



National Telehealth Center
University of the Philippines Manila
The Health Sciences Center



Interfacing with the Message Handler

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Parts of an email

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- Header(s)
 - To
 - From
 - Subject
- Contents
 - Body
 - Attachment(s)



Message Generalization

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- All messages from any modality are treated as a generic message
 - SMS/MMS
 - Email, RxBox
 - HTTP Post/Get
 - FTP
 - IM/Voice



Message Generalization (2)

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- Header(s)
 - To
 - From
 - Subject
- Contents
 - Body
 - Attachment(s)
- Contact
- Headers
 - Mode
- Text content
- Attachments



SMS handling

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- SMS gateway (SMSTools)
 - reads data from GSM modem via serial port
 - outputs read data as a file
 - allows call of custom script upon process finish



Email handling

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- IMAP (no longer supported)
 - mail server is “polled” for a certain period
 - outputs read data as string
- Procmail
 - email is “pushed” into the system
 - outputs read data as a file
 - allows call of custom script



MsgHandler

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- Parsing
- Keyword and Module detection
 - 'refer' → buddyworks
 - 'follow-up' → buddyworks
 - 'patient' → chits
 - 'pncu' → chits
- Processing



MsgHandler and Triage

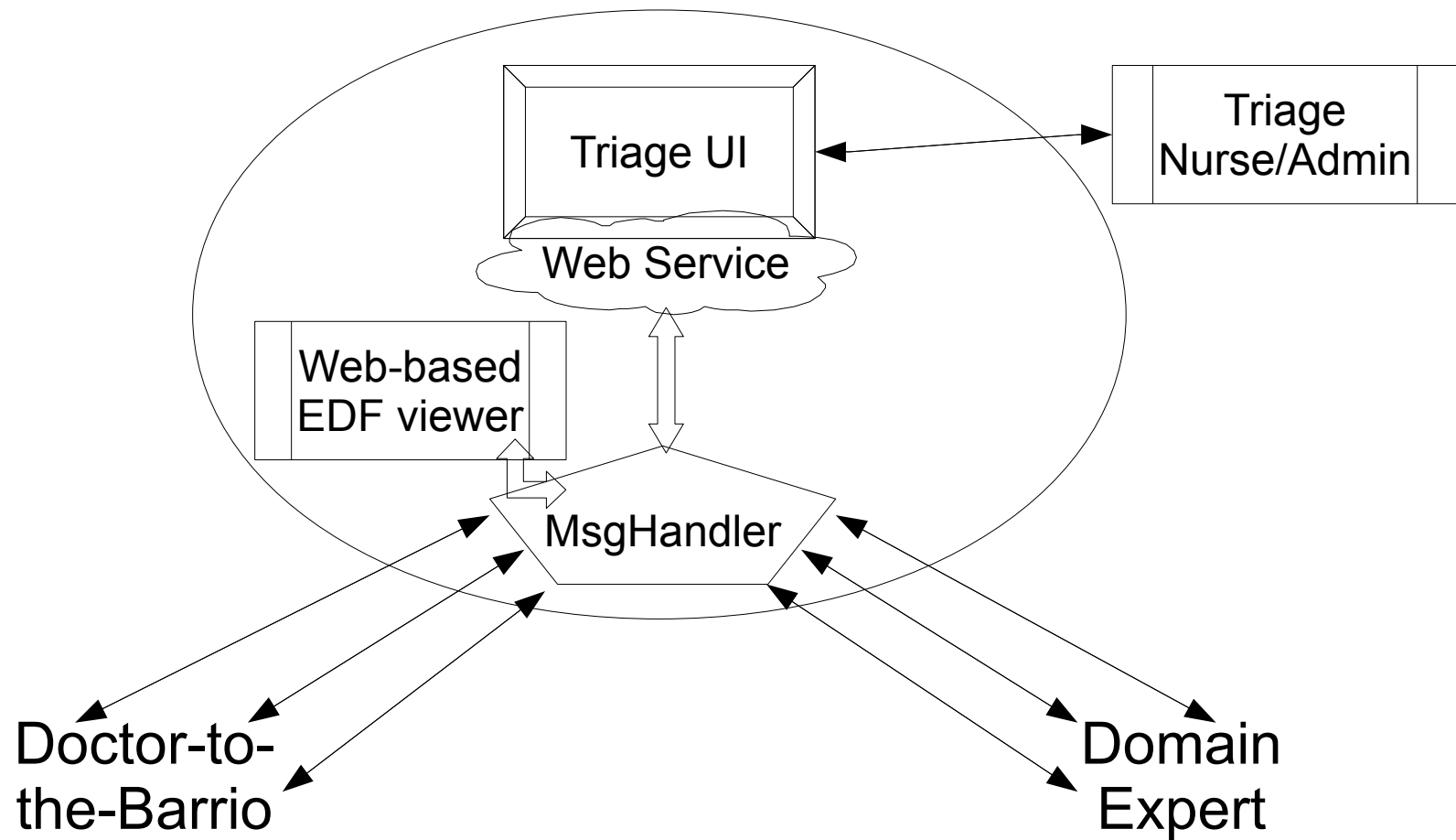
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- Can be housed on a single server
- MsgHandler (MH) receives all messages before passing it to the Triage
- Triage processes the messages and gives the result back to the MH
- MH sends messages, if required



