# ISS Data Centre Server Hosting 

## Service Description

## TABLE OF CONTENTS

INTRODUCTION .....  3
ISS Server Hosting Service Overview .....  3
WHAT IS THE ISS DATA CENTRE SERVER HOSTING SERVICE? .....  3
HOW DO I MAKE A REQUEST? .....  5
DATA CENTRE ACCESS .....  5
ADDITIONAL INFORMATION ON THE SERVICE .....  5

## Revision History

| Version | Date | Status | Summary Of <br> Modifications | Author |
| :---: | :---: | :---: | :---: | :---: |
| 0.1 | $21-10-2010$ | Complete | DRAFT | Andrew Butler |
| 1.0 | $22-11-2010$ | Complete | First Release | Andrew Butler |
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## Approvers

| Approver Name | Job Title |
| :--- | :--- |
| Andrew Butler | Head of Infrastructure Solutions |
| Conor McMahon | Head of Service Delivery |

## Introduction

## ISS Server Hosting Service Overview

This service includes the following areas:

1. Service Description
2. Request process
3. Charging model
4. NUI Galway policy for ISS co-location services

## What is the ISS Data Centre Server Hosting Service?

The ISS server hosting service facilitates ISS customers who wish to install equipment in a managed data centre facility. Although primarily targeted towards academic and research use, the service is available to any ISS customer including other administration service providers within the University. Hosted equipment is directly connected to NUIG's core data network and is served by a comprehensive suite of environmental, power and management services.

ISS main data centre is located adjacent to the ISS offices on the ground floor of the Arts \& Science Building. A smaller secondary Data Centre is located north of the main NUIG campus in the Lower Dangan IDA Business Park.

Service Elements Include:

- $2 \times 10 / 100 / 1000$ Mbps Ethernet circuits per server
- Additional 10/100/1000 Mbps Ethernet circuits available on request (subject to additional charge). Max additional circuits per cabinet is 24.
- Remote power control (via network attached PDU)
- Speed: Fast and reliable connection to NUIG and HEAnet Backbone Network
- Business Hours Technical Support: 9:15 to 17:00 Monday to Friday excl. Bank \& University Holidays
- Brownout and blackout power protection by way of Data Centre UPS, and backup power generator
- Redundant ambient temperature control systems

If you have any additional services or resources which you require, simply ask us, and we'll be happy to discuss terms and conditions.

## Cabinet Space

Co-location space is available in bulk allotments of full, half or quarter cabinet allotments; that is $40 \mathrm{U}, 20 \mathrm{U}$ or 10U or alternatively by individual U allotments.

## Pricing Model

There are two pricing models available, a one time payment valid for five years, or a yearly hosting fee. Fees are payable in advance - i.e. the transfer of funds to ISS must be completed before the service is provisioned.

Five Year Plan*:

| Once Off Charge - Valid for five years |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Full Cabinet** | Half Cabinet*** <br> $(20 U$ Equivalent $)$ | Quarter Cabinet*** <br> $(10 U ~ E q u i v a l e n t) ~$ | Individual U |  |
| $€ 26,000$ | $€ 14,000$ | $€ 8,000$ | $€ 1,000$ |  |

Yearly Plan*:

| Yearly Charge**** |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Full Cabinet** | Half Cabinet*** | Quarter Cabinet*** | Individual U |  |
| $(40$ U Equivalent $)$ | $(20 U$ Equivalent $)$ | $(10 U$ Equivalent $)$ |  |  |
| $€ 8,400$ | $€ 5,400$ | $€ 3,600$ | $€ 480$ |  |

* Hosted equipment must by less than five years old. This means that only new equipment may avail of the five year plan. Used servers will be hosted on a yearly basis until such time they attain the age of five years.
** Price assumes customer supplied rack and peripheral equipment. ISS supplied rack, network switches and PDUs etc. will be subject to additional charges which will be applied at cost. If a customer supplied rack is not fully populated, then the remaining space must be made available for other customers and the hosting charge will be applied pro rata.
*** Price assumes ISS supplied rack and peripheral equipment
**** Yearly renewal date is the $1^{\text {st }}$ of February. $1^{\text {st }}$ year will be priced on a pro rata basis


