# Mitigating Risk of Data Loss – Migrating Notes Emails

After a migration, it is essential that the original content, context and intent are clear, as there is usually little recourse to checking the original source. In our experience, approximately 5-10% of emails suffer from some form of fidelity issues, while 1-2% suffer serious data loss or corruption due to rendering issues. These numbers may range much higher for organizations who have a long history of integrating Notes mail with their applications.

Many migration products rely on one of the various rendering engines built into Notes and Domino, but these separate engines are deficient in multiple overlapping ways. While many issues are primarily related to appearance, this document illustrates ten major areas where data may be lost, corrupted or left indecipherable. In a recent analysis of just under 3 million documents for a particular customer, 71600 emails (2.4%) suffered from a serious degree of data loss or corruption with one or both of the most common rendering engines.

The **CoexLinks Migrate** product uses Genii Software's proprietary **CoexLinks Fidelity** engine to render Notes Rich Text emails to MIME with greater fidelity and with far less risk of data loss. For each of the problem areas identified, we will show the content as it appeared in the original Notes email, followed by how it is rendered by one of the two most common Notes rendering engines used by third party products denoted as ([1] or [2]), followed by the **CoexLinks Migrate** rendering. All examples are loosely based on problems we have seen in actual customer emails, although the examples are simplified to emphasize the issue.

Genii Software Ltd.
http://www.GeniiSoft.com

## 1 - Section titles may be lost

Notes has collapsible sections with titles which allow data to be organized. If the section title is missing after migration, the organizational meaning is often lost.

**Original**

▼ Items that MUST be done
- Contact the head office with schedule
- File a travel report

▼ Items that MUST NOT be done
- Contact the client about plans
- Leave an out-of-office message saying where you are going

**Notes [1] rendering**

- Contact the head office with schedule
- File a travel report

- Contact the client about plans
- Leave an out-of-office message saying where you are going

**CoexLinks rendering**

▼Items that MUST be done
- Contact the head office with schedule
- File a travel report

▼Items that MUST NOT be done
- Contact the client about plans
- Leave an out-of-office message saying where you are going

## 2 - Section titles may be incorrectly rendered with missing colors

Even when section titles are included, they may render badly, leading to the appearance of lost titles.

**Original**

**Items that MUST be done**
- Contact the head office with schedule
- File a travel report

**Items that MUST NOT be done**
- Contact the client about plans
- Leave an out-of-office message saying where you are going

**Notes [2] rendering**

▼

- Contact the head office with schedule
- File a travel report

▼

- Contact the client about plans
- Leave an out-of-office message saying where you are going

**CoexLinks rendering**

▼Items that MUST be done

- Contact the head office with schedule
- File a travel report

▼Items that MUST NOT be done

- Contact the client about plans
- Leave an out-of-office message saying where you are going

## 3 - Borders may be left out or added in, confusing or obscuring data

Table cell borders are used in many ways, sometimes to make a table more readable, sometimes to make it more appealing, and sometimes to highlight specific cells, rows or columns. When cell borders are altered by the migration process, whether added or removed, the legibility may be hurt and the meaning of the data may be compromised. Below are two separate tables, one using cells for appearance, the other for meaning.

**Original**

| Better Budgies Ltd<br>Swallowdale 36, Wuthing<br>ESSEX BB01 1BB<br>United Kingdom | Date<br>12/03/2014 | Quotation Number<br>QN-99283-MM2 |
| --- | --- | --- |
| | Customer Reference<br>BL10923-B573 | Terms<br>30 days net |

**Local comps for desired property:**

| Address | Bedrms | Asking price | On market |
| --- | --- | --- | --- |
| 1701 Coventry Ave | 3 | 386,600 | 2 |
| 206 W. Park Rd | 5 | 283,900 | 36 |
| 1892 Coventry Ave | 4 | 262,000 | 7 |
| 1101 Bently Blvd | 4 | 230,000 | 29 |
| 887 Chagrin Blvd | 5 | 229,900 | 121 |
| 2491 Coventry Ave | 3 | 218,500 | 14 |
| 33 Ivy Circle | 3 | 212,900 | 11 |

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Swallowdale 36,
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## 4 – Forwarded pages may have missing information

It is very easy in the Notes client to forward a page with form information intact. Many people use this to share a snapshot of information at a given time. In Notes, the recipient would see the exact form, but items such as checkboxes, radio buttons and combo dropdown choices are lost when migrated.

