

CareLINE Clinic Management System (CMS)

Improve patient care and clinic management





CareLINE CMS

The reliable and convenient
Web-based solution for total
clinic management

CareLINE

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Executive Summary

BT Frontline Pte Ltd is pleased to equip you with a system to ease your transition into the Ministry of Health (MOH) Chronic Disease Management (CDM) programme, where General Practitioners (GPs) are encouraged to be actively involved in the management of patients suffering from chronic diseases. Our goal is to provide you with a user-friendly, cost-effective system so that you can capitalise on this programme.

Known as CareLINE Clinic Management System (CareLINE CMS), it is a comprehensive, cost-effective and user-friendly Web-based system that comes with free subscription for the first year when you select CareLINE CMS as your choice system. The first year subscription fee, starting from 1 Oct 2006 is FREE, which includes the CareLINE CMS solution and broadband service from SingTel. This very attractive package will help facilitate your participation in the CDM programme as more chronic diseases are being covered over the two stages in the implementation of the scheme, beginning October 2006.

With CareLINE CMS, you can improve the overall management of your clinic operations, including the maintenance of patient records, without compromising on the confidentiality of information. Operational efficiency can be achieved as CareLINE CMS allows you to manage clinic billings, patient encounters, drug inventory and appointments. Besides having the many benefits of CareLINE CMS, the core modules of the system are seamlessly integrated into

the Claims and Clinical Reporting modules to meet the specific requirements of MOH's CDM programme.

Designed for both individual and group medical clinics, BT Frontline's CareLINE CMS is one of the most comprehensive, user-friendly and cost-effective system available in the arena of healthcare solutions today.

BT Frontline's Corporate Mission is "To enable the best business results through ideas, people and technology". Founded since 1993 and with a presence of over 3,900 IT professionals in eight countries in Asia, and with a total Group Revenue of \$455 million, you can count on BT Frontline's core strength as the leading IT services provider in the region and strong track record in consistently meeting a high standard of service delivery when catering to your needs.

Corporate Profile

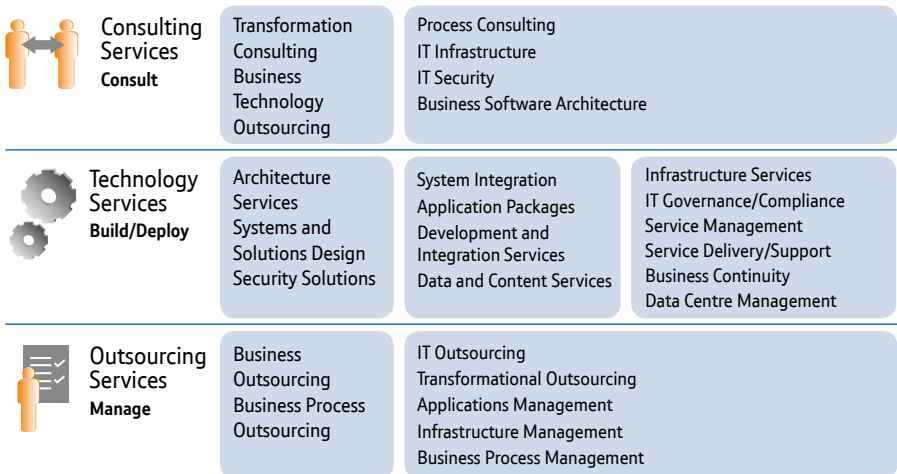
BT Frontline, a wholly owned subsidiary of British Telecommunications plc, is a leading provider of end-to-end IT services. BT Frontline offers IT consulting, IT infrastructure, IT security solutions, enterprise application solutions, system integration as well as outsourcing to help companies harness IT so as to drive operational cost efficiency as well as business growth.

Established in 1993 and headquartered in Singapore, BT Frontline has more than 5,000 professionals (direct and indirect) in ten key markets in Asia -China, Hong Kong, India, Indonesia, Malaysia, Singapore, Philippines, Taiwan, Thailand and Vietnam - to meet the specific needs of corporate organisations across a continuum of industries.

