

## Software Engineering Workshop 1 – Exercise 3

**Interoperability (External):** “The system shall import medical files from Medicare and other healthcare providers”

Justification: The system is intended to deliver a patient’s medical files to paramedics on the scene of an emergency. Therefore, the system must be able to import files from these interfacing systems.

**Security (External):** “Paramedics will shall authenticate themselves by scanning a QR code printed on their ID card.”.

Justification: The system will provide users with access to the private data of patients. Therefore, to prevent unauthorised personnel from accessing this system a unique QR code will be provided to every paramedic. In comparison to inputting a username and password, scanning a QR code will allow the paramedics to quickly login to the system.

**Performance (External):** “The paramedic shall have access to the patient’s the medical files in less than two minutes after launching the system”

Justification: The paramedic must be able to quickly access the patient’s files to determine pre-existing conditions of the patient, i.e. epilepsy. This will help to establish possible causation of the emergency, i.e. seizure, and any precautions that need to be considered by responders, i.e. allergy to penicillin.

**Scalability (Internal):** “The system must be able to accommodate for a daily user growth rate of 20% every 3 months.”

Justification: As the system gains a positive reputation it will get implemented into more hospitals and emergency services. As the system is used for emergency services the system must be able to accommodate for this increase without error or disruption.

**Portability (Internal):** “The web-based system must be able to run on a range of devices, i.e. smartphones, tablets, computers, and environments, i.e. windows, iOS, Android”

Justification: Paramedics will not have access to a computer at the scene of the emergency and therefore must be able to use the system on their smartphones or tablets. At the hospital, the staff may be using computers, tablets or smartphones to communicate with paramedics. These devices may run in different environments to one another; therefore, the system should cover all these devices and their software.