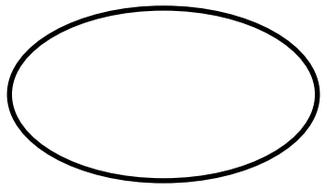
Intent-based SDN multi-domain specifications

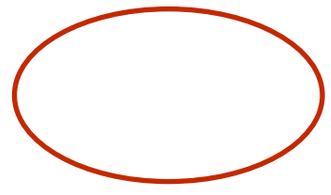
17.10.2017

Questions from Tong

Definitions



inactive domain



active domain

WANA VNF

SHAPER VNF

DPI VNF

End VNF

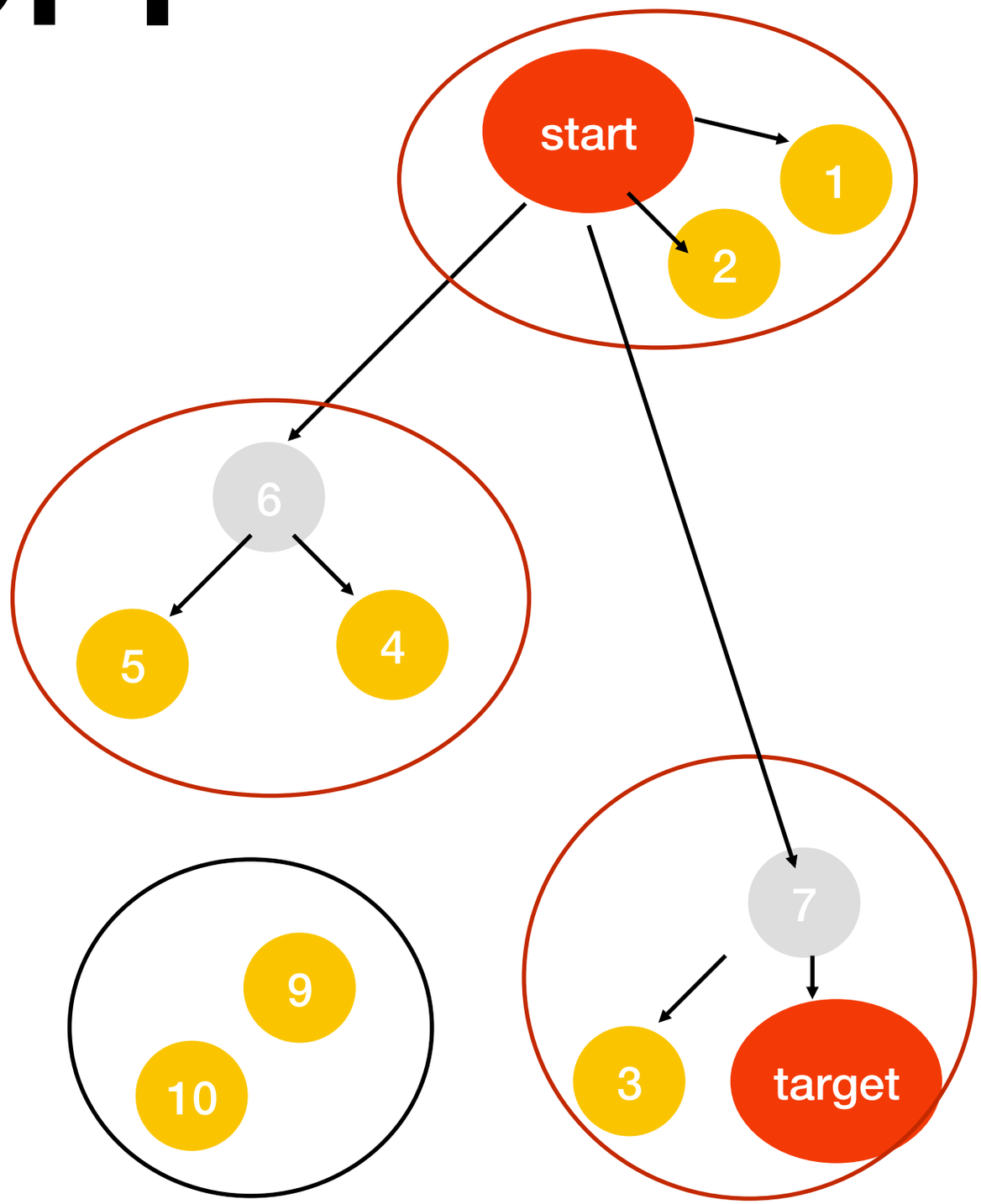
DPI

1) When DPI is required, assume that all DPIs in the active domains must be connected.

