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# Date Mon, 25 Sep 2006 09:50:20 -0700 (PDT)

# From Linus Torvalds <torvalds@osdl.org>

# Subject Re: GPLv3 Position Statement

# On Mon, 25 Sep 2006, Michiel de Boer wrote:

# >

# > I support the current draft of the GPL version 3 and am very dissapointed

# > it will not be adopted as is. IMHO, Linux has the power and influence

# > to move mountains in the software industry, and shouldn't shy away from

# > the opportunity to take moral responsibility when it arises.

# 

# Well, you do have to realize that Linux has never been an FSF project, and

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# *World is Flat* by T. Friedman

## Globalization

* 1492 - 1800s: First era of globalization (“globalization 1.0”)
* 1800 - 2000: (just ended) Companies globalizing (“globalization 2.0”)
* Right now: Individuals and small groups globalizing (“globalization 3.0”)

built around individuals of all colours of skin

## Ten flatteners

* Breakdown of the Berlin Wall November 9, 1989 (eastern/western policies)

Windows 3.0 came out 5 months after

* August 9, 1985 - Netscape came out

“.com” boom - lead to fiber-optic cables

* Workflow. Applications connected to applications. People work together on more stuff
* Outsourcing: around 2000
* Off-shoring: around when China joins WTO.

Factories can be moved to China

* Open sourcing - new form of collaboration
* Supply chaining: like Walmart
* Insourcing: UPS takes company’s entire logistics.

Companies no longer touch their products

* Informing: search/google
* Steroids: wireless, voice-over-IP, file-sharing

Can do any form of collaboration from anywhere

## Convergencies

* All ten flatteners converged, started to work together, around 2000
* Horizontalizing: bringing the values of horizontal collaboration versus vertical
* India, China and Soviet empire open up - 3 billion people

These three convergences will shape the world, this is a great inflection point

## Political Perfect Storm

* 9/11,
* Inrun?
* “.com” bust

There will be no such thing as an “american” job

# *Unbundling the Corporation* by J.Hagel III and M.Singer

With development of the technology, the interaction costs started decreasing. This has caused entire industries to reform their structure. Large, vertical companies has appeared to be less effective compared with smaller but specialized companies which were able to perform tasks better, faster and more efficiently.

Each companies has to overlook three types of its businesses or better say, processes - customer relations, product innovation and infrastructure.

## Customer relations

The role is to find customers and build relationships with them, to attract and hold on to the customers. This process is characterised by the *scope* - how long the relationships exist, to what extent

## Product innovation

The role is to create new attractive products or services and figure out the best ways to bring them to the market. The key is *speed*, the faster the new products are developed, the more revenue is obtained. This process is concentrated around the employees - the company needs to attract and retain the talents. Administration tends to be minimized

## Infrastructure

The role is to build and manage facilities for high-volume, repetitive operational tasks such as logistics, manufacturing, communications. Infrastructure entails high fixed costs. Unit costs decrease with the scale, so the larger the amount of products, the lower the costs. This leads to a rigid “one-size-fits-all” mentality which deters progress

## Fault lines

Under the pressure of global competition and advancing technology, companies start to fracture along their organizational fault lines. Customer relations, innovation and infrastructure management are the examples of areas which form mutual fault lines. Outsourcing, licensing, collaboration are various processes which occur during such fractures.

Innovation will likely be characterized by a number of small businesses, as required by speed, flexibility and competition. Customer relations and infrastructure will probably reconsolidate, favouring a small number of larger companies.

Divestiture is another process occurring, as companies concentrate on a single activity, and need to shed the weight of other activities. This, however, is not a simple process and most likely will involve *rebundling*. Horizontal integration will be favoured, as companies will tend to specialize on one core process - relationship management or infrastructure management.

# eCommerce

* Exchange by economic values by electronic media
* Business transactions are carried out in an electronic form
* Buying and selling over digital media

Advantages:

* strategic decisions are interrelated with technology decisions
* speed-based competition
* the store is always open
* mass “per-customer” customization
* the customer controls interaction
* online behaviour can be measured

Types of organizations:

* brick and mortar (physical goods, physical agents)
* pure play (solely online)
* click and mortar (some e-commerce activities, but business primarily in the physical world)

# eBusiness

eBusiness encompasses eCommerce and includes activities that do not involve direct exchange of economic value - such as, front office, back office

eBusiness provides the framework for carrying out eCommerce

Front office activities:

* attracting and keeping customers
* user authentication
* catalogs
* availability
* price comparison
* order tracking
* credit check

Back office activities:

* sourcing (finding, pricing, *etc*)
* outbound logistics
* billing
* collection
* post delivery service

Basic tools of eBusiness:

* intranet
* extranet - interaction with other companies
* internet

Domains of eBusiness:

* Business to Consumer (B2C)
  + one trading partner is the end user
  + authentication is optional
  + catalogs and prices are identical for everyone
  + payment mostly via credit card
* Business to Business (B2B)
  + both partners are businesses
  + authentication is required
  + catalogs and prices are account-specific
  + multiple payment methods

