

AbstractID: 1554 Title: An Integrated network design and implementation on Wide Area Network for a multi-site Radiation Therapy Department

Telemedicine has taken a front seat in the medial industry since it provides better utilization of resources and ultimately better patient care. In this presentation we discuss some of the issues we encountered in the design and implementation of the WAN for UPMC radiotherapy department. We currently have 11 sites separated by as far as 70 miles servicing 20 accelerators. Our network also allows us to use one centralized Verification and Record system and portal imaging archive. For IMRT, the planning is done at a central site and data exported directly to the appropriate facility for review, approval and implementation. This allows optimizing our standard of care in planning and implementation. However there are several items one needs to take into account like the fail safe plan, patient confidentiality, interfacing DicomRT transfer between several different vendors, uptime concerns, interfacing between several hospitals which have their own IT standards and compatibility among other applications that are run at different sites and finally keeping the costs down without compromising safety and security. A detailed analysis of these issues will be presented and discussed in this presentation. Although we believe that it is arguably one of the biggest such networks, the lessons we learned can be of immense help to other RT practices who would like to integrate two centers separated by distance