2) DPI never have an outflow

Correct?

CORRECT
An additional constraint that could be added (that could be a predicate to be applied when needed) is to force the DPI to be in the closest possible domain.



WANA

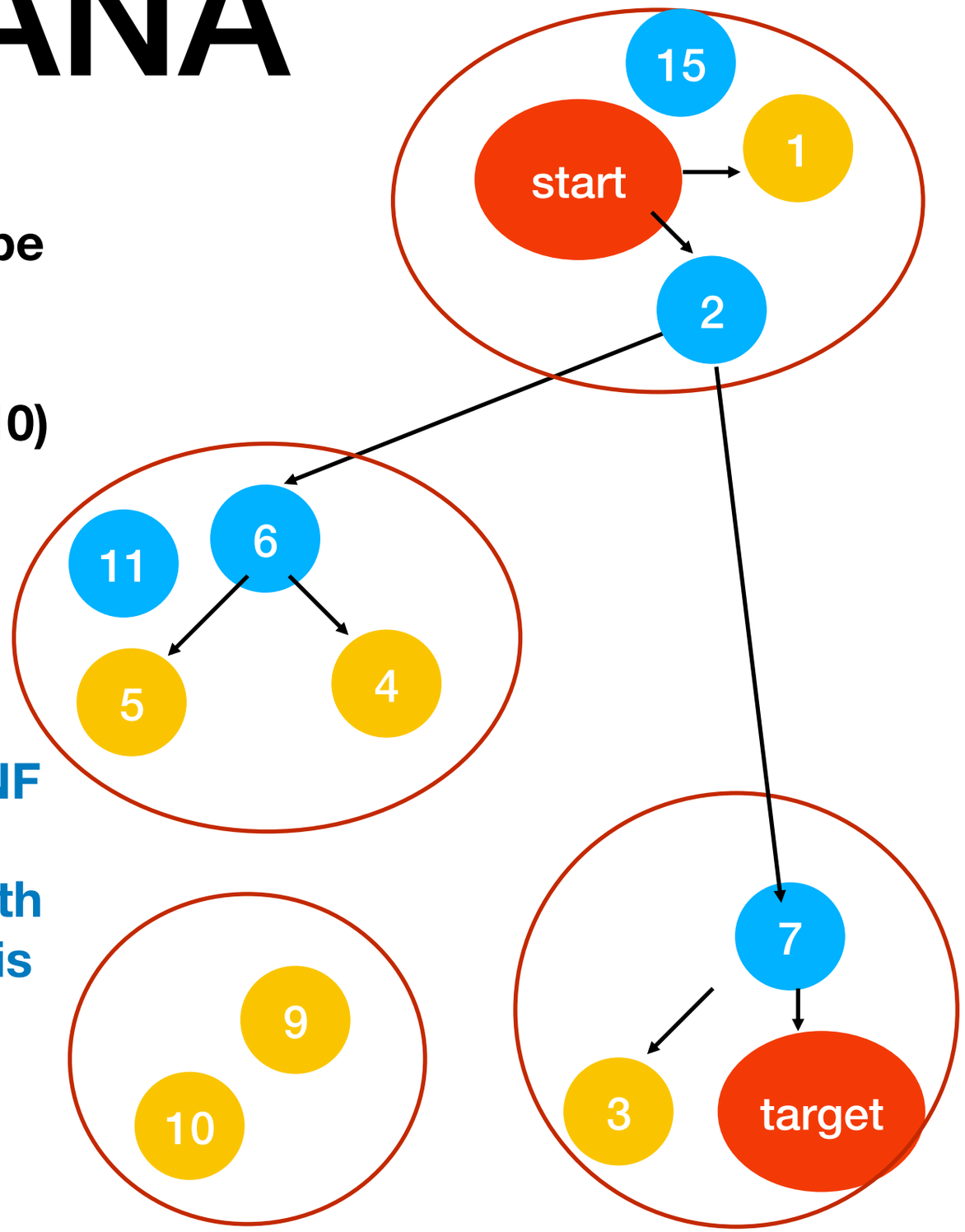
1) When WANA is required, we assume that in each active domain there must be at least one WANA in order to reach other nodes. If there is no WANA, no nodes could be connected (e.g. 9 and 10)

2) WANA must have an outflow

Correct?

