Update

draft-ietf-lsr-distoptflood-05

IETF 120

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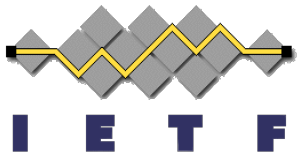
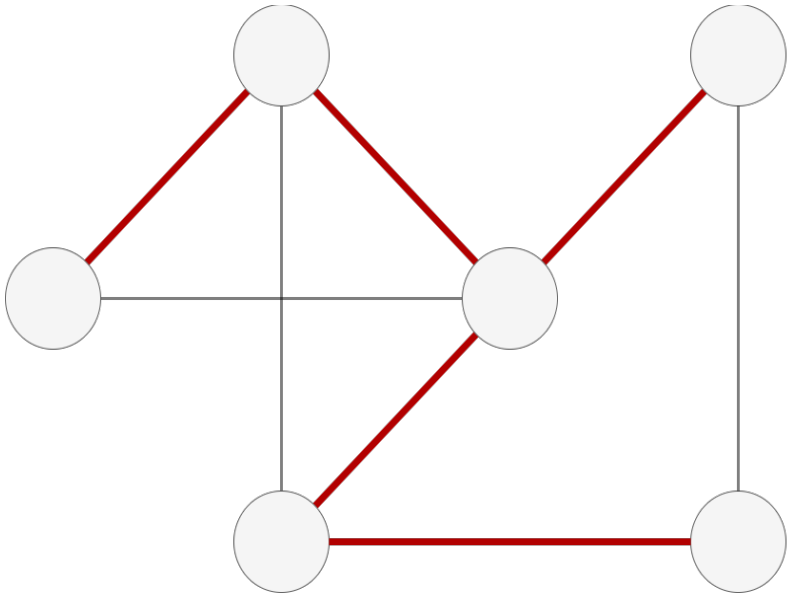


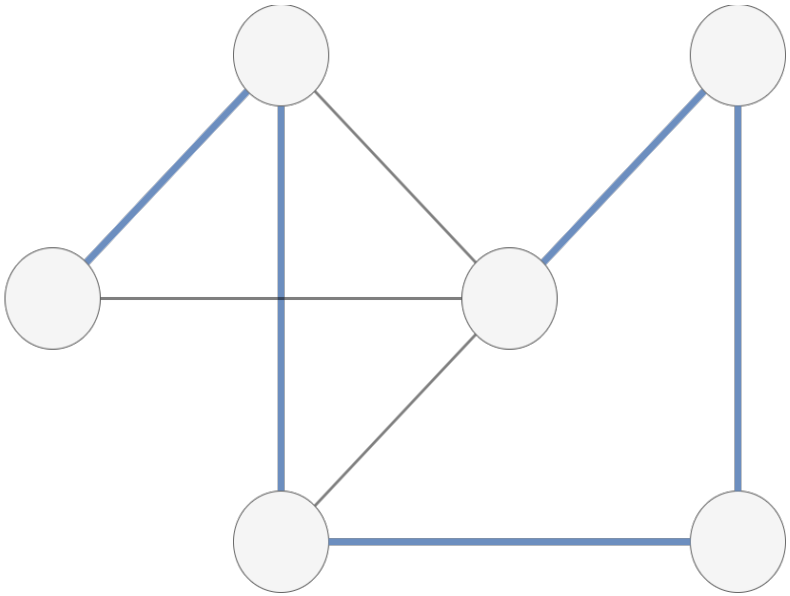
What's New

- Co-authors filled up the ledger
- A new requirement integrated
- So far default algorithm provides
  - No centralized entity necessary, no single change on network can have network wide blast radius except possibly change of the links forwarding
  - No configuration necessary
  - Can be introduced/removed into/from network node by node
- New requirement
  - Possibility to have more than one algorithm at the same time on the network (migration scenario)
  - Consequently, signaling to discover what algorithm is running, and on which nodes is necessary

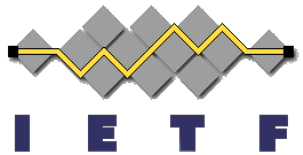
We have now Bunch of CDSes

- So, what is an Edge Connected Dominating Set (CDS) first
  - Set of edges that touches all nodes and is capable of forming a path between any pair of nodes (set of edges can have loops unless defined otherwise)
  - Multiple CDSes are possible on any reasonably connected topology