----- Forwarded by Ben Langhinrichs/Genii on 05/09/2017 08:49 AM -----  **Original**

**Maintenance**

| | |
|---|---|
| **Company** | Über Øst |
| **Product** | CoexLinks Journal ▾ |
| **Version** | 4 |
| **Licence** | 200 users on one server |
| **Serial Number** | 5116 |
| **Org/Server** | |
| **Chargeable?** | ☑ Yes |
| **Expiry Date** | 04/11/2018  16 |
| **Due Date** | 04/11/2018  16 |
| **Reminder needed?** | ☐ Yes |
| **Details** | |
| **Status** | ○ Pending  ◉ Active  ○ Cancelled |
| **Amount** | $1,800.00 |

| | | **Notes [1]** |
|---|---|---|
| **Company** | Über Øst | **rendering** |
| **Product** | | |
| **Version** | 4 | |
| **Licence** | 200 users on one server | |
| **Serial Number** | 5116 | |
| **Org/Server** | | |
| **Chargeable?** | | |
| **Expiry Date** | 04/11/2018 | |
| **Due Date** | 04/11/2018 | |
| **Reminder needed?** | | |
| **Details** | | |
| **Status** | | |
| **Amount** | $1,800.00 | |

Notice that the **Product**, **Chargeable?**, **Reminder needed?** and **Status** values are all blank, and the tab with the word **Maintenance** is missing as well.

⌂**Maintenance**

| | |
|---|---|
| **Company** | Über Øst |
| **Product** | CoexLinks Journal |
| **Version** | 4 |
| **Licence** | 200 users on one server |
| **Serial Number** | 5116 |
| **Org/Server** | |
| **Chargeable?** | ☑Yes |
| **Expiry Date** | 04/11/2018 |
| **Due Date** | 04/11/2018 |
| **Reminder needed?** | ☐Yes |
| **Details** | |
| **Status** | ○Pending ◉Active ○ Cancelled |
| **Amount** | $1,800.00 |

## 5 – Stored forms may not be rendered at all

Unlike forwarded pages, there are applications which embed the actual form in the email. This allows the recipient to fill out the form and return it. When the form is not rendered along with the email in a migration, the migrated email may be blank or contain little of the original message.

Your a rotten person and
I hope you die!

# MegaCorp Harassment Report

*All reports of harassment are confidential and will be addressed through Human Resources. If you are not sure whether the level of harassment is enough to warrant reporting, report it anyway. HR will work with you to establish an appropriate response.*

**When did the incident take place? If harassment has been ongoing, use most recent date when it occurred.**
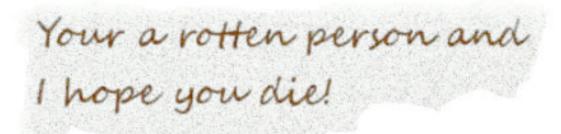Date: 08/12/2014
Location: My desk

**Who was the harasser? Multiple people may be listed.**
Tony Randall (works in my department)

**Describe the harassment in your own words.**
Tony has been harassing me verbally for weeks, mostly insulting my intelligence. Yesterday, I saw him leave a note (shown below) on my desk when he didn't think I was close by.

**Any additional details or evidence you would like to include. Attachments and images are allowed.**



Submit Report *(disabled)*

## 6 - *Colors may be altered, leading to confusion or difficulty reading*

Certain colors are rendered incorrectly, or are left out entirely. With multiple colors looking the same, the results are unpredictable and meaning may be lost.