## Electronic Data Interchange (EDI)

* standard way of electronically encoding and exchanging (POs, invoices)
* facilitated by private networks (value added networks - VANs) or via internet
* widely used by large corporations and government agencies to communicated with their suppliers

Two major standards:

* ANSI X 12
* UN/EDIFACT
* various “dialects”

EDI involves high entry cost and high operating costs, no universal standard. Now most EDI vendors offer internet based EDI solutions

## Other X to Y Concepts

* G2C - government to customers
* G2B - government to business
* B2E - business to employees
* C2C - eBay
* *etc*

## Removal of Barriers

* growing access to internet
* security (firewall, encryption, private key infrastructure)
* payment systems
* PIPEDA - Personal Information Protection and Electronic Documents Act

## Effect on Business

* integration of strategies and processes
* customer-centric value
* pillars of eCommerce (information, relationships, transactions, security/control)
* businesses will become eBusinesses

## Flexible Business Design

* Outsourcing
* Partnerships
* Joint ventures
* Mergers
* Takeovers

# The Business Model Canvas

## Customer Segments

For whom are we creating value?

Who are the most important customers?

* Mass Market
* Niche Martket
* Segmented
* Diversified
* Multi-sided Platform

## Value Propositions

What value do we deliver to the customers?

Which one of our customer’s problems are we helping to solve?

What bundles of products and services are we offering to each Customer Segment?

Which customer needs are we satisfying?

### Characteristics

* Newness
* Performance
* Customization
* “Getting the Job Done”
* Design
* Brand/Status
* Price
* Cost Reduction
* Risk Reduction
* Accessibility
* Convenience/Usability

## Channels

Through which Channels do our Customer Segments want to be reached?

How are we reaching them now?

How are our Channels integrated?

Which ones work best?

Which ones are most cost efficient?

How are we integrating them with our customer routines?

### Functions of Channels

* *Awareness* — Raising awareness among customers about a company’s products and services
* *Evaluation* — Helping customers evaluate a company’s Value Proposition
* *Purchase* — Allowing customers to purchase specific products and services
* *Delivery* — Delivering a value proposition to customers
* *After sales* — Providing post-purchase customer support

## Customer Relationships

What type of relationship does each of our Customer Segments expects us to establish and maintain with them?

Which ones have we established?

How are they integrated with the rest of our business model?

How costly are they?

## Examples

* Personal Assistance
* Dedicated Personal Assistance
* Self-Service
* Automated Services
* Communities
* Co-creation

## Key Activities

What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?

### Categories

* Production
* Problem Solving
* Platform/Network

## Key Resources

What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?

### Types

* Physical
* Intellectual (brand patents, copyrights, data)
* Human
* Financial

## Key Partners

Who are our Key Partners?

Who are our key suppliers?

Which Key Resources are we acquiring form partners?

Which Key Activities do partners perform?

### Types

* Strategic alliances between non-competitors
* Coopetition: strategic partnership between competitors
* Joint ventures to develop new businesses
* Buyer-supplier relationships to assure reliable supplies

## Revenue Streams

For what value are our customers really willing to pay?

For what do they currently pay?

How are they currently paying?

How would they prefer to pay?

How much does each Revenue Stream contribute to overall revenues?

### Types

* Asset sale
* Usage fee
* Subscription fees
* Lending/Renting/Leasing
* Licencing
* Brokerage fees
* Advertising

Pricing mechanisms: *Fixed Pricing* and *Dynamic Pricing*

## Cost Structure

What are the most important costs inherent in our business model?

Which Key Resources are most expensive?

Which Key Activities are most expensive?

### Characteristics

* Fixed Costs (salaries, rents, utilities)
* Variable Costs
* Economies of Scale
* Economies of Scope

# *Business Models on the Web* by M.Rappa

Some models of business involve a very complex network of distributors, creators, advertisers and consumers. Internet commerce gives rise to new kinds of businesses. eBusiness models still evolve.

## Brokerage Model

Brokers bring together buyers and sellers, charge commission or transaction fees.

* Marketplace Exchange (full range of market services)
* Buy/Sell Fulfilment (accepts orders)
* Demand Collection System (broker arranges fulfillment)
* Auction Broker (conducts auctions for sellers)
* Transaction Broker (payment mechanism)
* Distributor (connects manufacturers and buyers)
* Search Agent (finds price and availability)
* Virtual Marketplace (hosting service)

## Advertising Model

The major revenue is the advertisement itself. Works well if subjected to high volume or traffic

* Portal (a search engine which throws in advertisements)
* Classifieds (items for sale / purchase; listing fees)
* User Registration (content-based, track user habits and data)
* Query-based Pay Placement (sell advertisements linked to particular queries)
* Contextual Advertising / Behavioural Marketing (built-in advertisement)
* Content-Targeted Advertising (advertisement based on search query)
* Intromercials (animated ad on entrance)
* Ultramercials (intermittent ad that requires interaction)

