Scenario 3 (Maintenance)

Example Inc. is setting up a new workspace and needs to configure a firewall. It wants its employees to be able to:

- Surf the Internet (provide unrestricted Internet access to each internal computer) (Router IP: 192.168.1.2)
- Use file transfer protocol (FTP) to share files over the Internet (FTP server: 192.168.2.12)

The firewall should also take into account the following:

- Telnet request be allowed (telnet.example.com, 192.168.2.20)
- Example Inc. public website is available (www.example.com, 192.168.2.10)
- Employees working in sales and marketing department needs access to VPN (vpn.example.com, 192.168.2.11) so that they can access company's internal network while on a business meeting
- There is an attack history from COMPATTACK (compattack.example.org, 10.1.1.1). On an average, COMPATTACK (IP: 10.1.1.1) has made one attempt daily to break into the network
- There have been instances of BitTorrent (Port: 6889) being used by employees for downloading things illegally. Last year, there were ten instances of Bit-Torrent being used by seven employees for downloading illegal content
- DNS port 53 is easily used to bypass firewalls. 12 firewall breaches were reported in the last year
- COMPRESEARCH (research.example.net, 10.1.2.1) is used for research purpose. On an average, each user spends around two hours daily looking for research content on COMPRESEARCH
- COMPRECREATION (recreation.example.net, 10.1.3.2) is used for recreational purpose. On an average, each user spends around 1 hour daily surfing content on COMPRECREATION
- Eight instances of illegal music download from freesongs.example.net, 10.1.4.1

Observations after a month:

- Example Inc.'s research department (192.168.2.21) requires torrent access (port 6889) to download Linux updates
- Attack attempts from COMPATTACK2 (compattack2.example.org, 10.1.1.2)
- Instances of illegal music download from freesongscom.example.net (10.1.4.2)
- VPN access from unknownlocation.example.net (10.2.1.1) where no employee is employed
- The recreational purpose has gone up, now on an average each user spends around four hours daily surfing content on COMPRECREATION

For the scenario described above your task is to:

- Update the existing rule-set to accommodate all the requirements and the observations.
- List requirements and associate a strength value (a decimal value between 0 and 1) based on your intuition