DNS Guidelines for Hostmaster

Working Guidelines for the DNS Hostmaster

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Drafted by DNS Subcommittee:
Ed Adams, CIO, Ross Business School
Jack Bernard, Associate General Counsel, Office of the VP & General Counsel
George Digiacomo, IT Director, Division of Student Affairs
Andrew Inman, DNS Hostmaster, ITS
Ron Loveless, Sr. Manager for IT, LSA
Rex Patterson, IT Director, Rackham
John Pariseau, Web Developer, Michigan Marketing & Design
Mary Beth Stuenkel, IS Product Manager, ITS

Abstract: This document provides guidelines for the DNS hostmaster when processing DNS name requests for the U-M community.
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Requesting a Top Level Domain Name at umich.edu

This document describes the procedures for requesting the following:

- top level umich.edu domain names,
- a single website domain,
- a domain name exception for a technical service
- or alternate domain name accommodations.

If you are unsure about what item you need, please contact the U-M Hostmaster (hostmaster@umich.edu).

Departments requesting a top level umich.edu domain should refer to Section I, “Requesting an FQDN for 100 level organizations”.

Departments that need a single website domain should refer to Section II, “Requesting a Single Website Domain”.

Departments and/or IT Providers which provide specific IT services that need something different than a top level umich.edu domain name or single website domain should see Section III, “Technical Services as Exceptions”.

For requests not covered in the previous sections, please refer to Section IV, “Alternative Suggestions”.

While these guidelines provide guidance for top level FQDNs, these same principles can serve as best practices when creating FQDNs at other levels of the umich.edu DNS hierarchy.

I. Requesting an FQDN for 100 Level Organizations

Departments categorized in the 100 level section of the SPG organizational chart (http://spg.umich.edu/section/100/) qualify for a Fully Qualified Domain Name to represent the department.

A Fully Qualified Domain Name (FQDN) identifies a specific Internet location. FQDNs allow units to enter other entries at their discretion under the domain. If the department is issued the domain ‘azure.umich.edu’ they'll be able to create entries under the domain in the format of ‘triangle.azure.umich.edu’ or ‘squirrel.azure.umich.edu’.

The allocated FQDN can be administered by the department or by the ITS hostmaster group. The department is responsible for making sure usage of the domain follows the appropriate University procedures and policies.

Specific guidelines for Requesting a FQDN:

- Reasonable care should be taken to make sure the domain represents the department and won't cause a conflict with another department.
• The request for the FQDN should be sent to hostmaster@umich.edu and include approval of the 100 Level Organizational leader (Dean / Director / Department head).

Each 100 level unit is only entitled to one FQDN. If an existing domain exists for the department, the hostmaster will facilitate changing names by providing a second domain for a limited period of time. The expiration / removal date for the original domain should be agreed upon when the second domain is created. These changes should be considered as a one-time request and not a common occurrence.

Departments that are not categorized as 100 level do not qualify for a FQDN, and would be placed under their top level department’s domain. A CNAME could also be requested with their Dean’s approval. See Section II, “Requesting a Single Website Domain”.

II. Requesting a Single Website Domain (CNAME Request)

Departments that want just a single website domain can request a CNAME (Canonical Name record) exception. A CNAME is an alias for another host or domain name, not for an IP address. The purpose of CNAMEs is to make things easier for users on the Internet to find and not to simulate full departments or imply a level of importance assigned to a project or group.

An example of a CNAME is if a top level department “Indigo Studies” wants a CNAME for its new pottery exhibit, it could ask for ‘pottery.umich.edu’. The CNAME would point back at ‘web-server.indigo.umich.edu’ (in its department) or an ITS web-server and would direct browsers appropriately.

Because the domain is a CNAME, the department would not be able to put other domain names underneath it, e.g. ‘rouge.pottery.umich.edu’ or ‘pink.pottery.umich.edu’.

CNAME exceptions to policy can be granted to departments with the appropriate level of approval.

Specific Guidelines for Requesting a CNAME Exception:

• Requests for CNAME exceptions should go to hostmaster@umich.edu and include the approval of the 100 Level Organizational leader (Dean / Director / Department head).
• Clarity should be the goal of CNAME exceptions, not DNS name or URL length.
• Names should be unambiguous and avoid any potential conflicts or confusion with other parts of the University. An example: “ad.umich.edu” could represent “Active Directory” or “Art & Design”. The CNAME needs to clearly identify the specific department for which it was requested.
• CNAMEs are not appropriate for limited duration activities or limited scope. These instances are more appropriately handled within the sponsoring units (examples include conferences, promotional events and individual classes).

III. Technical Services as Exceptions

Departments / IT Providers which have a specific DNS request in support of a technical service that is different than a top level umich.edu domain name (FQDN) or single website domain, (CNAME) should
contact hostmaster@umich.edu. For instance, “storage” may require subdomains as a technical requirement. Hence, a request for storage.umich.edu would be allowed as an exception because subdomains below storage.umich.edu would be necessary—such as research.storage.umich.edu or instruction.storage.umich.edu.

Requests for Address (A) records or FQDNs instead of a CNAME for departments with approved CNAMEs are routinely granted for hosting solutions that are not technically compatible with CNAMEs. An A record is a DNS record that points your domain or host names to a static IP address.

Guidelines Requesting a Technical Service Exception:

- Requests should include approval from a 100 Level Organization leader or appropriate body within the IT Governance process.
- Requested entries should represent a technical service and not an organizational unit.
- The person / unit requesting the name should be the primary or central provider of that service for the campus. If multiple providers exist they may be contacted for input.
- Complex requests (including FQDN) should include a technical justification and examples of where they are implemented similarly at other higher education institutions (the hostmaster can assist with this).

IV. Alternative Suggestions

A large number of units with FQDNs exist on campus. The hostmaster can assist you in finding subdomains that may be appropriate for your needs. (Examples include things like its.umich.edu, lsa.umich.edu and engin.umich.edu.)

Your IT Provider may also be able to assist you with this. There are sub-domains for student groups and MSA sponsored organizations as well.

If you just want a short URL contact the web-team (webmaster@umich.edu) for options like www.umich.edu/~blue or www.umich.edu/~(your 3-8 character name here).

If the focus of your project is primarily outwardly facing and/or not focused at the University, contact hostmaster@umich.edu for options regarding registering your own domain in .COM, .ORG or .NET.
V. Exceptions to This Policy

Non-routine requests will be forwarded to the DNS Committee for consideration.

The committee will be comprised of individuals representing many areas of campus – specifically from VPComm, General Council, Provost, IT, Secretary & VP of U-M. In order for an exception to be approved, all members on the committee must approve a sub-domain exception. It will be up to the committee on how to proceed on a case-by-case process.

Policy / implementation disagreements with hostmaster@umich.edu can be appealed to the DNS Committee. We encourage you to contact the hostmaster manager (Andrew Inman, ainman@umich.edu, 734-678-6874) to start this process.

Disagreements with the committee or requests for complete exceptions to the policy may be granted by the Chief Information Officer of the University of Michigan.