



OLUMS

Intelligent Management
and Tracking Systems

Digitising HPCSA-Aligned Clinical Training Through Structured Work-Integrated Learning on AWS

A South African university delivering HPCSA-aligned Clinical Technology programmes required a compliant, scalable solution to manage clinical Work-Integrated Learning (WIL). Students must complete and verify supervised procedures to meet regulatory requirements for qualification and professional registration.

OLUMS implemented a purpose-built WIL platform on AWS to digitise clinical logbooks, map activities to HPCSA competencies, and enable structured supervisor verification.

Challenge

- Manual, fragmented logbooks limited visibility into student progress and delayed supervisor verification of clinical activities
- Complex HPCSA compliance requirements increased the risk of incomplete, inconsistent, or non-auditable competency records
- Distributed clinical placements with limited connectivity disrupted real-time data capture and supervision workflows

Solution

- Digitised HPCSA-aligned logbooks with structured outcome mapping
- Supervisor verification workflows with real-time academic oversight
- Offline data capture with secure synchronisation on connectivity

Results

- Improved compliance readiness through structured HPCSA-aligned data capture and verification workflows
- Centralised visibility into student progress and clinical competency tracking
- Greater inclusion of students placed in remote and rural locations



The Customer

The customer is a South African University of Technology delivering professionally regulated programmes within the health sciences, including Clinical Technology disciplines aligned to HPCSA requirements.

Programmes require students to complete structured clinical training within accredited healthcare environments such as public hospitals, and private clinical facilities. Students must demonstrate competency through the completion of supervised procedures, validated by qualified practitioners, and recorded in accordance with strict professional standards.



About OLUMS

Online University Management Systems (OLUMS) is an education technology company specialising in digital platforms for higher education and skills development. Founded in 2019, OLUMS designs systems that support academic operations, industry engagement, and regulatory compliance.

As an AWS Partner, OLUMS builds and operates its platforms on Amazon Web Services to meet the scalability, security, and reliability requirements of public sector and higher education institutions.

The Challenge: Managing HPCSA-Aligned Clinical Training

Clinical Technology programmes require students to progress through defined stages of clinical competency, beginning with observations, followed by a prescribed number of supervised procedures, and ultimately unsupervised procedures before becoming eligible for workplace-based assessment on the procedure performed in a real clinical environment.

This progression was previously managed through manual logbooks and loosely structured processes, making it difficult to accurately determine where students were in their competency journey at any given time. Records were often incomplete, inconsistently captured, or only submitted retrospectively, limiting their reliability as a source of truth.

Academic staff relied heavily on estimates, ad hoc verification calls, and physical site visits to confirm student readiness for assessment. This created delays, increased administrative burden, and introduced inconsistency in how supervision and competency validation were applied across clinical sites.

The absence of a structured, real-time tracking system limited visibility into student progress, introduced risk in competency validation, and made it challenging to ensure that HPCSA requirements were consistently met prior to formal clinical assessment.

The Solution: Structured, Digitised Clinical Competency Management

OLUMS implemented a purpose-built Work-Integrated Learning (WIL) platform on AWS to digitise and structure the clinical competency journey in alignment with HPCSA requirements. The system enables the full progression of observations, supervised procedures, and unsupervised procedures to be tracked in a controlled, standardised environment.

Students capture clinical activities directly within structured digital logbooks, with each entry mapped to predefined competencies and clearly categorised by level of supervision. Supporting evidence and reflections can be recorded in real time, ensuring consistency and completeness of records.

Supervisors verify procedures through guided digital workflows, creating a clear and auditable record of oversight. Academic staff gain real-time visibility into student progress across clinical sites, enabling early intervention and informed decision-making on readiness for workplace-based assessment.

Offline functionality ensures continuous data capture in low-connectivity environments, with secure synchronisation maintaining data integrity across the placement lifecycle.

Results: Improved Visibility, Control, and Compliance Readiness

The implementation of OLUMS introduced a structured and standardised approach to managing clinical competency progression, replacing fragmented and manual tracking processes with a centralised digital system.