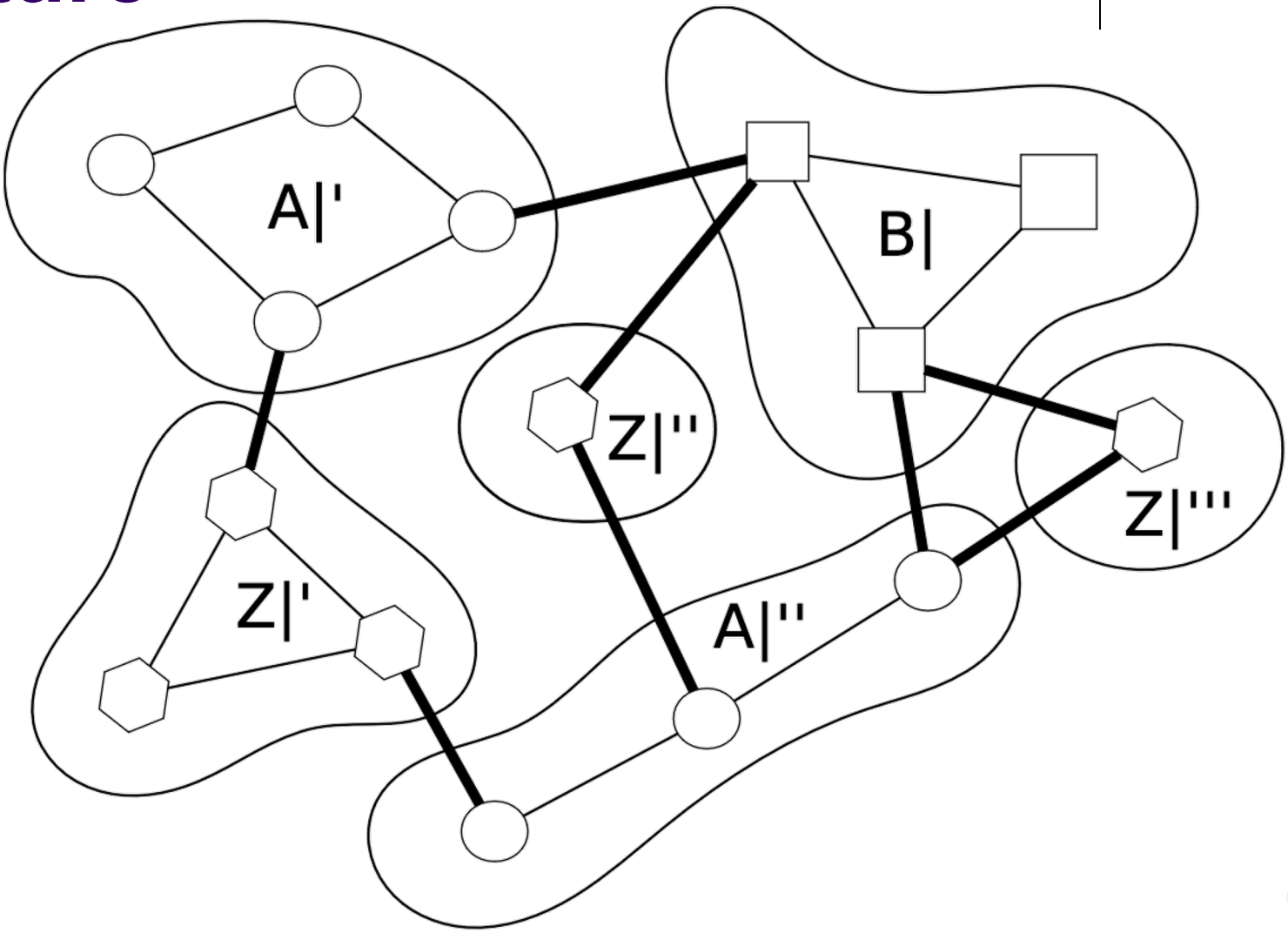


Each Algorithm is CDS Builder



- Set of node signalling an algorithm A over which a CDS is built is denoted as **component |A**
  - Algorithm builds obviously a CDS which we denote as |A*
  - Default is-is is special known case where no signalling indicates it and the underlying CDS are all edges and we call the componet(s) |Z, |Z' and so on
- However, we force such an algorithm to form a CDS over its component **and** include all the edges where it touches any other component into flooding
  - Such algorithm gets called by the term of **'prunner'**
- Footnote 1: In case you dislike the terms talk to graph theory folks dead by now for well over 100 years (though prunner is new)

A Picture, a pony for a picture



Rest is Almost Trivial

- Simply a TLV with algorithm number
- Nodes can obviously change algorithm at will
  - Biggest impact possible is recomputation in 2 components
- A prunner is allowed to play tricks with the fact that Z| behavior is well known

And a last trick question

- So why don’t we build a CDS of CDS but we really run Meta Z| behavior on the graph connecting components (i.e. full flooding between components)?