[1:00:23 PM] Caroline Barnes: Hey Yvonne! now you're in the group!

[1:00:32 PM] Caroline Barnes: Ok everyone, it's 1pm, so let's get started!

[1:01:02 PM] Caroline Barnes: We're talking about performance issues today - who's seeing them, how you handle them, and anything else you'd like

[1:01:46 PM] Caroline Barnes: let's get started as usual by having everyone introduce yourselves with your name, organization, and role!

[1:02:13 PM] Jeff Garmon: Jeff Garmon - University of Georgia - system admin/dba

[1:02:14 PM] Barbara Laane: Barb Laane, Feeding America,. Technology Programs Manager

[1:02:35 PM] Chuck Barker: Chuck Barker, American Bible Society, DBA

[1:02:36 PM] Carly Dy-Buncio: Carly Dy-Buncio, Best Friends, Direct Response Production Manager

[1:03:24 PM] Sachin Agarwal: Sachin Agarwal, Boston University, Director Gifts and Records

[1:03:41 PM] Robert Haberman: Robert Haberman, The Jewish Federation Los Angeles; CIO

[1:03:51 PM] Yvonne Mann: Yvonne Mann - Texas Christian University - Director of Special Projects - Conversion Technical

[1:04:14 PM] Caroline Barnes: Our only ground rule is that if you're responding directly to someone else's comment, make sure to use the @ symbol so we know who you're talking to...so if you want to respond to me, just say "@Caroline" before you type your answer or comment

[1:04:41 PM] Samuel Lufi: Sam Lufi, American Bible Society, Manager for Prospect Research

[1:05:01 PM] Caroline Barnes: We have a couple of special guests in the group with us today. Len Wyatt, from our Products team that specializes in performance isses, and Chris Gilpatrick, who specializes in performance issues on our CRM support team.

[1:05:08 PM] Len Wyatt: Hi everyone, I'm Len Wyatt from the Enterprise Performance Team at Blackbaud. I will be very interested in what experience you all have been having with the system performance, and what avenues you pursue to resolve them. My team is mainly focused on working on the internal code that sometimes leads to performance issues, but from time to time we have gotten involved in customer escalations. I want to prevent escalations from being necessary!

[1:05:11 PM] De-Stepp: David Stepp, Legacy Health

[1:05:48 PM] cigilpatrick: Chris Gilpatrick, Blackbaud, Enterprise Support Specialist II

[1:05:53 PM] Caroline Barnes: They're here to listen in and learn, and if they're able to answer questions as we go, I'm sure they'll help out as they can. However, as always there may be questions that come up that we'll have to get back to you on, and I will make sure that we follow up with you all via email.

[1:06:28 PM] \*\*\* Caroline Barnes removed Tracey from this conversation. \*\*\*

[1:06:36 PM] \*\*\* Caroline Barnes added Tracey \*\*\*

[1:07:26 PM] Caroline Barnes: Ok! does anyone have a question to get us started?

[1:07:27 PM] Jeff Garmon: @caroline - sporadic performance in CRM drives me crazy at UGA. The same process execute for 10 seconds one day but 4 hours the next because of x number more rows. I'm doing stats daily, index maintentnace daily, etc... it's just sporadic areas in the system which I can;t get my hands around

[1:07:58 PM] Devin Welsh: Devin Welsh, DBA, JewishColorado

[1:08:24 PM] Yvonne Mann: I presume this is mainly directed for those that are hosted by BB or anyone?

[1:08:44 PM] Jeff Garmon: so far my solutions have been to do a full stats (twice per day) and full index maintnenace daily. I know I'll lose my maintnenace window at some point though

[1:08:55 PM] Caroline Barnes: @yvonne - we can talk about both.

[1:08:57 PM] Len Wyatt: Jeff, what are the processes that you generally have issues with?

[1:09:24 PM] Devin Welsh: @Caroline - We're also running into sporadic performance problems in CRM updating smart fields and KPI's. Processes that took less than 15 seconds one day are now taking ~150 minutes

[1:09:33 PM] Barbara Laane: @Caroline - we encounter issues when we do a number or or statements in a query. So the way that I was looking to solve them was to break up the queries into smaller ones with selections.

[1:09:53 PM] \*\*\* Caroline Barnes removed Mike Cicerone from this conversation. \*\*\*

[1:09:56 PM] \*\*\* Caroline Barnes added Mike Cicerone \*\*\*

[1:10:01 PM] Yvonne Mann: OK - I am just listening too because we dont go live until Feb 15, 2015 - in the middle of conversion TR2 now.