CORRECT

In words we can say that WANA is a VNF that can be used just in couple. If we have a WANA at the edge of a given path we need a WANA at the other edge. This again is a requisite that may be more general and could turn into a predicate for VNF with this characteristic



SHAPER

1) When SHAPER is required, all shapers in all active domains should be connected

2) outflow of shaper is optional (node 1)

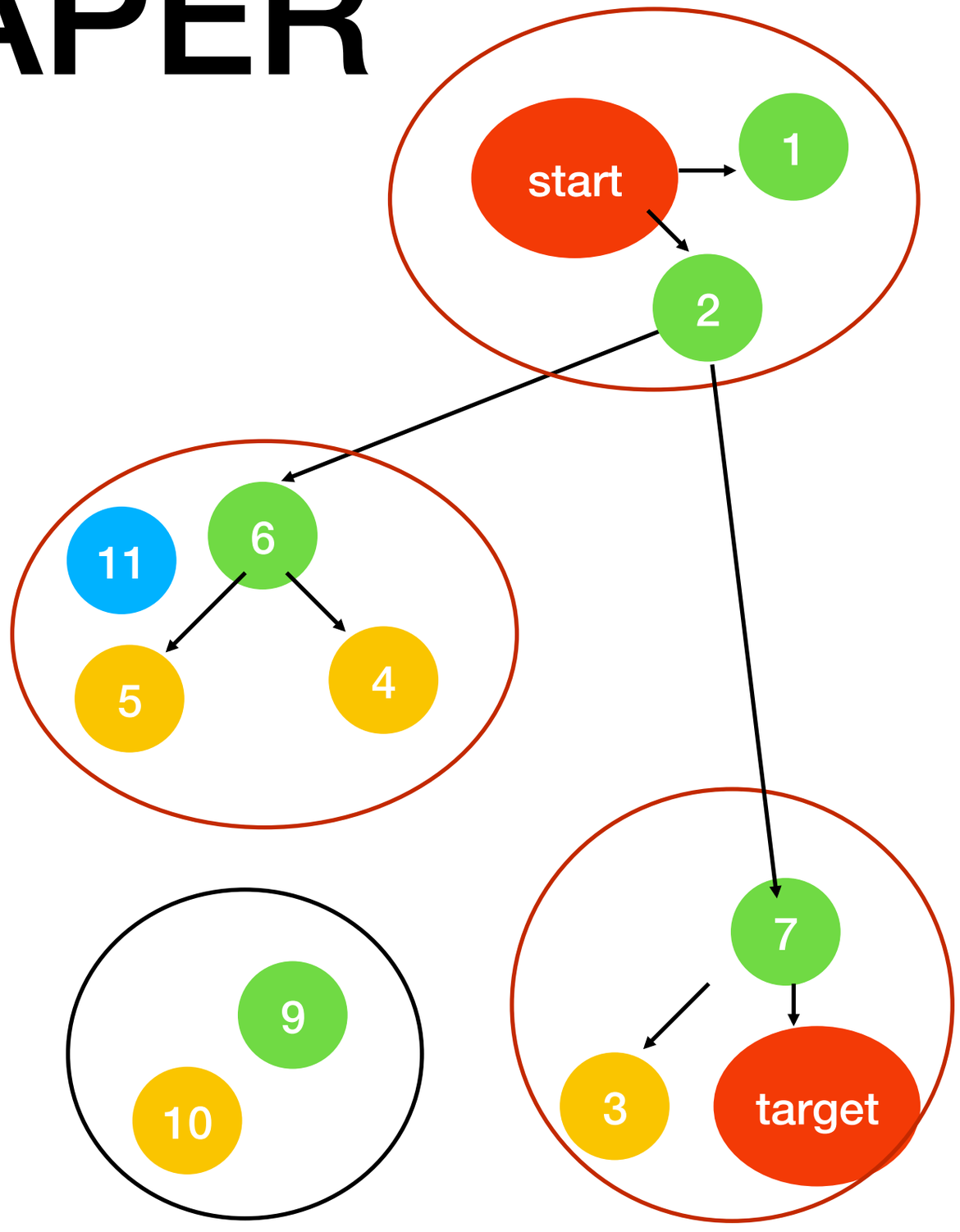
Correct?

