Explanatory notes to Resolution [XX]

What does this amendment do?

It changes all references in the MoU to LINX operated mailing lists so that they refer to the subdomain @lists.linx.net instead of the main domain @linx.net.

It also makes the same changes throughout the MoU referenced document, 'LAN announcements reference document.

Why is LINX changing the subdomain for its mailing lists?

This change enables LINX to cleanly separate the mail server infrastructure for internal staff e-mail from the mail server infrastructure used for member-facing mailing lists. Doing so will reduce e-mail systems complexity and remove a possible failure mode caused by compromises we are currently forced to make in the technical architecture.

Why can't you just forward mail from the existing addresses to the new system?

Please see the "Technical explanation of LINX e-mail Architecture", below.

Why is an MoU change necessary?

The MoU makes explicit reference to certain mailing lists, including some to which members are required to subscribe. This means we can't move mailing lists to the new subdomain without making the MoU change first.

What changes will members have to make themselves?

Member may need to update their mail handling filters, as mail to these mailing lists will now originate from the lists.linx.net subdomain.

To facilitate this there are two options to LINX as outlined below and we are seeing feedback on members' preference between these two options as well as the change itself.

Will this happen all at once, or will there be a managed transition?

In addition to asking for feedback on the change itself, we propose one of two options and would like feedback on these from the membership:

1. A parallel run for three months, where emails will be sent from the old xxxx@linx.net "legacy" domain as well as from the replacement xxxx@list.linx.net domain. In other words each subscriber to each mailing list would get two emails.

2. A "flag day", a set day switch-over whereby we will cease to send on the xxxx@linx.net "legacy" domain and move instantly to the new, "replacement" xxxx@list.linx.net domain.

Note: Whilst we did look at the option to have a more graceful transition, the workload across the mail management application, mail servers, API development and portal would mean significant overhead for a temporary conversion period of at the most, three months. This would also carry some risk as there would be two authoritative
lists at the same time.

The recommendation from LINX staff would be alternative two above as that would provide the cleanest option in terms of list management.

In the case of option one above we will start using both mailing lists in early November 2021 and in the cast of option two we will announce the flag day before the Christmas freeze 2021 if the resolution pass at the November EGM.

Which e-mail addresses are affected by this change?

Email addresses listed in the MoU:

mou-changes@linx.net
membership@linx.net
notices@linx.net

Other email addresses affected:

ops-announce@linx.net
lon1-ops-announce@linx.net
lon2-ops-announce@linx.net
man1-ops-announce@linx.net
car1-ops-announce@linx.net
sco1-ops-announce@linx.net
nva1-ops-announce@linx.net

publicaffairs@linx.net
ops@linx.net
publicaffairs-list@linx.net
lpc@linx.net
linxmanchester@linx.net
linxscotland@linx.net
linxnova@linx.net

Timeline

Option 1:

Date	Event
1st Aug 2021	Consultation opens
30th Sep 2021	Deadline on members feedback between option one and two
31st Oct 2021	Deadline for consultation responses
10th-11th Nov 2021	LINX114 and EGM; vote on resolution
12th Nov 2021	Replacement mailing lists on lists.linx.net become available to subscribe to. Mail sent to either the original or replacement mailing lists addresses will be propagated to both.
12th Feb 2022	Old mailing list addresses are deactivated. Any remaining subscriptions to old mailing lists are transitioned to the new address.

Option 2:

Date	Event
1st Aug 2021	Consultation opens
30th Sep 2021	Deadline on members feedback between option one and two
31st Oct 2021	Deadline for consultation responses
10th -11th Nov 2021	LINX114 and EGM; vote on resolution
12th Dec 2021	Replacement mailing lists on lists.linx.net become available to subscribe to. Old mailing list addresses are deactivated.

Technical explanation of LINX e-mail architecture

For many years, LINX managed the mail for supporting staff internal e-mail and member-facing mailing lists through the same infrastructure, which was self-hosted SMTP and IMAP servers.

In recent years, LINX migrated internal e-mail to cloud-based servers, as part of a broader adoption of Microsoft Office 365 for many internal business applications.

To achieve this on a single mail domain we have had to employ a workaround: we continue to receive all mail, including internal mail, on the legacy systems and forward internal mail to Office365 for delivery.

