
上海翰纬信息管理咨询有限公司

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上海翰纬信息管理咨询有限公司

ITIL Service Manager

认证考试案例

Updated on February 16, 2009



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上海翰纬 ITIL Service Manager 认证考试案例

1.0 CMJ 案例

1.1 CMJ Case

CMJ Ltd.

1.1.1 Background:

CMJ Apparels was founded in the early 1960's as a family owned and operated clothing manufacturer specializing in clothing for construction and manufacturing workers. Thanks to some investments involving mergers and acquisitions, and some careful, but aggressive, growth plans in the 1970's and 1980's, CMJ Apparels branched out into the retail world in 1997. Their low-end lines of clothing are still sold wholesale to major high street retailers, while their newer lines of high-end sporting apparel are sold in their own retail outlets all over the world.

1.1.2 Business Situation:

CMJ went public in 1996 with the family retaining seventy-five percent of all voting shares. The decision to establish manufacturing plants in emerging economies such as China, India and Mexico, etc was well received from the business community. This same decision was not well received from the labor union at the head office in the Province of Québec, Canada. Labor relation difficulties and the threat of plant closure by the union has been a constant challenge to the current management of CMJ.

CMJ's retail division is under pressure to control its costs and the organization is under pressure from other major retailers to accommodate them via "Just-in-Time" production. CMJ has always been slow to adopt new technologies, but once adopted, it makes full use of them to get the maximum possible return on investment. The company's finances have been under greater scrutiny from investors of the company since launching its retail operations in 1997. For CMJ it appears that a re-organization needs to take place in the near future to reduce costs.

CMJ is aggressively promoting its own brand and logo through various means.

Although the company went public in 1996, CMJ is still a family owned organization. There was a change in management style from an autocratic, dictatorial approach by the original founder, to a more industry best practices approach. The sons and daughters of the founder, a self-made, unschooled entrepreneur, manage the

organization and have done so since his death in 1998.

Their approach to managing the organization is quite different from their father's dictatorial ways. The founder of CMJ Apparels' approach to business was "the end justifies the means." The organization used to reward and recognize such behavior from its staff. However, after achieving ISO 900x certification in early 1999, the focus is now on procedures and processes. The ISO 900x certification is assessed yearly. The exception to this process approach seems to be in the Store Operations Department of the Retail Division where the old mentality of "the end justifies the means" still prevails.

Computerization of the office tasks has been in place since the early 1980's. Two major events forced the organization to create a more structured IT department; year 2000 (Y2K) and the establishment of the Retail Division. Until the launch of its Retail Division the IT functions reported to the Finance Department and consisted primarily of a mainframe with terminals only for managers and supervisors.

1.1.3 Organizational Structure:

There are three main divisions within CMJ Apparels: Manufacturing, Administration, and Retail.

The Head Office is located in Montréal (province of Québec), Canada.

The Board of Directors

The Board of Directors is made up of a Chief Executive Officer (CEO) and the head of each division.

The Finance and Accounting functions report directly to the Board of Directors.

Chief Financial Officer (CFO): Head of Finance and Accounting Department

Chief Operating Officer (COO): Head of the Manufacturing Division

Chief Information Officer (CIO): Head of the Retail Division

Chief Administrator (CA): Head of the Administration Division

Recently the Chief Information Officer (CIO) has communicated his vision for IT in a memo to all IT staff (see the end of this case study).

The Manufacturing division

All regional manufacturing plants report to the Manufacturing Division and are organized in the same manner.

Each regional manufacturing plant has the following departments: Management Team, Administration, Personnel Department, Plant Maintenance, and Plant Production.

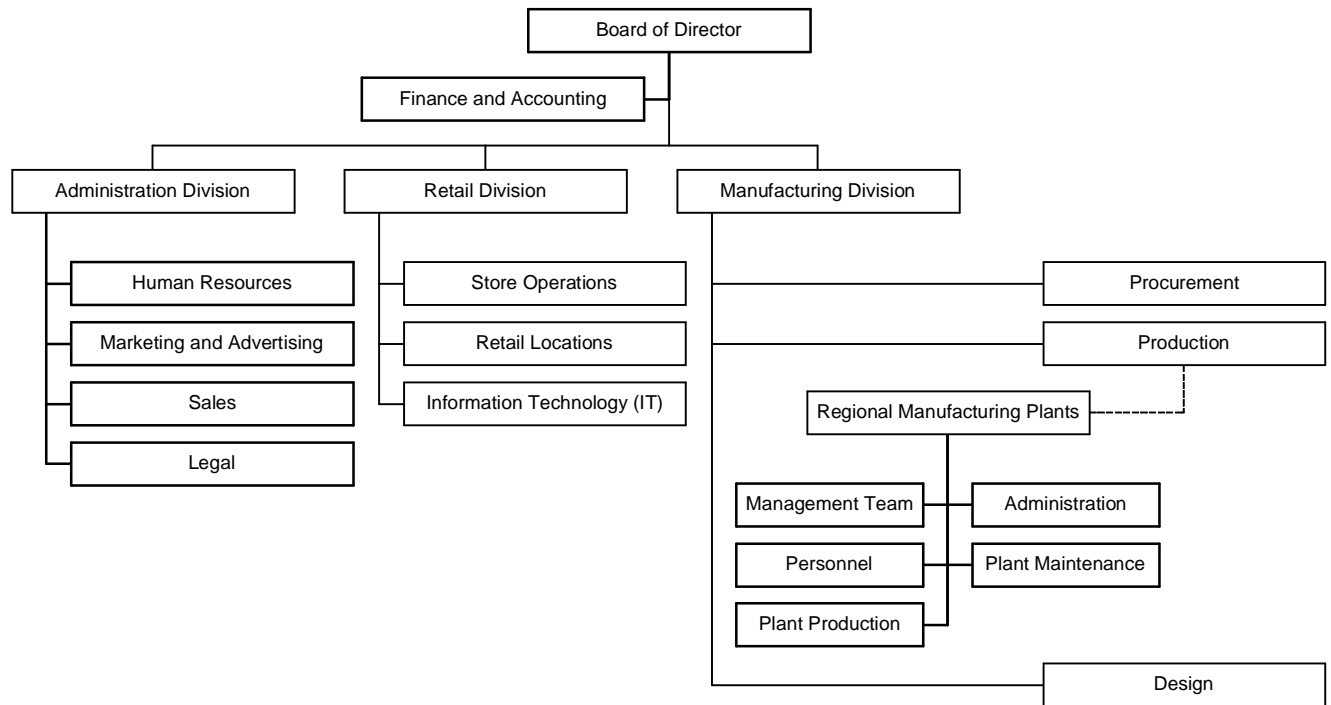
The Administration Division

The Administration Division handles the Human Resources, Marketing and Sales, and the legal aspects of the organization. All administrative functions performed in each region report to this division.

The Retail Division

The Retail Division handles all store operations (retail) activities and all IT functions. All IT functions are grouped into one IT Department. Because it is still relatively new, this department is not as structured or as disciplined as the others. While documentation for the retail operations has greatly improved, the same cannot be said for the IT operations.

Company Organizational Chart



1.1.4 Staffing:

There are nearly 1300 employees working for CMJ Apparels, broken down as follows:

	Total staff	Staff with access to a desktop/laptop
Manufacturing		
Montréal	75	15
Mexico City	90	15
Mumbai	135	20
Shanghai	126	20
Head Office	169	169
Retail locations	705	235

Not all employees have or require access to computer systems. There are some terminal systems that are used on a shared basis for many employees.

1.1.5 Departmental Information:

Most departments, within each division, are small by nature. There is just enough staff to perform the activities but not enough to achieve all business objectives. Therefore it will be difficult to manage both the ongoing operations and also provide staffing for the various projects without calling upon external resources. The heads of the different departments are included in the total number of personnel for each department.

Finance and Accounting Department: 10 employees

This department is headed by the CFO, and reports directly to the Board of Directors. It handles all financial control

functions for the organization. Three employees handle the accounting for the Manufacturing Division, while four handle the accounting for the Retail Division. The remaining two employees handle the consolidation of all financial matters for all regions and divisions.

1.1.6 The Administration Division:

The Administration Division is made up of four departments.

Marketing and Advertising Department: 10 employees

This department handles all of the marketing and advertising for the company. It focuses on the business-to-business marketing for the lines of clothing sold wholesale to the major retailers as well as the marketing and advertising for the retail outlets.

Sales Department: 15 employees

This department handles all sales to the various major retailers. It interfaces primarily with the Production and Design Departments in the Manufacturing Division. It is heavily involved with the development of the business to business (B2B) model. The wholesale manufactured goods are picked up from the manufacturing plants directly by the major retailers. The distribution of manufactured goods to CMJ's own outlets is contracted out to various transport organizations depending on the geographic location of the region.

Legal Department: 6 employees

This department handles all of the legal aspects including regional local labor laws and legislation, labor contracts, international trade barriers, tariffs and permits. It also handles all of the public relations (PR).

Human Resources: 4 employees

This department handles all of the functions of human resource such as recruiting, hiring and compensation. They work closely with their counterparts in each regional manufacturing plant to ensure strategy implementation and consistency.

1.1.7 Manufacturing Division:

The Manufacturing Division is made up of three departments.

Procurement Department: 20 employees

The Procurement Department handles the purchasing of various fabrics from around the world.

There are 12 buyers, 3 based at each site, who work for the Procurement Department around the world. This Procurement Department has nothing to do with procuring equipment and/or office supplies. Its only focus is fabrics, threads, buttons and all other related clothing supplies.

However, as a measure to cut travel costs, there is a lot more negotiating and ordering via the WEB and there is a greater use of both "telephone" and "web" conferencing. This group has negotiated all of their conferencing needs themselves, including technical support.

Production Department: 426 employees

The Production Department produces various clothes. There are 4 major plants: Montréal (Canada - 75 people), Mumbai (India – 135 people), Mexico City (Mexico – 90 people) and Shanghai (China – 120 people). The low-end lines of clothing are produced in Mumbai and Mexico City while the high-end lines of clothing are produced in Montréal and Shanghai.

Design Department: 35 employees

The primary function of the Design Department is to design new clothes to adapt to the various markets and latest fashion trends. This department recently purchased high-end desktops and color laser printers for their graphics design, and deployed these themselves.

1.1.8 Retail Division:

The Retail Division is made up of 3 major departments.

Store Operations: 15 employees

This department handles all of the retail functions. This includes among others: store layout, selecting new locations, retail procedures, sales techniques, events calendar and customer service.

Retail locations: 47 locations

There are 47 retail locations. Each retail location employs 15 people, 5 of whom are full time.

The number in parentheses indicates the number of retail locations in that country/city.