[1:10:02 PM] Jeff Garmon: receipting process, event tabs (was actually a fix for that in 2.94 patch 91 - i think), marketing efforts, and our custom GL feed

[1:10:16 PM] Jeff Garmon: sorry my response was for @len

[1:11:01 PM] Jeff Garmon: @len - my first big exposure to the behavior was the out of the box smart fields on v2.94

[1:11:02 PM] cigilpatrick: @Barbara, one scenario we see quite often in query/selections is that we're using dynamic selections and have other dynamic selections nested into that one. This requires the application to refresh each selection everytime this runs. We always recommend using static selections

[1:11:11 PM] Barbara Laane: @Caroline, I've also encountered issues with some people saying that their queries take a long time to run, but when I run them as that person, they run fairly fast. We were able to solve the problem with the user clearing their cache within IE. They were running the queries in Webshell.

[1:11:36 PM] Carly Dy-Buncio: @Caroline. We experience sporadic performance issues with the marketing acknowledgement process. One day it will take 2 hours, and the next time it could take 16. We are self hosted though, but we've yet to determine if it's an issue that is internal or with the CRM

[1:11:40 PM] Robert Haberman: @Caroline: can everyone specify hosted?/version

[1:12:01 PM] Caroline Barnes: @robert - good call -

[1:12:06 PM] Samuel Lufi: @Robert hosted 2.9

[1:12:12 PM] Barbara Laane: @Chris, but if you use static selections, you don't get the latest data do you? And then that appears to be problematic if you are relying on current stats.

[1:12:28 PM] Jeff Garmon: @robet, UGA is hosted locally and crm is 2.94 patch 94

[1:12:37 PM] Yvonne Mann: TCU not hosted, 3.0

[1:12:38 PM] \*\*\* Caroline Barnes removed Mike Cicerone from this conversation. \*\*\*

[1:12:38 PM] Carly Dy-Buncio: self hosted 2.93 and we are soon upgrading to 3.0

[1:12:38 PM] Devin Welsh: @Robert Hosted CRM 3.0.516 SP 5

[1:12:46 PM] \*\*\* Caroline Barnes removed David Hendershot from this conversation. \*\*\*

[1:12:47 PM] \*\*\* Caroline Barnes added Mike Cicerone \*\*\*

[1:12:52 PM] \*\*\* Caroline Barnes added David Hendershot \*\*\*

[1:12:56 PM] Barbara Laane: @Caroline, the issues I was running into were from 2.94. We just recently moved to 3.0; so I can't say if we will see these same issues in this environment.

[1:13:01 PM] Tanya Crowe: I just started seeing the group messages - Tanya Crowe, University of Georgia, Developer.

[1:13:08 PM] cigilpatrick: @Barb, every time you change/save those queries they'll be refreshed if they're static. You can also create queue processes that run daily/nightly that refreshes these selections outside of daily routines

[1:13:36 PM] Jeff Garmon: @carlybfas - exactly what I was referencing

[1:13:52 PM] Len Wyatt: @cigilpatrick, static selections are a better idea whenever that meets the need. As you know, it means the system doesn't have to recompute the selections.

[1:14:10 PM] Barbara Laane: @cgilpatrick, thanks. I think doing a queue process would be the best bet. So I'll need to look into that one.

[1:15:39 PM] cigilpatrick: @Barb, most definitely. This is something we've seen others have success with that helped improve the speed of both queries and processes that use them.

[1:15:58 PM] Len Wyatt: @Carly Dy-Buncio, do the number of records vary a lot from day to day? E.g. does it take loinger when there are more records?

[1:16:49 PM] Carly Dy-Buncio: @Len, it really appears to be random. We run them weekly and on average I would say it is about 6,000 records. I've seen it slow down when processing as little at 4,000 records, and run quickly when running 20,000 records

[1:17:01 PM] Caroline Barnes: @Devin - similar question for you as what @len asked - are processes taking progressively longer...or does it jump around?

[1:17:03 PM] Jeff Garmon: @len - from a system/database side, I've got the database server with 147gb for CRM only (a configuration I run 8-10 instances for other things), i/o is not an issue, split the temp, got logs planted on SD, SQL snaps every 3 seconds for verification, etc...