Academic staff now have real-time visibility into student progression across observations, supervised, and unsupervised procedures, enabling more accurate determination of readiness for workplace-based assessment. This has reduced reliance on ad hoc verification methods, such as manual follow-ups and site visits, and improved consistency in how competency thresholds are applied.

Supervisor verification workflows have strengthened the integrity and traceability of clinical records, ensuring that each procedure is appropriately validated and auditable. This has established a reliable foundation for compliance with HPCSA requirements.

The platform has also reduced administrative burden and improved coordination across distributed clinical sites, while offline functionality ensures uninterrupted data capture in low-connectivity environments.



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Structured Clinical Training Aligned to HPCSA Requirements Through a Unified Digital Platform

To support HPCSA-aligned Clinical Technology programmes, OLUMS provides a unified platform that structures the full clinical competency journey—from observations, to supervised procedures, to unsupervised procedures, and ultimately readiness for workplace-based assessment.

The platform integrates academic oversight, supervisor verification, and clinical activity tracking within a single system, ensuring that each stage of progression is clearly defined, consistently applied, and auditable. Student activities are mapped to HPCSA-aligned competencies, enabling institutions to track not only completion, but verified readiness for assessment in real clinical environments.

Built on AWS, the solution delivers secure, role-based access for students, supervisors, and academic staff, ensuring controlled interaction with sensitive clinical data. Centralised workflows eliminate fragmented tracking and reduce reliance on manual verification, providing real-time visibility into student progression across distributed clinical sites.

By digitising and standardising clinical training workflows, OLUMS enables institutions to maintain compliance, improve traceability, and confidently manage workplace-based assessment readiness at scale, even in low-connectivity environments through offline-enabled data capture and secure synchronisation.



Digitised HPCSA-Aligned Clinical Training



Reliable Clinical Training and Verification in Real-World Environments

Clinical training often takes place in environments with limited or inconsistent connectivity, including public hospitals and distributed clinical sites. This previously delayed data capture, supervisor verification, and reliable tracking of student progress.

OLUMS enables offline capture of observations, procedures, and evidence within structured digital logbooks, with secure synchronisation once connectivity is restored. This ensures continuity of supervision and data integrity across the training lifecycle.

Academic staff retain real-time visibility into progression and readiness for workplace-based assessment, while the AWS-based platform ensures secure, resilient, and auditable clinical training at scale.



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Supporting HPCSA Compliance Through Structured Clinical Outcome Mapping

For professionally regulated programmes, compliance extends beyond placement confirmation to the verified completion of defined clinical procedures and competency milestones. In HPCSA-aligned Clinical Technology programmes, students must progress through observations, supervised procedures, and unsupervised procedures before becoming eligible for workplace-based assessment.

Previously, this process relied on manual logbooks, making it difficult to consistently verify whether required activities had been completed at the appropriate level of supervision.

OLUMS addresses this through structured outcome mapping, aligning each recorded activity to HPCSA-defined competencies and supervision requirements. Students capture procedures within digital logbooks, clearly categorised by supervision level, while supervisors complete guided verification workflows that create an auditable record of oversight.

This ensures that competency progression is consistently tracked, validated, and visible to academic staff in real time. By standardising both outcome capture and verification, the platform improves audit readiness, reduces reliance on manual reconciliation, and enables institutions to confidently manage compliance and assessment readiness at scale on AWS.

Supporting Continuous Clinical Training in Low-Connectivity Environments

Clinical training placements often occur in environments with limited or inconsistent connectivity, including public hospitals and distributed clinical sites. These conditions previously delayed data capture, disrupted supervisor verification, and impacted timely visibility into student progression.

OLUMS addresses this through offline-enabled functionality that allows students to capture observations, procedures, and supporting evidence within structured digital logbooks, without requiring continuous connectivity. Entries are securely synchronised once connectivity is restored, ensuring continuity of supervision and data integrity across the training lifecycle.

This enables consistent tracking of clinical progression and readiness for workplace-based assessment, regardless of location. Built on AWS, the platform provides a secure and resilient foundation for uninterrupted clinical training, maintaining compliance and auditability across distributed environments.

Key Outcomes

- Structured clinical progression tracking
- Verified competency through supervisor workflows
- Real-time visibility into assessment readiness
- Audit-ready, HPCSA-aligned records