

OSS Telecommunications Technology – Sample Plan



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1.0 Executive Summary

Over the last four years, OSS Telecom Technology, a well respected \$300 million Indian steel conglomerate, has built up significant interests in the telecom sector ranging from wireless and paging services to billing software. OSS Telecom Technology India, was formed in India in 1994 to pursue opportunities in the Operations Support Systems (OSS) telecom software market, with a particular focus on Customer Care and Billing software solutions (CCB systems). Since 1994, OSS Telecom Technology India has grown steadily, building a customer base of 24 telecom operators for its software. In 1998, encouraged by the potential of the billing software market opportunity, OSS Telecom Technology decided to pursue a more aggressive expansion strategy, appointing an experienced and credible executive management team to unleash the potential of the OSS Telecom Technology India business. Corresponding with the placement of the executive management team, OSS Telecom Technology was created. OSS Telecom Technology has already made and continues to make significant investments in growing the business.



1.1 Objectives

OSS Telecom Technology's operating model is designed to meet our goals which include:

- 1. Developing OSS solutions for telecom operations.
- 2. Bringing high value, high quality products to market.
- 3. Developing human assets through training and competitive incentives.
- 4. Practicing a customer intimacy business model.

1.2 Keys to Success

Strategic Imperatives

In order to achieve its mission, OSS Telecom Technology has made a set of clear and distinctive strategic choices. These choices have been developed based on two key factors:

- The OSS marketplace
- OSS Telecom Technology's capabilities

These choices translate into key strategic imperatives which OSS Telecom Technology is pursuing to gain leadership in the OSS market.

- **Value focus:** OSS Telecom Technology will focus on Tier 3 operators, providing full featured, scalable, and reliable products and service at competitive prices. The lifecycle price of OSS Telecom Technology's software products will be 20-40% below Tier 1 competitors such as LHS and Kenan, but will still possess all the features and services offered by these players. Tier 3 competitors, such as Moscom, while lower on price, will not be able to compete with the features and service OSS Telecom Technology offers.
- Wireline and Wireless Product Portfolio: OSS Telecom Technology's product offering will evolve from GSM to include other wireless, fixed, and Internet billing solutions. While initial products were GSM-based, OSS Telecom Technology is already broadening its product lines to include local loop billing and convergent billing capabilities, which are key customer requirements.
- **Engineering Center of Excellence**: OSS Telecom Technology will continue to develop its low cost, high quality software development and programming center in India, which provides significant cost advantages over U.S. and Europe-based competitors.
- **Consulting Services:** OSS Telecom Technology will combine consulting services with products to develop strong customer relationships and advance its product offerings. The provision of consulting services will allow a more customized, relationship-driven approach to our customers. OSS Telecom Technology will pursue those projects which can be made into products and marketed to other potential customers. OSS Telecom Technology will employ strict criteria to determine which consulting services projects it undertakes. Unless there is an opportunity to "productize" or repeat the solution being developed, the project will not be pursued.
- **Sales Channels:** A multi-national marketing and sales team will build both direct and indirect sales channels. In order to capitalize on the opportunities in each geographic region, OSS Telecom Technology has put into place a network of on-the-ground, experienced, and incentivized sales and marketing personnel. These teams will build both direct customer relationships and indirect channels (through systems integrators, switch manufacturers, etc.). The indirect channel partners will give OSS Telecom Technology critical leverage. OSS Telecom Technology will allocate resources to building its partnerships with indirect sales channels. Partners such as Compaq will allow OSS Telecom Technology to gain geographic reach, credibility, and customers which would not otherwise be possible. Specific partner support programs will be put into place to ensure cultivation of these partnerships.

2.0 Market Analysis Summary

Operations Support Systems (OSS) encompasses a broad range of applications and services. Although definitions vary, OSS typically includes applications geared toward customer acquisition, service provisioning, asset management, network management, customer care, and billing. Increasingly, these applications are becoming more interdependent and carriers are beginning to realize how important world-class OSS is to effective competition.

Telecommunications OSS

The OSS segment of the telecommunications industry is experiencing tremendous growth. The increasingly competitive telecommunications market, both wireline and wireless, has increased carriers' awareness of the importance of OSS. As a result, companies are investing millions of dollars in their OSS in order to improve operations and create a competitive advantage.

In terms of aggregate spending on OSS, projections differ, mainly because there is no consensus on the exact definition of OSS. Nevertheless, the Yankee Group, an internationally recognized leader in research and consulting services, predicts that the OSS market will grow to almost \$60 billion worldwide in 2001 before falling off slightly. The slight decrease in spending is the result of more companies choosing to build, rather than buy, certain components of their OSS.

