

## **Final Project Scenarios**

### **Long-Term Care**

Bethany Place is a 40-bed independent long-term care facility in the Pacific Northwest. They have existed for over 50 years having come from a faith-based background. With good investments and sound financial management, Bethany place has grown and is executing a capital strategic plan. They are expanding their 40-bed facility to purchase a nearby resident facility and expand into rehabilitative care, adding another 30 beds. They are approximately six months away from receiving the appropriate certificates and regulatory approvals as a rehabilitative care facility for both chronic care patients and recovery of acute head injury.

The rehabilitation facility and renovations to the independent long-term care facility are scheduled to begin in the next six months and be executed over an 18-month period. Currently Bethany place has no electronic medical record. There is a third-party service that is used to scan and send automated claims to Medicare and private insurers. A local desktop IT services company was recently contracted to provide managed services to Bethany place and provides the website email and local desktop applications for staff. As part of this initiative a robust new IT network design was implemented for both Bethany place and the anticipated rehabilitation facility.

The lack of an electronic health record at Bethany place has created quality issues and risk management issues particularly related to medication reconciliation with patient transfers. The board and senior leadership have asked the Bethany place management to evaluate information technology options in the form of an electronic medical record, and patient management application(s) for both Bethany place and the rehabilitation extension facility as part of executing the strategic plan.

### **Critical Access Hospital Electronic Health Record**

Bedford Hospital is a 25-bed hospital in rural Pennsylvania. They have recently completed the process of being designated by CMS (Centers for Medicare and Medicaid) a CAH (critical access hospital). Prior to this designation they were part of a large academic health center but have since divested from that health center. As part of that agreement their current electronic health record contract, which is with Cerner Corporation as part of that medical center's enterprise agreement, will be expiring in 24 months. Currently all aspects of Cerner's inpatient product are implemented including documentation, orders, decision support and electronic meds administration. Cerner's registration admissions discharge scheduling and patient identification products are also part of this agreement as are the laboratory radiology and pharmacy systems.

While Bedford Hospital was part of the academic center the Cerner product suite was financially supported as part of the overall corporate structure. As part of the divestiture agreement, the academic center has agreed to support Bedford's Cerner systems in total for a 24-month period, absorbing the Cerner software and enterprise hardware costs in that timeframe. Bedford Hospital is taking financial responsibility for three IT staff and day-to-day IT costs such as networks devices email and Internet costs. The CEO and CFO of Bedford Hospital have pulled together an interdisciplinary team to examine the technology options for Bedford Hospital after this 24-month period.

## **Telemedicine for Rural-Based Health Facility**

Canon hospital is a 189-bed hospital in rural Texas. The hospital is approximately 100 miles and 150 miles away from two major medical centers of excellence in Texas. As the CIO of Canon Hospital, you are aware that there are capabilities to do telemedicine programs with tertiary care centers. Two of the senior medical staff in the critical care and neurology departments at Canon Hospital have approached you to investigate telemedicine capabilities related to the management of ICU patients and the emergency management of patients presenting with stroke symptoms.

These medical leaders would like to ideally preserve the appropriate services for ICU patients and rehabilitative services for stroke patients in the canon hospital community. They recognize that portions of these treatment plans must include certified critical care and stroke certified providers from a tertiary care center. They have ask you to examine both the business and technical aspects of establishing telemedicine programs with one or two of the tertiary care centers who have certified specialists in critical care and stroke certified physicians who can administer TPA and other urgent stroke treatments.

Currently Canon hospital is transferring over half of the ICU patients and virtually all of the patients who are presenting with stroke symptoms to these to either of these tertiary centers. There is little to no follow up on those patients with regard to treatment plans or services. In many cases, patients and caregivers are relocated for step down and rehabilitative care to facilities outside of the Canon hospital area. This creates both high level of dissatisfaction for patients and families and revenue loss for canon hospital and its associated rehabilitation facilities.