Interworking Services

Hospital

multiple internal services

Clinic

Surgery

National Patient record Management Service

distributed,
replicated,
fault-tolerant

Interworking Services and Roles

Hospital

these may have internal services

each service defines roles for its clients

Clinic

Surgery

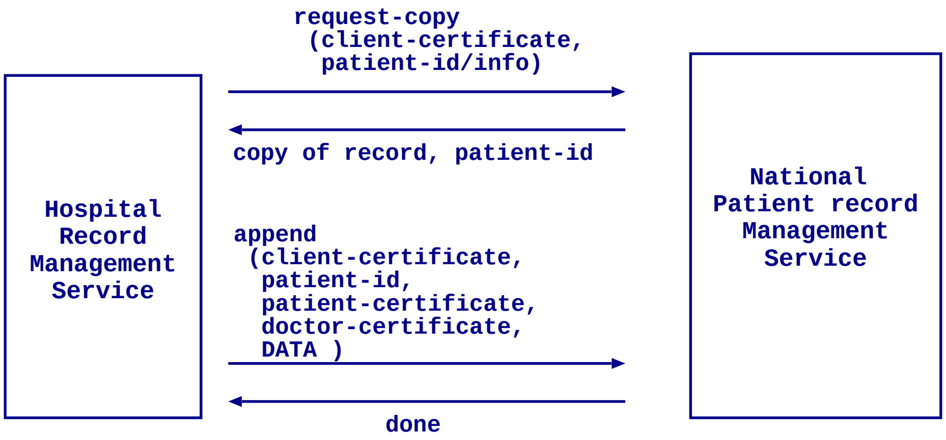
ROLES:
doctor
nurse
receptionist

National Patient record Management Service

ROLES:
client*
administrator
others e.g. chief-registrar

** for simplicity we assume that hospitals, surgeries and clinics have the same rights so we define the single role* client *for them*

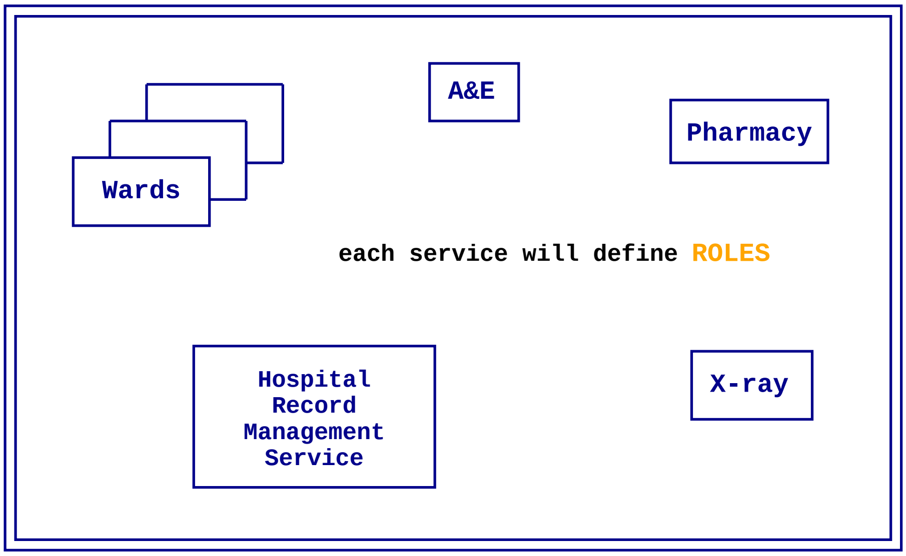
Interworking Services



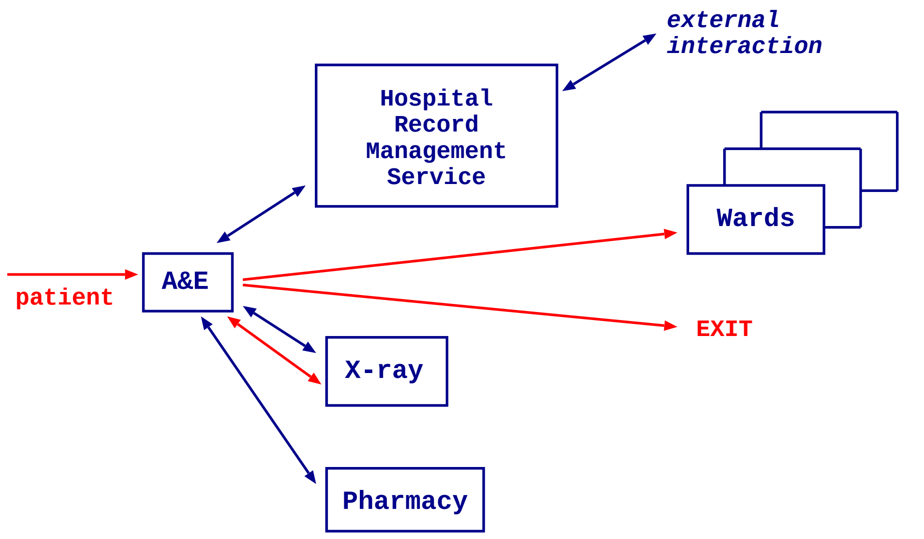
patient-certificate
doctor-certificate
are issued by services
in the hospital and are
included for auditing purposes