General Implementation

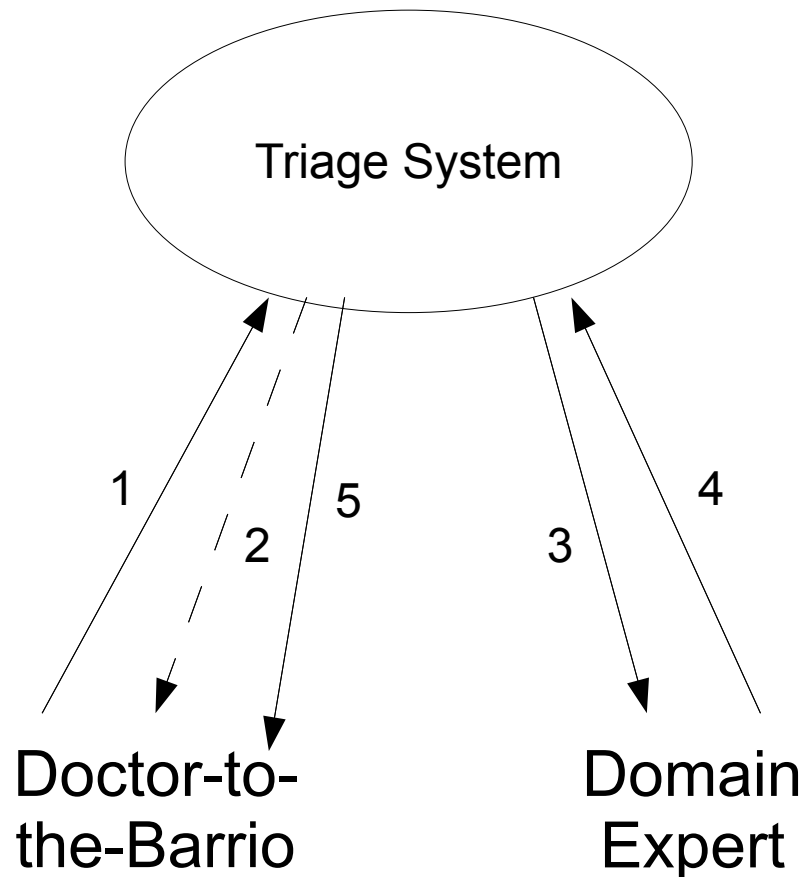
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SMS-Triage-SMS

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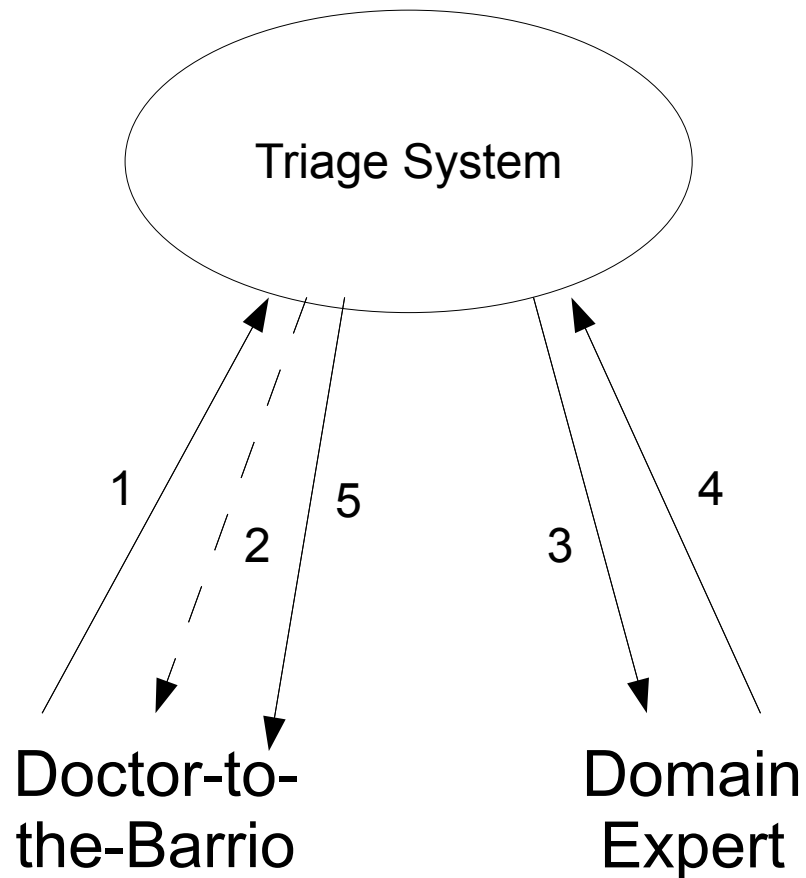


