

Expert Briefing – Notes Health Check [37:35 minutes]

Mark Leaser [0:00:00.0]: This is Mark Leaser from IBM Software Services for Lotus. I'm joined today by Ilana Weiser, IBM Field Support Engineer, and Tim Speed, IBM Messaging Architect. We're here to discuss our strategies for maintaining the health of your Lotus Notes and Domino environment. I'd like to start with a quick rundown of the challenges you're seeing with your clients and we could just have a brief discussion on what we are seeing out there, what are some of the things that customers are asking us, some of the things that they need, some of the challenges their facing. Tim, why don't we start with you? What are you seeing out there? What are some of the biggest things that are on customers' mind?

Tim Speed [0:00:37.1]: Well, Mark, it really starts off with not knowing what they don't know. This is where we jump right into monitoring, the importance of monitoring the environment, monitoring their operating system, monitoring the various parts of Lotus Notes and Domino. The other thing we hear about is, again, back to not knowing what they don't know, is really the overall health of their environment and this is where we'll talk about things like cleanup of their environment in particular the name and address book of course.

Mark [0:01:03.8]: Are they saying their systems are slow? Are they having performance problems? What are some of the challenges that you're seeing?

Tim [0:01:11.0]: Well, that's precisely it. You're right, around performance and so the complaints are our system is slow or customers are complaining that response time is slow, things along those lines. It's really, what it comes down to is configuration more than anything in the environment and so we're able to sit down and talk to customers regarding, well, what are your configuration settings? What are your issues? And again to really kind of focus on this point, is monitoring and understanding what do you have and really what are your baselines? We find that a lot of customers don't create baselines, Mark.

Mark [0:01:41.2]: I know there's a big pressure right now on cost. Are we getting organizations that are asking for consolidation? And I've heard recently a number looking at doing that type of thing. Ilana, what are you seeing out there when you're in the field?

Ilana Weiser [0:01:53.4]: Customers definitely want to reduce costs when it comes to server consolidation and reducing any kind of administrative overhead on their systems. Along the lines of server consolidation, a lot of companies are going green so they want to reduce the number of servers that they are using and improve the performance to be able to do so.

Mark [0:02:11.9]: Before we get into some of the details, and I know you've prepared a lot of really good best practices from an IBM perspective, Tim, you've already mentioned monitoring. If you could give us kind of buckets of things that

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need to be done to be able to improve the performance and make sure that your systems are healthy, what would those be in addition to monitoring?

Tim [0:02:32.3]: Let's break out the categories of monitoring. We have the in-band monitoring, out-of-band monitoring, and, of course, reporting monitoring. Those are your big bucket right there. We'll talk about that a little bit more in detail as we go along.

When it comes down to reporting, it's amazing what is built in to the product to help you do this today so you don't have to buy a third party tool, you don't have to go off and write anything extensive and using what's built in the product will give you an insight as to what is the health of your environment, what is going on with your environment, and of course there are third party tools to help you but those are our basic categories.

Mark [0:03:05.6]: Why don't we jump right in and let's just talk about kinds of things...you know, when you're out in the field and you sit down and you're in there for that first couple of hours working with a customer, what are the checklist of things that are must-haves? If you were in there for just a day and you said here's the recipe to get back on track, can we just go down through those pretty quickly and list those out?

Tim [0:03:28.6]: Sure. Let's start off with the configuration review. Now, your name and address book is the heart and soul of your environment and you can do some real simple things without having to make a large project. Start just opening your name and address book and take a look at some of the settings. Take a look at some of the server settings. Take a look at some of the settings that you have for your end-users. See if you have any redundant tasks. That's a big one. Looking at your name and address book, you can go out there and see what particular task might be loaded regarding some of the processes you have. These tasks are controlled in a combination of places in your name and address book and of course your Notes INIs. I would start right there, opening up the name and address book, see how your service is configured, spend a lot of time on that server document. The other piece would be around some of the log units you have enabled. Ilana, you have some comments on that?

Ilana [0:04:14.1]: Yeah, a lot of customers have duplicate logging both at the OS level and Domino console logging. There is a lot of things we can do to reduce redundancy from a transaction logging standpoint and improve performance there. Even our backups we can improve performance time and backup media and storage costs associated with that.

Mark [0:04:35.4]: What leads to some of these problems? Why are customers seeing this? Is it just typical buildup over years? Is there one or two reasons why you see these kinds of problems?

