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Telecommunications infrastructure facilitating sustainable development of rural and remote communities in Northern Australia

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Abstract

Telecommunications access in the rural and remote areas of Australia has come under considerable scrutiny in recent years. In the past decade, various Federal Government reports and inquiries have cited inadequate infrastructure, lack of service provision, the high cost of access and “thin” markets as key impediments. Whilst these difficulties are not restricted to rural and remote Australia, they tend to impact disproportionately on regional communities, notably in education and health service provision. Particularly at risk are the indigenous communities in rural and remote regions of Australia.

In this paper telecommunications infrastructure is perceived as the lynch-pin for achieving sustainable economic and social development. It is suggested that without appropriate development of information infrastructure, the disparities already experienced by rural and remote communities will be further exacerbated as the reliance of goods and services over computer-mediated networks increases.

The paper offers a new paradigm that will assist in maintaining a competitive telecommunications environment and facilitate the sustainable social and economic development of rural and remote communities.

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Keywords: Universal service; Broadband; Access; Infrastructure; Rural communities

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1. Introduction

In spite of the wealth created by remote and regional Australia, these regions, towns and people remain at the periphery of the Australian economy. The remoteness of the economy is characterised by a number of dimensions. These dimensions include the spatial dimension, the “dominance” of the public sector, the diversity of the human factor, and heavy reliance on a few dominant “export” industries.

These dimensions have generated challenges in service provision for regional Australians. For example, the spatial dimension has created service challenges in generating equitable service due to the “tyranny of distance”. Until recently remote communities were destined to receive special attention for service delivery as the macroeconomic framework underpinning Australian economic policies was initially dominated by public sector outlays to encourage private sector involvement in resource extraction and primary production. The public sector has been the “main driver” of the service provision in the economy. The human dimension of a small population base coupled with the existence of diverse ethnic mix of people of indigenous, European and Asian descent has created an additional pressure in providing culturally appropriate service delivery in these areas. In short, the remote and rural areas of the Australian economy is compounded by a complex set of factors which are exacerbated by the effects of isolation. These factors impact on service delivery which is consequently not on a par with the rest of Australia.

This paper addresses the issue of appropriate and equitable service delivery to remote Australia through the provision of telecommunications access. In this paper, telecommunications infrastructure is essentially perceived as the foundation of sustainable social and economic development. It is therefore suggested that without the development of telecommunications infrastructure on an equitable basis, disparities in welfare levels that are already experienced by rural and remote residents will be exacerbated further in the future.

This section presents an historical analysis of the role played by the telecommunications sector in the social and economic development of rural and remote communities. The role of the Universal Service Obligation (USO) in the provision of equitable telecommunications access is also highlighted as well as the increasing concern over disparities in telecommunications access. Section 2 of the paper examines the factors and influences that are shaping the current telecommunications environment. This section also questions the applicability of the USO, in its current form, in a deregulated, competitive market. International approaches to redefining the USO are also briefly examined. Section 3 of the paper draws specifically on the experience of the Northern Territory (NT) to illustrate the significance of telecommunications access to rural and remote regions. The NT context also highlights the disparities in telecommunications access and the demand, as well as supply side difficulties of developing markets in the rural and remote regions. Finally, the paper calls for a new paradigm—a paradigm that will assist in maintaining a competitive telecommunications environment and facilitate the sustainable social and economic development of rural and remote communities. Policy recommendations conclude the paper.

2. Historical analysis of significance of the telecommunications sector

Since the laying of the overland telegraph line (OTL) from Adelaide to Darwin in 1872 telecommunications issues have been linked to the social and economic well-being of Australia’s

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