- 1) SMS referral sent by DttB
- 2) Acknowledgement receipt sent by Triage (automated)
- 3) SMS referral forwarded to DE
- 4) DE reply to message via SMS
- 5) DE SMS reply forwarded to DttB



Email-Triage-Email

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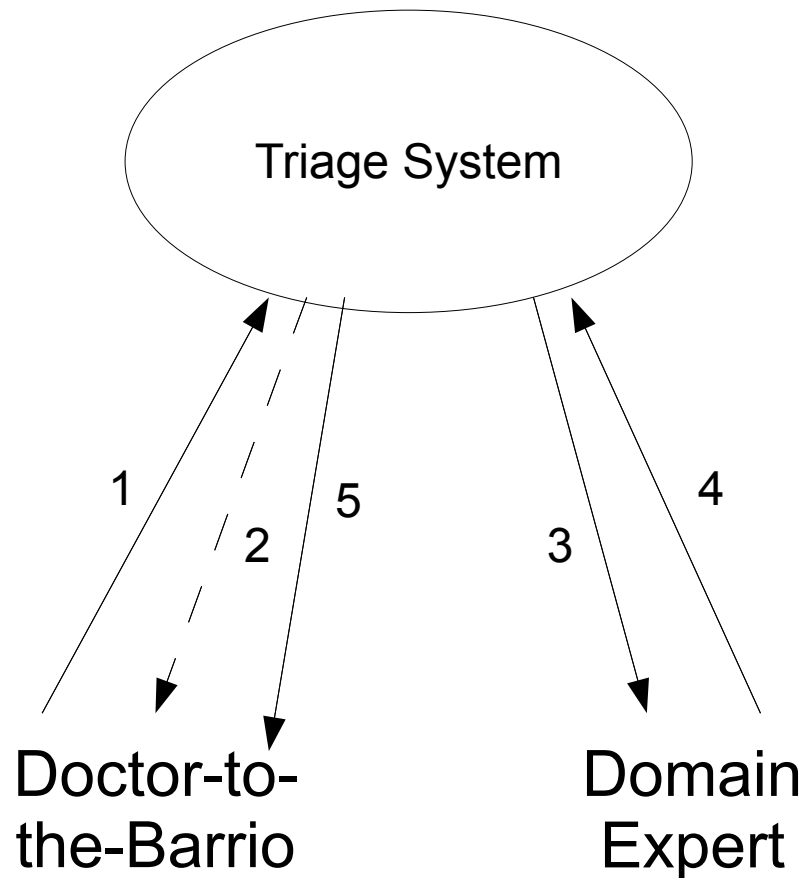


- 1) Email referral sent by DttB
- 2) Ack receipt by Triage (automated)
- 3) Email referral forwarded to DE
- 4) DE reply to message via email
- 5) DE email reply forwarded to DttB