ROLES:
client
administrator
others....

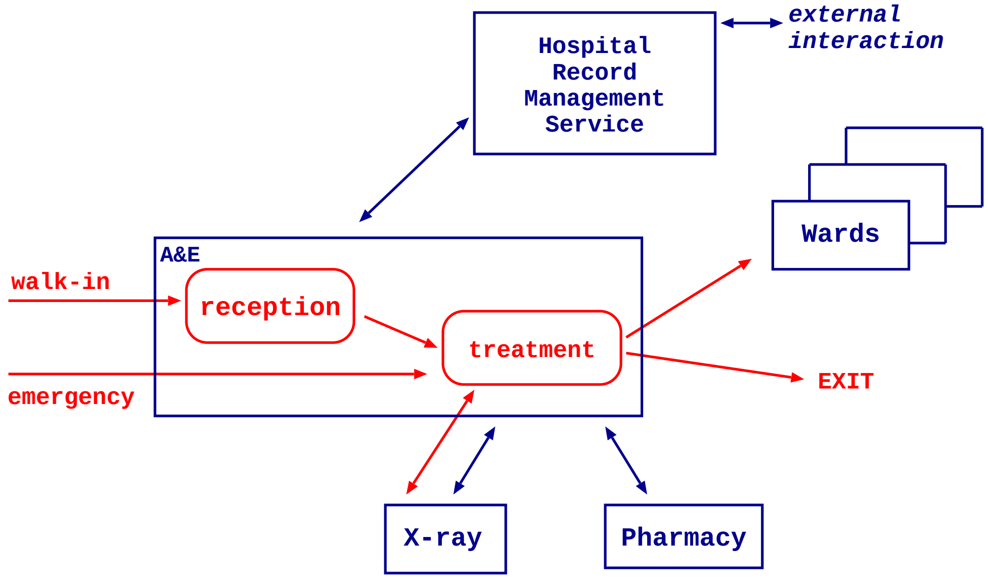
Some Services within a Hospital



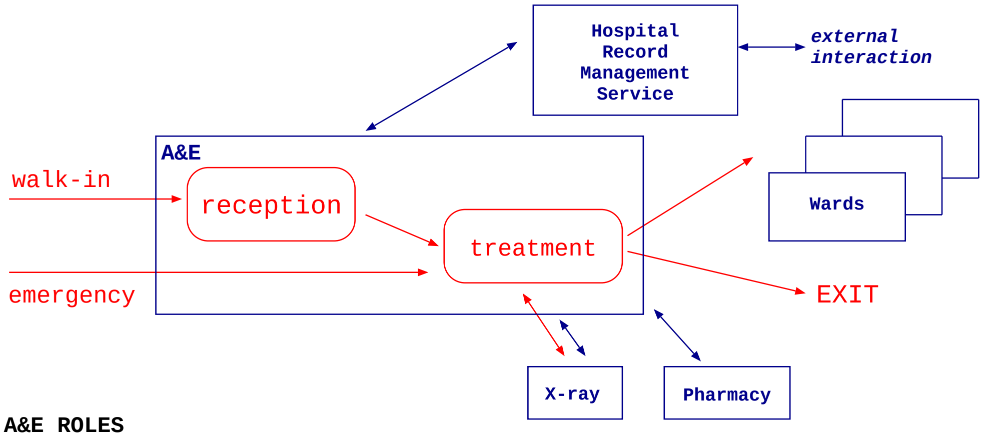
A patient attending A&E - hospital services involved