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Ilana [0:04:45.3]: It's usually built up from just acquiring systems over the years, systems being handed from administrators to administrators, limitations and earlier releases of products. Customers will continue to operate the same way they've been based on something that happened in a previous release.

Tim [0:05:01.3]: The other thing you'll see on that, Mark, is something as simple as the internal process of change control whereas an administrator will say, "well, you know, I'll go turn on this additional logging and see if this will help me." One, they don't take it through change control, two they forget to turn it off and then the next thing you know we're doing logging when you don't need it.

Mark [0:05:18.5]: What about design? Anything in terms of that overall design is often overlooked?

Tim [0:05:23.7]: I know what you're asking there, Mark. It's really has to do with the design of name and address book. In every release, sometimes even point releases, you will see changes within the system templates. Let me give you an example of what those are. That's the pub names, that's one of them, and that's your template that basically is the heart and soul of your name and address book. You also have other system databases for admin and catalog and so on...I won't name them all here. Let's just focus on one of them, the name and address book. We do what we call a formal health check process and we use actually a third party tool from Team Studio and the name of the tool is called the Delta Tool. Most companies that have any kind of an application environment that they support will probably have this tool in house. It's a fairly low cost tool but it's a very powerful tool. And what we do is with that tool is we will compare the out-of-box pubnames.ntf to the current release of what they have in their name and address book. I'll give you an example of what we found just the other day. I found a person form that was more than 2 years old and they were wondering why they were having some problems with some of their client processing. Turned out to be that was the cause of the problem. A real simple test, a real simple check and big, big benefits by doing a simple check like that, Mark.

Mark [0:06:31.4]: I know a lot of times you'll have that first meeting and do triage, you know, here are the big hit items. Anything else that you'd want to do in that first cut? I know, Ilana, one of your specialties is performance so anything specifically around that?

Ilana [0:06:48.1]: We take a look and see if there's perceived customer and user performance issues in the environment or, as Tim was saying before, just repetitive tasks, things taking longer than they need to. Maintenance is very important. Some customers, if maintenance isn't configured properly, are doing things they don't need to be doing, overlapping things and not performing maintenance can also affect performance down the road.

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Mark [0:07:12.8]: So after you've done that, you know, look at the quick hits, maybe we can just have a discussion on the checklist. What kind of things do you do to clean up? Maybe just take us through items that you would go through. For listeners, we'll be providing additional documentation with tech notes and this list as well. So, Tim, why don't you give us a quick overview of those things that you would recommend?

Tim [0:07:34.9]: Well, right off the bat as I mentioned are the name and address book and we really spend a lot of time on that. Let me just give you and the audience a little quick tip here. Take a non-replica copy of your name and address book. Again, make sure it's not a replica so it's File, Application and New Copy and call it testcheck.nsf and then in there you create your own little private views. Now, the reason that you want to make it non-replica is because you don't want anything replicating back to your production environment. Go in and categorize some of the settings and start right off with the server form. Now, again you can go off and use the existing views and modify them but you want to look at some of the things that are out there. For examples, store log for the AdminP process. I might be getting a little technical here with some details but this is a real simple little check and you can use this to check to all of your settings. You can check to see what is your security settings, what are your settings for checking public key, what are your settings for checking your administration task, how many tasks are loaded and you can go in there and you can see what's been loaded in. I'll give you a hint. Definitely go in and take a look at what's called your Agent Logs. You'll find that a lot of customers have this loaded and they don't even need it. What that is is a task called DOLS, Domino Offline Services. It's a great little feature but it's the same thing, if you don't need it, don't load it and we find that a lot of customers load that. So, Mark, that's one of the first things we do, is break that address book apart, dig into it. The second thing is, again, Ilana made a note of this but here's a simple one. Open up your Notes INI; look for anything that's a debug parameter. A lot of us are going to be the first one to tell you about the importance of debug parameters but also if you have a debug in there and if you need it, fine, keep it. But people but debug parameters in there because support tells them to, and that's fine, but then they forget about it and next thing you know they're doing an additional log and additional debugging when they don't need it. Ilana, anything to add to that?

Ilana [0:09:24.4]: Yeah, there's also times where a certain hot fix or interim fix for a problem will require an INI parameter change and that occasionally tells the server to revert back to older behavior where when we fix these issues in new releases if you upgrade, those kinds of parameters can hold back your server or prevent you from using some of these newer behaviors as we correct them. So it's always important to review any settings that you would have put in there for fixes and support can always verify if they're still needed for newer releases.