SMS-Triage-Email

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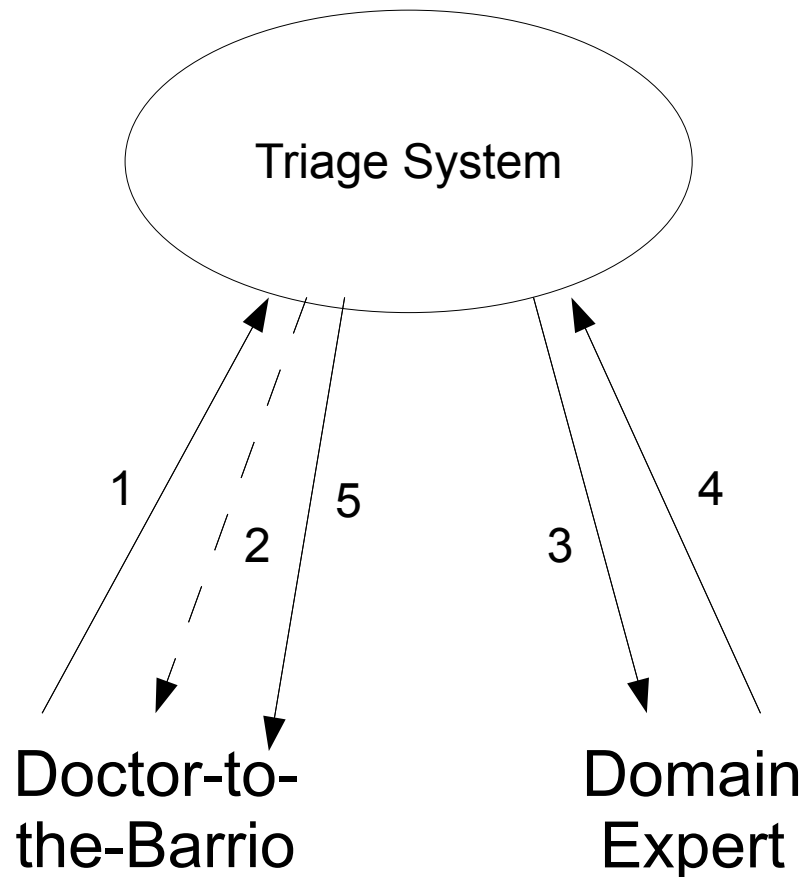


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Email-Triage-SMS

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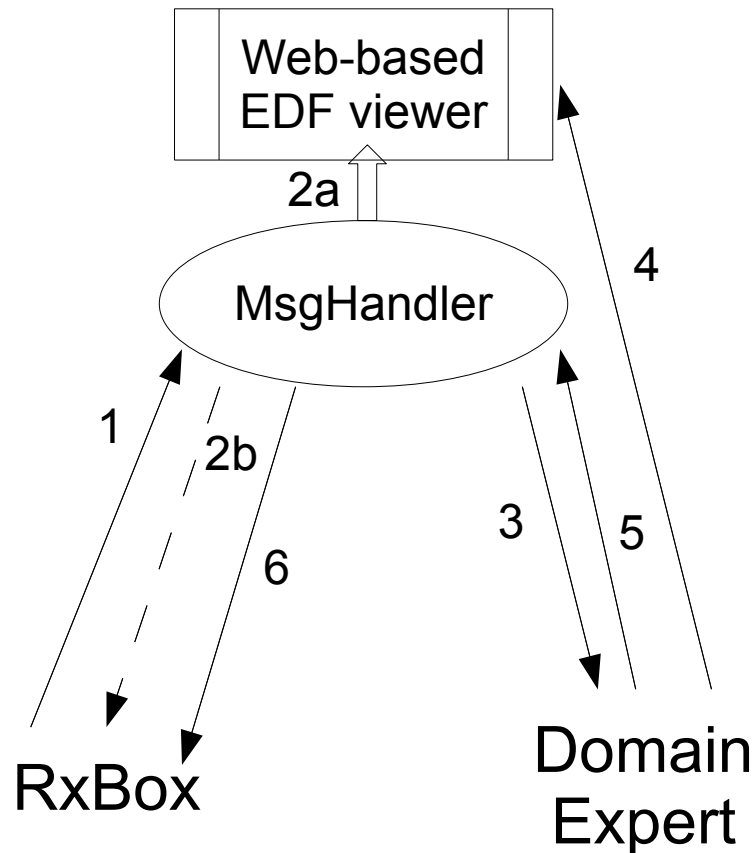


- 1) Email referral sent by DttB
- 2) Ack receipt by Triage (automated)
- 3) Email referral forwarded to DE
- 4) DE reply to message via SMS
- 5) DE SMS reply forwarded to DttB



