MIME

If you look at mime ,mime is going to improve smtp , first of all let us look at the limitation of smtp , smtp cannot transmit executable files or other binary objects, we know that one for fact from pgp so we need to convert this executable s this binary object into text ,smtp cannot cannot transmit text data that include national language text , especially this Chinese text or Arabic characters on the past we dint receiver email fro m Chinese characters, but now you will get because of mime, in mime it will accept all the character In ASCII we don't have those characters which code that we are using to accommodate those characters it is Unicode and right now it is iso Unicode something for OS anyway so that email is going to take that settings and if it is Unicode it is going to accept all the character available in all the languages in today's server ,smtp server may reject the mail messages over a certain size it depends on the email server we cant send large mail, in pgp we segmented the email , smtp gateways that translate ascii to EBCIDIC having problems what is it ?..another coding technique before the unicode and Unicode is the standard in the past you receive the code and you have to convert from ascii to ebcidic and that conversion had problem but the major problem comes form x400 servers, remember x500 directory we had another email protocol called x400 and x400 is used by unix system and the other stricter of x400 is completely compatible with x500 in smtp in email structure is account name at domain name like yahoo.com this I was the actual email in x400 we are going to use x500 attribute to define the email address if you receive any email with identification card you will see x500 address structure or if you save the incoming mail into your context sometime the email address will be saved in the form of x400 , I had a experience in that one network in the smtp and one network in x400 when we receive the email from smtp we have to convert all the fields to the x400 fields sot hatx400 can see the mail but during the conversion not all the fields are compatible with x400 xx400 has something extra but you were not getting any extra information from x400 thing and you were having big problem converting the smtp to x400 there are some software to convert called filter software anyways we are not doing anything they are writing it smtp header and putting it into x400 header and especially you are using high priority and low priority then you are going to have big problems in smtp so they could not handle non textual data in x400 ,when you receive email fromx400 ,x400 contains lot of info but smtp cannot accommodate that info that was big deal , some smtp implementation do no adhere completely the smtp standards ,in other words some people smtp not based on standard on there own standard and implementation was on there own thing and it was creating problem that's why international standard develop mime standard with mime i am solving this smtp problem this is the major reason why we have mime, first et me tell you mime and then SMI AME .MI AME will use 5 headers that means extra 5 headers you are going to have one smtp header with this header , one is called mime ,content type, content type encoding ,which type of data they are using to converting binary data into text basically content id and content description the most important this content type , that contains which part of mail contains which part of data ok lets lets start with mime content type

MI AME content type

Content type comes with text, what type of text you are talking about so its going to come with subtype ,content type is text/ plaintext may be ascii or iso8859 it is the ascii representation of info is here that is text or subtype if the subtype is enriched text then it will be bold italics so you do support the palin or