[1:17:26 PM] Samuel Lufi: @barbara another thing on the query/selection side I have found helpful is to use nested queries to avoid an "OR" statement in the logic. there was a blog post on it a while back

[1:17:34 PM] Len Wyatt: @barbara.laane1: You are right. If the business need requires current data, you have to do that. BUt sometimes people use dynamic selections just out of habit / custom, and they may not realize the impact.

[1:17:53 PM] Caroline Barnes: @sam @barbara - I can track down the blog post and share it with the group.

[1:18:23 PM] David Hendershot: Hey everyone!

I just wanted to introduce myself. I'm David Hendershot, a Software Engineer on the Enterprise Performance Team.

[1:18:45 PM] Caroline Barnes: @david - welcome!! so happy to have you here today :)

[1:19:02 PM] Robert Haberman: @Caroline - is there a best practice document for ad-hoc query performance?

[1:19:34 PM] Caroline Barnes: @robert - for things like the best way to configure queries - like the "nested" idea that @sam suggested?

[1:19:42 PM] Jeff Garmon: The other big performance issues for UGA are, the query building process (outside of the actual query execution), sometimes just to expand the nodes, security (where drilling into things and just trying to pull up a security role)

[1:19:51 PM] Robert Haberman: @Caroline yes

[1:20:16 PM] Mike Cicerone: @Group: here is the link to the blog about how to make queries run faster if you use OR statements: http://www.blackbaudknowhow.com/blackbaud-crm/use-merge-selections-to-improve-query-selection-performance.htm

[1:20:28 PM] Caroline Barnes: @robert - I can look into that...and if there is not currently something, that would be a good thing for us to build. I'll follow up.

[1:20:41 PM] Caroline Barnes: @mike - thanks!

[1:21:03 PM] David Hendershot: For those who are experiencing intermittently slow performance and have DB access, have you been able to examine your query plans from days where things run well and days where they run poorly?

Usually, when investigating a slow business process and the such, I try to use SQL Snap to find the bottleneck SQL query (assuming that SQL is the source of the issue) and then see if we have an issue with Parameter Sniffing. This isn't always the issue, but it can defintely result in massive performance differences.

[1:21:06 PM] Jeff Garmon: @mike - thanks - will share locally

[1:21:47 PM] Jeff Garmon: @david - yes - parameter sniffing in a LOT of places

[1:21:48 PM] Caroline Barnes: @jeff - interesting...the security part - not sure i'm following there.

[1:21:51 PM] Carly Dy-Buncio: @David - we just did that this week. Our BB rep analyzed the snaps and couldn't find anything that was blocking the process.

[1:22:13 PM] Caroline Barnes: @carly - was that a support case, or who were you working with? maybe we can follow up?

[1:22:38 PM] Carly Dy-Buncio: It's a support case we've had open for quite some time. Do you want the case #?

[1:22:49 PM] Carly Dy-Buncio: soory,.@caroline!

[1:22:56 PM] Caroline Barnes: @carly - sure!

[1:23:17 PM] Jeff Garmon: @caoline - when in crm, administration, system roles, select one of the security roles, select features, select assign feature permssions

[1:23:23 PM] Caroline Barnes: @carly I know those sporadic issues are the toughest to get to the bottom of

[1:23:57 PM] Caroline Barnes: @jeff - ahh when you're setting up system roles - completely separate from query

[1:24:10 PM] Carly Dy-Buncio: @Caroline - 12006149

[1:24:23 PM] Caroline Barnes: @carly - thanks - we'll circle back to that case and see what we can do

[1:24:33 PM] Carly Dy-Buncio: @Caroline - thanks!

[1:24:37 PM] Jeff Garmon: @caroline - yes ma'am. of course CRM applying the security in other areas (like building the query) is an issue at times as well

[1:24:53 PM] Caroline Barnes: @jeff - I'm definitely familiar with that slowness we see when we're opening up the window for feature permissions.

[1:25:13 PM] Caroline Barnes: @jeff - that one is tough, because we're loading all...10,000 or so feature permissions in the window.

[1:25:15 PM] Jeff Garmon: @caroline - but products seems to have been very responsive to the overall issues where implying security in the product is the issue

[1:25:56 PM] Caroline Barnes: @jeff - that's good to hear - so you've seen performance improvements made in situations like that?

