

**ELEKTROTEHNIČKI FAKULTET  
SVEUČILIŠTA JOSIPA JURJA STROSSMAYERA  
U OSIJEKU**

**ODNOS TEHNOLOGIJE MOBILNIH SUSTAVA (GSN) I KUPCU  
ORIJENTIRANOG MENADŽMENTA (CRM)**  
(CRM – Tools and Structure of the Support Organisations)

**KREŠIMIR ŠOLIĆ**

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## **DIPLOMSKI ZADATAK**

Menadžment okrenut kupcima (CRM) je skup organizacijskih i metodoloških postupaka kod tvrtki koje svoje poslovanje zasnivaju na tehnologijama mobilnih sustava. Treba razmotriti probleme, uzroke i posljedice CRM-a od velikih kompanija do obiteljskih tvrtki s naglaskom na analizu trenutnog stanja te dati prijedlog implementacije CRM-a. Analizu treba usmjeriti na kvalitetu tehničkih rješenja te strukturu organizacija odgovornih za podršku proizvoda.

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# 1. UVOD

Radeći u Ericssonu «Mobile Data Design AB», u odijelu koji se bavi podrškom i distribucijom specijaliziranog proizvoda ove kompanije, GSN-a (e. GPRS Support Node), kao dio tima koji predstavlja vezu između dizajnera i kupaca, u ovom slučaju mobilnih operatora, uvidio sam poslovne probleme i trendove koji vladaju u današnjem poslovnom svijetu, a koji su najizraženiji u području firmi koje se bave razvojem softvera. Njihov osnovni problem je skupa podrška koju su dužni davati za svoj proizvod, najčešće 5 do 10 godina nakon prodaje i prestanka proizvodnje dotičnog proizvoda. Ovo se jako negativno odražava na daljnji razvoj istoga ili novog proizvoda, jer su firmini resursi (u ljudstvu, novcu, opremi i vremenu) opterećeni rješavanjem problema koje njihovi kupci doživljavaju zbog nesavršenosti njihovih softverskih proizvoda. CRM (Customer Relationship Management) je poslovni koncept koji više ili manje rješava ovaj problem.

Kao student na 15-esto mjesečnoj praksi, sa željom izrade svoga diplomskog rada u tome vremenu, u dogovoru sa profesorom te mojim tadašnjim menadžerima, dogovoreno je da napravim istraživački projekt, a u svrhu utvrđivanja koliko je CRM potreban Ericssonu danas. Ovaj dogovor je nastao nakon 6 mjeseci mog rada za gore navedeni odjel, tako da je uzeto u obzir i moje 6-to mjesečno radno iskustvo u ovome području i poznavanje problema koji se javljaju u svakodnevnom radu mog tima. Projekt je uspješno završen, a izvještaj sa kompletnom analizom, ocjenom i preporukama se nalazi kao prilog ovome izvještaju.

Odluka mojih menadžera da maksimalno iskoriste rezultate mog rada (uzmu u obzir moje ocjene i preporuke i osiguraju potrebne resurse) dokazuje aktualnost CRM-a danas u tehničkom svijetu. Međutim, pokazalo se da se ovaj koncept poslovanja može proširiti i na sva ostala područja proizvodnje i usluga, te da je samo zbog prirode proizvoda softverska firma to prva prepoznala i počela CRM djelomično primjenjivati prije ostalih.

Također nije čudno povećano zanimanje industrije za menadžmentom (današnje vrijeme zahtijeva široku naobrazbu). Tako sam primjetio, družeći se sa studenima tehničkog sveučilišta u Göteborgu, da većina zna ili je makar čula za CRM, dok se u knjižnici Ekonomskog fakulteta u Osijeku o tome ne može naći niti jedna knjiga. Usmjerenje industrijski menadžment sa svojim podusmjerenjima je prisutno na dodiplomskom i postdiplomskom studiju tehničkog sveučilišta «Chalmers» i ekonomskog fakulteta Göteborgskog sveučilišta. Štoviše, ova dva sveučilišta su zajednički organizirala jednogodišnji magistarski program (na engleskom jeziku) iz područja

industrijski menadžment, a sa ciljem postdiplomskog proširivanja znanja diplomanata sa tehničkih sveučilišta.

U svome radu koristio sam isključivo Internet kao osnovno sredstvo informacije, te uvidio njegovu važnost: Internet postaje (ako već i nije) glavnim izvorom informacije. Sa web stranica konzultantskih agencija naviše sam naučio o CRM-u, koristio sam knjige tehničkog sveučilišta u Göteborgu (izdanje iz 1996 govori da ideja i nije baš toliko nova, pa zašto onda ne postoji hrvatska web stranica sa CRM problematikom?!), te svoje ili intervju kolega studenata sa menadžerima kompanija SKF, Volvo Car Corporation, Swisscom.

Moram još dodati da je CRM problematika tijesno vezana uz databaze, web stranice, e-mail, te da je naziv e-Commerce djelomično sinonim za CRM.

I na kraju uvoda bih još istaknuo da ovaj kratki izvještaj sadrži objašnjenje CRM-a, teme moga diplomskog rada, te GSN-a, softverskog proizvoda s kojim sam radio, te analizu i komentare o njihovoj međusobnoj povezanosti kao međusobnih uzroka i posljedica. Također bih se zahvalio svome profesoru Franji Jović, te mojim menadžerima Masoudu Mohammadi-Khoi i Patriku Bengtsson, što su mi omogućili izradu diplomskog rada u ovome, danas izrazito aktualnom području.

## **2. CRM**

CRM je stari poslovni koncept koji danas ponovno postaje aktualan zahvaljujući tehnologiji koja ga omogućuje i podržava. U ovome odjeljku ću nastojati objasniti ovaj poslovni koncept te se dotaći problematike koja analizira koliko je uopće ovaj koncept danas potreban.

### **2.1. Koncept CRM-a**

U prošlosti, prije doba inustrijalizacije i masovne proizvodnje na pomičnim trakama, poslovni su ljudi (trgovci, bankari, obrtnici) znali organizirati svoj posao s ciljem što zadovoljnijih kupaca i korisnika njihovih usluga. Oni su znali razlikovati svoje redovite kupce od onih neredovitih ili čak povremenih, te se različito odnositi prema njima, na način da na one kupce ili korisnike usluga koji su najprofitabilniji obrate posebnu pažnju. Takovim, cjenjenijim korisnicima bile su nuđene posebne usluge, po posebnim cijenama, te kamate i zajmovi po posebnim uvjetima vraćanja novca (npr. u bankarstvu).

Osnovna ideja CRM-a je, ne više orijentiranost firme prema proizvodu već povećana briga za korisnika/kupca, koji je sada čak i važniji pojedinoj firmi nego sam proizvod. Prošlo je vrijeme masovne proizvodnje i reklama u stilu engleskog magnata Forda koji je tvrdio da kupci koji kupuju auto marke Ford mogu kupiti automobil željene boje, pod uvjetom da žele automobil crne boje! Proizvodi, pa tako i usluge moraju biti prilagođeni osobnosti kupca/korisnika usluga. Ovo je danas opet postalo moguće razvojem baza podataka, koje omogućuju pohranu podataka o pojedinim korisnicima, te softvera koji omogućuju analizu i optimalno korištenje tih podataka.

Međutim, CRM nije tehnologija, već poslovni koncept, tj. poslovna filozofija. Štaviše osnova uvođenja CRM-a nije kupovina novih kompjuterskih sustava (databaza, softvera, web stranica), već promjena u načinu razmišljanja prvenstveno najviše rangiranih menadžera, pa do onog običnog radnika, najnižeg u hijerarhiji kompanije. Ovo je danas najveći problem firmi koje su odlučile uvesti ovaj koncept i promijeniti način dosadašnjeg poslovanja.

Dakle CRM je tehnološki omogućen, ali i logična promjena baš zbog tehničkih mogućnosti koje su korisnici usluga i kupci prepoznali. Oni postaju sve zahtjevniji i kompanije koje ne uspiju preorijentirati svoje poslovanje s proizvoda prema kupcu izgubit će konkurentnost i propasti.

Jedan primjer iz svakodnevnog života će objasniti o čemu govorim: prije sat vremena nazvali su me iz uredništva lista «Osječki Dom», najvjerojatnije nasumično birajući brojeve iz imenika, i nudili mi svoj prizvod. Nudili su pretplatu za prvi mjesec dana po posebnoj cijeni, dok bi me ostale pretplate koštale 35 kuna na mjesec. Ovo je dobar primjer prepoznavanja promjena na tržištu, CRM možemo nazvati i individualni marketing ili 1-prema-1 menadžment. No, nažalost oni još uvijek nemaju web stranicu i ja kad bih se sad i predomislio i poželio prihvatiti ponudu ne bih imao nikakvih mogućnosti saznati o njima osnovnu informaciju, a kamoli poslati im e-mail (a kako sam izbivao iz Osijeka duže vrijeme ne znam ni o čemu pišu!).

Pandan ovome primjeru je CNN-ova web stranica koja je početkom ove godine uvela novinu: kao pilot program, usluga informiranja putem individualiziranih SMS poruka je moguća, za sada, samo na području Velike Britanije. Evo o čemu se radi: kao korisnik jednog od nekoliko operatera mobilnih mreža Velike Britanije, možete se preko CNN-ove web stranice registrirati i izabrati koju vrstu vijesti želite primati osobno na svoj mobilni telefon u obliku SMS poruke. Naravno CNN ovu uslugu naplaćuje, no postoje ljudi koji će platiti da bi korisnu informaciju dobili na vrijeme.

## **2.2. Uvođenje CRM-a**

Osnovno je svakoj firmi upoznati svoje kupce ili korisnike usluga, te otkriti njihove želje i zahtjeve, potrebna je povratna informacija (kako mi je profesor Jović jednom prilikom napisao u e-mailu, jednosmjernost nije u prirodi informacije). Kada firma skupi dovoljno informacija o korisnicima svojih proizvoda, ona će moći razlikovati one važnije korisnike od onih manje važnih, te prilagoditi proizvod potrebama važnije manjine (postotci govore da 80% ukupnog poslovanja čini 20% korisnika!).

Rješenje na pitanje: «Kako jeftinije proizvesti individualizirani proizvod?» je u njegovoj modularnoj izvedbi. Proizvod je projektiran modularno, tako da se određenom kombinacijom modula, koji onda čine cjelovit proizvod, dobiva proizvod prilagođen specifikacijama pojedinog kupca. Kombinacijom osnovnih i dodatnih modula proizvod postaje individualiziran, a i cijena ovisi o broju modula te o poslovnom odnosu i vjernosti kupca pojedinoj firmi (svi vole dobiti «posebne» uvjete).



Dakle prvi korak bi bio prkupljanje informacija o korisnicima usluga ili kupcima, te kontinuirano obučavanje zaposlenika, jer osnovno je promijeniti način poslovanja (razmišljanje menadžera). Hardver i softver su osnovni alati potrebni za provođenje koraka koje uvođenje CRM-a zahtijeva, no kupnjom gotovog sustava od SAP-a ili CISCO-a firma je s uvođenjem CRM-a tek u početnoj fazi.

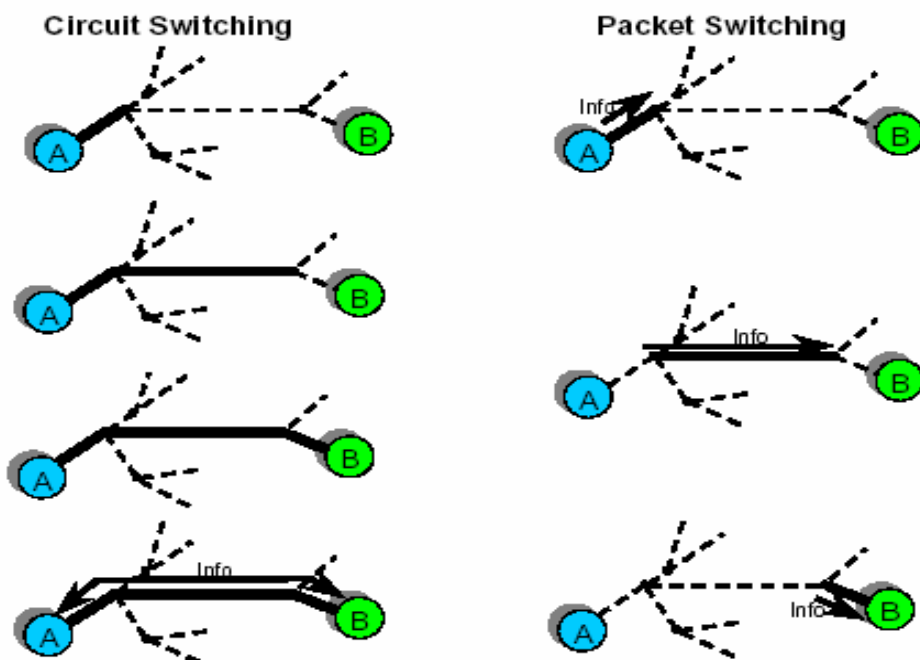
Uvođenje CRM-a je dugotrajan proces, za koji nikada nećemo moći reći da je kompletno završen. Zahtjevi korisnika se povećavaju paralelno s rastom mogućnosti tehnologije, a svijest o kupcu kao najvažnijoj karici u lancu proizvodnje treba trajno održavati na visokoj razini.

### 3. GSN

Radeći u «GSN SW Supply & Support», u odjelu koji usko surađuje sa dizajnerima i koji vrši popravke i testiranja proizvoda u svome laboratoriju, naučio sam osnove o mobilnim mrežama, te posebno o dijelu mreže koji je zadužen za omogućavanje onih usluga u mobilnim mrežama koje nazivamo «uslugama treće generacije» mobitela. U ovome odjeljku ću opisati GSN (e. GPRS Support Node) kao dodatak GSM (e. Global System for Mobile telecommunications) mreži te kao osnovu za UMTS (e. Universal Mobile Telecommunications System) mrežu.

#### 3.1. CSS & PSS

Osnovna novina koju donosi GSN je PS (Packet Switching) usluga, te IP (e. Internet Protocol) tehnologija u mobilnim telefonskim mrežama, koja omogućava puno brži prijenos digitalnih podataka. Slika 3.1 prikazuje osnovnu razliku između CSS-a (e. Circuit Switching System) i PSS-a (e. Packet Switching System).



Slika 3.1 Razlika između CSS-a i PSS-a (Izvor: Ericsson interno).

Današnji GSM sustav je mobilna mreža zasnovana na CSS-u. CSS zahjeva «virtualnu» vezu na oba kraja govornog kanala prije, te stalno za vrijeme korištenja kanala. To znači da bez obzira da li govornik šuti ili govori, da li koristeći GSM uređaj kao modem šalje podatke ili čita web stranicu koja se nalazi u privremenoj memoriji njegovog prijenosnog računala, on zauzima cijeli kanal od jednoga njegovog kraja do drugog.

Nasuprot tome PSS je jako pogodan kada korisnik želi slati podatke, npr. e-mail, zato što u tom slučaju korisnik neće zauzimati cijeli kanal niti ono kratko vrijeme dok ga koristi, tj. šalje pakete podataka.

Za prijenos podataka u realnom vremenu još je uvijek efikasnije koristiti CS usluge. Korištenjem GPRS mreže za video konferenciju korisnik bi mogao (u velikom broju slučajeva) imati problema sa kašnjenjem u prijenosu podataka. GPRS uvodi nove usluge u mobilne sustave, no tek će UMTS dati dovoljnu brzinu za efikasno korištenje tih usluga.

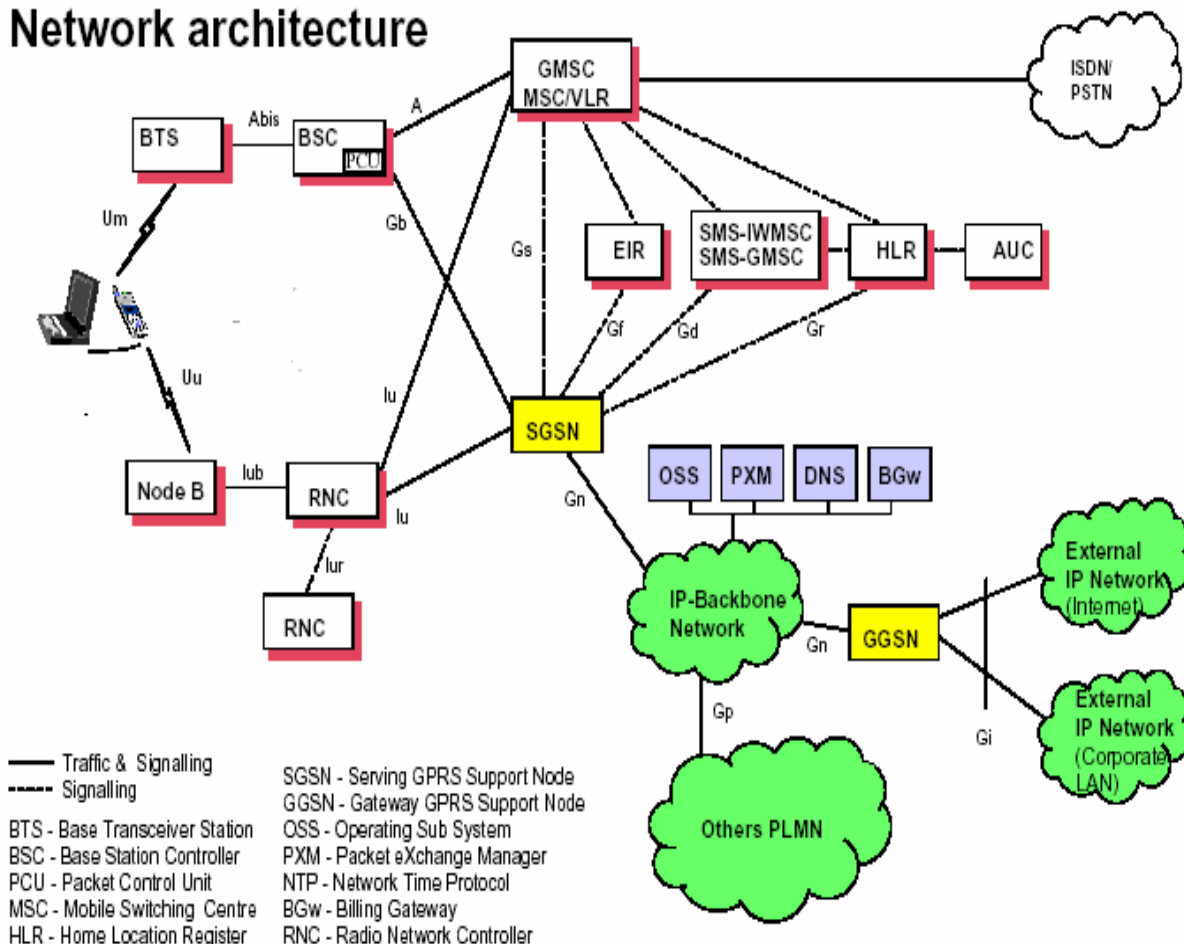
### **3.2. GPRS**

Paket novih usluga koje omogućuje ugradnja GSN-a u GSM mrežu slobodno možemo nazvati uslugama treće generacije (naziv prva generacija mobilnih mreža predstavlja analogne sustave, druga generacija predstavlja npr. GSM). GSN je ETSI (e. European Telecommunications Standards Institute) standard, a omogućuje prijenos paketa podataka unutar mreže te povezivanje mreže sa drugim sustavima (npr. Internet).

GSM mreža nadograđena GSN hardverom i softverom postaje GPRS (e. General Packet Radio Services) mobilna mreža koju mnogi svrstavaju u 2.5G, mobilnu mrežu 2.5 generacije.

GSN se sastoji od dva dijela, SGSN-a (e. Serving GPRS Support Node) i GGSN-a (Gateway GPR Support Node). Prvi dio je daleko veći i važniji, isto tako i kompliciraniji, i upravo on omogućuje PS usluge unutar GSM mreže. GGSN je sličan serveru, te se koristi za međusobno povezivanje različitih mreža (drugih GPRS mreža, fiksnih mreža, Interneta, intraneta ...), te je puno jednostavniji dio GSN-a. GSN se proizvodio i kao jedinstvena cjelina, CGSN (e. Combined GSN), no ovo se rješenje, za Ericsson, pokazalo manje kvalitetnim. Slika 3.2 predstavlja pregled GPRS mobilne mreže.

## Network architecture



**Slika 3.2** Arhitektura GPRS mreže (Izvor: Ericsson interno).

Instaliranjem GSN-a u GSM mrežu više korisnika može koristiti/dijeliti isti kanal, te na taj način dobivamo veću iskorištenost postojećih kapaciteta, no povećava se i brzina prijenosa podataka. Teorijski je moguće postići maksimalnu brzinu od 115 kbita po sekundi koristeći svih osam vremenskih raspodjela (GSM kanal je raspodjeljen na 8 vremenski jednakih djelova, TDMA – Time Division Multiple Access). To je otprilike tri puta brže od prijenosa podataka današnjom fiksnom mrežom i čak deset puta brže od GSM-ove CS usluge.

