

Information Technology Services (ITS)

Domain Name System (DNS) Policy

I. Introduction

The Information Technology Services - Network Services (NS) is the steward of the Florida A&M University Campus network. In fulfilling that role, Network Services serves as the central point of contact for the outside world and has responsibility to ensure that management of this University resource complies with applicable laws and regulations.

NS provides Domain Name System (DNS) Information Management and Host Name or Domain Name Registration Service for selected organizations affiliated with the Florida A&M University Campus. These services are provided under the terms and conditions specified in this Policy.

Selected terms in this Policy are defined in [Appendix A - Definitions](#).

II. Purpose

This Policy is promulgated to conserve limited campus resources (such as IP address space, staff time, and computer processing and memory resources) and to ensure compliance with applicable laws and Campus regulations.

III. Policy

A. Use of FAMU Campus IP addresses

Those who operate sites located at FAMU Campus IP addresses may use only IP addresses that have been registered and specifically assigned by NS. Users whose unauthorized use of a campus IP address leads to an IP address conflict that must be investigated by NS may be responsible for the time and material costs incurred by NS Staff.

B. DNS Information Management

NS retains official responsibility for maintenance of the DNS servers for Florida A & M University. DNS servers are maintained by NS primary and secondary system administrators that adhere to University policies and best practices related to server administration and security.

For specific information regarding the level of service provided see [Appendix B - NS Service Profile for DNS Management](#).

C. DNS Requests:

DNS Requests must contain a sub-domain name as well as the Famu.edu top level name. (i.e. its.famu.edu) In this case, ITS is the sub-domain and famu.edu is the top level name.

Top Level Domains:

➔ famu.edu

Sub-Domains:

➔ yourwebsite.famu.edu

DNS requests may be requested at https://its.famu.edu/dns_iprequest. See [Appendix C](#)

Websites are now organized based on official namespace guidelines, which map to large functional unit of the university. Exceptions can be made only for compelling business purpose. In a strategic effort to organize the FAMU webspace -- so that content is available under a logical structure -- new websites are to be built under the organization structure that is already in place at the University. If you are part of the College of Arts and Science, your website maybe [as.famu.edu](#); if you are a student organization, your website maybe [studentorgs.famu.edu](#).

D. Eligibility Requirements:

DNS Hostname or Domain Naming Conventions:

- 1) DNS names represent the university and should reflect a university, department, service association, school affiliation or to a project managed by the department or organization.
- 2) Do not imply affiliation with a campus unit or department with which the site is not affiliated; and are not currently in use.
- 3) Except for aliases and other non-address records, each hostname must point to a unique and valid FAMU IP address.

- 4) Names must be made in the best interest of the University and must not be offensive in any way.
- 5) ITS has the right to refuse any name if it is deemed inappropriate.
- 6) Names may also be refused if the requested name may cause confusion about the true purpose of the system.
- 7) Only domain name registrations that are clearly noncommercial, not-for-profit, and not for personal benefit are considered.
- 8) Domain name registrations must be clearly acceptable to FAMU administration from the point of view of associating the name and purpose with FAMU's supported services.
- 9) Domain name registrations should express FAMU's organizational interests.
- 10) Domain name registrations should be logically justified in obtaining service in FAMU's domain name service by virtue of employing FAMU's network, Internet connectivity, and (possibly) FAMU owned computer systems for provision of services in the registered domain.

APPENDIX A – DEFINITIONS

Domain Name

- A way to identify and locate computers connected to the Internet. No two organizations can have the same domain name. A domain name always contains two or more components separated by periods, called "dots". For example, the FAMU Campus domain name is "famu.edu".

Domain Name System (DNS)

- The way that Internet domain names are located and translated into IP addresses.

DNS Server, Nameserver

- A server which provides IP address/hostname mapping for computers on a network.

Internet Protocol (IP) Address

- The location of a particular connection to the Internet, expressed as four series of digits separated by dots. A computer connection registered with the DNS has a domain name associated with its IP address.

Primary Nameserver

- A nameserver which is authoritative for a domain *and* contains host information for that domain locally. Changes to the domain are made manually, or through dynamic updating, first to the primary nameserver.

Hostname

- A name registered to a particular host. For example: *uclink.famu.edu* or *cory.eecs.famu.edu*. The hostname is mapped to a unique IP address in the DNS.

Secondary Nameserver

- A nameserver which is authoritative for a domain and transfers all of the host information from the primary nameserver.

Subdomain

- Once a domain name has been established, subdomains can be created within it.

