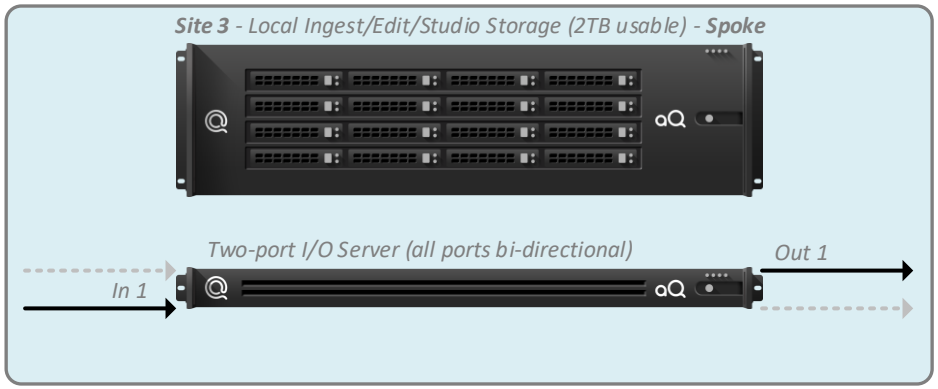
Option A: Centralised MCR and Centralised News (no local production whatsoever) - aVS system outline (Spoke sites have limited capacity and ports)







All ports are bi-directional SDI with embedded audio. This configuration provides a total of 8 ports at the Hub and 2 ports in each of the Spoke sites. Half are nominally configured as recorders and half as players, but any allocation can be switched on-the-fly. Alternatively, the number of I/O servers could be decreased or increased dependent upon the exact requirement.

Each Transmission (Tx) Server can support two outputs – one main and one backup – which in principle provides resilience even if two Tx servers fail. Tx Servers will 'prefer' one Store but will use content from the other automatically when necessary. Servers can switch between clip sequences and live inputs based on the schedule, if required. Transmission and I/O Servers have broadly similar hardware, with different firmware configurations. If necessary a server could be re-purposed within a few minutes, so an I/O Server could be converted to a Transmission Server in an emergency, for instance.

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The three Stores can appear as single MAM 'volume'. Media can be copied automatically from Store to Store as required, or can be moved manually directly from one to another.
Storage servers can be built with an expansion port, allowing storage to be expanded in-place in the future if required.