Our End-to-End IT Service Offerings

At BT Frontline, we share a common goal to set the benchmark in the creation and development of end-to-end IT services and solutions that deliver the best cost and performance value to our global customers. To help organisations harness IT to drive operational and cost efficiency and to

attain business growth, we offer a complete range of services including IT consulting, IT infrastructure design and implementation, IT security, enterprise application solutions and managed services, including IT and business process outsourcing.



BT Frontline's End-to-End IT Services

Over the years, we have served the needs of blue-chip customers from both the public and private sectors and we possess a myriad of domain experience including education, healthcare, government, financial services, manufacturing, telecommunications and transport. Some of our global clients include Advanced Information Services, Chartered Semiconductor, China Mobile, Development Bank of Singapore, Health Promotion Board, Ministry of Health, MobileOne, PSA Corporation, Seagate, Singapore Airlines and Starhub, just to name a few.

For instance, BT Frontline is working with the Infocomm Development Authority of Singapore (IDA) to build, deploy and manage desktop firewall solutions for the public sector for at least 25,000 desktop computers at the initial stage. Known as the Centrally Administered Desktop Firewall (CAFE) project, this is aimed at enhancing cyber security in the public sector through the enforcement of consistent security functions and policy within desktop computers.

BT Frontline's proven outsourcing strengths scored significant win with the award of a \$20 million contract by PSA Corporation (PSA), a leading global port and logistics company, where we are commissioned to fulfill PSA's IT development needs, including applications development, maintenance and IT support and project management.

BT Frontline was also awarded a multi-million, multi-year outsourcing contract by

Singapore Reinsurance Corporation Limited (SingRe), where we will support SingRe's business functions by managing its IT infrastructure and applications.

Still in the financial services domain, a leading financial institution and regulatory body also entrusted BT Frontline with the development of its large-scale Public Key Infrastructure and two-factor authentication that serves over thousands of companies, institutions and investors.

We have also secured a number of projects for our diverse offerings that range from enterprise-class infrastructure to managed service subscriptions. With its strength of its reputation for making IT simple for enterprises, our associate company, iAspire.net, has enabled clients in industries such as manufacturing, lifestyle, insurance and travel to enjoy the benefits of iAspire's range of hosted services, Internet Protocol (IP) and Voice over IP (VoIP) communications solutions. The hospitality industry in Singapore also benefited from iAspire's recently-introduced modular, scalable iAccess Hospitality Solution.

Making Inroads into the Healthcare Industry

In the healthcare arena, BT Frontline has delivered several projects to both private and government-owned hospitals. For instance, BT Frontline was awarded a multi-year, infrastructure outsourcing contract by Kangar Kerbau Hospital (KKH) and in 2005, BT Frontline collaborated with Alexandra Hospital for its IT-driven healthcare system, CareLINE. The suite of CareLINE system will enable the hospital to achieve better quality clinical care and improved service excellence.

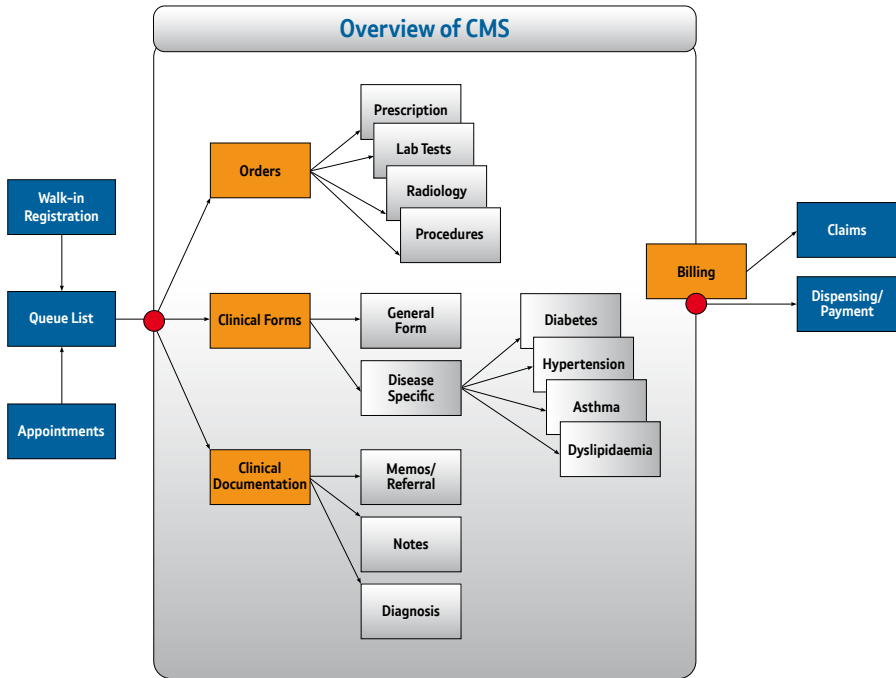
The CareLINE system has been in the market for slightly less than a year, with more than 30 General Practitioners and Specialists in the region already using our system.