Mark [0:09:56.6]: Anything else that you would be looking at from a cleanup standpoint? Things that kind of get your house in order?

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Ilana [0:10:02.3]: I think you definitely need to review your file system as well. Customers will find within just from an operating system perspective, old temp files, old logs, old install directories, sometimes entire older copies of their data directories, anything that's on your file system that you don't need anymore can get cleaned up and get rid of. Also, from a backup perspective, a lot of customers don't realize how much cleanup can be done surrounding the backup process. Occasionally, customers will backup things like their names.nsf on all 300 servers in a domain and you don't need 300 copies of the same system files everyday. You can also make sure that you're not backing up FT files and *.ft in your exclude for backup software, can make sure full text indexes don't get backed up, look at how your backups are being configured. Our new DAOS utility in 8.5 will also cut down on your database size significantly so that you are reducing your nsf backup storage. In some cases, we've seen a 75% reduction in size of things that you need to backup daily.

Mark [0:11:14.0]: I know often managing groups can be a challenge. Is there anything that you recommend for group management?

Ilana [0:11:20.6]: There are some tools we have. AdminP has a Find User or Find Group utility and that will go and let you know everywhere that a specific group is used by finding groups that are no longer needed. In getting rid of them you can improve things. 8.5 also introduces the idea of auto-populating groups so that people don't need to maintain who is in a group anymore. Different parameters can build the groups in for you and anywhere that you have groups nested inside of groups and either go several layers deep or create circular groups, can actually cause performance problems, especially when used for server access or administration type places.

Mark [0:11:59.4]: Ilana, I think you talked about DAOS. Are there any other tools that you recommend, that you use, maybe tools that are integrated with Notes that help you in this process and Tim or Ilana, either one, jump in.

Ilana [0:12:13.7]: There's several tools. DDM is a great tool that can be used. It has some server probes that you can configure that will look at your server document configurations and do a comparison if you've got inconsistent settings in your environment. DDM can come back and report those to you. If you're looking at server consolidation, there's the Domino Change Control Manager, which will analyze all of your activity trends information and perform actual resource balancing for you and it'll let you know where you can databases, which databases are good to add, allow you to approve those changes and it'll perform the changes for you. We also have a lot of analysis tools available and if you want to talk to them about some of those...

Mark [0:12:56.0]: It goes back to your original comment, Tim, about being able to monitor. Maybe we can just talk a little bit about tools that can be used to clean

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up and tools that can be used to monitor. Can you help us break down what you would use when?

Tim [0:13:09.6]: Well, you know it really comes back to that old term “best kept secret” and some of these tools have been in the products since 6 and 6.5 and it’s amazing how many people really haven’t discovered some of these tools. Some of these things are just very simple tools. Let’s start, for example, with a real simple one, Stat Log. This has nothing to do with creating your stat or reading them. What this is, the tool is actually a server task at 5. It’s by default, by the way. You can move it though it’s not necessarily recommended to move it, but you could...and at 5 o’clock in the morning, it’s going to load this thing called Stat Log and it’s going to go off and grab all kinds of information about your databases and it’s going to put that into your log.nsf so that you can read this. The nice thing about this is with that data, then you can go out there and do some analysis to look for basically databases that you’re not using anymore and every database you don’t need is something that the server doesn’t have to process, is some disk space that you get back and so on and so on.

Another tool that’s been out there in the product for a while is the Decommission tool. Now this doesn’t decommission anything. I say that because people say, “oh, I don’t want to push that button because it’s going to do something bad.” No, this is a report only tool and again it’s been in the product for a while and it’s great to run that against a couple of servers, especially if you’re using it doing some consolidation, you want to consolidate, this will give you an idea of what you can consolidate.

Don’t forget about our good old friend Catalog. That’s good. We don’t necessarily running out on your messaging service but you know you can load it and then turn it off later if you want to get a snapshot of a server, including a messaging server. So that’s a great simple tool that you can just load up and run yourself. Oh, I did forget about our Cluster Analysis tool. That is an outstanding tool that’s been in the product for a while and what that will do is along with analysis of cldb.nsf, that’s your cluster database, it’ll go through and tell you if you have databases that don’t match, ACLs that don’t match, things along those lines. That’s an outstanding tool and of course, Log Analysis. Again, this is not necessarily a new tool but this will help you analyze your log against your servers. So take a look at these tools. I think you’ll be pleasantly surprised at the power and how it can help you analyze your environment.