### 3.3. UMTS

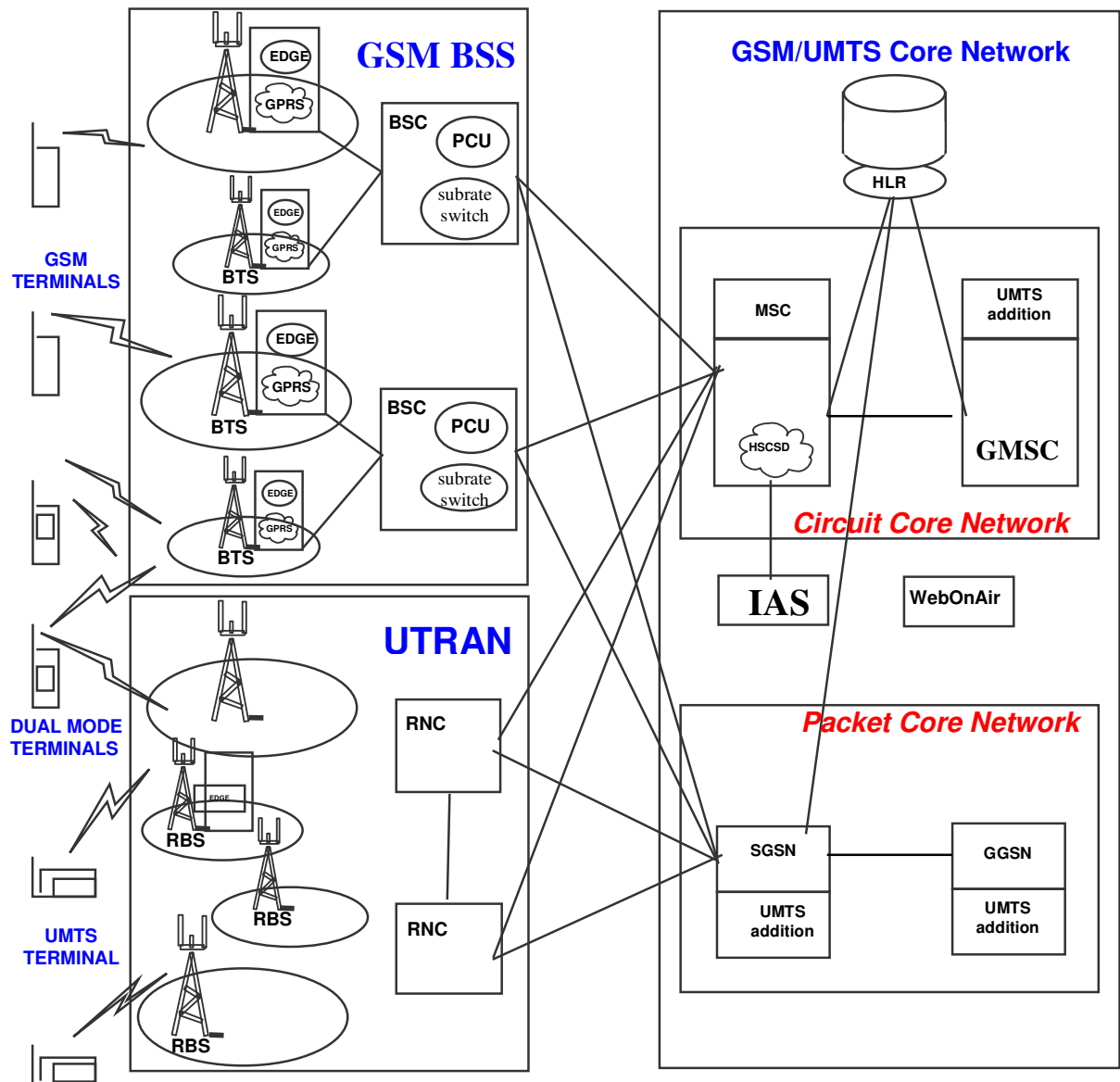
UMTS (e. Universal Mobile Telecommunications System) mreža će biti multi-uslužna mreža («mreža svih mreža») koja će povezivati različite vrste mreža. Teorijski sve digitalne mreže

su u osnovi slične, a rješenja koja bi nudila UMTS mreža omogućavala bi povezivanje najrazličitijih vrsta mreža: mreže uskog i širokog frekvencijskog spektra, CS i PS mreže, mobilne i nepomične mreže, «voice and data» mreže itd. Internet već povezuje cijeli svijet, a ideja UMTS mreže je da postane bežična internet mreža, pa možda da s vremenom i preraste današnji Internet.

Internet postaje sve važniji izvor informacije, ali i komunikacijski sustav za prijenos svih oblika informacija digitalnog oblika, također njegova brzina raste a sustav se razvija (u tijeku je donošenje novog standarda poradi povećanja broja IP adresa). UMTS bi omogućavao bežični pristup Internetu, pa tako onda i intranetu pojedine firme, bankovnom računu te kućnom LAN-u, brzinama puno većim od današnjeg Interneta (teoretska, maksimalna brzina iznosi 2 Mbit/s).

Tehnička rješenja izgradnje UMTS mreže kreću od činjenice da je nadogradnja GSM-a te postupna izgradnja mreže puno jeftinije rješenje telekom operaterima. Zbog toga postoje tehnička rješenja koja nadograđuju GSM mrežu (i neke ostale standarde) i čini ju sličnijom UMTS mreži, što znači da će se u budućnosti obje mreže koristiti ravnopravno. Također neki dijelovi GSM mreže će se moći koristiti kao osnova za UMTS nadogradnju, npr. Ericssonovi SGSN i GGSN će trebati samo manju softversku nadogradnju. Slika 3.3 prikazuje arhitekturu buduće UMTS mreže instalirane zajedno sa nadograđenom GSM mrežom (rješenje je Ericssonovo, no rješenja ostalih proizvođača se, zbog postojećih standarda, ne mogu bitnije razlikovati). UTRAN (e. UMTS Radio Access Network) i novi terminali (Dual and UMTS terminals) su potpuno novi dio takove mreže dok su ostali dijelovi nadogradnja na već postojeći sustav.

Na slici 3.3 razlikuju se dva velika dijela mobilnog sustava: središnji dio mreže (GSM/UMTS Core Network) ili jezgra mreže, te dio koji omogućuje pristup mreži radio signalima. Srce mreže je instalirano u zgradama mobilnog operatora, a osnovni dijelovi su HLR (e. Home Location Register), GMSC (e. Global Mobile Switching Centre), SGSN i GGSN. Drugi dio mreže se razlikuje za proširenu GSM mrežu i za UMTS mrežu. GSM BSS (e. GSM Base Station System) se sastoji iz radio stanica (BTS-Base Transceiver Station) instaliranih po zgradama, brdima i drugdje; te od BSC-a (e. Base Station Controller) koji su instalirani vani uz jednu ili više radio stanica (mogu posluživati jedan ili više primopredajnika). UTRAN se sastoji od više RBS-ova (e. Radio Base Station) i RNC-ova (e. Radio Network Controller), «novih» BTS-ova i BSC-ova.



Slika 3.3 Arhitektura UMTS mreže (Izvor: Ericsson interno).

## 4. NAZIVI I OBJAŠNENJA ZA RAZLIČITE STANDARDE

Kako postoji nekoliko različitih naziva za standarde ili tehnologije, a u razgovoru se često gubi njihovo pravo značenje zbog njihovog iskrivljenog korištenja, u ovome ću odjeljku navesti objašnjenja pojedinih kratica koje se često koriste u telekomunikacijama a vezano za treću generaciju mobilnih sustava. Tablica 4.1 zorno prikazuje razlike u terminologiji.

3G	UMTS	IMT-2000
<i>W-CDMA</i>	<i>W-CDMA</i>	<i>W-CDMA</i>
<i>EDGE</i>		<i>EDGE</i>
<i>CDMA-2000</i>		<i>CDMA-2000</i>
<i>TDD</i>	<i>TDD</i>	<i>TDD</i>
<i>FDD</i>	<i>FDD</i>	<i>FDD</i>
		<i>DECT</i>

**Tablica 4.1.** Pregled kratica.

Za sve kratice se koriste velika slova, osim za Mobile Internet, npr. «WCDMA», «UMTS», «3G», «WAP» ...

- a) W-CDMA (e. Wideband CDMA) je radio tehnologija odabrana od strane ETSI u siječnju 1998, kao radio tehnologija širokog spektra za pristup, koja bio moguća 3G multimedijalne usluge. Koristit će se u Europi i Aziji, dok će se u Americi koristiti paralelno sa CDMA-2000 tehnologijom.
- b) 3G (Third Generation) je ustaljeno ime za tehnologije koje omogućuju usluge treće generacije, a koristi se za W-CDMA, CDMA-2000, TDD

(Time Division Duplex), FDD (Frequency Division Duplex) i EDGE (Enhanced Data rates for Global Evolution) tehnologiju.

- c) UMTS je naziv koji se koristi za sustav koji koristi frekvenciju 2 GHz (ETSI standard, IMT-2000 band). Ovaj sustav koristi jednu od tehnologija za radio pristup (W-CDMA, TDD, FDD), a sastoji se od centralnog dijela GSM-a, GSN-a, novih antena i baznih stanica.
- d) IMT-2000 (e. International Mobile Telecommunications systems) je naziv koji dolazi od ITU (e. International Telecommunication Union); paket preporuka u koji su uključeni sljedeći standardi: W-CDMA (IM-DS), CDMA-2000 (IMT-MC), EDGE (IMT-SC/UWC-136) i DECT (IMT-FT; e. Digital Enhanced Cordless Telecommunications).
- e) Mobile Internet uključuje infrastrukturu (2G i 3G tehnologije), usluge, aplikacije i terminale koji omogućuju bežični pristup Internetu.



## **5. ZAKLJUČAK**

Internet kao komunikacijski sustav koji povezuje cijeli svijet i omogućuje prijenos digitalnih podataka velikom brzinom iz jednog kraja svijeta u drugi omogućuje između svega ostalog i razvoj CRM-a na globalnoj razini (dobar primjer je e-Shoping). U završnom odjeljku ću iznijeti svoje stajalište zašto su GSN, odnosno usluge treće generacije mobitela i CRM međusobno tijesno povezani.

### **5.1. GSN u odnosu na CRM**

U naslovu sam naveo GSN iz razloga što sam sa tim proizvodom upoznat, no zapravo bih trebao koristiti općenitije nazive kao što su UMTS, Mobilni Internet, ili možda još bolje «Sustavi treće generacije mobilnih mreža». Jedno je sigurno, Internet se razvija i raste i postaje sve važniji alat u današnjem poslovnom svijetu (naravno ne samo u poslovnom). Već sam spominjao e-Shoping, ili e-Commerce, e-mail i druge e- poslovne mogućnosti Interneta. Nažalost u Hrvatskoj Internet još uvijek nije dovoljno dostupan širem krugu građana, potencijalnih korisnika.

GSN omogućuje brži prijenos podataka bežičnim putem, tj. brži, jeftiniji i efikasniji bežični pristup Internetu nego dosadašnjim GSM sustavom. Već danas se puno Internet usluga može obaviti putem mobilnog uređaja, npr. plaćanje parkiranja, provjera bankovnog računa, slanje/primanje tekstualnih poruka (reklama, obavjesti, prva dva reda e-maila), no daljnji razvoj ovog područja omogućit će puno više. Uskoro će biti moguće koristiti novi mobilni uređaj kao prijenosno računalo sa kamerom i mikrofonom, a to znači, npr. e-Shoping sjedeći u klupi na parku, plaćanje stanarine mobitelom iz strane zemlje, lociranje položaja te dobivanje pravovremenih informacija ma gdje bili (televizijske, radio i novinske vijesti po vašem izboru na malom ekranu u boji vašeg mobilnog uređaja dok istovremeno gledate prijenos nogometnog prvenstva).

Dakle mogućnosti sustava rastu, pa tako i zahtjevi korisnika tih sustava. Postoje dva razloga zašto GSN uzrokuje CRM. Ericsson kao proizvođač softvera (Mobilna mreža je kompleksan proizvod koji zahtjeva jaku podršku) ima problema sa skupom podrškom te uvodi CRM, no sa druge strane upravo je Internet (a time i GSN koji omogućuje bežični pristup Internetu) jedan od glavnih uzroka što je CRM ponovno postao aktualan i moguć.

## 5.2. CRM u odnosu na GSN

Moram ponoviti ovu rečenicu: «Mogućnosti sustava rastu, pa tako i zahtjevi korisnika.». CRM je uzrokovan razvojem Interneta, databaza i inteligentnih softvera koji omogućuju optimalno korištenje velike količine podataka.

Dakle razvoj Interneta omogućio je reklamiranje putem web stranica, kako je rastao broj korisnika mreže, mreža je rasla, postajala brža, a korisnici su je počeli koristiti na sve kompliciranije načine. Poslovanje preko Interneta, kupovina, upoznavanje samo su neke od postojećih činjenica danas na Internetu. CRM preko Interneta se zasniva na ideji da je firmi jeftinije (efikasnije, brže) postaviti na svoju web stranicu odgovor na pitanje (FAQ), reklamu, novinu, poslati mail korisnicima itd; nego održavati skupe telefonske centre za odnose s javnošću.

No ako korisnicima date jedan prst ... Kad se korisnici ili kupci jednom nauče na firminoju web stranici nalaziti većinu potrebnih informacija, neće trošiti svoje i firmino vrijeme, živce i novac, no tražit će redovito obnavljanje stranica i točnost podataka. Ako se zapitate koje informacije staviti na web, samo ću vam kratko reći da rezultati većine istraživanja, te iskustvo ljudi koji zarađuju radeći u tom području pokazuje da većina korisnika ima iste probleme i ista pitanja, što je i logično. A sad zamislite da radite u telefonskom centru (tzv. help-desk) nekog proizvođača softvera i da svaki dan zove drugi kupac tražeći softversku zakrpu za istu pogrešku u proizvodu vaše kompanije, to bi postao izrazito frustrirajući posao. U Ericssonu je stvar bila i gora, inženjeri u npr. Japanu su rješavali problem koji su inženjeri u npr. Danskoj već riješili.

Razvoj i proizvodnja mobilnih mreža treće generacije zasniva se na zahtjevima korisnika za što bržim i kompleksnijim uslugama preko Interneta, bilo kad i bilo gdje (npr. pristup i korištenje bankovnog računa iz međunarodnog vlaka bez posebnih procedura predstavljanja).

Puno detaljnija objašnjenja, konkretni primjeri te rezultati analiza, nalaze se u izvještaju u dodatku (stranica 20).

## SAŽETAK

Današnji razvoj Interneta i mobilnih sustava pokazuje da ove dvije grane iz područja komunikacija postaju njegove najvažnije grane. Također proizvođači softvera danas imaju velikih poteškoća oko održavanja svojih proizvoda te neophodne podrške koju korisnici zahtijevaju. Kako korisnici postaju zahtjevniji, podrška softverskih proizvođača postaje skuplja za proizvođače, što onda koči daljnji razvoj istog ili novog proizvoda. Ovo su dva glavna razloga zašto se riječ «Podrška» danas sve češće piše sa velikim slovom (ne samo u svijetu softvera iako je on specifično područje).

Ovaj je projekt rađen u «Ericssonu Mobile Data Design AB», isključivo za korištenje te proizvodne jedinice (GSN PDU). GSN je pretežito softverski proizvod koji zahjeva jaku podršku proizvođača prema kupcima, koji su u ovom slučaju operateri mobilnih sustava i ovaj rad je usmjeren u tome smjeru (B2B poslovanje), no dotaknuti su problemi puno šireg područja (B2B2C – Business to Business to Customer) tako da su neka rješenja primjenjiva unutar cijelog Ericssona, pa i šire.

Ovaj rad pokazuje povezanost treće generacije mobitela i CRM-a kao novog poslovnog koncepta, ali se ne zadržava u tim granicama već pokazuje važnost implementacije CRM-a kao neophodne poslovne promjene u današnjoj globalizaciji i informatizaciji ekonomskog svijeta.

Diplomski rad pojašnjava što je CRM (tehnologija - filozofija), koji su problemi, koji uzroci, a koje posljedice implementacije CRM-a kako u velikim korporacijama tako i u malim obiteljskim firmama. Rad također donosi analizu trenutnog stanja u korporaciji Ericsson i nekoliko drugih firmi, te daje prijedlog kako implementirati CRM u Ericssonu u obliku detaljnih instrukcija podijeljenih u veće korake.

## **ABSTRACT**

Today common usage of two communication technologies, cellular telephony and the Internet is rapidly growing. Software demands a lot of services during usage to maintain and keep up the system; these services are called support services. Every day customers are becoming more and more demanding, asking suppliers for better and faster support for its products. That is the reason why, today, support services become so important.

This is a subject not only for the software suppliers but also for every vendor who wants to keep its business ongoing. However, since 64% of Ericsson products belong to Mobile Systems, which is mostly software, and 12% to Mobile Phones, this research is made in that direction. This work is going to be used mostly by Ericsson Mobile Data Design AB, which is PDU (Product Unit) for GSN software.

This work will show how important it is for every company, no matter what size, to change its focus from production towards customer. Implementing CRM and becoming customer oriented is not an option any more.

The CRM is not a technology, but more an old business philosophy supported and enabled by new technology. Database software, different software tracking tools, Web, Internet, e-services are the driving force that makes it possible for us to go back in time and use knowledge of our grandfathers.

## KRATICE

BSC	Base Station Controller
BSS	Base Station System
BTS	Base Transceiver Station
B2B	Business to Business
B2B2C	Business to Business to Customer
CDMA	Code Division Multiple Access
CGSN	Combined SGSN and GGSN
CRM	Customer Relationship Management
CSS	Circuit Switching System
DECT	Digital Enhanced Cordless Telecommunications
EDGE	Enhanced Data rates for Global Evolution
ETSI	European Telecommunications Standards Institute
FAQ	Frequently Asked Questions
FDD	Frequency Division Duplex
GGSN	Gateway GPRS Support Node
GMSC	Global Mobile Switching Centre
GPRS	General Packet Radio Services
GSM	Global System for Mobile telecommunications
GSN	GPRS Support Node
HLR	Home Location Register

IMT	International Mobile Telecommunications systems
IP	Internet Protocol
ITU	International Telecommunication Union
PDU	Product Design Unit
PSS	Packet Switching System
RBS	Radio Base Station
RNC	Radio Network Controller
SGSN	Serving GPRS Support Node
SMS	Short Message Service
SW	software
TDD	Time Division Duplex
TDMA	Time Division Multiple Access
UMTS	Universal Mobile Telecommunications System
UTRAN	UMTS Radio Access Network
W-CDMA	Wideband CDMA (Code Division Multiple Access)
2G	2 <sup>nd</sup> generation
3G	3 <sup>rd</sup> generation

## ŽIVOTOPIS

Krešimir Šolić je rođen 13. kolovoza 1976. godine u Osijeku, Republika Hrvatska. Osnovnu školu pohađa u Osijeku, potom upisuje Opću Gimnaziju u Osijeku, da bi 1995. godine upisao Elektrotehnički fakultet u Osijeku.

Tokom srednjoškolskog obrazovanja sudjelovao je na lokalnim natjecanjima iz informatike i fizike. Godine 1997. učlanjuje se u studentsku udrugu IAESTE u kojoj postaje predsjednik lokalnog odbora Osijek. U siječnju 2000. godine odlazi na 15to mjesečnu stručnu praksu u «Ericsson Mobile Data Design AB» u Göteborgu, Švedska.

-----  
Krešimir Šolić

## **DODATAK**

Dodatak je kompletan izvještaj projekta koji sam napravio za vrijeme prakse u Ericssonu «Mobile Data Design AB» u Göteborgu. Taj dio rada je iz objektivnih razloga napisan na engleskom jeziku.





University of Osijek  
**Faculty of Electrical Engineering**  
Kneza Trpimira 2B HR - 31000 Osijek  
tel. +385 (0) 31 208-900 fax. +385 (0) 31 208-905



Ericsson Mobile Data Design AB

S:t Sigfridsgatan 89  
412 66 Gothenburg, Sweden  
Tel. +46 (0) 31 344 6000

# Customer Relationship Management

*Tools and Structure of the Support Organizations*

## **Thesis Work**

University of J.J.Strossmayer in Osijek

Autumn/Winter 2001/2002

Supervisor: Franjo Jovic, professor

Mentor: Patrik Bengtsson, line manager

Author: Kresimir Solic, student

Abstract

Today common usage of two communication technologies, cellular telephony and the Internet is rapidly growing. Software demands a lot of services during usage to maintain and keep up the system; these services are called support services. Every day customers are becoming more and more demanding, asking suppliers for better and faster support for its products. That is the reason why, today, support services become so important!

This is a story not only for the software suppliers but also for every vendor who wants to keep its business ongoing. However, since 64% of Ericsson products belong to Mobile Systems, which is mostly software, and 12% to Mobile Phones, this research is made in that direction. This thesis is going to be used mostly by Ericsson Mobile Data Design AB, which is PDU (Product Unit) for GSN software.

This thesis will show how important it is for every company, no matter what size, to change its focus from production towards customer. Implementing CRM and becoming customer oriented is not an option any more!

The CRM is not technology, but more an old business philosophy supported and enabled by new technology. Database software, different software tracking tools, Web, Internet, e-services are the driving force that makes it possible for us to go back in time and use knowledge of our grandfathers.

This thesis project is part of the studies on the ETF in Osijek's university (*Faculty of Electrical Engineering in Osijek*). It is made in Ericsson Mobile Data Design AB during my traineeship there, mostly for its usage.

Industrial management is something that is recognized in developed world as very important future and most of the technical universities around the Europe have more and more industrial management courses in their programs.

Masoud Mohammadi-Khoi, whom I'm thanking for that, gave the idea for this thesis. Patrik Bengtsson was my support all of the time, and Franjo Jovic was the professor of my faculty supporting me in making thesis that is not usual on our faculty.

I have to thank to lots of people and the list would be very long. Therefore I say "*Thank You*" to everyone at Ericsson organisation, Volvo Car Corporation, students from both Gothenburg's universities, my friends and family; everyone that I have contacted during my exploration.

Gothenburg in February 2002  
*Kresimir Solic*

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## 1. Introduction

*The "Era of Mass Marketing" has now entered the twilight and a new age is rising the "Era of Customer Relationship Management".*

Form the introduction of the book "The One to One Manager".

Customer Relationship Management isn't some new technology or some new revolutionary idea; it is the old business concept that is enabled by new technologies. This thesis has a goal to explain that.

This thesis is made in one of the Ericsson's support organisations and it is based on the knowledge that is gathered in that department. However, lot of other sources of the information are used, such as: newsletters, websites, library books, presentations of different managers from different Ericsson and non-Ericsson organisations, discussions with lots of students, managers, team leaders, etc.