Customer Care & Billing Overview

OSS Telecom Technology currently focuses on one aspect of OSS, customer care and billing (CCB) systems. At its highest level, a CCB system provides a carrier with the means to bill its customers for service. However, bill generation is but one aspect of a complete CCB application. The data captured by the billing system provides valuable information to both the carrier and the customer on how services are used, what additional services are necessary, how services can be used more efficiently, or even how effective particular promotions or operations have been. Today's CCB systems collect, collate, manage, and report this valuable information to management, usually in real time.

CCB systems are also vital in terms of customer service and satisfaction. By having real time access to customer information, customer service representatives can better respond to customer needs in a timely and efficient manner. In addition, modern CCB systems can turn the monthly bill into an invaluable marketing tool; this is important since the customer's bill is the only regular contact a company has with its customers. As a result, a great deal of attention is typically place on a company's CCB applications.

2.1 Market Segmentation

Telecommunications Customer Care & Billing Market Segments

To better understand the market for CCB applications and services, it is useful to consider the market by segments. With respect to OSS Telecom Technology, three main criteria for market segmentation are particularly important: geographic, technological, and subscriber. Within these segments, the number of operators will be examined, since it is operators who ultimately buy and use CCB systems.

Geographical Market Segments

The available market for CCB products is not limited to a single country. The market for CCB applications and services is indeed global. Every country on earth has some type of telecommunications infrastructure in place. However, the degree of teledensity within countries and the number of competitors within countries varies greatly. Therefore, it is useful to segment the available CCB market into global regions.

OSS Telecom Technology has identified five individual regions: Europe, North America, Latin America, Africa, and Asia. Together, these regions account for the entire world.

Technological Market Segments

Another useful way to look at the overall market is by technology. In this case, the total market is segmented based on whether the operator is a wireless service provider, a wireline service provider, or a provider of both. The number of wireless operators is greater than that of wireline operators. This is to be expected given that in many developing countries wireless is the most cost-effective type of infrastructure. In addition, competition has been active in the wireless market longer than it has been in the wireline market.

Subscriber-Based Market Segments

The last type of market segmentation to consider is subscriber-based. The distinction by subscriber size is important because operators' needs, with respect to CCB applications, typically change with subscriber levels. Tier 1 operators (subscriber base above 1 million) would typically tend toward in-house development of their CCB applications. Tier 2 operators (between 100k and 1m subscribers) and Tier 3 operators (less than 100k subscribers) are more likely to opt for a third party CCB application. OSS Telecom Technology's primary focus is on Tier 3 operators, which represent the vast majority of available operators.



2.2 Website Demographics Strategy

Being that OSS Telecom Technology is in the converging telecom and Internet technologies arena, a Web strategy plan is the natural direction to coordinate resources in order to attract the company's future target markets. These future target markets include Internet Service Providers (ISP) and Application Service Providers (ASP).

With the billing methodologies of ISPs moving towards usage-based billing, opportunities have begun to unfold for OSS. This is a new area of billing technology that has not been heavily tapped into. Additionally, ASPs will have similar needs for usage-based billing to coincide with their business model of usage-based pricing for their respective software applications over the Internet.

The opportunity to demonstrate this type of technology solution to these future target markets via the OSS Website would provide a significant advantage to complement OSS's other methods of marketing this type of billing product. OSS's competencies will be proven through the Website. ISPs and ASPs are likely to be searching for business products and services via the Web, since their core businesses revolve around Web activity. These companies can appreciate the efficiency that the Web has to offer. Additionally, visual demonstrations via the Web are the type of selling tool needed for these potential customers.

2.2.1 Market Needs

The outlook for the future also appears positive. Telecom markets will continue to deregulate and the number of operators will continue to grow to 5,500 in 2004, representing an additional 1,700 when compared to 1998.

With the increase in operators, the demand for OSS has also increased. OSS are the systems on which the telecom operator's business runs. At the core of OSS is billing for telecom services, which is provided by Customer Care and Billing Systems (CCB). CCB systems enable accurate, timely, flexible, feature-rich billing of services. The additional competition in the marketplace has made OSS, and CCB systems in particular, a key source of competitive advantage for many players. CCB systems have become increasingly sophisticated, incorporating features such as hot-billing (where users receive billing information on demand), Internet billing (billing data disseminated over the Internet), multi-service billing, loyalty programs, and "friends and family" type services.

2.2.2 Market Trends

Market Overview

Although OSS Telecom Technology's primary focus today is the traditional telecommunications market, it is important to consider other communications markets, including Internet and cable. The lines between these groups are becoming increasingly hazy, which will lead to tremendous future opportunities for OSS Telecom Technology and its competitors.

