case $\diagdown$ N_D	+1	0	-1
node with only outgoing links	all new links are connected to redundant nodes	a new link is connected to a critical node or intermittent node	
node with only incoming links	all new links are connected to redundant nodes	a new link is connected to a critical node or intermittent node	
node with both outgoing and incoming links	all new links are connected to redundant nodes	only one type of links(incoming or outgoing) are connected to critical nodes or intermittent nodes	links connected to critical nodes or intermittent nodes have both outgoing and incoming links