## Infomediary Model

Collect and sell data about consumers or visitors

* Advertising Networks (networks of advertising sites)
* Audience Measurement Services (research agencies)
* Incentive Marketing (provide points or coupons)
* Metamediary (facilitates transactions without getting involved actual exchange)

## Merchant Model

Wholesalers or retailers

* Virtual Merchants (e-tailer)
* Catalog Merchant (combine mail, phone and online orders)
* Click and Mortar (traditional seller with a web front-end)
* Bit Vendor (digitals products, sells via the web)

## Direct Model

Manufacturer sells directly to the customer, profitting on efficiency, quicker distribution, improved customer service and better understanding of customer preferences

* Purchase (consumer owns the product)
* Lease (rent)
* Licence (only usage rights are sold)
* Brand Integrated Content (manufacturer advertise themselves)

## Affiliate Model

Provides purchase opportunities to third parties while potential customers are browsing. Revenue is only generated when actual purchases are made

* Banner Exchange (sells banner placement)
* Pay-per-click (pays for click-through)
* Revenue Sharing (offer commission based on click-through)

## Community Model

Based on user participation. Revenue is generated via advertisement, subscription services or donations.

* Open Source (revenue is generated by related services)
* Open Content (voluntary work)
* Public Broadcasting (free broadcasters supported by donations)
* Social Networking Services (connect people, profit via advertising)

## Subscription Model

Charge users a peridic fee

* Content Services (provide content)
* Person-to-person Networking Services (charge fee for social services)
* Trust Services (memberships)
* Internet Service Providers (charge for access to network)

## Utility Model

On-demand services, based on usage.

* Metered Usage (charge for actual usage)
* Metered Subscriptions (charge for metered portions)

# Understanding SWOT Analysis

## What it is

SWOT analysis provides an effective way to identify Strength and Weaknesses, as well as to find the Opportunities and Threats for a company.

It may also be fruitful to perform a SWOT analysis of competitor companies.

## Strengths

* what advantages do you have?
* what do you do well?
* what relevant resources do you have access to?
* what do other people see as your strengths?

Should be considered from perspectives of all sides

## Weaknesses

* what could you improve?
* what do you do badly?
* what should you avoid?

Again, to consider both from internal and external perspectives

## Opportunities

* where are the good opportunities facing you?
* what are the interesting trends you are aware of?

Sources of opportunities —

* changes in technology and markets on both a broad and narrow scale
* changes in government policy related to your field
* changes in social patterns, population profiles, lifestyle changes, *etc*
* local events

Strengths may open opportunities, or eliminating weaknesses

## Threats

* what obstacles do you face?
* what is your competition doing?
* are the required specifications for your job, products or services changing?
* is changing technology threatening your position?
* do you have bad debt or cash-flow problems?
* could any of your weaknesses seriously threaten your business?

# TOWS Analysis

## What it gives

This analysis provides a way to find a strategy based on the consideration of — internal strengths together with external opportunities and threats, and — internal weaknesses together with external opportunities and threats

## Strategies

* Strengths/Opportunities — consider strengths and opportunities in all combinations to find a profitable strategy
* Strengths/Threats — find how the strengths can help avoid external threats
* Weaknesses/Opportunities — determine how to use external opportunities to eliminate weaknesses
* Weaknesses/Threats — consider combinations of weaknesses and threats to find a way of avoiding them

# Google — SWOT / TOWS Analysis Show Case

|  |  |
| --- | --- |
| ***Strengths***  Intellectual Property   * Creativity & Innovation * Core Science Mgmt * Brand Name * Scale | ***Weaknesses***   * Limited physical presence * Little direct customer interaction * Many services are free |
| ***Opportunities***   * High-Quality Products * Practically unlimited directions of expansion opportunities * Expansion into developing countries | ***Threats***   * International fragmentation * Data loss and data vulnerability * Services competition |

|  |  |  |
| --- | --- | --- |
|  | ***Strengths*** | ***Weaknesses*** |
| ***Opportunities*** | * Expand via acquiring HiTech niche (e.g. telecom) * Overcome competitors in software quality (e.g. Office software) | * Enter hardware market more “aggressively” * Provide unprecedented virtual / cloud deals (e.g. 1Tb) |
| ***Threats*** | * Enhanced data encryption to fulfil customer trust * Meet local / government policies and create alliances with local telecoms | * Early capture of Asian market (build bonds and deals) * Become an “every-office-must-have” company, cross-platform |

# *Wikinomics* by D.Tapscott

The internet used to be based on HTML, not it is based on XML

1. Technology revolution — object of interest is billions of smart communicating devices
2. Demographic revolution — the first generation growing digital
   1. Freedom
   2. Customization
   3. Scrutinizers
   4. Integrity
   5. Collaboration
   6. Entertainment (fun is part of work)
   7. Speed
   8. Innovation
3. Social revolution (HTML → XML social networking)
4. Economic revolution

idea → experimentation →excitement → investment → speculation → bubble → explosion → long term deployment

Themes of wikinomics:

* peering — (horizontal instead of vertical), reduction of collaboration costs
* being open — transparency lowers collaboration costs
* sharing — sharing intellectual property
* acting global — include all of the world in your business

Companies that adhere to these themes — win.