When considered in aggregate, the total worldwide market for telecommunications, Internet, and cable TV is more than \$1 trillion, annually. By any estimation that is a very large market. However, despite its size, this is not a stagnant market; it is a robust and expanding market. With a new era of deregulation and privatization sweeping the globe, and the fact that developing countries have very low penetration rates for these services, the overall market is expected to continue to grow well into the next century.

Market Background Deregulation When we talk about deregulation, we are typically referring to the telecommunications industry. However, in recent years, both the cable TV and utility industries have undergone their own wave of deregulation and privatization. In fact, the lines between telecommunication, cable TV, utilities, and ISPs have blurred considerably. The greatest impact of deregulation and privatization has been felt in the telecommunications industry. As other industries move down the road toward deregulation they will also experience significant change worldwide.

For the majority of the 20th century, telecommunications providers around the world have been providing wireline services in heavily regulated environments. These service providers were largely acting as government-sanctioned monopolies and offered only Plain Old Telephone Service (POTS). (More recently, however, the telecommunications industry has experienced an unprecedented move toward deregulation worldwide.)

In the U.S., deregulation began in 1984 with the breakup of AT&T and the subsequent entrance of competitors into the long distance market. In 1994, deregulation entered the wireless industry when the government began auctioning additional radio spectrums, thereby allowing additional competition into the traditional cellular duopoly. Most recently, the Telecommunications Act of 1996 opened the domestic marketplace to widespread competition by allowing new and existing local and long distance companies, wireless companies, and cable TV operators to provide competing services. As result of this move toward deregulation, the number of carriers in the U.S. has risen dramatically over the past 15 years.

Outside of the U.S., deregulation, and in some cases, privatization, are resulting in the emergence of new carriers, increased competition, and the increased availability of telecommunication services. Three major events that took place in 1998 are fueling this drive toward free competition. First, the World Trade Organization's Agreement on Basic Telecommunications Services commits 69 countries, accounting for 90% of the world telecom market, to embrace national and international market competition. Second, the European Union, home to more than 30% of the world's telephone lines, opened its telecommunications markets to competition. Third, the Japanese telecommunications market, the world's second biggest, fully opened all of its' markets to competition. This trend toward global deregulation has created unprecedented opportunities for both new and existing companies in the global telecommunications market place. As a result, the number of carriers worldwide is expected to grow substantially in the coming years.

It is clear that deregulation and privatization have had a significant effect on the world telecommunications market over the past 15 years. These effects are likely to continue well into the 21st century. These effects will be seen in innovative new products and services, greater access (especially in developing countries), and increased choices as new service providers enter the market.

2.2.3 Historical Market Growth

Telecommunications

By any measure, the telecommunications industry has grown dramatically over the last century. During the first three-quarters of this century, growth in telecommunications came mainly from wireline applications in developed countries. However, during the last quarter of this century, growth has come as the result of three main influences: global deregulation, the advent of wireless technologies, and the building of infrastructure in developing countries.

As the demand for telecommunications grew over the past century so has the infrastructure. In just the past 37 years, the global telecommunication network has grown at a fairly constant rate and generated a compound annual growth rate of approximately 6% per year, resulting in an enormous increase in main telephone lines worldwide. By the end of 1997, it is estimated that there were approximately 800 million main telephone lines installed worldwide. Main telephone

lines represent a physical connection between a subscriber and an exchange and therefore excludes wireless connections.

By the end of 1996, approximately 40% of all households worldwide had a telephone, conversely, 60%, or some 870 million households, did not. By far, the largest percentage of those households that did not have a telephone were in developing countries. The rapid growth in main telephone lines and teledensity has led to a corresponding increase in telecommunication service revenues.

As previously mentioned, the historic growth in telecommunication services over the past quarter century is not entirely attributed to growth in traditional wireline telephony. Since the early 1980's, the rapid growth of wireless services has accounted for a significant portion of the entire telecommunication industry growth.

The telecommunication market has experienced tremendous growth over the past 100 years and, as the charts illustrate, the growth rates have been increasing in recent years, due to deregulation, wireless technology, and the buildout of developing countries. Telecommunications is a thriving and expanding market worldwide.

Internet

Closely related to telecommunications and also a relatively recent development, the Internet is poised to change the way we communicate. The Internet was originally developed in conjunction with the U.S. Government in the late 1960's to be used as a failsafe means of communication in times of war. Subsequently, during the 1970's and 1980's, the Internet evolved into a civilian communications tool utilized primarily by universities and research laboratories as a means of sharing information. Not until the 1990's and the emergence of the World Wide Web (WWW) did the Internet come into the mainstream as a useful communications tool. Worldwide growth in the Internet, as measured by the number of host computers (ones with Internet connection), started slowly but has increased rapidly during the 1990's.

