DIGITAL PATHOLOGY SLIDE MANAGEMENT SYSTEM
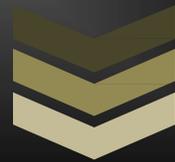
A WEB BASED APPLICATION FOR DIGITAL SLIDE MANAGEMENT

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Digital Pathology Slide Management System
A White Paper

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Introduction:

Digital Pathology refers to an integrated process of converting glass microscope slides into high-resolution, whole-slide digital images that can be viewed, managed, analysed, shared and interpreted by the Pathologist with a computer instead of a microscope.

It refers to a dynamic image based environment with obvious benefits over the conventional static glass slide based one.

The Problem:

In a digitally enabled Pathology laboratory, the process of reporting is initiated by scanning of glass slides to generate high resolution images. To mine information from these images, they need to be viewed, analyzed and integrated with relevant patient data, thus enabling the Pathologist to generate an objective and meaningful report. Further the images need to be archived systematically, to enable easy search and retrieval of images with attached metadata, for reference in the future.

Digital Pathology images are about 10X that of Radiology images and require more storage management through their useful life cycle. The large size of the images generated means that the storage, speedy retrieval and integration of these images needs to be handled and streamlined effectively, to keep pace with the dynamic environment of a Pathology laboratory.

To take full advantage of the digital environment, the Pathologist should be enabled to share images and case information with colleagues and referral centers for consults and second opinions.

Also of immense importance is the fact that the entire process has to be an extremely secure one, considering the need to maintain the confidentiality and the integrity of the data being viewed or transferred online.

The Solution:

Optra Digital Pathology Image Management System is the solution for seamless work flow integration in a digitally enabled Pathology laboratory.
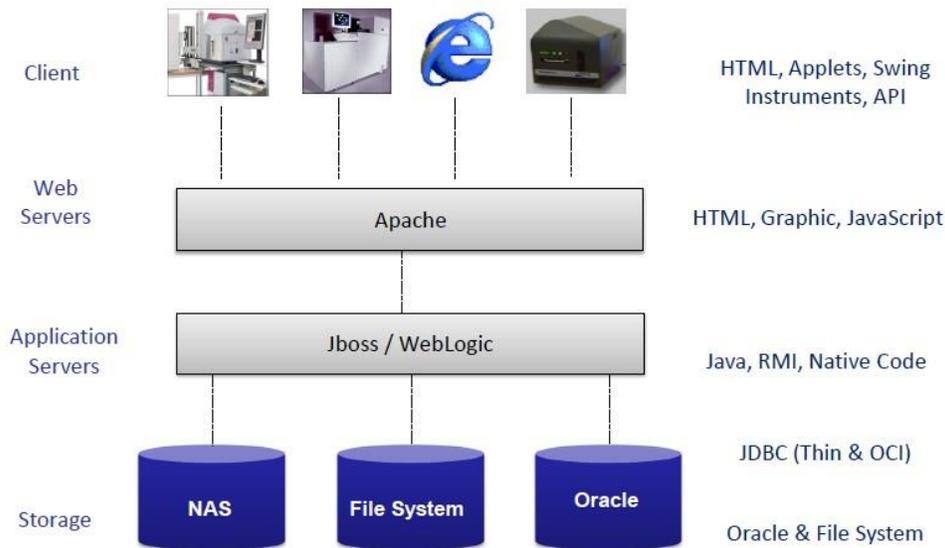
This is a web enabled application that efficiently manages digital pathology work flow. It integrates digital images generated by a whole slide scanner with associated case details to provide a complete solution for all the users in the Pathology laboratory, including Administrators, Technicians and Pathologists.
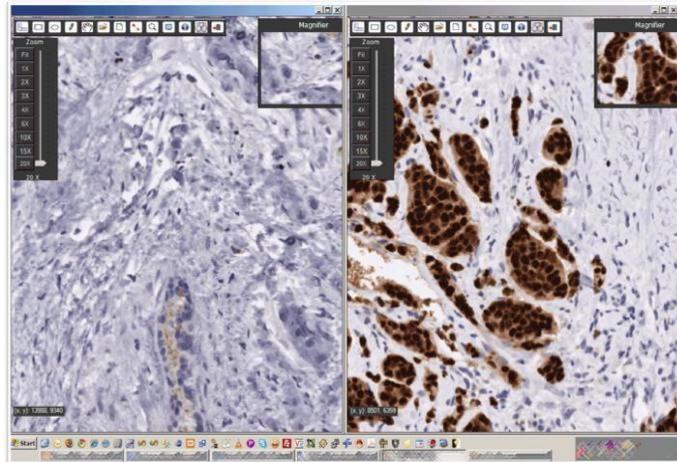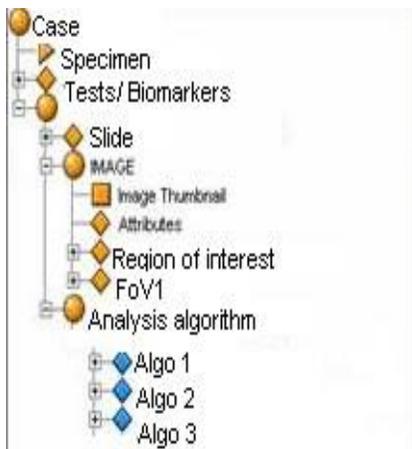
Benefits:

The Optra Digital Pathology Slide Management System offers multiple benefits like:

1) User specific log in with graded levels of access commensurate with role

2) A bird's eye view of the work load with easy allocation of cases to respective Pathologists

3) Ability to view images with case data to enable integrated reporting

4) Ability to view multiple images for comparison with archives

5) Compatibility with 70+ image formats

6) Compatibility with various image analysis tools

7) Effective sharing of cases and case details with colleagues and experts

8) Generation of customized reports in various formats

9) Secure storage of reported images and associated metadata

10) Quick search of archived cases using various search terms like accession number/ organ site/ institution name etc.

11) Speedy retrieval of previously stored sessions.

12) Anytime anywhere access to data, being a web based application

13) Audit trails, encryption, secured privileges and compatibility with 21 CFR part 11, to ensure safety and integrity of data

14) Easy integration with 3rd party LIMS and HIS

Technology Framework:

Ready Workflows:

Summary:

Optra Digital Slide Management System is an effective solution for the integration of digital images with the workflow in a Pathology laboratory to make it truly digitally enabled and reaps the multiple benefits of Digital Pathology.

Getting started:

Please write to us at info@optrahealth.com for a live demo of the solution