



VPG CONSULTING

Delivering Value through Sales and
Service Channel Optimization

Response to Consultancy Report to the Australian Competition and
Consumer Commission Regarding Subscriber Management and
Conditional Access Systems

Prepared for FOXTEL by VGP Consulting
18 January 2002



13082 Somerset Drive
Grass Valley CA USA 95945
Phone +1 530 271 0990
Fax +1 360 351 2266

Response to Consultancy Report to the Australian Competition and Consumer Commission Regarding Subscriber Management and Conditional Access Systems

1.0 Introduction

1.1 Purpose of this Response

FOXTEL has engaged VGP Consulting to provide advisory and consulting services related to the Australian Competition and Consumer Commission's (the "ACCC") review of Subscriber Management and Conditional Access Systems and to provide comment on the resulting Consultancy Report by Market Ridge Pty Ltd, dated 19 December 2001¹ (the "Final Report"). FOXTEL has also requested that VGP Consulting comment on pertinent associated operational and commercial issues.

1.2 Respondent firm and background - VGP Consulting

VGP Consulting is an international, management consulting firm specialising in sales and service channel development. The principals of the firm are Mr. Greg Woolstencroft, an Australian citizen and Ms. Kathleen Forker, a citizen and resident of the United States. Both Mr. Woolstencroft and Ms. Forker have extensive experience in the telecommunications industry and both were integral members of the consulting team retained to establish the FOXTEL customer service capability in 1995. The two principals also played a major role in defining the operational and technological requirements for the establishment of the Japan Sky Broadcasting operations in Japan.

2.0 Comments on Issues Raised by the Consultancy Report VGP Consulting's Observations

2.1 Numbered responses per consultant's report

For ease of review, this section follows the sequence of the Final Consultancy Report to the ACCC. A reference is given to the Final Report section number and content reference in the left column with associated comments in the right column.

SECTION 2.1 BACKGROUND

In considering the question raised by the ACCC, it is important to bear in mind the nature of a pay TV business and the role that an SMS plays in that business:

- a Pay TV business is a retail business. In Australia, this is also a competitive business;
- the success of each participant depends, among other things, on having appropriate business plans, strategy and associated policies/procedures to manage its business operations and customer relationships effectively;
- the SMS is the crucial business system that a Pay TV operator uses to operate and manage all aspects of its business. The success of the business as a whole depends on the development of appropriate business and operational plans, processes and procedures, and, the proper integration of the SMS with these policies and procedures;

¹ Ettridge Report 01.12.01 Ettridge final report.doc

- necessarily, an SMS is not a static piece of equipment and software. Rather it is a combination of hardware and software which needs to be developed and modified as the business grows and improves the way it does things;
- although there are some basic things that all Pay TV operators need to do and not do, different operators do a variety of things in different ways depending on the particular nature of the business they have and the particular solutions that they adopt to problems that all operators face. For example:
 - products and pricing options vary greatly, the SMS can either enable or hinder a provider's ability to develop the desired options,
 - as product and pricing options vary, so will the associated and necessary format for billing,
 - credit authorisation and payment methods vary. Gateways and methods must be developed with associated policy and procedure and these enabled in the SMS,
 - internal reporting requirements are defined and then designed to meet the specific needs of the operator. These are critical business management tools, required to track and measure performance of marketing acquisition and business performance,
 - customer acquisition methods vary. How the SMS supports sales and marketing functions are critical decision factors for the operator,
 - attracting customers will also attract customer calls to the service centre. Careful planning and coordination is required between the marketing area and the call center that answers customer calls. The SMS may be used in a number of ways to assist with the planning, management and results analysis for a campaign. These must be closely matched with an associated process and procedures for campaign management;
- as a result, there are now a number of SMS vendors in the market. Some of these companies with international operations are:
 - Convergys (WIZARD)
 - Mindport
 - DST Innovis (formerly CableData, Inc.)
 - Conax
 - Philips
- the SMS an operator may choose depends on its particular business needs. In fact, Telstra and FOXTEL have heavily modified the SMS used by FOXTEL to adapt it to FOXTEL's particular business needs. The development of appropriate policies and procedures and an effective SMS to implement such policies and procedures is part of the know-how that a successful pay TV operator must build and is a valuable part of the intellectual property of the operator.