Fueling this growth in host computers has been a tremendous growth in people who are connected to the Internet or "online." In 1991, only 4.5 million people were estimated to be online. In September, 1998 it is estimated that 148 million people were online worldwide.

Undeniably, this is substantial growth, and this growth has created unparalleled opportunities for those providing Internet connectivity. These companies, ISPs, have enjoyed tremendous revenue growth over the last five years. Worldwide, ISP revenues have increased from \$50 million in 1994 to an estimated \$14 billion in 1998.

Although the Internet has expanded significantly, Internet access and actual use varies greatly among countries. On a usage basis, the U.S. accounts for the largest share, at 55%. On an access basis, Canada is the leader, followed by the U.S.

2.2.4 Projected Market Growth

While a historical perspective is valuable, what is most important to OSS Telecom Technology is future growth. While it is impossible to predict the future with 100% accuracy, it is possible to gain a sense of what is likely to happen and gain an appreciation for the size of this ever-expanding market.

Telecommunications

Historically, the global telecommunications marketplace has enjoyed tremendous growth in terms of network size, number of subscribers, number of operators, and overall revenues. While this growth has been impressive, of real importance is what is going to happen to the telecommunications market in the near future: the next 5 years. The next 5 years will be a pivotal

time for the telecommunications industry as the effects of global deregulation, the continued expansion of wireless services, and the further buildout of developing countries combine to reshape the global marketplace. The buildout of developing countries is critical if they are to increase teledensity and data capacity in order to join the 21st century. As a result of these fundamental influences in the telecommunications market, demand for voice telephone service alone is expected to increase dramatically. In fact, the total demand for voice telephony is expected to increase more than 50% from 1998 to 2004.

Another fundamental influence that will drive the growth of telecommunications is the continued growth in the world's population, as the population expands, so does the need for telecommunication services.

The historical growth in main telephone lines worldwide is expected to continue through the turn of the century. The number of main telephone lines worldwide is expected to grow from approximately 850 million in 1998 to 1.25 billion in 2004.

The majority of the growth in main telephone lines is expected to come from non-U.S. regions. The bulk of that growth is expected in the Asia/Pacific region. Corresponding with the projected growth in main telephone lines is an expected growth in worldwide teledensity. Worldwide teledensity is expected to increase from 14 lines per 100 people in 1998 to approximately 19 in 2004.

Access to telecommunication services worldwide has grown at an impressive pace over the last twenty years. In large part this is due to the emergence of wireless telephony. This is especially true in emerging markets where it is considerably less expensive to deploy wireless infrastructure than it is to deploy traditional copper wire. As a result, the number of wireless subscribers has grown significantly over the past decade. This growth is projected to continue at a compound annual growth rate (CAGR) of 24% from 1998 to 2004.

A number of competing technologies exist in the global wireless market: analog, CDMA (Code Divisional Multiple Access), TDMA (Time Divisional Multiple Access), GSM (Global System for Mobile Communications), and PDC (PDC is Japan's digital technology). Most carriers today are in the process of upgrading their current systems from analog to digital technologies and new carriers are starting with digital technology. As a result, the technology mix is expected to change significantly between 1997 to 2004.

OSS Telecom Technology originally developed its products for use with GSM technologies. Therefore, the growth in GSM is of particular interest to OSS Telecom Technology. GSM is rapidly becoming the standard digital wireless technology worldwide. In fact, GSM operators are currently adding 4 new subscribers every second.

What all of this growth in wireline and wireless telephony drives is revenue. Worldwide telecom service revenue is expected to grow from \$840 billion in 1998 to \$1.4 trillion in 2004. This growth represents a compound annual rate of 8.7 percent.

It is evident that the global telecommunications market is expanding and will continue to expand in the foreseeable future. This expansion has created tremendous opportunities for incumbent operators and emerging operators, who are, in turn, creating opportunities for companies that support them. Infrastructure vendors, consultants, software vendors, and many other types of suppliers are enjoying the expanded opportunities the telecom market is offering. OSS Telecom Technology is positioning itself to take advantage of the growing telecom market.

Internet

In the entire scheme of communications, the Internet is still in its infancy. The technology is still evolving, as are its applications and uses. Electronic commerce (e-commerce), perhaps the biggest revenue generating opportunity of all time, is just emerging. In addition, Internet telephony is showing promise and is beginning to attract meaningful support as the technology is

refined. As more and more information, entertainment, and goods & services become available on the Internet, the number of host computers and Internet users is expected to increase. The number of host computers connected to the Internet is expected to mushroom to approximately 285 million by 2004.

Corresponding to the growth in Internet infrastructure is the expected continued rapid growth in Internet users. The number of people projected to be online by 2004 is more than 500 million, more than three times the number of people online today.

