Experiences Using the OFELIA Testbed

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1 Introduction

This document describes the experiences whilst configuring flowspaces on the OFELIA testbed for general testing purposes and and to provide an alternative testing environment for the home gateway technology validation test for the OFERTIE phase 1 experiments (i.e. section 5.7 of deliverable 6.6.2).

2 Setting Up

At the University of Southampton, David Newman and George Cockshull set up projects on 3 separate OFELIA testbed islands, each called OFERTIE-Southampton:

1. University of Bristol (https://exp.uessex.fp7-ofelia.eu/)

2. i2CAT (https://exp.i2cat.fp7-ofelia.eu/)

3. CREATE-NET (https://exp.create-net.fp7-ofelia.eu/)

Setting up projects requires manual approval of the hosting island so may not be immediate but we were unsure what the appropriate amount of time to wait before enquiring if a project request would be approved.

Once a project is approved 'test slices' can be created and resources (VM servers / OpenFlow switches) can be added. Then a flowspace can be requested to connect these on one or more VLANs. Again this requires manual approval that may not be immediate.

3 Problems

Below there is a list of problems encountered, described by date and island:

28/08/13 i2CAT Flowspace not being re-granted when changing slice settings; probably a collision issue that could have been resolved by requesting a different VLAN ID - didn't know this at the time, in hindsight a fairly easy problem to fix - could have been made easier with better feedback/errors on the flowspace granting mechanism.

After 28/08/13 i2CAT Switches won't connect to controller. Flowspace was granted, VMs were configured properly to the correct VLAN, a controller running with url set correctly (and successfully) in slice, but no switch-controller connection would establish over the default PTCP method. The exact steps were used to set up an identical test on create-net which was successful, indicating a problem with the i2CAT switches or flowvisor.

18/09/13 University of Bristol Cannot create VMs on cseedurham.

18/09/13 CREATE-NET Cannot connect to either Expedient or VMs resolve. Seems to be down.