Canada (18): Sherbrooke, Montreal (4), Toronto (4), Calgary, Edmonton, Vancouver (2), Ottawa, Winnipeg, Quebec City (3)

USA (10): Denver, Los Angeles, San Francisco, Boston, New York, Miami, Chicago, Seattle, Philadelphia, Orlando

Mexico (1): Mexico City

Europe (9): London, Paris, Frankfurt, Madrid, Milan, Rome, Amsterdam, Dublin, Marseille

Asia (6): Shanghai, Hong Kong, Tokyo, Kyoto, Singapore, Kuala Lumpur

Australia (3): Perth, Sydney, Melbourne

Information Technology (IT) Department:

This department handles all of the IT functions. The Manager of the IT Department reports to the CIO, the Division Head of the Retail Division. Currently there are 5 groups in the IT Department, namely Point-of-Sale Support (POS), Network Support, Desktop and Peripheral Support, Mainframe Application Development, and Mainframe Support. The CIO's vision for IT within CMJ is outlined in a memo to all IT staff at the end of this Case Study. See below for more information.

1.1.9 Information Technology (IT) Department:

General

All manufacturing equipment is maintained by trained internal staff at each regional manufacturing plant. A third party supplier provides additional support and training. Since they are not IT related, there is no interface to the IT Department. All manufacturing equipment is outside the scope of responsibilities of IT.

In 1999, CMJ upgraded all of its servers, desktops and printers. Three separate vendors were selected; one for the servers, one for the desktops and a third for the printers. All non Y2K compliant hardware, software, applications and operating systems were replaced to ensure Y2K compliance. A complete inventory of all IT components was taken at the end of 1999 but has since fallen into disuse. Since then, some newer hardware and the latest versions of applications and software were installed. Hardware from many different manufacturers was selected.

Information systems used at CMJ

Hardware

Head Office

The Head Office uses an IBM OS/390 series computer as its central computer. The mainframe has approximately 4 terabytes of disk storage. In addition to the production mainframe there is also a test mainframe for software suppliers and IT personnel. The test mainframe is the same as the production mainframe but with only 2 terabytes of data storage.

There are also 2 tape silos for data storage. Over the last six months there have been many failures on the robotic arm on one of them. This has, so far, not impacted the business directly.

The mainframe has a proven and regularly tested disaster recovery plan by using third party facilities and sites.

Manufacturing plants:

Montréal

Montréal has 4 application servers, 3 file servers and 2 print servers. Each server has 1 GB of RAM and 1.5 terabyte of storage capacity.

Shanghai

Shanghai has 3 application servers, 2 file servers and a print server. Each server has 1 GB of RAM and 1.5 terabyte of storage capacity.

Mexico City

Like Shanghai, Mexico City has 3 application servers, 2 file servers and a print server. Each server has 1 GB of RAM and 1.5 terabyte of storage capacity.

Mumbai

Mumbai has 2 application servers, one file server and no print server. Each server has 1GB of RAM but only 650 GB of storage capacity. This plant is scheduled to undergo a major expansion and renovation in the next quarter to double its capacity.

Retail locations

All retail locations are set up identically. Each has 3 Point-of-Sale registers connected to a store server. The back office has one desktop and one inkjet printer. The sales data in the Point of Sale in Stores System (POSIS) on

each of the in-store servers is polled nightly via the mainframe before being sent to the Financial Information Management System (FIMS) and Store Inventory Management System (SIMS) at Head Office for processing. A sales report is then manually emailed to all relevant department heads. All retail locations are configured the same way in terms of the Point-of-Sale equipment; they all have the same number and type of hardware, software and documentation.

Wide Area Network

The four manufacturing plants are connected to one another and to the Head Office by dedicated leased lines provided by local telephone suppliers. There are many instances of loss of communication between the various regions and the Head Office.

Web sites

All hosting activities regarding CMJ's web sites (internet and intranet) have been contracted out to a third party. All hardware and software is hosted at the vendor's site where it is only one of many web sites hosted by this vendor. The design, maintenance, and support of web pages are the responsibility of the owners of each page.

The main IT services

Production Inventory Management System - PIMS

PIMS is an inventory system used mainly by members of the Manufacturing Division to support logistics and stock control of raw materials. It was written in-house and runs on the mainframe. It is available and supported 24 hours per day and is considered to be a critical part of the manufacturing process. The system frequently fails and requires support.

Point of Sale In Stores System - POSISS

This is a business critical IT service. It is UNIX based and uses client / server architecture, with POS Terminals (cash registers, tills), scanners, and a Token Ring Network Topology to link and connect all POS equipment within each retail location.

The local servers link up each night over the Wide Area Network (WAN) connections to the main Data Center for an upload of sales and stock figures and a download of revised prices and special offers.

Distribution and Transport - DATMS

This is another business critical service that runs on the mainframe and controls all aspects of automated stacking, picking, loading and distribution of CMJ goods from the manufacturing plants.

Store Inventory Management System - SIMS

SIMS is an inventory system used mainly by members of the Retail Division to support logistics and stock control of retail locations. It is based on PIMS, was written in-house, and runs on the mainframe. It is available and supported 24 hours per day and is considered to be a critical part of the retail process. The SIMS system frequently fails and requires a lot of support.

Point of Sale Price Management System - POSPMS

This is an in-house developed system running on the mainframe. It is used by the marketing and sales departments to input new sales prices for the retail locations. Nightly price update files are downloaded to all retail locations for price adjustments, sale events and special promotions. Each retail location receives its own dedicated file every day.

Financial Information Management System - FIMS

FIMS is a corporate finance and accounting system which was purchased from a third party vendor in the mid 1990's. It runs on mainframe in the head office and servers (located at all retail locations and plants around the world) and is used for budgeting, management accounting, purchase ledger, sales ledger, ordering, invoicing, and payment. It interfaces closely with the PIMS and SIMS. FIMS is used by both the Finance Department and managers across the company.

The system is available around the clock.

Human Resources Management System - HRMS

HRMS is a corporate human resources management system which was purchased from a third party vendor in the mid 1990's. It runs on servers (located in all offices and plants around the world) and is used by all human resources employees.

Office Systems

CMJ introduced a standard office system based on a [Desktop Office Suite] a few years ago. This has proven to simplify support and enable better communication across the company. This system is available in all languages: English, French, Spanish, Chinese, Hindi, etc.

For second level support CMJ has contracts with many hardware support companies around the world for its server, desktop and peripheral support. Second line network and telecommunications support is provided via a contract with many global telecommunications service providers.

Additional Desktop Applications

A number of additional packages and in-house developed systems are used throughout the business. These have been developed on all sorts of PC software applications including many individual and shared database systems. The variety and diversity of these systems has caused support issues in the past.

The IT Organization

The IT organization used to report to the Finance and Accounting Department until the creation of the Retail Division. The move was unpopular with most of the existing IT staff. The mainframe environment had been working smoothly for nearly two decades without any major outages. Since the advent of the Retail Division, there has been an uneasy tension between the "old guard" and the staff in the newer Point-of-Sale (POS) group. Whereas the mainframe environment is stable and all procedures well documented, the same can not be said of the POS group where chaos reigns supreme and long hours are the norm.

Point-of-Sale (POS) Support: 10 employees

This group supports all of the in-store IT related equipment, including Point-of-Sale, desktops, printers, and communications. They work very closely and in harmony with Store Operations.

However, there is often duplication of effort and tension between this group and all other groups within the IT department. Three POS analysts are dedicated to answering all calls from the various outlets. A second level on-call support analyst is available during off-hours (based on Head Office time zone). This group performs testing of all new software versions and equipment as well as working closely with the various vendors during deployments. Many issues that should be handled by other IT groups are actually addressed first by the POS group as they consider everything that is store related to be within their scope. This is a "loose cannon" group. They try to do everything. They are undisciplined, thrive on chaos and overtime, and they firmly believe that what

they do and how they do it is the best way.

The vendor of the POS system is responsible for providing second level hardware support and maintenance to the equipment at all retail locations as well as software development and maintenance.

Network Support: 6 employees

This group provides design, deployment and support of the Local Area Networks (LANs) within the manufacturing plants and at Head Office. It also coordinates all activities with the communication providers, from proposal to contract negotiation to escalation in support of the Wide Area Network (WAN). The support is provided around the clock. A second level on-call support analyst is available during off-hours (based on Head Office time zone). First level is handled by the mainframe support group during evenings and week-ends. They work and collaborate closely with the mainframe group.

Server, Desktop and Peripheral Support: 12 employees

This group handles the deployment and support of all servers, desktops, laptops and peripherals, including mobiles, personal digital assistants (PDAs) and printers. A shift rotation allows this group to provide 24 x 7 support for the entire organization, with the exception of the retail outlets. They deal with everything the other groups don't handle. A third party vendor provides second level support for computer equipment in the manufacturing plants.

Mainframe Application Development: 6 employees

This group develops either new mainframe applications or enhancements to existing mainframe applications. The requests are received directly, as they have been for the last two decades, from the various business groups. Requests are implemented whenever required by the requestor.

Testing is performed diligently by both the users and Mainframe Support. Regular project meetings are held to address issues and identify potential conflicts between various requests.

This group is a bit of an outsider as they do what they need to do when they need to do it.

Mainframe Support: 20 employees

This group provides mainframe support as well as acting as first line network support during offhours.

This group is responsible for scheduling all batch, print and back-up jobs, and for resolving any problems. This group is also involved in the testing of new mainframe applications and enhancements to ensure there are no conflicts between other various mainframe applications and batch jobs for update, print and back-up. This group is on-site 24 x 7 including holidays. This group has a lot of good procedures and documentation but since they have been around for a long time with no major issues arising they have become complacent. There is also resentment that they are relegated to the retail division.

1.1.10 Summary Of Present Issues

The Board of Directors at CMJ has realized that it needs to increase CMJ's presence in the United States and in Europe. The major retailers are pressuring CMJ to modify its service provision and to adopt a "Just in Time" approach.

The current Point-of-Sale equipment at the retail outlets can only handle dial-up for credit and debit transactions. In today's competitive retail environment, retailers have to provide many various means of payment and the ability to collect points in a chosen loyalty program. In addition, there is a resurgence of smart cards making a come back. The Board of Directors, in keeping with the idea of "Just in Time", would like the ability to view "real time" sales

figures from all over the world. A request for proposals (RFP) has recently been initiated.

The success of most retail locations in the United States and in Europe also means that more outlets will be open in those regions. In the United States brand new outlets will be open, while in Europe, a joint venture with an existing organization is likely to be considered. CMJ also wants to increase the visibility of its high end clothing line logo by promoting various high visibility events such as car racing, movie festivals and music concerts.

