SnT 2021
CTBT: SCIENCE AND TECHNOLOGY CONFERENCE

Segregation of the verification email flow in the CTBTO

L. Ferreira - IMS, A. Sudakov - IDC, M. Lang - IMS, M. Amir – IDC

CTBTO

Poster No.: P4.3-445

CTBTO
PREPARATORY COMMISSION

ABSTRACT

The PTS uses email as a transport mechanism for verification and non-verification systems and identified the need to segregate verification email flows. This presentation describes the project to create a new email domain for verification data on a segregated infrastructure.

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INTRODUCTION

The current state of email routing at the CTBTO has grown organically over time, and is difficult to understand. It also does not provide a clear separation of verification and non-verification related systems, making it difficult to evolve the non-verification email systems.
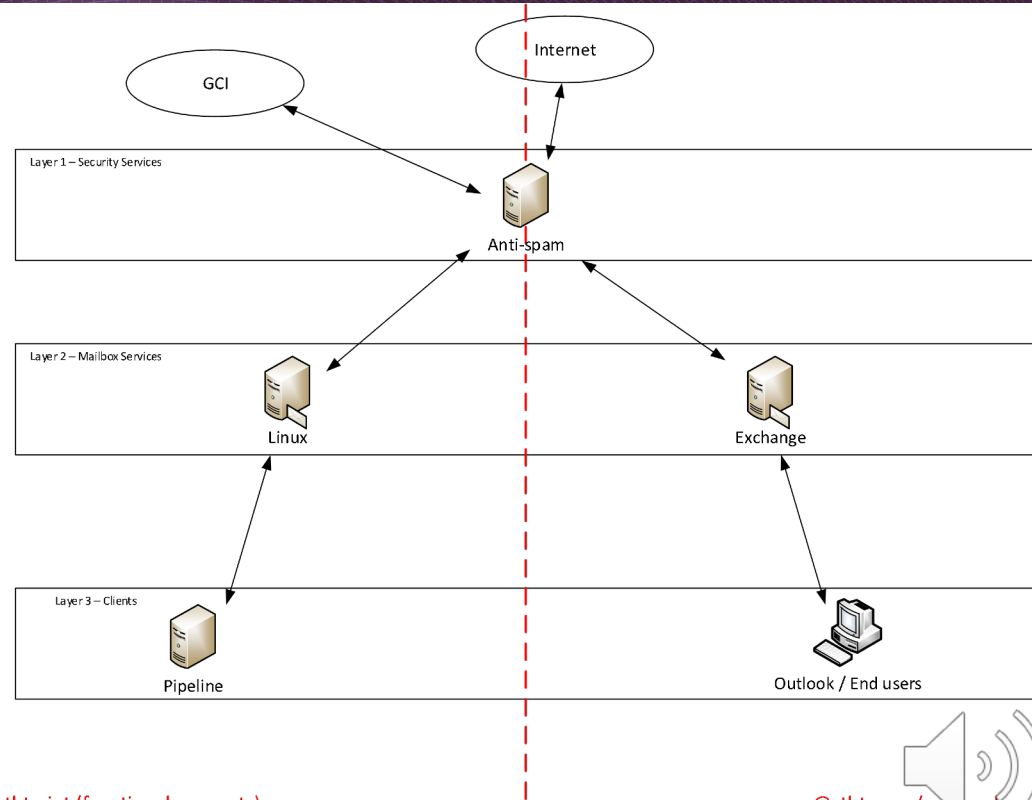
The main goals of this project are:
- To the maximum extent possible, separate the verification and non-verification email systems;
- Using a phased approach, prepare the CTBTO non-verification email systems to be migrated to a cloud provider;
- Simplify and streamline the email routing for all CTBTO domains.
- Find alternatives to replace Procmail as a rule processor

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Phase 1

The first phase of this proposal consists in separating the email system in two parts: a Linux-based part, used mostly for verification-related data transfers, and a Windows-based part, used mostly by people. For phase 1, both parts of the email system will be hosted in the CTBTO data centre, and no cloud solutions are needed.

