HEALTHCARE INNOVATION TECHNOLOGY LAB (HITLAB)

Medcurio VennU Access: Enabling Scalable Healthcare AI & Automation

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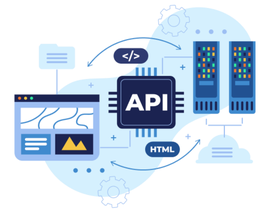


ABSTRACT

Healthcare systems are under increasing pressure to improve care quality while managing rising costs. Automation and Artificial Intelligence (AI) present significant opportunities to address these challenges, but their effectiveness relies heavily on real-time access to Electronic Health Records (EHR) data. Traditional methods for accessing EHR data such as FHIR APIs, HL7, and vendor-specific or custom APIs often fall short due to restricted data access, high costs, and technical complexity.

Medcurio's VennU Access platform offers a transformative, no-code solution that simplifies and accelerates the creation and deployment of APIs for real-time EHR data access. It allows healthcare analysts to generate, deploy, and manage secure, codeless APIs in days instead of months, without any need for programming experience. VennU Access eliminates most of the time and effort for real-time EHR integration and maintenance and enables access to 100% of EHR data.

To evaluate VennU Access's usability, security, and functionality, HITLAB conducted an assessment that combined observational shadowing, interactive questioning, hands-on testing, and heuristics-based evaluation. This multi-faceted approach ensured that the platform aligns with user expectations and practical application. The evaluation identified several strengths, including its user-centric design, strong error prevention, robust security features, high scalability, and performance.

OBJECTIVES

- To verify that the Medcurio VennU Access platform aligns with its stated functionality and meets user expectations for usability, security, and effectiveness.
- To identify any gaps between the platform's features and practical application through a structured observational process.

STUDY METHODOLOGY

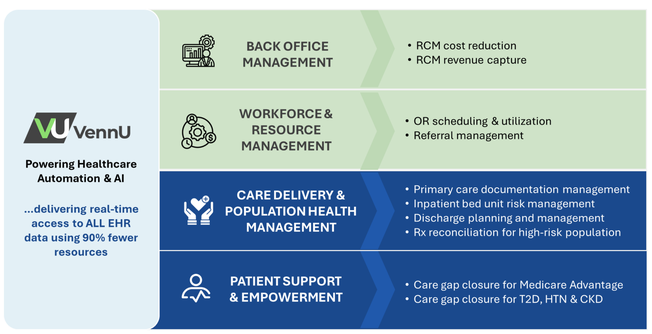
- The approach used in this evaluation draws from the Solution Assessment and Validation (SAV) practices outlined in the BABOK framework IIBA, 2015).
- The approach combined observational, interactive, and heuristic techniques to ensure the platform meets expected standards.
  - **Observational Shadowing:** Observing an analyst's demonstration of the platform to assess its functionality, ease of use, and security features.
  - **Interactive Questioning:** Asking targeted questions to probe specific functionalities, understand limitations, and clarify user-oriented features.
  - **Heuristic Evaluation:** Assess the platform against Jacob Nielsen's 10 usability heuristics (Nielsen, 1994), identifying key areas for improvement Using a checklist to evaluate each feature against expected standards.

VennU: A No-Code API Platform for Real-Time EHR Data Access

Key Features

- **Comprehensive Data Access:** VennU Access offers access to all EHR data fields via a single endpoint, allowing healthcare systems to efficiently access up-to-date information. Real-time access to EHR data is essential to drive AI and automation solutions for work from the back office (e.g., RCM) to the frontline of care (e.g., bed unit risk management).
- **Cost and Resource Efficiency:** By eliminating the need for custom-built APIs for each use case and avoiding transaction fees of standard APIs, VennU Access reduces access time and effort by up to 90%. It also reduces the need for specialized technical talent, enabling API development and deployment to be completed by those who best understand the data in days, instead of months.
- **Scalability and Flexibility:** VennU Access supports the creation of APIs tailored to specific needs, with the ability to export and use these APIs across different EHR instances. APIs can be deployed in days and modified in minutes, ensuring rapid adaptability to changing data needs.
- **Enhanced Performance:** To maintain efficient API performance and prevent backend overload, VennU Access incorporates features such as throttling, timeouts, and configurable limits on requests. These mechanisms regulate resource usage, ensuring system stability and optimal performance even under heavy loads.

