

# DVN's Business Model

天地數碼之業務模式



# 33 Cities Mandated to Migrate to Digital

## 33個城市進行有線電視數碼化平移

DVN has relationships with significant % of the 33 cities to be digitalised.

於首33個進行有線電視數碼化之城市中，天地數碼已與頗多地區開展商業關係。



# DVN's Business Model 天地數碼之業務模式

## Overview

DVN is a leading supplier of digital set top boxes, digital broadcasting platforms, and applications, that make digital pay TV possible in China.

**DVN is the leading provider of end to end solutions for China's digital cable TV industry.**

DVN provides an end-to-end, totally integrated, Chinese language digital broadcasting platform. This platform includes a conditional access ("CA") system, subscriber management system, a billing and payment system as well as the middleware applications. Additionally, DVN develops applications specifically tailored to the operations of the CATV operator so that each platform is unique to the characteristics of the local market. DVN also provides set top boxes that enable subscribers to receive digital signals.

Most competitors, whether domestic or international, provide only a part of the entire platform, either hardware or software. As a result, the cable operator must spend time and resources to source various parts of the platform from different vendors and then spend additional time and resources to integrate and manage the disparate parts. Additionally, most foreign competitors simply create a Chinese version of applications that have been developed for foreign markets and as a result do not address the unique characteristics of the Chinese market. DVN's fully integrated, end-to-end platform, as a result of using primarily in-house developed technology, is extremely cost effective and thus suitable for China's level of economic development.

**DVN has pioneered the digital cable TV industry in China, and therefore has first mover advantages.**

DVN was one of the first companies in China to deploy an operating digital broadcasting platform in China, installing the first one in Suzhou in 2001. DVN is also one of the first to develop a complete CA system and has received all the government approvals for the deployment of its CA system throughout China. DVN's CA system provides CATV operators with an automatic fee collection system linked to local banks that not only improves the cash flow of the CATV operators but also provides a viable payment method for T-commerce transacted over the system. Combined with DVN's highly complex encryption system, the CATV operator is able to offer its end-user a secure environment in which to do on-line transactions.

It was also one of the first developers of a middleware system in China using all its own technology as well as the first developer of a JAVA-based set top box. DVN also has extensive experience in working with CATVs resulting in the creation of operating systems that are perfectly suited for the business environment faced by Chinese cable operators. DVN has tailor made its middleware system, billing and payment systems to suit the needs of Chinese CATVs.

DVN has now installed platforms among some of China's richest and most developed regions, some of which are under exclusive contracts for terms of 10 to 15 years.

## 概覽

**天地數碼是數碼機頂盒、數碼廣播平台及應用的主要供應商，促成能在中國推出數碼收費電視。**

**天地數碼是中國數碼有線電視業端對端解決方案主要供應商。**

天地數碼提供全面結合端對端中文數碼廣播平台。這平台結合有條件接收系統、用戶管理系統、收費及付款系統以及中間件應用。此外，天地數碼亦特別為有線電視營運商開發應用系統，使每個平台能具備配合本身市場的特色。天地數碼亦提供機頂盒，使用戶能接收數碼訊號。

大部份本地以至國際的競爭對手，只能提供軟件或硬件，未能為整個平台提供全部設備。因此有線電視營運商必須花費時間和資源，從不同供應商採購平台的不同組件，再花時間和資源將各部份整合。此外，大部份外國競爭對手僅僅將其原為外國市場開發的應用系統，轉為中文版本，故而忽視了中國市場的特色。天地數碼利用主要以內部開發的技術而建立的全面整合端對端平台，極具成本效益，且適合中國現經濟發展水平。

**天地數碼率先開拓中國的數碼有線電視業，故而盡佔先機。**

天地數碼是中國其中首數間公司在國內建立數碼廣播平台，並於二零零一年在蘇州裝設首個平台。天地數碼亦是首數間開設完整有條件接收系統的公司，並已獲所有政府批准，在全中國建立有條件接收系統。天地數碼有條件接收系統為有線電視營運商提供與當地銀行連接的自動收費系統，不僅有助改善有線電視營運商的現金流量，亦為在系統進行的電視商貿交易提供另一個可行付款方式。有線電視營運商利用天地數碼高度精密的加密系統結合，可為最終用戶提供安全環境進行網上交易。