Combination of the four revolutions leads to the *perfect storm*.

Mass collaboration:

* peer pioneers
* ideagoras (open markets for unique minds, innovation, idea connection)
* prosumers (consumers become producers)
* the sharing of science and the science of sharing
* open platforms
* global plant floor — suppliers turn into peers or partners
* wiki workplace

New paradigms lead to Crisis of Leadership (dislocation, conflict, coolness from old leadership)

## 

# Porter’s Five Forces

This concept defines criteria for assessing the competing power and stability of an operating business versus the main factors of the market

## Supplier Power

* number of suppliers
* size of suppliers
* uniqueness of service
* your ability to substitute

## Buyer Power

* number of customers
* size of each order
* difference between competitors
* price sensitivity
* ability to substitute
* cost of changing

## Competitive Rivalry

* number of competitors
* quality differences
* other differences
* switching costs
* customer loyalty

## Threat of Substitution

* substitute performance (by customers)
* cost of change

## Threat of New Entry

* time and cost of entry
* specialist knowledge
* economies of scale
* cost advantages
* technology protection
* barriers to entry

# Porter’s Value Chain Analysis

This is an investigation aiming at increasing the value of the product or service of a company. The value the company produces directly impacts the company’s position in the market, both in consumer and competitor aspects.

## Activity Analysis

Perform the analysis of all the steps which are used in the production. They need to be ordered into a value chain.

## Value Analysis

Determine the weight of each activity and the Value Factors — the aspects or properties that affect the value and quality, as determined by customers

## Evaluation and Planning

Find improvement strategies, starting with the simplest ones, then dropping most difficult or expensive ones, or those that are marginally effective. Plan and prioritize the “medium” solutions that can yield steady improvement if properly scheduled

# Privacy

*Information Privacy* — personal control over the collection, use and disclosure of any recorded information about an identifiable individual

* data protection
* fair information practices

Privacy is *not* the same as Security — organizational control of information through information systems. Security includes

* authentication
* data integrity
* confidentiality
* non-repudiation

## Fair Information Practices

In Canada — Personal Information Protection and Electronic Documents Act — *PIPEDA.*

PIPEDA provides a legal basis for electronic service delivery, recognizes secure electronic signatures, clarifies the status of electronic records, recognizes the status of electronic statutes and regulations, amends related legislation (*e.g.* evidence act)

Summary of Fair Information Practices:

* Accountability (for personal information — designates an individual(s) accountable for compliance
* Identifying purposes (purpose of collection of information must be clear at or before time of collection)
* Consent (the individual has to give their consent for collection, use and disclosure of personal information)
* Limiting collection (collect only information required for the identified purpose; collection only by fair and lawful means)
* Limiting Use, Disclosure and Retention (consent of individual required for all other purposes)
* Accuracy (keep information as accurate and up-to-date as necessary for the identified purpose)
* Safeguards (protection and security required, appropriate to the sensitivity of information)
* Openness (policies and other information about the management of personal information should be readily available)
* Individual Access (upon request, the individual should be informed of the existence, use and disclosure of their personal information and be given access to that information, be able to challenge its accuracy and completeness and have it amended as appropriate)
* Challenging Compliance (ability to challenge all practices in accord with the above principles to the accountable body in the organization)

As of January 1, 2004 PIPEDA has included collection/use/disclosure of information in the commercial activities by provincially regulated organizations (including insurance), *unless* a similar provincial law is in force

Provincial laws:

* Quebec — act respecting the protection of personal information in private sector
* BC — Personal Information Protection Act
* Alberta — Personal Information Protection Act
* Ontario — draft of Privacy of Personal Information Act (2002), not applied, so PIPEDA acts

# Security and Controls

## Risks and Controls

### Risks

A *risk* is any exposure to the chance of injury or loss. A *control* is an activity performed to minimize or eliminate the risk

In other terms:

* *threat* — potential adverse occurrence or unwanted event that could be damaged to the Informational Systems (IS) or organization
* *exposure* — potential money loss due to the threat
* *risk* — the probability that a threat will occur

Risk Assessment process:

* identify threats (strategic, operating, financial losses, information errors)
* eliminate risk (likelihood of occurrence)
* eliminate exposure (money losses)
* identify controls
* estimate expected loss, costs and benefits
* determine cost / benefit effectiveness

### Controls

* *Preventive controls* — focus on preventing an error or irregularity
* *Detective controls* — focus on identifying when an error or irregularity has occured
* *Corrective controls* — focus on recovering, repairing or minimizing the cost (of an error)

