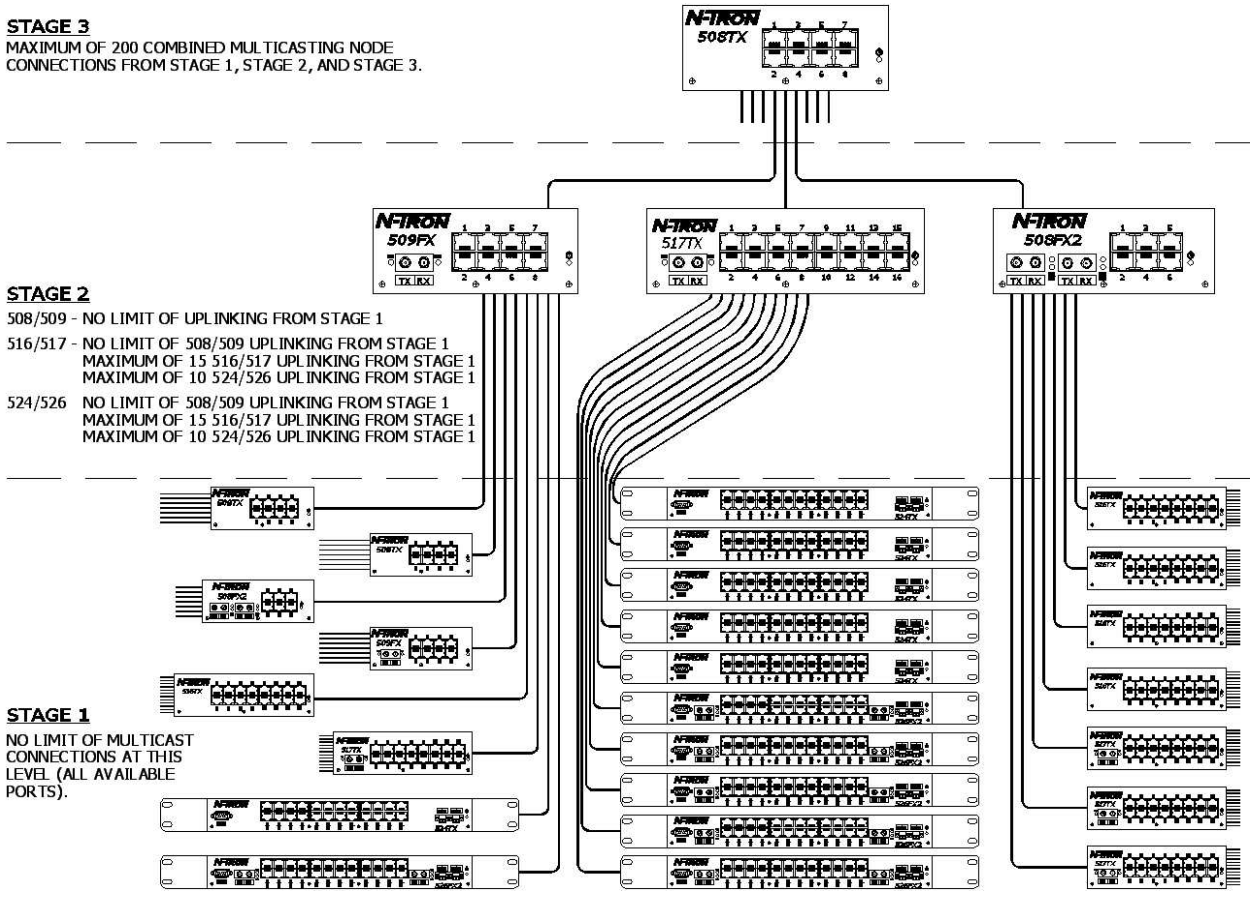
500 SERIES STACKED SWITCHES IGMP MULTICAST LIMITATIONS

With Quality of Service (QOS) *DISABLED, as in factory defaults out of box:*

To prevent IGMP Multicast congestion problems, the following rules should be followed for multicast frames of up to 256 bytes each:

1. IGMP Snooping should be enabled, as in factory defaults out of box, and other multicasting devices in the LAN should be compliant.
2. No more than three stages of switches should be stacked if the bottom layer is composed of simultaneously multicasting devices. (Reference the figure below.)
3. In stage 1, all ports of any 500 series '–A' switch may be connected to multicasting devices. **NOTE: A fiber ring, backbone, or trunked architecture is basically stage 1 for these purposes.**
4. In stage 2:
    a. 508/509: No limit to uplinks from stage 1.
    b. 516/517/524/526:
        i. no limit to the number of 508/509's uplinking from stage 1.
        ii. Limit = 15 of 516/517's uplinking from stage 1.
        iii. Limit = 10 of 524/526's uplinking from stage 1.

    NOTE: Simultaneous wirespeed unicast traffic has virtually no effect on these limits.
5. Stage 3 should have no more than 200 multicasting nodes below it.



With Quality of Service (QOS) *ENABLED, which would have to be manually configured:*

To prevent IGMP Multicast congestion problems, the following rules should be followed for multicast frames of up to 256 bytes each, when QOS is enabled:

1. IGMP Snooping should be enabled, as in factory defaults out of box, and other multicasting devices in the LAN should be compliant.
2. No more than three stages of switches should be stacked if the bottom layer is composed of simultaneously multicasting devices. (Reference the figure below.)
3. In stage 1, all ports of any 500 series '–A' switch may be connected to multicasting devices. **NOTE: A fiber ring, backbone, or trunked architecture is basically stage 1 for these purposes.**
4. In stage 2:
    a. 508/509:
        i. no limit to the number of 508/509's uplinking from stage 1.
        ii. Limit = 6 of 516/517's uplinking from stage 1.
        iii. Limit = 4 of 524/526's uplinking from stage 1.
    b. 516/517/524/526:
        i. Limit = 12 of 508/509's uplinking from stage 1.
        ii. Limit = 6 of 516/517's uplinking from stage 1.
        iii. Limit = 4 of 524/526's uplinking from stage 1.

    NOTE: Simultaneous wirespeed unicast traffic has virtually no effect on these limits.
5. Stage 3 should have no more than 90 multicasting nodes below it.