NOT CORRECT

The shaper is a VNF that controls the traffic profile. For instance limits the peak bandwidth by dropping packets or enforce an average bandwidth by queuing and spacing the packets in time.

The traffic enters the shaper in its original form and exit modificied according to the shaper policy.

If you shape the traffic in 2 you do not need to do it again in 6 and 7.



WANA+SHAPER

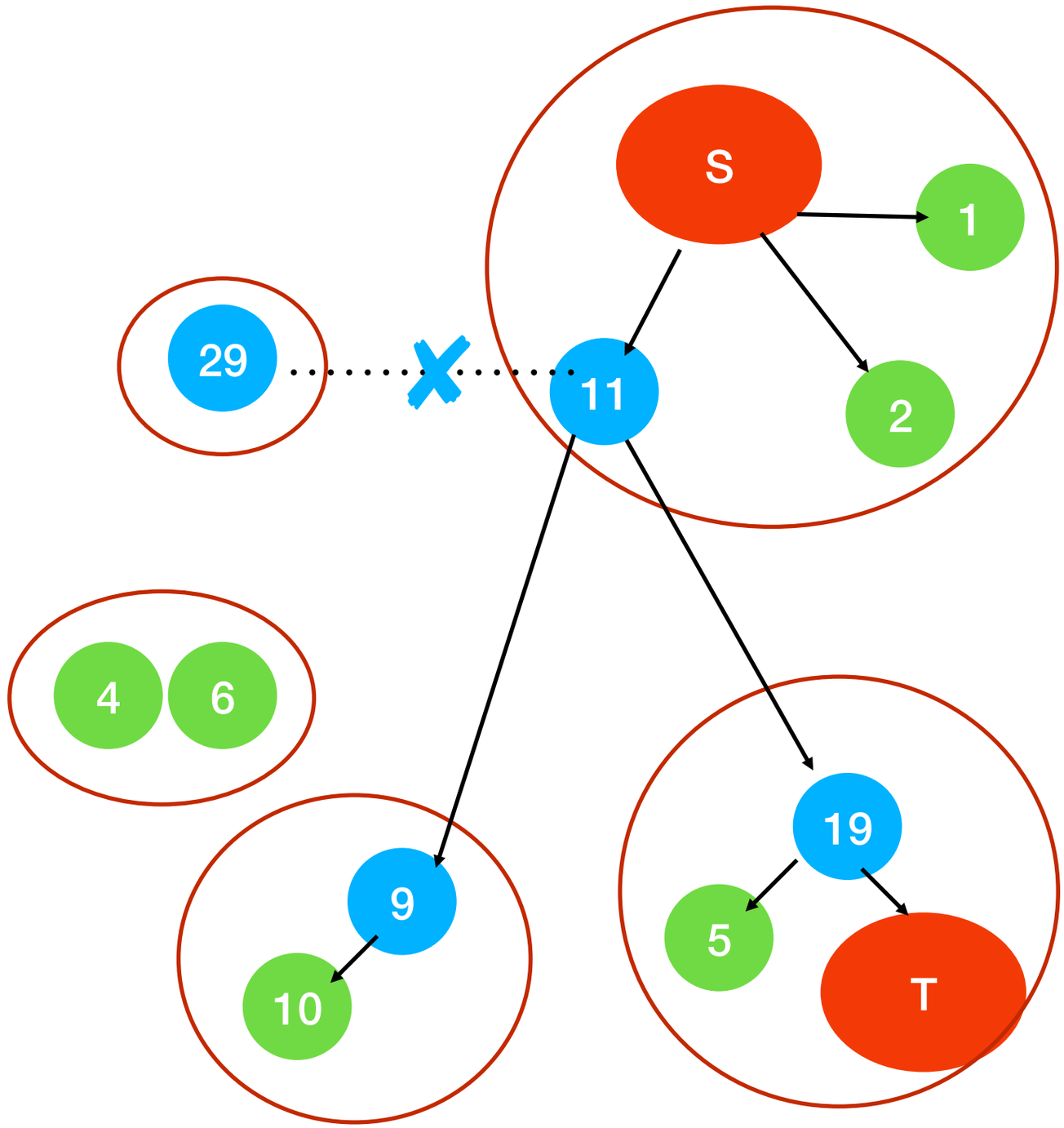
1) If WANA does not have outflow in the same domain, the connection will not be established.