天地數碼亦是中國首數間公司之一全部利用本身技術，開發中間件系統的公司，亦是首間開發以JAVA為本的機頂盒。天地數碼一直與有線電視營運商攜手合作，而建立的運作系統，更完全適用於中國有線電視營運商所面對的業務環境。天地數碼亦已根據中國有線電視營運商所需，特製中間件系統以及收費及付款系統。

天地數碼已在中國最富庶且發展最成熟的地區建立平台，更在部份地區訂立為期十至十五年的獨家合約。

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天地數碼是中國其中首數間公司在國內建立數碼廣播平台，並於二零零一年在蘇州裝設首個平台。天地數碼已在中國其中最富庶且發展最成熟的地區建立平台，更在部份地區訂立為期十至十五年的獨家合約。

# DVN's Business Model 天地數碼之業務模式

## Flexible system that allows for change and growth

DVN's platform, which runs on both existing analog networks and new generation broadband networks, precludes the necessity for CATV operators to upgrade its network further for digital broadcasts. The DVN platform is a scalable, open system that not only accommodates numerous income-generating services but also supports multiple hardware devices, such as personal computers and telephones. DVN provides to the CATV operators continuous technical upgrades in order to insure that the platform remains at the cutting edge of digital technology, as well as the option to subscribers to upgrade their set top boxes. This is all supported by DVN's research and development efforts.

## On the ground, extensive local support and engineering teams

To be a real competitive force, a competitor needs critical mass to provide support services, both before and after installation. DVN offers support to the cable operators in terms of system integration, marketing and operational teams, technical support and content. Most foreign competitors do not have extensive teams on the ground offering after sales support to the cable operators.

## Technology is certified by the appropriate regulatory authorities

DVN's technology received top-level accreditation from China's Ministry of Science and Technology ("MST"), encouraging cable operators to use DVN's technology and eliminating the requirement to attain a license for digital broadcasts. Under China's "863 State Hi-Tech Plan" as put forth by the MST in 1986, which serves as a blueprint for the development of its technology related industries, the MST has given DVN the highest rating within the communication category of the 863 State Hi-Tech Plan; and has recommended that DVN's technology should be promoted and distributed throughout China as soon as practical. Such a recommendation has given guidance to Chinese cable operators that they should upgrade their broadcasting equipment using DVN's technology and platform.

In addition, DVN is one of only three companies to receive a network access license from SARFT. This license allows DVN to sell its set top boxes in China.

## International Financial Data Provider

DVN through its group company, Dynamic Network Limited also disseminates real time international financial market information and selective real time consumer data to end users in the PRC, Malaysia, Singapore, Taiwan and Hong Kong. The type of content provided includes equity, commodities and foreign exchange real time data.

### 系統可靈活改動及升級

天地數碼平台可在現有模擬網絡及新一代寬頻網絡上運行，有線電視營運商無須將網絡升級即可進行數碼廣播。天地數碼平台為可升級的開放系統，不僅能提供多種收費服務，而且支持多種硬件裝置，如個人電腦及電話等。天地數碼向有線電視營運商不斷提供技術升級服務，以確保平台應用尖端數碼技術，用戶亦可選擇升級機頂盒。上述技術支持服務均由天地數碼的研發人員提供。

### 強大的地方支援及工程隊伍

除需具備強大的競爭實力外，競爭對手還需設立完備的執行隊伍，提供安裝系統之前及售後的支援服務。天地數碼在多個地區設有執行隊伍，向有線電視營運商提供有關系統集成、市場推廣及營運、技術支援及節目方面的支援服務。大多數國外競爭者在國內並無設立大量專為有線電視營運商提供售後支援的執行隊伍。

