

Scaling Green Agriculture with Ultimus Blockchain Business Process Automation

Client: eHempHouse

Industry: Sustainable Agriculture

Solutions: Organic Farming Compliance and Supply Chain Management



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COMPOSED PROCESS SOLUTIONS

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Background

eHempHouse has created a new business model that will usher in a regenerative, socially responsible world of equality in education, food, and opportunity – while providing appropriate profit and ROI for itself and its investors - by helping individual Zambian citizens become sustainable, organic, and successful farming entrepreneurs.

Challenges and Opportunity

Farming is a geographically dispersed endeavor that covers large areas, great distances, and remote locations. eHemp needed a way to ensure that (1) its network of individual growers are following green practices and raising crops that can be certified Organic and (2) sufficient supplies would be available to efficiently operate the facilities that convert the raw materials into end products and deliver on orders.

eHempHouse realized that tracking farming practices and crop progress by exchanging photographs through SMS and social media messaging was inefficient, unverifiable, and not scalable. Ultimus used its unique compositional architecture, industry-leading business process automation platform, and reusable Flobot® automations to rapidly and cost effectively deliver a flexible, end-to-end automated business process solution to these challenges.

The Ultimus Solution

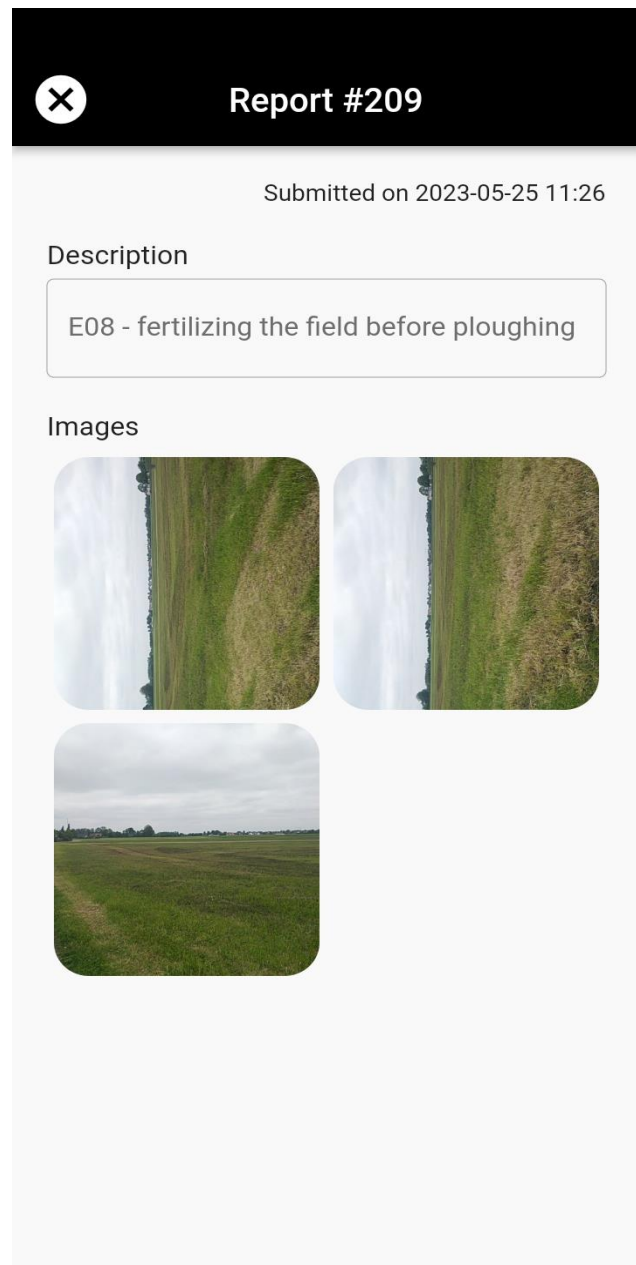
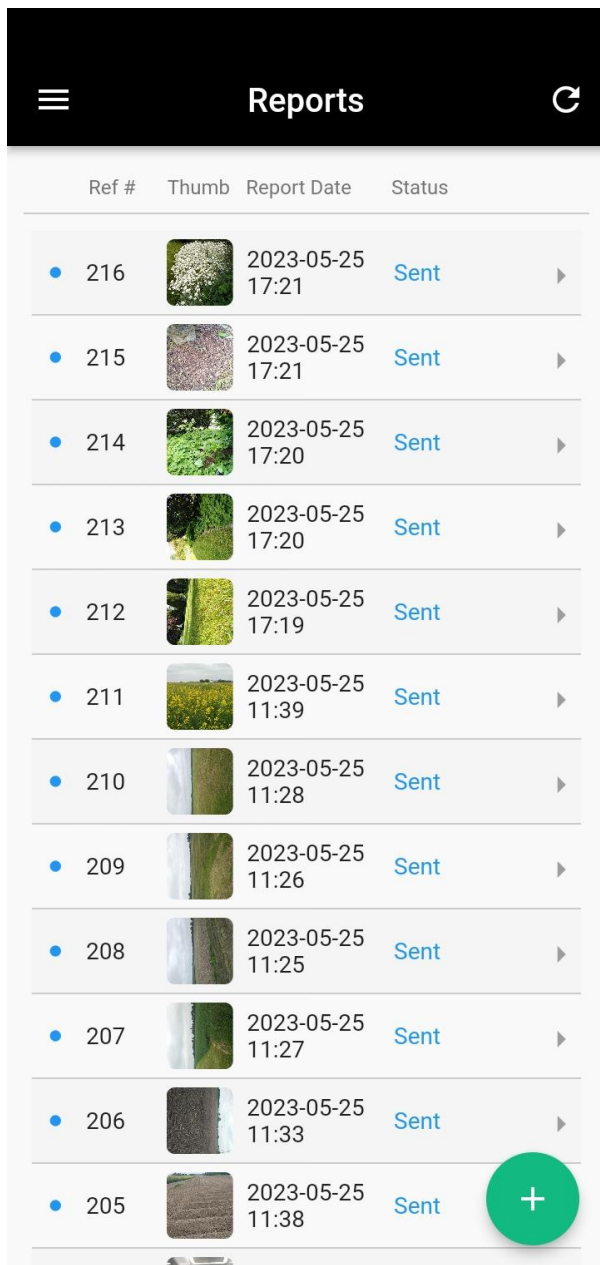
The Ultimus organic farming compliance and supply chain management solution utilizes [blockchain](#), mobile device, cloud, and low-code technologies to create a powerful, user friendly, and efficient business foundation for eHempHouse. Ultimus reusable, composable digital assets and business process management capabilities pre-integrate and orchestrate these technologies into a powerful, end-to-end, cloud-based subscription service that eliminates upfront investment and effort.