aQ Broadcast system examples – centralised MCR aVS system		
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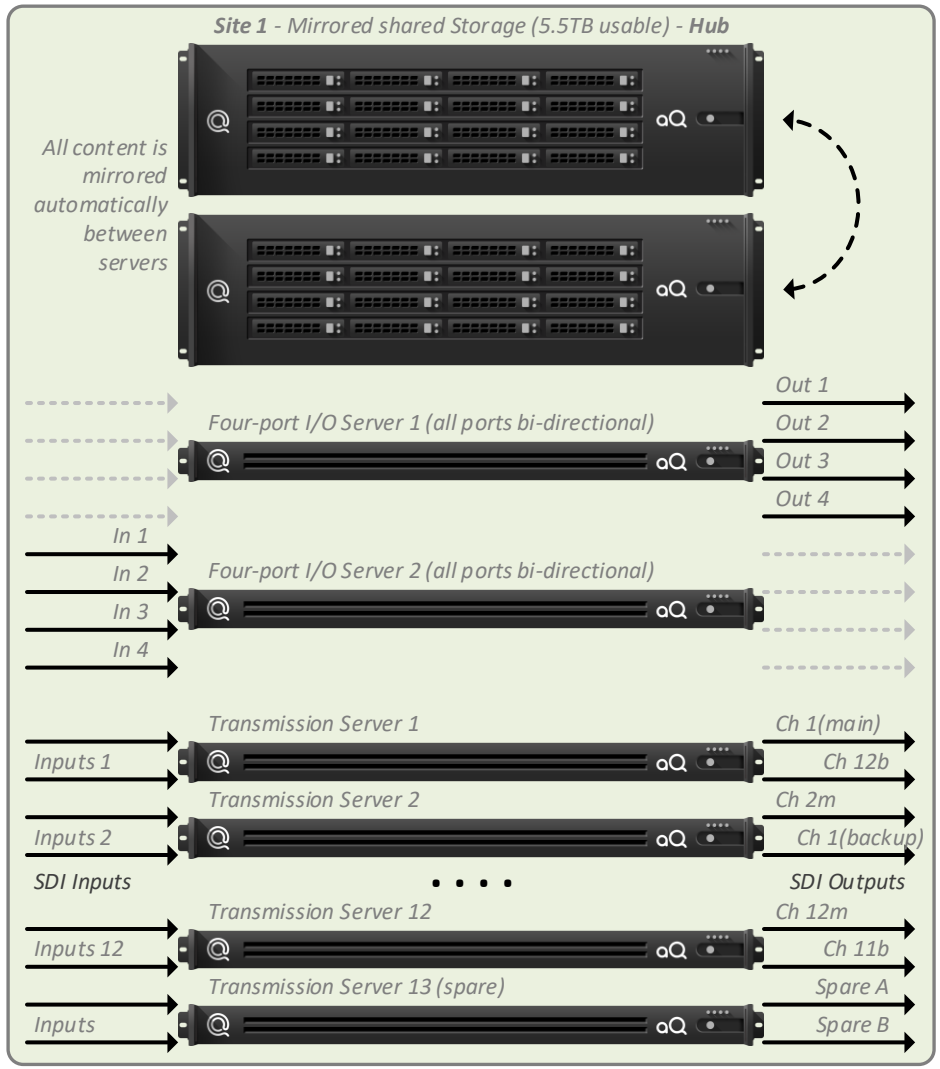
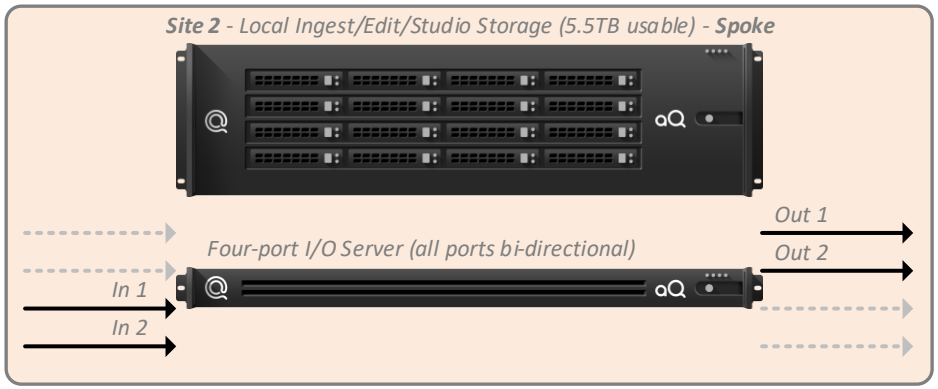
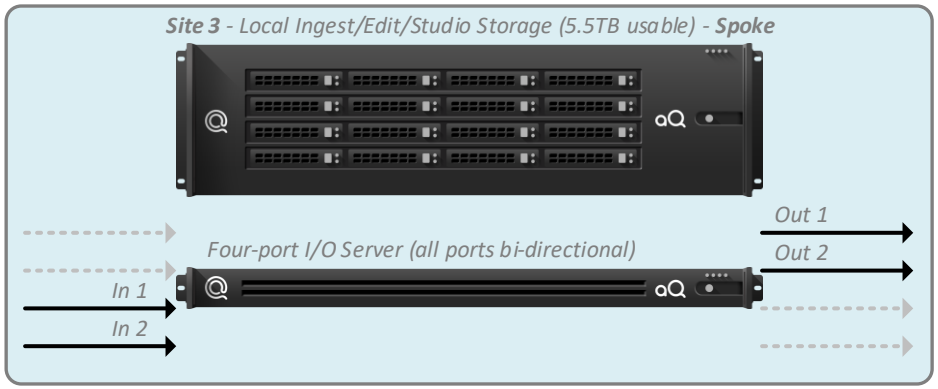
Option B: Centralised MCR and Distributed News - aVS system outline (Spoke sites have additional capacity and ports)







All ports are bi-directional SDI with embedded audio. This configuration provides a total of 8 ports at the Hub and 4 ports in each of the Spoke sites. Half are nominally configured as recorders and half as players, but any allocation can be switched on-the-fly. Alternatively, the number of I/O servers could be decreased or increased dependent upon the exact requirement.

