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**Project NIMS**  
**Industry Dialogue on Outcome-Based Approach**  
**ALCATEL-LUCENT**

16 September 2010



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## 1 Introduction

Over the last 10 years, Alcatel-Lucent has developed global experience and expertise in the strategic area of interactive video services.

We would like to take the opportunity to thank IDA and MDA for inviting Alcatel-Lucent to participate in the ongoing industry dialog and discussions around next generation interactive services.

Alcatel-Lucent has been actively participating in IDA and MDA NIMS activities and Industry Dialogues since the inception of the project back in August 2009. Alcatel-Lucent is pleased to be able to continue contributing inputs and comments; and sharing the experience that we have gained from IPTV deployments and IPTV markets worldwide.

In this paper, Alcatel-Lucent provides feedback to the outcome-based approach and the proposed outcomes in the latest “**Project NIMS - Industry Dialogue on Outcome-Based Approach**” document.

## 2 Alcatel-Lucent Comments

Alcatel-Lucent would like to provide comments on the Outcome-Based Approach and Proposed Outcomes as described in Chapter 5 of Industry Dialogue on Outcome-Based Approach document. For ease of referencing, the sub-sections here are aligned with that in Industry Dialogue document.

### 2.1 Outcome-Based Approach

Alcatel-Lucent applauds IDA and MDA decision to steer from standards-based approach into outcome-based approach and thus, refraining from being too prescriptive and uphold the spirit of being technologically neutral.

This, with the true principle of being neutral to technology choice exercised, would provide the industry players with an environment that allow for more innovations and room for differentiation. This, in turn will benefit the consumers in their choices of media and applications, enriched experience and services offered. However, caution is needed when it comes to the details of the proposed outcomes to ensure that stance of technologically-neutral is adhered to and that the details do not lead into a prescriptive approach, as multiple ways to achieve the proposed outcome could be possible and an open perspective to fairly understand and appreciate the different approaches would be very much needed.

Alcatel-Lucent would like to take this opportunity to clarify the statement 5.1.2 in the ID document. The statement is not very clear and seems to not align with understanding that NIMS effort is focused on NGNBN network and could possibly be required on cable and DSL network. It is felt that the current operators on cable and DSL should, as far as possible be left to continue with their CURRENT METHOD of operation as the change will have enormous implications not only to the operators but their respective users in terms of cost, inconveniences, TV user experience and re-education.

### 2.2 Outcome 1: Multi-RSP Support

In this layered approach, there are a few areas that are worth examining.

First, as compare to current pay TV approach, to support multi-RSP, there will be additional IMPLEMENTATION AND OPERATIONAL challenges that need to be addressed. These inevitably will translate into cost for system or solution, administration & processes and manpower to support this model. In addition, the STB may also require additional features to support such a model and since Singapore, could well be the first to venture into this uncharted territory, there will BE additional START-UP cost to create and support it.

These additional costs could WELL GET PASSED on to the RSPs, and depend on how their respective business models are built, the cost could further flow to the consumer.

These are facts which could not be ignored and WOULD PROVE contrary to the principle laid in statement 5.2.2, that is the ability of the model to provide competitive and attractive pricing.

Secondly, in the existing operators, as they own the end-to-end system, the ability to tweak any part of the system and optimize it for their specific purpose exist and allow them a greater freedom to really differentiate from the competitor. In a layered approach, no

matter how flexible or open a system may be, there is still a limit in term of the degree of differentiation that is possible. Plus, if the ‘Coordinating Party’ is heavily regulated, it could also impair the flexibility that the RSP will be able to obtain.

Thirdly, we would like to caution the degree of unbundling that is envisioned in 5.2.2 to prevent from de-incentivizing the ‘Coordinating Party’ from making sufficient investment.

Thus, with the points above, the questions remain of viability of the commercial of layered model for IPTV, the attractiveness to RSP and most importantly, whether the consumer will enjoy the envisioned benefits.

## 2.3 Outcome 2: Common Applications and Services Environment

Alcatel-Lucent agrees with IDA and MDA and is OF the view that new and innovative interactive applications and services are imperative to next generation TV experience.

Interactive TV is booming, new developments are generating enormous excitement among broadcasters, operators and users alike. Interactivity is the foundation upon which operators and broadcasters deliver exciting new services to consumers. By giving consumers the ability to interact with enhanced television broadcasts that feature their favorite brands and entertainment, platform operators and broadcasters can create a differentiated, compelling television experience while providing end-users with a more enriched experience.

Alcatel-Lucent, through its’ Enhanced IPTV Application Eco-system program, is engaging with IPTV service providers world-wide to help and provide consultation to them in building of ecosystem or program for the on-boarding of applications and application developers on IPTV environment. Alcatel-Lucent could share the experience related to IPTV application ecosystem and view from the different markets with IDA and MDA.

## 2.4 Outcome 3: Embracing Options for Delivery

IPTV, in most (if not all) of the deployments have been delivered over a managed network due to the stringent requirement on the QoS (Quality of Service) of the underlying network. Therefore, delivering IPTV over fiber networks of the NGNBN with the required QoS would be an optimum solution.

However, over the years, with the development in technologies, delivery videos and its’ associated services over an unmanaged network or Over-The-Top (OTT) is becoming a reality. This does come with a non-guaranteed quality of experience for the end user, meaning that depending on the condition of the network at the time of viewing, user may at time experience jerkiness, lagging or artifacts on the video. As most of these video services today come free, there is no complaint from the users. However, as the technologies improved, though the video is still delivered over best effort network, the negative experience could somehow be minimized and pay TV industry is foreseen over time made available through OTT. The predictability of the quality, though would not be on par with services delivered over managed network.

As mentioned above, IPTV has been delivered through IP technology over managed network and more WORK IS in progress to deliver it over unmanaged network or OTT. DTT, has NOT come into the picture, except for A FEW CASES OVERESEAS that support DTT VIA A HIYBRID SERVICE. Moreover, some TVs will also be supporting DVB-T natively and more TVs nowadays do support USB connectivity. The question then would be whether there is a need

for DTT to be the focus in NIMS project. It may add unnecessary additional costs and challenges to the NIMS project.

## 2.5 Outcome 4: Carriage for T-Government Service

Alcatel-Lucent agree with IDA and MDA view that it would be most appropriate now for the Government to leverage on the new IPTV technologies, as an additional channel to delivery Government services to the public since TV has remainED the most accessible medium to the population.

This avenue has also been leveraged by government in countries in Europe. For example, UK government has a project Directgov which uses TV as one of the channel to reach the citizen. Directgov is a government-run initiative in UK that provides information and services to UK citizens. Directgov use Alcatel-Lucent solution to create, update and publish the Directgov service to a number of interactive TV platforms. Alcatel-Lucent will provide Directgov editors with increased flexibility and control over the development and play-out of services to the multiple platforms. The interactive services are created from a library of highly flexible multi-platform templates. Directgov editors also use the solution to manage and publish the content to Sky, NTL, Telewest and Freeview.

With the advancement of the technology in this recent years, better and more interactive services can be created for the T-Government on IPTV.

## REFERENCES

- IDA/MDA (2010a). Project NIMS Industry Briefing 1 - 12 Aug 2010. Singapore, IDA/MDA.  
IDA/MDA (2010b). NIMS Industry Dialogue for Outcome-Based Approach. Singapore, IDA/MDA.

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