The A&E service and interworking services



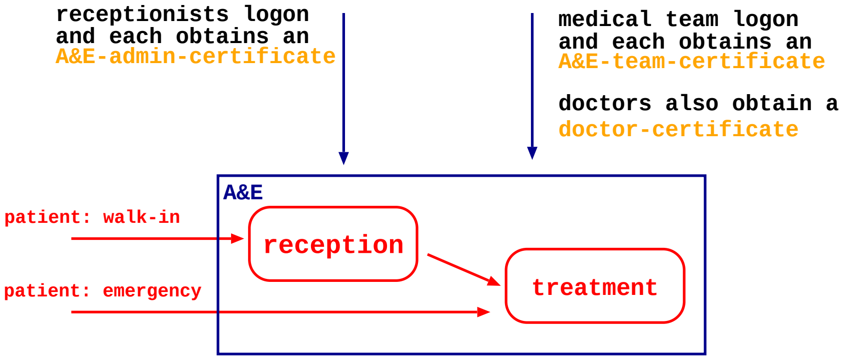
The A&E service, roles and interworking services



A&E ROLES

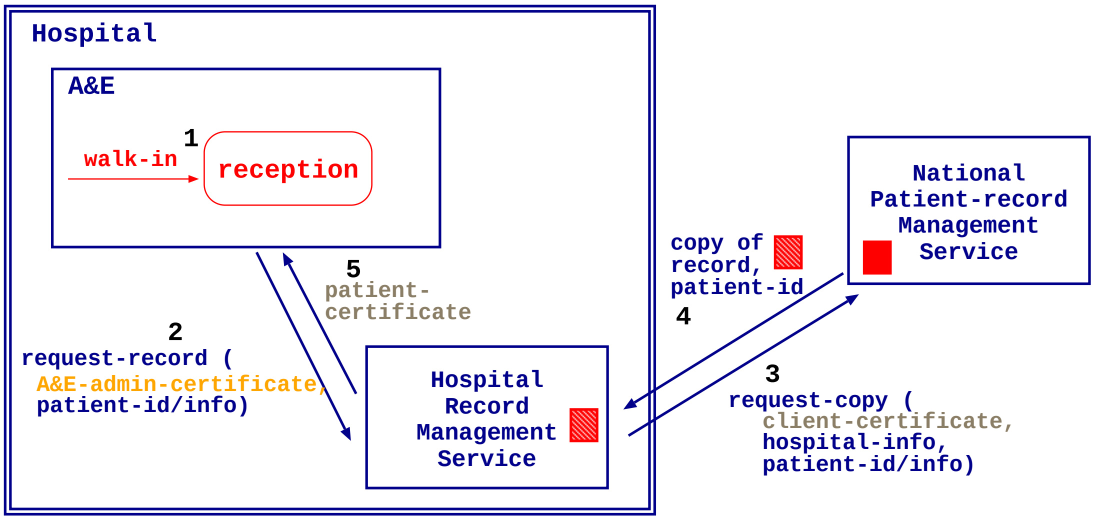
patient
certificate issued by Hospital Record Management Service (see later)
A&E-team
doctors and nurses on duty in A&E will enter this role
A&E-admin
receptionists etc. will enter this role
doctor
also has the role **A&E-team**
each patient has one supervising doctor
who will ultimately be responsible
for signing off the record of treatment
to be appended to the patient's record

Entering A&E roles



The A&E service has policies which specify
the conditions for entry to each role.
e.g. each receptionist must
present a valid logon certificate
present a persistent receptionist's certificate
(or be on the list of currently employed receptionists
in the administration database)

Service interactions, showing role membership certificates, to get a copy of the patient's record



1. identify and authenticate patient
2. request medical record
3. external request for record
4. copy of record to hospital
   policy controls set in place in hospital
5. patient certificate issued

Policy - Access to Medical Records

- the medical record structure:

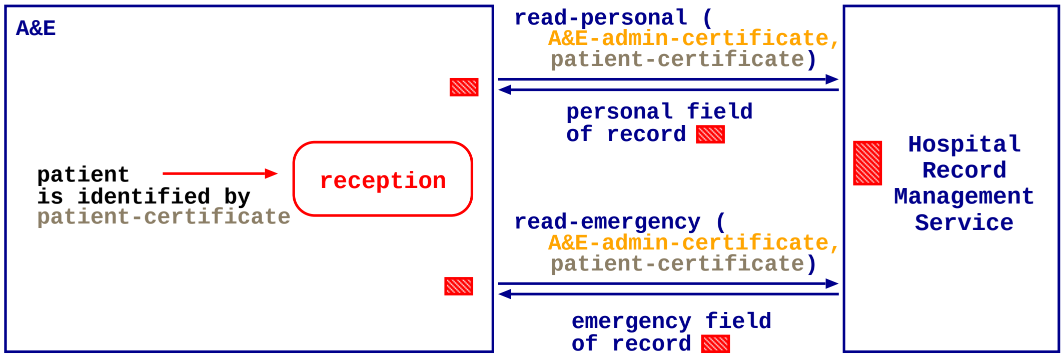
personal	emergency	history

- sources of patient identification:
  - patient, immediate family or friend
  - smart card, PIN
  - soft documentation, e.g. driver's licence
- policy:

