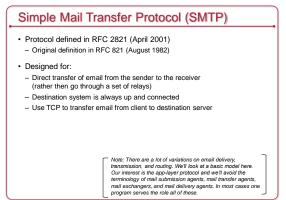
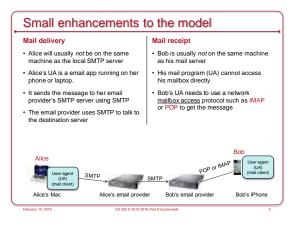


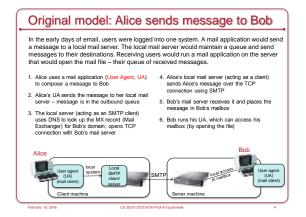
Rutgers University Spring 2016

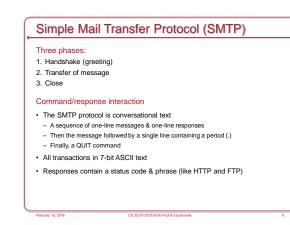
Email: SMTP (Simple Mail Transfer Protocol)



February 10, 2016

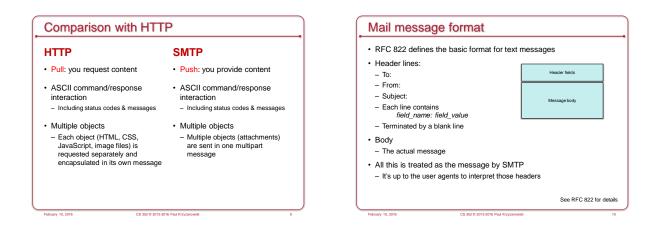






e following sequence of comm	ands are used to send email
HELO cs.rutgers.edu	The client identifies itself as cs.rutgers.edu This is often ignored now since the server may do a reverse DNS lookup on the IP address.
MAIL FROM: <pxk@cs.rutgers.edu></pxk@cs.rutgers.edu>	Identify the address of the mail sender. Note that the domain here may be different from that in the HELO message.
RCPT TO: <testuser@pk.org> RCPT TO: <anotheruser@pk.org></anotheruser@pk.org></testuser@pk.org>	Identify the destination(s) for this message. You can have a list of these – one line per destination.
DATA	Now give the server the mail message. All the lines after this are the message. A line containing a single period ends it.
QUIT	We're done!

teinet cs.rutgers.edu 25 Trying 128.6.4.2 Connected to cs.rutgers.edu.	This is a sample interaction with me connecting to a Rutgers SMTP server via the telnet program and typing in SMTP commands. My typing is in blue.
	+Sun/8.8.8; Tue, 9 Feb 2016 14:45:04 -0500 (EST) 28.6.4.2], pleased to meet you
RCPTTO: <testuser@pk.org> 250 2.1.5 <testuser@pk.org> Recipient ok DATA 354 Enter mail, end with ** on a line by itself From: Paul Krzyzanowski <pxk@cs.rutgers.edu> Subject: test message</pxk@cs.rutgers.edu></testuser@pk.org></testuser@pk.org>	
Date: Tue, 9 Feb 2016 14:46:14 -0500 To: Whomever <testuser@pk.org> Hi, This is a test</testuser@pk.org>	This is the message body. — Headers may define the structure of the message but are ignored for delivery.
250 2.0.0 r1BLxln29829 Message accepted for deli quit 221 2.0.0 aramis.rutgers.edu closing connection	very

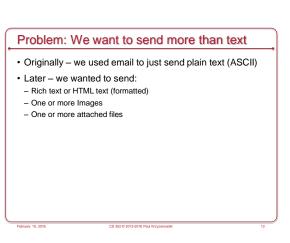


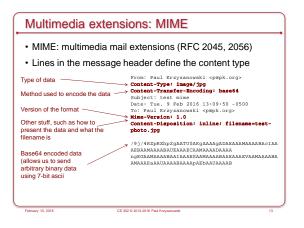
Mail headers versus data

- · SMTP is interested in delivering the message
- · The crucial data is in the "RCPT TO:" commands
- · All mail headers are ignored by the SMTP protocol
- From:, To:, Subject:, Cc:, Bcc:, etc.
- These are strictly for the mail apps (user agents) to use
- Mail is delivered exactly the same way whether a recipient is specified as a To, Cc, or Bcc: they will always end up as RCPT TO: commands in SMTP