Next chapter is explaining the theory of the Customer Relationship Management. Concept of the CRM is explained without going too deep into details to provide the reader of this thesis with necessary knowledge for him to be able to understand the report. Explanation of the historical background of the idea, differences between B2B and B2C companies, e-commerce and definition of the CRM can be found in this chapter.

Third chapter, Bench Marking, is gathering reports of different companies' CRM implementations. The report made on Volvo Car Corporation is based on an interview with its Global Customer Relations manager, Mark Ferris. The author of this thesis made this interview. Information on how Swisscom started with its implementation of the CRM was gathered from a case study published in the book "CRM - A strategic Imperative in the World of e-Business". The report about E-food service is based on the Ericsson weekly 5minutes and the report about SKF is based on an interview with Miklos Konkoly, managing director of SKF Hungary. Two postgraduate students at School of Economics and Commercial Law at Gothenburg University, Dragan Krznaric and Goran Popovski made this interview.

In chapter four Ericsson's current situation is explained, based on the internal information from the Intranet, presentations, documents and working experience. This report is showing current picture of the information flow in Ericsson's support and supply organization and tools, which are used in that flow.

CRM is very interesting subject in today's discussions and lost of analysis are made in this field. Chapter 5, "Problems New Ideas and Benefits" summarises information available on the market, important for the Ericsson's situation.

Last chapter is the result of this research. It contains step-by-step procedures on how to start with introducing CRM to the PLM personnel and to the other Ericsson's support and supply organisations. It also highlights some parts of the CRM concept important for the Ericsson with comments made on other chapters, comparisons and suggestions.

## 2. CRM Concept

*“The concepts of CRM have been in the air ever since one caveman had a choice of buying an arrowhead from either Og or Thag, but CRM as a term gained currency in the mid-1990s.”*

Bob Thompson, president of Front Line Solutions

There are few different names, like one-to-one marketing, customer value management, customer intimacy, customer-centric management, continuous relationship management or technology-enabled relationship marketing, but the idea is the same: No more product, but customer oriented company that develops and manages individual relationships with different customers.

It is a time of globalisation, deregulation and convergence of industries. E-business is developing rapidly; use of Internet and Web is growing. This trend of reshaping the global economy is influenced by new technologies whose cost is rapidly dropping. Today's database technology, computers, wireless Internet, Intranet, Web, e-mail and automation tools are making possible the development and implementation of the cost efficient CRM into the company.

With all of these changes, businesses have rediscovered that, in the face of increasing competition and customer's demands, treating existing customers well is better and cheaper than trying to find new ones. That means that a company needs to target and serve its customers on an individual basis by building long-term relationships with them. The relationship is, of course, made up of a continuing series of collaborative interactions. Because it goes on through time, a relationship develops a "context" as both parties to it (the company and the customer) participate in successive interactions. And each relationship is different, unique to its individual participants. So instead of trying to find more customers for its products, a company should try to find more products and services for its customers.

We are talking about the revolution here, revolution that has started already! It is a one-to-one marketing revolution, a technically driven movement that is now affecting every industry, all around the world. Managers at every level will be affected. The fortunate ones will get support for these changes from the top and few will escape wrestling over issues such as institutional resistance, lack of effective communication and misunderstandings about the role of technology. This is a totally new idea of technology-enhanced relationship management, totally new territory without good examples. It will be hard to implement CRM in a company, but a company that does not do that will lose the competitive edge.

Today lots of people are saying that they understand what building one-to-one customer relationships is about, but then they speak about database marketing, call centres, Web sites or e-commerce. The fact is a one-to-one customer relationship program might include some, all, or none of those features. And while one-to-one customer relationships are enabled by technology, the enabling technology should be viewed as the means to an end, but not the end itself. The idea is that in communication between one customer and a vendor, that the vendor shall adjust his behaviour with respect to that single individual customer, to address the customer's specific input. But a big database full of unused data is not good either and for most of big enterprises, including B2Bs, adjusting the company's customer-specific

behaviour to individual customer specifications is not a well-organized activity. It is usually carried out on an ad hoc basis, but a one-to-one relationship is dynamic and never-ending, an interactive, adaptive and ongoing process.

Any company that values long-term customer relationships will learn quickly that customer want four basic things:

- a) *They want* a company to know who they are, and to remember them from one event or transaction to the next.
- b) *They want* a company to remember what they need, or what their specific preferences are.
- c) *They want* a reliable and safe way of communication with a company.
- d) *They want* a company to provide a product or service that meets their specific needs.

It is most important to remember that becoming a customer-focused, one-to-one enterprise is not something that will ever be fully achieved. Being customer-focused is not a destination for a company, but a direction in which to point the business. Competitive success will come from being further along this never-ending path toward managing customer relationships than a company's rivals.

To stay competitive Ericsson has to be deeply involved in this process, but carefully, doing it step by step. Latest research made by Gartner Dataquest (October 2001) found that as many as half of all CRM implementations failed. Building a customer-centric enterprise is difficult, takes time, planning and a dedication to change at the front and back end of a company. And yet, for the majority of companies, CRM expenditures still have first priority in their IT budgets. Even as companies take really good care of their overall capital spending, according to Peppers and Rogers Group's surveys (summer of 2001), most companies still intend to allocate their first spending to the CRM space.

### 2.1. The History of The Idea

Treating different customers differently is an old concept, dating back to the very beginnings of trade and commerce. But then there was the Industrial Revolution, decades of global turmoil and the big success of mass production, which pushed this concept even further in to the background. Now in the time of globalisation and automation, technology is giving us the possibility to reactivate this old concept, the individual relationship between buyers and vendors. People are individual persons and they want to be treated like individuals.

Hundreds of years ago, bankers would transact business with their customers while seating on benches in the marketplace (this is where the name is originating from). The bankers knew their individual customers by name, their financial situation and needs so they could treat "each customer differently" because "Each customer has different needs and brings different value to the relationship." Not every prince was an excellent credit risk and not every troubadour was a deadbeat.

Until the first quarter of the 20<sup>th</sup> century bankers knew their customer's connection to the country's economy, and indirect connection with their own investments, so they could give a special credit or some extra services to their most valuable customers.

But today even if one person is a long-time customer with two or three different accounts and maybe credit for the car or mortgage on the house in the same bank, he would be treated the



same as any other “new” customer. And if he wishes to open another account for his child or to get new credit he will need to fill out a bunch of papers about his personal data even though that data is already existing in the bank’s database.

In the near future a customer will be able to access his bank account wirelessly and that bank-system will already know everything relevant about that customer and will automatically choose how to treat that particular customer. Today’s technology is making it possible and soon it will be used massively - banks will increase profitability and customer will save time and feel more satisfied.

### 2.2. E-Commerce

Again few different names are used, like e-Business, e-Marketing, e-Support, e-Commerce even eCRM. The thing that is common for all of these “different” fields is this small letter **e**, which stands for **electronic**. The Internet with all of its features is allowing the twenty-first century to be the golden era of e-commerce. A large variety of issues are associated with e-commerce, like standards, protocols, network infrastructure, Web design, payment methodologies, supporting languages, software tools, security, management systems and legacy integration.

Numerous factors are driving e-commerce implementation. As illustrated in Figure 2.1, issues such as customer service, business processes, sales and profitability are improving. Also this new business model enables very low-cost sales transactions, eliminates middle layers of product distribution, enables the direct selling of goods and services over the Internet, and enhances the enterprise image.

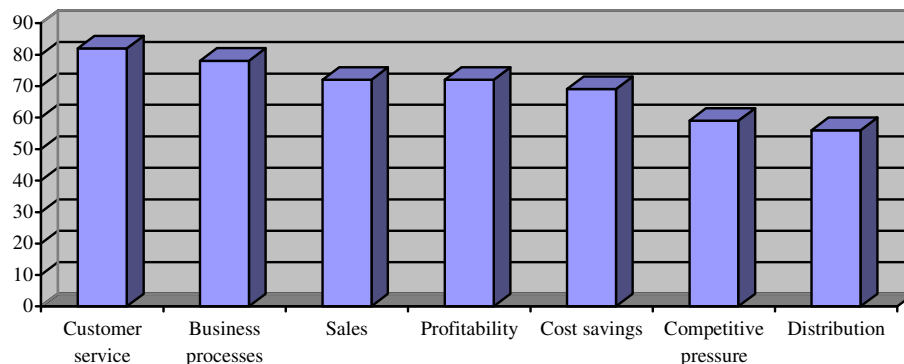


Figure 2.1. Driving Factors for e-Commerce Implementation  
(Source: CMP Media survey of 395 companies, 2000)

Large enterprises and small companies will have equal opportunities for success. Regardless of the size of the implementation, certain commerce site characteristics must be followed to ensure success:

- a) Create a real-world buying environment (virtual shopping carts, checkout counters, product return policies).
- b) Maintain a low selling price.
- c) Keep it simple!

- d) Explain security measures (many customers will ask for assurance that their data is properly protected).
- e) Communicate with customers (make both-way communication with the customer).
- f) Treat personal data with respect.

These measures are applicable to any electronic buying environment, but particularly in the business-to-customer retail marketplace. The business-to-business segment of e-commerce has been evolving for more than two decades, and therefore it uses a mature set of operating procedures in order to reduce the volume and cost of documents involved in B2B transaction and to speed up the communication.

### 2.3. Differences Between B2B and B2C

B2C companies may have been first to launch a series of high-profile, Web-based, customer-centric initiatives, but in the long term, B2B companies have the most to gain from re-engineering their sales and marketing strategies. They also have the most to lose by sticking with traditional market penetration strategies. B2B organisations will rise or fall on the basis of their ability to cultivate one-to-one relationships with their customers.

It's important to appreciate the differences between a customer-centric B2B and a customer-centric B2C. It is the very nature of these differences that make it even more critical for the B2B organisation to focus on developing and managing customer relationships. According to "inside 1to1" electronic newsletter there are seven critical areas in which B2B strategies differ from B2C strategies:

- a) *Relationships within relationships.* A business is composed of a number of distinct individuals. Many different people will likely have an influence on the decision-making process. There are relationship dynamics on several levels.
- b) *Just a few, large customers.* The B2B enterprise must look at its customers individually and make what may amount to highly subjective judgments about each one. That kind of enterprise can't rely on a statistical analysis of its customer base to figure out what is going on at any point in time with any particular "type" of customer.
- c) *Account development selling.* The B2B company is much more likely to view success not just in terms of how many new customers it can acquire, but in terms of how deeply it can penetrate its current customer accounts.
- d) *Channel complexity.* The B2B enterprise often involves channel partners, that makes channel issues much more complex than for B2C company.
- e) *Knowledge-based selling.* The B2B company will often find itself in the position of having to teach business customers how to use its product or service more productively, and sometimes even having to teach customers why its product or service is beneficial at all.
- f) *Infrequent purchases.* Because B2B products and services are often big and expensive items, and this usually means the purchase cycle is long, there are sometimes periods of inactivity between actual purchase events.
- g) *Helping clients manage themselves.* The strongest and best type of relationship with a business customer will be one in which the vendor is actually helping the buyer to manage its own business.

Ericsson is both B2B and B2C company. If we look at the Ericsson as a manufacturing company (handsets, LANs, Bluetooth) we are speaking of B2C company. But Mobile Ericsson Data Design AB (except Mobitex and Wireless LAN) together with some other Ericsson's companies, its channel partners, makes a B2B organisation.

### 2.4. So, What is CRM?

*Official CRMGuru.com definition is:*

Customer Relationship Management is a business strategy to select and manage customers to optimise long-term value. CRM requires a customer-centric business philosophy and culture to support effective marketing, sales, and service processes. CRM applications can enable effective Customer Relationship Management, provided that an enterprise has the right leadership, strategy, and culture.

It is an ongoing process of transformation from a product-based company to the customer-orientated one, and few examples that will follow shall show different approaches of the implementation of the CRM and different levels of success in that process. But what needs to be clear is that CRM is a never-ending process, it shall be a company's philosophy.

### 3. Bench Marking

*“Analysts have tended to define assets too narrowly, identifying only those that can be measured, such as plant and equipment. Yet the intangible assets, such as a particular technology, accumulated consumer information, brand, name, reputation, and corporate culture, are invaluable to the firm’s competitive power. In fact, these invisible assets are often the only real source of competitive edge that can be sustained over time.*

Hiroyuki Itami, Mobilizing Invisible Assets

It is difficult to make an objective identification of a company’s capabilities and comparison with another companies. During the last decade, benchmarking has emerged as an important tool for appraising and developing organizational capability through detailed comparisons with other companies and organizations. According to the “Contemporary strategy Analysis” book benchmarking involves five stages:

- a) Identify an activity within the company where there seems to be potential for improvement.
- b) Identify a company, not necessarily a competitor, which is a world leader in this activity.
- c) Undertake performance comparisons with the benchmarked company through exchange of performance data (this may be done through bilateral agreement, through a consulting company or through a benchmarking association).
- d) Analyse the reasons for the performance differentials. This is likely to require visits to the benchmark company, discussions with the managers and workers, and analysis of how the activity is organized and conducted.
- e) Use the new learning to the redefine goals, redesign processes, and change expectations regarding one’s own functions and activities.

Every day more and more companies are starting to realise that the way they treat their customers will be reflected on the future profitability, and companies are making bigger and bigger investments to implement CRM. This chapter will make comparison between different companies in order to show different approaches of implementing CRM into different companies, both differences and similarities.

#### 3.1. VOLVO CAR CORPORATION

**“At Global Customer Relations, we have a truly global working environment. A sales brochure to Kenya or a replacement gearbox needed in Indonesia, we’re here to help. We respond directly to Volvo end-user customers from all around the world, every day.”**

Mark Ferris, Global Customer Relations Manager

If someone calls +46 31 765 00 77 he or she will hear an automated message: "Welcome to Global Customer Relations" A moment later, the phone will be answered by one of the four agents working at Global Customer Relations.

Global Customer Relations is a support office at Volvo Car Corporation and is often the last hope for angry Volvo Car customers that require assistance with issues related to their cars. Normally, problems such as these will be handled and solved by the local Volvo dealership. If necessary, the matter may then be escalated to the national market representative. Finally, if neither of these two support lines can help, Global Customer Relations will take care of the problem. The common goal for Volvo Car Corporation is: "No. 1 in Customer Satisfaction." This is something, which is foremost in the minds of all working at Global Customer Relations.

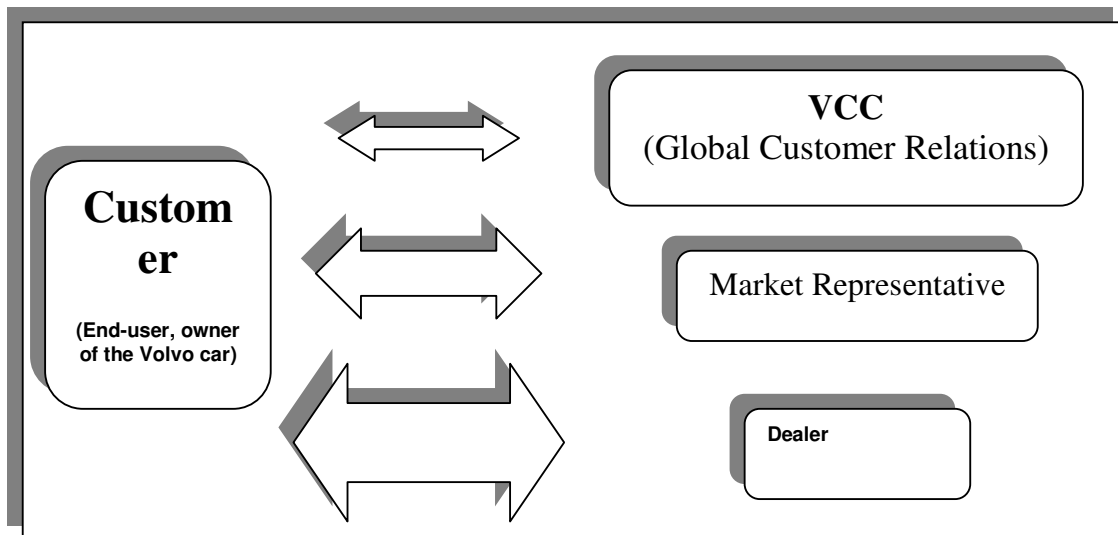


Fig.3.1. The Support Structure for VCC

Volvo Car Corporation's customers can be end-users or internal customers. In the work of Global Customer Relations, they always speak of customers meaning the end-user. Volvo also has internal customers; these can be sales companies, dealers, suppliers etc.

In most cases, the end-user contacts his local Volvo dealership or market representative in his country and they resolve the issues at hand. Volvo Car Corporation sells cars in 120 markets and has an office with at least one customer relations contact person in each of those countries. Where sales companies and dealers require other types of assistance, they can contact one of many internal helpdesk functions, for example: technical support, warranty helpdesk etc.

The number of contacts handled by Global Customer Relations in proportion to those handled by the market representatives shall be below 1%, e.g. customer relations department in UK. Volvo Car UK's own customer relations department handles ca 100,000 contacts per year. Global Customer Relations handles ca 375 contacts from the UK per year; this is barely 0.38%.

Every day, Global Customer Relations responds to worldwide end-user customer contacts received by e-mail, telephone, letter or fax. In percentage terms, 48% are related to information, 48% complaints and 4% compliments. All decisions are anchored with the local market representative. Detailed information about the contact is logged in CCA (Customer Care Application).

To make one-to-one communication with its customers faster and more efficient, Global Customer Relations is implementing new telephone solutions, reorganising its Web page, and reorganising databases in order to make it more searchable. **The goals set by the department are:**

- a) To respond to all customer contacts on day of receipt.
- b) To close all files within 48 hours.
- c) To answer telephones within 5 rings.
- d) To have telephone abandonment rate less than 5%
- e) To refer to market 85% cases (cases shall be solved by sales companies).
- f) To have less than 5% escalated issues.

Today Global Customer Relations is implementing some new features into the CRM system. That part is the technical component of the CRM structure, but it will affect the organisational part as well in the way that it will improve the communication between involved parties (customer, dealer, sales company, GCR) and that means better efficiency in solving different cases and quicker responses to the customers.

## Telephone calls:

VCC's end user customers can either directly call the Global Customer Relations number or be connected via the switchboard. It is PBX switching board and first thing that customer will hear is the message saying "*Welcome to Global Customer Relations*" then his phone call will be switched to the first available person in the line of four persons in a predetermined order. If all four lines are occupied there are four places in the queue and in the future there will be six places. Today the department receives around 25 calls per day, mostly complaints from angry customers. These complaints concern dealers, market representatives and the cars themselves.

The customer is normally requested to give his vehicle identification number (chassis number) and that is the only identification that is needed in order to trace the customer's car. There is an internal database used by GCR today and it is under continual development. Every call is registered in the database, regarding if it is the new case or the update of an existing one. There is also a large monitor for the whole group to see and have track on the incoming phone calls.

On the screen (Fig.3.2.) it is visible who is logged on, if there are unanswered phone calls, as well as the number from which a particular call is made, how many seconds the customer was waiting on the line, etc.

Soon there will be a new telephone system; the requirements for the new system have been set out as follows:

- a) Ability for the 5 staff members to log on and off.

- b) Varying “competence” levels for staff members, e.g. 30 seconds interval.
- c) Retain private extensions and +46 31 765 00 77 for customers.
- d) Administration function showing calls answered, abandoned or rejected. This should be displayed on a separate screen.
- e) Waiting times and staff member logon status on separate screen.
- f) Automatic opening/ closing of customer line 09.00 – 17.00
- g) Welcome messages for customers.

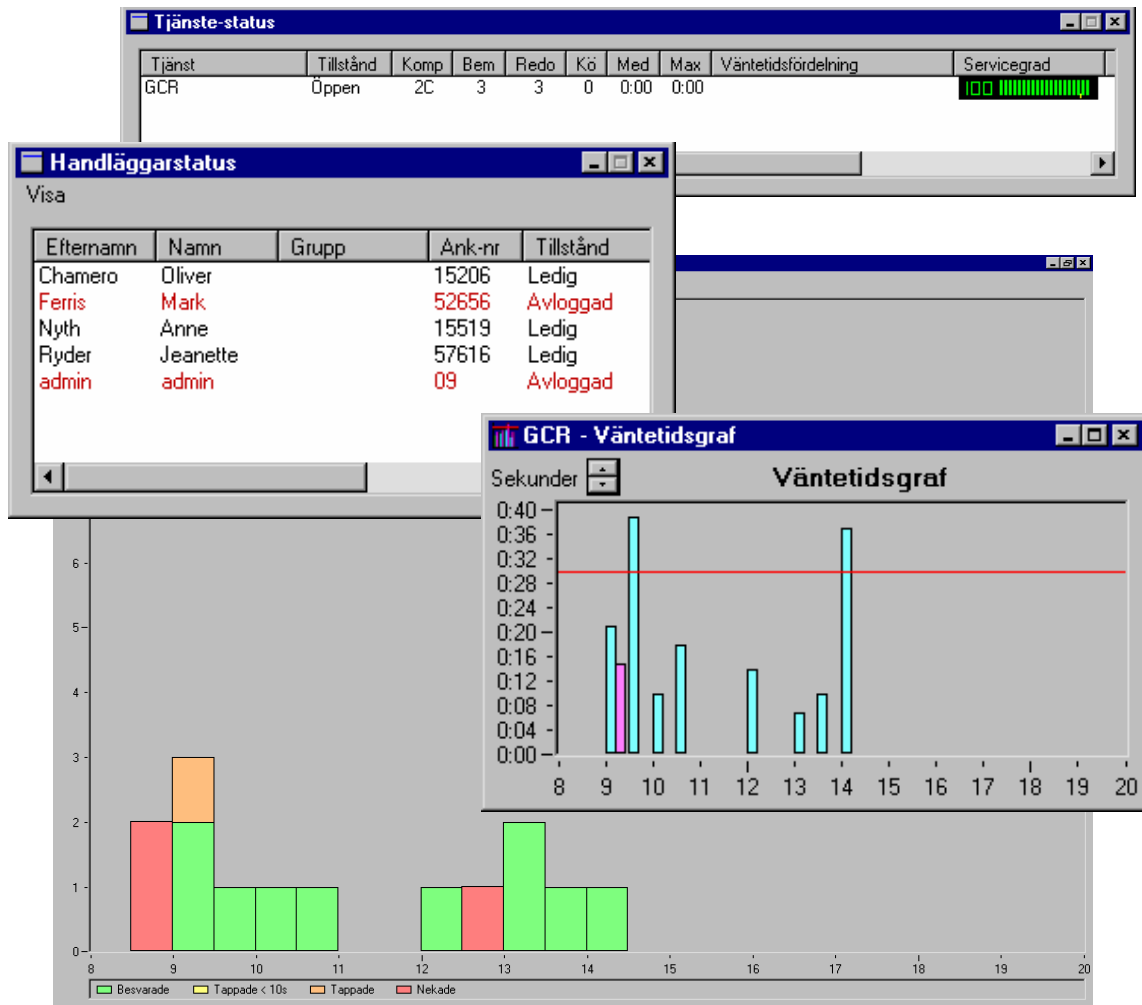


Fig.3.2. Screen on The Wall

- h) Queue function with message/ music.
- i) Queue position advice (3,2,1).
- j) Message for out of hours calls.
- k) Message for temporary closures.
- l) Audible warning for too few staff members logged on, incoming calls and queues.
- m) Shorter time between the welcome message and the call answer.

