



Enterprise System & Services — Telecommunications Division

Email Operation from Private Address Space Guideline

Purpose

The purpose of this document is to clarify differentiated email service for two classes of network devices connected to the Rutgers' data network, RUNet.

Guideline

It is the practice of Rutgers University to maintain access for its community to local, national and international sources of information and to provide an atmosphere that encourages the free exchange of ideas and sharing of information. Access to this environment and the University's information technology resources is a privilege and must be treated with the highest standard of ethics.

The university expects all members of the community to use computing and information technology resources in a responsible manner; respecting the public trust through which these resources have been provided, the rights and privacy of others, the integrity of facilities and controls, and all pertinent laws and university policies and standards.

The university utilizes Internet address space to allow network devices to be individually operated and accessed. Some university computers utilize public address space that is globally routable and unambiguous. Public address space is assigned to the university and is usable only by the university. Other university computers utilize private address space, defined in RFC1918, that is usable by anyone. RFC1918 address space is not routed on the Internet because it exists in multiple places and is, therefore, ambiguous. Data from computers that have RFC1918 addresses requires an address translation at the university boundary. Address translation maps the ambiguous private address to an unambiguous public address.

One method that network devices utilize to exchange information is the Simple Mail Transfer Protocol (SMTP) or email. Large service providers frequently utilize different equipment to send and receive email. This, combined with address translation, can make it difficult to identify source computers. The prevalence of email viruses has made this a critical issue at the university.

In response to this Internet issue, all computers with private addresses will not be permitted to send email directly through external SMTP servers. These devices will be required to send outgoing email through an internal university SMTP server only.

Impact

All computers, regardless of address type, will be able to establish direct connections to email accounts located both inside and outside of the university. Management of email in an account does not use SMTP. Access to these accounts can occur utilizing a number of different mechanisms, the most common being the Internet Messaging Access Protocol (IMAP). Access to an account requires authentication and this unambiguously identifies the customer. However, computers in private address space will only be able to utilize internal SMTP servers to send outgoing email. These computers are not restricted to any specific internal SMTP servers.

Enforcement

All SMTP traffic from computers with private addresses will be blocked by the university firewall.

Questions

Questions or concerns regarding this guideline should be directed to the following email address feedback@td.rutgers.edu.