Even-odd transition sort network

Array sorted

	3	3	3	3	2	2
4						
	4	4	4	2	3	3
3						
	5	5	2	4	4	4
5						
	6	2	5	5	5	5
6						
	2	6	6	6	6	6
19						
	19	19	19	19	19	19
2						

N elements in array

Depth

● = comparators connected to wires

— = wires

| = comparator

╱ = shows sorted array in obliquely

$\underline{E}$ = elements swapped

$N = 6$
$depth(N) = 6$
$comparators = \dfrac{N(N-1)}{2}$
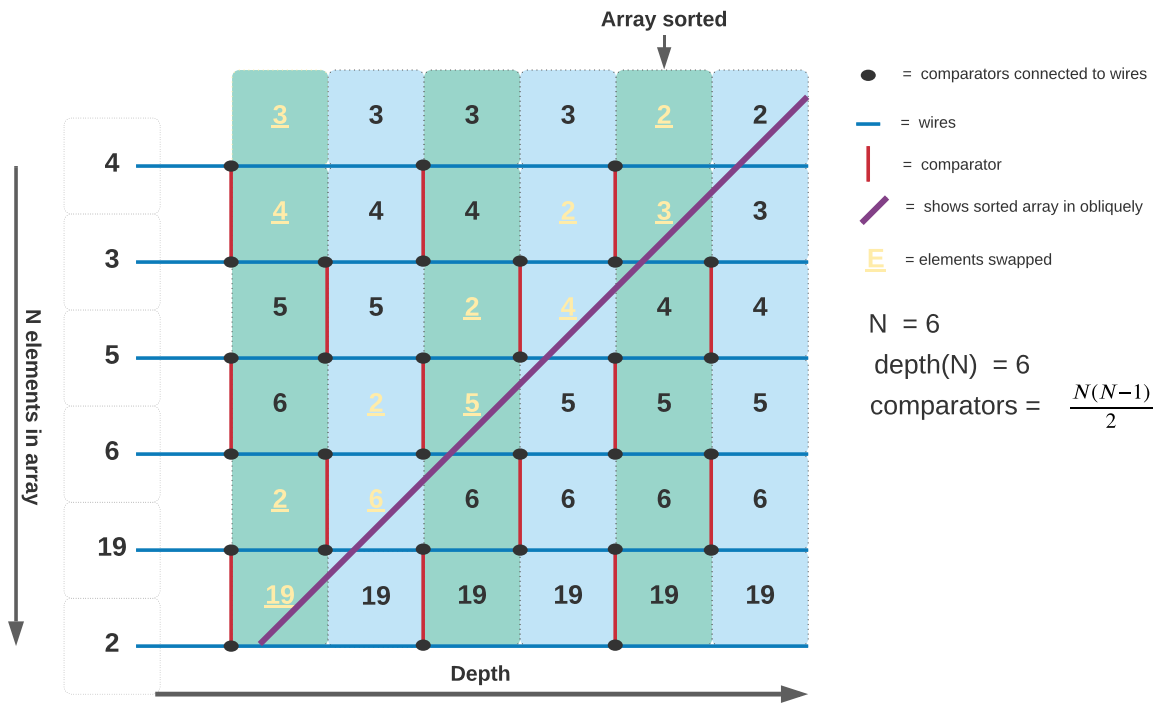
Even-odd merge sort network

Array sorted

N elements in array

Depth

$N = 8$
$depth(N = 2^p) = \dfrac{p(p+1)}{2}$
$depth\ (N) = 6$

$comparators\ (N = 2^p) = \left(p^2 - p + 4\right) 2^{p-2} - 1$
$comparators\ (N) = 19$