## Power

There is a maximum power allocation per full cabinet of 10 kW . This limit is applied on a pro-rate basis for half and quarter cab allotments. There is an $A$ and a B feed to each cab which provides power resilience to equipment with dual power supplies stored within. Individual remote power socket control can be provided on request using network attached PDUs.
Power consumption requirements above the 10kW limit will need to considered on a case by case basis. This is to ensure that the available power and cooling capacity of the room can be managed in a reasonably predictable manner.

## Network Ports

Each cabinet (40U) comes with up to $24 \times 10 / 100 / 1000$ Mbps copper RJ45 Ethernet ports, which are switched to an IP router allocating 24 IP addresses.

## Mandatory Requirements

- Hosted equipment must by less than five years old and must be in warranty or support
- Customer is responsible for hardware maintenance and support of hosted equipment
- Customer supplied racks must conform to the standard APC rack form factor with regards height and width.


## Service Exclusions

- Server system administration
- Data backup


## How do I make a request?

Go online to https://servicedesk.nuigalway.ie/ and open a Data Centre physical server hosting request ticket. All questions are mandatory and must be completed before request can be processed.

## Data Centre Access

Physical access to the data centre is permitted on a request only basis. A ticket profile has been created within the ISS Service Desk system to process data centre access requests. For full details of the access policy, please refer to the ISS Data Centre Access Policy.

## Additional Information on the Service

For additional information or answers to specific questions on the service, please drop an email to issdatacentre@nuigalway.ie.

## Appendix A - NUIG Policy for Hosting of NUI Galway Computing Resources.

| Responsible <br> Office | Information Solutions and Services (ISS) | Effective <br> Date | 01.01 .2010 |
| :--- | :--- | :--- | :--- |
| Responsible <br> Official | Director ISS | Last Revision | 07.01 .2009 |

## Background

During the last several years, there has been an increasing demand from the research community for data centre hosting services. Requirements range from a single server hosting requirement, to multiple servers and clusters to supercomputer clusters.
In recent years the University has invested heavily in the areas of storage, network \& server infrastructure and central data centre infrastructure.

In the past the University has provided dedicated data centre accommodation to meet the specific needs of research groups. This resulted in a number of data centres which are expensive to maintain and cannot provide the level of infrastructure/resilience to support the IT equipment adequately.

## Policy Statement

All requests for server hosting will be referred to the Director of Information Solutions and Services (DISS) for assessment. The DISS will normally be expected to accommodate such equipment within the data centre accommodation already available. The University will not normally allocate or develop dedicated accommodation for server equipment. This policy applies to IT resources that require continuous power and cooling and specific ambient humidity levels - that is servers, rather than desktop PCs.

## Definitions

A server is a computer that provides services used by other computers. It will usually require a higher level of infrastructure (power/ air conditioning) to ensure 24/7 operation.

A data centre is a facility used to house computer systems and associated components, such as networking and storage systems, and which generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices.

Server Hosting: The placement of an IT server resource within a secure custom built facility (Data Centre) that provides continuous power and a controlled environment in terms of ambient temperature and humidity levels.
IT server resources may include virtual servers, physical rack mounted servers, server clusters or rack clusters (supercomputers).

## Policy Operation

- ISS will provide server hosting services based on a template Service Level Agreement (SLA). Requests should be logged via the ISS Service Desk.
- Requests for hosting of physical servers will be assessed based on size/power requirements. It is not envisaged that servers older than 3 years will be relocated to the data centre. Server hosting is not available for non-rack mountable (i.e. tower) servers. This is to ensure the optimum use of the resource.
- The SLA will include the installation schedule and terms of access to the data centre for system administrators and system vendors. Normal access to all hosted systems will be by way of remote connections.
- A per server contribution towards the set-up costs (cooling/UPS) will be required. This will be based on the size/power cooling requirements of the server. This will be included in the SLA (see above).