APPENDIX B - DNS MANAGEMENT LEVEL OF SERVICE

A. Network Services Team (NS):

- I. The networkteam@famu.edu mailbox is read by a team composed of NS staff. It will be continually monitored throughout the weekday hours of 8am to 5pm, and occasionally outside of those hours.
- II. NS will make every attempt to respond to requests on the same day that they are received. All requests will receive a response within two (2) business days. Responses may confirm that the requested changes have been made to the DNS database, or they may indicate that the request cannot be accommodated (providing a reason). The response may also indicate that the request will take longer than two business days to complete; in such a case the reason for the delay will be included, as well as an estimate as to when the request will be completed.
- III. As part of the network connection request process, NS will make every attempt to complete IP address assignments by the due date, or within three business days of receiving service request. Note that the NS cannot be held responsible for connection installation delays that occur during other phases of the network process; nevertheless, they will make a good-faith effort to speed up the IP assignment process when the overall installation process has been delayed during other phases.
- IV. Once a NS request is completed and added to the DNS database, changes will take place during the regular reload time of 3:00 AM every morning. In cases where a department or user needs changes to take effect earlier, the changes can be put into effect at 5:30 PM. In cases where there are DNS problems that are causing operational issues in the campus network (see also section B, Name Server Operations), the name servers can be reloaded immediately. This is not provided as a normal practice due to the volume of changes that the NS make each day, and to the potential disruption that repeated reloads of the nameservers might cause during the course of the business day.

B. Name Server Operations:

- I. The campus is configured with three internally hosted name servers (ns1, ns2, ns3) in a virtual cluster. In addition there are four secondary externally hosted ultradns servers, providing high availability service against server failures and mechanical failures (such as power outages) that may affect only a limited areas of campus.
- II. The nameservers are maintained on a 24x7 basis. Members of the Network Services group are always on call in case a problem occurs.
- III. Ad-hoc and emergency publishing of DNS resource records may be coordinated through ITS Network Operations (networkteam@famu.edu) after business hours and on weekends call 850-412-7310. ITS requests that ad-hoc changes be minimized to maintain the scheduled operation times if at all possible.
- IV. Nameservers are running current Microsoft Patches and Fixes to help maintain a secure system.
- V. NS uses Microsoft DNS recommended operational standards and best practices for nameservers.

APPENDIX C - SUBDOMAIN REQUIREMENTS

Name Servers must be run in compliance with the following principles:

- I. No Illegal records pointing to CNAMEs.
- II. Requests for record add/change/deletes from networkteam@fam.u.edu are responded to within 2-3 days.
- III. NS uses Microsoft DNS record formats syntax.
- IV. DNS Update Requisition Form URL https://its.famu.edu/dns_iprequest

DNS Update Requisition Form

Revised date: 08/24 /2015

Author: Michael Simmons / ITS Networking Support Services

Contact Info: michael.simmons@fam.u.edu / 850-412-7310

Employee Name:	Title:
Employee Number:	Supervisor:
Department:	Phone Number:
Email Address	Mobile Number:

Action Requested	DNS Entry / Sub-domain	DNS Record	Map to (DNS Entry / IP Address)	Remarks
<input type="checkbox"/> Add <input type="checkbox"/> Modify <input type="checkbox"/> Delete		<input type="checkbox"/> A <input type="checkbox"/> CNAME <input type="checkbox"/> MX <input type="checkbox"/> NS <input type="checkbox"/> PTR <input type="checkbox"/> TXT (SPF)		
<input type="checkbox"/> Add <input type="checkbox"/> Modify <input type="checkbox"/> Delete		<input type="checkbox"/> A <input type="checkbox"/> CNAME <input type="checkbox"/> MX <input type="checkbox"/> NS <input type="checkbox"/> PTR <input type="checkbox"/> TXT (SPF)		
<input type="checkbox"/> Add <input type="checkbox"/> Modify <input type="checkbox"/> Delete		<input type="checkbox"/> A <input type="checkbox"/> CNAME <input type="checkbox"/> MX <input type="checkbox"/> NS <input type="checkbox"/> PTR <input type="checkbox"/> TXT (SPF)		
<input type="checkbox"/> Add <input type="checkbox"/> Modify <input type="checkbox"/> Delete		<input type="checkbox"/> A <input type="checkbox"/> CNAME <input type="checkbox"/> MX <input type="checkbox"/> NS <input type="checkbox"/> PTR <input type="checkbox"/> TXT (SPF)		

Terms & Conditions:

1. Only the records for domain specified above will be updated.
2. Update request will need at least 2 working days for processing upon receiving the completed information.

Employee Signature:	Date:
----------------------------	--------------

Supervisor Signature:	Date:
------------------------------	--------------

APPENDIX D - CAMPUS RESOURCES

This Policy considers the following to constitute campus resources and subject to University and Campus regulations pertaining to resources and facilities:

I. *Physical network connections:* includes any of the following - physical wiring in campus buildings and hubs, switches, and/or routers that serve campus buildings or spaces leased by campus for departmental use.

II. *IP address space:* The following address blocks have been assigned to the University and are maintained by the American Registry of Internet Numbers (ARIN):

168.223.0.0 – 255.255.0.0

These address blocks constitute a University resource. NOTE: Reverse DNS for any IP address in the above block, if it exists, MUST resolve to a famu.edu hostname.

III. *Network servers,* including the Domain Name System (DNS) servers (also referred to as "nameservers".)

See the [DNS Resources Directory](http://www.dns.net/dnsrd/) (http://www.dns.net/dnsrd/) and the [Internet Software Consortium](http://www.isc.org/) (http://www.isc.org/) for more information on DNS.