[1:26:03 PM] Carly Dy-Buncio: @mike.cicerone - thanks for the link to that blog. I will try updating my acknoqledgement queries using that logic to see if it will help. All of my ack queries have a lot of OR statements in them. I'm sure that contirbutes to the slowness at times

[1:26:33 PM] cigilpatrick: @Jeff/Caroline, I've also seen slowness here but have found it's steadily gotten better in later veresions of CRM but as Caroline mentioned there are quite a few feature permissions out there.

[1:27:34 PM] Caroline Barnes: @jeff/@chris - i can certainly feel out whether it might be possible to improve that speed at all...I know it can be cumbersome especially when you're troubleshooting a permissions problem :)

[1:27:35 PM] Mike Cicerone: @carlybfas: its a little work redoing the queries but we had a query run for 2+ hours and then crash all of a sudden run in 1min 30 seconds after we didi this

[1:28:26 PM] Caroline Barnes: @mike - that's amazing! sounds like we really need to get the word out about those adjustments...and hopefully come up with some other best practice suggestions too.

[1:28:28 PM] Jeff Garmon: @caroline - agree that is a tough one when loading that much data, but is an issue for our security admins when I tell them to just keep trying. And yes, have some some performance gains in some of these areas based on fixes in recent patches

[1:28:32 PM] Carly Dy-Buncio: @Mike - Nice! Hopefully we'll see some good results then

[1:28:43 PM] Samuel Lufi: @mike/@carlybfas: Documentation becomes important, however, otherwise it is time consuming to trace back all the query references whenif oyu need to update

[1:29:23 PM] Mike Cicerone: @samuel: yes. unfortunately we are dealing withthis as a "someone cmplains then we fix it" type of issue

[1:29:24 PM] Len Wyatt: I have a question for the group: Following up on @mike's comment about the blog, who has seen or not seen any of the material we have posted about perofmrnace already? I need to figure out if we are reaching the right people.

[1:29:56 PM] cigilpatrick: @Jeff, when you're referring to the feature permission performance is this with the loading of the feature permissions on the tab or the opening of the assing feature permissions option. Assuming the former but wanted to clarify

[1:30:05 PM] Mike Cicerone: @group: i have only seen that one query blog post

[1:30:24 PM] Jeff Garmon: @len - I've dug around and searched where I can, is everything in ne location or spread out?

[1:30:29 PM] Samuel Lufi: @Len: I've really only seen the one blog post on OR statements

[1:30:45 PM] Devin Welsh: @len The blog post that was linked is the only performance related material I've seen.

[1:31:16 PM] Jeff Garmon: @cigilpatrick - loading of the feature permissions (if I remember correctly)

[1:31:25 PM] Carly Dy-Buncio: @Len I haven't seen

[1:31:26 PM] Caroline Barnes: @len and @jeff - the CRM Community website may be a great place to centralize our documentation on performance. That's something we can definitely make happen

[1:31:52 PM] Mike Cicerone: @caroline: good idea

[1:32:40 PM] Jeff Garmon: obviously batching is slower than users prefer, but have seen some performance gains there in latest patches too

[1:33:04 PM] Caroline Barnes: @jeff - good to hear that things are going in a positive direction.

[1:33:07 PM] Len Wyatt: @caroline: I am making it a point to put a note in the Community site when we publish something, even if it's published in a different location (e.g., the Developer Network). That wasy everyone at least has a chance to find out, regardless of the location.

[1:33:51 PM] Jeff Garmon: @caroline - generically; I'm confortable with the performance we have overall, it's just the sporadic things which drive me crazy at the moment

[1:33:51 PM] Caroline Barnes: @len - thank you so much! maybe we can work together to create a board just for performance, or some sort of landing page so its all organized

[1:34:02 PM] Barbara Laane: @Len, I haven't seen the blog. Sorry.

[1:34:16 PM] Caroline Barnes: @barb - I'll include the link in my follow up email

[1:34:35 PM] Barbara Laane: @Caroline, thanks so much.

[1:34:41 PM] Caroline Barnes: Everyone - Len has posted some documents recently in the community, and I'll share those links as well in my follow up

[1:36:09 PM] Caroline Barnes: And everyone, do keep in mind that Support can assist with any performance issue that comes up. Keep the cases coming anywhere in the system that you find slowness. That way we can loop in our wonderful development team and work towards more fixes, whether they're in patches or pinpointing environmental problems

[1:36:36 PM] Len Wyatt: Everyone - watch for another article about index maintenance in a few days. For the self-hosted, this will be approraite for your DBAs. If you are hosted by SDO, that is taken care of for you already.