A recent customer market research has shown that most of CMJ's retail shoppers are between the ages of 12 – 30 and that over 85% of them have high speed internet access. CMJ wants to capitalize on this finding. Although CMJ has a website already, it is quite static. Customers want more functionalities and a dynamic and fun on-line shopping experience.

A recent employee satisfaction survey among IT staff has revealed that the objectives, which were set two years ago for the newly formed IT Department, have not been met (see memo).

1.1.11 Corporate Objectives

- Ø Set up two new manufacturing plants, one in the United States (US) and one in Eastern Europe. Analysis has shown that setting up these two manufacturing plants would help offset the current high distribution costs in those areas and help in meeting the “Just in Time” requirements of the major retailers.
- Ø Replace all current Point-of-Sale equipment, registers, in-store servers and communication equipment with new ones to allow for real-time sales reporting.
- Ø Set up 20 new retail outlets in the United States and 15 new retail outlets in Eastern Europe.
- Ø A marketing and advertising campaign to promote higher brand visibility was secretly started a few months back. The launch date is fast approaching. All agreements with the external organizations are in place. The communication of this project to the internal staff (Head Office and retail outlet staff) must include a strict confidentiality clause. There is still a lot of secrecy around this project. Information will be provided on a per need basis only.
- Ø Redesign and upgrade the company's website to allow for a more interactive shopping catalogue, on-line sale transactions, streaming videos for fashion shows, and to allow the customers the ability to sign-up for a virtual fashion advisor.
- Ø Make use of local third party vendors and partners to assist in the realization of its ambitious objectives because of its geographical dispersion; CMJ has realized that it will need to call upon many third party vendors, both global and local.

Memo

To: All IT Staff

From: Head of the Retail Division – Chief Information Officer (CIO)

Subject: My vision for IT

For internal use only – **NOT** to be distributed or communicated outside

Ladies and Gentlemen,

I would like to take this opportunity to introduce my vision for IT for the next few years and to re-explain the Board decision to consolidate all IT functions within CMJ to the Retail Division.

Since my arrival here two years ago, in the dual role of Head of the Retail division and CIO, many changes have happened within our company. The most significant change affecting you has been the consolidation of all IT operations within one department. Although this move was not very well received by many of you, it was necessary for the good of CMJ as a whole. Here are some of the reasons:

- Ø Synergy and greater cooperation required among all IT functions
- Ø Increased communication required among all IT functions
- Ø Increased understanding of business requirements needed by all IT staff

Up until now, I have concentrated mostly on ensuring that the retail side of the division was under good control and direction. Measures have been put in place in this regard. All retail job functions were evaluated and were redesigned where necessary, including pay scales. Authority and empowerment were delegated where required. Since there were few issues to be addressed, this transition was relatively smooth. I would like to express my thanks to the HR Department and to all employees affected.

I can now focus my energies on the IT group. When I arrived two years ago, there were two IT groups; one reporting to the CFO and one to the previous Vice-President of Retail. The situation was chaotic to say the least. There was no communication between the groups, and an elitist attitude and the blame game were the norm. I thought that bringing all of you under the same roof would bring an end to this.

What a shock for the Board when the report from the recent employee satisfaction survey came back to inform that this was not the case. Essentially the report brings to the forefront the following issues:

- Ø There are too many delays in bringing new applications to production
- Ø There are major cost overruns in the deployment of new hardware or in the opening of new stores
- Ø Calls to the various support teams are left unanswered
- Ø End-users are being referred to the wrong support teams
- Ø Support teams blame each other in front of end-users
- Ø Reports produced are meaningless if they are produced at all
- Ø Maintenance and upgrades are being done on production systems during business hours

The Board views this as unacceptable and will be implementing changes to ensure this does not continue.

On the direction of the Board of Directors, I have been tasked to bring cohesion within IT. As you know, all of our corporate objectives have been communicated and explained to all of you over the last few months. In order to achieve them to ensure the continued success and viability of our company, it has been decided to use a process-oriented approach that will remove the silo culture currently in place within IT.

Over the next few weeks, many of you will take part in an assessment by an external IT consulting firm to determine the current situation within IT. This assessment is NOT to determine what we do wrong nor is it a finger pointing exercise. It is to determine what we are doing right and how to leverage it across the IT organization. The report will provide us with recommendations on how to proceed in improving our IT processes.

An email explaining how the assessment will take place and what is expected from the participants will be sent to you soon.

We are all busy and CMJ has an aggressive plan for the upcoming few years. IT has to step up to the forefront. We (IT) have to improve our ability to deliver quality products and services or someone else will do it.

I would also like to inform you that a Request for Information (RFI) has been sent to the major vendors of Enterprise Resource Planning (ERP). This new exciting project is scheduled to start within the next six months. It will be a long and complex project involving many of you for quite a long period.

Although some of you may think that implementing a technical solution will resolve everything, technology is not the solution nor is it the cause of our problem. Our way of doing business is our problem. IT does not think like a business unit nor are we talking in a language that the business understands.

My approach is simple and only contains four items; Process, People, Technology and Discipline.

- Ø We are going to use processes that meet business requirements.
- Ø We are going to align the people with the right skills and knowledge to the right job to execute the processes.
- Ø We are going to deploy the right technology to help support our processes and our people.
- Ø We are going to be disciplined in following the processes and make sure that we develop and nurture a service culture within IT.

Further information on this endeavor will be communicated to you shortly.

Thank you for your time,

CIO

1.2 CMJ 案例中文翻译

CMJ 有限公司

1.2.1 背景:

CMJ服饰公司创建于20世纪60年代初，是一经营服装制造的家族性企业，专门为建筑和制造工人进行服装制作。基于一些兼并和收购的投资，以及从七十年代到八十年代的谨慎而积极的计划，1997年，CMJ服饰在整个零售业开枝散叶。

他们低端路线的产品仍然批发给主要大街上的零售商，然而他们高档的运动服装通过他们自己的零售渠道销售到世界各地。

1.2.2 业务现状:

1996年，CMJ上市，整个家族持有75%的股份，在经济新兴的国家建立制造工厂的决定受到业界的肯定，这些经济新兴的国家包括中国，印度，墨西哥等。而同样的决定却遭到加拿大魁北克总部工会的反对，因此劳工关系的困难和工厂倒闭的威胁是CMJ管理层目前所面临的挑战。

CMJ的零售部处于控制成本的压力下，而组织的压力来自于通过“JIT(Just-in-Time)”生产以适应他们的其他主要零售商。CMJ常常花很长时间采纳新技术，但是一旦采用，则能获得最大的投资回报。1997年，自CMJ进入零售行业以来，它的财务就受到投资者的详细审查，看来CMJ需要进行企业重组以减少成本。

CMJ正在积极地用各种方法改进自己的品牌和商标。

虽然CMJ于1996年上市，但它仍然是一个家族企业。不过，其管理风格也有了相应变化：从创始人独裁专断的管理风格变到了更符合业界最佳实践的管理风格。这个管理模式从1998年创始人去世后，他的非科班出身的儿女便一直摸索并进行着。

他们的管理风格和他们的父亲大相径庭。CMJ的创始人对业务的理念是“以结果为导向”，并曾经用这种理念奖赏员工。然而，在1999年，获得ISO900X后，焦点便集中到规程和流程中。ISO900X的认证每年都进行评估。不过零售部的商店经营部似乎是个例外，因为旧理念“以结果为导向”在那里仍然很起作用。

办公室工作信息化早在1980年就已到位。两个主要事件，也就是千年虫（Y2K）和零售部门的建立，迫使这个公司创建一个更正式的IT部门是。在成立零售部之前，IT功能一般是报备给财务部门，并主要是针对管理人员和主管终端使用的主机。

1.2.3 组织结构:

CMJ服饰存在三个主要部门：生产部门，行政部门和销售部门。
总部设在加拿大魁北克的省府蒙特利尔。

董事局

董事局由首席执行官和各部门主管组成。

财务与会计直接向董事局汇报。

财务总监 (CFO)：财务和会计部的主管

首席营运官 (COO)：生产部门主管

首席信息官 (CIO)：零售部主管

行政署长 (CA)：行政部门主管

最近，首席信息官将他的观点记录到备忘录中，并与全体IT员工进行交流 (具体可见此案例末尾)。

生产部门

所有本地制造工厂向生产部汇报，并以同样的方式组织。每一个当地的制造工厂都有以下部门：管理部，行政部，人事部，工厂维护部和工厂生产部。

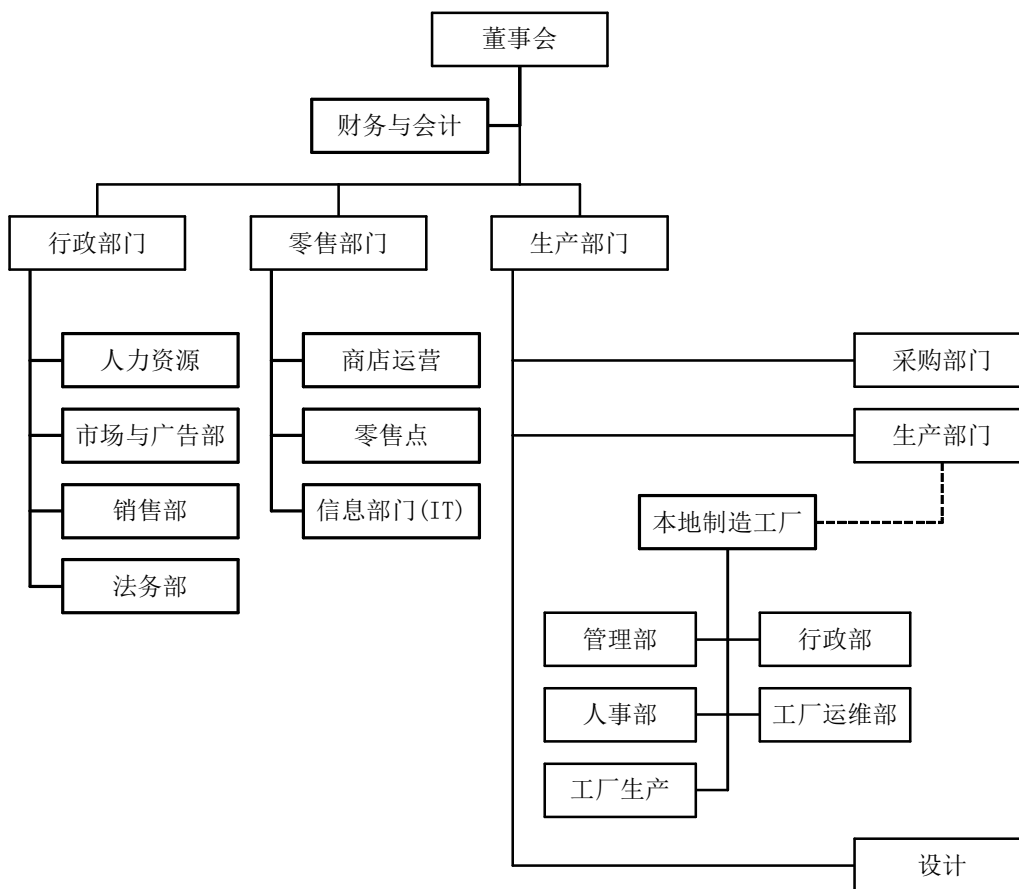
行政部门

行政部处理人力资源，市场和销售，以及组织法律方面的事务。所有行政职能均向各区域行政部报告。

零售部门

零售部门处理所有零售活动和IT职能。所有IT职能由IT部门统一管理。因为它相对比较新，所以不像其他部门那么成熟。虽然零售业务的文档已大大改进，但IT运营文档却不然。