Mark [0:15:16.4]: Ok. Those are tools that we’ve categorized as out-of-the-box. Anything else, if you were parachuted into an organization and you’re there for 2 months and you’d have a wish list...any additional outside tools that you would recommend to up the health of your system up to snuff?

Tim [0:15:35.0]: Well, I’ll just pick out one right now then I’ll pass it over to Ilana but here’s a brand new one. It’s a great old tool to get an idea of what’s going on

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in your environment and it's called the DAOS Estimator and we're going to talk about DAOS in a little bit more detail later on but the DAOS Estimator does more than just tell you about the saving you're going to get with DAOS but it'll also tell you about your current environment, as to how well you'd manage your attachments from an internal and compression standpoint. You have two types: LZ1 and Huffman and it seems that a lot of people did not correctly, back in 6, upgrade their attachment types to LZ1 from Huffman. And the reason this is important is that it's a new, better compression mechanism for LZ1 and what happened was people enabled to go from starting today forward for all LZ1 was they forgot to go back and convert all their old attachments so this tool is an outstanding tool that I strongly recommend that people use. Ilana, do you have anything you want to recommend or talk about?

Ilana [0:16:34.8]: For the most part, all of the customers I work with, all of the tools we need to do all the work are native to Domino. A lot of your third party products make prettier pictures and they give you analysis but it's all based on tools that are inherently native to the Domino product itself so everything we need to do, even the DAOS Estimator is available for download from Lotus. It's not an additional cost product so we can do everything natively. There are third party tools that maybe make things easier, provide additional analysis about things. The only place that I would have a third party tool possibly looking is when you're looking at monitoring a system from something broken, like this minute, you usually want an external product to be looking at your servers and tell you if something is wrong because things that monitor themselves can't tell you when they're broken.

Mark [0:17:26.7]: That is good to know. It's the old acres of diamonds. You just need to know where to look and how to put it all together.

Tim [0:17:32.7]: There's one more...and we kind of saved the best for last here, and it's been in the product a long time...is your Stats Process and you can just go to the console and type in "show stat." You can also do Load Collector which is a server task that you load and it'll load your data into statref.nsf. This is a very, very, very powerful tool and I'll give you one example. Let's say you want to monitor your cluster queues or you want to monitor their caches based on your Domino buffer pool size. Your percent, weight and buffer or overcrowd and rejections. These are all important stats that need to be monitored. Well, this comes right out of collective process. As Ilana said, it's built into the product; you don't have to buy anything extra. One more hint...with your statref, you can go and add to private views, you can categorize. It's real easy to do and that way you can get quick, at a glance views as to what's going on with all your servers at once.

Mark [0:18:30.0]: Maybe we can just spend another minute or two on DAOS. Is it "da-os" or "day-os"?

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Tim [0:18:35.4]: Well, that's a good question... {Laughs}

Mark [0:18:35.9]: Or is it dependant on where you're at in the country? {Laughs} Maybe we can just go down through the...you talked about some of the specific things that it could do. Maybe we could just discuss that a bit.

Tim [0:18:45.3]: DAOS is new with 8.5. It does require an ODS change and so you do need to consider that. The storage space and your mileage will vary. We've seen improvements in your storage for the attachments from 15-60%. Again, you're going to have to do your own testing but DAOS Estimator, by the way, will help you do that. As Ilana said, this is something you can download yourself. Using the DAOS Estimator will allow you to basically consolidate one or many attachments basically into one shared database which will basically overall help your overall disk IO optimization and, as Ilana said earlier, will help with your backup.

Ilana [0:19:24.0]: We've seen customers who they may not have had a lot of duplicate documents. Basically we reduce any duplication of attachments. They may not have had a lot of that on their application servers but they'll decrease the size of their NSF space by about 75%. So DAOS itself is the ability to be able to detach attachments and store single copies of them. The DAOS analysis tool is a tool you can run on any version server that will let you know information about your attachments and whether or not you'd benefit from the DAOS feature.