[1:37:30 PM] Caroline Barnes: @len - we actually talked just recently about the indexing that's done as part of database maintenance by our hosting team :)

[1:37:51 PM] Jeff Garmon: @len - can you leak whether or not that will simply referene me to the Hallengren stuff or something more specific pertaining ot CRM?

[1:39:35 PM] Jeff Garmon: @caroline - don't you know everything is an environmnetal issue :)

[1:40:10 PM] Caroline Barnes: @jeff...tell me about it ;-

[1:40:10 PM] Len Wyatt: @Jeff if you are using Ola Hallengren's tools, you should be in good shape. THose are great tools. I don't think the upcoming paper will add anything beyond that. But from what I hear, there are sites that don't necessarily do the index maintenance, and we're hoping the paper will motivate them.

[1:40:38 PM] Jeff Garmon: @len - thanks for sneak peek

[1:40:47 PM] Caroline Barnes: @len - @jeff is on top of it!

[1:41:35 PM] Robert Haberman: @Caroline - can someone address Audit Tables maintenance and impact on performence (if any)?

[1:41:59 PM] David Hendershot: @jgarmon Internally, I'm working on a guide to troubleshooting performance issues. It should have some information on on tracking down itermittent issues. Would you find something like that useful?

[1:43:20 PM] Jeff Garmon: @david.henderson. Yes - will help test it if needed

[1:43:28 PM] Caroline Barnes: @robert - we chatted a bit about audit table cleanup recently. in general, people only keep the audit tables enabled that are critical to their business processes. and most people seem to purge them regularly (anywhere from 1-12 months)

[1:43:38 PM] Jeff Garmon: sorry - @david.hendershot

[1:44:00 PM] Caroline Barnes: @robert - I can't say that I'm aware of audit table data growth causing slowness in other areas...has anyone else seen anything like this?

[1:44:18 PM] Jeff Garmon: @caroline - are most purging audit data or archiving it?

[1:44:23 PM] Caroline Barnes: @robert - @mike might be able to speak to this, as they've done quite a bit of purging of audit tables recently

[1:44:38 PM] Mike Cicerone: @Robert: we run three global changes every three months to cleanup audit tables. we havent noticed any performance issues genenrated by those processes

[1:44:41 PM] Caroline Barnes: @jeff - I'd have to open that one up to the group. I've only seen purges, personally

[1:45:18 PM] cigilpatrick: @Robert, we can also purge audit data through a global change as well

[1:45:32 PM] David Hendershot: @robert Auditing record changes does have a small performance impact. More of what we've seen is a space impact and a greater amount of time required to query audit tables.

[1:45:33 PM] cigilpatrick: Mike beat me to the punch

[1:46:00 PM] Jeff Garmon: @mike.cicerone - do you do the purge globally for all audit data or target specific audit data?

[1:46:40 PM] Jeff Garmon: @mike - for audit purpose on revenue and such?

[1:48:19 PM] Mike Cicerone: @jgarmon: there are a handful of tables (i think 4-6) that we keep 1 years worth of info in but other than that we delete. what we have seen deleting the most records is the global change that deletes "Business Process output" we have gamined a lot of db space back with that one global change

[1:48:53 PM] Mike Cicerone: @jgarmon: our gifts and records director wants to keep info for bio and revenue changes

[1:49:05 PM] cigilpatrick: @Mike, yup that's another biggie and a great practice. All output information from business processes is stored and kept unless deleted through the global change

[1:49:08 PM] David Hendershot: @Jeff Ok. I'll make a note that we have requests to publish the guide to the community site . It will probably be several months until we have it tuned enough for release, but keep your eyes out in autumn!

[1:49:14 PM] Jeff Garmon: @mike - thanks, will check on the Business Process output one

[1:50:27 PM] Caroline Barnes: @everyone - seems like the CRM community needs a place for performance-related documentation and news - I'm on it! It'll be in place soon.

[1:50:50 PM] Samuel Lufi: @Caroline - Thanks!

[1:51:15 PM] Len Wyatt: I know this is kind of tangential to performance, but how many have concerns about the overall size of your databases? How fast are your databases growing (perhaps as percent per month or percent per year)?

[1:52:09 PM] Caroline Barnes: @len - that's been an ongoing concern for @mike at Boston University. we've made some strides but it's beena challenge!