One more feature was also discussed concerning redirecting calls to different agents dependent on language. There are 2 possible solutions, that the system recognises the

country's telephone code, chooses the message on appropriate language or that customer himself chooses between suggested languages by pressing a certain number key.

#### **Web:**

The Volvo Car Corporation website is a good looking and well organised, with lots of pictures of Volvo cars, of course. The first thing the visitor notices is the Java applet that makes it possible for the web user to choose his country.

If the end-user customer chooses "contact us" button from his country's web page he will be asked to fill in the form and send the question which will then end up in the national market representative office. There is the short cut to Volvo Car Corporation. If a web user chooses different button from the home page ("Volvo Car Corporation in Sweden" button) he/she can put the question ("contact us" button) to the Global Customer Relations office directly. The web visitor will be asked if he/she has already contacted dealer or national market representative in his country and if the answer on both questions is positive, after completing information about his car, dealer and national market representative in his country, the question will be sent to the Global Customer Relations office. Of course, an end-user customer can give false answers to skip both his dealer and national market representative, but that is why this feature will be changed.

The latest addition to the departments' website is going to be a searchable FAQ, which is going to be a very effective and unusual solution. Many web sites have this facility, but it is normally a list of the questions and answers instead of well-organised searching solution.

In the future, it will be possible to search in the FAQ database from the web page on two levels. An internal, higher level will be accessible for Global Customer Relations staff and national market representatives, and a lower access level will be given to customers. Every higher-level user shall have their own account with different authorities regarding their position in the support organisation.

#### **E-mail and Fax:**

This feature exists today and GCR is receiving around 100/150 e-mails per month. However e-mail is not good communication tool for the end-user who is expecting fast answers to his often-confusing question. E-mail is not suitable for the fast dialog communication, which shall be dynamic discussion with lots of arguments given by both sides.

In most cases, the end-user needs only to go as far as his dealer with his request, and the current e-mail facility is making it very easy for the customer to reach the centre of the supporting organisation i.e. Global Customer Relations. In the future, the e-mail address to GCR will be available just to the sales companies (market representatives), and if a customer insists on having the email address to Global Customer Relations, this may be given out by the sales company.

Today around 10% of the customer's requests are received by fax and in the future this feature is going to be integrated into the telephone system.

#### **Database:**

CCA (Customer Care Application) is an interface towards CDB (Customer Database) and every contact from an end-user customer to the Global Customer Relations office is



submitted to the CDB as Customer Contact Information. Figure 3.3. shows CCA fields that need to be completed when a new case is going to be submitted.

There are 11 similar databases around the Globe used by market representatives and it is planned in the future to have one, global database instead.

Fig. 3.3. Customer Care Application, interface towards database

### Conclusion:

Volvo Car Corporation has a special office called Global Customer Relations, which shows that VCC has a sense for the CRM concept. Even more, dynamic changes in the Global Customer Relations are made in order to improve customer loyalty and to increase customer satisfaction, and by that Volvo management is showing that it understands that implementation of CRM program is an ongoing, never ending process.

### 3.2. SWISSCOM

**“We are living in a world of continual change. The catchword is innovation. No sooner do new products appear on the market than they become outdated. Companies that fail to keep pace risk being left behind. As Swiss market leader in the telecommunications sector, Swisscom is**

**playing an active and significant role in shaping this change. Every day we help people move with the times. And in so doing we bring them closer together.”**

About us, Swisscom's Webpage

### Company's profile:

Telecommunication provider Swisscom has made a successful turnaround in a very short time with the launch of their customer loyalty program. Deregulation in January 1998 opened the market for the other telecom providers, Swisscom's competitors, and this had a dramatic impact on Swisscom's position.

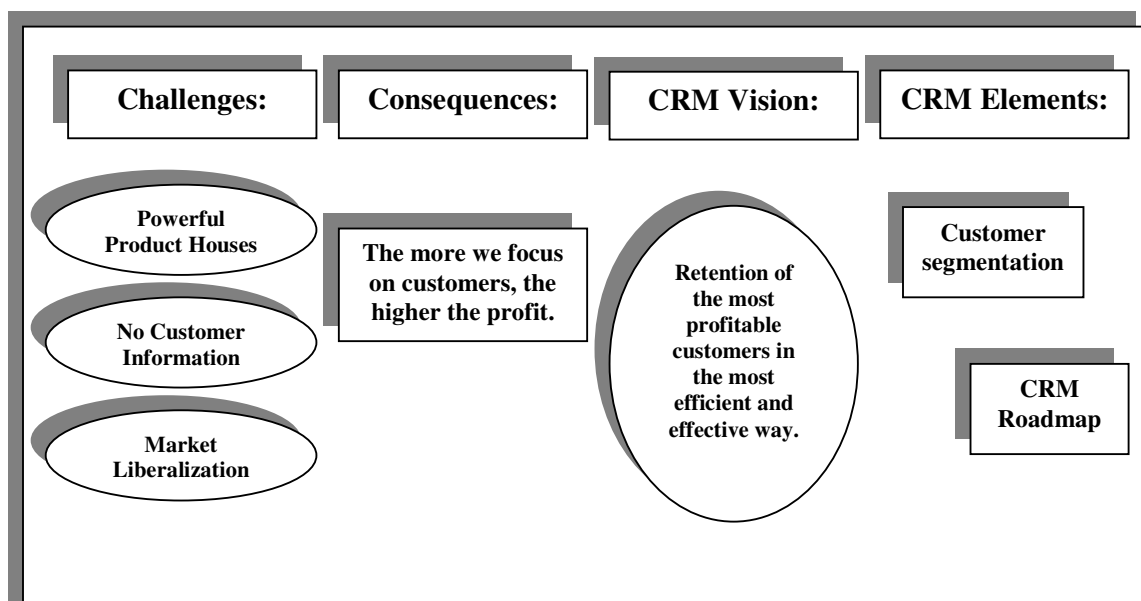
This spurred Swisscom to become a CRM-focused company fast, with impressive results; twenty months after the liberalisation of Swiss market, Swisscom was the market leader in all service areas (fixed line, mobile and Internet services) and even managing to increase the volume of its services! This strong performance reflected in the stock price since Swisscom went public.

The new market situation in 1996 made the company aware of its lack of customer orientation. New competitors were entering the market, customers were becoming more demanding, especially in terms of pricing and services, and the market offerings were becoming more diverse. As a result, customer loyalty was practically nonexistent, and accordingly it was believed that customers intended to switch to other telecom providers for specific services and lower prices. The conclusion was:

- a) *“The more we focus on the customer, the higher their loyalty becomes!”*  
(Company has to change its orientation from product orientated towards customer orientated in the marketing and sales activities).
- b) *“The longer a customer stays with a company, the higher the profit is!”*  
(Experience with other telecom companies showed that the winning back one customer can cost between \$US300 and \$US1,500 per line.)

### Strategic CRM at Swisscom:

Swisscom's vision was based on one question *“How can we retain our most important customers in the most efficient and effective way?”* In the figure 3.4. summarization of the Swisscom's CRM strategy is shown and three strategic CRM elements are highlighted:



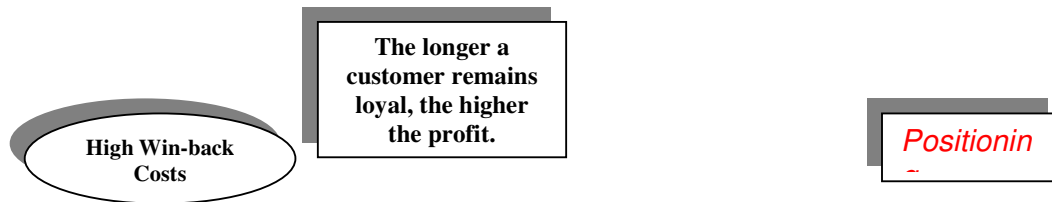


Fig. 3.4. Strategic Customer Relationship Management for Swisscom

- a) The market/customer segmentation
- b) The positioning concept
- c) The concrete CRM implementation road map

#### **Customer Segmentation:**

Swisscom has segmented its customers on two levels, a basic segmentation valid for the entire company and a specific segmentation for a single loyalty program. The basic segmentation has produced four major customer groups:

- a) Multinational Accounts
- b) Large Business
- c) Small Business
- d) Residential Customers

These four basic customer segments determine Swisscom's organizational structure, the development and implementation of new products and services. They also require different CRM activities for each of them.

Specific segmentation for a single loyalty program was based on several questions about target groups, customer registration, different benefits for different customers, etc. The answers are made in order to realize a single CRM program:

- a) Focusing on residential customers at the beginning but broadening the customer base later for small companies.
- b) Everybody can join the program; there are no restrictions on access.
- c) Registration for the program is mandatory in order to get information about the customer, the household and the lines and services they currently have with Swisscom.
- d) There will be only one program structure for all customers at the beginning in order to keep it simple. Segment specific offers might come up later based on the information gained.
- e) Within one specific loyalty program, the more profitable customers must benefit more than others.

#### **Strategic Positioning:**

Three levels of positioning in the telecom industry were defined and Swisscom had to position itself strategically in each of them before designing and implementing a single loyalty program.

The basic prerequisite for positioning is a good technology and at that time Swisscom had the best position on that level. However, in future, this advantage may not be sustainable. The Swisscom loyalty program is focused on level 2 and 3.

The tariff structure became less transparent. Swisscom had at that time higher rates than its competitors, but the loyalty program made it more difficult to compare prices and, for the short term the company was able to retain its customers by increasing the exit costs, in that way making it expensive for customers to leave (e.g. pre-selection, charges for changing provider contract duration).

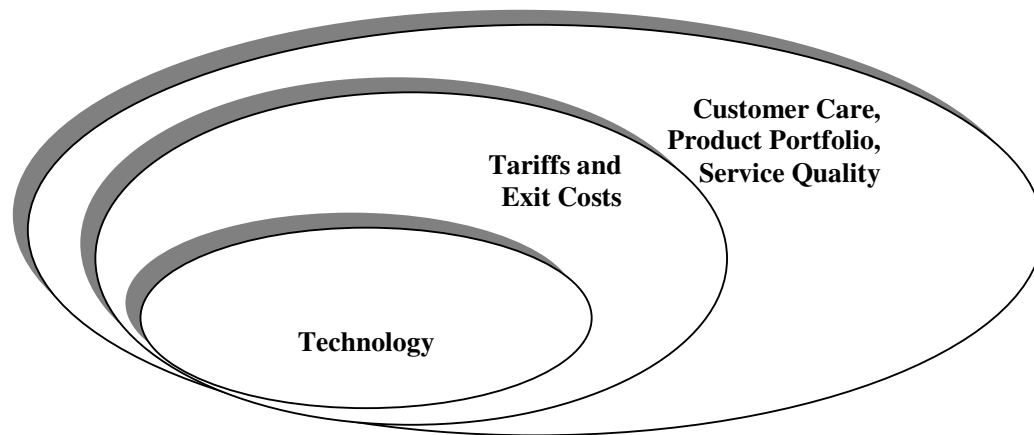
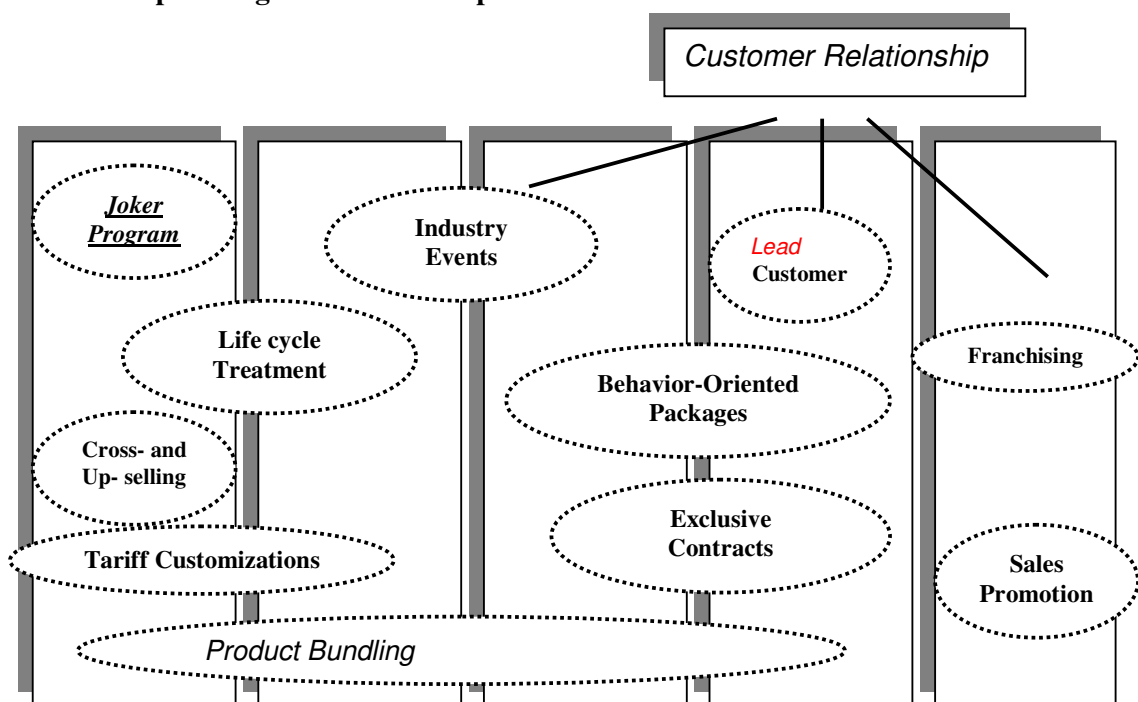


Fig. 3.5. Positioning Possibilities in the Telecommunication Industry

Level three is the most important area for the CRM program. The implementation of a more effective service, higher QoS (Quality of Service), the implementation of a call centre as well as the development of vertical industry solutions should all help for the strategic positioning of Swisscom on this level.

#### Relationship Management Road Map:



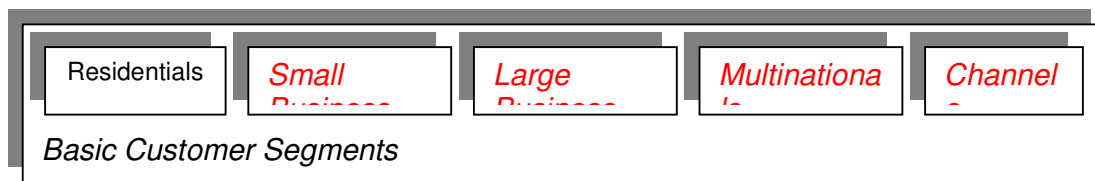


Fig. 3.6. Swisscom's Loyalty Road Map

The customer relationship management road map highlights the activities or programs, which are planned to be implemented in the CRM organisation and it is the combination of segmentation and positioning. Some programs are not yet implemented.

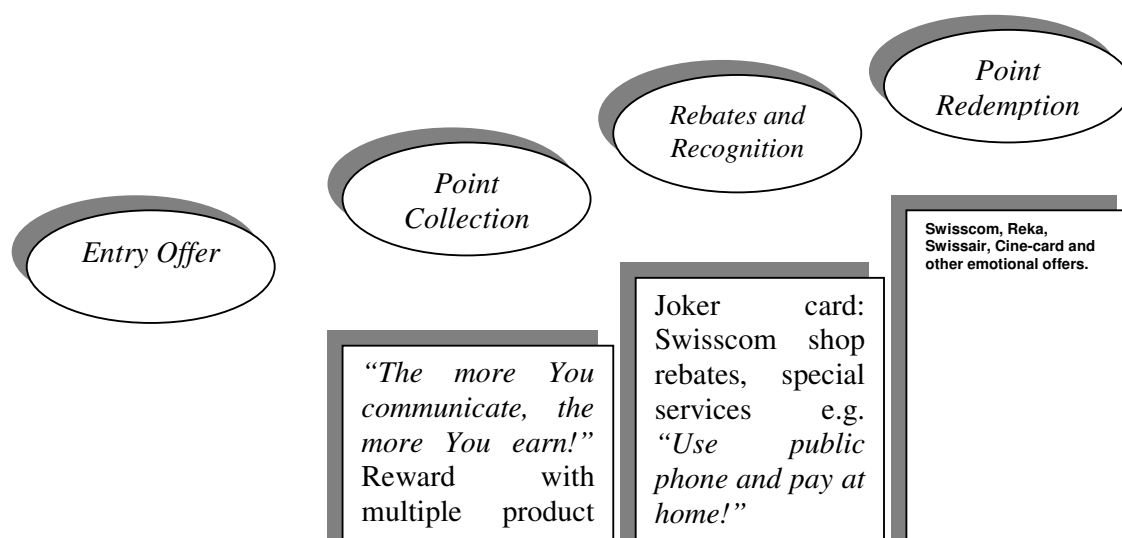
### The Joker Loyalty Program:

Swisscom needed something that could be both rapidly implemented and efficient enough in order to keep the company in first position on the Swiss telecom market. The Joker Program was developed and implemented in just 12 months (February 1998 to February 1999) and it enabled Swisscom to obtain information on customers, households and preferences across all products and services.

The program offer was simple and easy to understand and that attracted a majority of customers. Also, competitors couldn't copy this program in a short period of time.

Each member of the program would get a personal Joker account; special rebates on certain new products and services; and an exclusive treatment based on his/her personal Joker card. Using this program, customers could get points for using most of Swisscom services (fixed-line, mobile telephones, Internet services, telecom devices, etc.) and could redeem these points for Swisscom services, air miles (Swissair) or adventure weekends.

The customer, by registering himself for the program and giving his personal data, effectively provided valuable information for Swisscom's database. In this way Swisscom gathered information about its customers. Every user would earn more points if he/she used Swisscom services more frequently. These points could be redeemed in different ways by using Swisscom services or by using some special offers, e.g. Swissair. Figure 3.7. shows the steps in the Joker program with more details.



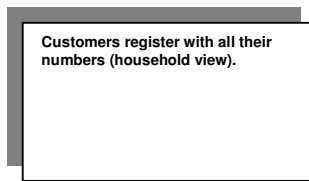


Fig.3.7. Joker Loyalty Program

Three main benefit categories of the Joker program had been identified:

- a) Benefits from cross- and up-selling (The Joker members received additional points for using more than one product or service).
- b) Benefits from the reduction of the win-back costs (Because of higher loyalty, the expected costs for winning back lost customers were reduced).
- c) Benefits from securing basic customer turnover (Due to the Joker program, customers weren't defecting so rapidly and often).

And three main systems (IT systems) were established in order to gather and store information about the Joker loyalty program members:

- a) The Customer Loyalty Software (CLS) is a customer-oriented system that summarizes all accesses of the customer's equipment, their addresses, points' collection and redemption. This system enabled Swisscom to analyse the overall communication behaviour of each family across all products and services.
- b) The Swisscom Data Warehouse (DWH) provides the necessary transaction information (e.g. billing information to the CLS). It is planned to mirror DWH and CLS in the future. DWH enabled Swisscom to carry out more detailed analysis in areas like customer behaviour, new Joker offerings, reactions to the new products and services.
- c) The Campaign Management System (CMS) is used for target-marketing campaigns and win-back activities and is intended to enable Swisscom to target its customers more effectively while reducing marketing and communication costs.

These three elements: CLS, DWH and CMS, and the close relationships between each other, build the basis for the administration and management of the Joker.

### Web page:

The Swisscom's website is dynamic, with lots of frequent changes. In the past these changes followed news in the Joker loyalty program, but the homepage is changed this autumn and to be able to find information about the Joker program the online search engine should be used. Personally, the old website looked prettier.

Today's website looks good; not too colourful, but has well-organised structure with text search facility. The homepage doesn't contain too much information, but if one goes deeper into the web structure he/she will find lots of information (finance reports, job offers, details about Joker program, e-Commerce solutions, Swisscom's mobile and fixed offerings, etc.). This transparency is company policy and is available in four different languages.

Naturally, questions can be given through the web form and everybody can subscribe for the electronic newsletter. E-shopping exists for some time on this website.

### Conclusion:

The Joker program was a temporary promotion now ended. Joker members were able to collect points up until the summer of 2001 (April) and they had to use them before 1<sup>st</sup> of October 2001. Information gathered with this program is a good basis for further implementation of the CRM program.

There will also be a number of loyal Swisscom users after this successful program has finished. These customers now have a good relationship with this telecom operator and their decision to change an operator won't come so easy.

Swisscom became CRM-focused by gaining management attention, realizing that the use of customer information is the source for improvements in market and sales activities; and then by launching long-term programs for serving customers needs in a better way.