2) node 1, 2 should be connected without passing through WANA node 11.

Correct?

HELP

I do not understand this we need to talk about it

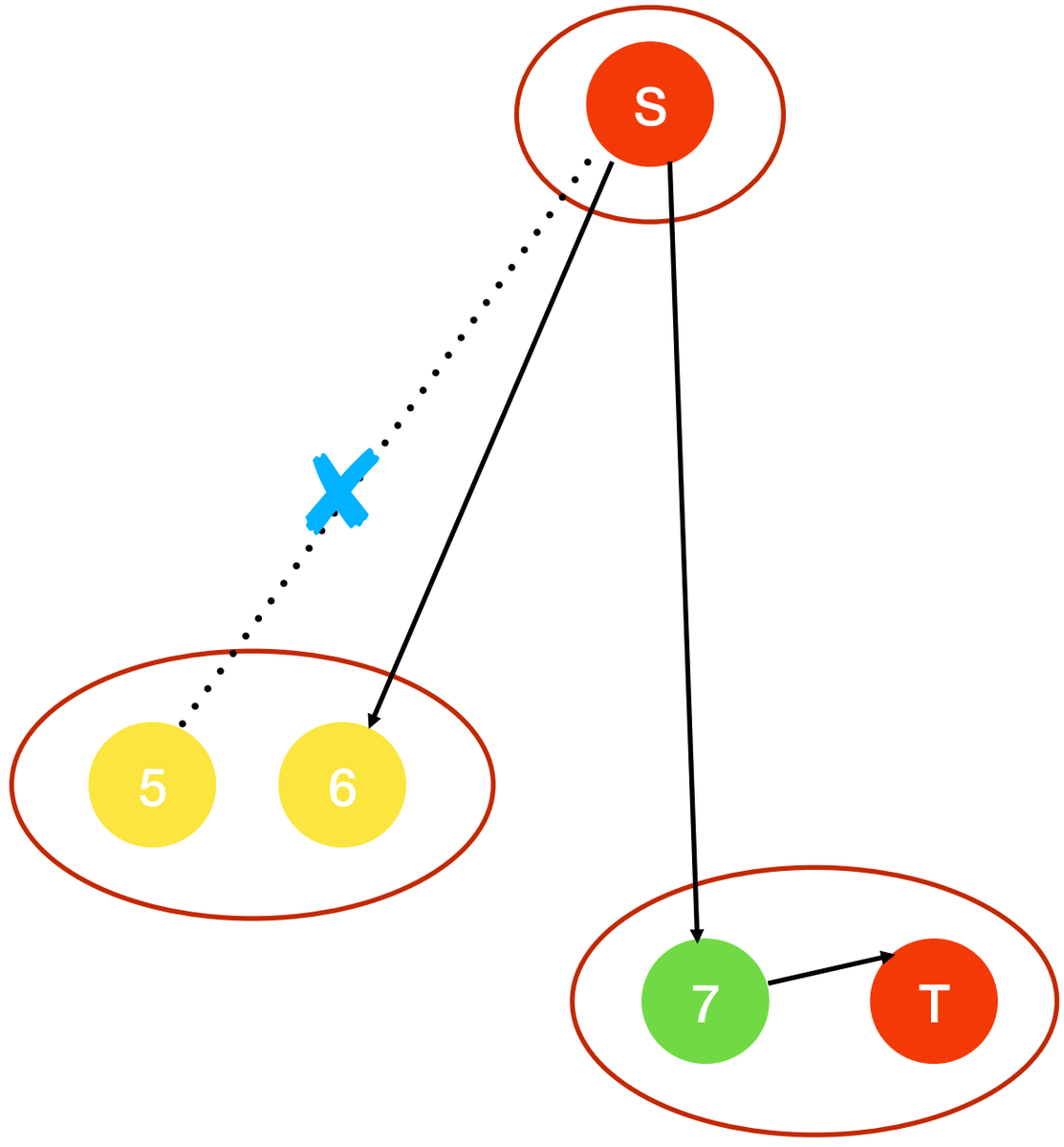


Link between domains

At most one link in each pair of domains

