

**E-Mail as a Stage of Immaturity Through Which We Must Pass:
Best Practices for Business-Quality Communications
March 6, 2015 – Working Draft
Minor Update – July 18, 2015**

The Capability Maturity Model (CMM) is a widely recognized framework for evaluating the formality and optimization of processes.¹ E-mail is a highly immature (CMM Level 1, Chaotic) means of creating, sharing, and managing business records.² A more mature process for meeting the underlying requirements would address the following challenges³: **[Best practices should address the following problems and more. Brainstorming list.]**

Spam⁴ – lack of “strategic alignment” with one’s own objectives (StratML)

Signal-to-noise ratio⁵ – Nearly 70% of E-mail message are spam.⁶

Urgency versus importance⁷ [Relationship to StratML]

Push versus pull⁸

Time shifting⁹ / Asynchronous communication¹⁰ / Just-in-Time (JIT) delivery¹¹

Broadcasting¹² versus narrow casting¹³

Attachments – malicious code – prohibit/automatically strip &/or store in Internet-based document/records management service with malicious code detection capabilities. In lieu of attachments, provide trusted links to such files.

Stop using E-mail as a quasi-document management¹⁴, records management¹⁵, decision support system¹⁶, to-do list, and work-flow management/work routing system.¹⁷

Untrustworthy senders – establish a White List trusted network based upon an open standard(s).¹⁸ Relevant attributes include not merely whom one knows but our personal values and, most importantly, the evidence (records) of our intentions and actions as well as the results we have produced. [StratML]

Dups – While software exists to eliminate needlessly redundant data, e.g., multiple copies of the very same attachments, it is better to avoid needlessly duplicating data so that deduplication is unnecessary.¹⁹ (Data should be physically stored in at least two widely separated places for purposes of security and continuity of operations.)

Lack of context & metadata – One definition of the term “document” is “data in context.” Without context, data is meaningless. Each business record should contain sufficient context to meet the requirements for the purpose for which it was created. Additionally, sufficient metadata should be associated with each record to facilitate its management and discovery.

High cost/inefficiency/imprecision of e-discovery

Machine-readability (and metadata) – Records should be created and maintained in machine-readable format, in which case much of the required metadata can automatically be gleaned into query/discovery services.

What is deleted is of greatest interest to adversaries in court (Spectre of Spoliation) and least accessible to the organization itself when needed for ongoing business purposes

Vampire Effect – almost impossible to destroy E-mail records with certainty²⁰ If you don't manage your own records effectively, your enemies may do it for you – for the express purpose of using them against you.

Inadequacy for Collaboration – “Nearly half of the people surveyed by 1105 thought that such a heavy reliance on e-mail for collaboration was increasingly inadequate, while close to 40 percent thought that their agency's total suite of collaboration tools would not meet their ongoing needs.”²¹

Attributes of a record: authenticity, reliability, integrity, usability (ISO 15489).²²

¹ https://en.wikipedia.org/wiki/Capability_Maturity_Model

² Discussing the problem of information overload in *The Organized Mind: Thinking Straight in the Age of Information Overload*, Daniel Levitin says, “e-mail comes up time and time again as a problem. It's not a philosophical objection to e-mail itself, it's the mind-numbing amount of e-mails that comes in.” (p. 98) Due to the number of steps formerly required to send notes and letters, we didn't take the time to do so unless we had something important to convey. (p. 99) Now, however, he observes, we sacrifice efficiency and concentration by interrupting priority activities with e-mail. Formerly, the mode of communication conveyed a sense of relevance, importance, and intent. “The medium was a clue to the message,” he says, but since e-mail is used for everything, that is no longer the case. On the other hand, he asserts, “e-mail is approaching obsolescence as a communicative medium.” (p. 100) He suggests we should “train” our friends and coworkers not to expect immediate responses. (p. 102) However, it seems like it might be more important for all of us to train ourselves to use the proper tools for the task, depending upon both its importance as well as its urgency, and that E-mail should be used only for non-urgent, low-priority communications – when more appropriate means are unavailable.

³ See also Atle Skjekkeland's [blog](#) entitled “4 Reasons for Replacing Email with New and Better Collaboration Tools.”

⁴ “Unsolicited Bulk Email”. <http://www.spamhaus.org/consumer/definition/>

⁵ http://en.wikipedia.org/wiki/Signal-to-noise_ratio

⁶ “Worldwide spam rate falls 2.5 percent but new tactics emerge,” ZDNet, January 23, 2014.

<http://www.zdnet.com/worldwide-spam-rate-falls-2-5-percent-but-new-tactics-emerge-7000025517/>

⁷ “Important tasks are things that contribute to our long-term mission, values, and goals.”

<http://www.artofmanliness.com/2013/10/23/eisenhower-decision-matrix/> See also

<https://www.linkedin.com/pulse/article/20131007002546-85816712-urgent-or-important-which> &

[http://en.wikipedia.org/wiki/First_Things_First_\(book\)](http://en.wikipedia.org/wiki/First_Things_First_(book))

⁸ http://en.wikipedia.org/wiki/Push%E2%80%93pull_strategy

⁹ http://en.wikipedia.org/wiki/Time_shifting

¹⁰ http://en.wikipedia.org/wiki/Asynchronous_communication

¹¹ [http://en.wikipedia.org/wiki/Just_in_time_\(business\)](http://en.wikipedia.org/wiki/Just_in_time_(business))

¹² <http://en.wikipedia.org/wiki/Broadcasting>

¹³ <http://en.wikipedia.org/wiki/Narrowcasting>

¹⁴ http://en.wikipedia.org/wiki/Document_management_system

¹⁵ http://en.wikipedia.org/wiki/Records_management

¹⁶ http://en.wikipedia.org/wiki/Decision_support_system

¹⁷ To-do list and work-flow management/work routing system added as suggested by Chris Fox, who is aiming to improve upon such processes through his [Strategic Learning](#) application.

¹⁸ <http://en.wikipedia.org/wiki/Whitelist>

¹⁹ http://en.wikipedia.org/wiki/Data_deduplication

²⁰ Ken Withers coined the terms the “Spectre of Spoliation” and the “Vampire Effect”.

[http://ambur.net/ARMA2/sld019.htm!](http://ambur.net/ARMA2/sld019.htm)

²¹ “Agencies are outgrowing old-school tools,” Government Computer News

<http://gcn.com/microsites/2014/download-huddle-government-cloud/04-agencies-are-outgrowing-old-school-tools.aspx>

²² <http://www.dcc.ac.uk/resources/briefing-papers/standards-watch-papers/iso-15489>