IMPROVING QUALITY & FINANCIAL PERFORMANCE WITH VENNU ACCESS



- **Robust Security and Privacy:** VennU Access offers a field-level security model with end-to-end encryption, zero data persistence, and comprehensive auditing. It is installed entirely on the customer's infrastructure and solely managed by the health system. VennU Access is SOC 2 Type II certified, demonstrating that the necessary controls are in place to protect sensitive data when hosting it on client infrastructure.
- **Uninterrupted Workflows:** VennU Access detects API field-level changes and immediately notifies system administrators with detailed insights for impacted APIs. This enables prompt resolution, minimizes downtime, and ensures continuous data access.

RESULTS

- The evaluation of the VennU Access platform was structured around four key categories:

01 Usability & User Experience
The platform's ease of navigation and efficiency, including features such as intuitive interface design, quick access to key functionalities, error prevention, and streamlined workflows.

02 Data Integrity & Accuracy
The platform's ability to manage data reliably, ensuring that data input, processing, and output remain accurate and trustworthy — an essential requirement for handling sensitive healthcare data.

03 Security & Monitoring
Features such as role-based access control (RBAC), audit trails, and customer's ability to track API usage — vital for protecting sensitive data and ensuring industry standards and compliance requirements.

04 Scalability & Interoperability
The platform's capacity to handle increasing data volumes and its ability to seamlessly integrate with existing systems, ensuring flexibility and readiness for evolving organizational needs.

FINDINGS

1. Usability & User Experience

Usability	• Graphical interface simplifies API creation. • Streamlined workflows reduce IT dependency. • User-friendly design with step-by-step guidance. • Easy and secure integration with third-party platforms.
Data processing	• Flexible field customization and data transformations.
Error Management	• Proactive warnings prevent potential issues. • Actionable error messages simplify troubleshooting.
Support	• In-person training and detailed resources provided. • Zendesk ticketing for issue resolution. • Dedicated support team.

2. Data Integrity & Accuracy

Quality Assurance	• QA checks validate fields, constraints, and permissions for secure workflows.
Quality Validation	• The 'Preview Results' feature ensures API accuracy and performance before deployment.

3. Security & Monitoring

Access Control	• Role-Based Access Control (RBAC) • Customizable roles tailored to organizational needs. • Customer-controlled access to sensitive data through request and approval workflows.
Data Protection	• API-level data masking to safeguard sensitive information during processing.
Activity Monitoring & Accountability	• Comprehensive audit logs enable customers to track system changes, login attempts, and actions with timestamps. • Enables monitoring, threat detection, and compliance assurance.

4. Scalability & Interoperability

Scalability and Performance	• Flexible architecture allows seamless scaling with increasing demand. • Features like throttling, timeouts, maximum database reads, and maximum response size regulate resource usage to maintain stability.
Adaptability	• The change detection feature notifies administrators of impacted APIs for quick resolution.

CONCLUSIONS

- Medcurio's VennU Access offers a practical solution to one of healthcare's most persistent challenges: accessing and using real-time EHR data.
- By removing the need for complex coding, it allows healthcare teams to build and manage APIs quickly and securely. This flexibility allows organizations to respond faster to data changes, reduce integration costs, and maintain smoother workflows across their systems.
- HITLAB's evaluation confirmed the platform's strengths in ease of use, security, and reliability.
- VennU Access's use cases span across **back-office operations**, **resource management**, **care delivery**, and **patient engagement**.
- For example, health systems are using the platform to automate claims processing, improve provider scheduling, reduce double-booking, and streamline patient intake.
- It also supports clinical workflows, such as automating triage routing, enhancing shift change communication, and running near-instant risk models in emergency settings.
- On the patient-facing side, it helps speed up mobile app response times and improves call center workflows with more reliable data access.
- As Medcurio expands VennU Access across major EHR systems, the platform is becoming a vital part of healthcare IT aimed at improving efficiency, reducing cost, and ultimately delivering better care.

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