They are also split into

* Physical controls (security over the assets, limiting access, reconciling the quantities of assets with the recorded quantities)
* Information processing controls (check for accuracy and completeness; authorization of access)
  + General Controls — data centre operations, systems software acquisition and maintenance, access security and application systems development and maintenance
  + Application Controls — apply to processing of a specific application (like a payroll program)

#### General Controls

* security plan — who what when where
* segregation of duties within the systems functions
* project development control — scheduling
* physical access controls
* logical access controls
* digital storage controls — data protection
* data transmission controls — data encryption

#### General Techniques

* documentation standards (procedures for data processing)
* minimizing system downtime
* disaster recovery planning
* protection of personal server and client / server networks (inventory, access logs)
* internet control (intranet, firewall)

#### Application Controls

* source data controls — accuracy, validity and completeness of data sources
* input validation routines — accuracy and validity of input data as it is entered into system
* online data entry controls — validity, integrity of online transaction data
* data processing and file maintenance control — currency checks, matching, exceptions
* output controls — distribution list, shredder

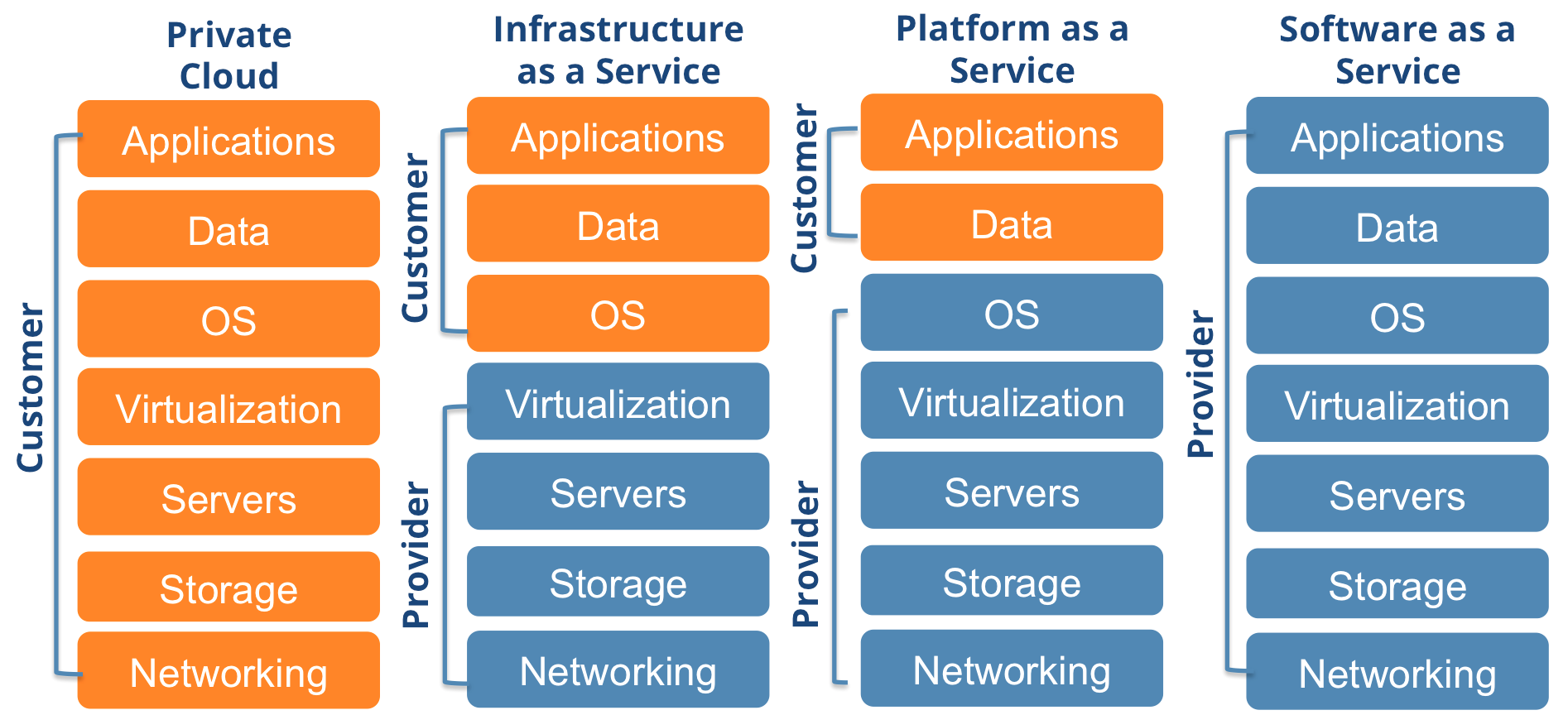
# Cloud Computing

Online services

* Infrastructure as a Service (Network as a Service)
* Platform as a Service
* Software as a Service
* Framework as a Service
* Business Process as a Service
* Security as a Service
* Storage as a Service
* Data as a Service