**Original**

| Light green may mean one thing | Or contrast may be lost |
| --- | --- |
| Dark green may mean another | Or contrast may be lost |

**Notes [1] Rendering**

| Light green may mean one thing | |
| --- | --- |
| Dark green may mean another | |

**CoexLinks rendering**

| Light green may mean one thing | Or contrast may be lost |
| --- | --- |
| Dark green may mean another | Or contrast may be lost |

## 7 - Applications may have used layout regions that do not render

Applications written years ago may still be in use, and many have Layout Regions to structure field data. Values shown on a layout region are skipped entirely when the Notes rendering engines render the document, leading to lost information or confusing gaps. Note that Outlook (used below) will not allow correct positioning of the elements even with CoexLinks, though other email and email viewers will.

**Procedures Manual Updated** — **Original**

Effective Date: 09/13/2013   Revision Date: 02/06/2014   Current as of: 02/06/2014

**Procedures Manual Updated** — **Notes [2] rendering**

**Procedures Manual Updated** — **CoexLinks rendering**

Effective Date:

09/13/2013

Revision Date:

02/06/2014

Current as of:

02/06/2014

## 8 - Images resources (referenced rather than embedded images) are lost

Some images in emails are embedded in the message, and those will be carried through to the rendered message. But others are image resources, references back to an image in the mail database or other accessible database. When rendered to MIME, these images are referenced as relative URLs, making them broken or missing for any recipient not on that server. CoexLinks correctly embeds the images.

**Original**

On the calendar for this month, we have a number of exciting events needing volunteers. Click on the image to explore the full list. Sign up early and often!

**Notes [1] rendering**

On the calendar for this month, we have a number of exciting events needing volunteers. Click on the image to explore the full list. Sign up early and often!

**CoexLinks rendering**

On the calendar for this month, we have a number of exciting events needing volunteers. Click on the image to explore the full list. Sign up early and often!

## 9 - Buttons are lost, leaving some messages ambiguous or incomplete

In approval emails and other emails with calls to action, buttons were included which might contain formula language, LotusScript or JavaScript. While these buttons cannot, and should not, remain active in the rendered document, even the text is lost with Notes rendering, leaving messages incomplete.



**Original**

Time to vote, everybody. Just click on the button below which represents your choice. Your vote counts. Every vote counts.

Crab Shack    Pizza Palace    Sushi Bar

Thank you for your time, patience, and especially your Vote!
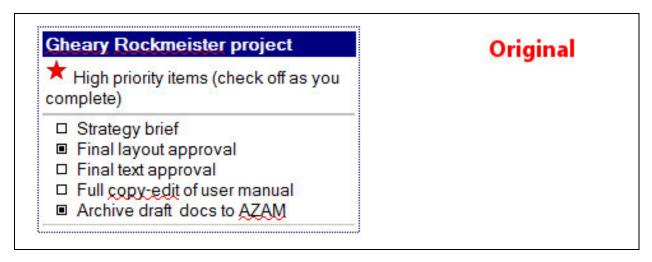


**Notes [2] rendering**

Time to vote, everybody. Just click on the button below which represents your choice. Your vote counts. Every vote counts.

Thank you for your time, patience, and especially your Vote!



**CoexLinks rendering**

Time to vote, everybody. Just click on the button below which represents your choice. Your vote counts. Every vote counts.

Crab Shack *(disabled)*    Pizza Palace *(disabled)*
Sushi Bar *(disabled)*

Thank you for your time, patience, and especially your Vote!

## 10 - Checked/unchecked bullets not differentiated

Notes has a convenient list type called a "checked list". Each bullet item has a small square which can be checked (filled) or unchecked (empty). This is used as a quick for people to respond to an email after checking the items they have completed. Without those checkmarks, it is impossible to know which were completed.

## Gheary Rockmeister project

⭐ High priority items (check off as you complete)

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- ○ Strategy brief
- ● Final layout approval
- ○ Final text approval
- ○ Full copy-edit of user manual
- ● Archive draft  docs to AZAM

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**CoexLinks rendering**