Without a doubt, the Internet has tremendous market potential. Every aspect of the Internet (hardware, software, and services) is projected to grow significantly in the next few years. In total, the Internet market place is expected to be worth in excess of \$22 billion in just two years. This is a rapidly expanding and, as of yet, largely untapped market.

Currently, the numbers of ISPs operating worldwide is estimated at close to 4,000. Undoubtedly the number of ISPs is likely to increase as more and more people desire to be online, especially in non-U.S. regions where Internet usage is relatively low. Partially offsetting the growth in the number of ISPs is the eventual wave of consolidations that is likely to grip the industry.

The Internet offers several opportunities for OSS Telecom Technology, with respect to CCB applications. The biggest opportunity is in IP (Internet Protocol) telephony or voice-over IP (VoIP). Using the Internet to make phone calls has been possible for a few years now, and although the rates were cheap quality was poor. However, recent technological advancements have made the prospects of wide reaching IP telephony a reality. In fact, IP telephony is poised to secure a significant portion of telephone traffic in the next several years. Probe Research predicts that by 2002, 18.5% of telephone traffic in the U.S. will be via the Internet. As ISPs and other companies begin to offer IP telephony services, there will be a tremendous need for CCB applications capable of billing for this new service.

Another CCB opportunity made possible by the Internet is usage-based pricing for data. Several companies are exploring the viability of charging customers based on the data they actually use. This type of arrangement would require billing systems beyond the typical ISP's current capabilities and therefore represents a significant opportunity for OSS Telecom Technology and its competitors.

2.3 Industry Analysis

The economics of the telecommunication, Internet, and cable markets support literally thousands of companies. These companies include direct service providers, hardware suppliers, software suppliers, consultants, and numerous other supporting organizations. However, for the purposes of this report, it is useful to focus only on the companies that provide CCB applications and services. This industry segment is the main focus of OSS Telecom Technology.

2.3.1 Industry Participants

Although OSS Telecom Technology faces numerous competitors in the CCB market, two are worth a closer look. LHS Group and Saville Systems are important because their historical growth and performance mirror OSS Telecom Technology's projections. Both of these companies focus exclusively on CCB systems and related consulting services, both derive a majority of their sales from the telecommunications industry, both are active in international markets, and both have grown their revenues to \$100 million plus in approximately 5 years. As their revenue and net income grew, so did their share price and market capitalization. In fact, LHS Group's market capitalization grew at a CAGR of 201% from June, 1997 to June, 1998, while Saville's market capitalization grew at a CAGR of 119% from December, 1995 to June, 1998. The stock market, as measured by the S&P 500 stock index, only returned a CAGR of 30% from June, 1997 to June, 1998 and 28% from December, 1995 to June, 1998.

LHS Group, Saville Systems, and their shareholders have enjoyed great success in the CCB market. Both companies have solid products and are well managed. These companies are benchmarks for OSS Telecom Technology.

2.3.2 Internet Presence

Most companies in the telecom billing industry have made progress in developing varying levels of Internet presence. Few have actually begun to penetrate the ISP and ASP markets via their Websites. Of those few participants, the sales and marketing potential to focus on the ISP and ASP billing arenas has not been delved into.

OSS has a significant opportunity now to enhance its Internet presence to be among the first to market these billing target markets via the Web. OSS has the core competencies to enhance their Internet presence to pursue this opportunity.

3.0 Website Strategy

The purpose of an enhanced Website is to reach the Tier 2 and Tier 3 telecom operator markets, as well as focus on the ISPs and ASPs markets. The site is to be enhanced to include a demonstration of all features and technologies of the current billing and mediation product lines, as well as the new usage-based billing systems currently being developed.

For each product, demonstration modules will be included within the site with the assistance of flash media components to provide a professional visual presentation. Narratives (with sound) will explain the features and functions within each product.

In addition to the demonstration modules, a step-by-step questionnaire will be available for each product. These questionnaires will lead potential customer; through a sequence of questions to assist in illustrating a custom-designed solution that would meet their needs. This custom-designed solution will then show the various requirements and pricing schedules of the various product modules and services.

A frequently asked questions (FAQ) section of the site will assist in providing answers to common initial questions of potential customers, and a contact area of the site will allow customers to request a sales representative to contact them personally and/or schedule an on-site product demonstration.

3.1 Business Model

After the point of initiation of the enhanced OSS Website, this channel will be added to our list of channels to measure specific results of this new particular channel in terms of revenue, costs of goods sold, and expenses.