### 技術經權威監管機構認證

天地數碼之技術已通過中國科技部（「科技部」）進行的國內最高級別認證，有線電視營運商可放心使用天地數碼的技術，同時無須費盡週折申請數碼廣播牌照。根據科技部於一九八六年公佈的高科技行業發展藍圖－「國家高技術研究發展計劃（863計劃）」，科技部不僅授予天地數碼863計劃通訊類別的最高評級，而且建議在切實可行的情況下儘快在全中國推廣天地數碼的技術。該建議指引中國有線電視營運商使用天地數碼的技術及平台升級廣播設備。

此外，天地數碼是僅有的獲廣電總局頒發進網許可證的三家公司之一，該牌照令天地數碼可在中國銷售機頂盒。

### 國際財經資料供應商

天地數碼亦透過其集團公司Dynamic Network Limited向中國、馬來西亞、新加坡、台灣及香港的終端用戶廣播實時國際金融市場資訊及精選實時消費者資料。提供的節目類型包括股票、商品及外匯實時資料。

## DVN's Revenue Model

DVN derives revenue from set top box sales, digital platform sales, subscriptions, and valued added services.

### Set Top Box Sales

DVN's largest current source of revenues is derived from the sales of set top boxes. DVN designs the set top box, and then has it OEM manufactured by an independent factory. DVN also provides the Electronic Programming Guide and middleware that enables the set top box to function within the home environment.

### Platform Sales and Subscription Fees

DVN designs, integrates and installs platforms for CATV operators that allow it to deliver digital Pay TV services to its subscribers. DVN provides all the system components at the operator level, which include the broadcast control system, conditional access system, subscriber management system and the hardware. DVN either sells the system outright or enters into leasing contracts with the CATV operator. If DVN sells the system outright, it receives a cash payment. Under the leasing option, in consideration for the lease of its platform, continual platform maintenance and application software upgrades, DVN will receive a percentage of all subscription fees collected for digital broadcasts over the contractual period.

### Value Added Service Provider

The number and type of applications in addition to normal video services that DVN's platform is able to support is limitless. This is due to the open architecture of the system as well as the installation of the Smart Card in each subscriber's set top box. Interactive services currently envisaged include video on demand, on-line trading, on-line shopping and home banking to name a few. Together with the use of the Subscriber Management System ("SMS"), the Smart Card provides not only a secure transaction environment but also a payment method. DVN does not expect Value Added Services to be a major sources of revenues in 2004; however, as interactive services become more common and acceptable, fees from these sorts of services will provide a more diversified revenue base to both DVN and its CATV partners in ensuing years.

## 天地數碼之收入模式

天地數碼之收入主要來自機頂盒及數碼平台銷售、用戶費以及增值服務收益。

### 機頂盒銷售

天地數碼現時最主要的收入來源是機頂盒銷售。天地數碼設計機頂盒，再透過原設備機製造形式，由獨立廠家生產。天地數碼亦提供電子節目指南及中間件，使機頂盒能在家居環境中運作。

### 平台銷售以及用戶收費

天地數碼為有線電視營運商設計、整合及安裝平台，以便有線電視營運商向用戶提供數碼收費電視服務。天地數碼供應營運商層面所需的所有系統部件，包括廣播監控系統、有條件接收系統、用戶管理系統及硬件。天地數碼向有線營運商整合出售該系統，或與其簽訂租賃合約。倘屬天地數碼出售之系統，天地數碼將收取現金款項。倘採用租賃形式，作為平台租賃、持續保養及應用軟件升級之代價，天地數碼將分享合約期內所有數碼廣播用戶費之分成比例。

### 增值服務提供

天地數碼平台可支持各種各樣的應用軟件。目前設想中的應用軟件，包括視頻點播、網上交易、網上購物及家居銀行等。這是因為系統的開放式功能，以及在每名用戶的機頂盒內裝設智能卡，便可達到上述目標。連同天地數碼開發之用戶管理系統一起併用，智能卡不單能提供安全可靠的交易環境，也能提供可靠的付款方法。天地數碼並未預期增值服務為二零零四年的主要收入來源；然而，隨著互動服務日益普及並為大眾所接受，該類服務之收費日後將為天地數碼及其有線電視夥伴提供多元化的收益基礎。

*DVN's largest current source of revenues is derived from the sales of set top boxes. STB revenues are expected to accelerate as more cable operators make the migration to digital.*

天地數碼現時最主要的收入來源是機頂盒銷售。當有線電視營運商逐步走向數碼化，預計機頂盒銷售收入將會上升。



## China's Market Potential

### **Largest Cable Television Market in the World, with tremendous growth potential for digital.**

China currently has over 100 million cable TV subscriber households, and is the largest cable television market in the world. This number is greater than the 60 million subscribers in the United States, and the 50 million subscribers in Europe. China's cable network is comprised of over 300,000 kilometers of laid cable.

