April 28, 2021 Incident No: HED2021042601

# Post-Incident Report HENNGE Email DLP Email Delay Issue

### ■ Incident

On Wednesday, April 21, 2021, a problem occurred in the HENNGE Email DLP service, which caused a significant delay in the delivery of some of the emails sent by users in your company. There was no downtime, such as lost emails or missing log data as a result of this incident.

Date and time of occurrence (Written in JST (Japan Standard Time) in this report)
 Wed, April 21, 2021 from 0:07pm to 0:11pm

#### Affected area

Less than 10% of all emails that were sent during the time period mentioned above.

\* In case the affected emails are sent to multiple recipients, it may be possible to have been successfully sent to a part of them.

### Cause

This issue occurred when the automatic scaling process provided for the purpose of handling excessive email inflow had been executed for the back-end servers that perform some email filtering in the HENNGE Email DLP service. An unexpected error that required escalation to the infrastructure engineer team occurred inside the service, which caused the backend servers in HENNGE Email DLP to become temporarily unstable. Due to this unstable state, the internal processing instructions (queue) for some of the mails during the time period mentioned above were lost, and the emails continued to stay on the server, resulting in a significant delay.

## Timeline of the incident and our response

The following is a timeline from the occurrence of the issue to the present.

Wed, April 21 0:00pm	•Executed the automatic instance scaling process for back-end servers.
Wed, April 21 0:07pm	<ul> <li>Detected 404 errors from back-end servers. Started investigation.</li> <li>Escalation to the AWS infrastructure team based on the initial investigation.</li> </ul>
Wed, April 21 0:11pm	<ul> <li>Confirmed that the back-end servers had returned to normal operation based on the response code from the monitoring service.</li> <li>Began investigating the affected area of this issue.</li> </ul>
Wed, April 21 1:30pm	Completed to investigate the affected tenants.     Started investigating emails stayed in the servers and preparing for the script to extract the email list.
Wed, April 21 2:41pm	<ul> <li>Updated the situation on the status dashboard.</li> </ul>
Wed, April 21 4:10pm	Finalized the policy to handle the emails stayed.