Each Transmission (Tx) Server can support two outputs – one main and one backup – which in principle provides resilience even if two Tx servers fail. Tx Servers will 'prefer' one Store but will use content from the other automatically when necessary. Servers can switch between clip sequences and live inputs based on the schedule, if required. Transmission and I/O Servers have broadly similar hardware, with different firmware configurations. If necessary a server could be re-purposed within a few minutes, so an I/O Server could be converted to a Transmission Server in an emergency, for instance.

aQ Broadcast

The three Stores can appear as single MAM 'volume'. Media can be copied automatically from Store to Store as required, or can be moved manually directly from one to another.
Storage servers can be built with an expansion port, allowing storage to be expanded in-place in the future if required.

aQ Broadcast system examples – centralised MCR aVS system		
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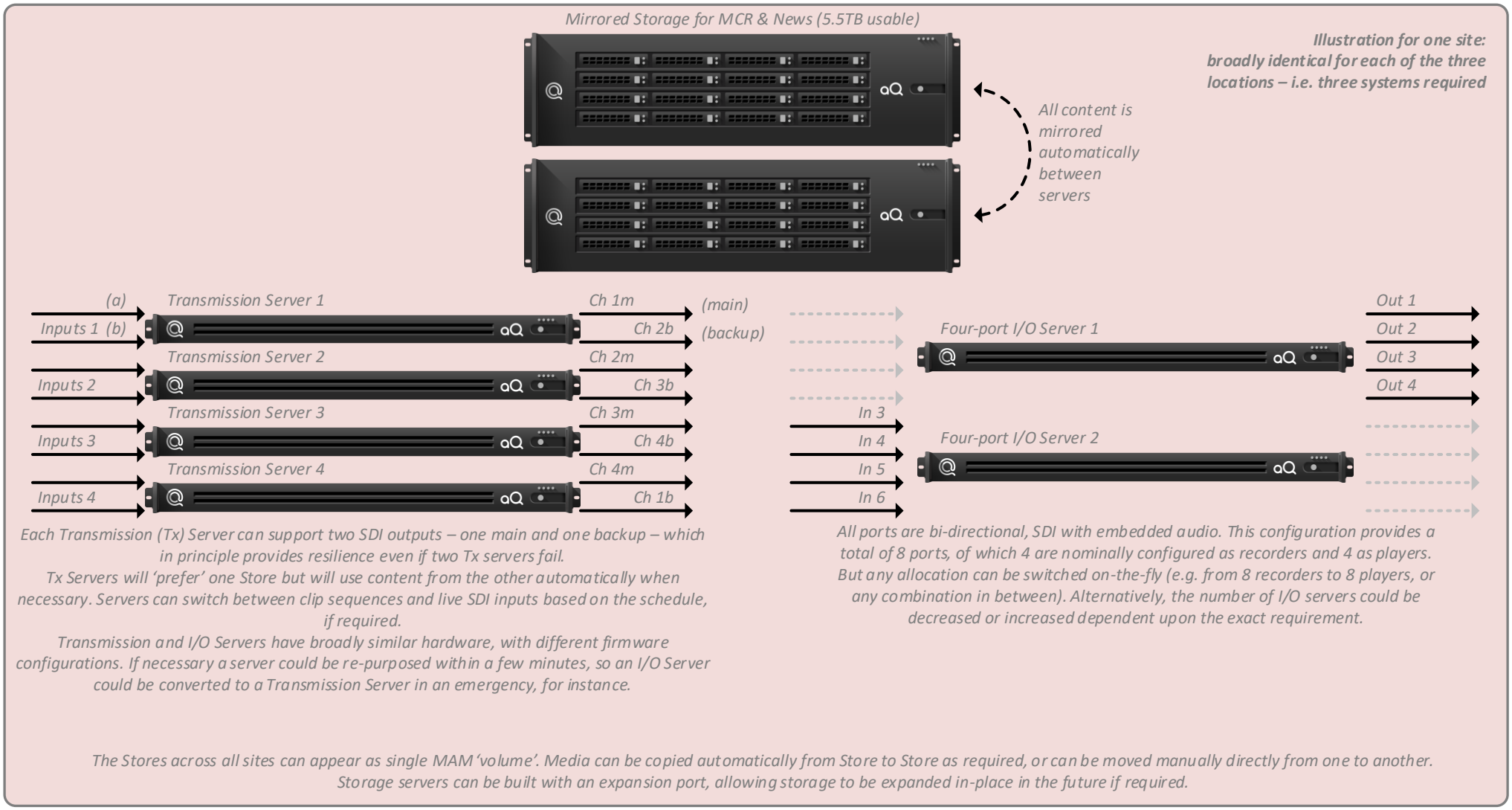
Option C: Distributed MCR and Distributed News - aVS system outline (Combined, mirrored MCR & News store, per site)