Most CATV operators in China currently utilize analog broadcasting technology on a one-way network infrastructure. The analog transmissions are directly received by the end user's television set and do not require an analog set top box receiver. Analog technology, as compared to digital broadcasting technology, does not fully utilize the bandwidth and revenue generating capacity of the cable network and does not provide any encryption. Additionally, transmission is very susceptible to interference.

Digital broadcasting, on the other hand, by using compression technology, increases broadcasting transmissions by at least 6 times and allows the CATV operator to diversify and increase revenues by offering a broader range of content and new interactive services. Furthermore, digital signals may be encrypted under complicated methods making it very difficult and uneconomic to decode.

### **Current subscription fees are low, but digital will enable new sources of revenues.**

China's current cable infrastructure was originally put in place by the government as a tool through which it could communicate with its citizens. As a result, cable operators currently charge only RMB 8-12 per month, among the lowest in the world. Furthermore, analog subscription fees are to cover the maintenance of the cable infrastructure and the transmission fees. Operators are unable to charge according to the quality and range of content shown over analog transmissions. Compounding the low subscription fee problem, subscription fees are collected manually, which results in high leakage and expensive collection costs. As a result, the CATV operators operate on very thin margins and rely heavily on advertising revenues to supplement their incomes.

Through the provision of digital services, the CATV operator is able to charge higher subscription fees and advertising charges as well as receive fee income from additional revenue services such as home shopping, online gaming, and long distance education. As such, DVN's digital broadcasting platform provides a beneficial solution to CATV operators in the PRC by providing multiple revenue generating sources, an electronic fee collection system, and a highly complex encryption system that prohibits non-payers from viewing the content as well as provides a secure on-line transaction environment.

## 中國之市場潛力

### 世界最大的有線電視市場，數碼增長潛力龐大。

目前，全中國共有超過一億有線電視家庭用戶，為全球最大的有線電視市場。這個數字已超過美國的六千萬用戶及歐洲的五千萬有線電視家庭用戶。已鋪設的中國有線網絡電纜長度超過三十萬公里。

中國的有線電視目前大多採用基於單向網絡基礎設施之模擬廣播技術。模擬廣播由終端用戶的電視機直接接收，不需要安裝模擬機頂盒接收器。與數碼廣播技術相比，模擬技術未能完全利用有線網絡的頻寬以及增加收入的功能，而且傳輸容易受到干擾，也不具備加密功能。

另一方面，由於數碼廣播技術使用壓縮技術，增加廣播傳輸容量至少六倍，因此有線營運商可藉此提供更廣泛節目及新增互動服務項目，從而擴大及增加收益。此外，加密方式十分複雜，破解密碼難度十分大且不經濟。

### 現時用戶費偏低，但數碼將帶來新收入來源。

中國現有的有線基礎設施主要由政府鋪設，作為政府與廣大市民交流及傳播資訊的工具。因此，有線營運商現時僅收取每月8-12元人民幣，屬全球最低有線收費之一。此外，模擬電視用戶費還包括有線電視基礎設施保養費及傳輸費。營運商無法按照模擬廣播的質量及節目類別進行收費。除用戶費低廉外，用戶費還需人工收集，導致漏收費問題嚴重，收集成本高昂。結果導致有線電視營運商邊際利潤微薄，嚴重依賴廣告收益彌補收入。

透過提供數碼服務，有線電視營運商可收取較高用戶費及廣告費，並可從其他收入服務（例如家居購物、網上遊戲及遙距教育）獲取費用和收入。因此，天地數碼的數碼廣播平台為有線電視營運商開辟多種收入來源，提供電子收費系統，配備尖端加密系統以禁止未付費用戶繼續接收節目，同時提供安全可靠網上交易環境，為國內有線電視營運商提供高效益的解決方案。

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**Limited content under analog transmissions, but digital will now increase the number of channels available to consumers.**

Content is limited over analog transmissions as the government mandates that a certain number of CCTV channels and local news and events channels are transmitted, leaving limited network capacity for other channels. As a result, only by digitizing the transmission are the cable operators able to optimize their bandwidth by increasing the number of channels that are transmitted and thus maximize their profitability.

