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]