

PathXL: Cloud Computing for Virtual Microscopy

i-Path is a specialist in digital pathology software and web-based virtual slide applications. i-Path has developed web-based software products together with an entirely hosted solution for virtual microscopy, removing the need to store any slides locally and for local installations of software, and providing reliable speedy access to images in a stable, managed environment. The product portfolio, **PathXL™**, represents cloud computing for virtual microscopy at its best, and offers a unique solution across a range of applications including education, training, competency testing, biomarker research, biobanking, and digital archiving of clinical samples.

Cloud computing is now a familiar cliché but has unique advantages when applied in digital pathology. It removes the need to purchase dedicated server hardware and employ dedicated staff to manage systems, reducing the cost by as much as 50% per annum. Storage and server capacity is all managed off-site in one of i-Path's dedicated high performance server farms which guarantee up-time, regular backup and disaster recovery plans. Extensive storage facilities are available for clients to upload and manage their digital slide archives on-line. This is fully scalable allowing clients to grow their needs accordingly. i-Path's cluster of high performance image servers allows for high volumes of internet traffic without impacting on the speed of delivery. It is resilient where if one server goes down, traffic is routed to another server. By using satellite clusters, dispersed across continents, i-Path have reduced latency of image transmission over distance supporting the sharing of slides and easy collaboration across laboratories, hospitals and or universities. It is a highly secure facility, already being used by major Pharmaceutical organizations and Hospitals.

Clients can be given access to i-Path's digital pathology software PathXL upon request - no need for on-site software installations and ongoing maintenance. Updates to software are made centrally and clients access all of the functionality via a standard web-browser. i-Path offer a range of digital pathology toolboxes aimed at supporting a range of applications. These include (i) an Educational Authoring Toolbox allowing clients to build and manage an e-learning web site including the ability to configure on-line tests on virtual slides for students, classrooms and residents (ii) External Quality Assurance Toolbox for managing virtual distribution of slides and polling diagnoses on-line (iii) Research Toolbox for management and sharing of research slide sets and on-line scoring of biomarkers and (iv) TMA Toolbox for on-line archiving and scoring of TMA biomarkers.

PathXL, from i-Path, integrates novel web-based viewing technology and management software with a high performance hosting capacity to provide a cloud-based service to customers, across a range of disciplines.