In assessing the technical feasibility of an option, it is necessary to bear in mind that, although a solution may be technically possible in purely technical terms, it may not be possible or may be undesirable because the solution is not consistent with the particular needs of the business operator.

SECTION 4.2.1

SMS - OVERVIEW OF SMS
ENVIRONMENT

In addition to the functions of the SMS referred to in the Final Report, the existing SMS performs the following functions and activities:

- gateway to support credit card payments;
- gateway to support direct debit payments;
- uploading of information for marketing and inventory management purposes;
- database extracts undertaken to support billing, credit management, campaign management, inventory management, equipment installation/recovery; database extracts are presently undertaken on a periodic basis varying from 15 minutes to monthly.

Since 1995, FOXTEL, in conjunction with Telstra, has undertaken extensive customisation of the WIZARD SMS system to support the specific business needs of FOXTEL. As described above, the level of functionality within the existing SMS therefore contains considerable intellectual property associated with customer data and business process. This was developed for and, at a considerable investment (time, resources, capital), by FOXTEL.

SECTION 5.1.2.2

LENGTH OF TIME REQUIRED TO
ESTABLISH A SEPARATE SMS
AND THE NECESSARY INTERFACE
WITH TELSTRA'S CAS,
TELSTRA'S (OR FOXTEL'S) SMS
AND RELATED DATABASES,
SYSTEMS AND SERVICES

It is possible to provision a separate SMS, as part of establishing a total business, within a six-month timeframe. This was our experience with FOXTEL.

In conversations with Convergys² regarding the indicative timeframes to implement an SMS for a customer, it was indicated to VGP Consulting that it would require around three to four months. This is based on a level of complexity that would include modules for billing and payment gateways. Convergys also indicated that this timeframe would include connection to the Conditional Access Gateway ("CAG") provided the CAG had been developed to support multiple SMSs.

Mindport has implemented SMS systems in at least two locations in less than six months: TVB Galaxy Satellite Broadcasting LTD (Hong Kong), and, Thailand United Broadcasting Corporation Group (Thailand).

Other vendors indicated that they have implemented SMS systems in less than six months but would not divulge the names on the basis of confidentiality.

In discussion with NDS, NDS indicated that it foresees no major impediment in developing a solution to allow the existing Telstra CAG to support multiple SMSs. NDS indicated that a transaction specification to support this capability already exists, but had not been implemented in Australia³. That being the case, VGP Consulting sees no reason why this could not be accomplished in parallel with the implementation of a new SMS.

² Conversation 26 November 2001 between Convergys (Mr. Ran Baror) and VGP Consulting (Mr. Greg Woolstencroft)

³ Meeting 24 October 2001 with Telstra, EDS, Convergys, NDS (Mr. Scott Thomson) and VGP Consulting (Mr. Greg Woolstencroft)

The actual time it will take will depend on a number of factors, the most important of which is the commitment of the operator to start up its business and its willingness to spend sufficient money to engage appropriate staff and consultants to establish appropriate facilities and premises. The starting point for the timeframe to establish the SMS is the business requirements specification.

SECTION 5.1.2.3

COSTS, EFFICIENCY, TECHNICAL RELIABILITY AND ONGOING OPERATIONAL EFFECTIVENESS OF THIS OPTION

VGP Consulting believes and agrees that Option 1 is the only effective solution for the following reasons:

- a separate SMS will enable each Pay TV provider to have greater control over its core business operating system;
- the most effective configuration for the provider will be addressed through the SMS selection process;
- separate Service Level Agreements between vendors and the Pay TV providers ensure that roles, responsibilities, reliability and support requirements are addressed;
- a separate SMS will be consistent with the competitive environment by:
 - protecting the proprietary information of individual participants,
 - enabling participants to plan and execute marketing and sales initiatives without risk of disclosure to competitors,
 - preventing potential conflicts over capacity and functionality issues, thus,
 - reducing the likelihood of disputes between participants.