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aQ Broadcast system examples – MCR & News aVS system		
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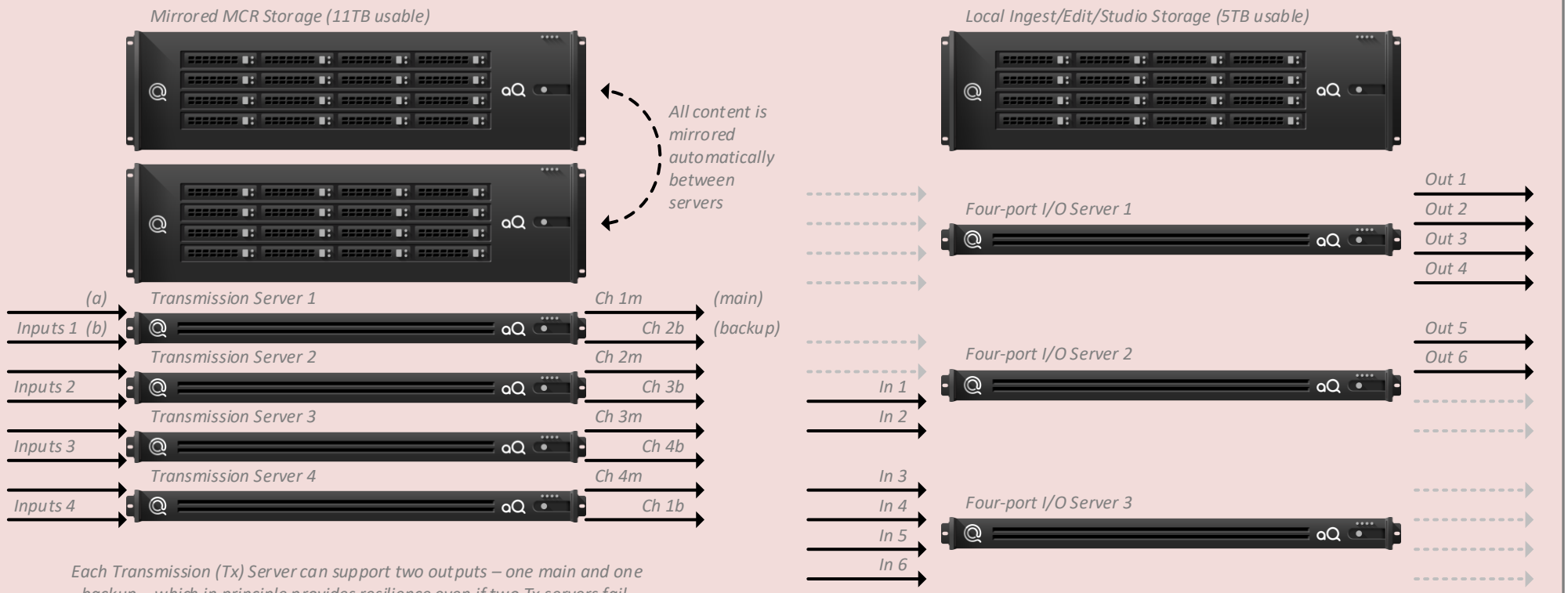
Alternate configuration: MCR and News - aVS system outline (with mirrored MCR stores & separate News store)



Each Transmission (Tx) Server can support two outputs – one main and one backup – which in principle provides resilience even if two Tx servers fail. Tx Servers will 'prefer' one Store but will use content from the other when necessary. Servers can switch between clip sequences and live inputs based on the schedule, if required.

All ports are bi-directional. This configuration provides a total of 12 ports, of which 6 are nominally configured as recorders and 6 as players. But any allocation can be switched on-the-fly (e.g. from 12 recorders to 12 players, or any combination in between). Alternatively, the number of I/O servers could be decreased or increased dependent upon the exact requirement.