Our associate company, Ecquaria, also successfully completed a multi-million dollar project, Student Health Assessment Programme (SHAPE) and Integrated Dental Electronic Assessment for Students (IDEAS), commissioned by Singapore's Health Promotion Board to design and implement a scalable and extensible computerised patient management system. To date, SHAPE and IDEAS is the largest healthcare application deployed in Singapore which involves a massive exercise to administer healthcare screening of the nation's 500,000 students across 330 schools, 1,200 kindergartens and childcare centres.

In addition, Ecquaria implemented the online breast cancer and cervical cancer screening system for the Health Promotion Board. The robust and highly scalable full-service system provides citizen-centric services such as appointment booking, registration and access to screening results. The system leverages on the Ecquaria Service-Oriented Platform™ to integrate, automate and streamline the Health Promotion Board's business processes and operations procedures throughout the island's various Screening Centres, Reading Centres and Assessment Centres to deliver efficient and effective screening services to its female patients.

Your Choice IT Solutions Provider

At BT Frontline, we set our sights high and you can rely on us to help you enhance operational efficiency and boost performance through the optimal use of technology. With strong industry knowledge, collaboration with key technology partners and several successful implementations and good track record, you can rely on us to deliver results for your business.



Overview of CareLINE CMS

CareLINE CMS is a Web-based clinic management system with Medisave claims and reporting modules that comply with the Ministry of Health’s (MOH) Chronic Disease Management (CDM) programme delivered on an Application Service Provider (ASP) Model.

With basic core modules built-in, CMS seamlessly integrates with the Claims and Clinical Reporting modules. Primary-care physicians can now look forward to affordable electronic medical record (EMR) solutions to improve practice efficiency and patient service, and at the same time, be able to participate seamlessly and effortlessly in the CDM programme recently introduced by MOH.

Designed specifically for use by both individual and groups of medical clinics, CareLINE CMS is one of the most comprehensive, yet easy-to-use and cost-effective system available.

What is an ASP Model?

An ASP model means that the application software resides on the service provider's data centre, and authorised users will access the application software and related data via a Web browser from their PC terminals.

An ASP solution allows subscribers to adopt and benefit from leading-edge technology without the need to invest heavily in the technology, infrastructure, maintenance, upgrade or in-house technical expertise.

BT Frontline – Your Preferred ASP

When you select BT Frontline as your choice ASP for CareLINE CMS, we will provide you with the application and related services such as storage space, backup, maintenance, training and support. We will also provide upgrades that address technology advances, changes in healthcare legislation, practice guidelines and funding models at no charge.

CareLINE CMS and your data will be hosted at BT Frontline's own data centre and you

can be assured that your data is secured at all times as our data centre is BS7799 certified.

In addition, integration to ancillary services from external agencies such as clinical laboratories, related government agencies, prescriptive suppliers, is also possible.

You can now harness the power of IT to improve your clinic and patient management without the need for heavy investments.

Features and Benefits

CareLINE CMS is a Web-based clinic management system with built-in Medisave claims and reporting modules that comply with MOH's CDM programme.

