**ISYS90076 - IT Infrastructure for eHealth**

**Minor Report #2:**

**“TeleHealth – Virtual Multidisciplinary Team Meetings (MDT’s)”**

**(1,250 words on an eHealth infrastructure problem based scenario)**

**Aim:** to provide students a scenario based infrastructure related challenge to identify plausible solutions to real world problems for various demands on eHealth infrastructure.

**Outcome:** A 1,250 word individual report - 25 marks total.

Provide a Bibliography ([APA 6th Style](http://library.unimelb.edu.au/cite/)). *Rank the top 3 sources for the report and briefly note why.*

Clearly state the number of words that are in the body of the report.

**NB:** Make plausible assumptions as required and note in an Appendix – This and any tables, diagrams, bibliography and comments are excluded from word count.

**Title: “TeleHealth – Virtual Multidisciplinary Team Meetings (MDT’s)”**

**Problem Scenario:** The Oncology Department of “MetroHealth” Hospital are struggling to engage with the wide variety of care givers when cancer patients are about to return to their communities for rehabilitation or palliative care.

The weekly Multidisciplinary Team Meetings (MDT’s) provide much needed patient handover for ongoing management. They are aimed to optimise care coordination and educate less experienced clinicians where possible – it needs to involve a team approach across the disciplines and across geographies.

The Oncologist is common to the entire list of patients but the other attendees vary for each patient being reviewed (e.g. radiation therapist, GP, palliative care physician, pharmacist, social worker, district nurse, physiotherapist, geriatrician and sometimes family members or personal carers, etc.).

To date, only the on-site hospital staff are willing, or have been able, to attend in a physical meeting room – this is totally inadequate.

Scheduling time slots per patient/required team is also a major issue.

Clinicians require the ability to hear and see each other, share information such as PACS images and Pathology reports, and co-collaborate on a care plan for the patient (desktop sharing support) on fixed and mobile devices.

The quality of moving video is not as important as audio quality, since patients will NOT be diagnosed over this solution, but, the ability to remotely see an x-ray in review quality is mandatory, and to remotely control the view is highly desirable.

**Assumptions:**

1. this is a green fields implementation – all new solution
2. all sites have a minimum of a xDSL/cable or better broadband link, or 3/4G enabled mobile device
3. very few people have used enterprise collaboration tools but all know how to use Skype and have the required camera/speaker/microphones
4. there is a 3 month dedicated project officer to make this happen and setup up a framework for continued use
5. budget is moderate – management will approve a middle of the road cost, however usability is more important than cost

**Task:** Research several contemporary solutions to provide the required functionality in the scenario and address the criteria below.

**Assessment Criteria:**

1. (10 Marks) “CHOSEN SOLUTION” - A brief description of
   1. Preferred solution – what it is, why is was chosen above others, how it works, costs etc.
   2. Why it meets the needs of this MDT requirement – address all requirements in the scenario
2. (5 Marks Each) **Select any THREE (3)** of the following aspects of this issue and provide further information:
   1. ARCHITECTURE – Provide a generic overview of on premise hosting vs. SaaS[[1]](#footnote-1) and the corresponding impact on internet bandwidth consumption.
   2. LICENSING – Describe different generic licensing models in more detail with their pro’s and con’s. Which model works best for your chosen solution? (Make and state an assumption of number of concurrent or named users as required).
   3. END USER DEVICES & CONNECTIVITY – Detail the device types that your chosen solution allows and what are the choices of network connections?
   4. USER EXPERIENCE - Describe the end user (participant, not organiser) workflow from turning on their device, to participating in a virtual MDT with your chosen solution.
   5. SCHEDULING – Outline the intricacies of how this can best be achieved across the disparate attendees and organisations for your chosen solution.

**Note:** A basic understanding of the common terms and definitions relevant to the topic must be demonstrated in your report.

**Tip:** see: <http://en.wikipedia.org/wiki/Comparison_of_web_conferencing_software>

**Submission Date**: by 11.59pm on Tuesday 17/04/2018

**Marked/Return Date**: 3 weeks (or earlier)

**Forum**: Tutorial Discussions, one on one with lecturer.

1. SaaS = Software as a Service – purchase cloud hosted usage rather than deploy on premise. [↑](#footnote-ref-1)