### 3.3. Matlust

**“Thanks to a new mobile service, there’s no need to ponder the ever-present question, ‘What should we have for dinner tonight?’ Dinner’s ready via your mobile!”**

Ericsson’s *inside*, 5minutes

Sturegatan 29, 114 36 Stockholm; this is the address of one petrol station. It is normal for a petrol station to have a small grocery store in its complex, but it is definitely unusual availability to order dinner there via personal mobile phone!

For busy people, who do not have time to go shopping for dinner every evening during the week, this petrol station developed a new service called “E-food”. Instead of losing time coming to the grocery store and looking around for groceries and at the same time thinking what could be an easy and fast dish to prepare for this evening’s dinner, now with a WAP phone one can just enter the “Matlust” site and select one of four dinner menus suggested on the phone display.

During the trial period for this service, mobile phones, the Ericsson T20, kindly donated by Ericsson, were used.

Makes life easier:

While the newspaper reporter was there, a young lady in jeans walked straight up to the counter, where she picked up a brown paper bag. Charlotta, who became a regular customer, is a secretary at a hotel in a nearby suburb of Stockholm. She has small children at home and claims that this e-food service made her life much easier.

Ready in 20 minutes:

The brown paper bag never contains more than six ingredients and the dishes generally take no more than 15 to 20 minutes to prepare. The content of a bag is based on recipes that are tasty, simple and easy to prepare.

#### **Web site:**

On the web site, it is possible to find all needed information about the service, to submit personal telephone numbers and to see the history of the idea and photos of the three persons responsible for development and implementation of the service. The service is only available at the petrol station. For the time being its web site is not fancy and big, but on the other hand it is not confusing.

With GPRS phones it will become possible to wirelessly access this web site, which means a lot of new features in this e-food service in the future. The idea is novel because it uses technology that already exists (WAP) and is a good base for the development and business growth.

#### **Conclusion:**

In the second chapter of this thesis, e-commerce is explained. It is not possible to separate e-commerce from CRM; they go together hand in hand. E-food service is the culmination of CRM philosophy enabled by new technologies; new mobile services, Internet and e-commerce applications.

One can ask if these dishes are healthy enough for family to eat. Well, today people have a hurried lifestyle and this is much better choice than fast food, which is usually the chosen option. Another point is that this program has just started, Matlust recognised the opportunity to become more customer focused by using new technologies, implementing CRM, and developing this service in order to fulfil customer's needs better. There will be dynamic changes at this petrol station in the future, when it becomes known and popular.

### **3.4. SKF Group**

**“Partner worth doing business with, the one you can always count on”**

Miklos Konkoly, Managing Director of SKF Hungary



The implementation of CRM is opening up completely new areas of business, previously uninteresting to SKF; e.g. service orientation and the development of total-solution packages individually customized to satisfy the specific needs of each customer.

The SPIN concept is a completely new approach to customer needs, with the company no longer selling products to customers, but instead listening to their problems and offering them solutions.

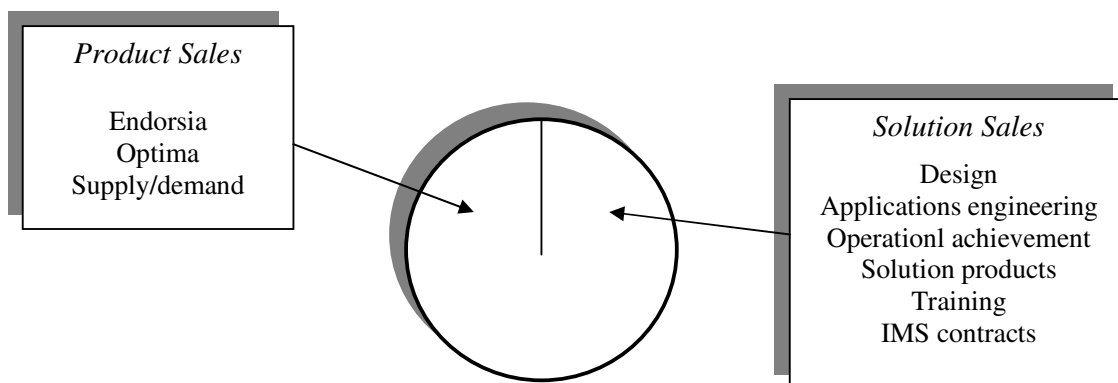
Hungary was chosen as a pilot-country for CRM concept development and implementation for the SKF Group in the CEE (Central and Eastern Europe) region. This is because of specifics of the CEE region; on one hand the market is not yet fully developed and has not reached the point of saturation, and on the other hand, the closeness with end-users and customers was not lost as in some other regions and markets. Personal relations and contacts are still highly rated among business people.

#### Implementation:

Implementation of the CRM in Hungary officially started at the beginning of 2001, but some preparations were made previously, e.g. creation of the database started during 2000. The whole procedure is made in several simultaneous steps:

- a) *Market knowledge.* The creation of the customer database was the most important task and includes all major customers, with the exact history of relationships, number of orders, volume, type, prices, and payment conditions. Special computer software was customized for SKF for these purposes. The customer and market knowledge gathered in this database is used for predicting customer behaviour, preparing stocks and offering total-solution service packages.
- b) *Education of employees.* Because CRM is a completely new concept for most people in CEE countries, extensive education and training of all participants in the process is required (employees, channel partners). The education covers several areas. Employees should become well acquainted with all products in the product line offered by the company, as well as all capabilities they will use in order to satisfy customers' needs.
- c) *Action, run, assess, follow up.* The development of a new "pro-active" approach characterized by constant build-up and monitoring of customer relationships, with continued assessment of undertaken activities is crucial. Based on these measures, adjustments are expected to be made in order to fully comply with new needs and changed situations.
- d) *New Organizational Structure.* The way of thinking as well as the organizational structure of SKF Hungary has to be adjusted to a new business concept.

In addition, completely new, previously non-existing activities within SKF have also emerged, e.g. call centre. 24 hours technical support will enhance trust of customers in SKF and give a boost to its image concerning reliability and customer-orientation.



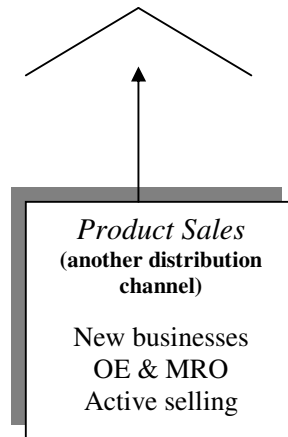


Fig.3.8.Vision of SKF Hungary 2005

In the future the physical product will become a platform. Customized offers to each individual customer will be more complex, more expensive and more time-consuming, but at the same time more useful and valuable for the customer, which means in the long-term a stable relationship. Figure 3.8. shows the future picture of the business portfolio.

#### Problems and challenges:

There are more problems inside the organisation (SKF Hungary) than problems related to either distributors (channel partners) or customers.

Problems inside the SKF Hungary are:

- a) Lack of experience. Intensive learning and many adaptations and adjustments are required. The important question, "who does what?" clearly indicates that division of responsibilities is one of the most important tasks.
- b) Insufficient number of employees.
- c) Lack of some profiles of employees. For the new areas different experts are needed.
- d) One hidden danger is also present. Great attention should be paid to not make promises to customers for solutions that cannot be completely fulfilled, due to lack of internal capabilities, overstretched resources or external difficulties, because once company has damaged its image, it's very difficult to repair it.

Distributors generally lack technical skills and awareness of the importance of the CRM concept. Therefore ongoing education and training provided by SKF, together with technical support, will in combination with a high degree of commitment and willingness to learn, develop and adapt the new concept, change the situation in the near future.

There are several problems related to the customers:

- a) Lack of financial resources and enthusiasm for the whole idea.
- b) Unwillingness to change. This has much to do with old style of thinking and management practices, despite formal change in ownership and decision-making.
- c) Lack of understanding of the CRM concept between CEE companies. Western companies are more responsive and open to new proposals and are also financially more stable.

- d) Influence from the old socialist system is still present.

**Conclusion:**

CRM is one of the main pillars of the new SKF Group policies for increasing profitability. To implement this new business concept successfully will be a big leap forward for SKF. It will mean a shift from the old style, old-economy industrial enterprise to a company in the new era. This shift could very well be the only way for securing the long-term survival and further development of the company.

## 4. Current Situation at Ericsson

*"We must ensure that we are setting up exactly the right organizational culture to serve our customers better. Ericsson is endeavouring to evolve into an organization that is very much associated with its customers' success."*

Ingvar Larsson, Head of Sales and Business Management

Ericsson's organisational structure is quite complex and presently there are lots of changes in the process. Because the structure is dynamic and too big for the whole Ericsson, it is the Mobile Networks Supply and Support organisation that will be described in this chapter. Mobile systems (GSM/GPRS, WCDMA, PDC, CDMA/CDMA2000, TDMA) make 64% of total Ericsson's production.

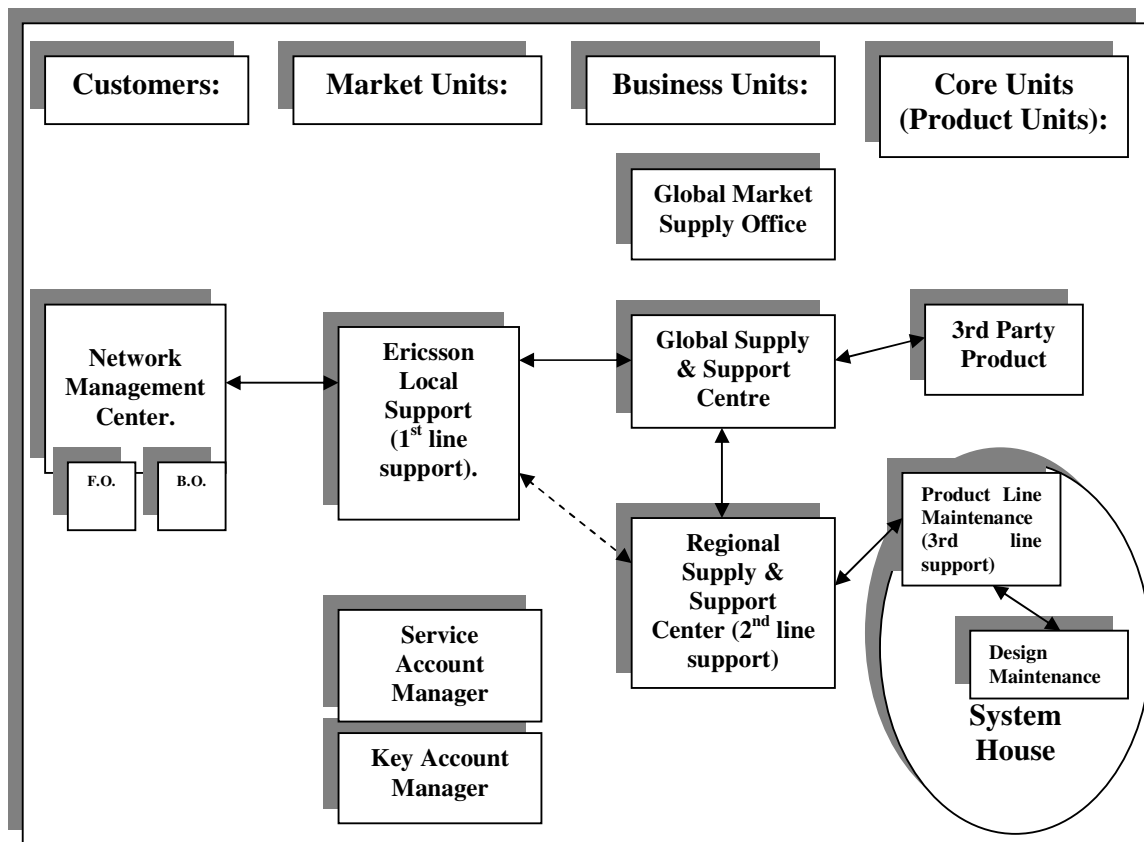


Fig. 4.1. Mobile Networks Supply and Support organisation at Ericsson

There are 5 most important Ericsson customers today and they are treated with special care and the GMSO (Global Market Supply Office) has the responsibility for them. These resources are managing the delivery expectations and performance to a global customer, e.g. Vodafone).

System House presents products grouped together, which form a logical system that is marketed and sold as a complete solution (e.g. GSM, WCDMA, Engine). It is usually made of several organisations, PDUs (Product Development Unit) with their PLM (Product Line Maintenance) and DM (Design Maintenance) offices.

#### 4.1. Support Structure at Ericsson

Support and Supply in Ericsson usually goes together (e.g. two sections in the same department), therefore it is hard to divide them. Figure 4.2. is a simplification of the figure 4.1., looking from the supporting side of the Mobile Networks Supply and Support organisation.

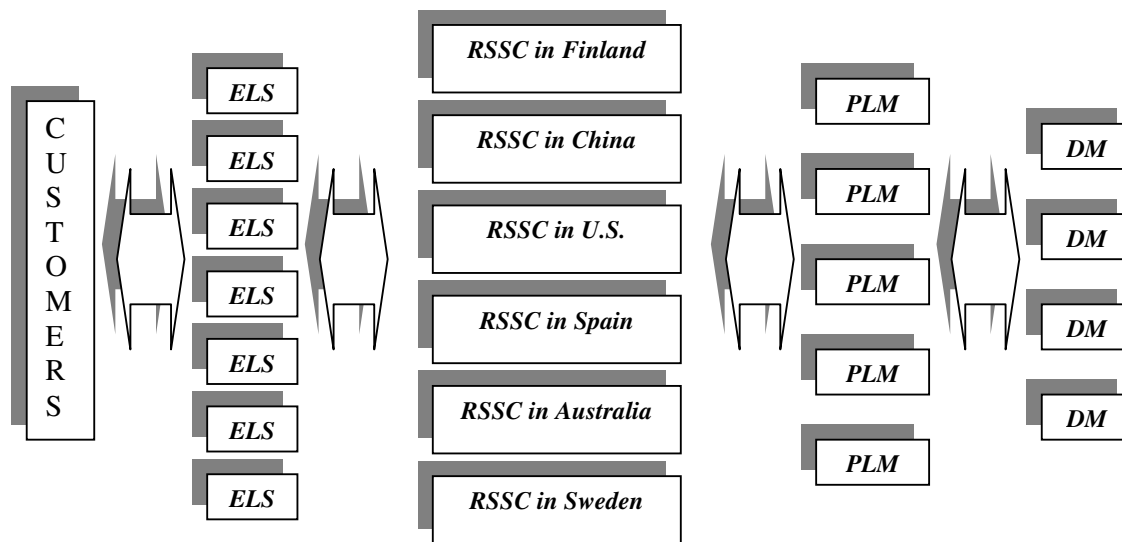


Fig. 4.2. Structure of the support and supply organisation.

Ericsson's customers for mobile systems are mostly operators for telecommunications (telecom providers) all around the world (e.g. Vodafone, Deutsche Telecom, DoCoMo, VIP Net).

Lots of Ericsson Market Units are disposed all around the world and there is one ELS (Ericsson Local Support) in each of them. The 1<sup>st</sup> line support is a direct interface towards Ericsson customers. Mobile Network System Supply/Support main ELSS' responsibilities are:

- a) Delivery and implementation of software, documentation and hardware to customer
- b) Functional market corrections
- c) Reporting to RSSC
- d) Trouble Report and Customer Service Request handling
- e) Delivery and implementation of correction packages
- f) Consultation
- g) Customer Help Desk
- h) Emergency Service

Ericsson has globally 6 units called RSSCs (Regional Supply & Support Centre), which are responsible for program delivery and support of Mobile Network Systems. They are the 2<sup>nd</sup>

line of support in Ericsson support line organisation, and by sharing the responsibility between them, they give 24 hours active support for the ELSs, 1<sup>st</sup> line support. They stand between ELS and PLM and their responsibilities are:

- a) System specification (SW and HW)
- b) Test Planning and Test Design, testing and verifying correction packages
- c) Participation on pilot implementation
- d) Trouble Report and Customer Service Request handling
- e) Consultation
- f) Emergency Service, 24 hours

PLM (Product Line Maintenance) composes 3<sup>rd</sup> line support in Ericsson support line organisation and together with DM (Design Maintenance) belongs to specific PDU (Product Development Unit). There are around 15 different PLM organisations included in supply and support for mobile networks and their responsibilities are:

- a) Trouble report and Customer Service Request handling
- b) Testing and packaging of corrections
- c) Help Desk

This model is four years old and is still developing.

## 4.2. Information Flow

Information flow starts when customer contacts ELS, the one that is responsible for that particular customer (fig.4.2.) and if that ELS can solve the problem (answer the question) the circle is closed. This is a perfect and rather rare scenario. Information usually goes much deeper into the support and supply organisation, sometimes arriving into PLM or even DM.

Starting position of the flow is the same as the ending position, which can be either Ericsson's customer or some internal Ericsson organisation. Information will start its circle as a request and finish in form of a solution. Different shapes of information are:

- a) CSR (Customer Service Request) is any kind of question (about functionality, missing document etc.).
- b) TR (Trouble Report) is submitted when defect in functioning is found.
- c) CR (Change Request) is a feedback for Ericsson from its customer, comment made on specific product. Design department will use this information while making decisions on what new features to implement in the new releases of that product.
- d) Hot TR is a TR with highest importance and needs to be solved in a very short time.
- e) Solution can be answer to the question, description of the solution, or software patch.

If the solution already exists it can be found in the global database. When correction is made it needs to be tested and verified before it will be sent back to the customer (e.g. package of software patches). It is the PLM's responsibility to track the TR and its solution and test it when it is made, but the RSSC will repeat similar tests in their own laboratory network to verify the solution. ELS, the one that had registered problem, can accept the solution, or reject it, if it is not good enough.

Information flow of the CR and Hot TR is different from the usual one. CR goes directly from the ELS to the Design office, and for Hot TR there are some special meetings existing, which allow faster reply to customer.

Support (CSR, TR, Hot TR, CR) and supply (answer, software correction, package of patches) have the opposite direction in the information flow.

### 4.3. Tools Used in The Ericsson Support and Supply Organisation

There are several tools used in the communication between customer, ELS, RSSC, PLM and Design Maintenance. Also new solutions and improvements are coming monthly, but it is still too complicated situation today.

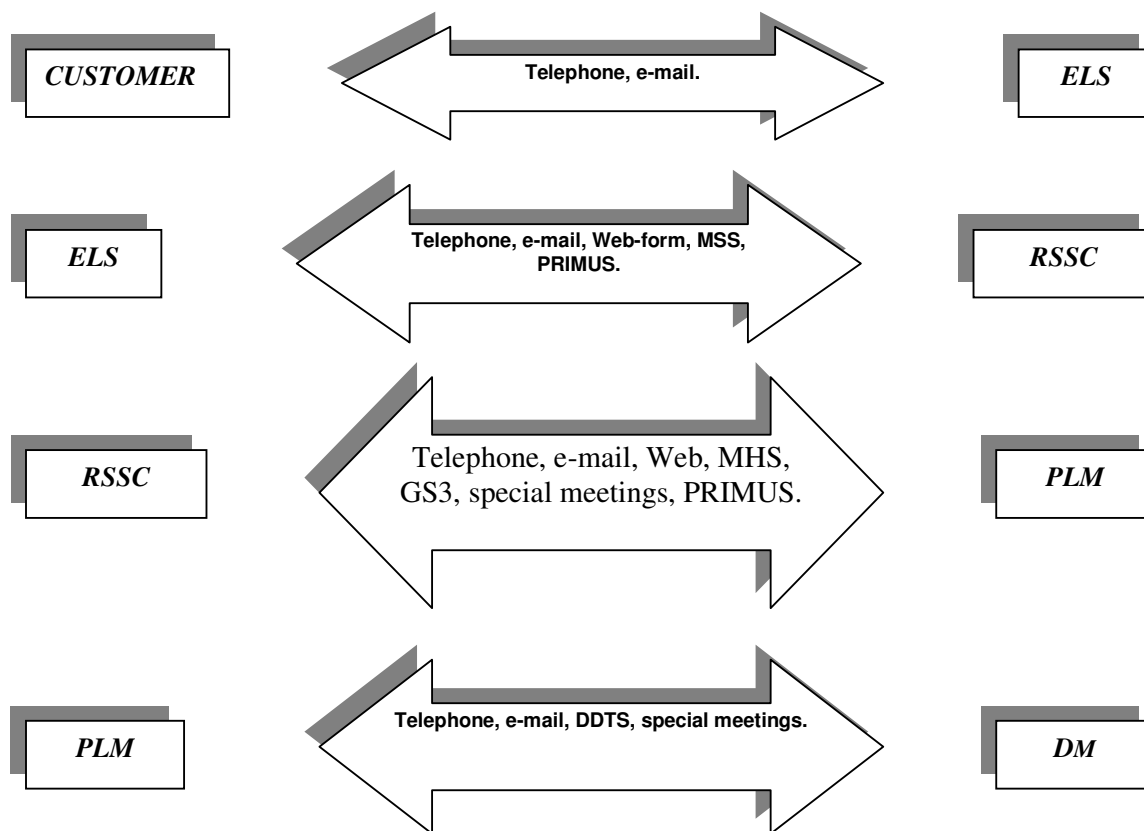


Fig. 4.3. The tools used between line organisations.

Interface between telecom provider and Ericsson Local Support office is usually phone or mail.

ELS is using MSS software solution (Maintenance Support System) provided by Ericsson for writing customers' requests. The interface between ELS and RSSC can be also phone, e-mail or web form.

When this information is registered in the MSS system RSSC will take care of it and rewrite it to either the MHS or GS3 depending if it is the CSR or TR. MHS (Modification Handling System) is provided and maintained by Ericsson and GS3 (Global Service Support System) is the software solution provided by non-Ericsson company and will be replaced soon with e-Support solution (more details in the next chapter). These tools are searchable and automatic, and personnel of each RSSC or PLM can make query and check if the solution on particular request already exists. Information registered in one system will be automatically routed to the exact organisation (GSSC, RSSC, PLM, or DM) depending on the sort of information filed in the form. So, the interface between RSSC and PLM is either MHS for TRs or GS3 for CSRs. E-mail and phone are also available, but not preferable.