SECTION 5.1.3.1

WHAT INFORMATION IS REQUIRED IN ORDER FOR C7 TO MEET THE "BUSINESS REQUIREMENTS SPECIFICATIONS" WHICH TELSTRA CLAIMS HAS LARGELY INHIBITED THE DEVELOPMENT OF A SEPARATE SMS AND THE DEVELOPMENT OF A SMS/CAG INTERFACE?

As explained above, the SMS is the core system that enables a Pay TV operator's business functions. In order to provision an SMS, it is necessary to know the nature of the business it will support; the choice and design of this core system is driven by the design of the business and the processes and procedures desired to operate the business.

Each operator will have different requirements and these are addressed in a business requirements specification developed, by the business, as part of its business planning process. This specification serves as the foundation for the technical requirements specification in the selection and customisation of an SMS. This is required from the operator and should include, at minimum:

- a description of the market and product offerings of the provider;
- an overview of desired product types, for example, number of channels, packages, one-time events, pricing options;
- business plan forecasts: customers, products, startup - 3 months, 6 months, 1 year;
- customer service operations functions;
- credit authorisation methods;
- billing and collections functions;
- campaign development and management;
- business management requirements - management information.

SECTION 5.2.2.1

THE TECHNICAL ISSUES INVOLVED IN TELSTRA USING ITS (OR FOXTEL'S) SMS TO PROVIDE SMS SERVICES TO C7 (INCLUDING THE POTENTIAL FOR TELSTRA TO PROVIDE SMS SERVICES TO C7 AS IF C7 CHANNELS WERE AN OPTIONAL "TIER" ON FOXTEL PROGRAMMING), INCLUDING THE NEED FOR ANY TECHNICAL ENHANCEMENTS, DIFFICULTIES OR IMPEDIMENTS WHICH MAY EXIST

In VGP Consulting's discussions with Telstra and NDS,⁴ there is agreement that, under this model, there needs to be an upgrade made on the CAG to support multiple databases. In joint discussions with Convergys and NDS, it was indicated that there is still an issue of "addressability" to be handled with multiple databases and this will require a development in the SMS or CAG, most likely the CAG.⁴

VGP Consulting believes data security is an issue that must be addressed. The most secure technical solution is where no communication path exists between each database. However, when an SMS is shared, it is not possible to achieve this separation. The next level of protection is based on logon identification, password and level of system data access. Whilst this provides some measure of security, it is still possible for someone to gain inappropriate, unauthorised access to the database. To protect against this intrusion, an audit system is required to actively monitor the system to detect unauthorised activity. From the information provided by Telstra, there is no proactive system to detect inappropriate access. Currently, systems audits are undertaken manually to detect attempts at unauthorised access.

Whilst it is possible to develop a technical solution that will provide some protection from unauthorised access, there is another major risk.

In a shared SMS situation, the biggest security risk is most likely to be procedural. In assigning users to user groups, there is the risk of human error. A user may be erroneously granted access to another company's data, to functions they should not be allowed to see, or, given administrator privileges. To protect against this, a tightly controlled access code allocation procedure is required. This procedure must include a rigorous auditing component. Such a procedure is not in place at this time.

With this Option, considerable time, effort and expense will be required to establish increased security measures, both technical and procedural, to improve the security of competitive data. Even with these enhancements, it could be expected that some security breaches would occur. Further, some of these breaches could go undetected.

It is also noted that the existing SMS application has been developed to suit the FOXTEL operating model. Convergys has indicated that it is not certain what modules/functions could be turned on/off to suit the needs of individual parties. Thus, potential conflicts may arise regarding user needs of the system functionality.

