IHE Work Item Proposal (Short)

# Proposed Work Item: Service/Resource Scheduling

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Domain: IT Infrastructure

# The Problem

Current lack of interoperability between different healthcare organizations constraints the information exchange of the occurrence of certain services and the use of particular resources. Avoiding the seamless control of a set of open, booked and blocked slots for one particular service or resource.

To specify a common interface through a IHE SCHEDULING PROFILE will increase the value of:

* Patient Empowerment with regard to choose the best service available through an open market of points of care.
* Managers will deploy healthcare services bidding, regardless the operating multiple platforms of broadcasters.
* Controllers could optimize the workflow and lifecycle reuse of remote resources spread at different locations and managed by different systems.

# Key Use Cases

**Case 1: Patient choosing and scheduling the most** **appropriate service.**

* Patient asks for the nearest vaccination center.
* System finds all the centers available offering COVID vaccination near Patient’s home.
* Each center sends the open slots available.
* Patient schedules their vaccination date and time at the most appropriate point of care.
* System checks Patient eligibility.
* Patient confirms the appointment.

**Case 2: Manager deploying a healthcare service bidding.**

* Manager define a set of specialized points of care.
* Manager’s system publishes the open slots available in an open platform.
* Open platform broadcasts the bidding to the Patient Portals of healthcare organizations.
* Open platform receives appointment requests to book slots.
* Open platform sends appointment requests to Manager’s system.
* Manager’s system checks eligibility and reimbursement fees.
* Manager’s system confirms and blocks the slots requested.

**Case 3: Controller managing remote resources.**

* Controller asks for a kind of vital signs monitor available.
* System shows the appropriate vital signs monitor.
* Controller sends Patient data to the selected vital signs monitor.
* System books the slots of the vital signs monitor assigned to the Patient.
* System sends the vital signs monitor to the Patient location.
* Vital signs monitor sends data to the Patient EHR.
* System releases the device for a next scheduling.

# Standards & Systems

Actors proposal:

**Infrastructure**

Security (ATNA / CT) / Patient Administration

**Placer Application Requests**

Admission / Patient Portal Mobile Device / Points of Care Broker

Healthcare Maintenance - Process Follow-up

**Filler Application Messages**

LIS / RIS / Doctor's Office / Monitor’s Controller

HL7 V2.8 messaging Chapter 10 as a reference to specify a IHE SCHEDULING PROFILE with a FHIR® interface, to facilitate the communication of scheduling requests and information between applications. Such communication involves: schedules, appointments, services and resources.

# Discussion

With a unique FHIR® interface through a IHE SCHEDULING PROFILE:

Different Patient Portals and EHR platforms could exchange the schedule of available slots on multiple point of care services and on great many healthcare resources.

Empowered Patients are free to choose the most appropriate service available checking their eligibility and applied current fees.

Healthcare organizations can spread the bidding of their services in an open market. Telemedicine services can allocate remote resources with the best scheduling lifecycle.