In our current marketing channel analysis, each channel is tracked beginning in our sales pipeline database. As the potential customer travels through the sales pipeline, revenues for each potential customer are forecasted individually and added to the respective channel's revenue forecast. Personnel and expense activity for each potential account is recorded in its respective channel, and periodically compared to revenue forecasts by channel. Sales and marketing efforts are focused accordingly.

3.2 Traffic Forecast

The following chart and table provides an estimated traffic forecast for the enhanced OSS Telecom Technology Website.



Traffic Forecast Yearly

3.3 Development Requirements

The OSS Telecom site will be developed by a team of product development engineers in coordination with a team of IT professionals. Flash and other online demonstration technologies will be utilized in the development and enhancement of the site.

These teams will concentrate on a user-friendly interface to ensure that the site is easy to maneuver through and has a logical path from the introduction stage to the contact (sales initiation) stage. Efforst will be focused on providing assurance of proven credibility of OSS's core competencies in a professional and aesthetically pleasing manner.

3.3.1 Front End

The following will be the focus in terms of the front-end design of OSS Telecom site:

- 1. OSS Telecom site will have a user-friendly interface that will step logically through the demonstration of our core products.
- 2. Flash technology within the product demonstrations.
- 3. A balance of the level of graphics that will provide an aesthetically attractive and professional image while page load time to a minimum.

3.3.2 Back End

The back end of the site will provide the following:

- 1. A statistical tool to measure the number of unique users and click-throughs, and if possible source, locations of the users. Channel analysis will include these measures to determine closing rates and revenue via this channel.
- 2. Logical databases of product information, features, and FAQs.
- 3. A custom-designed solutions recommendations engine built from each product's respective questionnaire.
- 4. An application to capture contact follow-up information and record it in our sales pipeline database.

3.3.3 Resource Requirements

The development and enhancement of the OSS Telecom site will require the following in terms of resources:

- 1. Five product development engineers from each product line to support the content.
- 2. Five Web developers from the IT area with experience in PERL, Java script, Flash, and other site development languages relevant to the focus and theme of our site to actually provide the development of the site infrastructure and to implement the content as advised from the product development engineering team.
- 3. A representative from each the marketing, business development, and sales areas to provide general guidance.

3.3.4 Milestones

The following chart and table list key site development milestones including resources, timelines, and related budgets.



Name me Totals 3/1/99

4/1/99

ABC

Department

\$0

\$5,860,000

4.0 Strategy and Implementation Summary

OSS Telecom Technology developed a marketing strategy to ensure long-term growth and success in the OSS marketplace. This strategy continues to be improved and initially includes:

- Locating OSS opportunities within the telecom arena.
- Developing partnerships with telecom operators to provide these solutions.
- Determining if the solution is universal, resulting in a decision of whether or not this project could evolve into a turnkey product or repeatable consulting service.

The advantage of this strategy was threefold:

- 1. As a partner in the project, OSS Telecom Technology gained valuable experience and firsthand operator knowledge.
- 2. As a partner, the operator would take a keen interest in the project's success and set high expectations.
- 3. The solution would be tested in the marketplace, providing important market intelligence.

4.1 Competitive Edge

OSS Telecom Technology will strive to intimately understand customers in order to provide solutions that match their specific needs. To be successful, OSS Telecom Technology will develop long-term relationships and choose customers that share this model.

In the best-selling publication "Discipline of Market Leaders," customer excellence is defined as "specializing in satisfying unique needs." These unique needs are recognizable only by a vendor with a close relationship and intimate knowledge of the customer.

For a comprehensive definition of the model for customer excellence, OSS Telecom Technology's plan includes:

- Develop long-term relationship with our customers.
- Avoid clients who do not have long-term potential.
- Avoid pure transactions or one-time deals.
- Do whatever it takes to please the customer.
- Educate employees to be adaptable, flexible, and multi-talented.
- Create an unmatched value proposition of best total solution for our clients.
- Search for new areas of mutual cooperation.
- To constantly improve our value model, develop a value proposition around solutions, and aggressively evolve and improve each solution.
- Develop an operating model dedicated to delivering unmatched value.

4.2 Website Marketing Strategy

Website marketing strategy will include the following:

- 1. Cross-marketing among all other marketing channels and advertising efforts.
- 2. Direct banner links on the major telecom industry and associations sites, as well as on major search engines within the technology sectors.
- 3. Frequent and consistent submissions to all major search engines. A high level of meta tags will be included in these submissions to optimize the level within search engine rankings.

4.3 Online Sales Strategy

The online sales strategy will require frequent monitoring and follow-up contact with potential customers who have initiated a contact request via our Website.

Statistics to follow the level of unique user and click-through traffic on our site will provide a measure of marketing strategy success.

4.4 Online Sales Forecast

The following chart and table illustrate the forecasted sales through the website marketing channel.



