CALE WEBOFFICE

SYSTEM DESCRIPTION

Cale WebOffice is a web-based application designed to monitor, programme and control Cale pay and display terminals. Cale WebOffice supports the Cale MP 104 platform.

Cale WebOffice offers the best possible application format by allowing users to access back office functions via the Internet through a standard PC or MAC with a web browser installed. The software modules are department oriented for management, finance, maintenance, operation and administration.

CALE

Cale WebOffice includes the modules WebOffice today, Finance, Maintenance, Operation and Administration.

Each module can contain an unlimited number of users with different access privileges to submodules and data which makes the application flexible and user friendly.

All modules can export data as MS Excel files.

Cale WebOffice Today, the common start page for all users, presents various type of information.

A user with the correct user privileges can get the operation status from the *Terminals Module*. This module provides direct links to all other modules and also to real time reports.

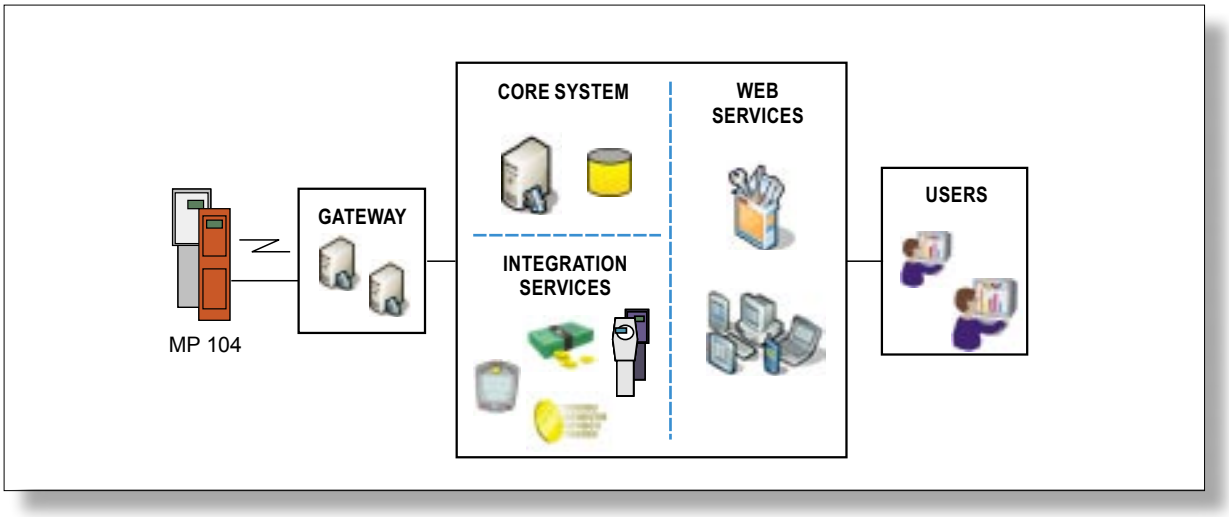
The *Finance Module* gives access to financial data to follow up, to compare against other systems and for report creation. Reports are created automatically and shown in real time.

The *Maintenance Module* is designed to minimize downtime and maximize the availability of the on street terminals. This is realized in real time and Cale WebOffice also automatically forwards alarms received from the terminals as e-mail. The forwarding rules can be filtered on work schedule and type of alarm. The module also has smart filtering and sorting function for tracing recurring problems.

The *Operation Module* contains all information regarding company, terminal groups, terminals and users.

Only a user with administrator privileges can modify information in the Operations Module. The system administrator has full control over users, access privileges and reporting options.

SYSTEMS OVERVIEW



All communication with the terminals is made through the G*ateway Module*. This module makes the central system independent of the communication method used.

The *Core System* handles sent and received queries in a fast and secure environment. All data used in the system are stored securely in a database and are accessible from the application modules. Cale WebOffice can be adapted to work with different types of data bases.

The Core System handles all requests from the terminals and processes the requests by exchanging data with the database or third party services (also called business to business, B2B) via the *Intergration Services Module*. Cale WebOffice can run applications based on data from other systems. These systems can be used to connect the terminals to a payment system, to use third party applications or simply to interact and exchange data with other management systems.

The *Web Services Module* handles the Cale WebOffice user interface that can include the customer's own logotype. The administrator can assign different access levels and privileges to users.

SECURITY

Security is a key issue with web based applications.

The Cale WebOffice, together with the hosting environment, is built as a true enterprise platform with a secure and flexible architecture that complies with the international standards ICO/IEC 17799:2005 “Information Technology - Code of practice for information security management”.