Mark [0:19:58.8]: Okay, great. I appreciate you taking the time on that. Let me turn to 8.5. I know a lot of customers are looking at this. I know what a lot of the issues are. We want to make sure we've got our house in order, we're monitoring, we're ready. Some people are looking at consolidating both to save cost and there's a number of movements within organizations, a green movement in order to facilitate using resources better. Let's talk about 8.5...maybe just a highlight or what are some of the key reasons why someone would want to go to 8.5 and maybe we'll talk about the backend and performance and making sure things are healthy. Tim, you want to kick us off and just talk a little bit about 8.5?

Tim [0:20:36.4]: Basically, we've done a number of tests and there's actually if you go out to our www.notes.net is the old quick way to get to it, but it's our Developer Works site and you go out there and take a look at the technical article. You'll see a technical article out there that talks about server resource reduction with 8.5 and what they did is they did a Notes bench analysis with 4000 simulated users. Now this is a good baseline to give you an idea for comparison of how the product is going to respond and we saw improvement in every category for the disk bytes per second, the disk operations per seconds and the processor and we've tested each of the platforms, the IX Series, Linux, Solaris, Win64 and the MACs and saw improvements across the board. It is just really remarkable. So basically this is a good starting point for you to think about what

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8.5 will bring to you just for the simple part of performance alone. Ilana, have anything to add to that?

Ilana [0:21:40.8]: From our performance perspective, any improved performance allows for consolidation which is your cost savings right there.

Mark [0:21:47.8]: And how about administration? We talked a little bit about some of the built in tool and some of the things that you need to be aware of for maintaining your system. Anything new in 8.5 or, I should say, what are some of the key things in 8.5 that help from an administrative standpoint?

Ilana [0:22:03.5]: One of the key things in administration is the development of policies that we offer which basically allow administrators to push down consistent settings to end-users and we've made significant improvements to polish these since they were first introduced in release 6 which now includes security policy changes, we can lock down desktop settings, we can lock down mail preferences. We also have available policies for our productivity editors, activities, Lotus Traveler, all of these things can be now controlled for hundreds of thousands of end-users from a few simple documents and changes to be made by administration. Also from an administrative perspective, 8.5 introduces the concept of being able to roam our standard client so you get roaming services which means users can sit at any machine and carry settings from their previous machine over with them.

Mark [0:23:01.5]: What about Smart Upgrade? I know that was a big feature when it was first introduced. Anything new with Smart Upgrade? It just seems like such a great facility to be able to do this upgrade centrally. Any changes there?

Ilana [0:23:13.9]: We have enhancements and improvements which allow single administrators to upgrade a large group of users at one time. Smart Upgrade has been constantly improving since it's come out and 8.5 has the latest set of features available for that.

Mark [0:23:28.0]: Anything else from an administrative standpoint? Tim, do you have anything that is particularly interesting to you with 8.5 or helpful?

Tim [0:23:34.2]: The Domino Configuration Tuner is just an outstanding tool and it's a rules-based engine that goes through and provides information about...you know...it's a best practices analysis of your environment and it also identifies some of the worst practices too. For example, we talked about abandoning debug parameters and things along those lines, it'll help identify that, but what makes this tool so powerful is...and to kind of share a little bit about the internal processor, how these rules get in there. These rules are several mechanisms that provide this data back to the people who are creating this tool not only for the customers but they're also working with folks in Field Service and with IBM

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Software Services for Lotus to get our experiences, the output from our reports and then creating the next set of rules. I was part of the original programming when this came out and they had about a dozen rules that came out. There are well beyond 120 rules now and growing with each release. This is a very, very neat, cool tool...gotta say cool once...this is one of the coolest tools they've got and it's very nice.

Ilana [0:24:37.8]: I have a secret about the tool...you don't need to be at 8.5. we actually...even though it's packaged as part of 8.5, you can download from Lotus separately the DCT tool and run it against servers as low as release 7, so you can download this now and get information about your servers even without being at the 8.5 release.

Mark [0:24:56.6]: What about end-users? Ilana, I know you're out in the field a lot, a lot of engagements with lots of customers. What are some of the key things, the high value things, the things that would really have an impact on users that you think are good with 8.5?

