The 5-4-3-2-1 Rule in Networking

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The 5-4-3-2-1 rule is basically a design specification for a network. It represents the creation of single collision domain. A **single collision domain** is a segment of cable over which two stations can't communicate the data at the same time. If the communication occurs, collision will happen. According to the rule, in one network, only five segments can be created having four repeaters, three populated segments and two link segments.

The 5-4-3-2-1 rule can explained as:

5 - The number of Segments

4 - The number of repeaters

3 - The number of Populated Segments

2 - The number of link segments (or unpopulated segments)

1 - The number of Network

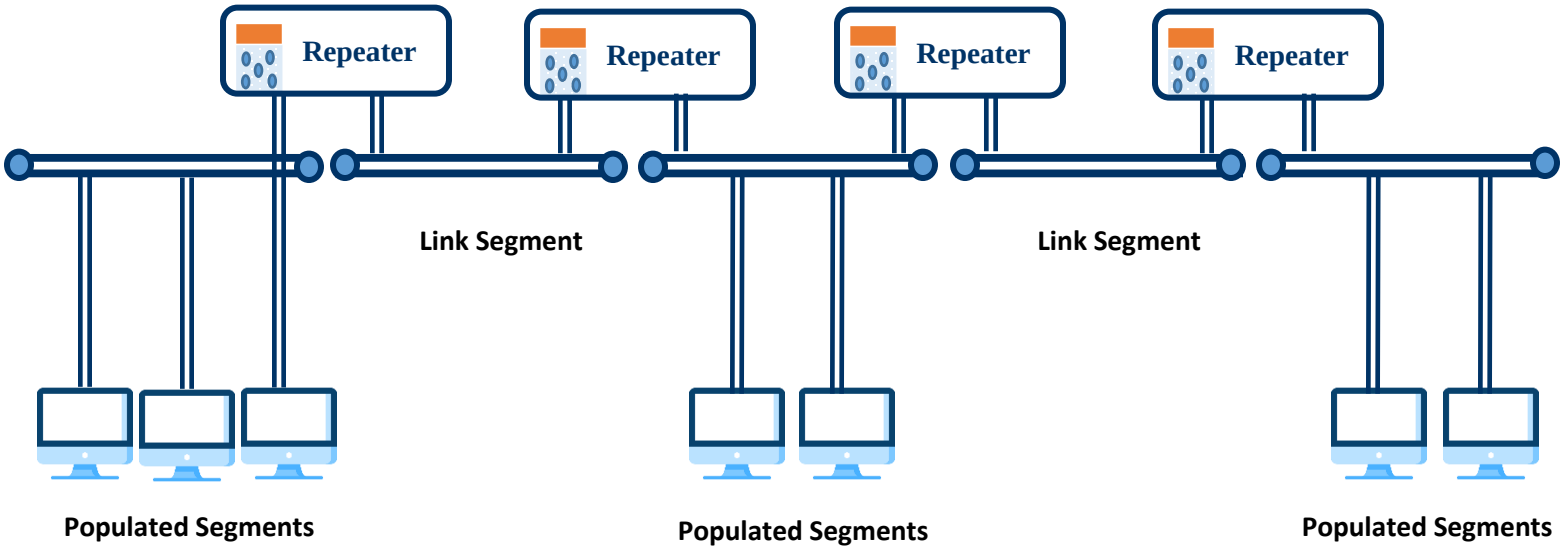

Figure 1 Representation of 5-4-3-2-1 Rule

IMPORTANT TERMS:

Segment: A portion of a computer network that is separated from the rest of the network by devices such as a hub, repeater is known as segment.

Repeater: An electronic device that regenerates or boost up the weak signals so that it can go further is known as repeater.

Populated segments: Segments that are connected to terminals of repeater are known as populated segments.

Link segments: Segments that are not connected to terminals of repeater are known as link segments.

Network: A data communication system in which two or more entities are connected to each other through some transmission medium in order to share **data** and **resources.**