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aQ Broadcast system examples – MCR & News aVS system		
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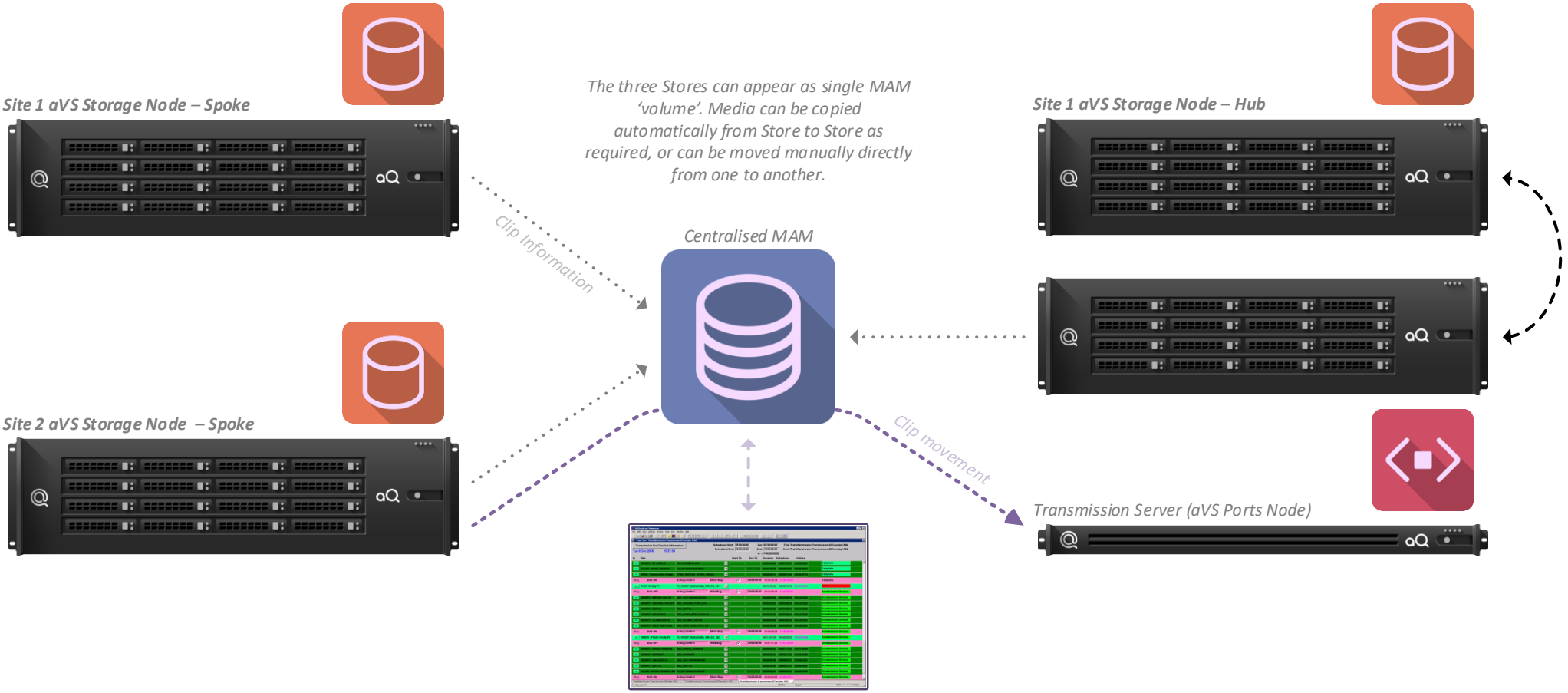

Once content is available on a Store, it is accessible to any part of the system via the central MAM. For instance, an edited package could be placed on Spoke 2. It would be recognised by the scanning process and added to the central database as an asset in that location. Once it is part of the central database, it could be added to anynews running order or transmission schedule, for instance at the Hub. In that case, in order for the clip to be played from there, the system will automatically copy the clip from Spoke 2 to the Hub, and the database record will be updated to reflect that the single asset now has copies on two different Stores. In addition, the copy from one location to another is 'intelligent' - if the original version is a high-quality edit version (e.g. high-bandwidth, i-frame only) but the copy is only required for transmission purposes, then a conversion is included as part of the copy (e.g. to a lower-bandwidth, long-GOP version). This can significantly reduce the file size and therefore increase the transfer speed.

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aQ Broadcast system examples – centralised Asset Management		
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