It is not possible to direct all LINX e-mail straight to Office365 and forward the mailing lists to the legacy infrastructure. Forwarding mail for mailing lists to a different server would also break DKIM (the anti-spam protocol), which is specifically designed to ensure a match between the infrastructure used and the infrastructure you think you are using.

As a result, LINX is currently forced to direct all staff internal mail to the legacy infrastructure that handles mailing lists, and forward it from there to the actual mail server for staff mail, which is Microsoft Office365. If we could instead direct such mail straight to the Office365 mail server it would reduce complexity and increase resilience by removing a possible failure mode.

After this transition we will support DKIM on all our domains.

Side-by-side comparison of MoU change

Current MoU clause 4.5	MoU clause 4.5 after the Resolution
4.5 You will make sure that at least one member of your staff is subscribed to the following mailing lists: 4.5.1 The LAN announcement(s) mailing lists, specific to your peering service or services, where the mailing list details can be found in the 'LAN announcements reference document'; 4.5.2 mou-changes@linx.net mailing list, which is intended to notify relevant and authorised personnel of any changes to this MoU in accordance with Clause 14 "Changes"; 4.5.3 membership@ linx.net mailing list, which is intended to carry announcements relating to the administration and corporate matters of LINX.	4.5 You will make sure that at least one member of your staff is subscribed to the following mailing lists: 4.5.1 The LAN announcement(s) mailing lists, specific to your peering service or services, where the mailing list details can be found in the 'LAN announcements reference document'; 4.5.2 mou-changes@lists.linx.net mailing list, which is intended to notify relevant and authorised personnel of any changes to this MoU in accordance with Clause 14 "Changes"; 4.5.3 membership@lists.linx.net mailing list, which is intended to carry announcements relating to the administration and corporate matters of LINX.

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Changes to the MoU referenced document "LAN announcements reference document"

> Below follows a copy of the LAN Announcements reference document, as it will stand after the resolution.
>
> The only changes are to change the referenced mail domain from linx.net to lists.linx.net.
>
> This is highlighted in the text below each time it occurs.

Filtering

We recognise that these days, everyone needs to filter their mail - but please do not filter all mail from the **lists.linx.net** domain as if it is the same, this defeats the point of having separate mailing lists.

Each list has a distinct purpose, and a distinct 'List-Id' header, as described below. We have seen too many instances of members missing significant announcements, so please take this guidance point seriously.

Mandatory Lists

LINX members must maintain at least one subscription to each mandatory mailing list (it is an MoU requirement) and this is monitored automatically.

membership@lists.linx.net
(List-Id header = membership@lists.linx.net)

- This list is used for discussion amongst members on any topic, and for announcements from staff to members mainly (but not exclusively) on non-operational topics. All new members are announced on this list, for example.
- List traffic is not large.
- A closed list, no exploders permitted.
- Posting by list members only.
- Any attempts to post outside the permitted policy comes for moderation to the list owner (LINX CEO).

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mou-changes@lists.linx.net
(List-Id headers = mou-changes@lists.linx.net)

The **mou-changes@lists.linx.net** list is only used for formal announcements of changes to the LINX MoU resulting from member votes at general meetings. This is fairly rare (typically less than four times per annum).

- These are both closed lists, no exploders permitted.

- Posting by LINX staff only.

Member consultation – Jul 2021 – LINX Mailing lists – notes

...cont.

Ops-Announce Mailing Lists - for LINX staff announcements

You can choose to subscribe to the overall list (ops-announce@linx.net) and you will receive all posts for all of LINX's Peering LANs. Or as an alternative, subscribe only to the specific mailing list(s) covering the Peering LAN(s) that you are connected to.

