Project Scope

You are responsible for the System Design Phase of a new project being proposed by the CEO of Health Data Systems Inc. (HDS). The initial Requirements Analysis has been conducted and agree to by the Project Sponsor and Project Manager. You, in your capacity as Senior Systems Analyst, have been tasked with developing a Network Diagram and proposing a solution for creating a new Health Billing System (HBS) that will allow for electronic billing to flow directly to Medavie Blue Cross without the burden of having the Anesthesiologist having to complete physical billing cards – as is the current practice.

The System Requirements are as follows:

1.       The new Health Billing System should maintain a history of patients, surgeries, and staff that worked on all Operating Room cases.

2.       Medavie Blue Cross staff should be able to access various Reports via a secure web page. Data encryption would be required to ensure patient data are kept confidential.

3.       Hospital Admin staff should have VPN access to the Health Billing System so that they can work from Home during the time of Covid-19.

4.       There should be an Operation Database and a Data Warehouse to facilitate Reporting.

5.       The new Heath Billing System should leverage existing data being collected via web services (api - XML) currently available :

a.       STAR (Patient Admission, Transfer and Discharge)

b.       HSM (Nursing software to determine patient procedures)

c.       PHS (Patient surgery scheduling)

6.       There should be a dedicated server to manage Backups.

Assignment 1 Submission

Please provide via BrightSpace the following documents and information:

Project Details

1.       Introduction describing the proposed solution (5 pts)

2.       Rationale for the proposed solution (include a benefit and risk) (10 pts)

3.       Servers Listed with (15 pts)

a.       CPU requirements with a paragraph on rationale

b.       Memory requirements with a paragraph on rationale

c.       Storage requirements with a paragraph on rationale

d.       Software requirements with a paragraph on rationale

e.       Anticipated costs for Hardware and Software

4.       Network Diagram (20pts)

Network Details

The Network Diagram should include the following information, inter alia:

a.       IP Addresses, Subnet Masks, Default Gateways

b.       Links to other servers/services

c.       Firewalls/DMZs if necessary (non-Cloud)

d.       Ports and Port forwarding

e.       Server Names and local Services e.g. DHCP, Database, Web Services etc.

You should submit two documents in BrightSpace:

1.       Project Details in MS Work format

2.       Network Diagram in png format (please ensure that the image is in at least 200dpi resolution so that your results are clearly viewable)

The deadline for this Assignment is Sunday, 4th October at midnight. We will work on it during class. Please feel free to ask as many questions as you may require to better understand the requirements.

Note: If you are not able to use MS Visio to create the Network Diagram, please use the following free tool: draw.io