

Computing and network environment at the RIKEN Nishina Center

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We are operating Linux cluster systems¹⁾ at the RIKEN Nishina Center (RNC).

Figure 1 shows the current configuration of the Linux servers at the RNC. The host *RIBF.RIKEN.JP* is used as the mail server, the NFS server of the user home directory, and the NIS master server. This is the core server for the RIBF Linux cluster. A new ssh login server *RIBF02.RIKEN.JP* with the CentOS 8.0 operating system (OS) was installed in November 2019.

For the mailing list service, we have been using the Majordomo²⁾ mailing list software at the host *RIBF.RIKEN.JP* for a long time. Since the maintenance of Majordomo was terminated several years ago, we have changed the mailing list software to Mailman.³⁾ Mailman has several functions addressing Domain-based Message Authentication Reporting

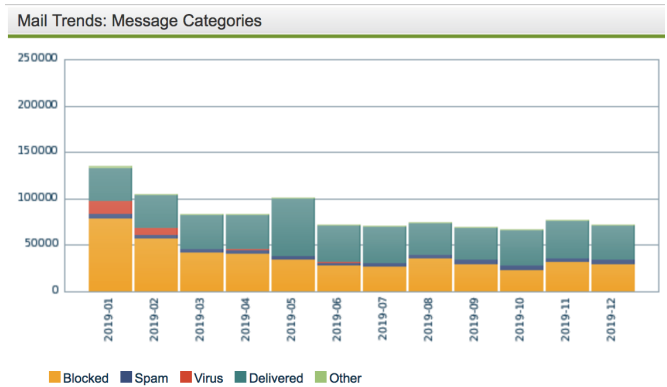


Fig. 2. Mail trends: message categories in 2019.

and Conformance (DMARC)⁴⁾ which has been introduced recently at the Federal Agencies⁵⁾ in US together with Sender Policy Framework (SPF) and DomainKeys Identified Mail (DKIM).

The hosts *RIBFSMTP1/2* are the mail gateways, which are used for tagging spam mails and isolating virus-infected mails. The latest version of Sophos Email Protection-Advanced (PMX 6.4.8) has been installed. Figure 2 shows the mail trends in 2019. Approximately 50% of the incoming mails were blocked by the PMX ip-blocker.

The host *RIBFUSER* has been used for the RIBF User Group registration and election of Users Executive Committee (UEC) members. Since twelve years had passed since the installation of this server, we replaced it with a new server, HP-DL20G9 with SL7.4 OS, in January 2019.

The host *RIBFWEB1* has been used as the Web server in RNC. Because seven years had passed since the installation of this server, we replaced it with a new server, HP-DL20G10 with CentOS 8.0 OS, in November 2019. With a virtual host function of the Apache http server, eight multi-host Web contents have been served at the server simultaneously

An anonymous ftp server, *FTP.RIKEN.JP*, is managed and operated at the RNC. Major Linux distributions, including Scientific Linux, Ubuntu, and CentOS, are mirrored daily for the convenience of their users and for facilitating high-speed access.

References

- 1) T. Ichihara *et al.*, RIKEN Accel. Prog. Rep. **52**, 159 (2019).
- 2) <http://old.greatcircle.com/majordomo/>.
- 3) <https://www.list.org/>.
- 4) <https://en.wikipedia.org/wiki/DMARC>.
- 5) <https://cyber.dhs.gov/bod/18-01/>.

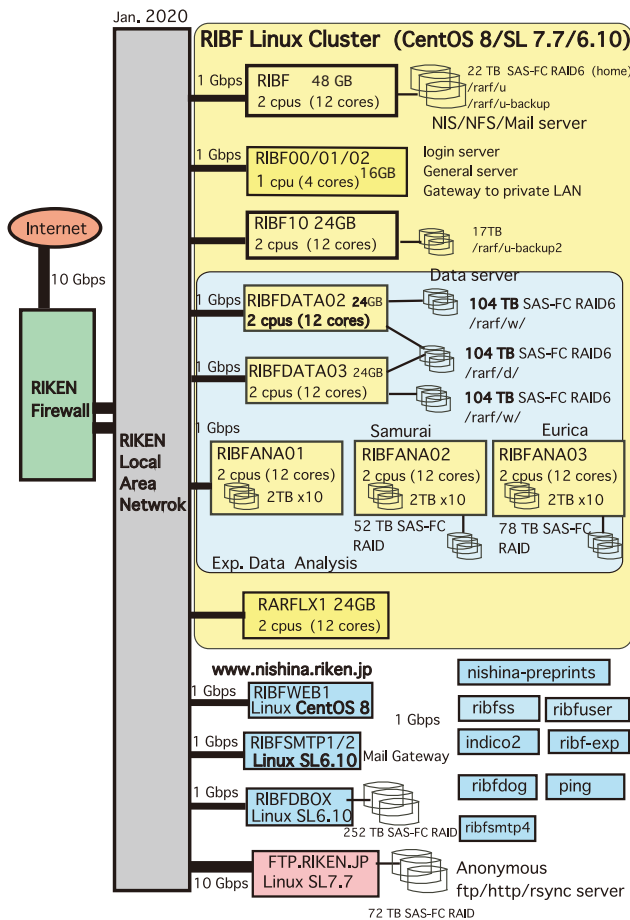


Fig. 1. Configuration of the RIBF Linux cluster.

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