

USING DEGREE COURSES TO BUILD INDUSTRY RELATIONSHIPS

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ABSTRACT

In 2002 the Eastern Institute of Technology (EIT) Hawke's Bay decided to build a purpose built information technology suite and at the same time upgrade its existing internal network infrastructure. As a result of the subsequent tendering process Allied Telesyn was identified as the preferred provider of networking hardware.

When the staff of the Information Technology section of EIT discovered who Allied Telesyn were, they looked for opportunities to develop meaningful relationships beyond hardware purchase and support. Areas investigated included building naming rights, student sponsorship, industry course delivery and graduate employment opportunities.

This paper traces the ongoing relationships and explores how opportunities to build meaningful industry connections can be established within the existing programmes that a tertiary institute offers.

The paper backgrounds Allied Telesyn and the services they offer and traces the steps that were taken to establish a new course within the existing degree structure. The paper also examines other opportunities for cooperation between the real world and the academic world and looks at the future potential for ongoing relationships.

We believe that such relationships are essential for institutes that intend to offer relevant tertiary qualifications that are geared towards meeting the needs of perspective employers.

1. INTRODUCTION

Over the last decade there has been an explosion of industry-based qualifications, such as CISCO CCNA and Microsoft MCSE. Tertiary institutes have explored ways to integrate these courses into their existing qualifications and at previous conferences several papers have been presented that outline how different institutes have managed this process. The Eastern Institute of Technology (EIT) has taken a slightly different approach, which has resulted in the development of a special relationship with networking solutions provider, Allied Telesyn. EIT has undertaken a number of initiatives including the integration of elements of Allied Telesyn courses into its Bachelor of Computing Systems degree. The aim of this particular initiative is to produce graduates with skills that will enable them to have an advantage over computing graduates from similar institutes when seeking employment at Allied Telesyn.

This paper introduces Allied Telesyn and traces the events that led to the establishment of a special relationship between Allied Telesyn and EIT. It describes the nature of the relationship and explains the processes followed by EIT to develop a new third year data communications course which was tailor made to include areas of Allied Telesyn training materials previously not covered within existing EIT courses. The paper concludes, looking at possibilities for the future and suggests that there are opportunities for tertiary institutes to develop meaningful relationships with major industry players.

2. ALLIED TELESYN

Allied Telesyn International is a technology company that claims to be able connect the world with affordable, highly reliable networking technology and products.

Allied Telesyn has two major arms to its operation, Allied Telesyn International and Allied Telesyn Research. The International arm is a market leader in the global networking industry, employing more than 1500 people in 13 countries and annual revenues of around US\$500 million.

Allied Telesyn Research, is based in Christchurch and is the leading research and development arm for Allied Telesyn International. Allied Telesyn Research is responsible for developing the company's most advanced and innovative networking products. At present they employ over 180 people, and 37 graduates have been taken on as part of the 2003 graduate recruitment intake. They are located in purpose built facilities, and plan future expansions to accommodate the increasing staff numbers and the planned number of new product expansions

Allied Telesyn NZ have a range of over 200 products, and together with Connector Systems, they market the products and services within the New Zealand market. Strong customer support and innovative research has led to an ever-increasing demand for its product range. Hardware products include multiprotocol routers and layer 3 switches. The main emphasis of software development is to provide software products that enable the hardware to operate effectively

3. THE EIT CONNECTION

During the later part of 2001 and the early part of 2002 a proposal to construct a purpose built Information Technology building for EIT was accepted. As part of the tendering process, expressions of interests were called for the provision of a replacement network backbone for the Institute. Allied Telesyn NZ, in conjunction with Connector Systems, won the network replacement tendering process.

While representatives of the Allied Telesyn NZ and Connector Systems were visiting EIT it was suggested, by the then IT Services Manager, that the academic Information Technology staff meet with the representatives to investigate opportunities for developing closer relationships between the academic staff of EIT and the industry practitioners. The discussion at the meeting centered on identifying what EIT could do for Allied Telesyn and Connector Systems and visa versa. The possibility of EIT becoming a training partner and incorporating Allied Telesyn course content into its existing course offerings was seen as a proposition deserving further investigation.

Following the meeting at EIT, representatives of the Business and Computing faculty and the IT Services Manager undertook a site visit to the premises

of Allied Telesyn Research in Christchurch. During the visit, EIT staff were given a full tour of the Allied Telesyn facilities and further discussions took place to refine the business/academic relationship between the two organisations.

Once an agreement in principle to establish relationships had been reached Allied Telesyn provided details of the courses that they conducted for their clients and staff, and EIT went about identifying the overlap between their existing courses and the Allied Telesyn offerings. It was evident that much of the course content was already covered by the two Data Communications and Networking courses offered at EIT as part of the Bachelor of Computing Systems degree and that there was scope for the development of a third year course which could be used to bridge the gap in content. It was proposed that the new third year paper would concentrate on network design, implementation and configuration, and should complement the existing offerings at EIT.

Towards the end of 2003, a sponsorship agreement was signed between Allied Telesyn NZ and EIT, with Allied Telesyn NZ agreeing to supply equipment and training materials in return for naming rights associated to the 3rd floor of the new Information Technology building. The third floor accommodates EIT's hardware and software laboratories, one of which will be used to deliver the newly created third year course. The agreement also allows for EIT students to undertake work placements with Allied Telesyn Research and provides preferential access to the company's graduate recruitment program.

