



Mobile Credit Card Payments for Prepaid Electricity

What is Cell Power?

Cell Power is an Electronic Voucher Distribution (EVD) system that uses standard GSM mobile telephones as affordable Point-of-Sales (POS) devices to sell and distribute prepaid electricity tokens (or vouchers). The system consists of a server located at the offices of the Electricity Supplier, making use of a virtually unlimited number of sales points in the form of standard mobile phones, to sell prepaid electricity tokens.

Cell Power, with the Credit Card Payment Module, enables a consumer to purchase prepaid electricity tokens from his/her own mobile phone. This provides a safe and convenient payment option for the consumer to purchase prepaid electricity any time, anywhere.

What does Cell Power consist of?

The Cell Power system consists of a server with a GSM interface (e.g. GSM modem, SMPP link, GPRS via Internet) located at the offices of the Electricity Supplier. Multiple servers and GSM interfaces can be used to increase reliability and throughput. The Cell Power server interfaces to the existing Electricity Payment Server of the Electricity Supplier, and via an EFT switch to the Electricity Supplier's acquiring bank.

A standard PC with a Web browser is used as an administration terminal to administrate the Cell Power database, and to view all transaction logs, management and sales reports. The administration terminals can be located at the offices of the Electricity Supplier, or anywhere where Internet access to the Cell Power server is available.

Consumers interact with the Cell Power server to purchase prepaid electricity via their own mobile phones.

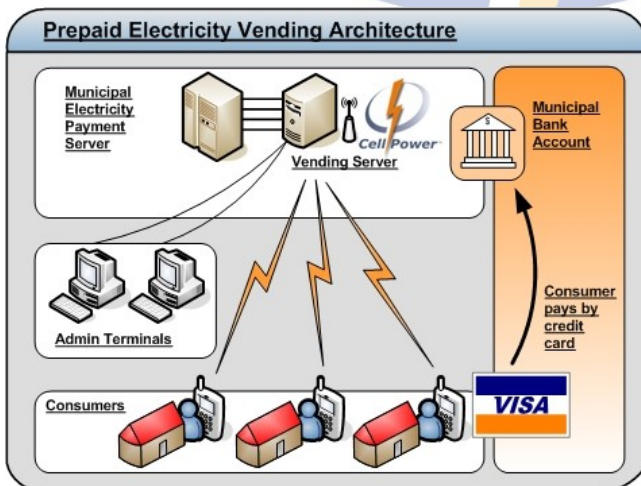
How does Credit Card Payments with Cell Power work?

The process for a consumer to purchase prepaid electricity has been designed to be as simple and convenient as possible. To purchase prepaid electricity, the consumer compiles a GSM message on his mobile phone containing:

- The electricity meter serial number of the consumer,
- The amount to be purchased, and
- The consumer's credit card details.

The message is sent via the GSM service to the Cell Power vending server. If the transaction is authorised by the consumer's financial institution, a response containing the 20-digit credit token is sent back to the consumer's mobile phone. The PIN is obtained directly from the existing back-office vending server of the Electricity Supplier. and the consumer enters the token into his meter at home.

No special registration procedure is required of the consumer before he can make use of the credit card payment service, provided the consumer is already registered on the Electricity Supplier's back-office prepaid management server.



Cell Power Benefits

Reduced cost

- A single server fans out directly to all consumers who possess mobile phones and credit cards.
- The Electricity Supplier provides a minimal-cost point of sale service to the consumer.

Reduced risk

- Transactions are conducted by the consumer at a time and place that is safe and convenient for him.
- No cash.
- All equipment belonging to the Electricity Supplier is located in a central server room.

Improved service levels

- Consumers no longer need to purchase prepaid electricity tokens from cashier offices or UVMs (Unmanned Vending Machines).



Specifications

Token Generation	On-line interface with back-office prepaid electricity management server.	Suprema Transaction Server via the eVend interface.
Administration Interface	Web Browser Five Administrator Levels Administrator Security Administrator Management Reports	Microsoft Internet Explorer V 5.X or higher, Mozilla 6, Mozilla Firefox 1.X Root, Supervisor, Cashier, Management, Technician. SSL Certificates. Administrator password to log in. Add, Edit, Delete. Transaction logs. Administration logs. Sales reports.
Prepaid Engine	Audit trail On-line transactions	Create an audit trail for all transactions. Purchase prepaid electricity, single voucher. Request Free Subsidy Request Reprint
POS Terminals	Mobile Phone Terminals	Any standard GSM handset . (GPRS-enabled phone with WAP browser required for WAP-over-GPRS). Comms services supported: SMS USSD WAP-over-GPRS
Server Requirements	Operating System Database Processor RAM Hard disk drives GSM Modem Power Supply Tape Drive	Linux, Microsoft Windows. MySQL. 2 GHz (Intel-compatible). 1 GB. 2 x 20 GB SCSI disks with hardware RAID-1 controller card. Falcom TWIST-SET. Dual redundant, hot swappable. For backup purposes.
GSM Connectivity	GSM Modem SMPP GPRS	SMS. USSD and SMS. WAP over GPRS.
Reliability and Support	Redundancy Remote Support	Dual-redundant servers. Hot take-over functionality. Support over low-bandwidth links.
Performance	GSM Comms	GSM modem supports 3-5 transactions per minute for SMS-based transactions. Multiple modems can be used to increase throughput. SMPP link supports 5-10 transactions per second (bandwidth dependent).

The Cell Power product is a development of



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