4.5 Strategic Internet Alliances

The business development division of OSS will pursue strategic Internet alliances with the current listing of strategic alliance partners. Additionally, current and future efforts towards establishing strategic alliances will seek to include Internet channel alliances along with the other relevant marketing channel alliances within the agreements with each partner.

5.0 Financial Analysis

The market and related entry strategy mentioned earlier in this Web plan is reflected in the assumptions used to build the financial model and corresponding pro-forma financial statements. The management of OSS Telecom Technology, Inc. believes these projections to be conservative, and therefore, very attainable.

5.1 Break-even Analysis

The following chart and table illustrate the break-even requirements for the company.



5.2 Expense and Contributions

Presented here are the individual line items for OSS Telecom Technology India and OSS Telecom Technology, as well as a consolidated summary of all company expenses.



6.0 Controls

The controls put into place to ensure the successful execution of our marketing strategy have been placed into the ownership of our marketing organization. The next section provides a detailed description of our marketing organization.

6.1 Organizational Implications

Sales and Marketing is a decentralized organization locating our professional staff close to our customers' operations to ensure customer knowledge intimacy at all times. The primary functions are:

- Direct Sales
- Channel Management
- Marketing
- Product Management
- Account Management
- Program Management
- Proposals and Contract Development

Sales, Marketing, and Product & Program Management have executives located in OSS Telecom Technology headquarters in Portland, Oregon, and are responsible for the overall management, strategic sales, marketing, and product direction of the company. The majority of Sales, Marketing, and Technical Support staff are located in specific regions around the world. OSS Telecom Technology embraces a team-selling methodology with responsibilities and processes defined for efficient operation. The Sales and Marketing teams are staffed with professionals who have substantial experience in selling and marketing hardware, software, and solutions in the global telecommunications market. Regional organizations are responsible for the definition of the sales and marketing strategies and plans for their respective territories. Each region also provides significant input and review of the corporate strategic sales, marketing, and product direction.

Business Development

The scope of business development at OSS Telecom Technology is to focus on strategic markets, accounts, alliances, channel development, mergers, and acquisitions. This is a strategic role and is not tied to the sales quotas for the regions. The results from the business development efforts are measured over a 2-5 year horizon and should cover a revenue base that is, in order magnitude, higher than a typical per account revenue.

6.2 Risks and Assumptions

OSS Telecom Technology potentially faces threats in the following areas:

Internal Risk Factors

A product road map which leads to the development of new functionalities and the enhancement of existing system modules which are in-line with customer expectations.

Ability of the company to attract, train, and retain qualified technical, sales, marketing, financial, and management personnel to meet the challenges of growth.

Attraction of adequate initial capital to jump-start the company to the next level. These funds will allow the company to hire needed resources, open regional sales offices, develop OEM/system integration relationships, and develop system enhancements and new product offerings on a more

timely basis.

External Risk Factors

Competition in the market for telecommunications billing and customer care systems is highly competitive and the company expects this competition to increase. Not only does the company compete with other independent providers of billing systems and services, it also competes with system integrators and internal billing departments of many telecommunications carriers. It is expected that continued growth and competition in the telecommunications industry, and the entrance of new competitors into the market, will continue.

Alternative pricing arrangements may be required to cultivate relationships with new market entrants, and to a lesser degree, established companies. These arrangements may call for deferred payments. However, if the company permits customers to pay for its products and services on a deferral or revenue sharing basis, the company may ultimately be unable to collect payments for such products and services.

International factors may cause significant risks to the company. The company's business may be subject to unexpected changes in: regulatory requirements, tariffs and other trade barriers, costs of localizing products for foreign countries, lack of acceptance of localized products in foreign countries, longer accounts receivable payment cycles, difficulties in managing international operations, political instability, potentially adverse tax obligations, restrictions on the repatriation of earnings and the burdens of complying with a wide variety of foreign laws and regulations.

Fluctuations in exchange rates between the United States dollar and foreign currencies may have a material adverse effect on the company's business, results of operations, and financial condition, and could result in exchange losses. There are no assurances that any hedging techniques implemented by the company will be successful.

The laws of certain countries in which the company may sell its products and services do not protect the company's software and intellectual property rights. As a result, it may be possible for a third party to copy, or otherwise obtain and use, the company's technology without authorization, or to develop similar technology independently. If this occurs to any substantial degree to the company's business, results of operations and financial condition could be affected.

An integral factor in the company's growth strategy is the development of third party relationships with a number of consulting and systems integrator firms to enhance its marketing, sales, and customer support efforts. The benefits are in respect to installation and support of its product and lead generation and assistance in the joint marketing and sales efforts in order to generate new business opportunities. Failure to generate these relationships will have a negative impact on the company's ability to meet its targeted growth in sales.