公司组织结构图



1.2.4 员工：

CMJ公司拥有约1300名员工，如下：

	员工总数	桌面/笔记本用户数
制造部门		
蒙特利尔	75	15
墨西哥市	90	15
孟买	135	20
上海	126	20
总部	169	169
零售点	705	235

不是所有员工都需要访问计算机系统。一些终端系统便可用于员工之间的知识/信息共享。

1.2.5 部门信息：

先天决定了每个部门都很小。于是有足够的员工工作，却不能达到所有的业务目标。因而难点就是既要管理正在进行的业务，又要在缺乏外部资源的情况下为不同的项目提供员工。不同部门的主管包含在每个部门的人员总数之中。

财务和会计部门：10人

这个部门由CFO管理，并且直接向董事会汇报。它处理组织的所有财务控制职能。3个员工处理制造部门的账目，4个处理零售部门的账目。其余2个归总处理所有地区所有部门其它的财务事项。

1.2.6 行政部门：

行政部门由4个部组成。

市场和广告部：10人

这个部门处理公司的所有市场和广告业务。它的重点是针对主要零售商的B2B市场的服装批发销售，同时还包括其他零售渠道的销售和广告。

销售部：15人

这个部门处理对不同主要零售商的所有销售业务。它起初与制造部门的生产和设计部接触。并主要对B2B模型进行开发。批发商品从制造工厂直接卖到主要零售商手中。商品的配送是通过与CMJ签订合同的不同运输公司负责，当然，运输公司也需要与商品所在区域一致。

法律部门：6人

这个部门处理所有法律方面的问题，包括区域当地劳工法，劳动合同，内部交易壁垒，关税和执照。此外，它也处理所有公共关系。

人力资源：4人

这个部门处理人力资源的所有职能，比如，招聘，雇用和赔偿等。在每个区域的制造工厂，人力资源部都密切合作，

从而保证战略的实施和一致性。

1.2.7 生产部门：

生产部门也有3个部。

采购部：20人

采购部从世界各地购买不同的布料。

这里有12个采购人员，每个区域有3个。采购部不负责采购设施（和/或办公用品）。它仅仅负责对布料，线，纽扣和其他与服装相关的材料进行采购。然而，为了削减差旅成本，就需要通过WEB进行更多的协调和调整，此外，还大量使用“电话”和“网络”会议。这个部参与所有需要他们的会议，包括技术支持。

生产部：426人

生产部门生产不同的服装。有4个主要工厂：蒙特利尔（加拿大-75人），孟买（印度-135人），墨西哥城（墨西哥-90人）和上海（中国-120人）。

设计部：35人

最初设计部门的职责是设计新款服装以适应不同市场和最近的流行趋势。这个部门目前购买了高端的电脑和彩色激光打印机，将它们用于图形设计。

1.2.8 零售部门：

零售部门主要由3个部组成：

商店运营：15人

这个部门处理所有零售职能。这包括：商店规划，选址，零售流程，销售技巧，大事记和客户服务。

零售点：47个

这儿有47个零售点。每个零售点有15个员工，其中5个全职。

括号中的数字指出在那个国家/城市零售点的数量。

加拿大（18）：舍布鲁克，蒙特利尔（4），卡尔加里，埃德蒙顿，温哥华（2），渥太华，温尼伯，魁北克市（3）

美国（10）：丹佛，洛杉矶，旧金山，波士顿，纽约，迈阿密，芝加哥，西雅图，费城，奥兰多

墨西哥（1）：墨西哥市

欧洲（9）：伦敦，巴黎，法兰克福，马德里，米兰，罗马，阿姆斯特丹，都柏林，马赛

亚洲（6）：上海，香港，东京，京都，新加坡，吉隆坡

澳大利亚（3）：珀斯，悉尼，墨尔本

信息技术（IT）部门：

这个部门处理所有IT职能。IT部门经理向CIO汇报，CIO即零售部主管。目前，IT部门有5个团队，分别是销售点支持（POS），网络支持，桌面和外围设别支持，主机应用程序开发和主机支持。在CMJ，CIO的IT观点被列在备忘录中，以便在案例研究结束后与全体IT员工分享。更多信息如下：

1.2.9 信息技术（IT）部门：

概要

每个地区的制造工厂，所有制造设备由内部培训的员工进行维护。第三方供应商则提供额外的支持和培训。由于他们与IT无关，所以他們和IT部门没有接触，所有制造设备是在IT职责之外的。1999年，CMJ升级了它所有的服务器，台式机和打印机。选中了三个独立的卖家：一个提供服务器，一个提供台式机，一个提供打印机。所有与Y2K不一致的硬件，软件，应用程序和运营系统都将被取代，从而保证Y2K的一致性。所有IT组件的完善清单在1999年就已经完成，但却由于要取代与Y2K不一致的硬件等，使得它一直名存实亡。从那以后，一些更新的硬件和最新版本的应用程序与软件取而代之，也从不同制造商那里选择硬件。

CMJ使用的信息系统

硬件

总部：

总部使用IBM OS/390系列的电脑，其中央计算机也是这个系列。主机有大约4万亿字节的磁盘存储。除了生产主机，也有一台为软件供应商和IT员工准备的测试主机。测试主机与生产主机一样，但仅仅只有2万亿字节的数据存储。此外，有2个磁带库用于数据存储。过去6个月，有多次报错，但目前，这并没有直接影响到业务。主机也有一个可行的定期灾难恢复计划。

制造工厂：

蒙特利尔

蒙特利尔有4台应用服务器，3台文件服务器和2台打印服务器。每个服务器有1GB的RAM，和1.5万亿字节的存储容量。

上海

上海有3台应用服务器，2台文件服务器和1台打印服务器。每台服务器有1GB的RAM和1.5亿字节的存储容量。

墨西哥市

和上海一样，墨西哥市有3台服务器，2台文件服务器和1台打印服务器。每台服务器有1GB的RAM和1.5亿字节的存储容量。

孟买

孟买有2台应用服务器，1台文件服务器，没有打印服务器。每台服务器有1GB的RAM，但却有650GB的存储容量。这个工厂正在按期进行一次重大的扩建和翻修，争取在下一季度增加一倍的能力。

零售点：

所有零售点的设立都是一样的。每个零售点都有3个电子销售账号连接到存储服务器。后台办公室有一台台式机和一台喷墨打印机。存储系统中单点销售数据在送往总部的财务信息管理系统（FIMS）和仓储管理系统（SIMS）之前，每晚都要经过主机进行简单处理。接下来，一份人工销售报告会通过电邮发送到所有相关部门主管那里。就单点销售设备而言，所有零售处都要进行配置；他们配置的设备的数量，硬件类型，软件和文档都是一样的。

广域网：

四个制造工厂通过租赁当地电信供应商的线路相互联系，此外，也通过这些线路与总部联系。但也有不同区域的总部失去联系的事件发生。

网站：

CMJ将所有与网站（互联网和内联网）有关的活动全部外包给第三方。所有硬件和软件托管给供应商的其中一个站点。设计，维护和网页支持都由每个页面的管理人员负责。

主要IT服务

生产库存管理系统——PIMS

PIMS是一个库存系统，主要由生产部成员使用，以支持物流和原材料的库存控制。这个系统在内部编写并在主机上运行。它不仅可用而且得到一天24小时的支持，被认为是制造流程的关键部分。这个系统还是经常出问题，并且需要支持。

单点销售系统——POSISSS

这是一项业务的关键IT服务。它基于UNIX，使用客户/服务（C/S）结构与POS终端（收银机），扫描仪，与令牌环网络的拓扑结构来连接每个零售处的所有POS设备。当地服务器通过广域网在每个晚上与主要数据中心进行连接，进行销售与库存图表上传，并下载修正的价格和特别优惠。

分配和传输——DATMS

这是另一个业务的关键服务，这项服务在主机上运行，并控制生产工厂所有的自动堆码，分拣，装货和CMJ产品分配等。

仓储管理系统——SIMS

SIMS是一个仓储系统，主要由零售部成员使用，以支持物流和零售处的库存控制。它基于PIMS，内部编写，并在主机上运行。它不仅可用而且一天24小时都可以得到支持，被认为是零售流程的关键部分。SIMS系统也常出问题并需要很多支持。

销售点价格管理系统——POSPMS

这是一个内部开发的系统，运行在主机上。市场和销售部门利用它为零售点输入新的销售价格。每晚零售点会下载价格更新文件进行价格调整，并促进销售。每个零售点每天都会得到自己的专用文件。

财务信息管理系统——FIMS

FIMS是一个企业财务与会计系统，它在1990年中期从第三方购入企业，在总部的主机和服务器（所有零售处和工厂）上运行，主要用于预算，管理账户，购买总账，销售总账，订单，货品计价和支付。此外，它与PIMS和SIMS紧密相连。FIMS不仅在财务部门得到使用，公司所有管理者也在使用它，它是随时可用的。

人力资源管理系统——HRMS

HRMS是一个企业人力资源管理系统，它也在1990年中期从第三方买入。它在服务器（所有零售处和工厂）上运行，主要由全体人力资源员工使用。

办公系统

CMJ引入了一套标准化的办公系统（基于几年前的桌面办公套件），它简化支持和允许在全公司范围内交流。这个系统已有很多语言版本：英语，法语，西班牙语，汉语，北印度语等。

从第二个层面上，它支持CMJ与世界范围内许多硬件公司的合同，因为它的服务器，台式机和外围设备通过全球电讯服务提供商得到支持。

附加的桌面应用程序

大量的附加包和内部开发的系统在业务内使用，这些PC软件应用程序已经被开发，包括许多个人的和共享的数据库。

这些系统的多样性和差异性在过去已经引起了支持上的问题。

IT组织

在零售部门创建之前，IT组织向财务和会计部门汇报。而这种汇报的转移并不怎么受欢迎。主机在这种环境中顺利运行将近20年了，而没有出现任何大的问题。自从零售部门的出现，便在老员工和新的单点销售团队员工之间出现了一种紧张和不安。然而，主机环境却仍稳定，所有程序都被很好的记录下来，但POS团队却不然，他们还是很混乱，并且要很长时间才能达到标准化。