SARFT has already announced plans to create new pay TV channels. Channels include movie channels, news channels, sports channels, and drama series channels. Cable operators will also be able to increase their content offerings by utilizing channel rebroadcasts from other parts of China. Local cable operators are able to take advantage of the better quality programming from other parts of China without having to pay for it and include these channels as part of the digital service. The stations, whose channels are rebroadcast, without editing, are able to claim the viewer numbers and increase advertising revenues.

**Market is beginning to open up to foreign companies, which will result in better technology and more and better content.**

China's broadcasting industry is largely closed to foreign involvement. Foreigners are restricted from operating or owning cable TV networks within China, thus closing off sources of capital from outside of China. However, according to the head of China's SARFT, Mr. Xu Guang Chun, foreign firms are able to provide cable TV networks with infrastructure technology and value added services. Under DVN's current business model, DVN provides the technology and equipment required by the CATVs to run and operate digital Pay TV services.

Recently, SARFT has amended its rules, allowing foreign companies to take ownership stakes in content companies. As a result, Viacom has recently taken an ownership stake in Shanghai Media, one of China's largest providers of content. Other foreign media companies are also looking to make investments into China. The content that is produced will be sold on China's digital Pay-TV system. With improved content, DVN expects that demand for its products will increase.

**模擬傳輸之節目有限，但數碼化將增加觀眾可選擇的頻道。**

由於政府規定必須播放中央電視台各頻道節目及地方新聞及活動，導致有線網絡容量極為有限，模擬傳輸的節目受到限制。有線營運商只有使用數碼傳輸，才能有效利用頻寬，增加播放節目的頻道數量，從而最大限度地增強盈利能力。

廣電總局已宣佈計劃推出多個付費頻道，有關頻道包括電影頻道、新聞頻道、體育頻道及戲劇頻道。有線電視營運商將可透過中國其他地區的頻道而提供更多內容。地方有線電視營運商可利用中國其他地區的高質素電視節目，而毋須支付費用，並將其作為數碼服務的部份內容。電視台使用頻道轉播毋須編輯，可提高收視率及增加廣告收入。

**市場逐漸開放予外國公司參與，將帶來更佳技術以及更多及更精彩的節目。**

中國廣播業基本不允許外資參與。外商被禁止在中國經營或擁有有線電視網絡，從而封閉了國外資金來源渠道。然而，中國國家廣電總局局長徐光春先生曾表示，外商可向有線電視網絡提供基礎設施技術及增值服務。按照天地數碼現時的業務模式，天地數碼提供有線電視台經營數碼收費電視服務所需的技術，設備及服務。

最近，廣電總局修訂條例，使外國公司能入股節目供應商。因此，Viacom最近亦已入股中國其中一間最大型的節目供應商Shanghai Media，所製作的節目將在中國的數碼付款電視播出。隨著節目質素改善，天地數碼預期市場對其產品的需求將增加。

## Customers

**DVN is the market leader in digital platforms installed.**

DVN has installed headends in approximately 26 locations. These headends have been installed using four basic business models: 1) the pure lease model in which DVN itself signs contracts and directly receives a percentage of the revenues; 2) the sales model in which DVN sells its equipment for cash, and does not receive a percentage of the revenues. However, DVN may receive revenues from the sale of set top boxes or from value added services; 3) the system integration model in which DVN agrees to supply all the middleware, software and integration expertise but does not supply the actual hardware. DVN is paid an integration fee and may share in the revenues derived from value added services; and 4) the "Combination" models in which DVN recognizes some revenues from the sales of headend equipment, but also receives some subscription revenues "indirectly" because DVN has made an investment in the digital rollout. DVN also receives revenues from the sale of set top boxes and from value added services. This model is attractive as it leverages on local expertise and capital to share the risk.

