

2009 Paper 7 Question 3

Advanced Systems Topics

- (a) The size and rate of growth of routing tables is an issue of considerable concern for inter-domain routing in the Internet.
- (i) Describe at least *three* factors that contribute to this problem. [3 marks]
 - (ii) How might a distinction between Locators and Identifiers help address this problem? [4 marks]
 - (iii) What are the costs and risks of implementing a Loc/ID split? [4 marks]
- (b) BGP employs a mechanism called *Route Flap Damping* (RFD) to reduce route instabilities.
- (i) Describe how RFD works. [4 marks]
 - (ii) Describe some problems with RFD. [2 marks]
 - (iii) Describe another approach to reducing the number of BGP updates. [3 marks]