单点销售（POS）支持：10人

这个团队支持所有与IT相关的库存设备，包括单点销售，台式机，打印机和通信设备。他们工作非常密切，并配合商店经营。然而，在IT部门内部，在这个团队与其他团队之间常存在重复工作和紧张感。三个POS专家致力于回答来自所有不同销售点的呼叫。二级呼叫支持分析师在休息时间（根据总部时区）也能支持呼叫。这个团队对所有新的软件版本和设备进行测试，在部署期间，也要和不同的供应商紧密合作。所有应该由其他IT团队处理的问题都会由POS团队率先处理，因为所有与商店相关的事情都在他们范围内。这是一个“松散的炮灰”组。他们试着做一切事情。他们没接受培训，混乱，经常加班，此外，他们还坚信他们所做的和他们的做法是做好的。

POS系统供应商要负责对所有零售处的设备提供二级硬件支持和维护，同时也包括软件开发和维护。

网络支持：6人

这个团队在制造工厂和总部提供LAN的设计，部署和支持。它也为通信供应商之间的所有活动进行协调，这个活动范围从合同谈判的建议到支持WAN的升级。这种支持是24小时的。第二级别的呼叫支持分析师在下班时间也可提供支持（根据总部时区）。他们与主机组密切合作。

服务器，台式机和外围支持：12人

这个工作小组处理所有服务器，台式机，手提电脑和外围设备的部署和支持，包括移动的，个人数字助理（PDAs）和打印机。轮换允许这个小组为整个组织提供24 x 7的支持，零售商店例外。他们处理其他小组无法处理的问题。第三方供应商为制造工厂的计算机设备提供二级支持。

主机应用程序开发：6人

这个团队开发新的主机应用程序或改进现有的主机应用程序。他们直接接受所有请求，因为在过去二十年，他们都曾服务于不同的业务团队。不管请求者在什么时候发出请求，这些请求均能被实现。而测试是通过用户和主机支持共同执行的。常规项目会议解决不同请求之间的问题，并识别它们之间的潜在冲突。当有需要时，他们就要处理他们所需要处理的问题。

主机支持：20人

这个团队提供主机支持，在下班时间也要提供网络一线支持。这个小组不仅负责安排所有程序的进程，也负责打印和备份，以及解决问题。这个小组也包括对新的主机应用程序或改进后的主机程序进行测试，以保证不同主机程序与升级后的工作，打印和备份之间没有冲突。这个团队24 x 7在线，也包括假期。此外，这个团队有很多好的文档，并在很长时间没有出过重大问题。

1.2.10 现有问题总结

CMJ董事会意识到需要在美国和欧洲增加CMJ的知名度。主要零售商给CMJ施压，要求它修改服务规定，并采取“JIT”方法。

零售处的现有POS系统仅仅只能处理拨号上网的贷记卡和借记卡交易。今天竞争性的零售环境中，零售商不得不提供多种不同的支付方式，和提供积分能力。此外，智能卡方式也再度抬头。董事会在保留“JIT”想法的同时，也希望查看来自全世界的“实时”销售数字。建议请求（RFP）目前也被启动了。

美国和欧洲成功的零售点意味着将在这些区域设立更多的商店。美国将开发全新的网点，而欧洲，将考虑合资企业。CMJ希望通过各种高知名度事件，增加它高端产品品牌的知名度，比如，赛车，电影节和音乐会等。

最近的客户市场研究表明，大多数的CMJ消费者年龄在12-30岁之间，而85%有高速互联网通道。CMJ希望利用这一发现。尽管CMJ已经有了站点，但却是静态的。客户希望更多的功能，动态的页面和有趣的网上购物体验。

IT员工中最近的员工满意度调查揭示出：两年前为新成立的IT部门设立的目标并没有达到。（见备忘录）

1.2.11 公司目标

- Ø 建立两个新的制造工厂，一个建在美国，一个建在东欧。分析结果表明建立这两个工厂能弥补这些地区的高配送成本，并满足主要零售商对“JIT”的需求。
- Ø 替换所有现有POS设备，收银机，店内服务器和通讯设备，以允许实时销售汇报。
- Ø 在美国设立20个新的零售商店，在东欧设立15个。
- Ø 提高品牌知名度的市场和广告活动，已在几个月前暗中开展。很快便可正式进行，目前和与外部组织已经达成一致协议。与内部员工（总部和零售店员工）关于项目的沟通必须包括严格的保密条款。在项目中也存在机密性。只有在需要的时候，才能获取信息。
- Ø 重新设计和升级公司网站，从而允许更多交互式的购物目录，在线销售交易，时装表演的流动视频，此外，客户能注册一个虚拟的时装顾问。
- Ø 利用本地的第三方供应商和合作伙伴来协助完成庞大的目标（考虑到地域问题），CMJ意识到需要利用很多第三方供应商，不仅是其他国家的，还包括本地的。

备忘录（MEMO）

TO: 全体员工

FROM: 零售部门主管——首席信息官（CIO）

主题: 我的IT愿景

DATE:

仅限内部使用——切勿外流

女士们，先生们：

我很高兴借这个机会来介绍未来几年我的IT愿景，并重新解释董事会要在CMJ内部巩固针对零售部门的IT职能的决议。自两年前我来到这里，担任零售部主管和CIO的双重角色，很多变化在我们公司内发生了。对大家来说最有意义的变化就是基于所有IT职能形成了IT部门。尽管大多数人还不能接受IT职能的转移，但是对CMJ而言，却是很有必要的。原因如下：

- Ø 所有IT职能间的协同和合作
- Ø 增加IT职能间的交流

Ø 增加IT员工对业务需求的理解

目前，我主要集中确是保零售方面的分工能有较好的方向和控制。这方面，相关措施已经到位。所有零售工作的职能在必要的时候都要进行评价和重新设计，包括薪级表。必要时，权威和权力要下放。由于需要处理的问题越来越少，这种转移也就相对平顺。我要感谢HR部门和所有相关的员工。

现在，我把主要精力放到了IT团队。两年前我上任时，这里有两个IT团队，一个向CFO汇报，一个向前一任零售副主管汇报。当时情形很混乱。在团队之间没有交流，对表现优秀者的态度和表现差的态度都是一样的。我认为这种态度应该结束。

最近员工满意度的调查报告的大大触动了董事会，主要是因为这份报告将以下问题面前展现在大家面前：

- Ø 为生产引进新应用程序已经耽搁太长时间
- Ø 新商店的开放或新硬件的部署要花费很大成本
- Ø 多个支持团队的呼叫无人应答
- Ø 终端用户无法找到正确的支持团队
- Ø 产生太多无意义的报告
- Ø 维护与升级常常在业务活动时进行

董事会认为这是不可接受的，他们将进行一些变更以确保该类问题能得以避免。

在董事局制定的方向上，我已经担负起使IT具有凝聚力的责任。正如大家知道的，在过去的几个月，我们公司的所有目标都已经跟大家进行交流并进行了阐述。要达到这些目标以保证我们公司持续生存并达到成功，就需要一个基于流程导向的方法，这种方法会除掉IT中的筒仓文化。

在未来几个周，你们将参与一个外部IT咨询公司的评估，从而确定IT目前的状况。这项评估并非仅仅证明我们做错了什么，也绝不是一种“投诉练习”。重要的是，它要确定我们做对了什么，以及怎样在IT组织中利用它。这份报告向我们提供了怎样继续改进我们的IT流程的建议。

发给你们的电子邮件阐述了这项评估怎样进行，以及评估的预期结果。

未来几年我们会很忙，而CMJ也制定了相应的发展计划。信息技术已经步入前沿，我们（IT）必须提高我们的能力，才能向别人交付有质量的产品和服务。

我想告诉大家的是信息请求（RFI）已经被送到企业资源计划（ERP）的主要供应商。这项新的令人兴奋的项目在未来六个月内就能开始了。这将是一个长期的和复杂的项目，大家在很长一段时间都会接触到。

可能有些人会认为实施一项技术解决方案就能解决所有问题，但是技术既不是解决方案也不是我们问题的根源，问题在于我们处理业务的方式。IT如果不能用业务的方式来思考，那么就无法与业务部门通过语言达成一致。

- Ø 我的方法很简单，仅仅包含4条：流程，人，技术和纪律。
- Ø 我们将采用满足业务需求的流程
- Ø 我们将人，正确的技术，知识和正确的工作进行结合，以执行流程
- Ø 我们将采用正确的技术来支持我们的流程和员工
- Ø 我们将制定以下纪律处分的流程，并保证我们发展和培育IT中的服务文化。

更多的信息将进一步传达给大家。

非常感谢大家挤出宝贵时间！

CI0

2.0 ITC 案例

2.1 ITC Case

2.1.1 The In International Transport company Ltd.

The International Transport Company Ltd. (ITC) operates in the European and Asian Minor markets.

It transports freight and passengers by road using 1,200 trucks and 350 buses.

ITC's international management is located at its head office in Utrecht (the Netherlands). Also the regional head office for the Netherlands is in Utrecht. Other regional head offices are in Düsseldorf (Germany) and Orange (France). ITC has 20 local sales offices spread in various European cities.

The company employs 2,800 people, 2,200 of whom are drivers. Each of the local sales offices has two to four staff, and the other 540 employees work in the head offices: 220 in Utrecht, 180 in Düsseldorf and 140 in Orange.

ITC mainly has long-term contracts with companies to provide them with road transport services for freight and passengers. It therefore knows 80% of its work two months in advance, and the remaining 20% often consists of urgent jobs from companies with long-term contracts, and one off jobs.