*Cloud clients* — browser, mobile app, thin client, terminal connect to an

* *Application* (SaaS), which is based upon a
* *Platform* (PaaS — runtime environment, web server, database and so on), all of which sit on an
* *Infrastructure* (IaaS — virtual machines, servers, storage, network)

Share of customer responsibility in various Cloud business architectures [1]

# Supply Chain Management

Supply chain includes all of the elements from product creation to the moment when the product reaches the customer:

* supplier
* manufacturing
* warehousing
* distribution
* retail / wholesale

Objectives of SCM:

* the right products
* right quantities
* right moment
* at minimal cost

*Supply Chain Management* — the process of coordinating and optimizing the flow of all products and services, information and finances, among all players of the supply chain

*Logistics* — the process of planning, implementing and controlling the efficient and effective flow of goods, services and related information from origin to consumption

Internet-enabled Supply Chain Information Flow:

Supplier ➫ Manufacturing ➫ Distributor ➫ Retailer ➮ *Consumer* ➮ Information feedback

## Why Supply Chain Collaboration

* allows products to be pulled based on *actual* *demand* rather than *forecasts*
* reduces the *bullwhip effect*, which causes excessive jumps in the inventory chain

## Forces Affecting Supply Chain Management

* Globalization
* Mass Customization
* Price Sensitivity
* Customer Focus and Time to Market
* Just-in-time Inventory and Inventory Reduction
* Enterprise Resource Planning
* Outsourcing

## Other SCM Terms

* *Disintermediation* — change in the supply chain where the manufacturer or service provider and the customer interact directly with each other, thereby eliminating the need in an intermediary
* *Reintermediation* — former retail / wholesale stages are replaced by electronic intermediation
* *Vendor Managed Inventory* — a concept of business models where the supplier takes the full responsibility of maintaining an agreed inventory of the material, usually at the buyer’s location
* *Reverse Logistics*
  + customer service
  + contact centres
  + depot repair
  + service logistics
  + end-of-life manufacturing
  + fulfillment services
  + IT process management
  + recycling
  + refurbishment / screening
  + warranty support

Reverse Logistics has the properties:

* + an efficient means for consumer to return goods
  + will lead to better planned SCM strategy
  + can be complex for non-bricks e-businesses

# Customer Relationship Management

Customer Relationship Management involves

* systems used for managing relations with current and future customers
* utilizing the latest technology powered by the internet
* specific functions
  + contact management
  + sales force automation
  + data analysis
  + customer service applications

CRM applications are designed to facilitate the *capture*, *consolidation*, *analysis* and enterprise-wide *dissemination* of data from existing and potential customers. This process occurs throughout the marketing, sales and service stages with the objective of understanding the customers and anticipating their interest in the company’s products

## Components of CRM

* *Customer* — the only source of company’s present profit and future growth
* *Relationship* — involves continuous bi-directional communication and interaction. Can be short-term / long-term, continuous / discrete, one-time / repeating
* *Management* — involves continuous corporate changes in culture and processes. The customer information collected is transformed into corporate knowledge that leads to activities that take advantage of the information and of market opportunities

## Reasons behind CRM

* competition for customers is intense
* it is less costly to retain a customer than to find a new one
* the often-quoted statistics — *Pareto’s Principle*: 20% of company’s customers generate 80% of profits, and so on

The overall goal is to improve the customer relationship via

* better service
* improved sales effort
* reduced marketing costs

## Four basic goals

* Customer Identification — identify who they are
* Customer Differentiation — find their value, demands
* Customer Interaction — follow customer’s changes over time
* Customization / Personalization — individual processing of each customer

## Three phases of CRM

* Acquiring new customers
  + data analysis to better understand market segments
  + improved strategic marketing initiatives
  + data gathering consolidated and coordinated with strategy
* Enhancing profitability of existing customers
  + better understanding of existing customers
  + up-sell (more expensive things) and cross-sell (something other) products and services
  + understanding non-profitable customers
* Retaining profitable customers
  + *relationship* is critical
  + use CRM to better sell to, service and assist customers
  + ensuring that profitable customers get priority attention

## Implementation Issues

* political / cultural
* technological
* strategic
* tactical (implementation)

## Sales Force Automation

Simplifies the process of sales in the field and integration of sales activity into the information structure of the business

Goals:

* increased revenue
* reduction of cost sales
* customer retention due to company, not product
* increasing mobility
* availability of customer information with single view

### SFA Capabilities

* Contact Management
* Activity Management
* Communication Management
* Forecasting
* Opportunity Management
* Order Management
* Document Management
* Sales Analysis
* Product Configuration

# SalesForce.com

Salesforce.com is one of the largest american cloud companies which specializes on providing CRM services to businesses. Provides case management, task management and a system for routing important events.

It include Sales Cloud, Service Cloud, Marketing Cloud, Force.com, Chatter and Work.com.

