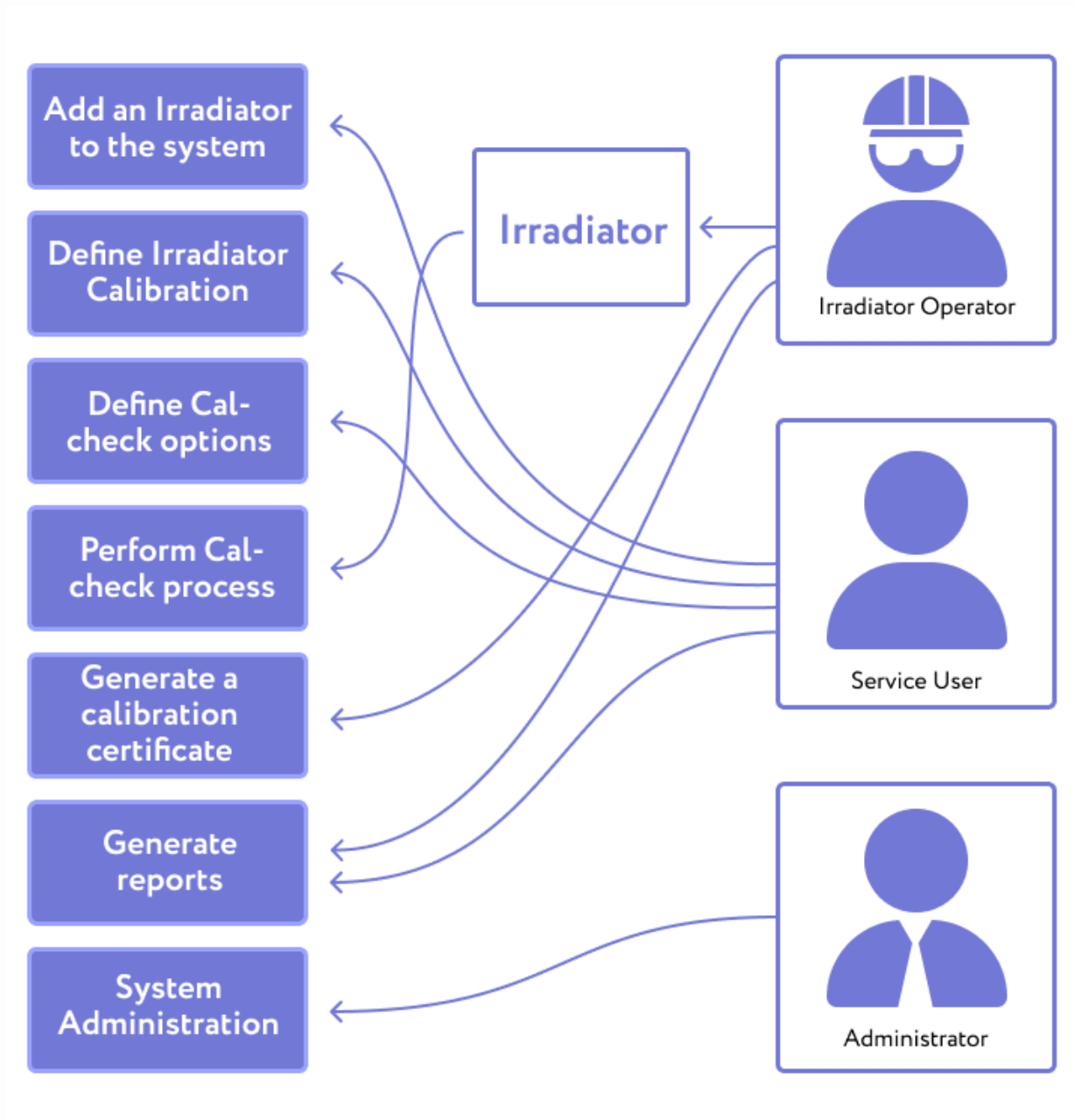# DOSIMETERS CALIBRATION CHECK SYSTEM

Datasheet

Project objective

Expand the functionality of the calibration-check system to ensure simple annual verification for various types of dosimeters, which allows for adding new devices and remote access. The application should act as a central repository for the EPD (Electronic Personal Dosimeter) calibration and related data, providing an external interface to the calibrating system. The interface should support an EPD-Type dependent architecture, within which the doses, detector counters and calibration sensitivities of the instrument depended in name and number on the Type of the EPD.

Result

The upgraded system allows for rapid and reliable dosimeters calibration checks. The developed software solution interacts with irradiators to perform these checks in real-time. The solution allows for scalability of complexity, interacting with the legacy, new, and prospective generations and types of dosimeters launched by our client and 3rd party irradiators.

Scope of work

- A web server provided external interface to an irradiator system
- User Interface functionality, such as selection of a calibration check procedure from the list, getting procedure configuration parameters, verifying calibration check results, and printing reports
- Possibility to manage users, list of irradiators and procedures with parameters, EPDs and calibration check results
- Support for alternative Irradiators offering different sources, dose-rates, capacity, throughput and levels of automation
- Support for different EPD types and the more advanced EPD concepts such as detector counter readings, detector gains, partial doses
- Optional items to pass over the Interface to the connected Irradiator only if they are defined in the database
- Documentation to simplify installation of the application

Activities

- Onsite requirements definition
- Software design
- API implementation
- Database implementation
- Web application implementation
- UI development
- Documentation creation
- Functional testing
- Acceptance testing

About the project

Technologies

- C#
- REST
- .NET
- XML

- AngularJS
- Visual Studio 2015
- WiX Installer
- Microsoft SQL Server

Project size

- 2.5 people

Duration

13 months

Platform

- Web