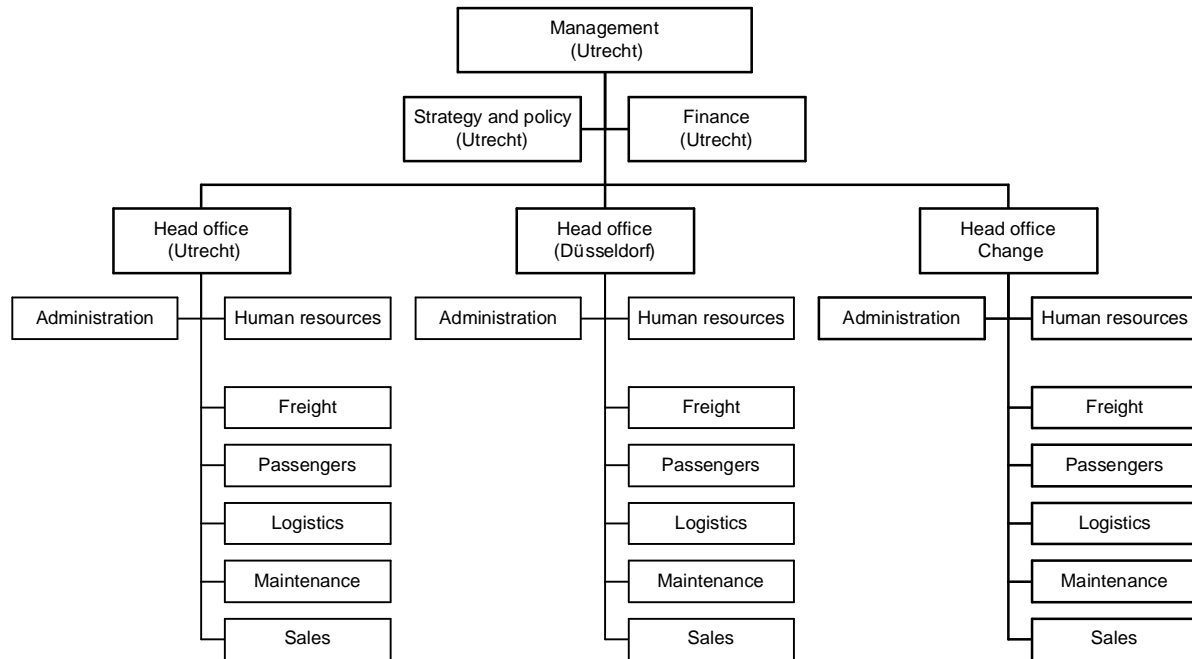
The company was created ten years ago as the result of a merger between three national transport companies with similar visions of road transport, each enjoying a strong position in a particular region of Europe. Before the merger, the companies were already cooperating by pointing freight business in each other's direction, but this has changed since the merger. The head offices work closely together and, this strong cohesion has made ITC a reliable transport provider for multinational companies.

2.1.2 Organization

Each head office is organized in an almost identical way, and each has the following departments:

- Ø Freight
- Ø Passengers
- Ø Logistics
- Ø Maintenance
- Ø Sales
- Ø Administration
- Ø Human Resources

Each head of department reports direct to the director of their respective regional head office.



The company's central international management is located in Utrecht, with the head office directors reporting to it. The following departments have been set up to support central management:

- Ø Strategy and policy
- Ø Finance

Freight

The Freight Department at each head office is responsible for providing freight transport. The truck drivers work for this department, although they are often employed elsewhere by agreement with the Logistics and Passengers departments. It mainly provides long-distance road transport and the drivers are often away from home for several days at a time. The department is also responsible for carrying out customs formalities and providing accommodation for drivers while they are on the road.

Passengers

The Passengers Department at each head office is responsible for passenger transport and employs the company's bus drivers. Its buses are mainly used for trips organized by travel agents and it therefore maintains links with travel agents who have signed contracts with ITC. The department is also responsible for customs formalities, accommodation, etc.

Logistics

The Logistics Department is something of an outsider. It has ultimate responsibility for ensuring that vehicle capacity is used as profitably as possible. In most cases, the Freight and Passengers departments do not have any problems with this, but they often cannot manage on their own, and then Logistics is responsible for resolving the problem. It therefore maintains close contact with the other head offices.

Maintenance

The Maintenance Department is responsible for keeping vehicles in good condition. Each head office has its own garage where trucks and buses undergo regular minor and major over hauls, and minor repairs and rebuilds. Other work is contracted out to a specialist company.

Sales

The Sales Department is responsible for obtaining transport contracts for the Freight and Passengers departments. Each one has a number of local sales offices in the countries forming part of its region. The Sales Department deals with two very different markets: long-term contracts, in which the Freight and Passengers departments are closely involved and also one-off contracts.

Administration

The Administration Department manages the finances of the head office, including debtors and creditors. It is also responsible for paying regular employees and freelancers, if any.

Human Resources

This small department handles personnel selection, recruitment, departures, and counseling. Each head office has a company doctor and a psychologist who provide medical and psychological care to staff.

Strategy and Policy

The Strategy and Policy Department reports direct to central management, for which it develops strategy.

Finance

This department also reports direct to central management and controls the head offices' internal financial reporting. It also carries out financial analysis of existing and potential long-term clients and advises central management on the economic and political situation in the countries which the company serves.

2.1.3 ITC's information systems

General

ITC has been computerized for a long time; even before the merger, the three different companies had automated a large part of their financial administration tasks. Because the head offices are so similar, their computer systems are almost identical, and a large part of the dispatch and planning processes are also highly automated.

The company uses the following information systems:

[ADMIN]

This is used by the administration department to carry out financial reporting, and includes debtors, creditors, payroll and accounting modules. It interfaces with the SHIPPING and MAINTAIN systems. Invoices are generated automatically as orders are finished, and the system also handles payments to suppliers of vehicles and specialist maintenance. ADMIN is the system that varies the greatest between the different countries because the company's financial administration has to be tailored to local legislation.

[SHIPPING]

SHIPPING handles orders for the transport of goods, which are obtained by the Sales Department, local sales offices and the Freight Department under long-term contracts. The system then tracks whether the freight has been booked in, is en route or has been delivered. It exchanges data with the ADMIN system when the order is received and the goods are delivered, and draws up the necessary trip documents. SHIPPING also interfaces with

the PLANNER system.

[TRAVEL]

TRAVEL handles orders for passenger transport. Apart from sporadic one-off orders obtained by a local sales office or the Sales Department, the Passengers Department also plans orders for transport. TRAVEL was developed based on the first version of SHIPPING and is therefore functionally almost identical, with specific versions for passenger transport. However, one of the main differences is that it does not interface with ADMIN because this is not particularly necessary.

Most income derives from long-term contracts with travel organizations, and in this industry, journeys are not billed separately for each journey made.

[PLANNER]

PLANNER is the spider at the center of the company's web of IT information systems. It carries out the logistical planning function, ensuring that the right truck or bus is in the right place and with the right driver. Specific transport orders are obtained from the SHIPPING and TRAVEL applications, and personnel and vehicle maintenance plans are input into PLANNER to ensure that drivers and vehicles are used as efficiently as possible. This information is fed back to SHIPPING and TRAVEL. If these plans are changed as a result of new information, the data in SHIPPING and TRAVEL is also changed.

So far, PLANNER has carried out 95% of the planning process automatically; the remainder is done manually.

[MAINTAIN]

MAINTAIN is used primarily by the various Maintenance Departments, and contains information on the technical status of vehicles. It stores details of each vehicle's maintenance situation, mileage, how much diesel it has used, what kind of road conditions it has encountered, and similar information. This is used to draw up and implement maintenance plans, so the system also interfaces with PLANNER.

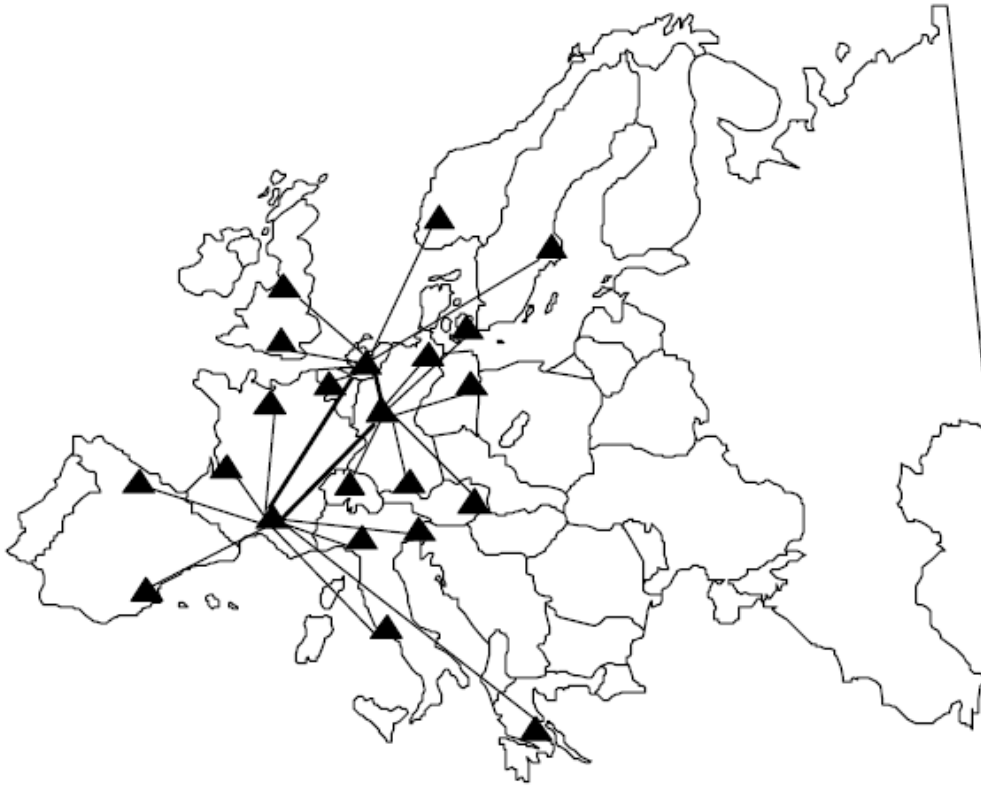
The Maintenance Department also acquires vehicles in accordance with the specifications of the Freight and Sales departments. MAINTAIN is therefore linked with ADMIN for vehicle purchasing and maintenance outsourcing purposes.

[OFFICE]

ITC also provides extensive office automation facilities to a number of users at the head offices, including heads of department, management, the secretariat, the Sales and Human Resources departments, and local sales offices. OFFICE is a suite of applications including email, calendar, schedule, an Internet browser, text processing, spreadsheets and small database applications, which are made available via local networks. The links between local area networks, and between these networks and the central computer, are fully transparent to users.

Hardware

Each head office has a cluster of servers. Although these differ in size, their configurations are largely the same.

**[UTRECHT]**

Utrecht has a cluster of four servers, which also carries out specific functions for the local area network including data storage. The cluster has around 800 GB of disk space. There is also a test server for software suppliers and IT personnel, which is a lighter version of the production servers in the cluster. Users access applications via a web-enabled emulator, via a web browser.

[DÜSSELDORF]

Düsseldorf has a cluster of three servers with 400 GB of disk storage space. It does not have a test server. The cluster is connected to the network.

[ORANGE]

Orange has a similar cluster to Düsseldorf, but this is almost an obsolete model and has only 300 GB of disk storage. Users access the applications using special software or the small number of special purposed terminals that remain in use.