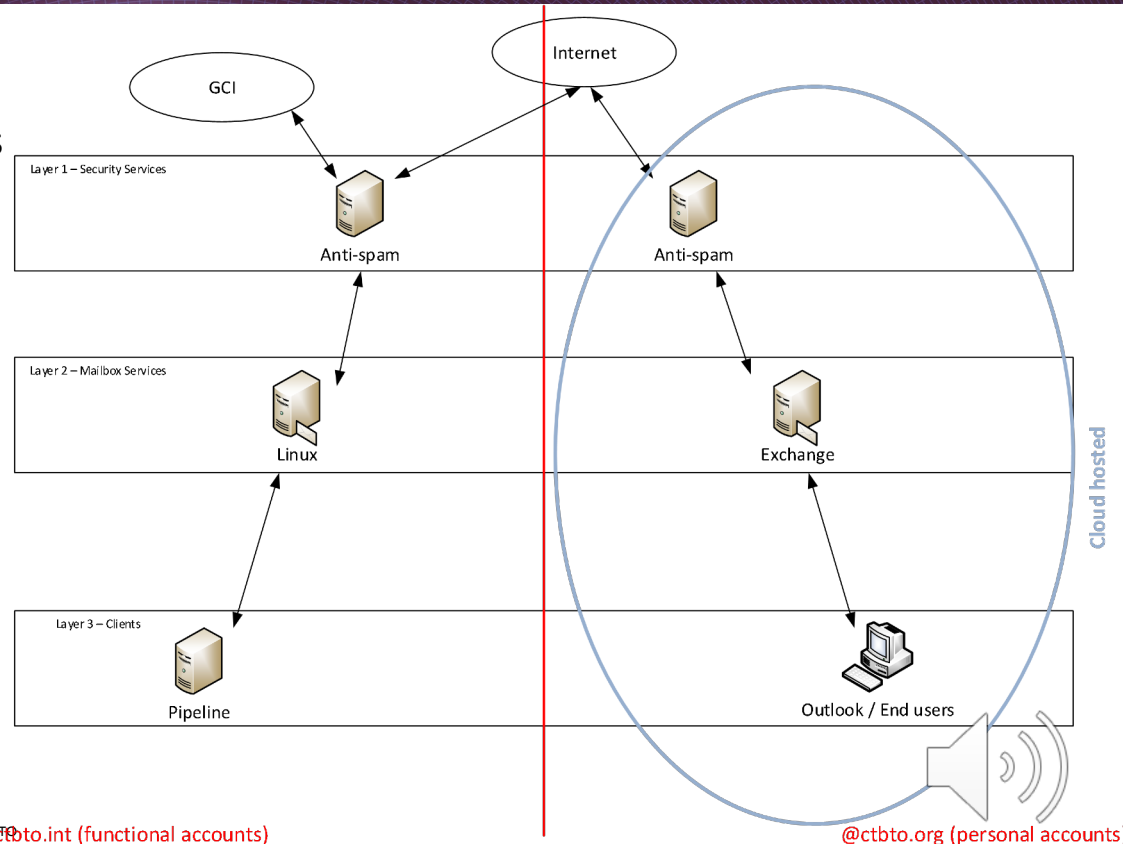Phase 1 will prepare the system for a partial migration to the cloud in phase 2.

@ctbto.int (functional accounts)

@ctbto.org (personal accounts)

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Phase 2

The second phase of this proposal consists in moving the Windows-based email system to a cloud provider. Users should not perceive any change in the way they access their personal accounts and there will be no change for the Linux-based email system.

For Phase 2, the only change in the routing of messages is that each domain will have independent SPAM filters (on premises or in the cloud). The forwarding of emails between the two parts of the system will still work normally.

Internet

GCI

Cloud hosted

Layer 1 – Security Services

Anti-spam   Anti-spam

Layer 2 – Mailbox Services

Linux   Exchange

Layer 3 – Clients

Pipeline   Outlook / End users

@ctbto.int (functional accounts)   @ctbto.org (personal accounts)

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CONCLUSIONS

The project is currently being implemented. The following activities have been completed or are under active development:

1. New email domain CTBTO.int has been implemented and is fully operational
2. Mailboxes have been created for test and production systems
3. A replacement for Procmail has been tested
4. One system is about to become operational on the new platform
5. Adjustments to the non-verification email system have been planned and are being implemented