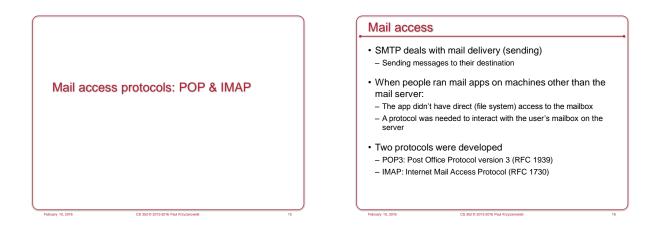
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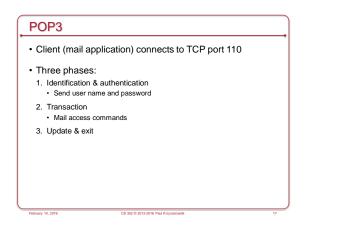
· The User Agent can determine what to display

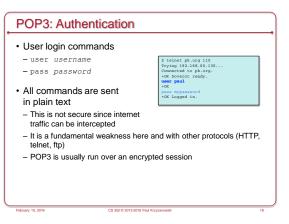


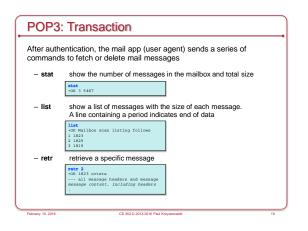


Support multiple items in one message	<pre>From: Paul Krzyzanowski <pepk.org> Content-Type: multipart/mixed; boundary-ISplit-95E43D94-57D4* Subject: multipart mime demo</pepk.org></pre>
Boundary definition	Date: Tue, 9 Feb 2016 13:09:50 -0500 To: Paul Krzyzanowski <p@pk.org> Mime-Version: 1.0</p@pk.org>
Start of content 1	
	Content-Disposition: INLINE; filename=test_image.jpg
	Content-Type: IMAGE/JPG;
	name=test_image.jpg; x-unix-mode=0644 Content-Transfer-Encoding: BASE64
	/9j/4RZpRXhpZgAAT <rest content="" of=""></rest>
Start of content 2	→Split-96E43D94-57D4
	Content-Disposition: ATTACHMENT;
	filename=test.skp
	Content-Type: APPLICATION/OCTET-STREAM;
	name=test.skp; x-unix-mode=0644
	Content-Transfer-Encoding: BASE64
	//7/DlMAawBl <rest content="" of=""></rest>
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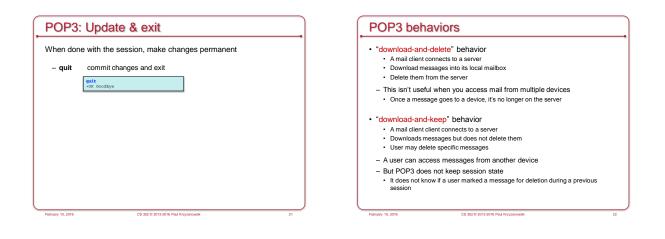


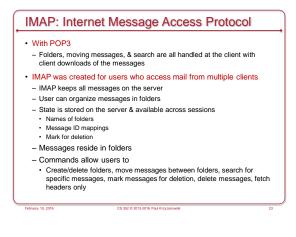






POP3:	Transaction	
	ntication, the mail app (user agent) sends a series of to fetch or delete mail messages	
– dele	delete a specific message	
– rset	reset the session: undo all deletes	
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IMAP Commands

- · We won't cover the IMAP protocol
 - It's a lot uglier and a lot more verbose
 - See RFC 3501
- TCP connection
- · All commands are sent as lines of ASCII text
- Commands are more verbose spelled out, not abbreviated
- Each command is prefixed with a unique tag (unique per session)

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 A sequence of commands can be sent without waiting for a response before sending the next one

IMAP	Protocol Example	
• Login	e01 login peul mypassword RESPONDE: a01 OK User logged in	
 List folde 	ers	
	<pre>a02 lise "Mail' **] * List (Woolset) */* Mail * List (Woolset) */* Mail/Trash * List (Woolset) */* Mail/Sent * List (Woolset) */* Mail/Jeant * List (Woolset) */* Mail/Jeant * List (Woolset) */* Mail/Jeant # List (Woolset) */* Mail/# Mail */* Mail</pre>	
Fetch me	essage 1 with full headers	
	<pre>e80 feech 1 011 * FFTCH (FALMS (\Deen) INTERNALDATE [13-Feb-2013 14:46:22 -0500* FFC03.2.51E 1 55 ENVELODE ('Med, 13 Feb 2013 14:46:22 -0400 [Test Message]</pre>	
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