Ilana [0:25:10.8]: The biggest thing for end-users is 1) the ability for roaming. We've had roaming in previous releases but in 8 we didn't the ability to roam the standard client and we also introduced something called File Server Roaming which allows all of the user settings files to roam with the user, to remain on a local file server as apposed to a centralized Domino server that may be located over a wide area network, so the ability for end-users to bring these consistent settings from machine to machine with them is really great. We also have a lot of security improvements including the ID Vault and Shared Log-in which assists when users forget IDs, lose IDs, don't have passwords, they don't want to have to type a password into the Notes client from Windows so we've introduced a lot of new security features and some of our customers have concerns, especially our government based customers, with the FIPS security policies that were introduced so the Domino 8.5 product introduces a lot of FIPS compliance security pieces and we also have made a lot of improvements to Domino Web Access which is now called iNotes in 8.5, including Ultra light Mode which is compatible with any low bandwidth network and it's also compatible with your iPhone and I believe we introduced this in 8.0.2 so a lot of Domino Web Access/iNotes features have been integrated as well.

Mark [0:26:43.7]: Great. Tim, any of your favorites out of those or anything additionally?

Tim [0:26:47.4]: No, the...one of another best kept secret is around composite apps. That's something I recommend our customers take a look at. I went through some of the demos with it. Lotusphere 1) saw how easy it was to create a composite app; 2) saw the incredible savings you can get from a composite app in the standpoint of a one-stop-shop. You sit down, you open up your Eclipse-based Lotus Notes client, you fire up your composite app and now you're

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connecting to everything from one nsf. It is really, really, a very strong new feature so I strongly recommend that you get your application developer started to look at this. You'll find it's really a very powerful feature.

Ilana [0:27:29.1]: I think the composite apps also calls on the concept of provisioning that gets introduced in the 8 and 8.5 releases where your composite applications and other applications can be provisioned now from a provisioning server so that they can get automatically updated without the end-user needing to do anything, new applications can get pushed down to the end-user without them needing to do anything so all the provisioning concepts that go along with composite applications are also new to 8 and 8.5.

Mark [0:28:02.5]: Tim, I know you've been involved in a number of migrations to 8.5 and of course you've been involved with Notes and Domino for so many years, you've been through all the different types of migrations. Maybe you could just give us kind of a quick checklist, what are the things you need to do to migrate to 8, maybe from an overall strategy and maybe some specifics around 8.5.

Tim [0:28:23.6]: Well, right off the bat is we're back to monitoring the environment. It's kind of like what we start off here is understand what you have and that's really critical. We call it baseline. You want to create a baseline. Now, keep in mind we have two types of stats effectively. One is a rule of thumb. For example, let's take percent, weight and buffer. There's known values for that. That's pretty much the same between most server platforms but then we have others that are baseline that are unique for the customer like number of transactions or number of mail messages routed, number of the concurrency rate relative to the users and your server. These things are culture dependent and environment dependent and server dependent and so just because you have a number on one server, doesn't mean it's a good one on another. Your baseline that you're going to create are basically for your environment. You can actually, eventually, if you know your baselines are consistent, you can actually set thresholds again with products built in to the Lotus Notes environment...this is our advanced process I'm talking about...and so let's talk about some of the ones your going to monitor. Of course your OS stats, which is your pages per second, total CPU, things along those lines, your disk IO and all that...your Domino stats, I mentioned a couple, your percent, weight and buffer, overcrowd and rejections, cluster queues, the disk IO stats, the Domino server task you can monitor those and there's a percent amount that the task will use and that's a very important point, you'll want to monitor those. As I mentioned, monitoring your user hosting versus registered users. A big mistake we find the customers make is they'll set a target, whatever that may be and how many users they want to put on a server, whether it be migrations, upgrades or consolidations, and next thing you know they've doubled that amount and they're wondering why their server is slow. It's a real common problem. So the stats are really important for you to see it before and after you either upgrade or migrate or consolidate. Also,

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don't forget about your ODS changes. As you go into getting the new features, you'll won't have to change your ODS. We've gone through several integrations of ODS and the current one is 51 and will support DAOS. The larger environments can take longer to run so just do some time-function testing before you do your upgrade offline and you'll get an idea of what that is.

Now DCT. As Ilana said, you can hit this against not just 8.5 servers but other releases, so run that before and after your upgrade so you can kind of see where you're at. Same thing with the DAOS Estimator. Run that before and after upgrade that way you can see how successful the DAOS process was and what you're actual savings were relative to your attachments. And of course, Smart Upgrade. That's new and improved so definitely take a look at some of the new features on that. The final thing I mentioned is Key Rollover. Now this is something new. We've actually had it in the product for a while but we've improved it with each release. This will allow you to do a key rollover to take advantage of the new encryption strength and if needed, if you think you have compromised keys, you can actually rollover your keys. You really want to wait until your environment is at least 8 or 8.5 100% across the board before you do that so that you don't end up locking users out that may have a release 6 client or something that's still kind of hanging out there. That kind of some of the high-level points I have. Ilana, you have some to add on to that?

