

EMR Hosting

Business View

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to specify requirements for a vendor that hosts its EMR Offering. Hosting an EMR Offering refers to the business and technical services a vendor provides to make the EMR Offering remotely available over a wide area network (e.g., via the Internet). This specification defines the requirements and expectations for hosting an OMD-certified EMR Offering by a vendor.

For a hosted EMR Offering, the EMR application and data are hosted in a centralized location that the vendor is accountable for ensuring is protected and maintained. It is understood that vendors may use third-party electronic service providers to help them host the EMR Offering (e.g., contracting to third parties to provide data centres and infrastructure as a service).

The target audience for this document is vendors that want to have their hosted EMR Offering certified by OMD. It is assumed that readers of this document have a background in cloud technology and information security.

1.2 EMR Offering Background

Historically, OMD-certified EMR Offerings were deployed using either an application service provider (ASP) model or a local model. Recognizing the evolution of cloud computing and hosting services, OMD and its partners identified the need to clarify the criteria that differentiate EMR deployment models and establish EMR hosting requirements to address physician concerns related to the availability, performance and security of hosted EMR Offerings.

1.3 Hosted EMR Offerings

A hosted EMR Offering meets the following criteria:

- **Data Centre** – The EMR application, data, and all other infrastructure components (e.g., servers, networking, operating systems) are hosted in a data centre.
- **Centrally accessible** – The EMR Offering is remotely available for all subscribers or “tenants” using a wide area network (e.g., over the Internet).
- **Accountability** – The vendor is ultimately accountable for services, such as protecting the physical safety of the components that comprise the EMR Offering, business continuity plans, and various information security services for which a vendor providing local EMR Offerings is not generally accountable. While the vendor is accountable to their subscribers (e.g., physicians, Family Health Organizations, etc.) for these services, the vendor will often have contracts with third parties to provide these services. For example, the vendor may have a contract with a third party that provides the data centre and protects its physical safety.

Two conceptual architecture patterns describe how EMR Offerings are hosted:

1. **Single Instance:** In this pattern, the vendor hosts one EMR application that services all subscribers or “tenants”, and the tenants’ data is partitioned logically or physically. For example, data may be divided by the relationships and associations within a single database, database virtualization, database schema partitioning, etc. It is important to note that the term “tenant” applies to an individual and a group of people. For example, a tenant could be a single-family physician or a family health team comprised of many EMR users distributed across several clinics (e.g., different geographical locations).

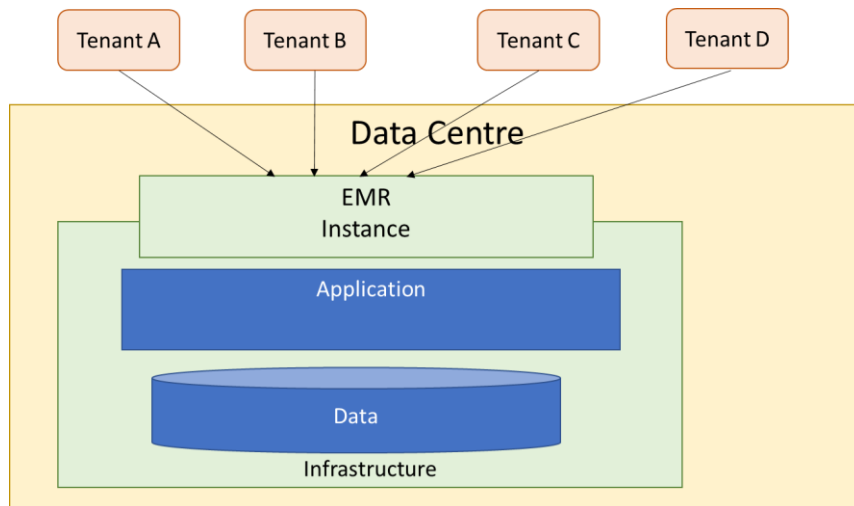


Figure 1 - Single Instance EMR Hosting

2. **Multiple Instances:** In this pattern, the vendor hosts a separate EMR application and data for each tenant. In the majority of cases, the EMR instance is virtualized across a common physical infrastructure.

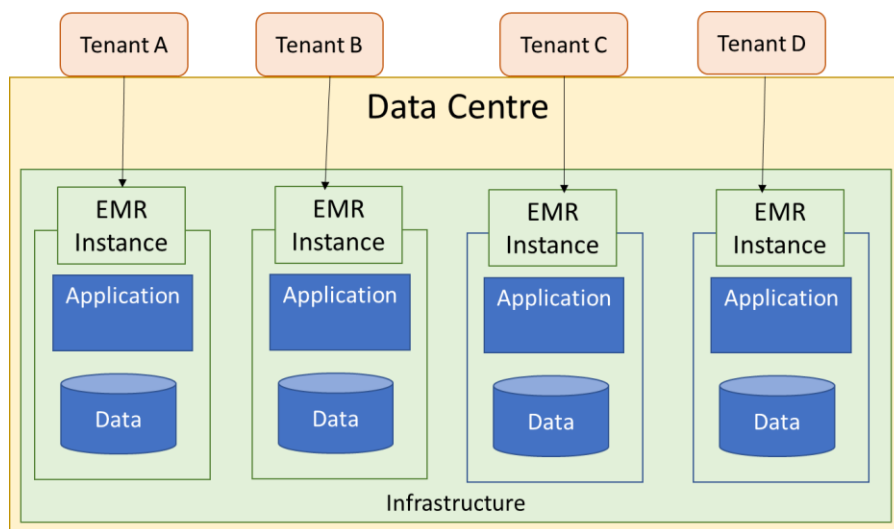


Figure 2 - Multiple Instance EMR Hosting

1.4 Differences between Hosted and Local EMR Offerings

The following table is provided as example criteria to illustrate the differences between an EMR Offering that is hosted by a vendor versus deployed locally (e.g., in a primary care clinic).

CRITERIA	HOSTED EMR OFFERING	LOCAL EMR OFFERING
Data Centre	The EMR application, data, and all other infrastructure components (e.g., servers, networking, operating systems, etc.) are hosted in a data centre, which in the majority of cases, is in a geographical location that is different than where health care services are delivered.	In the majority of cases, the EMR application, data and all other infrastructure components are implemented at the same geographical location where care is delivered.
Accessibility	The EMR Offering is only available through a wide area network (e.g., over the Internet).	The EMR Offering is primarily available through a local area network.
Physical Safety	The vendor is accountable to their clients for the physical safety of all the components that comprise the hosted EMR Offering.	The clinic is accountable for the physical safety of all the components that comprise the local EMR Offering.
Business Continuity	The vendor is accountable to their clients for having a business continuity plan which describes the processes that will be followed and the services that will be available to the subscribers to continue the operation of their medical practices in the event of unplanned outages of their hosted EMR Offering.	The clinic is accountable for having a business continuity plan which describes the operation of their medical practices in the event of unplanned outages of their local EMR Offering.

It is understood that the vendor may use a third party to provide the data centre and some of the associated services (e.g., protecting the physical safety of EMR components, providing failover/backup sites and executing portions of the business continuity plans).