



emerald™

Convergent Voucher and Real-time Distribution Solutions™
 Core MNO Airtime Management solutions
 Facilitate Independent Voucher Management Stores
 Hosted or Full Ownership Solutions
 Prepaid and PINless Voucher Distribution

Emerald™ Services Whitepaper

Emerald™ is a flexible distribution system focused on enabling independent dealers to distribute and sell your products. It is suitable for the management and distribution for virtual, monetised products such as SMS messages, airtime and pre-paid electricity. The system consists of an integrated transaction processing system, a hierarchical distribution network and self-management interfaces. Emerald™ provides the company with an interface for viewing systems reports, submitting Emerald™ transactions and maintaining distribution hierarchies. Emerald™ enables its subscribers to integrate with their banking institution through the Crimson™ ISO8583 switch ensuring secure transacting between Emerald™ and the Issuing bank in any territory. Emerald™ has successfully integrated into:

- Major Retailers
- Banking Institutions
- USSD Services
- POS Devices
- Voucher distributors
- National MNOs
- International MNOs
- Multi Currency systems
- Multi Language services

Emerald's™ Distinguishing Features

Expert Monitoring:

- Full integration into Pyrite expert monitoring
- 24 Hour Support and Monitoring
- Real-Time incident reaction
- Failure prevention

Batch File Processing (BPF):

The Emerald™ solution allows its System Administrator the option to perform BPF transactions. Emerald™ accepts batches of MSISDNs including the denomination to be loaded, the specific MNO and subsequently loads the selected MSISDNs with the selected value

- Automated File processor
- Customisable Fields
- Secure validity checks
- File Type
- File Format
- File Content
- Processing status monitoring
- Error handling
- Error description
- Error and Recon Reports
- Exception management
- Automatic implementation imports

Hierarchical Distribution System

The hierarchical system within Emerald™ allows for the distribution of airtime or vouchers down the ladder and the movement of finances up the ladder. This system allows the System Administrator greater control of the business rules and logic to be followed within the System. Although not all the points in the hierarchical ladder is required, the below will detail the ladder in its entirety.

PMT Emerald™ Success Story

LEO, Namibia's second-largest mobile-phone operator, was established in 2007, and Pattern Matched Technologies™ has been providing technology solutions from the start. Approximately half of Namibia's population of two million people have mobile phones, and LEO's market share is between 15 and 20%. It is estimated that 80,000 Namibian mobile-phone users are subscribers. However, the bulk of LEO's client base comprises pre-paid users. Emerald™ has provided LEO with the technology to issue airtime-recharge vouchers – in both paper and electronic format – and facilitate the redemption of these vouchers. Also thanks to Emerald™, credit transfer between users can take place and statistics reports for auditing purposes can be generated.

LEO product group manager Ronel le Grange explains the advantages of the solution Pattern Matched Technologies™ custom-built for LEO. "Besides being environmentally friendly, electronic recharge vouchers are just so much handier than paper ones for rural users," she says. PMT's solution also has a very quick turnaround time, with credit reacting immediately once users have slotted in their pins. LEO has experienced no major system outages with its PMT solution, which Ronel notes as a significant achievement for the continent. "And all queries are solved the same day," she says. "I can tell you I am very happy with PMT's after-sales service."

Voucher Distribution

Voucher Vault

The Emerald™ voucher vault serves as a virtual storage facility for Vouchers. These vouchers may be airtime received from the MNO, decrypted and re-encrypted by the Emerald™ solution or system generated vouchers where the Emerald system has generated and encrypted the vouchers. Users of the System are able to generate, store, distribute or delete vouchers from the Vault. Reports can also be pulled against the vouchers within the vault identifying crucial business details such as expiration dates of vouchers and amount per denomination sold.

Direct IN integration

- Direct integration into all major MNOs
- PINless voucher Top-ups
- Any denomination
- Voucherless direct Top-ups & Real-Time Top-ups
- Integrate into all national and international MNOs

Voucher Generation

- Virtual Storage Facility for vouchers
- Secure encrypted Vouchers
- Decryption of non-Emerald™ Vouchers
- Voucher Generation
- Voucher Deletion & Voucher Quarantine

Emerald's™ Hosting Solutions

Emerald™ in the Cloud: Emerald™ as a cloud solution enables a Corporate to connect to Emerald™ where the client's Emerald™ distribution solution is hosted and data is stored securely in the cloud. The Emerald™ system is available as a fully hosted solution, or a licensed solution. Our hosting includes 24/7 support as well as real-time monitoring with Pyrite, to ensure 100% uptime for our clients.

Primary and DR Hosting:

Our Hosted Package includes Primary and Disaster Recovery hosting sites, ensuring our hosting is fully redundant. Hosted clients enjoy full in-rack redundancy on Amber™ instances. All systems are fully scalable to facilitate potential future growth.

With PMT's Top 40 Oracle Partnership and Gold Membership status, the Emerald™ hosted solution ensures quality and stability.

Central Administrative Platform

The Central Administrative Platform or CAP Portal, is the Front-End of Emerald™, enabling the Users to perform administrative and functional tasks.

- Registration of companies, sub-companies and Agents
- Construction of desired channels of product distribution
- Assign limitations to respective channels of product distribution
- Progressive management of the Businesses Operations
- Control over Administrative Functions
- Generate, Activate and Deactivate Emerald™ encrypted vouchers
- Generate MIS Business Reports such as:
 - Transaction History,
 - User Reports & Customer Activity etc

For more information, Contact Us



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