For the combination model, there are two models:

- Joint investment with a partner to establish a separate joint venture or business entity.
  - Joint venture or business entity purchases DVN digital platform
  - The entity that is created then signs contract with the CATV.
  - Profits are shared proportionately
    - DVN receives cash when it is dividend out.
- Part sale/part lease model with CATV
  - CATV purchases some headend equipment.
  - DVN contributes some headend equipment.
  - DVN receives subscription revenues until it recovers its total capital investment costs. Afterwards, DVN receives a lower percentage of the subscription revenues.

## Employees and Offices

As of 31 March 2004, DVN's digital business had 239 employees, including 55 in engineering and research and development. Of the 239 employees, 27 are stationed in Hong Kong and are responsible for corporate activities, capital management, research and development strategy and planning, financial control and policy, operational strategy, marketing direction and business development. DVN currently has offices in Beijing, Shanghai, Suzhou, Jinan, Zhongshan, Hangzhou and Shenzhen, Shijiazhuang, Baoding and Qinhuangdao, Hebei Province and in Wuxi, Jiangsu Province. Dynamic Network which is DVN's wholly-owned subsidiary in the business of providing of international financial market information and selective consumer data had 26 employees as of 31 March 2004.

## 客戶

天地數碼在設置數碼平台方面，為市場領導者。

天地數碼已在約26個地區安裝前端設備。天地數碼透過四種基本商業模式安裝該等前端設備：1)租賃模式，天地數碼本身簽訂合約並收取一定比例之收入；2)銷售模式，天地數碼出售其設備換取現金，但不收取一定比例的收入。但天地數碼可獲得機頂盒銷售收入或增值服務收入；3)系統集成模式，天地數碼提供所有中間件、軟件及集成技術，但卻不提供硬件部份，天地數碼將會收取系統集成費或加上一部份相關的增值服務收入；4)「結合」模式，天地數碼從出售前端設備獲取部份收入，亦「間接」收取若干用戶費，因為天地數碼已在數碼業務上作出投資。天地數碼亦從出售機頂盒及提供增值服務獲得收入。該種模式可配合其他投資者的專長及資金去達到雙贏的局面，因而具有吸引力。

「結合模式」可分為兩種模式：

- 與合夥人共同投資成立一間獨立合營公司或商業實體。
  - 合營公司或商業實體向天地數碼購買設備及軟件
  - 企業成立後與有線電視簽訂合約。
  - 利潤按比例分成
    - 天地數碼收取現金股息。
- 向有線電視台部份出售／部份租賃模式
  - 有線電視台購買前端設備。
  - 天地數碼提供前端設備。
  - 天地數碼收取用戶費，直至收回全部投資成本。此後天地數碼將收取較低比例之用戶費。

## 員工及辦事處

於二零零四年三月三十一日，天地數碼的數碼廣播服務共有239名員工，包括55名工程人員及研究開發人員。239名員工中有27名常駐香港，負責企業活動、資金管理、研究開發、制定策略及計劃、財務管理、制定營運及技術策略、市場推廣及業務發展。目前，天地數碼在北京、上海、蘇州、濟南、中山、杭州及深圳、河北省的石家莊、保定及秦皇島以及江蘇省的無錫設有辦事處。於同日期天地數碼之全資附屬公司Dynamic Network（該公司從事提供國際金融市場資訊及精選消費者數據業務）則有26名員工。

## Prospects and Future Plans

### Transitioning from the investment phase to revenue generating phase.

Over the last several years, DVN has been in its investment phase, incurring losses as the company has spent funds on R&D and other operational costs needed to establish its presence in China. With digital rollouts now in progress, DVN expects to transition out of the investment phase and into the revenue generating phase.