- Started preparing for email notification for affected customers.  Wed, April 21 6:00pm - Completed the initial email notification to the affected customers. (Customers with unknown contact information will be notified sequentially as soon as it can be confirmed)  Wed, April 21 6:11pm - Updated the situation on the status dashboard.  Thu, April 22 6:00pm - Completed to extract the list of affected emails Considered how to resend stayed emails and started the implementation.  Fri, April 23 6:00pm - Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm - Implementation of the overdue mail redelivery processing function completed The email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm - Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am - Redelivery stop mail settings have been reflected Start preparation for redelivery processing.  Wed, April 28 0:00pm - Preparations for redistribution processing are complete Start of redistribution process[*]		
(Customers with unknown contact information will be notified sequentially as soon as it can be confirmed)  Wed, April 21 6:11pm  -Updated the situation on the status dashboard.  -Completed to extract the list of affected emailsConsidered how to resend stayed emails and started the implementation.  Fri, April 23 6:00pm  -Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm  -Implementation of the overdue mail redelivery processing function completedThe email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  -Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  -Redelivery stop mail settings have been reflectedStart preparation for redelivery processing.  -Preparations for redistribution processing are complete.		•Started preparing for email notification for affected customers.
Sequentially as soon as it can be confirmed)   Wed, April 21 6:11pm	Wed, April 21 6:00pm	
Wed, April 21 6:11pm  Thu, April 22 6:00pm  -Completed to extract the list of affected emailsConsidered how to resend stayed emails and started the implementation.  Fri, April 23 6:00pm  -Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm  -Implementation of the overdue mail redelivery processing function completedThe email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  -Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  -Redelivery stop mail settings have been reflectedStart preparation for redelivery processing.  Wed, April 28 0:00pm  -Preparations for redistribution processing are complete.		(Customers with unknown contact information will be notified
Thu, April 22 6:00pm  -Completed to extract the list of affected emailsConsidered how to resend stayed emails and started the implementation.  Fri, April 23 6:00pm  -Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm  -Implementation of the overdue mail redelivery processing function completedThe email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  -Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  -Redelivery stop mail settings have been reflectedStart preparation for redelivery processing.  -Preparations for redistribution processing are complete.		sequentially as soon as it can be confirmed)
Considered how to resend stayed emails and started the implementation.  Fri, April 23 6:00pm      Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm      Implementation of the overdue mail redelivery processing function completed.	Wed, April 21 6:11pm	<ul> <li>Updated the situation on the status dashboard.</li> </ul>
implementation.  Fri, April 23 6:00pm  • Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm  • Implementation of the overdue mail redelivery processing function completed.  • The email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  • Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  • Redelivery stop mail settings have been reflected.  • Start preparation for redelivery processing.  Wed, April 28 0:00pm  • Preparations for redistribution processing are complete.	Thu, April 22 6:00pm	Completed to extract the list of affected emails.
Fri, April 23 6:00pm  - Fixed a bug in the automatic scaling process of the service as a permanent measure.  Mon, April 26 6:30pm  - Implementation of the overdue mail redelivery processing function completed The email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  - Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  - Redelivery stop mail settings have been reflected Start preparation for redelivery processing.  Wed, April 28 0:00pm  - Preparations for redistribution processing are complete.		<ul> <li>Considered how to resend stayed emails and started the</li> </ul>
permanent measure.  Mon, April 26 6:30pm  Implementation of the overdue mail redelivery processing function completed. The email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  Redelivery stop mail settings have been reflected. Start preparation for redelivery processing.  Wed, April 28 0:00pm  Preparations for redistribution processing are complete.		implementation.
Mon, April 26 6:30pm  - Implementation of the overdue mail redelivery processing function completed The email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  - Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  - Redelivery stop mail settings have been reflected Start preparation for redelivery processing.  Wed, April 28 0:00pm  - Preparations for redistribution processing are complete.	Fri, April 23 6:00pm	•Fixed a bug in the automatic scaling process of the service as a
completed.		permanent measure.
The email that mentioned the starting of the redelivery process on 4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm     Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am     Redelivery stop mail settings have been reflected.     Start preparation for redelivery processing.  Wed, April 28 0:00pm     Preparations for redistribution processing are complete.	Mon, April 26 6:30pm	Implementation of the overdue mail redelivery processing function
4/28 at 12:00 has been delivered.  Tue, April 27 11:59pm  • Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  • Redelivery stop mail settings have been reflected. • Start preparation for redelivery processing.  Wed, April 28 0:00pm  • Preparations for redistribution processing are complete.		completed.
Tue, April 27 11:59pm  -Stopped accepting requests to stop redelivery for each customer tenant.  Wed, April 28 11:00am  -Redelivery stop mail settings have been reflectedStart preparation for redelivery processing.  Wed, April 28 0:00pm  -Preparations for redistribution processing are complete.		•The email that mentioned the starting of the redelivery process on
tenant.  Wed, April 28 11:00am  Redelivery stop mail settings have been reflected. Start preparation for redelivery processing.  Wed, April 28 0:00pm  Preparations for redistribution processing are complete.		4/28 at 12:00 has been delivered.
Wed, April 28 11:00am  •Redelivery stop mail settings have been reflected. •Start preparation for redelivery processing.  Wed, April 28 0:00pm  •Preparations for redistribution processing are complete.	Tue, April 27 11:59pm	Stopped accepting requests to stop redelivery for each customer
<ul> <li>Start preparation for redelivery processing.</li> <li>Wed, April 28 0:00pm</li> <li>Preparations for redistribution processing are complete.</li> </ul>		tenant.
Wed, April 28 0:00pm • Preparations for redistribution processing are complete.	Wed, April 28 11:00am	Redelivery stop mail settings have been reflected.
		Start preparation for redelivery processing.
Start of redistribution process[*]	Wed, April 28 0:00pm	<ul> <li>Preparations for redistribution processing are complete.</li> </ul>
		•Start of redistribution process[*]
Wed, April 28 2:00pm • Completed redelivery of all mails (only emails that we received the	Wed, April 28 2:00pm	·Completed redelivery of all mails (only emails that we received the
order to redeliver)		order to redeliver)
Wed, April 28 2:05pm • The email that to inform the customer the redelivery process has	Wed, April 28 2:05pm	•The email that to inform the customer the redelivery process has
been completed has been sent.		been completed has been sent.

[\*]We have implemented the resend processing function for some of the emails that were involved in the outbreak event, and from April 28 (Wed.) at 12:00 p.m., we have been resending all the backlogged emails, except for the emails for which there was a request to stop resending.

#### Permanent measures

Based on technical advice from AWS, where HENNGE Email DLP is running, the problem with the automatic scaling process in the service has been fixed as of April 23 (Friday). There is no possibility of recurrence of this issue in the future.

We sincerely apologize again for any inconvenience this may have caused. We will make every effort to provide higher quality services in the future, and we look forward to working with you.