⁴ Meeting 24 October 2001 with Telstra, EDS, Convergys, NDS and VGP Consulting (Mr. Greg Woolstencroft)

Further, change management issues will need to be addressed if the system is shared. For example:

- if FOXTEL wants to include a new core field, it will need to negotiate outages with all users. This has the potential to cause all users major problems from a business perspective and could limit the ability of a user to expand if it is unable to negotiate the change with the other user;
- all parties will need to devote resource to assess the potential impacts of all proposed systems changes on its own operation;
- when conflicts exist regarding functionality, there may not be a way to resolve them without loss to the other party.

FOXTEL has invested considerable resources and expense in having the existing SMS modified to meet its specific business needs and to develop the associated policy, procedure and training which are valuable business assets. This investment relates not only to expenditure but to intellectual property that FOXTEL could not reasonably be expected to provide to a competitor.

For the above reasons, VGP Consulting believes it is not feasible for competitors to share the SMS system.

SECTION 5.2.2.3
THE EFFICIENCY, TECHNICAL
RELIABILITY AND ONGOING
OPERATIONAL EFFECTIVENESS
OF THIS OPTION.

The use of a shared SMS between competitors is, in VGP Consulting's opinion, very unlikely to be a satisfactory solution to any of the parties, including C7. As stated in comments above, it is highly likely that it will introduce many constraints and risks to each party. For example:

- unauthorised access to a competitor's data;
- differences in procedures for marketing and sales channel activities, thus differences in how the users would require the system to be configured and function in regard to sales, marketing and management activities;
- uncertainty regarding what modules/functions could be turned on/off to suit the needs of individual parties suggests that functionality conflicts may arise. In addition, functionality, codes and parameters designed for one party may be visible and assessable to the other;
- a change management process must address the needs of multiple users. This has the potential to cause major problems as explained above.

It is ill advised for any organisation to expose itself to the possibility that a competitor could compromise its business through access to information, or, for the organisation to be intentionally constrained by the operational requirements of another party.

SECTION 5.2.3.2

OPTION 2 SHOULD BE CONSIDERED IN TERMS OF ITS SUITABILITY AS A SHORT TERM TEMPORARY SOLUTION FOR THE PURPOSES OF GIVING EFFECT TO THE INTERIM DETERMINATION.

Option 2 is not a suitable short-term solution and would require considerable time and effort to develop and implement. As explained above, the issues are:

- security of competitor proprietary data;
- determining what functionality could be provided to C7 that will not compromise FOXTEL's investment in the development of the existing SMS to meet its specific needs;
- agreement of operational processes and procedures related to system management, development, maintenance, etc;
- development program for the SMS to support both parties including additional interfaces, impacts on existing functionality/performance, timeline for development, system outages to allow for enhancements to be activated;
- development of a governance process to address change management, system development, and operational processes;
- all of the operational policies, procedures and training necessary for the new entrant's customer service operation. It is VGP Consulting's belief that this activity alone requires a minimum of 3 months. Subsequent modification would then be required to accommodate the new system built to address the entrant's specific business needs. This is an activity that is normally accomplished in parallel, as business requirements are defined and system selection is finalised.

SECTION 5.3.1

"OLYMPIC MODEL"

This Olympic Model was a commercial arrangement between two parties. C7 acted as a content provider and FOXTEL as the Pay TV operator, managing all aspects of service provision to customers. For this Model to be viable, it would require agreement between the content provider and the Pay TV operator as was the case during the Olympics. Such an arrangement would be undesirable and inappropriate for competitors.

Further, this "Olympic Model" is not the model proposed by C7. The model referred to as the "C7 Short Term Pay TV Model" is addressed in section 5.3.3 which follows.

SECTION 5.3.3

THE "C7 SHORT TERM PAY TV MODEL"

VGP Consulting agrees with comments made in the Final Report regarding operational issues being too overwhelming for this model to be considered viable. The considerable investment of time and effort required for this option could exceed that of the final solution and would detract from the development of a final solution. Further, it would require that all systems changes and associated policy, procedure and training be reversed once a final solution is implemented.