eHempHouse's solution starts with native Ultimus mobile apps that farmers download from Google Play or Apple App Store. At defined intervals and stages in the growing cycle, the eHempHouse's [Ultimus Digital Process Automation Suite](#) environment is configured to

Ultimus DPA Suite

Ultimus Customer Case Study

automatically launch a process instance, send notification of the task to the grower's mobile device, and ensure that the grower accurately provides the required documentation within a defined time frame.



Ultimus DPA Suite

Ultimus Customer Case Study

Farmers use the mobile app to upload photographs of their agricultural methods and crops. These pictures are automatically anchored to the [Kensei/nChain](#) blockchain to create an immutable and verifiable record of their validity.

The Ultimus DPA Suite's built-in blockchain capabilities implement all blockchain-related aspects automatically: user interfaces, anchor validations, credentials and e-stamping, communications with the anchoring service and blockchain, blockchain history, and match proof validation.

Depending on business rules and configurations, farmer's crop photos are placed in the Ultimus DPA Portal Inbox of a specific eHempHouse user, or placed in a group Queue, so that they can be reviewed and verified.

Verification ensures that the photo's geolocation data matches the defined field location and that it clearly documents the required information.

Reports are either accepted (and again anchored to the blockchain), rejected, or returned to the farmer for correction. An Ultimus management dashboard provides a convenient overview of all process instances and projects.

The screenshot displays the Ultimus DPA Suite dashboard. On the left, there is a sidebar with navigation options: REQUESTS (Initiate All 18), TASKS (Inbox 18, Queued 82, Assigned, Completed), and EHEMPHOUSE (Crop reports, Farmers, Projects). The main area is titled 'Crop Report Dashboard' and contains a 'CROPS LIST' table. The table has a 'Filters' section with dropdowns for Report Reference (0), Farmer (Please select), Projects (Please select), and Fields (Please select), along with 'Clear All' and 'Search' buttons. The table columns are: REF., FARMER, REPORT TIME, STATUS, DESCRIPTION, PROJECT, FIELD, FIELD STATUS, and VERIFICATION REV. The table contains 18 rows of data, showing various reports from farmers like Karl Muller and Johnny, with statuses such as Sent, Approved, and Returned.