Features

- **Strong security features**
 - Dual-level user authentication with access level control ensure that only authorised users may access and enter data restricted to their level
 - Secured and encrypted data storage
- **Easy-to-use interface, quick and easy information entry and retrieval**
 - Pull-down menus provide quick, accurate and consistent data entries
- **Patient administration, queue management and appointments**
 - Capture your patient's bio information, registration and schedule appointments
 - Print labels and forms
- **Clinical notes**
 - Record information on your assessment, diagnosis and prescription of your patients
- **Automated ICD 9CM diagnosis**
 - Built-in ICD 9CM codes for ease of data entry, billing to corporate clients and compliance to regulatory requirements
- **Alert check points**
 - Built-in alert for check point drug prescription (for allergy cases), Medisave submissions, appointments, etc
- **Monitoring charts**
 - Chart treatment progress for your CDM patients to determine effectiveness of treatment
- **Cost efficient inventory management**
 - Enable you to manage and maintain optimum stock level
 - Calculate cost of inventory consumed
- **Configurable resource management**
 - Allow flexibility to customise variables such as price, vendors, drug names for local use, drug list available, packaging, etc, to suit your clinic's operations
 - Create and define users as and when needed

- **Automated billing and accounting**
 - Calculate the total bill at the end of consultation; consolidates billing to corporate clients, etc
- **Seamless and reliable Medisave claims submission and MOH reporting for MOH's CDM scheme**
 - Submit Medisave claims securely to CPF Board (CPF Board) and track status of submission via MediClaim summary
 - Consolidate the reporting required by MOH for the CDM programme
- **Management reports**
 - End-of-day reports such as attendance list, drug prescription list, collection list
 - Drug usage and drug level reports
 - Billing and financial reports
 - Health alert reports
- **Sharing patient data within the same clinic group**
 - Allow your patient the flexibility to visit other clinics within your group and still have access to the same quality care, as your patient's data will be available to all doctors within the group.

Benefits

- **Immediate cost savings**
- **New revenue stream from Chronic Disease Management programme**
- **Conform to CDM programme**
- **Improve clinic and patient management**
- **Automated MediClaims submissions and reporting**
 - Ease administrative workload
- **User-friendly and easy-to-use system**
- **Safe access to your data over the Internet, anytime, anywhere**
- **Possibility of sharing patient data within the same clinic group**
- **Able to integrate ancillary services from external agencies such as clinical laboratories, related government agencies, prescriptive suppliers.**

Competitive Analysis

	MediClaim eService	Other Clinic Management System	CareLINE CMS
Initial Investment	PC for Internet access Business Internet Access (Normal list price ranging from S\$100-S\$300 per month) Security Token at S\$252 valid for 3 years	PC for Internet access \$588 for the first year subscription	PC for Internet access Free subscription for the first year
Subscription Package	NIL	S\$49/mth for 3 years Includes: Clinic Management System software Add-on modules for electronic lab results and tracking of payments from Medisave 2GB data storage Data migration Unlimited 512kbps broadband Internet connection 24x7 application support Training for 2 users	1st year : Free 2nd year : S\$50/mth 3rd year : S\$99/mth Includes: Full CareLINE CMS solution including: Medisave claims and payment tracking CDM reports to MOH Unlimited data storage Data migration Unlimited 512kbps SingTel broadband Internet access for business 24x7 helpdesk support Training for up to 4 users
Automated MediClaim Submission and Tracking	Not provided	Provided	Provided
Reporting Conformance to the MOH Requirements	Manual	Provided	Provided
Other Features	NIL		Your clinic operations are efficiently managed with a clinic management system.

* Information is correct at time of printing.

Frequently Asked Questions

I. About Web-based CMS

a. What is an Application Service Provider (ASP) model for Web-based Clinic Management System (CMS), and how does it benefit me?

CMS service delivered on an ASP model means that the application software resides on BT Frontline's system and this service is accessed by authorised users through a Web browser. There is no need for the GP to install, run and maintain a server to host the application and database, nor having to worry about linking to it other systems.

With an ASP model, you also need not worry about storage growth, system maintenance and backup, thus eliminating investments and expenditure required for infrastructure and maintenance service for your clinic. Updates and improvements to the CMS are made seamless to the GP who can then concentrate on improving patient care. There are also no costs to you for maintenance and upgrades to the system.

II. Assurance of Service Availability

a. What happens if CareLINE CMS service is down? How will support be rendered?