With the government's continued push towards digitalization, DVN expects sales of STB's to accelerate. In July 2003, SARFT formally announced a list of 33 cities that should immediately implement plans to go digital. Among these cities, DVN has established relationships that give DVN potential access to over 40% of SARFT's target of 30 million digital subscribers. DVN also has numerous relationships with other cities that are not on this list, but which will also be promoting digital services.

DVN's current market share of the set top box market is about 50%. If SARFT is able to achieve its goal of migrating 30 million cable subscribers to digital in 2005, and DVN is able to maintain its market share, DVN will experience significant growth. To put the growth potential in perspective, if DVN reaches only 5% of SARFT's 30 million goal, DVN will have sold 1.5 million set top boxes.

## Risk Factors

DVN's exposure to China's broadcasting industry, which by using digital technology merges interactive data, video and audio, brings about a degree of uncertainty with unlimited potential. Due to the newness of digital broadcasting technology and its multi-faceted capabilities, the broadcasting industry's structure, services and regulations are evolving.

DVN has positioned itself to take advantage of this potential while minimizing its risks. It has implemented a flexible business model that permits and rewards both proactive initiative as well as defensive maneuvers to take into account changes in the industry as it matures as well as changes in preferences of Chinese consumers. DVN also does not rely on owning the cable infrastructure for its business model to be successful but instead focuses on allying itself with the owner of the last mile.

DVN will closely monitor changes in the market and will adopt a prudent and adaptive approach in order to maximize shareholders' value while providing shareholders the ability to participate in the immensely interesting and potentially lucrative digital broadcasting revolution.

## 未來計劃及商機

### 由投資期過度至收成期。

過去幾年，數碼天地一直處於投資期，而由於公司一直投放資金進行研究及開發，加上需要在中國建立據點而產生的其他營運成本，故一直出現虧損。隨著數碼系統日漸普及，天地數碼預期將步出投資期而步入收成期。

政府致力推行數碼化，天地數碼預期機頂盒銷售的收入將快速增長。二零零三年七月，廣播總局正式公佈，33個城市將立即落實數碼化計劃。天地數碼已經與該等城市建立關係，能夠向廣播總局的目標30,000,000數碼用戶中，約超過40%提供服務。天地數碼亦與多個不在名單內，但即將推廣數碼服務的其他多個城市建立關係。

天地數碼現時在機頂盒市場的佔有率約50%。如果廣播總局能達成其在二零零五年將30,000,000名有線電視用戶轉為數碼用戶的目標，而天地數碼亦能維持其市場佔有率，則天地數碼業務將有顯著增長。從增長潛力角度而言，只要天地數碼能達到廣播總局的30,000,000目標用戶中的5%，天地數碼即可出售150萬部機頂盒。

## 風險因素

鑑於數碼技術相容互動數據、視頻及音頻，天地數碼參與中國具無限潛力的廣播業卻包含一定程度的不明確因素。數碼廣播技術及各項功能發展日新月異，廣播業之發展結構、服務及管理規則亦在不斷演變之中。

天地數碼已校準定位，充分利用這種潛力，同時最大限度地降低風險。天地數碼採用靈活的業務模式，兼用積極和保守措施，以適應日後行業逐漸飽和及照顧國內顧客需求之變化。而且，天地數碼之業務模式的成功並非依賴擁有有線網絡基礎設施，反而側重與控制實際運營者建立聯盟。

無論如何，天地數碼將密切關注市場變化，並以審慎、靈活的策略為股東帶來最大收益，同時，股東亦得以參與有巨大發展潛力及盈利能力的數碼廣播革命。

*With digital rollouts now in progress, DVN expects to transition out of the investment phase and into the revenue generating phase.*

*With the government's continued push towards digitalization, DVN expects sales of STB's to accelerate.*

隨著數碼系統日漸普及，天地數碼預期將步出投資期而步入收成期。

政府致力推行數碼化，天地數碼預期機頂盒銷售的收入將快速增長。



# DVN's Business Model 天地數碼之業務模式

**It is possible that future policy changes could impede DVN's operations and the enforcement of its contracts.** Recent SARFT policy announcements make it clear that DVN's business model is acceptable. DVN has structured its involvement in China to fall within the rules and regulations regarding foreign involvement in the broadcasting industry. DVN is primarily a technology provider and data and service provider. DVN's primary business is in the upgrading of broadcasting facilities to enable digital broadcasting, an area that the Chinese government has explicitly stated that Hong Kong based companies can get involved in. The trend in China, as promoted by the SARFT, is to upgrade China's broadcasting industry from analogue to digital and DVN's technology supports this switch.