Cale WebOffice uses the Microsoft Internet Information Services (IIS) 6.0, Microsoft Windows 2003 Server Operating System, a powerful fire wall, advanced security filters, user authorization, IP address grant and deny restrictions, client and server digital certificates, 128 bit SSL, https protocol, information back-up, disaster recovery, and more.

All this ensure that Cale WebOffice complies with the highest standards of security for applications and information processing.

SSL is an abbreviation for Secure Sockets Layer, a communication security standards issued by Verisign. All mainstream web browsers such as Internet Explorer, Netscape, Opera and AOL support the SSL protocol. The SSL encrypts all data transmitted between a browser and a web server and vice versa.

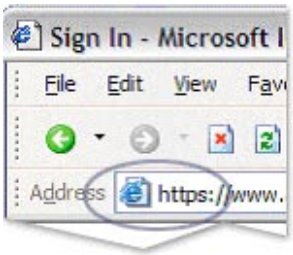
128 bit SSL is also referred to as strong SSL security. The *128 bit* is the size of the encryption key used to encrypt the data being passed between a web browser and a web server. A 128-bit SSL key is large and very difficult to crack and is therefore known as strong SSL security. Cale WebOffice has an SSL certificate which secures data transmission.

Web browsers can connect to web servers via *http (Hyper Text Transfer Protocol)* and *https (Hyper Text Transfer Protocol Secure)* connections.

Connecting via https means that the user has to enter *https://* before the domain name or click on a link that leads to a secure connection.

Cale WebOffice uses both https and SSL

A connection to Cale WebOffice is always performed using *https*. When logging in to Cale WebOffice the web browser indicates that the session is secured by strong SSL encryption as it changes the first part of the URL from *http* to *https* in the address bar and displays a small padlock in the lower right hand corner of the browser.



The Cale WebOffice user can click on the padlock to view and authenticate the SSL certificate.

Information backup and disaster recovery

Protecting Cale WebOffice data from being affected by hardware failure, fire or other disasters is a critical and important issue. The two methods used to protect data are efficient back-up routines and a detailed recovery plan.

The Cale WebOffice has comprehensive backup routines that automatically copy critical data to tape media. The backup is scheduled and includes all necessary files and directories to make a complete system restore.

A specific tape backup rotation is used to ensure that all data is protected even if a back up tape should malfunction or be lost. The tapes are stored in a separate, secure location.

Disaster recovery planning includes:

- Minimising the risk of problems occurring
- Failure recovery

CENTRAL MANAGEMENT

The robust security architecture of Cale WebOffice is used consistently across all system components. With Cale WebOffice, the administrator does not have to maintain multiple user data bases. All Cale WebOffice services can easily be managed from a single module that gives users access to application modules, reports etc., with a few mouse clicks.

Cale WebOffice produces log reports for monitoring and analysing user access and usage. For example: failed attempts to access a secure file, or specific changes made by a user, are recorded in the Cale WebOffice administration log.

ACCESS CONTROL

One of the most important issues for Cale WebOffice is providing powerful access control functions for web access to application modules and reports. Cale WebOffice is designed to make it easy to use a wide range of mechanisms for controlling access to critical business data, depending on user privileges.

Web access control mechanisms:

- Advanced security filters
- User authentication and authorisation

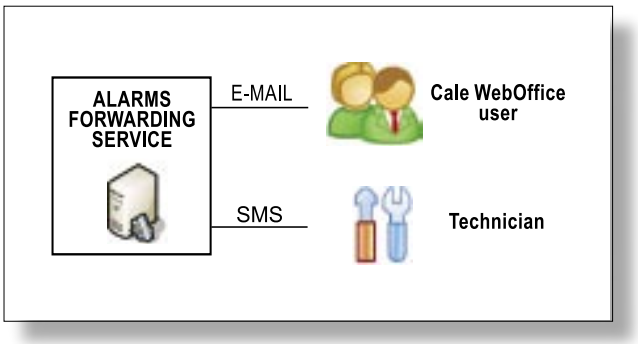
Direct server and database access control mechanisms:

- IP address grant and deny restrictions
- Client and server digital certificates
- Automatic log out after a few minutes of user inactivity.

CONNECTIVITY

Cale WebOffice handles all communication to and from Cale MP 104 terminals. File transfers can be scheduled and are then performed periodically without any manual adjustments. The system has built-in support for GPRS and GSM.

Cale WebOffice provides an alarm forwarding service via E-mail and SMS according to personal forwarding preferences.



These features can be used for instant reach of mobile users with warning and alarm messages.

The E-mail forwarding service is included in the standard package while a separate subscription is required for the SMS forwarding service.

Due to continual product development specifications are subject to change without notice.

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