CareLINE CMS is hosted at our 24x7 data centre equipped with high availability and advanced network connectivity features. This data centre, managed by our subsidiary iAspire, is BS7799 certified — you can thus be assured of accessibility and integrity of your data at all times.

Our CareLINE helpdesk also operates 24x7, where round-the-clock assistance is available when you need help. BT Frontline's Call Centre operations are also ISO 9001:2000 certified.

III. About Data Security and Control

a. How can I be sure that my data stored with BT Frontline (my ASP) is secured? Can anyone else access my clinic's data?

As an ASP, BT Frontline is bound by the Electronic Transaction Act and Computer Misuse Act.

Under the ASP model, the clinics still own their data. In addition, we store each clinic's ENCRYPTED data separately. Strict patient/doctor privacy is observed as we cannot and will not share your data with others. Should you decide to terminate the service with us, your data will be returned to you.

Only authorised users will have access to their own data. The ASP vendor will NOT have any access to your clinic's data as it is encrypted. Doctors are required to change their passwords at both the clinic-level and user-level when they first login to the system. BT Frontline, as your ASP, will only be able to provide secure system generated password to override your current ones should you lose your password in any circumstances (this is the same process for Internet banking).

b. With the ASP model, does it mean that the doctor has no ownership over their data? If the doctor refuses to pay the annual subscription fee, will he risk having his access to his data blocked?

Doctors will always own their data (and their patients') that is stored with BT Frontline, your ASP (just as you continue to own your valuables that you keep with your bank's safe deposit).

When you terminate your subscription due to unforeseen circumstances, you will no longer be able to access CareLINE CMS service and features. We will return your data to you as specified in the terms of the agreement, and delete your data from our ASP CMS server. When you renew your subscription, you will regain full access to CareLINE CMS service and features.

BT Frontline can extract your existing data and transport it onto a storage media if you wish, at anytime, for a small service fee.

c. In an ASP model, does it mean that doctor-users may not have full control over how the data is stored or utilised in this Web-based system?

We will provide the full details of how your clinic's data is stored and encrypted. Privacy requirements will be adhered to and we do not access or utilise your data for any purpose.

d. In a non Web-based CMS, after paying for the one-time CMS licence, the doctor owns the software, and continues to have access and control over his data as it resides on his PC. Wouldn't this seem more cost effective and better than a subscription service when compared to a Web-based CMS?

When the doctor chooses to own and run his CMS system on a PC in his clinic, there is a heavier initial investment and he will be responsible for subsequent maintenance, backups, storage space, system and software upgrades, as well as security issues. Owning and maintaining a CMS may not be something that doctors want to do as it is not their core expertise. Besides, any upgrades or changes required may be costly.

When you subscribe to CareLINE CMS, BT Frontline, your ASP, takes care of all these for you so that you can focus on delivering and improving patient care. Data will still be fully owned by the clinic and will be individually stored in an encrypted manner. You also have the advantage of being able to access your clinic's data anytime, anywhere — without the need to return to your clinic.

IV. About Data Migration and Customisation

- a. I have an existing Clinic Management System, but would like to upgrade to your Web-based integrated system to participate in CDM. Can you do the data migration for me?**

We have identified a few common databases that GPs use and would be able to migrate your patient's bio data at no cost. However, if the complexity of the data migration increases, there could be additional costs involved for the migration. You may call our CareLINE helpdesk at (65) 6415 4687, and we will be glad to assist you with any queries you may have on this issue.

- b. There are some special features and functions which I require for CareLINE CMS. Can you do the customisation for me?**

BT Frontline has the expertise and domain knowledge to assist you with your needs. Fees and charges will apply depending on the scope of customisation required. Do speak with us for a further discussion on how we may assist you on this.

V. About Data Submission to CPF and MOH for Clinics Under MOH's CDM Programme

- a. Will BT Frontline be synchronising part of the overall data with MOH's Web-based system for the submission of Medisave claims for patients suffering from chronic illnesses?**

BT Frontline does not synchronise any part of your data with MOH's Web-based system.

We only submit on your behalf, Medisave claims for your CDM patients, which you would otherwise be required to submit through MOH's MediClaim eService. You will still have control over such submissions and can decide on which claims to submit, or hold, before the batch submission which is typically scheduled at the end of each business day.