Personnel working in PLM organisation have to rewrite CSR/TR into ClearDDTS (Distributed Defect Tracking System, provided by Rational Company) because that is the interface between them and DM. ClearDDTS is quite similar to MHS, but more advanced, and because most of the CSRs are answered inside PLM, it is mostly TRs that are transferred into ClearDDTS and sent to Design Maintenance.

There are also special meetings between RSSC and PLM and also between PLM and DM, in order to solve TRs faster and specially in case if a Hot TR arrives. Regular TRs have three different priority levels and are differently handled on these meetings.

There are some exemptions and figure 4.3. is trying to give a basic understanding that there are several tools used in different line organisation.

#### 4.4. E-Support Systems Program

*“Support is the interface between the company and the customer. In response to a customer problem, Support draws on its product knowledge and creates a solution. In the process, Support generates knowledge about customers’ needs and how customers are using the product. Support truly takes its place as a leader in driving the entire company to “real dialogue” with customers, and into the e-Services arena.”*

“What is SCS?” internal presentation

The purpose of the e-Support Systems Program is to deliver to Ericsson and to its customers end to end a set of web enabled tools, processes and value systems. **There are a number of reasons for taking this step, e.g.:**

- a) Internal efficiency and effectiveness
- b) Customer satisfaction
- c) 3G support demands
- d) Participation in the multi-vendor society
- e) The customers are asking for it
- f) Non-stop network

To avoid becoming customers’ second choice in the future Ericsson is making big changes in its organizational structure. E-SSP is not just a software tool enabling e-services, but the whole idea of CRM is implemented in this program. With this changes Ericsson is aiming to improve the speed and quality of service, to offer real time information handling and enable managed communication in the multi-vendor society.



**Service Management System** enables Ericsson to:

- a) Make information transparent throughout the whole value chain (line support organisation)
- b) Focus on the customer
- c) Solve problems early in the value chain
- d) Automate the entire process (web enabled customer self-service and escalation/collaboration through the value chain to design)
- e) Multi-channel communication with customers and partners

**Solution Centred Support** maximises Ericsson's competence and experience, making knowledge available worldwide in the real-time across the whole support and supply line organisation (MUs, BUs, PDUs).

Most of the software and telecom companies, including both Ericsson's competitors and non-competitors, are already adopting the Solution-Centred Support, implementing CRM. Summary of the today's statistics shows increase in their operational efficiency, which means more efficient and faster support. One more result of the market analysis shows that "Every implementation in the industry that is focused on technology ... failed!" CRM is not based on technology but is enabled with it.

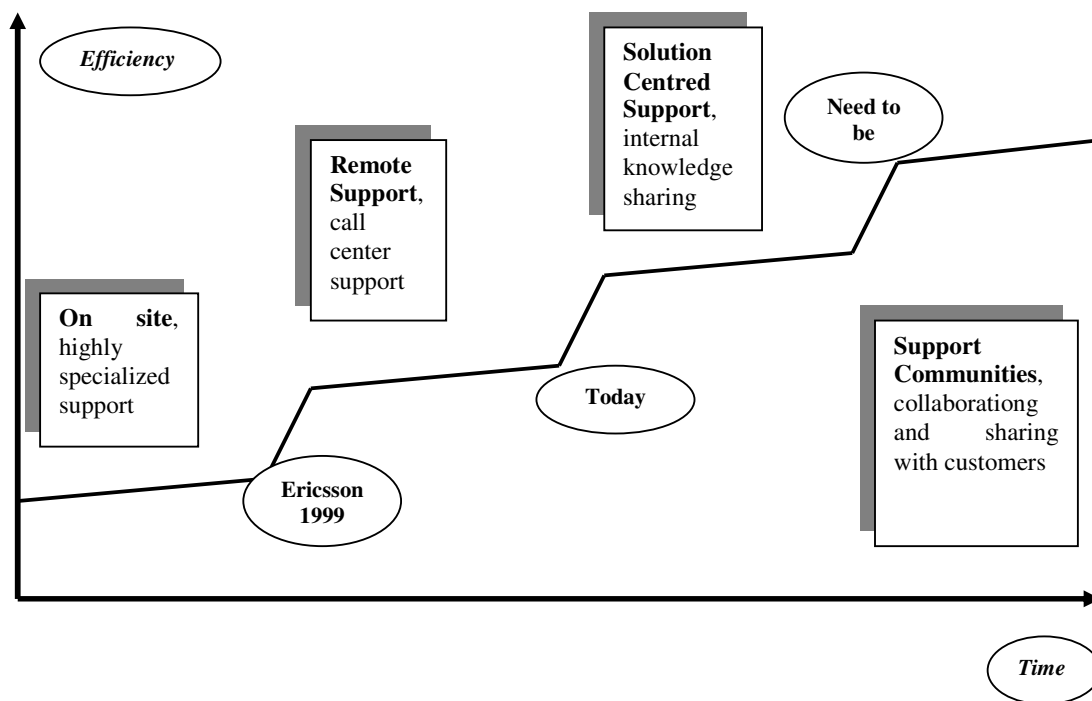


Fig. 4.4. Evolution of the e-Support

Reasons for and benefits from the implementation of the SCS into the support and supply line organisation are:

- a) Increasing workload (increase in the use of the existing and coming technologies)

- b) Developing support as any other product
- c) Increasing support capacity (reuse knowledge globally, grow skills and reduce learning curve)
- d) Improving customer experience (access to knowledge/database)
- e) Driving product improvements based on the customer experience (customer is recommending new features for the product)
- f) Increasing employee job satisfaction (less redundant work)

Through the e-Support System Program, Ericsson's network support business will be transformed into a highly responsive, adaptable and more cost-effective support service. This can be partially realised by the introduction of new tools, but requires complementary structural changes in order to achieve the intended business advantage.

#### **4.5. Ericsson's Homepage**

This website has lots of links, but is well organised and not overloaded with information. There is choice to choose the region and link to any Ericsson company in the world or type of information that is of the interest for the visitor (products, services, technologies, support or about Ericsson). News and some attractive new links are also accessible.

Naturally, text search is available, link to job site, as well as links to different products divided for consumers, enterprises, network operators and developers. Small shape with no need to scroll down makes this web page a compact homepage.

Internal websites are not so good compared to the well organised and user friendly Ericsson's external website.

## 5. Problems, Benefits, Trends

*"I wanted to let them know [about a credit card change] so I tried the automated phone service, but there was no option for that. Then I tried waiting on the phone and it was just too long, so I went online ... but they weren't set up for that type of inquiry ... and I was confusing them by sending them an e-mail ... so I had to get back on the phone."*

Advanced CD (consumer direct) shopper, married female, early 50s

The process of transforming company into a 1to1 enterprise is complex and difficult. Anyone who gets involved in a 1to1-marketing program should be prepared for setbacks, unanticipated problems and a certain amount of internal resistance. But is it possible not to be involved? Today's companies treat different customers differently not just because they have technology that enables personalization, but also because customers demand that.

### 5.1. Today's Problems in CRM World

*According to a new report by Gartner, more than half of all companies implementing CRM initiatives today will view those plans as failures by 2006.*

INSIDE 1to1, Peppers&RogersGroup

#### **Will the real CRM please stand up?**

Successful customer initiatives can mutate swiftly into disasters if they are allowed to spin out of control. There are no quick and easy solutions and embracing the 1to1 philosophy will necessarily involve changes in a company's culture. Implementing good CRM takes time and patience and needs to be done in steps. Not everyone is going to have the capacity or the desire to follow this revolutionary path, but it is not an option to stay uninvolved and that is why it is very important for top management of the companies to understand and agree in necessary of this before the changes begin.

Technology is not enough for functional CRM, whole company (each one of the company's employees) has to be involved in the process of transforming the company from product-centred to customer-focused.

1to1 marketing means a continuing series of interactions with the customer; building personalized relationship is a process. With each interaction and recustomisation, each time both customer and company re-engage in their relationship, the company is able to fit its product or service a little more closely to the needs of that customer. Relationship is getting smarter and smarter, becoming better and better at satisfying that particular customer's needs. When a customer is involved in a Learning Relationship, it soon becomes more convenient for the customer simply to continue buying from the enterprise (even at an undiscounted price) than it would be to re-teach the firm's competitor what that customer wants.

#### **May I?**

As CEOs guide their companies into the e-future, one of their top priorities should be to protect customer privacy. According to a survey made by "The Direct Marketing

Association” in September 2001, 68% of respondents say that privacy and data security are direct responsibilities of presidents and CEOs of the companies. H. Robert Wientzen, president and CEO at The DMA said: “Direct marketing is an industry built on customer trust ...”, “This survey shows us what we have always known, that privacy is essential to good business and to establish trust with customers.”

Based on 4 surveys conducted throughout the early part of 2001, IMT Strategies determined that simply asking permission has become increasingly important to customers. Building relationships based on trust has become mandatory in today’s online environment.

The simplest way for businesses to attain a high level of customer trust is to put control of consumer information back into consumer’s hands, to gather their personal data only with permission, and to tell consumers exactly when and how that information will be used. Customers aren’t going to let businesses use their information unless businesses persuade them of the clear benefits of doing so.

### **CRM in a Down Economy?**

Even as companies scale back their overall capital spending, lots of information surveys (according to a Peppers&Rogers Group) show that most firms still intend to allocate their first spending to the CRM space, which requires an investment of both money and time.

Any company with an understanding of its individual customer values can almost always apply that understanding to improve its immediate sales efficiency, and rationalize or even reduce its overall marketing costs in the process.

In downturn, it is more important than ever to allocate investments and capital spending to the kinds of activities that can not only be measured in the short-term but will also, as is the case with customer relationships, have a long-term competitive payoff. The CRM allows a company to stay extremely close to its customers, which means that company can both detect and react to changes in customer plans more quickly and efficiently than its competitors.

### **Do you know the meaning of the data stored in your organization’s core databases?**

Collecting customer data is one thing, but turning actionable data into a customer-focused strategy can be totally missed. One of the reasons can be that top management hasn’t figured out what to do with all of that gathered information. According to the Vality’s white paper there are three requirements for becoming an intelligent enterprise:

- a) *Analyse and assess your data to discover the “hidden” data within the data.* To assure successful data migration and process integrity, the intended meaning of the data must be known, meaning and quality. Discovery of the meaning of the data will assure that company can propagate the right data with the right meaning to the right place. The real business benefit of this data analysis lies in the discovered knowledge of company’s data.
- b) *Incorporate defect prevention measures by applying information process improvement techniques at the source of data capture.* If company’s data lacks quality many conscientious staff will have to create their own databases on their PCs, because they cannot get to or cannot trust the data in the “official” database. The data cleanup activity must involve the key customers of the data. A data cleansing initiative brings value to the data by enabling the staff to trust it and to

use it. That is why data defect prevention tools are an important part of an effective enterprise.

- c) *Become an intelligent learning organization by learning as much as you can about the things most important to your enterprise and retaining that knowledge.* The intelligent learning organisation recognizes the value of information and puts in place processes that enable employees to capture and record knowledge about its customers, markets and competitors, as well as knowledge about the business events that shape its future.

The intelligent enterprise manages and exploits its information and knowledge resources. It does not simply use data, but uses information for competitive advantage, transforms its data into valuable information assets. In this way enterprise has not just reduced its costs, but is continually exploiting new opportunities by knowing its customers and market better.

#### **Only certain number of CSRs can be solved per day.**

Large investments in CRM technology help CSRs (Customer Service Request) handle inquiries more efficiently, so the number of calls that can be handled in a given time can increase. Unfortunately, there are still only a fixed number of questions that can be answered on any given day based on the number of humans available to work. Solution is not just in solving CSRs faster and more efficient, but also in reducing inquiries coming from the customer.

There are a number of technologies that can be deployed when creating a CRM system, but the one that is always mentioned as the most productive and greatest cost saving tool is Web self-service. Advanced Web-based self-service solutions can be deployed in just a few days; they are self-contained and easy to use.

Because customers typically have the same questions, the Web can draw from a central repository of information – to provide immediate solutions. Thousands of inquiries can be answered at the same time using a knowledge base.

E-mail and phone calls are expensive and if there are the more customer service interactions that can take place on the web, the more money can be saved (Fig.5.1.).

<b>CRM Channel:</b>	<b>Average Cost per Transaction:</b>
Telephone	\$32.74
Knowledge base self-service	\$1.17
E-mail	\$9.99
Message board	\$4.57
Chat	\$7.80

Figure 5.1. Forrester Research, industry estimates for several different channels.

Customers rely more on extracting information from self-service applications rather than making e-mail or telephone contact with a CSR (Customer Service Request). Internet visitors who can easily find their own answers immediately online are the happiest, which means lower and cheaper support and improved customer loyalty.

### **The old planning habits die hard.**

It is not possible to develop customer-centric strategies while using traditional planning tools designed to produce traditional, company-centric strategies. It is not simple but is necessary to convert working habits. Here are several principles (by Dick Lee, CRMguru) that may help in this process:

- a) Customer-centric planning does not start with setting goals and objectives. Instead, goals and objectives are an outcome of the planning process.
- b) The planer's "world view" is shaped by what customers see. Rather than expressing the seller's perspective, then determining how to make buyers adopt that perspective, the planning process establishes the buyer perspective first, and then determines appropriate seller response.
- c) The focus of planning is determining how to create value for customers, not how to enrich the company. The only way to create value for the company is to first create value for the customer.
- d) Identifying win-win opportunities with customers is the primary achievement of planning. Identifying objectives and strategies built around these opportunities is the easy part.

### **CRM in Asia!**

CRM has the highest importance in the United States and partly in the other parts of America; then second highest importance is present in the Western European countries. Eastern European countries are starting to develop and implement CRM in their enterprises, but in the Asia CRM adoption rates have been relatively low and slow. There are few reasons for that.

Implementation of CRM is often an expensive process. The first broad coverage CRM products were released in 1995-96, but by the time they achieved market awareness in Asia, the 1997 currency crisis was in full swing and discretionary funds for new projects were limited. In addition, short-term returns were overemphasized, and the long-term strategic improvements that could come from CRM were consequently given less credence.

After economical recovery from the 1997 crash, all available technology funds were invested in resolving Year 2000 risks, leaving just few funds for new CRM investments.

The result is that, except for Western multi-nationals doing global rollouts, Asia has seen no dramatic upswing in CRM technology sales since 2000.

### **5.2. Tips on How to Make Customers Coming Back**

*On a recent transatlantic flight, I paid a whole bunch of money for a round trip. And the service was terrible. The seats were broken, the cabin was filthy, the food was awful – even for airline food. So I wrote a letter. I calmly described how disappointed I was. And sure enough, a few days letter, I got a response. You know what they send me? A form letter that said they appreciated hearing about how horrible the flight was. And coupons worth about 4% of what I paid for the flight.*

Seth Godin, author of Permission Marketing

This person is a regular customer of United Airlines making nearly 100,000 miles a year and often flying full fare or business class because of his job. That same day that United Airlines spent a hundred dollars to keep a super-great customer, they also spent much more in marketing to find another one who will take his place. Sure, it is logical to invest time and money to keep best customers happy and spend less then replacing them.

There are lots of suggestions on how to keep good customers and all of them are actually building personal relationships between customer and company. Here are some tips suggested by Donna Greiner and Theodore B. Kinni:

- a) *Create a better bundle.* Bundling is the act of building an added-value package around the products and services and if customer uses and is satisfied with one of the benefits in the bundle, he or she comes another step closer to become a customer for life. Bundles can be the simple, yet convenient addition of a small service that complements product. The key, however, is to focus on what adds value from the customers' perspective before thinking about how much additional money it can be made.
- b) *Use incentives to drive sales.* Every person, rich or poor, likes to get a special deal. That is the reason why as long as people have been selling goods and services, there have been sales. Except sales there are more incentives, like free gifts, added values as bonuses, coupons and rebates, special financing terms or sweepstakes and contests. But like every other technique for building repeat business, incentives only work when the customers find them valuable. Companies have to be careful to look from customer's perspective in choosing an incentive and not to overreact and misuse it.
- c) *Tap into communities of interest.* A community of interest is a group of people connected by a common thread, a same interest. People, and that means companies' customers too, look for others who share their interests. And people who buy the same services and products may well find value in sharing that experience with others who do the same. Companies that create a connection between customers build a powerful mechanism for repeat business and also give customers an emotional connection to the company.
- d) *Stand behind your work.* Trust is a critical factor in building repeat business (delivering exact products and services at the price and time agreed upon). When company stands behind its work, the customers will recognise it and stand behind that company. Guarantees and warranties take many forms, but we found that almost all fall into one of three categories: product, service and price.
- e) *Give in order to receive.* This does not mean just in relationship between company and customer. Customers care about the world in which they live and supporting their concerns is a wonderful way to build loyal relationships and do good at the same time.
- f) *Reward every customer.* All customers deserve reward from the moment they contact a company. It does not have to be a huge reward, but it does need to make them feel honestly valued by the company they selected to contact. Dale Carnegie said: "If you remember my name, you pay me a subtle compliment; you indicate that I have made an impression on you. Remember my name and you add to me feeling of importance." While contacting with customers personal touch is needed, e.g. asking for their name, showing concern and politeness.
- g) *Special customers – special rewards.* The Pareto Principle says that roughly 80% of the revenue in any business is generated by the top 20% of its customers. That

top 20%, which represents the company's most active customers, should be rewarded for their exceptional loyalty. Plenty of companies agree and they recognize and reward their best customers in a wide range of ways (giving a present, creating elite programs, rewarding customer frequency).

- h) *Make it easy.* It is fundamental and it is highly ranked among customers' priorities. There are two basic principles, simplicity of every customer interface and convenience to do business with particular company, which makes customers choose that company. Time is one of the most valuable possessions for customers in today's world, so it is logical to make the business as simple as possible, and ability to do it where and when the customer wants.
- i) *Go to your customers.* Customer needs to know when it is time to do business with a company (new products and services, next releases of existing products, etc.). Reminders are often perceived as a valuable service for busy people who have a hard time keeping track of details such as checkups and replacements.
- j) *Give customers what they want.* If companies want to earn the business of loyal customers, they need to find out what their customers want (listening their desires, creating the service and products they demand, personalization for each individual customer).
- k) *Become a customer service champ.* To be successful, company has to be focused on customers from the top down and from the outside in. Every time an employee encounters a customer, that corporate focus is tested and an opportunity to build the loyalty bond occurs. An intense customer focus starts with the boss. The leaders of a business are the most influential models for its employees. With a foundation in place, a company must support the customer focus with a specially tailored infrastructure (trainings, systems, etc.).

Companies must regularly reinforce the customer focus; implementation of CRM is a never-ending process. Employees need to be motivated and rewarded for the great customer focus (they need to know exactly who the customers are, have direct contact with them, get customers corporate information). Becoming customer focused means building customer commitment among employees.

### 5.3. Market Analysis: New Technologies

*Speech recognition, storage, voice over IP, peer-to-peer apps and security and videoconferencing tools will be among the hot technologies of 2002.*

Emerging Technology, CIO Magazine Jan 1, 2002

Increased attacks by hackers, viruses and Trojans, combined with the world's sharpened interest in safety and security, make network and system security more and more important. September 11 gave companies an excuse to start talking more earnestly about security, says Chris Byrnes, vice president of security programs for Meta Group, an analyst company in Stamford, Conn. Fortunately there will be plenty of options, including new intrusion detection and network scanning tools, security services, functional biometric tools and more.

A study on September 19 by the National Business Travel Association showed that 88 % of companies planned to increase use of videoconferencing. Web and online collaboration services were already seeing their usage grow while the economy is sinking.



Peer-to-peer (local network, which directly connect client systems instead of relying on services) were possibly the most overplayed new technology of the past couple years, with proponents claiming it would reshape not only computing but also society. The business side of the market may be just getting under way as IT managers find niches for tools that keep employees connected to each other no matter where they are.

IP storage products will let companies combine disparate storage centres across their existing IP networks. Storage virtualisation software, which combines far-flung storage resources into “virtual pools” of storage, will get more sophisticated and, as always, disks will continue to get smaller, faster and bigger in capacity.

After some false starts in the customer market and a slower than expected corporate adoption rate, the technology to send voice over the Internet is becoming reality. Most wireless service providers have slowed 3G deployments for now, in favour of less advanced but cheaper-to-implement 2.5G connections (e.g. GPRS for GSM).

Nationwide high-speed wireless networks won’t be established so soon, but wireless 802.11b LANs are ready. Jack Gold, vice president for mobile and pervasive computing at Meta, says that despite well-publicized security concerns, the sector continues to grow rapidly. It points to a more locally wireless world in 2002.

XML will continue to be a hot story. Nearly every piece of enterprise software released in 2002 will make claims of XML compatibility, and while Web services will grow, big pieces of the services puzzle are still built on XML. This means that there will be more and more real products based on XML.

#### 5.4. Importance of the Web

*The imperative of customer retention and loyalty, in tandem with an increased emphasis on cost reductions and the bottom line in the current economic environment, puts rapid ROI into sharp focus. Although there are a number of technologies that can be deployed when creating a CRM system, the one that can produce the greatest cost saving is Web self-service.*

Susan Carstensen, CFO RightNow Technologies

Today Web sites are a great place to do business. It’s where people go to find answers fast. It provides a way for customers to navigate their way through lots of content to find the particular piece of information they need. It’s open seven days a week, 24 hours a day. According to industry observers, Web-based customer service (also known as “e-Service”) is one of the biggest business opportunities on the Internet.

Companies that don’t put an effort to develop effective e-Service will spend far more on customer support than their competitor (sometimes even 20 times more per incident). That is because, without effective e-Service, companies must rely on their overloaded, high-cost call centres to answer even the most routine and repetitive customer inquiries. Companies with poor e-Service also lose customers, since Web users get frustrated quickly and head elsewhere.

