Here's an updated risk section for each of the systems, covering the relevant failure points and potential issues:

### **1. Excel-based Q&A Data Analytics:**

**Risks:**

1. **Handling of Merged Cells:** The system may fail to correctly parse or analyze data in merged cells, as they often disrupt the normal structure of the table and can cause issues in extracting values or performing calculations.
2. **Graph and Chart Recognition:** Excel charts and graphs, which contain visual data representations, are not typically supported in text-based Q&A systems. The system might fail to extract meaningful data from these visual elements, leading to incomplete or incorrect analysis.
3. **Complex Table Structures:** Complex Excel tables, especially those with intricate formatting or nested structures, might not be correctly interpreted by the system, leading to data loss or misinterpretation.

### **2. PowerPoint-based RAG & Vision-based Q&A:**

**Risks:**

1. **LibreOffice Failures (Linux)**: On Linux systems, the conversion of PowerPoint slides to images using LibreOffice may fail due to compatibility issues or system configuration problems. This can lead to incomplete slide processing or missing content.
2. **Missing Images or Content in PowerPoint Slides:** If images are embedded in PowerPoint slides, especially when converted via LibreOffice or other tools, there is a risk of images being missing or incorrectly processed, which can degrade the quality of the extracted data.
3. **Model Token Length Limitation:** Large chunks of text or slides with dense content may exceed the model’s token length limit, causing errors during processing or incomplete results in the answer generation phase.
4. **Complex or Long Tables in Slides:** Complex tables in PowerPoint slides may not be handled properly, leading to issues in data extraction. Long tables might be truncated, and the structure may be misinterpreted, leading to missing or incorrect data.

### **3. Confluence Space RAG-based Q&A:**

**Risks:**

1. **Large Volumes of Data:** When handling large volumes of data from Confluence spaces, the system might struggle to process and retrieve relevant chunks efficiently. This can lead to delays or failure to retrieve pertinent information.
2. **Complex Table Structures:** Complex tables, especially those with merged cells or irregular formatting, may be flattened during extraction, which could lead to data being misrepresented or hard to interpret in the Q&A phase.
3. **Missing or Corrupted Content:** The system might miss or fail to extract certain elements like images, attachments, or other non-text content. These missing elements could affect the completeness of the data being used in the Q&A process.
4. **Tokenization Issues with Large Chunks:** Large content chunks, especially in pages with dense text or long paragraphs, may cause tokenization issues where the system fails to process the content due to the token length limit, leading to missing or incomplete responses.

These risk points cover potential failure scenarios and issues for each system and should provide a clear understanding of the challenges you may encounter.