Table 3.2 Traffic Forecast														
Traffic Forecast Website Traffic	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
Internet Service Providers (ISP) Application Service Providers (ASP)	145 180	155 190	170 210	190 240	215 280	245 330	280 390	320 460	365 540	415 630	470 730	530 840		
Other Total	0 325	<u>0</u> 345	<u>0</u> 380	<u>0</u> 430	0 495	0 575	0 670	0 780	0 905	0 1,045	0 1,200	0 1,370		
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Table 4.4 Sales Forecast

Sales Forecast												
Sales	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
CCB (UNICORN & MEDUSA combined)	\$1,078,940	\$1,086,105	\$1,093,350	\$1,100,645	\$1,107,995	\$1,115,385	\$1,122,830	\$1,130,325	\$1,137,870	\$1,145,465	\$1,153,110	\$1,160,805
Pre-Paid IN	\$299,910	\$301,745	\$303,390	\$305,145	\$306,915	\$308,695	\$310,480	\$312,295	\$314,095	\$315,895	\$317,745	\$319,595
SMSC (Short Messaging Service	\$108,555	\$109,435	\$110,325	\$111,220	\$112,120	\$113,030	\$113,950	\$114,870	\$115,805	\$116,745	\$116,690	\$119,655
Center)												
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Sales	\$1,487,405	\$1,497,285	\$1,507,065	\$1,517,010	\$1,527,030	\$1,537,110	\$1,547,260	\$1,557,490	\$1,567,770	\$1,578,105	\$1,587,545	\$1,600,055
Direct Cost of sales	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
CCB (UNICORN & MEDUSA combined)	\$134,868	\$135,763	\$136,669	\$137,581	\$138,499	\$139,423	\$140,354	\$141,291	\$142,234	\$143,183	\$144,139	\$145,101
Pre-Paid IN	\$37,489	\$37,718	\$37,924	\$38,143	\$38,364	\$38,587	\$38,810	\$39,037	\$39,262	\$39,487	\$39,718	\$39,949
SMSC (Short Messaging Service	\$13,569	\$13,679	\$13,791	\$13,903	\$14,015	\$14,129	\$14,244	\$14,359	\$14,476	\$14,593	\$14,586	\$14,957
Center)												
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Cost of Sales	\$185,926	\$187,161	\$188,383	\$189,626	\$190,879	\$192,139	\$193,408	\$194,686	\$195,971	\$197,263	\$198,443	\$200,007

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Table 5.2 Expense Budget

Expense Budget

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Sales	\$1,487,405	\$1,497,285	\$1,507,065	\$1,517,010	\$1,527,030	\$1,537,110	\$1,547,260	\$1,557,490	\$1,567,770	\$1,578,105	\$1,587,545	\$1,600,055
Direct Cost of Sales	\$185,926	\$187,161	\$188,383	\$189,626	\$190,879	\$192,139	\$193,408	\$194,686	\$195,971	\$197,263	\$198,443	\$200,007
Other Variable Costs of Sales	\$297,481	\$299,457	\$301,413	\$303,402	\$305,406	\$307,422	\$309,452	\$311,498	\$313,554	\$315,621	\$317,509	\$320,011
Total Cost of Sales	\$483,407	\$486,618	\$489,796	\$493,028	\$496,285	\$499,561	\$502,860	\$506,184	\$509,525	\$512,884	\$515,952	\$520,018
Gross Margin	\$1,003,998	\$1,010,667	\$1,017,269	\$1,023,982	\$1,030,745	\$1,037,549	\$1,044,401	\$1,051,306	\$1,058,245	\$1,065,221	\$1,071,593	\$1,080,037
Gross Margin %	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%	67.50%
Website Expense Budget												
Website development	\$40,000	\$40,000	\$40,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Website infrastructure	\$30,000	\$30,000	\$30,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Advertising and promotion	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Expensed equipment	\$10,000	\$10,000	\$10,000	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Expensed software	\$5,000	\$5,000	\$5,000	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Website maintenance	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Website Expenses	\$140,000	\$140,000	\$140,000	\$110,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000
Percent of Sales	9.41%	9.35%	9.29%	7.25%	3.60%	3.58%	3.55%	3.53%	3.51%	3.49%	3.46%	3.44%
Contribution Margin	\$863,998	\$870,667	\$877,269	\$913,982	\$975,745	\$982,549	\$989,401	\$996,306	\$1,003,245	\$1,010,221	\$1,016,593	\$1,025,037
Contribution Margin / Sales	58.09%	58.15%	58.21%	60.25%	63.90%	63.92%	63.95%	63.97%	63.99%	64.01%	64.04%	64.06%