the enriched text , the message or the mail may have multiple parts, I said may have ,as may be you don't have video or voice or vice versa but if you have both then you have multiple parts sp if the email is multiple parts we are going to have subtypes mix, parallel ,alternative or digest if the message type is mix t he video text audio part are independent but we are going to transmit together , but in the receiver end the mail must be in the order of the mail that these are sent while sending the message if the first part is text ,text is is going to be displayed and if the second part is video then video is going to be played after they represent the video then the third part is voice then it is going to place the audio message whatever the order the order in the mail it is played if it is parallel ,differs from mix only in that no order is defined or delivering the part to the receiver so the receiver will decide which part to played first and played next and so on there is not order so the difference between mix and parallel is very important as in final exam you have to remember these things as I ask lot of questions in these things as I can give some emails and ask the type of messages and I know it is a boring stuff but nothing to do with security but these are important, alternative is good , the different parts are the alternative message of the same info , I have the plaintext ascii code and I have the alternative format in web format and you guys are getting lot of web emails and that is because of this one ,sometimes it says click on this links and when you click on this link you can download all the parts and I wilt el you how , but you don't know in the destination whether its mime or something else if they dont have mime then they cannot read the message the main client will not provide information to the user and I can send plaintext version of my message along with the enriched version if he has mime then he can display the message ,If he is not having the mime then it will display only the average message, they are ordered in the increasing faithfulness to the original and the recipients mails system should display the best version to the user if the configuration it can display the web version of the mail or average version of the mail so then the email server is going to present the best option , digest similar to mix ,default type .subtype of each part of message is conforms to RFC822, what is the meaning ?..RFC822 is original smtp m ,jus use the smtp, so these are still content type which are text, multiple ,mix ,alternative ,parallel ,digest, next is the message type which could be rfc822 the body is itself an encapsulated message that conforms to RFC822 , partial used to allow fragmentation of large mail items that conforms to rfc , why we are doing this partial why they are including partial if your email is n big , in pgp you use segmentation and here they come with the partial type this message contain only partial of this email and the second part and it is going to define the fragmentation , it is the same thing only thing is we are splitting the mail into smaller blocks that system can carry ,so that you don't have to think that this mail is too big and i am not able to carry so big message or send it , system will handle for some reason if you try to send one GB data with mime sting your mail server will reject, there is nothing to do with them i am but the configuration of email server ,don't try as you can lock the server, this is also thing I like external body ,imagine that you are preparing the mail and you want to include some animated stuff and when you dot hat the size is going to get large , so what you are going to do is you are going to put the URL picture and you don't have to put the actual animation ,Its going to have a pointer and when you read it the mail client will go and look at the pointer that is the address it will download to your mail and send it, that's why you are saying sometimes when you can read the mail you see external links so that when you click on that link what they are doing is they are activating this part and that part is going to that part and allowing you to see the mail, three year ago it was not allowing that link every link is active when you click on that webpage you can go that actual webpage of that university in other words

links are active within the mail , contains a pointer or picture within in the mail ,in other words you don't have to send it with in the mail we are going to save size and instead you are going to put the pointer within the mail, generally it is not user defined options you are not going to go this far and prepare everything, you are going to prepare a part on you client side and client is going to prepare those things except for the security part in the security part it is encrypted and stuff like that , lets say that this is the email that you are preparing and they are going to have some part and lets say they are video part and i am going to explain the format of the video and content and the plaintext of the message right here and external access is here so the external pointer is going to go there when you are preparing the mail you are not going to say this is my video part and this is voice part and I want to put it here or something like that , no , what you are doing is you are recoding your video and include this video into my mail and this is user transparent it behind the client when you prepare the client it is going to transfer data to destination you are not going to go and write ,you are going to show some link in mail and that link is going to go the destination and they back to back email or when you put URL address it becomes blue immediately as they are putting pointers there, we don't have any security right now , secure part is SMI AME , it could be harmful if you are downloading java or something but your client must check whether you a re downloading applets to permission from you it could be user dependent and at the same ti me dangerous , if it is image what kind of image we are talking bout jpeg or other formats video is mpeg if it audio ,the major audio format is mp3 , that's why ipod and iphone are very important and you can find lot of different companies and some of them are very good than ipod ,but ipod has name and everything and it changed the audio video format for the world but before ipod mp3 was there , but they used mpeg became such a important thing, now you are just downloading not buying the cd anymore , and most probably when you buy a ipod you can store 5000 songs I don't know what you are going to do with that that means thousands are cd's are stored over there with a verysmall device, so that life is changing and because of good formats and it enables the system to play it very much and it is a very good formatting techniques basically this audio basic is for basic audio cds you can see the audio file is for basic audio something but that is disappearing may be for the audio world you may say that ,but the future is mpeg and for the application you have lot of formats and PDF is coming very fast and it is very i amportant right now with the office 2007 you can create PDF docs , previously you should buy PDF ,with PDF rights and now its comes with the free office when you have the word ,and when you have one document it will say 1 click convert into PDF and it becomes one bigthing because it is the secured look at my material it is secured no one can change the content of the stuff i am not allowing if i am not allowing that you will not be able to take the print outs basically can you do the same thing with words the password security changing the content is not hat secured , if you submit a document then it is your work and if you submit some document , about your work to the project manager or to client don't send your document send your document , so when they clai am that there is mistake you can see ti , but if it is aword doc then they might have changed it in the middle and they may clam that this was original document, make it secure ,so that you can say that it is there work and clai am.