[LOCAL]

Twelve of the 20 local sales offices each have three PCs (two workstations and a server) with the usual OFFICE facilities and, as mentioned above, a web-enabled terminal emulator. This means that they can also input orders into the SHIPPING and TRAVEL systems. The other eight local sales offices have one PC each with dialup facilities.

[WIDE AREA NETWORK]

The three head offices are connected with one another by leased lines provided from an outside telecoms supplier. This fact has sometimes led users to complain to the IT department that they have input transactions but the system does not seem to receive and process them.

2.1.4 Organization of IT

ITC does not have a single central IT department. The local head of Administration is responsible for IT at their head office and the region it covers, and the three heads meet every two months to decide on IT policy and plans for the next six months. Systems development and maintenance are outsourced to various suppliers under maintenance contracts. The heads of Administration spend around 50% of their time dealing with IT issues, and are supported by a number of system and network managers.

The numbers of IT employees at the different locations are as follows:

- Ø **Utrecht:** five system managers, as follows:
 - I One system manager specializing in server hardware and system software;
 - I One application manager responsible for testing, changes and resolving minor application problems;
 - I One network manager specializing in managing the WAN and all regional LANs;
 - I Two junior system managers providing first-line support to users.
 - I Düsseldorf and Orange; each have four system managers with largely similar responsibilities to those in Utrecht, with the exception of network management.

One employee at each local sales office is trained to resolve the most common problems themselves. If they are unable to do so, they contact their head office, which brings in outside suppliers who can deal with the problem.

Regular discussion takes place between the regional head offices on technical and other matters, mainly by telephone and email.

Recent reports by two research bureaus showed that the IT function could probably make a greater contribution to ITC's business objectives. They also concluded that deployment and organization of its IT resources are reasonably good, for the following reasons:

- Ø Different departments worked very close together, even when they were in different countries
- Ø The technical infrastructure was well organized and documented, which made it easier to manage.

Policy

The service being provided by ITC, and particularly that relating to freight, is under a certain amount of pressure as clients with long-term contracts place an increasing emphasis on timeliness of transport. They would like to operate on a just-in-time basis, but because of the way, in which ITC processes order information, it is not yet able to respond adequately to their needs.

The utilization rate, in other words the percentage of the total fleet that is on the road working for clients at any given time, is somewhat on the low side.

However, management does see some possibilities

- Ø The disappearance of internal borders in Europe is increasing the potential for international freight transport, though this is constantly being obstructed by European and national debates on toll roads and road taxes.
- Ø The improved economic situation in Eastern Europe is also opening up a major potential market. Management believes there is considerable potential for expansion here in the long term.

In order to take advantage of these opportunities and also reduce the problems with utilization level and just-in-time delivery, the Strategy and Policy Department believes that using Information Technology to change the company's business handling processes is the right way forward.

It has therefore formulated the following objectives:

- Ø Ensure that information regarding an order or freight must be supplied to all the relevant departments within one hour of receipt, 24 hours a day.
- Ø Set up a system to allow communication between the head offices and drivers, about information, for example, on delays caused by traffic congestion and other factors.
- Ø Because this information is very important for route planning, which is also to be automated, the communication process is to take place means of IT.
- Ø Connect the head offices to various networks for electronic message exchange so that clients can submit orders electronically and obtain information about freights in transit.
- Ø Give the individual head offices more autonomy, for example by making each one directly responsible for its own (financial) results.
- Ø Accept the fact that ITC does not have sufficient internal skills to carry out all the required IT projects, such as the communication and messaging systems, on its own. Therefore, third parties will more often be involved to help achieve the projects planned. This approach has to be also considered for IT service management tasks.
- Ø Put ITC on the map as an e-company (i.e. one that makes widespread use of the Internet and other information technology to achieve its objectives) by setting up a web site allowing clients to monitor the progress of packages and consignments.

2.2 CMJ 案例

2.2.1 国际运输有限公司

国际运输有限公司（ITC）经营欧亚本土市场，使用1200辆卡车进行公路货运，350辆公车进行公路客运。

ITC的国际管理机构设在其总部乌德勒支（荷兰）。同时荷兰地区总部也在乌德勒支。而其他地区的总部设在杜塞尔多夫（德国）和奥兰治（法国）。ITC有20个本地销售办事处分布在欧洲各城市。

这家公司拥有2800名员工，其中2200名驾驶员。每个营业厅有2-4名员工，其余540名员工都在总部：乌德勒支220人，杜塞尔多夫180人，奥兰治140人。

ITC与其他公司以签订长期合同为主，并为他们提供货物和乘客的公路运输服务。因此，ITC需提前两个月知道他们80%的工作，而其余20%的工作由与其他公司签订的长期合同中的紧急任务以及其他一次性任务组成。

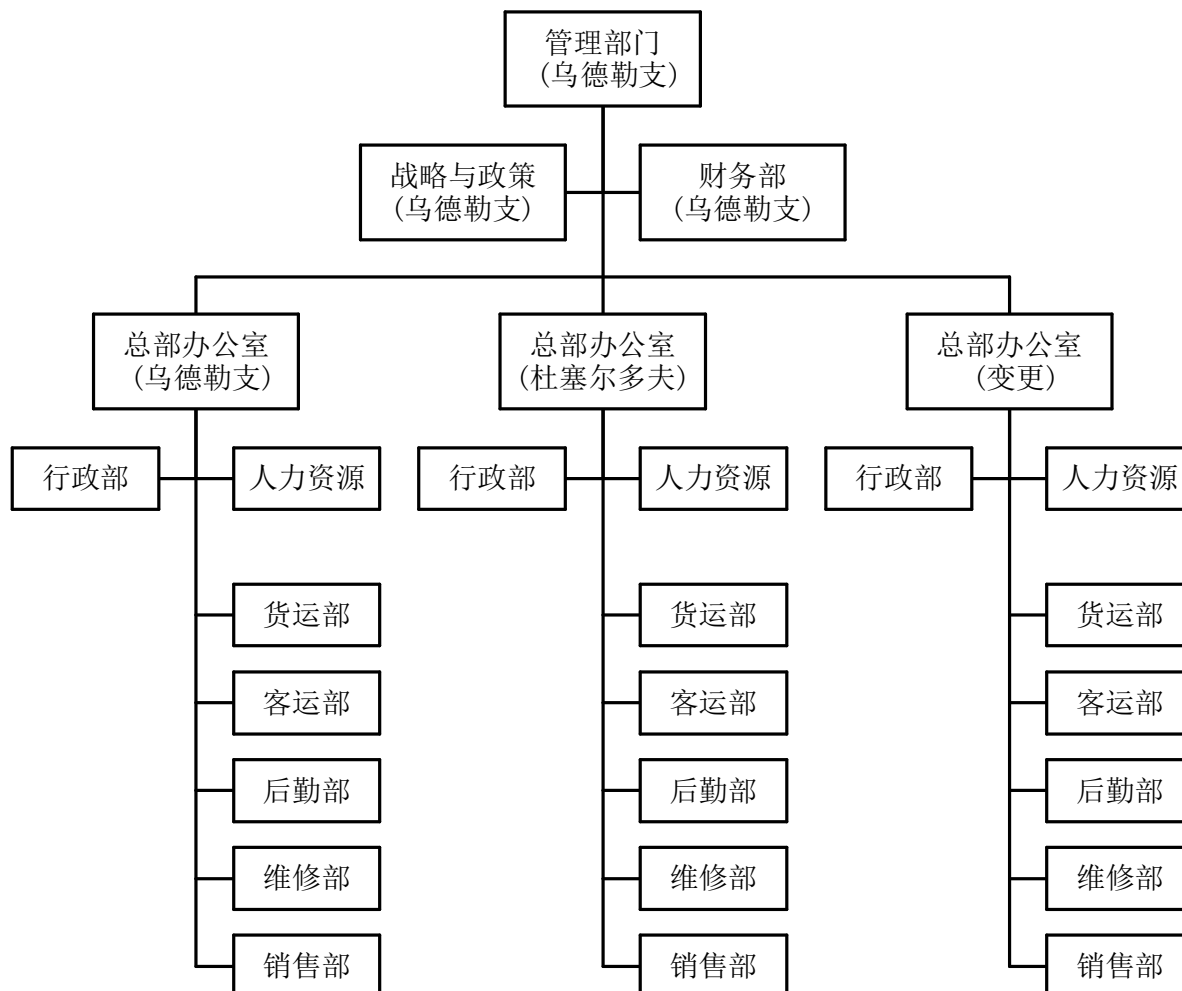
ITC于十年前成立, 由三家国内运输公司合并而成, 这三家公司对公路运输都有着相似的愿景, 并且每家公司在欧洲某个特殊领域都处于领先地位。在合并前, 这几家公司已经在各自货运路线上进行合作, 而在合并后, 这种情况发生了变化。总部之间紧密合作, 这种强大的凝聚力使得ITC成为一个为多国公司提供服务的可靠的运输提供商。

2.2.2 组织

每个总部都以几乎相同的方式组建, 每个总部都设有以下部门:

- Ø 货运部
- Ø 客运部
- Ø 物流部
- Ø 维修部
- Ø 销售部
- Ø 行政部
- Ø 人力资源部

每个部门直接向他们各自的区域总部主管汇报。



公司的国际管理中心位于乌德勒支, 总部主管直接向它汇报。设立以下部门用于支持核心管理:

- Ø 战略和政策部
- Ø 财务部

货运部

每个总部的货运部负责提供货物运输。虽然卡车驾驶员常受雇于物流部和客运部，但他们仍要为货运部工作。此外，这个部门主要提供远距离的公路运输，而驾驶员常常会一次性离家好几天。此外，在驾驶员工作时，这个部门同时也负责为他们办理海关手续，并提供食宿。

客运部

每个总部的客运部负责乘客运输，并雇佣公司的公交驾驶员。这个部门的公交主要用于由旅行社组织的旅游，因此，它主要和那些与ITC签了合同的旅行社来往。此外，这个部门也要负责办理海关手续，提供食宿等。

物流部

物流部有点像个局外人，它最终负责保证尽可能最大限度的利用车辆容量。大多数情况下，货运部和客运部都没有物流冲突，但是他们通常无法自行调配，于是由物流部来负责解决这种问题。因此与其它总部保持密切联系。