The Web site is rapidly changing. Just a few years ago, it was enough for a business to put up a site that had a modest amount of information on its products or services, with a phone

number to contact if the visitor wanted to order something or ask questions. This static “brochureware” content treated the Web as online Yellow Pages, where the main idea was to make sure company was properly listed. Now, the Web is an intensively interactive medium and an online extension of the business itself. Companies use the Web to buy, sell, recruit staff, solicit bids and make referrals. It is also a great place to support customers and forge closer relationships with them.

But it means that it is also great place to lose customers, too. It is comparable to the “real” world, losing customers by not responding to their needs. When someone comes to the Web site, they want to quickly find the information they need, to make a buying decision or solve a problem. So Web visitors are very sensitive to delays. It may be only a matter of seconds before a visitor gives up his or her search, and tries looking elsewhere.

This puts tremendous pressure on the two groups who develop Web content: marketing and customer service. They must somehow anticipate the possible needs of all types of visitors, from clueless newcomers to long-time customers. This is clearly a tough job, and in today’s resource-contained business environment, it is not a job that anyone wants to spend a lot of time doing. Fortunately, e-Service innovators offers automated, Web-based customer support in order to lower operational costs and significantly improve customer satisfaction.

Effective e-Service is very achievable goal and this are ten basic attributes that make Web-based customer support work (RightNow Technologies):

- a) Make sure your Web site can “listen” to customers (mechanisms that measure messages from customers).
- b) Give customers what they want – quickly.
- c) Make e-Service resources easy-to-find and easy-to-use (well organised web site).
- d) Provide multiple contact channels (not everybody prefer this kind of communication).
- e) Follow the “80/20” rule (more than 80% of all customer questions are usually answered by just 20% of a support knowledge base).
- f) Let your customers rate you (using feedback for improving the information on the Web).
- g) Leverage your knowledge base (useful for internal purpose, call centre, etc.).
- h) Map it out (e.g. office locations).
- i) Consider outsourcing.
- j) Automate, automate, automate.

In a market climate where every competitive advantage counts, these principles can make the difference between successful, high-ROI e-Service and a failure to take full advantage of the Internet as a medium for superior customer service.

### **Benefits of the e-Service**

Companies that implement effective e-Service systems find they benefit in numerous, even unexpected, ways.

Customers won’t contact a company if they can help themselves at a Web site, and it is already mentioned (chapter 5.1.) that both phone calls and solving the same problems all over again, is quite expensive. Web-based service makes customer support faster, reduces cost and increases customer satisfaction.

For most companies, sales over the Web provide lower transaction costs than those made over the phone or in a retail location. Good e-Service encourages customers to use the Web site more often, which means they become more likely to use it for transaction and support.

By automating the generation and management of online support resources, e-Service relieves these precious employees of having to perform many repetitive, yet critical, time-sensitive tasks, thereby freeing them to support other strategic projects.

Responsive, automated, e-Service delivers concrete business advantages. It is also becoming a competitive necessity, as more and more companies make their Web sites a primary channel for low-cost, customer-pleasing service and support.

### 5.5. CRM Shall be Implemented Incrementally

The process of the CRM can be divided on four basic steps (according to the Peppers&RogersGroup):

- a) *Identify your customers.* It is very important to know customers individually, in as much detail as possible, and to be able to recognize them across all contact points, through all media, across every product line, at every location, and in every division. This is mostly applicable to B2C company, for B2B firm, the identification step might involve trying to learn the specific names and positions of those executives, within a customer's organization, who have an influence on the buying decision.
- b) *Differentiate your customers.* To be able to treat different customers differently, company must begin categorizing customers by their differing needs and by the value they have. This means that company needs to define the most valuable customers and also to tailor company's behaviour toward each customer based on that customer's individual needs.
- c) *Interact with your customers.* Building personal relationship and gaining loyalty with somebody means interacting with him and today's technologies enable less expensive and more automated interactions. It is very important that communication with customer takes place in the context of all previous interactions with that customer, based on the interactive feedback gathered while communicating.
- d) *Customize some aspect of your enterprise's behaviour toward your customer.* To lock a customer into a Learning Relationship, a firm must adapt some aspect of its behaviour to meet that customer's needs. This might mean mass customizing a manufactured product, or it could involve tailoring some aspect of the services surrounding a product. Every single customer must receive a uniquely different offer or message, but to make it profitable to build personal products and services for each of them, modular production has to be implemented (creating a variety of highly specific products out of pre-existing components, modules). Moreover, applying this process to the way company treats a customer is not just about physical product attributes. Company can mass-customize the way products or services are packaged, configured, delivered, invoiced, arranged, financed or reported. Even the way calls are handled at a call centre and the way visitors are treated at a Web site can be mass-customized.

These four simple steps can be used as a checklist for putting into practice CRM initiative in any firm. But above the actual implementation steps the process of becoming a true customer-focused enterprise will require a firm to rethink its most basic business philosophies and reconstruct its very culture. There is more involved here than simply putting a great e-commerce Web site into effect, or launching a call centre, or automating the sales force. Doing business as a customer-focused enterprise means viewing the entire business from the customer's perspective.

In a recent study (December of 2001) of 665 companies worldwide, Gartner found that less than 5 % of businesses have successfully implemented such approaches. Implementation of CRM requires radical changes in the company's structure, way of thinking, product lines, organisation of support, etc. According to the CRMGuru newsletter, enterprises that are started with CRM implementation can be in one of the following stages:

- a) *Customer awareness.* Such companies tend to be product-centric and are challenged with identifying who their clients are.
- b) *Customer focus.* Companies have begun acknowledging customers and seeking ways to determine which ones are most profitable.
- c) *Customer satisfaction.* Company is measuring customer satisfaction and comparing its CRM to competitors' on.
- d) *Customer value.* These organisations have begun looking at how they deliver value to particular customers. They know why their customers buy, and they differentiate how they treat clients based on specific needs that drive satisfaction and competitive advantage for each segment.
- e) *Customer loyalty.* These companies can reduce costs for things deemed unimportant by customers and can demand premium prices for products and services perceived as vital.

Statistics show that most of the companies today (starting 2002) are in the 2<sup>nd</sup> or 3<sup>rd</sup> stage, but 5<sup>th</sup> stage is where the payoff lies. Enterprises in the 5<sup>th</sup> stage are using gathered data and have strong understanding of where to invest in order to see the most return. These companies know what drives clients' behaviours, as evidenced by the checks they write and the prices they pay.

## 6. Conclusions and Recommendations

*"I have been working in the GSN-W PLM organisation for more than a year now. I had many contacts with other Ericsson's supply and support organisations, but I never saw the CRM abbreviation in any kind of information source! However, this doesn't have to mean that the idea is not present."*

Kresimir, author of this report

Ericsson is mainly a software supplier, today more than ever, and software suppliers had in the past requirements from their customers to establish support for their product. This means that today Ericsson has developed a support and supply organisation with software tools and databases, which can be a good bases to start the CRM implementation from. This can be both good and bad for Ericsson, because CRM is not the technology (databases, web-pages, call-centres, etc.) and most of the companies implementing the CRM did the mistake of implementing the software, enabler for the CRM, but failed to implement CRM concept itself!

At the same time by becoming easier and faster to access, Internet becomes more and more important as one of the main information sources for the high number of people around the globe. The golden era for the telecom providers and telecom technology suppliers will come when commercial rollout of the 3G takes place. When the possibility to access Internet anytime and almost everywhere becomes the reality for a high number of the end-users (mobile terminal owners) CRM will become more and more important in the everyday business. In the chapter 3.3 one good example of the e-service enabled by new telecom technologies is explained.

By implementing the CRM, Ericsson will not have big short-term benefits. It is very difficult to actually measure the ROI of this implementation and there are lots of discussions ongoing today regarding this subject in the CRM world. However the idea is quite old and in the same time quite logical, the new thing is that now is the time to do it, both because the customers demand it and the technology is enabling it. Depending on how deep and serious Ericsson will go for the CRM, ROI will be bigger and lots of problems will be solved. Some analysts will say that it is full CRM implementation or not CRM at all, but nobody can actually say where is that border after which it becomes certain that CRM is successfully implemented.

From the authors perspective there are two biggest problems in the today's supply and support chain for the Ericsson's mobile networks:

- a) ***There are too many different tools*** used by different line organisations (figure 4.3.) and this costs Ericsson a lot of money, because of the several reasons. It is more expensive to buy or develop more than one tool (and there are several different TR tracking tools) for the same purpose, and then there are the costs of its maintenance and support for the users. There is also some additional software development of the existing tool for the new and changed requirements. The efficiency of the support and supply organisation is low (meaning slow) because there are some extra delays and errors in the information flow caused while transferring the information from one software tool into another usually manually (time delay and human factor). This makes Ericsson's customers quite unhappy.

- b) ***The sharing of the knowledge*** between different organisations working on the same level in the Ericsson's support and supply organisation is not good enough. This means that sometimes the engineers have to resolve the same problems that are already solved by somebody else. This is applicable for both the engineers working at the same or similar support organisations. Also the organisations on the same level do not work as similar as they should, which sometimes causes serious problems in the communication, meaning information exchange (knowledge sharing process).

According to the author of this report, the biggest actual problem for Ericsson would be the unwillingness to change as the result of the lack of understanding of the CRM concept. Lots of small and big changes and improvements on all levels are needed in order to become customer-focused company with all the company's employees aware of the customers' importance.

Implementing the CRM is hard, but necessary work and this is highlighted in all the chapters of this thesis! In the CRM literature the implementation is compared with the climb on a mounting with bazooka pointed in the company's head, but it is also stated: "Life on the other side is great". Today companies have choice to do business on the customer's terms or to lose the customers. Those companies that make to the other side of the CRM mountain first will have a big competitive advantage.

CRM is necessity, but where to start? This thesis is made for Ericsson Mobile Data Design AB and particularly for the usage of the GSN PLM department. This is the proposal of one possible way to start CRM implementation in Ericsson.

### 6.1. First Phase (Introducing CRM in the PLM-W)

Before starting with the implementation, clear decision has to be made within management. If there is no clear understanding that this implementation is difficult, but necessary and that it requires resources both money and people, starting with CRM is useless!

Volvo Cars Corporation has a clear picture on what CRM is and how its implementation shall look like in the future. In the VCC exists a whole department working as the central part of the support organisation within VCC, which today has four persons working hard to keep customers happy. Together with national units (market representative) and local distributors (dealers) they are making improvements in the organisational structure, equipment (tools, databases, wall-screens, telephone switches, etc.) and employee education.

This employee education is even more highlighted in SKF Group. Implementation in SKF Hungary as the pilot project shows that decision to implement CRM into SKF Group is strong.

Just four years ago Swisscom had to choose between making a big turnaround in the way on how to do business or to lose its customers and, at the end to lose the market and go bankrupted. Solution was to do business on the customers' terms.

Matlust recognised that by using new technology new services become available. It became clear again that it is more important how a company is doing the sale than what it actually sells.

In order to get advantage before its competitors Ericsson has to do the same. Swisscom was forced to do it fast, CRM in the car-industry has already existed for some time (started by Mercedes-Benz), software vendors have support established already (because of the nature of the product itself); all this shows is that it is a good time for the Ericsson to start implementing CRM seriously, without big steps, but waiting till tomorrow can be dangerous.

PLM is a B2B company (chapter 2.3.) and B2B companies have the most to gain from reorganisation but also the most to lose by sticking with traditional way of doing business and failing to implement good CRM. Things that needs to be done at the start are:

- a) **Managers of this department have to make decision** on shall PLM do something about that or shall it continue with the business as done so far. This is the main and first step that has to be made before starting with actual implementation.
- b) **Then, if the decision is made, resources have to be found.** For the start at least one person shall work with CRM implementation as his/her full time job. This person shall have knowledge and if possible experience with CRM before starting this job. As it is stated before it is high mountain to climb and this is not a job for a student or a part time job for new employee!
- c) **While introducing CRM to the PLM personnel at the same time Global Support & Supply Unit (RSSC Management Team) shall be contacted** in order to investigate if there already exists some other part of Ericsson involved in CRM. The CRM has lots of different names and one of them can be also e-Support. The e-Support contains basic idea of the CRM and this is especially shown in one of the several reasons explained in the chapter 4.4. *“The customers are asking for it!”* This shall be investigated more deeply, by contacting the top project management for the e-Support project (this is the complex project including philosophical base and also good tool as its enabler; it will be explained more deeply in the last phase). SKF Hungary was chosen to be the part of SKF Group where the CRM will be implemented first. The GSN is quiet a new product and the future of Ericsson is depending on its quality, but also on how this product will be accepted on the market, meaning how much end-users (in this case telecom providers) will be satisfied with Ericsson’s support of this product.
- d) **Education of the PLM personnel** is a very important step. This department’s existence depends very much on its customers satisfaction (that is whole idea of CRM) and people working on Helpdesk have to be aware of that, and RSSC personnel as its partners (channel partners!) and not as “somebody out there” asking “stupid” questions all over again and using emergency phone for the “easy” questions. Of course rules needs to be followed, but PLM shall customise its processes to suite customer’s needs. The PDU is not the centre anymore, but end-customers (telecom providers in this case). SKF Hungary had the same problem, which is explained in *Problems and Challenges* in chapter 3.4. (e.g. lack of experience, lack of resources). People working at PLM doesn’t have neither clear nor whole picture of the whole structure of the Ericsson’s support and supply organisation, how it’s working and how it is suppose to work. Technology is not enough for functional CRM, whole organisation (each and every employee) has to be involved in the process of transforming the company from product-

centric to customer-focused. Internal courses and short presentations as the updates frequently are needed in order to solve this problem.

- e) **The goals**, which are explained in chapter 3.1. for Global Customer Relations department at Volvo Cars Corporation can be applicable for the PLM Helpdesk as well. Implementing CRM is hard, time and money consuming work and without clear direction and vision of the goal it will be to many back and forward steps.
- f) There is lots of information on the Internet and person with the responsibility to introduce the CRM concept to this department shall subscribe to some on-line CRM consultant groups.
- g) **Job rotation at PLM Helpdesk** can be important for the personnel working at this department, because while working on the Helpdesk the technician will find it easier to understand that his/her work shall be customer focused and that awareness of the customer's existence needs to be in his/her mind all the time while working, not just while working on the Helpdesk. Appendix A contains the quote "*What is a customer?*" which is attached to the wall in one company in US, why not making something similar applicable for PLM?! This step can be difficult to implement in the PLM's daily routine and for some people is more applicable than for the others in this department, however, person with responsibility for the CRM introduction at PLM-W has to make more analysis and decide who shall be included into job rotation and how much benefits that will bring to that particular person (e.g. technicians who are paying the visits to the PLM's channel partners will gain more by doing it than with job rotation). *The purpose is to get to know and to understand the customers, to get the "CRM feeling"*.
- h) **Sharing knowledge between colleges** in both, PLM itself and between other support organisations is very important for people to do their work easier and more efficient. This also means more satisfaction inside PLM and also better results at the end. To be able to know who is doing what and responsibilities of each other something needs to be done! Here are some tips on how to start with it inside of PLM, in second phase this step has higher importance:
  - **Big cardboard** similar to what RUP did, but more detailed and internal for PLM is one of the solutions. This cardboard shall be putted on the wall to be visible for the all PLM personnel while passing by or having coffee break. It shouldn't be too transparent for the rest of the ERV.
  - Also **description on the door** would be good (this was required last spring, but not everybody made it or updated it).
  - Ideas to be put on **the PLM web page** made recently is also good; but it is manager's responsibility to check all gathered information and also to assign a person responsible for the updates.

### 6.2. Second Phase (Building the Relationship With Channel Partners)

When finally everybody working at PLM knows the importance of the CRM concept, second phase shall be introduced. To lock a customer into a Learning Relationship, the PLM must adapt some aspects of its behaviour to meet that customer's needs.



- a) Implementation of the CRM consumes lots of both time and money. In order to avoid the mistakes **step-by-step procedures shall be used**. This is the basic idea of the RUP processes and the M&T (Methods and Tools) department shall also be involved in the CRM implementation, their knowledge and experience can be priceless.
- b) **Differentiate your channel partners** (RSSCs, testers, verification organisations, DM) by making the list of the customers and then prioritising them. This is important for the two reasons. First one is that not all the customers have the same importance (e.g. channel partners that are dealing with “real” customers can be more important than testers from NIV) and shall be treated differently. And the second one is that every person working at PLM has to be aware of all then customers and their importance. PLM is kind of lucky one here, because it is just several customers, or channel partners that it needs to deal with, which makes this step easier.
- c) **Customer database** was the most important task for SKF group (chapter 3.4.) – the history of the relationships where are they what they are doing, what are their daily tasks and responsibilities, what are the contact person’s names, etc. This is quite important for the Helpdesk personnel and that means everyone at PLM, because of job rotation at Helpdesk and some other reasons! This is regarding both DM and channel partners towards end-customers and shall be next step after making the list of the prioritisation. *“If you know somebody, you have certain control over him, and needed knowledge to predict his reactions on your decisions regarding him (knowledge database file in with information about customers is needed)”* - this is valid for both parties.
- d) **Making good and easy communication** with the channel partners is essential for the process of building personalized relationship. In previous phase how to share the knowledge between colleges inside PLM is explained, now is the time to expand it towards PLM’s customers and DM. Again one solution would be the pictures and short description of each person from PLM department on the Web page. This can be the same web page developed in previous phase, but now linked from web pages that are used as the interfaces towards PLM’s customers and DM. This will make relationship more personalised.
- e) **There are different tools that are used for this communication**, Web sites, e-mail, telephone, MHS, DDTs, PRIMUS, GS3 and depending on the way of using it users can make good or better communication. If they are used properly both sides will be more satisfied with the communication.
  - **E-mail** is not a good communication tool for discussions (e.g. VCC is reducing this facility), after two replies if the answers are still not fully answered persons involved into communication shall pick up the phone (person working at Helpdesk shall call the customer if he doesn’t understand the question after second mail!). It is better not to have the e-mail address then not to answer on it quickly enough, or even not to answer it at all! In some cases when customer is not certain if its question belongs to the –W or –G track he/she will choose to put the question to the one of the two PLM organisations that is responding properly on his/her requests.
  - In the chapter 5.4 the importance of the **Web service** is explained and also ten basic tips to make it work are given. *It is much cheaper to have FAQ on the web*

*than to answer the same questions all over again!* This also means good advertisement for the PRIMUS solution towards other line organisations. PLM has just several customers, so by using GS3 and PRIMUS and because the number of the customers will become smaller after commercial rollout of the product, FAQ will probably lose its importance, but as the temporarily solution it is currently needed. The rest of the information, basically all the information that customer might need, shall be putted onto Web site, because that will reduce number of their questions (e.g. CSRs, TRs, phone calls) and will save both time and money.

- The way of explaining to the customers why there is requirement to use **GS3** is very important. They shouldn't be forced to use GS3, but they shall get proper explanation on its advantages. If they get the filing that there are benefits in using GS3 they will embrace it (faster communication, storing solutions in PRIMUS and on the FAQ).
- **PRIMUS** as the sharing knowledge database is very good software tool not just as the communication tool between 2<sup>nd</sup> and 3<sup>rd</sup> line support, but also for much more global usage (this will be explained more in the last phase).

### 6.3. Third Phase (Introducing CRM to the Channel Partners)

After completing the CRM introduction to PLM personnel and also after making improvements in this area according to the previous steps, CRM shall be introduced to the channel partners (RSSCs, DM, PLM-G, NIV) with PLM-W as the example:

- a) **PLM-G is also channel partner** and by working together many benefits for CRM can be achieved. There is a good opportunity while introducing CRM to the channel partners (and PLM-G is one of them) to use PLM United Processes and implement some changes and make it more CRM (or customer) oriented. It will be the good choice to choose this channel partner as the one to begin with.
- b) **Communication on the management level** is essential to make this phase productive and meeting between managers from PLM-W, PLM-G and all RSSCs is the first serious step if the PLM wants to continue with CRM implementation. Later on, similar meetings with DM managements and other channel partners (e.g. NIV) are needed. First step in the second phase already involved the RUP unit, which means that its managers shall also attend these meetings.
- c) **By paying the visit to the RSSCs** (and other channel partners) communication with them will improve. By letting *them* to build the communication/relationship the way they would like to (dialog with channel partners vice monolog!) listening them and using their comments/feedback. In the introduction in the chapter 2 it is explained what are the four basic things that customer wants from the company. They are applicable for the end-users, but also highlight something that is applicable for this case: *"Personalisation of the relationship!"* People feel more comfortable if, while speaking on the phone or writing e-mail, they don't have to imagine the other person's face.
- d) **By not keeping promises to the customers** is the easiest way to lose that customer's loyalty *"... don't keep your promises and you will be out of the game!"* This affects the whole Ericsson's support and supply organisation and

will be explained more detailed in one step of the phase four. If the PLM-W is going to be the centre of the CRM implementation this step will be quite important. The amount of the delay is not just small delay multiplied by number of the line organisations between the end-customer and the designer, each small delay usually causes bigger delays and PLM should make it understood by both DM and RSSCs (even though DM is usually the guilty one here, because RSSCs are closer to the customer and more aware of this).

- e) **It is highly forbidden to contact customers directly** (crossing over the channel partners) and there are several reasons for that:
- As it is stated in the previous step, people will, if they have an opportunity, rather contact person that they met in the past than somebody not personally known to them. This means that 1<sup>st</sup> line organisation might contact designer directly by skipping the procedures.
  - If the question, and then the answer, goes directly between e.g. end-user and designer, it won't be recorded in any of the systems used by other line organisations. This causes not-sharing-knowledge problem, and because 80 % of all the questions and problems coming from the customers are repeated ones, means losing extra time and money for the company by doing double work.
  - If the channel partners are jumped over, they will get the picture that they are not important.

In the short term it can be faster to make support and supply directly, but in the long term, because it can cause lots of problems, and will be a time and money consuming problem. Sometimes, if the customer makes direct call for instance, it will be more logical to answer to his/her request directly, but later on the rest of the line organisations have to be notified. VCC's example shows that they find very important to solve as much problems as possible by their 1<sup>st</sup> and 2<sup>nd</sup> line support (their e-mail won't accessible to everybody anymore, chapter 3.1.) and to escalate just new or difficult problems. This is something that PLM has to make clear to the DM (RSSCs are probably aware of this).