[1:52:26 PM] Mike Cicerone: @Len: we at BU have hit a "danger zone" twice. weve been on ecrm for three years August

[1:53:08 PM] cigilpatrick: @Len, this is something that's been mentioned in the past. The global change to remove business process outputs, audit data, and even coming up with business practices for older batches (ie. deleting them) has helped in some cases

[1:53:18 PM] Jeff Garmon: @len - yes, live for 9 months and database size has increased by 300% so far. I panned for that iniital growth though, but it hasn't hit the plane yet, and I was figuring it would. Biggest space issues for UGA; audit data, export/selection stuff, and users attaching things as documentation

[1:53:29 PM] Mike Cicerone: @Group: We are setting up a "purge cadence" of every other month for the business process output and we run the audit table purge every three months.

[1:53:53 PM] Mike Cicerone: @group: our original cadnece of every six months for all purging was not keeping up with our DB growth

[1:54:40 PM] Jeff Garmon: @len - nothing I'm panicked over yet, but am implementing some monthly fact gathering SQL processes to start getting a better handle on it. number of tables, number of rows, database size, table size, index size, etc....

[1:55:35 PM] Jeff Garmon: @mike - is there a document that explains what is actually included in "business process outpu"?

[1:56:46 PM] Mike Cicerone: @jgarmon: i havent seen any documentation other than the blackbaud help screens and pdfs. everything has been found out from blackbaud via a trouble ticket and meetings

[1:57:16 PM] Jeff Garmon: @mike - and there in lies the problem :)

[1:58:44 PM] Mike Cicerone: @jgarmon: Yes. i havent seen any documentation that really goes deep into the program. only surface information. The help form blackbaud weve gotten has been great but i am the type of person that wants to know what is happening in the background when i click a buttn or run a global change

[1:58:51 PM] Len Wyatt: @mike, @jeff - It sounds like the document David mentioned will be helpful when it's ready!

[1:59:06 PM] Caroline Barnes: @jeff and @mike - I can find out for you and let you know what's included. it's an ongoing issue that I'm working on with our documentation team, trying to really make sure that EVERYTHING is covered and clear in our user guides. it's a challenge but definitely a necessity.

[1:59:22 PM] Jeff Garmon: @caroline - thanks

[1:59:24 PM] Mike Cicerone: @Len: Yes was happy to hear about that :D

[1:59:40 PM] Samuel Lufi: @caroline, jeff, mike - definitely would like to see deeper documentation as well

[1:59:48 PM] Barbara Laane: @caroline, having more info in the user guides would be great!

[1:59:52 PM] Jeff Garmon: @len - yes, maybe so - look forward to seeing what comes out

[2:00:08 PM] Barbara Laane: @Caroline, I need to leave to go to another meeting. Thanks so much!

[2:00:26 PM] Caroline Barnes: @barb - thanks for joining!

[2:00:33 PM] Samuel Lufi: @Caroline - reasoning behind things is helpful too, not just what happens but why the developers/designers thought that was a good way to do it

[2:00:41 PM] Mike Cicerone: @Group: another good meeting. i have to go to anothe rmeeting now. Thanks

[2:01:04 PM] Jeff Garmon: @samuel - yes, almost needs to be two different documntation paths, functional and technical

[2:01:15 PM] Samuel Lufi: @everyone - thanks all, I have to go to another meeting as well

[2:01:24 PM] Samuel Lufi: @jeff - agreed

[2:01:56 PM] Caroline Barnes: @samuel - I agree. I've been pushing for more of that - I'm actually reviewing an updated user guide this week for just that type of thing.

[2:02:20 PM] Caroline Barnes: Ok everyone, well thank you for being here. Thank you especially to Len, David, and Chris for their help!!

[2:02:46 PM] cigilpatrick: Thanks for the feedback all and have a great day

[2:02:55 PM] Caroline Barnes: I'll be following up with the group with our transcript of the chat, and a summary with action points...and I'll be following up from there as we make progress of the actions that need to be taken.

[2:02:56 PM] Len Wyatt: It was good to "meet" you all. Keep in touch!

[2:03:41 PM] Jeff Garmon: @caroline - feel free to correct my spelling :) thnaks @len, @mike, @dvaid, etc...

[2:04:11 PM] Carly Dy-Buncio: Thanks all!

[2:04:16 PM] Caroline Barnes: @jeff - haha i'm always tempted to edit mine too! but i think it's worth the errors to have this sort of immediate, in person discussion!!

Yvonne Mann

Carly Dy-Buncio

Tanya Crowe

Barbara Laane

Jeff Garmon

cigilpatrick