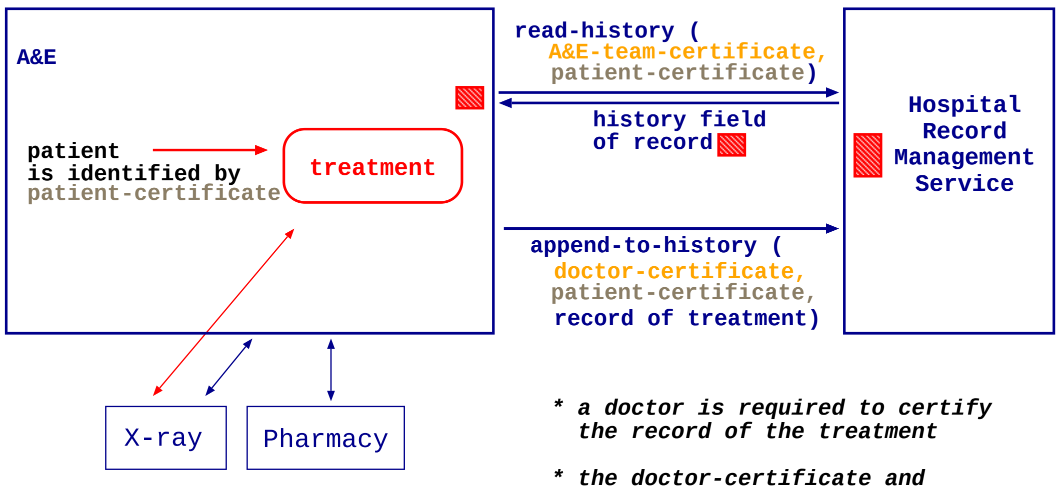
action (method invocation)	A&E roles
read personal	A&E-team, A&E-admin, doctor
write personal	none
read emergency	A&E-team, A&E-admin, doctor
write emergency	doctor
read history	A&E-team, doctor
append to history	doctor

i.e. method (role-membership-certificate, patient-certificate, data)

A&E-admin role and interworking services



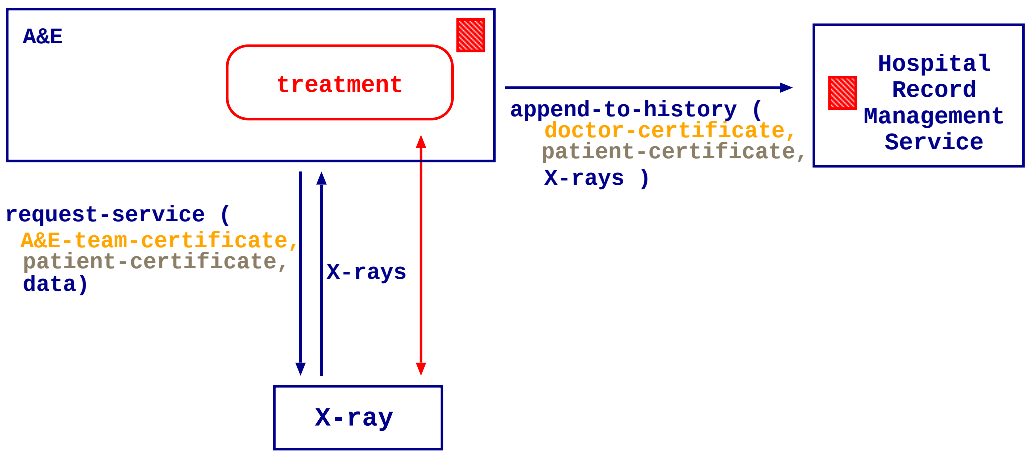
A&E roles and interworking services



* *a doctor is required to certify the record of the treatment*

* *the doctor-certificate and patient-certificate are recorded with the record of treatment to provide an audit trail*

Use of A&E roles with the X-ray service



Use of A&E roles with the Pharmacy service