Under the CDM scheme, the information that is extracted automatically for the submission to MOH are the patient's basic bio data (name, age, gender, race) and key clinical indicators (HBA1C, height, weight, LDL cholesterol, foot, eye and urine test).

- b. In a non Web-based ASP model, does the doctor himself choose to synchronise only the essential part (not whole) of his patient data to MOH's Web-based system, for the submission of Medisave claims for patient suffering from chronic illnesses?**

If you choose to submit the Medisave claims via MOH's Web-based system, you would need to purchase a security token at S\$252, and also manually type in the entries for the submissions at MOH's website. Likewise, you would need to consolidate the required CDM reports manually for the submission to MOH.

VI. About CareLINE CMS Package and Service Subscription

- a. Why should I subscribe to CareLINE CMS?**

Take this opportunity to upgrade to our Web-based Clinic Management System delivered as an ASP model and enjoy the following:

- Hassle-free maintenance
- Free subscription for the first year
- Equip your clinic with a CMS system for total clinic management, improved healthcare management, better productivity and more efficient administration
- Manage CDM patients effectively, submit Medisave claims and CDM reports to MOH as required, with ease.

- b. The subscription package is for three years only. What happens after the third year?**

Our subscription package is specially designed to assist GPs to ease into MOH's CDM scheme. The first year's subscription is given free to you to minimise your investment needed to embark on MOH's CDM programme, so that you can have a head start in managing your CDM patients, submit Medisave claims and conform to MOH's requirements.

With the projected number of CDM patients to be passed on to GPs to provide care for them, the incremental subscription from the second and third year will eventually pay off.

BT Frontline will provide you with three months' notice prior to the expiry of the subscription term with regard to the new pricing. We will keep the new pricing as competitive and viable as possible for subsequent renewals.

c. Is there a limitation to the storage size that I am given for this subscription package?

There is no storage limitation per clinic subscription if you sign up for this subscription package now — it does not matter how many users or consultation rooms you have in your clinic.

d. I have more than one clinic. Can I sign up for just one subscription package for all my clinics?

Each clinic will require its own Internet access and clinic login in order to access CareLINE CMS. If you have multiple clinics that form one clinic group, we can assist you on how you can take advantage of CareLINE CMS for better integration for your operations.

e. I need more than one user access in my clinic — one for myself, and one for my nurse. Does it mean I have to subscribe to two packages?

Each clinic will only require one subscription for your clinic login. All you need is a router to share the Internet access. There are two levels of logins:

- Clinic login – this is like the key to your clinic, without which, you will not be able to access CareLINE CMS service.
- User login – you can create as many users as you need, and also specify the access level of each user created.

f. If I take up your subscription package, do I still need the security token needed for MediClaim submissions? Is the fee of S\$3.45 transaction still applicable?

Our system is designed to help you submit the MediClaims securely and you will not need the security token as the medium of submission is different.

The transaction fee of S\$3.45 per MediClaim is still applicable as it is a charge levied by CPF and NCS for the processing. CPF is the billing agent for this service.

g. What type of equipment do I need in order to subscribe to CareLINE CMS?

Essentially, you would only need a PC with Internet access for this service. If you need to connect another PC to the same broadband line, you will need a router.

h. Do you also sell PC and router?

Yes, we have worked with our other technology partners to put together special PC bundles for you to minimise your investment required for this service. Please refer to our PC bundle pricing for more information.

i. What happens if I terminate my contract prematurely?

This special package is priced at a substantial discount for your benefit and is binding for three years. Penalty will apply for premature termination as set out in the termination clause in the subscription agreement.

j. Will CareLINE CMS enable me to check if my CDM patient has sufficient Medisave funds to withdraw for his CDM consultation?

Yes, this feature will be available in our system in the first quarter of 2007 when the information is made available by CPF.

k. Will training be provided? What if I still encounter difficulty using the system after attending the training?

We will provide you and your users with the training needed for CareLINE CMS. The training schedule will be sent to you when you subscribe to our service.

You can always contact our CareLINE helpdesk for assistance should you encounter any difficulty while using the service.

Contact Us

For enquiries and more information on CareLINE CMS, please contact:

CareLINE Helpdesk

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