**As new technologies are involved, there may be delays in the implementation and roll out of the digital broadcast services.**

DVN's system has been fully tested and is now operational in ten locations throughout China. As such even though there may be minor installation difficulties in other locations, DVN does not expect any major obstacles.

**Due to the infancy of the digital broadcasting industry and its related services, new technologies may be developed that could replace that of DVN.**

DVN's partnerships with technology leaders ensures that DVN will always have access to the latest technology available. Moreover, DVN maintains a strong research and development focus with over one-fifth of its staff committed to research, product development and engineering.

In addition, DVN maintains close working relationships with multiple divisions within and at different working levels of China's SARFT. This ensures that DVN is aware of the technical direction in China, the requirements of the various involved government authorities as well as the technical standards currently existing and expected to be enacted.

Such a multi-pronged approach allows DVN to be proactive and not reactive, providing a system that is not only suitable to the unique characteristics of the China market, but also technically advanced and at the forefront of technical developments.

**There is no guarantee that subscribers will subscribe to the new digital services.**

Chinese consumers are accustomed to receiving content at very low prices, and may be resistant to paying for the set top box and to higher subscriber fees in order to receive digital services. However, the government now recognizes that the subsidy to Chinese consumers has been excessive.

The government's recent encouragement to cutoff the analog service will provide a major incentive for cable operators to make the migration to digital. If subscribers do not subscribe to the new digital services, they will only be able to view a limited numbers of channels. Given this situation, DVN believes that most subscribers will decide to upgrade to digital.

#### **日後政策的變動可能妨礙天地數碼的業務以及合約的執行。**

最近廣電總局最近作出公佈，表明天地數碼的業務模式屬可接納的。天地數碼著意地組建其國內營運模式，以使其能符合中國有關外資參與廣播業的法規規定。天地數碼主要任務是技術供應商以及數據及服務供應商。天地數碼的主要業務是提升廣播設施，從而進行數碼廣播，而此亦是中國政府表明可以讓以香港為基地的公司參與的範疇。廣播總局致力改善中國的廣播業，由模擬廣播轉變為數碼廣播，而天地數碼的技術正好配合這個轉變。

#### **由於涉及高新技術，可能延遲實施及開展數碼廣播服務。**

天地數碼之系統已通過全面測試，目前已在中國十個地區運營。因此，即使在其他地區可能出現少許安裝困難，天地數碼預期不會出現任何重大障礙。

#### **由於數碼廣播業及有關服務處於起步階段，天地數碼之技術有可能為新興技術取代。**

天地數碼與技術先驅機構的伙伴結盟，可確保天地數碼能接觸最新的科技。此外，天地數碼亦致力維持其強勁的研究及開發實力，其五份之一的員工已全力投入研究、產品開發及工程的工作。

此外，天地數碼與中國廣電總局多個部門積極維持各種層次的工作關係，此舉有利於天地數碼及時明瞭中國技術發展趨勢、各級有關政府部門的要求以及現有及預計將頒佈的技術標準。

該等多方位策略往往令天地數碼佔盡先機，搶先一步，提供適應中國市場特點並與最新技術保持同步的尖端發展步伐。

#### **不能保證用戶將使用新推出的數碼服務**

中國消費者習慣以低廉格價接收電視節目，故可能抗拒付款購買機頂盒，亦不願支付較高的用戶費，以使用數碼服務。然而，政府現已察悉對中國消費者之補貼過多。

政府最近鼓勵有線電視營運商切斷模擬服務，此舉對有線電視營運商改用數碼設施產生積極鼓勵作用。假使用戶並不使用新數碼服務，彼等將僅能觀賞少數節目頻道。有鑑於此，天地數碼相信大部份用戶將會決定升級使用數碼設施。