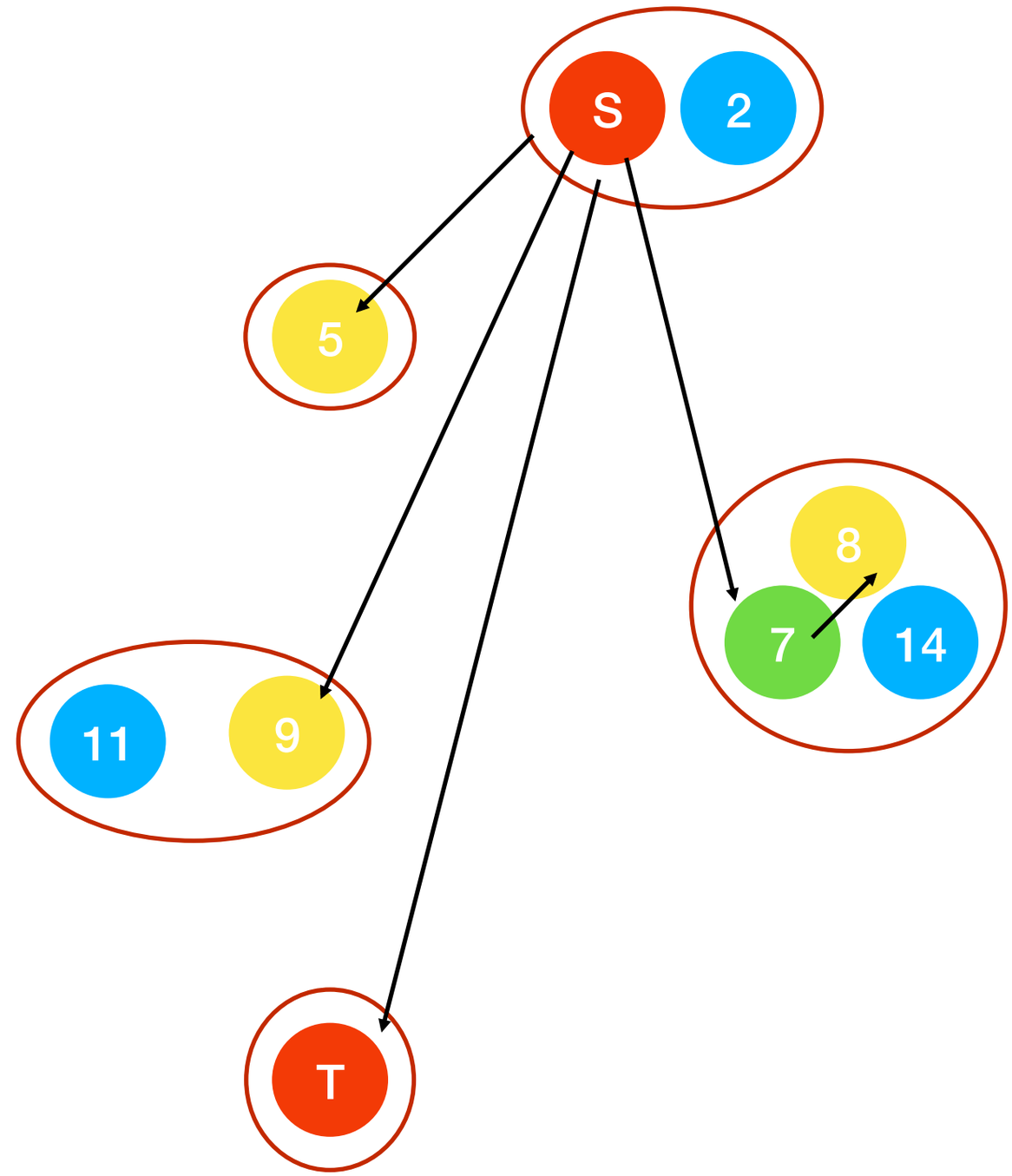
Correct?

YES this is correct for the time being



WANA feasibility

If WANA is missing in one of the Start/Target domain, then the connection is established without WANA.

Alternative, will not establish connect.

Correct?
CORRECT