The following points are valid for all ops-announce mailing lists:

- Freely redistributable - but please use responsibly! (check first with LINX staff if you are unsure about this)
- Exploders/aliases are allowed
- Open subscription policy to LINX members and partners
- Closed list with real and "no-mail" (silent) subscribers - only members of the LINX staff list may post

ops-announce@lists.linx.net - for LINX staff announcements related to ALL Peering LANs (LON1, LON2, NVA1, MAN1, SCO1, CAR1)
(List-Id header = ops-announce@lists.linx.net)

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lon1-ops-announce@lists.linx.net - for LINX staff announcements for LON1
(List-Id header = lon1-ops-announce@lists.linx.net)

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lon2-ops-announce@lists.linx.net - for LINX staff announcements for LON2
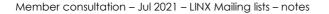**(List-Id header = lon2-ops-announce@lists.linx.net)**

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man1-ops-announce@lists.linx.net - for LINX staff announcements for MAN1 (LINX Manchester)
(List-Id header = man1-ops-announce@lists.linx.net)

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car1-ops-announce@lists.linx.net - for LINX staff announcements for CAR1 (LINX Wales)
(List-Id header = car1-ops-announce@lists.linx.net)

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sco1-ops-announce@lists.linx.net - for LINX staff announcements for SCO1 (LINX Scotland)
(List-Id header = sco1-ops-announce@lists.linx.net)

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nva1-ops-announce@lists.linx.net - for LINX staff announcements for NVA1 (LINX NoVA)
(List-Id header = nva1-ops-announce@lists.linx.net)

Non-mandatory Lists

*LINX members may, at their option, subscribe to the following lists. Subscription to the **publicaffairs@lists.linx.net** list is strongly encouraged.*

**ops@lists.linx.net - for member discussion
(List-Id header = ops@lists.linx.net)**

- Freely redistributable - but please use responsibly! (check first with LINX staff if you are unsure about this)
- Exploders/aliases are allowed
- Open subscription policy to LINX members and partners
- Closed list with real and "no-mail" (silent) subscribers - any address subscribed to the list, or a member of the LINX staff list may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list, and the sender's address added to the list as a no-mail subscriber
- Any article from a non-subscriber which scores positive for SPAM will be silently discarded

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**publicaffairs-list@lists.linx.net
(List-Id header = publicaffairs-list@lists.linx.net)**

- Notification and discussion of relevant public policy and regulatory issues. Member consultation on LINX position statements.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Subscription policy: LINX members and selected interested parties pre-approved by the Head of Public Affairs. (Non-member subscribers are primarily experts and regulatory specialists with industry connections, and do not include officials from government or other public bodies).
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
- Any article that turns out to be SPAM will result in enforcement action against the spammer.

**lpc@lists.linx.net
(List-Id header = lpc@lists.linx.net)**

- This list is maintained for discussion by the LINX programme committee, who advise and guide the planning of LINX member meetings
- Closed list - posting by LPC members only (anything else goes to moderation).

Member consultation – Jul 2021 – LINX Mailing lists – notes

linxmanchester@lists.linx.net
(List-Id header = linxmanchester@lists.linx.net)

- Notification and discussion of relevant news about our LINX Manchester peering exchange.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
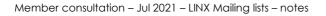- Any article that turns out to be SPAM will result in enforcement action against the spammer.

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linxscotland@lists.linx.net
(List-Id header = linxscotlandlists.@linx.net)

- Notification and discussion of relevant news about our LINX Scotland peering exchange.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
- Any article that turns out to be SPAM will result in enforcement action against the spammer.

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linxnova@lists.linx.net
(List-Id header = linxnova@lists.linx.net)

- Notification and discussion of relevant news about our LINX-NoVA peering exchange.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
- Any article that turns out to be SPAM will result in enforcement action against the spammer.

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ixeastmidlands@lists.linx.net
(List-Id header = ixeastmidlands@lists.linx.net)

- Notification and discussion of relevant news about our proposed IXEastMidlands regional peering exchange.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
- Any article that turns out to be SPAM will result in enforcement action against the spammer.

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ixni@lists.linx.net
(List-Id header = ixni@lists.linx.net)

- Notification and discussion of relevant news about our proposed IXNorthernIreland regional peering exchange.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
- Any article that turns out to be SPAM will result in enforcement action against the spammer.

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ixbirmingham@lists.linx.net
(List-Id header = ixbirmingham@lists.linx.net)

- Notification and discussion of relevant news about our proposed IXBirmingham regional peering exchange.
- Distributable only within subscribed organisations
- Exploders/aliases are allowed
- Any address subscribed to the list, plus LINX staff, may post
- Mail from non-subscribers sent for moderation: acceptable posts will be distributed to the list
- Any article that turns out to be SPAM will result in enforcement action against the spammer.