- g) **PLM towards customers has two line organisations (six RSSCs and many ELs)** and by learning about RSSCs, PLM will have better knowledge about ELs as well (e.g. will find out about their name changes at time and not a year after). This also means that after introducing CRM to the RSSCs, the ELs are the next ones in the line. Today market units are quite aware of what customer demands, and by contacting them in order to introduce CRM to them, PLM will at the same time learn a lot in this area. As a line organisation is farther from the end-users, and closer to the design, the awareness of the customer becomes lower and lower. Introduction and implementation of the CRM through the whole Ericsson organisation will at the end solve this problem, because everybody will be aware of the customer's existence and its importance for the whole organisation.

### 6.4. Phase Four (Making it More Global)

By starting with the CRM introduction to the 1<sup>st</sup> line support last phase began and so far Ericsson managers on highest levels shall be aware of the CRM implementation in the Ericsson's support and supply organisation. Next steps are dependent on the results of the

previous steps. If the BUs (business units) and business management knows about CRM and accepts it than process of implementing CRM can become more global, if not CRM will be implemented eventually later on, *“CRM systems are useful only if the entire company believes that using the systems will actually increase customers’ loyalty.”*

If this is not the case PLM-W together with its closest channel partners (that already started with CRM implementation as the result of the previous steps) shall make the strategy and put a big effort to explain to the top management the importance of the CRM:

- a) Third step in the first phase shall be repeated here; **Global Support & Supply Unit and top management shall be contacted.** This is needed to make clear decision on the top level. Ericsson needs to make clear definition (new or the existing one) of the support and supply organisation, because of both its customers and people working in it. *The picture of the Ericsson’s support and supply organisation is quite fuzzy today!*
- b) Except PLM-W and PLM-G there are around 20 other PLM organisations working in the Mobile Networks Supply and Support organisation (e.g. PLM for MSC) and all of them shall **cooperate and work as similar as possible.**
- c) Ericsson is a worldwide company and good **knowledge of the English language** is very important for its employees. This is more important for the personnel working at the support and supply organisations than for the ones working at e.g. design. Except courses, practical training and exercises, travelling between different Ericsson’s organisations can be good way to both learn and practice English (and it is already stated in the previous phase that by visiting the other support and supply organisations will help in many ways).
- d) One of the today’s big problems is that **Ericsson’s support and supply organisation is using too many tools.** This causes delays, human factor is involved too much while transferring information between tools, at the end one TR can have up to five different id numbers, etc. Chapter 4.3. contains the tool-table.
  - **MSS** is the software tool used by the 1<sup>st</sup> line support in order to communicate with the 2<sup>nd</sup> line support (five RSSCs). Because they don’t use MHS personnel at RSSC have to rewrite the information into it. This of course causes time delays and can cause some mismatches in the information in different tools because of the human factor.
  - Even though MSS is younger software tool than **MHS**, the second one is developing and becoming more and more attractive (Trtool, MHWeb) and is also more spread inside of the Ericsson organisation.
  - According to some information gathered at the 2<sup>nd</sup> line supply and support there will be no more support for **GS3**. It is also planed that SAP will replace this tool. Today RSSCs are using GS3 and for them it is double work to make an answer into both GS3 and PRIMUS.
  - E-Support Systems Program has several levels of development and integration and the idea of using **PRIMUS** in all the Ericsson’s supply and support organisations together with customers is very CRM like. PRIMUS is one enabler of what e-Support represents: a multi-channel solution and the aim to share the

knowledge across the whole organisation. The Volvo Cars Corporation is trying to do the same thing with their database system. There is one problem regarding this tool stated by RSSC in Finland, personnel at helpdesk are spending lot of time while preparing the solution before putting in into PRIMUS (procedures to release solution in PRIMUS are complicate and some additional checking has to be done) and then sometimes already after two months this particular solutions becomes old and not valid anymore.

- There is not enough logic to use the **DDTS** software tool in the Ericsson's support and supply organisations. The MHS tool is similar, have similar functionalities, it is wide spread in the Ericsson organisation, has good maintenance support and is cheaper because it is developed by Ericsson itself (well, it is even more expensive to use both tools!) therefore DM organisation shall be trained to use this tool instead.

- e) Swisscom made a good and quick turnover and is Ericsson's channel partner. If Ericsson takes serious the decision to implement CRM, **Swisscom shall be contacted** regarding cooperation, because both parties will benefit from that cooperation. Swisscom's case is explained in the chapter 3.2.
- f) **"Privacy police"** is quite delicate question, and really sensitive one for the customers. Giving to the customers control over their data and letting them to define and lead the building of the relationship process (what level of the communication, technical details, etc.) is the best way of avoiding potential problems, will increasing the trust at the same time.
- g) It is not the company any more who is making decisions on what to produce (e.g. what new functions to implement in the new release), how to deliver and maintain the product, how and what kind of information to give to the customer, etc. To become customer focused enterprise, to change from product-focused into **customer-focused**, takes time and is hard work. This is the whole idea of CRM concept; this is the difference between mass market (mass industrialisation and production) and personalised relationship with customers. APPENDIX B contains discussion between CRM experts and company managers about what does customer-centric really mean.
- h) Lots of companies who deal with the end-users (and as mobile stations vendor, Ericsson belongs to the same group, B2C company) and have developed e-services, have **fun-clubs and e-newsletter** possibilities on their web pages. This is something that can be applicable for the corporate web page e.g. some people would like to be able to subscribe for the Ericsson's e-newsletter in order to receive latest news about market situation regarding UMTS commercial networks, or about new mobile sets available, etc.
- i) **One corporate unit has to have the responsibility** for the further development of the CRM. The whole company has to be aware of this unit and shall have good communication with it and if that unit would have support from the top management there is good basis for the Ericsson to survive as the modern and competitive enterprise, interesting for its customers!

But this is not the end of the CRM implementation and it is not possible to define the final step (and all the previous steps). Market is changing all the time and customers' demands are

changing and increasing every year or even month. The only solution is to monitor the market to be focused on the CRM idea (to be focused on the customers, not so much on the product) and to maintain the picture of the enterprise with the reputation of *the enterprise that is easy to do business with*. Chapter 5 contains summarisation of the CRM market analysis and also brings some tips and recommendations on how to implement CRM.

### 6.5. Conclusions

While all the companies will eventually face the choice of either embracing customer relationship management concepts or going out of the business (lots of them are doing big investments in this field regardless downturn in the world economy and their economical situation) some industries are more naturally suited to a one-to-one environment than others. Software companies already have some kind of support, because of the nature of the product, but there are some reports that even hospitals and pharmacies are implementing CRM concept – so Ericsson doesn't have an option! "Whether in the role of vendor or customer, we can't say, 'your end of the boat is leaking.' It is all the same boat." written by Bob Thompson, CRMGuru.

These are the turbulent times for the Ericsson. Economy in the whole Europe is in the down turn and that has a big impact on Ericsson. 3G mobile systems are almost ready and will become commercial at the end of this year (2002), some new 2.5G functionalities are introduced and implemented and are also commercial in GSM, all this points on the great future for all the companies involved in the telecom world, well at least for the ones that survive long enough to be able to collect the fruits of their work and effort.

CRM idea is to keep the company's customers happy, it is not so important to have better product than Nokia for example, it is more important to keep the current customers happy and faithful to the Ericsson and this means to fulfil the promises and to build more personal relationship with them. If the customer teaches one company how to treat him/her and if that company fulfil his/her needs by keeping promises and treating him/her as personal as possible that customer will feel obligation to continue to do business with that particular company. If one person knows somebody and has personal relationship with that other person he/she will stick to that, for him/her known, person rather than to go out into the cruel world and make new contact with some stranger (customer will rather pay more than bother to teach the company's competitor how he/she wants to do business).

As it is already stated before that without clear and strong decision on the top management level there will be no CRM implementation in the entire Ericsson enterprise. This can result in the collision between parts of the Ericsson corporation, the ones that are implementing CRM and the other ones ("bad guys"). It's up to Ericsson to choose and build its future.

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### **7.3. Other Sources**

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## 8. Glossary

BU	Business Unit
B2B	Business to Business
B2C	Business to Customer
CCA	Customer Care Application (VCC)
CD	Consumer Direct channels
CDB	Customer DataBase (VCC)
CDMA	Code Division Multiple Access
CDMA 2000	CDMA on 2000 MHz (3G for CDMA)
CEE	Central and Eastern Europe
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIO	Chief Information Officer
ClearDDTS	Distributed Defect Tracking System (Rational company)
CLS	Customer Loyalty Software (Swisscom)
CMS	Campaign Management System (Swisscom)
CR	Change Request (Ericsson)
CRM	Customer Relationship Management
CSR	Customer Service Request
DM	Design Maintenance (Ericsson)
DWH	Data WareHouse (Swisscom)
ELS	Ericsson Local Support (Ericsson)
E -	electronic
E-SSP	e – Support Systems Program (Ericsson)
ETF	Elektrotehnicki Fakultet (Faculty of Electrical Engineering)
FAQ	Frequently Asked Questions
GCR	Global Customer Relations (VCC)
GMSO	Global Market Supply Office (Ericsson)
GPRS	General Packet Radio Services
GSM	Global System for Mobile communication
GSN	GPRS Support Node
GS3	Global Service and Support System (Clarify company)
HW	HardWare
IT	Information Technology
LAN	Local Area Network
MHS	Modification Handling System (Ericsson)
MSS	Maintenance Support System (Ericsson)
MU	Market Unit
M&T	Methods and Tools
NIV	Network Integration and Verification (Ericsson)
PBX	Private Branch eXchange (A switching network for voice or data.)
PDC	Personal Digital Cellular standard (GSM in Japan)
PDU	Product Development Unit (Ericsson)
PI	Product Introduction (Ericsson)
PLM	Product Line Maintenance (Ericsson)
QoS	Quality of Service
ROI	Return on Investment
RSSC	Regional Supply & Support Centre
SCS	Solution Centred Support (Ericsson)

SKF	Name of the enterprise
SW	SoftWare
TDMA	Time Division Multiple Access
TR	Trouble Report (Ericsson)
VCC	Volvo Car Corporation
WAP	Wireless Application Protocol
WCDMA	Wideband CDMA
XML	Extensible Markup Language
1to1	One to One
3G	Third Generation of mobile systems

## APPENDIX A.

Quotations from “1,001 Ways to Keep Customers Coming Back”:

### **What Is a Customer?**

A customer is the most important person ever in this office ... in person or by mail.

A Customer is not dependent on us ... we are dependent on him.

A Customer is not an interruption of our work ... he is the purpose of it. We are not doing a favour by serving him ... he is doing us a favour by giving us the opportunity to do so.

A Customer is not someone to argue or match wits with. Nobody ever won an argument with a Customer.

A Customer is a person who brings us his wants. It is our job to handle them profitably to him and ourselves.

Vintage sign at L. L. Bean headquarters

Good products, bad products. Businesses survive with both. But there's one thing no business has enough of: customers.

Harvey Mackay

The author once asked a man pumping gas at a filling station why his station was always so busy while the one across the street selling comparable gas at an identical price was almost always empty. This sage businessman replied, “They're in a different business than us. They're a fillin' station – we're a service station.”

Norman Augustine

Motivate them, train them, care about them, and make winners out of them. If we treat our employees correctly, they'll treat the customers right. And if the customers are treated right, they'll come back.

J. W. Marriott, Jr.

## APPENDIX B.

### What Does "Customer-centric" Mean?

\*\*\* CONTINUING DISCUSSION:

**What Does "Customer-centric" Mean?**

[~ Stan Adams](#)

[~ Brian McManus](#)

[~ Chandra Shekhar](#)

[~ Tim Lee](#)

MODERATOR COMMENT

From: **Bob Thompson** [bob(AT)crmguru.com]

Subject: **What Does "Customer-centric" Mean?**

In CRM.Talk #137 I asked for some debate on the term "customer-centric." I think it's important to understand the management philosophy behind CRM. Is this it, or just more blarney from consultants?

I've reprinted that moderator's comment below, along with some excellent posts from our members. Hope to hear from more of you.

On a personal note, I'll be moderating a CRM panel discussion at a free event in San Francisco on October 17, 6-9 PM. Email is great, but it would be nice to actually meet some CRM.Talk members in person! The event is free but you do need to register in advance at: <http://www.sfnmm.com/events.html>. Hope to see you there.

Warm regards,

Bob Thompson

Moderator

[from CRM.Talk #137, 25 Sept 2001]

What Does "Customer-Centric" Mean?

There's no lack of slogans and buzzwords in CRM. In fact, the phrase at the top of this digest -- "Customers at the Heart of Your Business" -- could be translated into "customer-centric."

Isn't that clever! We've just translated a slogan into a buzzword in one easy step.

All cynicism aside, I believe that CRM starts with an attitude of top management of putting customers first. Being obsessed with exceeding and even \*anticipating\* customer needs. Being willing to trade off short-term profits for the benefits of longer-term, loyal relationships. Constantly striving for win-win relationships.

Companies like Amazon.com, Dell, Schwab, and Nordstrom come to mind. And for those looking for a connection between customer satisfaction and shareholder value, consider this statement from the American Customer Satisfaction Index site:

"...in the most recent year for which ACSI and MVA data are available, firms with the top 50% of ACSI scores generated an average \$24 billion in shareholder wealth while firms with the bottom 50% of scores created only \$14 billion. Since 1994, changes in ACSI have correlated with changes in the Dow Jones Industrial average."

A billion here and there and pretty soon you've got some real money.  
For more details on ACSI visit

<http://www.bus.umich.edu/research/nqrc/acsi.html>.

Getting back to "customer-centric," Harvard Management Update Newsletter (August 2001) offers these seven key insights at [http://www.hbsp.harvard.edu/managers/insights\\_0901.html](http://www.hbsp.harvard.edu/managers/insights_0901.html).

#### What Customer-Centric Really Means: Seven Key Insights

1. It goes beyond handling customer calls efficiently. It means addressing all customer issues fully and resolving them completely.
2. It's not just ensuring that your support departments regard front-line workers as their internal customers. It's ensuring that everyone adopts an external focus.
3. It involves more than telling your employees how to treat customers right. You've got to give employees the authority and tools to decide the right way to treat customers.
4. It's not a matter of steering customers through your Web site or store just the way you envisioned. Customer-centrism means letting customers interact with your locations just the way they want.
5. It's not just giving customers what they want, it's giving them what they will want.
6. It's not organizing the company to serve customers. It's letting customers determine how you organize.
7. Customer-centrism isn't just about winning new customers from recommendations of current customers. It's about having customers say you should raise your prices.

What do *\*you\** think "customer-centric" means? Join the discussion by replying to <mailto:crmtalk@crmguru.com>.

Bob Thompson

Moderator

CONTINUING DISCUSSION

From: **Stan Adams** [stan(AT)salesprevention.com]

Subject: **What Does "Customer-centric" Mean?**

Hi Bob,

Perhaps an excerpt from my July newsletter might best describe my perspective on "customer-centric."

So what does being "Customer-Centered" really mean?

- \* It means meeting or exceeding most if not all customers' expectations.
- \* It's listening to what each customer wants and then doing everything you can to deliver it in a fair and timely fashion.
- \* It's providing the emotional support necessary to sustain and grow a relationship.
- \* It's putting the customer's needs and long-term relationship before personal short-term gain.
- \* It's openness, honesty, and integrity provided without compromise.
- \* It's respect.
- \* It's providing fair value at a fair price.
- \* It's a knowledgeable and trained staff that understands that the customer is their priority.
- \* It's taking a personal interest and the time to get to know each customer.
- \* It's no hassles or roadblocks.
- \* It's quick, easy, and convenient access designed to meet a cross section of needs.
- \* It's every employee being accountable to the customer regardless of

title or responsibility.

- \* It's staying in touch with customers even when they don't have an immediate need for your products or service.
- \* It's having a good CRM tool to help support the above disciplines.

Kindest regards,

Stan Adams

A Consumer's Perspective

<http://www.salesprevention.com>

## same topic, next post ##

From: **Brian McManus** [bmcm anus(AT)truis.com]

Subject: **What Does "Customer-centric" Mean?**

A Customer-Centric Enterprise (CCE) is a company that focuses on customer satisfaction and places the customer at the center of the company's existence. Through years of executing customer intelligence initiatives, we have found 10 factors common to creating a successful CCE:

- 1) Assigns an executive-level manager responsible for customer advocacy/care/satisfaction
- 2) Measures customer satisfaction at least once a year
- 3) Considers the "company" the owner of the customer relationship (not sales)
- 4) Hosts a customer event at least once a year
- 5) Maintains at least a 25% level of customer referenceability at any given time
- 6) Generates at least 10% of annual sales from current customer base
- 7) Maintains ongoing dialogue with customers
- 8) Maintains a central database on customer information



- 9) Leverages customer success as the cornerstone of the sales process
- 10) Uses customer intelligence to guide corporate decisions and strategies

To find out if you're organization is customer-centric, take this quiz:

<http://www.truis.com/cce.html>

Regards,

Brian McManus

Truis Corp. -- the customer intelligence company

<http://www.truis.com>

## same topic, next post ##

From: **Chandra Shekhar** [chandra\_shekhar(AT)spiceindia.com]

Subject: **What Does "Customer-centric" Mean?**

[Bob Thompson writes as one of 7 criteria of customer centeredness:]

- > 3. It involves more than telling your employees how to treat
- > customers right. You've got to give employees the authority and
- > tools to decide the right way to treat customers.

I would like to touch on this point.

Yes tools and support in terms of infrastructure and information is necessary. But we need to remember that customers are not concerned that you don't have full product knowledge or are able to give necessary information immediately -- however customers are really concerned when you have an attitude which says I do not care!

I have noticed that where organizations clearly define how each customer interaction should be carried out, there is a very strong approach adopted by the customer service professional to ensure the same. However, organizations that just mention that we need to be customer focused and customer centric without clearly mentioning what is expected from each individual in an organization -- for ex. how one should BEHAVE with customers in certain situations etc. -- there the customer service professional may compromise on service delivery/ service quality and put the blame on lack of infrastructure/tools.

Customer Centric to a customer is "you have treated me with respect and understood my problem." The customer is not concerned with policies of company, the mission, the processes, the software, or infrastructure. He wants to be cared for.

Let me conclude this by sharing with all a small example of my approach towards customer centric:

I was a sales man with a time-share company in India. I was proud to be called the most consistent sales performer with a tag attached to it -- sales from me were quality sales with a very strong approach to customer service. 90% of my sales came from my earlier customer's references and in some cases I achieved my target mid month!

I had left the organization 5 years back. Even today my customers call me or invite me to their childrens marriage/ family occasion. To me that is what customer centric is! Customers interact with the front line person who is an ambassador to an organization -- if he/she is not customer centric a customer immediately assumes the organization is not customer centric.

As a key player in determining service quality and delivery in my organization, when I give customer service induction training programs to new joiners in our organization and in customer service department I first share this at the start of the program and at the end of the program:

"In case your attitude of customer service does not match ours then we will part ways -- the sooner the better!"

Because I feel customer centric is another word for "having the right attitude while interacting with customer." Authority and tools are fine but attitude is a prerequisite to it.

Regards,

Chandra Shekhar

## same topic, next post ##

From: **Tim Lee** [TLee(AT)webcmo.com]  
Subject: **What Does "Customer-centric" Mean?**

Bob, I agree with your statement about CRM.

Rather than answering what "customer centric" is, I want to discuss some issues in this "customer centric" practice.

First, before we talked about "customer centric", what's centric then? I guess it was "profit centric". Right? Now it is "customer centric", where is profit? What's the relationship between customers and profits?

I am asking these questions because we can hardly avoid them in practice.

"Customer centric" is easy to say but hard to do. To see if a company is customer centric, we need to see if this company still puts its customers in the center of the business when its customer's needs are in conflict with something else, something less important and less centric, something like profits.

When there is a conflict between our customer's interests and our profits, which (customer or profit) should we put in the center of our decision? I believe nobody is able to provide a guideline to resolve this kind of conflict.

"Being willing to trade off short-term profits for the benefits of longer-term, loyal relationships." How long is long enough? People use the concept of "Life Time Value" to illustrate the importance of customer centric, but LTV is a concept rather than a real value (as some companies have measured). If the cost of serving a customer is

more than his LTV (supposing one is able to calculate it), should the customer rep cut off the phone line to deny service to him?

By the way, how do we know the LTV of a customer before his life is over? Using the average value? Then how could we find the Life Time Most Valuable Customers? (Am I the first person to use this concept?)

Another problem of this "customer centric" is it often makes a company's behavior inconsistent with its "customer centric" philosophy. Under many circumstances, it simply creates a dishonest image for a company who tells its customers that it is "customer centric" while trying to get the most profits from them.

This Michigan University's ACSI is another good example:

"...in the most recent year for which ACSI and MVA data are available, firms with the top 50% of ACSI scores generated an average \$24 billion in shareholder wealth while firms with the bottom 50% of scores created only \$14 billion. Since 1994, changes in ACSI have correlated with changes in the Dow Jones Industrial average."

Well, do we smell any "customer centric"?

Absolutely NOT! Just as Bob has described, "a million here and there". There is only "profit centric" in the above description.

"Profit Centric"! Why are we too shy to talk about it?

Regards,

Tim Lee  
Editor -- Journal of Web Marketing Research  
<http://www.WebCMO.com>

[Moderator's comment: Tim raises some good points and I'd be very interested in hearing more opinions on profit- versus customer-centric. My view is that we shouldn't confuse the ends with the means. Every for-profit business is by definition "profit-centric." Without profits, businesses will wither and die. To me the question is how to make those profits. Being "customer-centric" is one approach. Others might include developing and sell a "hot product," running the lowest cost operation and offering the cheapest products/services, or even manipulating customers to separate them from their money. All of these could generate profits (the ends) but not necessarily by being "customer-centric" (the means). Bob Thompson ]