Title of Article: Towards A Well-Secured Electronic Health Record in the Health Cloud

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Abstract: The major concerns for most cloud implementers particularly in the health care industry have remained data security and privacy. A prominent and major threat that constitutes a hurdle for practitioners within the health industry from exploiting and benefiting from the gains of cloud computing is the fear of theft of patients health data in the cloud. Investigations and surveys have revealed that most practitioners in the health care industry are concerned about the risk of health data mix-up amongst the various cloud providers, hacking to comprise the cloud platform and theft of vital patients’ health data. An overview of the diverse issues relating to health data privacy and overall security in the cloud are presented in this technical report. Based on identified secure access requirements, an encryption-based eHR security model for securing and enforcing authorised access to electronic health data (records), eHR is also presented. It highlights three core functionalities for managing issues relating to health data privacy and security of eHR in health care cloud.