RxBox-Triage-SMS

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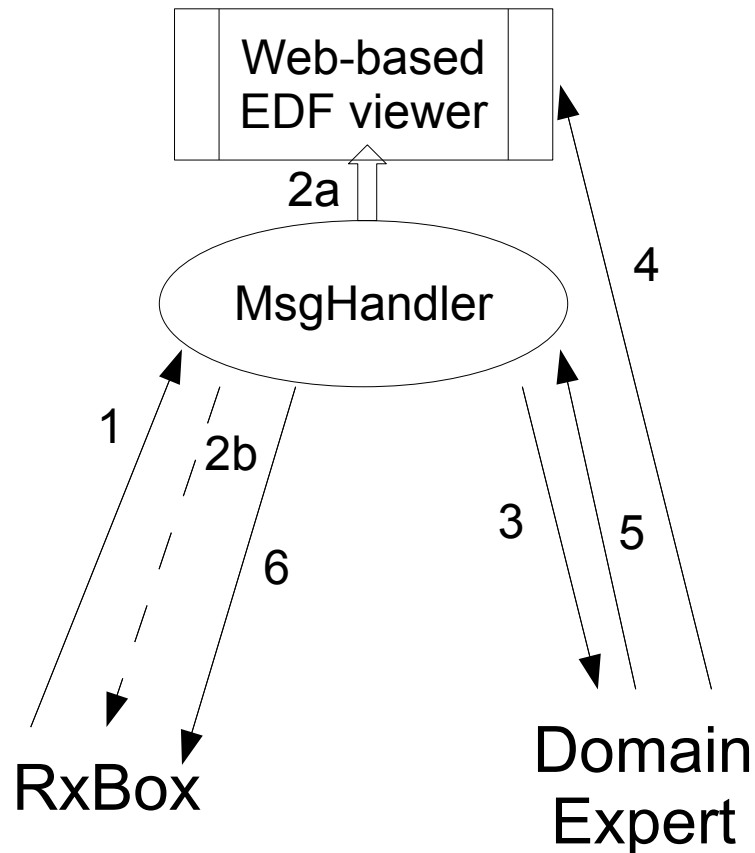


- 1) RxBox referral sent by DttB (via RxBox)
- 2) Ack receipt by Triage (automated)
 - (a) MH creates EDF viewer
 - (b) MH sends ack to RxBox
- 3) RxBox referral forwarded to DE
- 4) DE uses EDF viewer
- 5) DE reply to message via SMS
- 6) DE SMS reply forwarded to DttB



RxBox-Triage-Email

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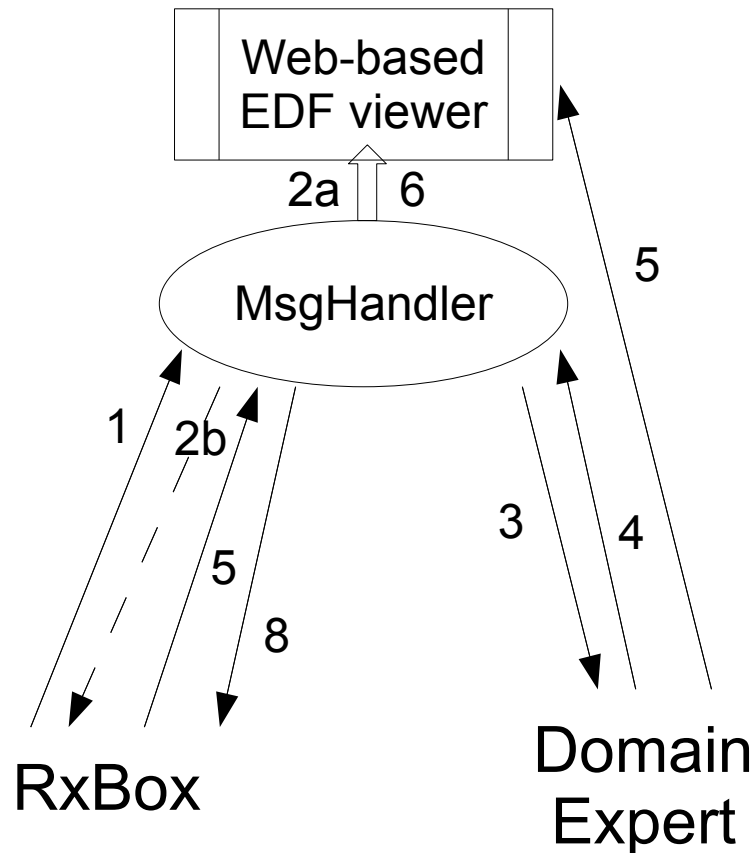


- 1) RxBox referral sent by DttB (via RxBox)
- 2) Ack receipt by Triage (automated)
 - (a) MH creates EDF viewer
 - (b) MH sends ack to RxBox
- 3) RxBox referral forwarded to DE
- 4) DE uses EDF viewer
- 5) DE reply to message via email
- 6) DE SMS reply forwarded to DttB



RxBox-Triage-HTTP

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- 1) RxBox referral sent by DttB (via RxBox)
- 2) Ack receipt by Triage (automated)
 - (a) MH creates EDF viewer
 - (b) MH sends ack to RxBox
- 3) RxBox referral forwarded to DE
- 4) DE uses EDF viewer
- 5) RxBox sends more Data to MH
- 6) MH updates EDF viewer
- 7) DE reply to message (generic)
- 8) DE reply forwarded to DttB