The EIT Information Technology building was opened on May 8th 2003, and Allied Telesyn participated in the ceremony drawing attention to the special relationship and the reasons for sponsoring a floor.

4. BENEFITS TO EIT AND ALLIED TELESYN

The integration of Allied Telesyn materials into the BCS degree has significant benefits to EIT and its students and Allied Telesyn. Students will now have the chance to enroll in a 3rd year Data Communications and Networking paper aligned to specific industry demand. They also have an opportunity to undertake work placements at Allied Telesyn Research and if they are successful with the course and the work placement they will have preferential access to the company's graduate recruitment program. EIT has the opportunity to market its relationship with Allied Telesyn and strengthen the relationship further. Allied Telesyn has increased its profile in the Hawke's Bay through

it's naming rights and it will have a pool of graduates who will already have significant experience using and configuring a range of its products.

The development of the third year Data Communications and Networking course helped fill a gap that had been previously identified by students, faculty and industry advisors and formally acknowledged as an area needing additional attention by academic staff. It also allows students wishing to major in networking to complete the paper and then seek a work placement with Allied Telesyn . The goal of such a placement would be for students to complete their compulsory third year project. Allied Telesyn will have the opportunity to observe the students and if they are deemed to be suitable employees, will be able to be employed as part of the company's graduate employment scheme.

Allied Telesyn currently run industry short courses for organizations and individuals who wish to gain expertise in using Allied Telesyn products. The relationship will enable the company to offer the courses from a North Island base using EIT facilities. There is also potential for the courses to be delivered by EIT staff on Allied Telesyn 's behalf. Allied Telesyn will be able to increase its exposure in the North Island, and establish itself as an organization that sees value in establishing working relationships with a tertiary institution. Exposure to the Allied Telesyn brand is gaining momentum and the sponsorship naming agreement was seen a mechanism to increase the company's profile.

5. THE NEW COURSE PRESCRIPTION

When it became evident that the EIT/Allied Telesyn relationship was likely to be based around training and information exchange, EIT began looking at its existing Data Communications and Networking courses to establish areas of overlap between EIT BCS courses and Allied Telesyn training packages. It was fortunate for EIT that the timing of the relationship discussions coincided with an EIT wide review of all degree courses, conducted because the institute had decided to adopt a standard structure of 15 credit courses for all degree programmes. Since the BCS degree had a combination of 12 and 18 credit courses all the courses within the programme required review and modification.

The content for the two Data Communications and Networking courses was rearranged with the year one course aiming to provide the students with a knowledge of the concepts of data communications and networks and the year two course aiming to use the concepts of the year one course to provide students with skills

in planning, installing and using data communication facilities. While the two EIT courses covered much of the content of the Allied Telesyn training courses, there were sufficient materials requiring skills at the higher levels of the Bloom's Taxonomy model in the Allied Telesyn training courses, which had not been covered, to develop a meaningful third year Data Communications and Networking paper.

A course prescription was prepared, and the combined data communications courses were presented to local industry advisors and Allied Telesyn staff for comment. The new third year course is currently in the process of gaining EIT Academic Board approval and it is planned to offer it in block course mode to our third year students as a summer school offering at the end of the year. The prescription for the course is attached at Appendix A.

Allied Telesyn have agreed to run a training course for EIT academic staff and EIT Computer Services staff towards the end of this semester. This move should strengthen further the relationship between EIT and Allied Telesyn .

6. FUTURE PROSPECTS

As the relationship builds between Allied Telesyn and EIT it is envisaged that Allied Telesyn will increase its profile in the North Island. The training that is occurring in the early part of June is seen as part of an ongoing process whereby Allied Telesyn will increase its activities.

EIT has a number of students waiting to take the new third year course and then participate in an Allied Telesyn work placement. This should lead to EIT graduates being employed at Allied Telesyn which should help build the relationship and identify areas which could be adopted to extend the relationship.

7. CONCLUSION

EIT has been able to establish a meaningful relationship with Allied Telesyn , and the relationship has the potential to develop and grow. Both parties to the relationship have identified quantifiable benefits and as a result students at EIT have been given the opportunity to extend their studies and employment prospects in the data communications area.

The fact that EIT is located in Hawke's Bay and Allied Telesyn is located in Christchurch has not been a barrier to the development of the relationship and should provide encouragement to other institutes who see themselves geographically isolated from major industry players. The potential for increasing industry participation within the Information Technology sections



of tertiary institutes certainly exists, it is up to the institutes to take the first step and attempt to identify areas of mutual benefit.

REFERENCES

Allied Telesyn (2003) Web site information retrieved from www.alliedtelesyn.co.nz

APPENDIX A:

COURSE OUTLINE FOR DATA COMMUNICATIONS AND NETWORKING 3

AIM:

To provide students with practical skills in switched networking environments. Students will apply the knowledge from Data Communications Networking 1 and 2 to design, implement and configure networks using modern data communications tools and equipment.

LEARNING OUTCOMES:

The student will be able to:

- ◆ Explain the characteristics of the different types of equipment used in switched networks.
- ◆ Discuss the issues relating to the interconnection of different network types.
- ◆ Explain the principles involved in network segmentation.
- ◆ Discuss the issues relating to Quality of Service (QOS).
- ◆ Critically evaluate Virtual LAN technologies.
- ◆ Research and critically analyse a range of network configurations.
- ◆ Discuss the issues relating to switched network design.
- ◆ Configure and test switched networks.