维修部

维修部负责保持车辆的“健康”。每个总部都有自己的车库，用于对车辆进行大小常规检查，以及小型维修和改造。而其他工作则外包给了一家专业公司。

销售部

销售部负责获取货运部和客运部的运输合同。每个总部在当地都设有销售办事处。销售部受理两个不同的合同：长期合同（包括货运部和客运部的长期合同）以及一次性合同。

行政部

行政部管理总部的财务，包括债务和债权。此外，也负责定期支付工资给正式员工和非正式员工。

人力资源部

这个部门不大，主要进行人员的选拔、招聘、员工离职和咨询等工作。每个总部都有一个公司的医生和一个心理医生，为员工提供物理和心理治疗。

战略和政策

战略和政策部直接向核心管理层报告，负责开发战略。

财务部

这个部门也是直接向核心管理层报告，并控制总部内部财务报告。它也对现有的和潜在的长期客户进行财务状况分析，还为核心管理层提供公司服务国家的经济和政治状况的相关建议。

2.2.3 ITC' ITC 的信息系统

基本信息

ITC在合并以前就信息化了，这三家不同公司大部分财务管理工作都已经自动化。由于总部极其相似，他们的计算机系统也几乎是一样的，调度和规划流程在很大程度上也高度自动化。

公司现在使用以下信息系统：

[管理系统]

这个系统由行政部门使用，用于执行财务报告，其中包括债务、债权、薪资表和会计核算模块。它与运输系统和维

修系统接口。当订单处理完毕时自动生成发票，这个系统也为车辆提供商和维修专家支付报酬。因为公司的财务管理必须遵守当地的法律，所以管理系统因国家的不同而有很大区别。

[运输系统]

运输系统处理来自销售部门、当地营业厅和货运部签订长期合同的货运订单。然后跟踪货物状态：是否已经预订，是在途中还是已经交货。当接到订单并且已经交货后，运输系统与管理系统进行数据交换，并拟定必要的运输文档。运输也与计划系统接口。

[客运系统]

客运系统处理客运订单。与当地营业厅或销售部的一次性零散的订单不同，客运部要对运输订单作计划。客运系统是基于运输系统的第一个版本开发的，所以，在功能上与运输系统几乎一样，不同的是运输系统是以客运作为出发点。然而，主要不同点在于它没有与管理系统接口，因为这不是特别必要。

大多数收入来自与旅游机构签订的长期合同，在这个产业中，也就不会对每次组织的旅行单独收费。

[计划系统]

计划系统是公司IT信息系统站点的监控中心。它具有物流规划的功能，从而保证正确的驾驶员开着正确的卡车或公车在正确地点。具体的运输订单由运输系统和客运系统提供，人员和车辆维护计划需要输入到计划系统中，从而保证驾驶员和车辆能尽可能被有效利用。这些信息会反馈到运输系统和客运系统中。

如果新信息导致这些计划被修改，那么运输系统和客运中的相应数据也得到更新。目前，计划系统自动执行了计划流程的95%；而其余的手工完成。

[维修系统]

维修系统最初由不同的维修部使用，包括关于车辆技术现状的信息。它存储了每辆车的维护现状、已行驶的英里数、已使用多少柴油、能接受什么样的路面情况，以及其他类似信息。此外，它还用于拟定和实施维修计划，因此，这个系统同时也与计划系统接口。

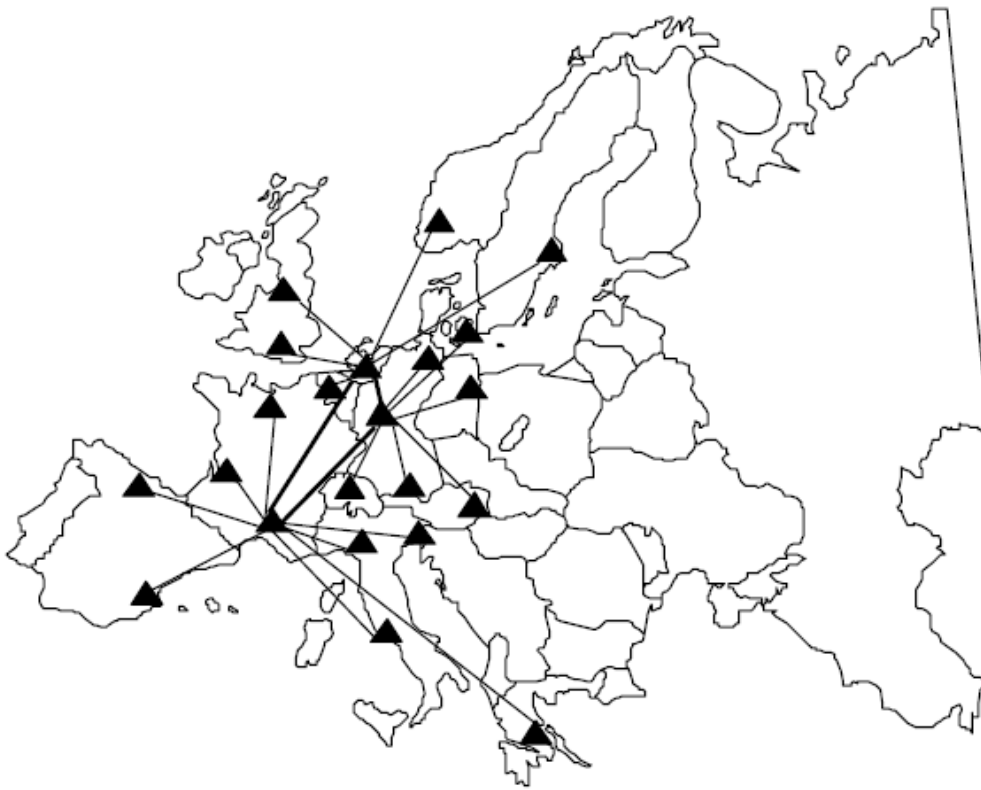
维修部依据货运部和销售部的说明书也可以提取车辆，因此，维修系统需要和管理系统连接，以便进行车辆采购和维修外包。

[办公系统]

ITC也为总部的用户提供办公自动化设施，包括部门领导、管理层、秘书处、销售部和人力资源部，以及当地营业厅。办公系统是一套应用软件，包括电子邮件、日历、时间表、互联网浏览器、文本处理、电子数据表和数据库应用系统，这些都可以通过本地网络获取。本地网络之间的连接，这些网络和中央计算机之间的连接，对用户而言是完全透明的。

硬件

每个总部都有一组服务器。尽管它们大小不同，但是它们的配置在很大程度上是一样的。

**【乌德勒支】（荷兰）**

乌德勒支有一个四台服务器组群，同时为本地网络执行具体的功能，包括数据存储备份。这组服务器大约有800GB的硬盘。此外，这里还有一台测试服务器，专为软件提供商和IT人员准备的，这是组群中生产服务器的简易版。用户通过网站启用模拟器或浏览器访问应用软件。

【杜塞尔多夫】（德国）

杜塞尔多夫有一个三台服务器组群，有400GB硬盘的存储空间。其中没有测试服务器。这组服务器已联网。

【奥兰治】（法国）

奥兰治与杜塞尔多夫的服务器相似，但是比较陈旧，仅仅300GB的硬盘存储。用户访问应用软件要通过使用特殊软件或仍在使用的少量专用终端。

【各地】

在20个当地营业厅中有12个有3台PC机（2个工作站和一台服务器），一些常用的OFFICE设施，以及一个网站启用模拟器。这意味着他们也能向运输系统和客运系统输入订单。而其他8个当地营业厅有一台带有拨号设备的PC机。

【广域网】

三个总部通过向外部电信提供商租赁的线路相互联系。这有时导致用户向IT部门抱怨：他们已输入交易等信息，而系统却显示没有收到并没有处理这些信息。

2.2.4 IT 组织

ITC没有单独的中央IT部门。当地管理者要为总部和它所覆盖的区域的IT负责，此外，三个总部每两个月举行一次例

会决定接下来六个月的IT政策和IT计划。系统开发和维护基于维护合同外包给不同的提供商。管理者花掉50%左右的时间来处理IT问题，他们同时也需要大量系统和网络管理人员的支持。

不同地区的IT雇员数量如下：

- Ø **乌德勒支：**5位系统管理人员，如下：
 - Ø 1位系统管理员负责服务器硬件和系统软件；
 - Ø 1位应用软件管理员负责解决测试、变更和小的应用软件问题；
 - Ø 1位网络管理员负责管理WAN和所有区域的LAN；
 - Ø 2位初级系统管理员负责用户的一线支持
- Ø **杜塞尔多夫和奥兰治：**每个地区都有4个系统管理员，同乌德勒支大部分一样，负责除了网络管理外的IT问题。

每个总部的雇员都要接受培训以解决大多数常见问题。如果他们不能解决问题，就与总部联系，引入能解决这些问题的外部提供商。

总部之间常定期就技术和其他事项进行讨论，这主要通过电话和电子邮件形式。

两家研究局的近期报告显示，IT功能可能更大程度上促进ITC的业务目标。它们同时发现IT资源的部署和组织状况良好，原因如下：

- Ø 不同的部门之间，甚至是不同国家的部门之间都紧密联系
- Ø 技术基础设施进行良好组织并存档，这更加便于管理

政策

由ITC提供的服务，尤其是与货物相关的服务，都存在着一一定的压力，因为长期合同的客户不断地强调运输的及时性。他们希望敏捷运营，但是，ITC处理订单信息的方式，不可能对他们需求及时响应。利用率，换句话说，也就是任何既定时间为客户服务的在用车辆占总数的百分比，占很小的百分比。

不过，管理层已经看到了一些可能性：

- Ø 虽然欧洲和国内关于收费公路和道路税还在争论不休，但欧洲国际边界的消失却正在增加国际货物运输的机会。
- Ø 东欧改进后的经济形势正在打开一个广大的潜能市场。管理层认为这对长期发展是相当大的扩展机会。

为了利用这些机会，同时减少利用和及时交付的困难，战略和政策部门认为应使用信息技术来改变公司的业务处理流程。

所以需要阐明以下目标：

- Ø 保证关于订单或货物的信息在一小时内（一天24小时）递送到所有相关部门。
- Ø 建立一个支持总部之间和驾驶员之间联系的系统，例如，由交通阻塞或其他因素引起的延迟。由于这些信息对线路规划非常重要，沟通过程就要采取IT工具。
- Ø 将总部连接到不同网络以进行电子信息交换，从而客户能以电子方式提交订单，并得到关于货物和运输的信息。
- Ø 使每个总部行使更多自主权，例如，每个总部能直接为他们的结果（财务）负责。
- Ø 承认ITC没有足够的内部技术以实施所有所需的IT项目的事实，比如通信和信息系统。所以，会经常引入第三方帮助完成项目计划。这种方法也必须在IT服务管理工作中考虑。
- Ø 设置一个站点，将ITC作为一个电子公司放在上面（如，通过大范围使用Internet和其他信息技术来达到这个目的），允许客户监控包裹和货物的运输过程。