



**ISS**

## **CRITICAL INCIDENT REPORT**

### **INCIDENT DETAILS**

- Brief description: NUIGWiFi was unavailable
- Start date and time: 27<sup>th</sup> May 23:00
- End date and time: 28<sup>th</sup> May 10:15
- Date of this report: 16 June 2011
- Incident Number:

### **INCIDENT SUMMARY**

NUIGWiFi was unavailable as authentication to the back end RADIUS server was interrupted.

### **INCIDENT ANALYSIS**

- How and when did ISS find out about the incident? Head of Service Delivery was contacted by a customer in the Conference Office at approx. 9am on Saturday morning.
- Which service(s) were affected? NUIGWiFi access.
- What locations were affected? All.
- What was the user impact? No-one was able to connect to NUIGWiFi and receive an Internet connection.
- How was service restored? A configuration change was made within the NUIGWiFi services to use a specific authentication RADIUS server.
- If service restoration was a work round how & when will a permanent solution be effected? Solution was not a workaround.
- What is needed to prevent a recurrence? Are we currently at risk of recurrence or other service disruption following the incident? A Change has been made to the NUIGWiFi service which will specify radius servers for each SSID and will prevent a re-occurrence.
- In what way? What needs to be done to mitigate the risk?

### **ROOT CAUSE**

A new RADIUS authentication server was added to the network to support a new SSID based service called EDUROAM. This service was in development at the time of the incident.

An unexpected default mode of operation came into force at the time of the incident whereby the NUIGWiFi service began using this new server for authentication requests by virtue of having an IP address lower in the range C Class rather than the “correct” server. This server was not configured to handle these requests and authentication failed for the NUIGWiFi SSID. The new RADIUS server was added in the afternoon of the day of the incident. There was a delay of several hours (until 23:00) between adding the server, and occurrence of the problem.

The resolution was to disable this default behaviour (to choose a server with the lowest IP number) by specifying particular RADIUS servers for each SSID, in this case the NUIGWiFi. was specifically pointed at the correct server, and this change is permanent.

### **FOLLOW UP ACTIONS AND RECOMMENDATIONS**

None.

### **LESSONS LEARNED**

A change has been made to the wireless configuration which requires specific RADIUS servers to be configured per SSID. The behaviour of the controllers in the presence of multiple RADIUS servers was previously unknown and has been noted for future reference.