* Sales Cloud manages contact information (integrated with Chatter)
* Service Cloud provides tracking via an analogue of call-centre
* Marketing Cloud offers Radian6, a social media monitoring and marketing application
* Force.com is the PaaS which allows to create software add-ons
* Work.com offers Rypple, a social human resource performance management platform

What it offers (and costs) to customers to use SalesForce.com

* hardware infrastructure (moved off the client company, significant savings)
* maintenance, staff and operation costs are excluded (replaced by payment)
* purchase and deployment of software (saves costs and time on installation of software)
* costs on staff training are (or may be) significantly reduced

Quantitative estimates of using SalesForce are significantly higher than advertised, however [3].

* Advertised: 5$ per user per month. In reality — an hourly rate
* Customized implementation may cost as much as $80,000. Depends on
  + the company size
  + industry
  + type and complexity of business
  + business objectives
* SalesForce implementation partners can charge from $16 / hour to $190 / hour

Multiple factors contribute to the implementation costs

* if the business is migrating from another CRM
* if the data needs to be cleaned before imported into SalesForce
* if other applications or business processes need to be integrated with SalesForce
* if additional features need to be implemented
* consulting costs
* if advanced training is needed

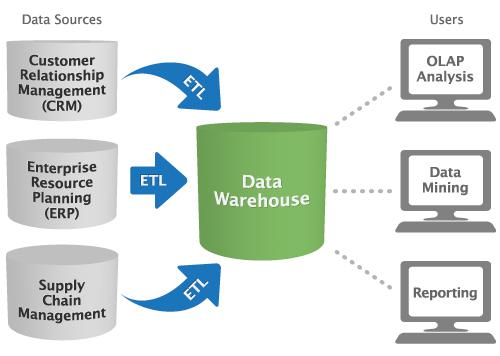
Examples of companies which use SalesForce.com:

* Big: Black & Decker, Coca-Cola, Philips, Virgin America, Delta Airlines, Belkin, Canon
* Medium: Chicage Housing Authority, NJ Transit, CenturyLink
* Small: Columbia Business School, College for America, ADT

# Business Intelligence

Functions of Business Intelligence:

* data integration and organization
* data analysis
* performance analysis
* information dissemination
* collaboration

“Data Warehouse” [2]

Data warehousing involves ETL — *Extraction*, *Transform* and *Load*. Usually all three processes run in parallel

## OLAP and Data Mining

* OLAP (*online analytical processing*) provides the ability to perform a detailed summary or trend analysis and allows for drill-down
* Data mining — the correlation search in data. Information from data mining can be useful within many areas — from customer analysis to production planning and cost control

## Performance Analysis

May include useful summaries as KPI (*Key Performance Indicators*) and *Balance Scorecard*

## 

## Technologies of Business Intelligence

### Core Technologies

* DBMS
* Data warehouses
* Data marts (access layers to the warehouses)

### Enabling Technologies

* query processing
* data mining
* OLAP ROLAP MOLAP HOLAP (*relational*, *multi-dimensional*, *hybrid*)
* SQL
* XML
* integration tools

## Basic Structure of Implementation

### Planning phase

The critical success factors for BI include ease of use, scalability, flexibility, performance and security

### Architecture design

The critical issues include *database design* and *system architecture*. Performance is affected by these factors

### Execution

Top management commitment needs to persist throughout the project to ensure adequate resources are allocated and additional employees hired upon demand

A cross-functional team approach to the entire project is necessary to allow departmental input, evaluation of the project planning and implementation

# 

# Performance Metrics

The benefits of measuring are

* improving understanding of business model
* helping to communicate corporate strategy
* motivating performance
* analyzing actual performance
* increasing accountability

Objectives include

* maximizing traffic
* maximizing sales
* increasing market share
* minimize transaction costs
* maximize ROI (return on investment)
* balance multiple competing or conflicting objectives

## E-metrics

Collecting behaviour data in an online environment is much easier. Web servers and e-business systems collect detailed customer behaviour data automatically

* record mouse clicks
* use third party measurement services
* perform explicit site-based surveys

Strategies tend to change rapidly. Is stickiness good or bad? There are also integrity and confidentiality problems with the input.

The key notions are: *user*, *visit*, *page*, *view*, *hit*, *impression*

## Customer Life Cycle

* reach
* acquisition
* conversion
* retention
* loyalty
* abandonment (at each stage)

Abandonment rate — the fraction of people who commence but do not complete the buying process

*Churn / Attrition* — how much of the customer base rolls over during a period of time. The fraction of the customers who attrite during a specified time period

## Recency, Frequency and Monetary Value (RFM) analysis

* recency — how recent did a customer make a purchase or visit in general?
* frequency — how often does the customer places orders (or visits)
* monetary value — what is the customer’s spending and profitability

The repeating tendencies indicate that customers are likely to return and repeat their previous purchasing pattern

Customers need to be identified and divided into segments according to their RFM characteristics

*Stickiness* — a composite measure that captures the effectiveness of company’s content in holding the users attention and enabling them to quickly complete a transaction

