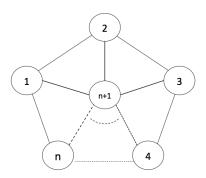
Analyzing the Number of Updates Sent

October 8, 2013

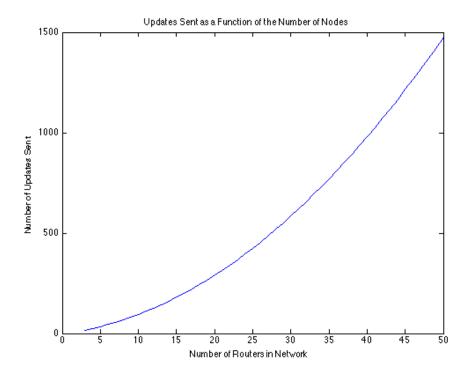
The topology used is shown below.



The total number of updates sent as a function of the number of routers in the topology is contained in the array:

 $\begin{bmatrix} 16 \ 23 \ 33 \ 45 \ 56 \ 68 \ 81 \ 95 \ 110 \ 126 \ 143 \ 161 \ 180 \ 200 \ 221 \ 243 \ 266 \ 290 \ 315 \ 341 \ 368 \\ 396 \ 425 \ 455 \ 486 \ 518 \ 551 \ 585 \ 620 \ 656 \ 693 \ 731 \ 770 \ 810 \ 851 \ 893 \ 936 \ 980 \ 1025 \\ 1071 \ 1118 \ 1166 \ 1215 \ 1265 \ 1316 \ 1368 \ 1421 \ 1475 \end{bmatrix}$

The plot of this data is shown below.



As we can see, with my RIPRouter implementation, the number of updates sent is relatively few and grows quadratically as the number of routers in the network grows. For a naive implementation, this is fantastic - our growth is not out of control and we are able to converge in a short amount of time.