VGP Consulting believes its comments on sharing an SMS apply to the "C7 Short Term Pay TV Model"; this Model closely resembles Option 2B and is therefore not viable for the aforementioned reasons regarding that option. Also, it has the additional risk of a shared database to which a competitor's customer service representatives would have complete access. This is not desirable due to the security risks, even if another party on behalf of the competitor provides the call centre. Further:

- this model would require Telstra to develop procedures and training for the suggested call centre operation. FOXTEL has developed and owns the customer service training and all reference material for procedures related to all customer contact functions in the WIZARD System. As stated above in our comments, we estimate that this development activity would require a minimum of three months;
- sales and marketing activities and billing are supported by the SMS. These activities require entries into and extracts from the customer database. Under this model, even if these functions are conducted in a separate system, there will still be a requirement for C7 to enter and extract data from the SMS.
- SMS modifications would be required to exclude data regarding billing and performance information.
- Additional procedures and training would be required for FOXTEL representatives to explain how the system is being modified.

SECTION 5.4.1

ARE THERE ANY TECHNICAL ADVANTAGES IN TELSTRA AND/OR FOXTEL PROVIDING BOTH SMS AND CALL CENTRE SERVICES?

VGP Consulting believes that there are no technical advantages in Telstra and/or FOXTEL providing both the SMS and call centre services. The skills and expertise required to manage technology is distinctly separate from that of managing a call centre which is a sales/service channel. We believe the optimal situation is for each element to be subcontracted to whomever best meet the operator's business requirements for that element.

Whilst Telstra may be well placed to ensure that any shared infrastructure/systems are modified to support multiple providers, this does not necessarily mean that Telstra should be compelled to be the outsource provider to C7 of an SMS and call centre services. Whilst Telstra could be well placed to take up this role, there are potentially other providers in Australia and offshore who may be better placed to do this for C7. In fact, Telstra has itself outsourced activities related to its SMS. The feasibility and cost of these services should be determined through a Request for Proposal/Tender process. Accurate estimates from vendors will require the provision of business requirements and specifications from the Pay TV operator. It is likely that SMS/technology and call centre services may be addressed by separate vendors. It is expected that some respondents may elect to tender for individual components whilst others may choose to respond to combined services including technology and call centre services.

Some of the vendors who may be able to provide outsourced services for the SMS and/or call centre services are:

- IBM
- EDS
- Stellar
- Teletech
- United Customer Management Solutions
- Salesforce
- Vectors
- Primus

It is not appropriate for FOXTEL to provide these services for the following reasons:

- FOXTEL is a competitor and should be viewed as such;
- FOXTEL is not experienced in the provision of outsourced services;
- FOXTEL could not accurately disaggregate the cost of this service, and, if it attempted to do so, it would be natural for the service recipient company to question these costs. For example, infrastructure investment and ongoing costs: representative training, combined transactions, service disputes; impacts on its primary business if forecasts are low (lost customer service levels), or high (increases overall costs of doing business).

SECTION 5.4.3

ADDITIONAL ADVICE
THE EXTENT TO WHICH ANY OF
THE OPTIONS WHICH HAVE
BEEN IDENTIFIED WILL REQUIRE
ACCESS TO INFORMATION
BELONGING TO FOXTEL AND
THE NATURE OF THE
INFORMATION TO WHICH
ACCESS WILL NEED TO BE
GIVEN . . .

The customer data residing on the SMS not only contains information related to customer name and address but also viewing habits and demographics. In addition, historical information is retained on customers who are no longer FOXTEL subscribers. To provide any competitor, or their agency second or third party, access to this information would certainly devalue one of FOXTEL's key assets. This would put at risk a sizable investment and have associated commercial consequences for its shareholders.

In VGP Consulting's experience, working with many organisations' sales/service channel operations, it is not feasible to expect that a "mandate to not look at or use information" would be sufficient to protect that information. Even if security measures are put in place, there is still a risk of security breaches, even if inadvertently. Further, these incidents would not necessarily be evident.

It is therefore imperative that competitors should only be provided with the smart card number. This information would be provided by way of confirmation to enable the operator to activate the customer.

VGP CONSULTING