15.081 Fall 2009
Recitation
for Lectures {16-17}
Network Flows

1 Standard Network Flow Problems

1. Min cost flow problem
2. MAx Flow Problem
3. Min cut problem

Duality of MAx-flow and MinCut was also discussed.

2 Formulations

Formulating a problem as a Network Flow problem allows one to use the "fast" Network-Simplex algorithm or other efficient combainatorial algorithms.

Formulating as a network flow problem involves the following steps :

1. Identify nodes
2. Identify arcs
3. Identify the costs and arc capacities - This is determined by the problem that we solve.

The first two steps are dependent on the structure of the system in question. The third one depends on the objective at hand.

Example - Tournament Elimination Problem

The following source does a very good job Tournament Elimination

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