REF.	FARMER	REPORT TIME	STATUS	DESCRIPTION	PROJECT	FIELD	FIELD STATUS	VERIFICATION REV
74	Karl Muller	04/14/2023 12:39	Sent	ehhz e4	EHHZ	Z12	Cleaned	Looks clean.
44	Karl Muller	04/14/2023 12:07	Sent	ehhz e4	EHHZ	Z12	Cleaned	Looks clean.
42	Karl Muller	04/14/2023 12:07	Sent	ehhz e4	EHHZ	Z12	Cleaned	Looks clean.
37	Karl Muller	04/14/2023 12:04	Sent	ehhz e4	EHHZ	Z12	Cleaned	Looks clean.
51	Karl Muller	04/14/2023 12:15	Approved	ehhz e5				
38	Karl Muller	04/14/2023 12:05	Sent	ehhz e5	EHHZ	Z12	Cleaned	Looks clean.
89	Karl Muller	04/14/2023 12:48	Returned	ehhz e6				
85	Karl Muller	04/14/2023 12:44	Approved	ehhz e6				
84	Karl Muller	04/14/2023 12:44	Returned	ehhz e6				
46	Karl Muller	04/14/2023 12:08	Sent	ehhz e6	EHHZ	Z12	Cleaned	Looks clean.
43	Karl Muller	04/14/2023 12:07	Sent	ehhz e6	EHHZ	Z12	Cleaned	Looks clean.
39	Karl Muller	04/14/2023 12:05	Sent	ehhz e6	EHHZ	Z12	Cleaned	Looks clean.
86	Karl Muller	04/14/2023 12:44	Approved	ehhz e60p	EHHZ	Z12	Cleaned	Looks clean.
40	Karl Muller	04/14/2023 12:06	Sent	ehhz e7	EHHZ	Z12	Cleaned	Looks clean.
88	Karl Muller	04/14/2023 12:45	Approved	ehhz e8	EHHZ	Z12	Cleaned	Looks clean.
115	Johnny	04/19/2023 04:06	Sent	Ez01				
114	Johnny	04/19/2023 04:00	Approved	Ez01				
106	Johnny	04/19/2023 03:08	Approved	Ez01				
59	Johnny	04/14/2023 12:26	Sent	Ez01	EHHZ	Z12	Cleaned	Looks clean.
113	lahnvv	04/19/2023 03:22	Approved	Fz012	EHHZ	Z12	Cleaned	Looks clean.

eHempHouse's Ultimus Process Instance Dashboard

Ultimus DPA Suite

Ultimus Customer Case Study

Ultimus also provided management applications to onboard new farmers, manage user access, and onboard and manage individual projects.

	FIELD NAME	STATUS	FARMER	LAST VERIFIED BY	LAST VERIFIED ON	VERIFICATION REMARKS
Yes	E01	Stumped	Tarek	Tarek Nabil	04/20/2023 02:19	
Yes	Z16a	Planted	Karl Muller	Tarek Nabil	04/16/2023 12:13	Verification Remarks for Test Purp
Yes	E07	Planted	Johnny	Steven Putter	04/16/2023 12:13	NEW UPDATE FROM FARMER
No	Z18	Planted	Karl Muller	Tarek Nabil	04/19/2023 11:11	
No	Z12	Cleaned	Johnny	Steven Putter	04/19/2023 01:25	Looks clean.
No	Z10	Planted	Karl Muller	Tarek Nabil	04/16/2023 12:13	Verification Remarks for Test Purp

eHempHouse's Ultimus Project Management and Overview Dashboard

Summary

eHempHouse's organic farming compliance and supply chain management solution is an important case study demonstrating:

1. The value and practical viability of using blockchain in business applications, in this case, to create an unalterable record of a physical item's existence.
2. Ultimus' ability to quickly and cost effectively compose established and emerging technologies (e.g., blockchain, task automation, BPA, integration, and mobile) into sophisticated end-to-end solutions, orchestrated by the Ultimus business process automation platform; and
3. How the cloud and "solution as a service" pricing eliminates business process automation's upfront investment, risk, and effort.



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