## Sources of Data

* Customers — clicking, browsing, purchasing, *etc*
* User-Stored Data — clickstream, cookies, web bugs, client-side wallets
* Server-Stored Data — server logs, wallets, transaction db, user profiles
* Infomediaries

# Advertisement & Marketing

Marketing and Social Media include the following features and technologies:

* marketing & CRM
* sources of information
* location based services, social media & mobile technologies
* user generated content
* search engine marketing (SEM) — AdWords
* search engine optimization (SEO) — meta tags, AdSense
* search media marketing (SMM)

The routes to the website of a company are comprised of the following

* Brand awareness
* Advertising
* Search Engines
* Affiliate Marketing
* Partnerships
* Network Marketing
* Viral Marketing
* PR

The sources of information for the analysis include — surveys, experiments, focus groups, observation of user behaviour, CRM systems, Business Intelligence or data mining

Awareness ➮ Interest ➮ Trial ➮ Repeat Purchase

Four potential customer life cycle funnels (measure acquisition / persuation / conversion):

* untargeted promotions attract wrong people
* good targeting but persuasion ineffective
* good persuasion but poor conversion
* good persuasion and good conversion

## Online Marketing Objectives

* drive traffic to the web site
* generate leads
* sell products, services or content directly online
* increase brand awareness and enhance reputation
* improve customer service and customer satisfaction

### Metrics

* CPM — Cost per Thousand Impressions
* CTR — Click-through rate (fraction of clicks vs total impressions)
* CPC — Cost per click
* Conversion Rate — fraction of people who made a purchase
* CAC — Customer Acquisition Cost — total marketing costs to acquire a customer

## Evolution

* Directories replaced by Search Engines
* Submission Services evolve into Search Engine Optimization services
* Double click (banner Ads) replaced by AdSense and AdWords
* Web sites to Social Networks
* Online shopping to online research

Keywords reveal customer’s intentions — Awareness, Consideration / evaluation, Conversion / Purchase

## Key Marketing Strategies

* Search Engine Optimization — no cost per click (keywords, meta tags, back links)
  + improve organic search result
  + site contents: determine keywords to use, keyword density and placement
  + site structure & meta tags
  + inbound links
* Search Engine Marketing — cost per click (AdSense & AdWords)
  + bid for sponsored links
  + pay for contextual ads
  + affiliate marketing
  + which keywords to buy?
  + bidding strategy
* Social Media Marketing — word of mouth, Ads on social networks
  + build brands and customer royalty
  + monitor and use social networking sites
  + use social bookmarking to increase web site page ranks
  + build quality backlinks to improve SERP positions (Search Engine Results Page)

# AdSense & Adwords

## AdSense

A program run by Google which allows companies to publish Ads on their websites. The Ads are related to the company’s business via their content. However, the Ads are administered by Google. They generate the revenue on a *per-click* or a *per-impression* basis. It has formed around ⅕ of Google’s total revenue. Involves the *AdChoices* program, which places an icon that indicates that the advertisement are generated based on the information gathered about user’s activity, history, and other behavioural data.

### AdSense for Content

The content-based adverts can be targeted for interest or context. The model can be click- or impression-based.

### AdSense for Search

Companies put ads related to search terms performed on their sites. They earn %51 of the revenue generated from those advertisements. The clickthrough rate is higher than in AdSense for Content

### AdSense for Video

Companies place advertisements along their video resources. Formats include

* linear ads (pre-roll or post-roll)
* overlay ads (display Ads over the video content)
* in-slate (commercial breaks)
* TrueView format (user is able to skip after a certain time)

## AdWords

Google’s service which places advertisements alongside the search results (above, below, beside). Forms the main source of Google’s revenue.

The service allows for *IP Address exclusion* — the company is allowed to bring up a list of IP addresses in queries from which the advertisements will not be shown. Location-based exclusion is also available.

*Placement-targeted* advertisements — companies choose a set of keywords, allowing Google to decide when and where to display their Ads.

*Remarketing* — companies can make their ads be shown more frequently to their prior visitors (by embedding a special AdWords snippet on the webpages).

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1. “Can You See The Cloud?”, <https://www.sevone.com/blog/can-you-see-your-cloud>
2. “Business Intelligence 101”, <http://www.plottingsuccess.com/beginners-guide-to-bi-software-1113011>
3. “How much does it cost to use Salesforce”, http://www.quora.com/How-much-does-it-cost-to-implement-Salesforce

# Appendix

## Quick Biography

### Pavel A. Bolokhov

Born in St.Petersburg, Russia. In 2003 immigrated to Canada and enrolled into UVic

### Education

* St.Petersburg State University - 2002, theoretical physics
* University of Victoria 2003 - 2007

### Interests

* Sports: biking, climbing, skiing, kayaking
* Hobbies: introductory programming, internet

### Languages

* Russian
* English

### Travels Abroad

* Europe: Finland, France, Switzerland, Italy, Greece, Spain
* North America: Canada, US

### Current Occupation

Enrolled into the Computer Science Technology program at Camosun College