Ilana [0:31:58.4]: For those of you who have questions regarding statistics as far as I do a show of stats and see 600 different stats, what do I need to focus on or look at...there's a Tech Note #1234550. It's a Domino Performance Troubleshooting Cookbook and it lets you know what stats you need to be looking at, what stats are important and what those statistics mean if you see certain things that you may need to increase or decrease your page file sizes and there's a lot of really great information in there for tuning Domino. You also want to make sure your ODS changes, again, they don't take place on the client by default when you upgrade your client so it may be beneficial to put in the parameters to upgrade the ODS to the client INIs and run a compact on your local databases. We've seen a lot of customers who haven't had an ODS change to their local databases. They're still at release 20, I think, on some of them. You'll need to make sure that you're not upgrading to anything higher than what would be in the environment so if you still have older servers around, you'll want to keep those at lower levels and again with the Key Rollover as Tim mentioned, you want to make sure that you're not using encryption keys that are stronger than all of the servers and other clients in the environment understand. One of the nicest things about 8.5 is the AEP encryption that we offer but again you need to be all 8.5 to be able to use our AEP encryption and that goes back to our fifth government security policies. You'll also see a lot of performance improvement with features such as design compression and document compression that are now available in 8 and 8.5.

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Mark [0:33:51.4]: Ok, great. Ilana, you mentioned your favorite tech note. We'll provide that as part of the transcript. What I'd like to do now, is I'd like to have a quick summary of the podcast by asking a question. Here's the scenario: A CIO has just sent a memo to the IT exec in charge of messaging and collaboration and in it he's saying, "Your system is slow. It's crashing. Our storage costs are off the chart and our users aren't particularly happy with the version of Notes they're using" and you've got 5 minutes with them and they've got a pencil and pad out and you've got to tell them, getting ready to meet with the CIO, what do you tell them? Let summarize by going down through what are those things you want them scribbling on that pad, the checklist, the things that need to be done to get things fixed. Why don't we start with you, Tim and then Ilana, why don't you jump in and we'll summarize it that way?

Tim [0:34:47.5]: Well, it's back to "know what you've got." So let's say for example that you don't go into a snapshot ahead of time...and I'm calling this a snapshot of what is your environment, what are the stats, what are the important stats you want to monitor. I've mentioned several and Ilana has mentioned several. So you go in and you don't have a snapshot to make changes, well, how do you know really what the potential impact is? Some of these things can be the potential end-user perceived impacts and that's important too. You can't ignore that, but if you really want to quantify these things, you have to be able to run your monitoring so #1 I'm telling them is get a snapshot of the environment, understand what you have from the standpoint of your baselines so that absolutely #1, understand what's going on. Second, is go through and analyze your logs to see what kind of potential problem you are having. Is there, you know, you've got a problem that's basically reporting stuff as a log but nobody's looking at the log to see what your potential problems are. Next is to run some of the other tools we've talked about and all these we've talked about, as Ilana said, are built in. If you're really talking about understanding your disk costs, take a look at DAOS Estimator to see really what's going on. This is a great, great tool and it'll give you an idea of what's happening, not only just with your attachments, but overall within the whole environment. It's really a very good tool. That's the first couple of things I would do is to say, "What do you have" and I would call it kind of a mini health check. That would be the first set.

Mark [0:36:16.8]: And Ilana, how about you?

Ilana [0:36:17.8]: Once we've got an idea of what the customer has, then we need to look at how it's configured and are we following best practices. Just little things like not transaction logging certain system databases can see huge impacts in performance of a system. The other thing, there's another tool we didn't mention but there's a Client Clock tool that can run on a local client and that will let you know how much time is being spent at authentication, opening a file, connecting to servers, what servers are connecting to. we've found that a lot of customer site, when an end-user usually higher up has us come out to site because of a slow perceived issue and when we turn this on, we'll find out that

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some application is also opening databases on servers, in other locations or somehow authenticating to a server that shouldn't be authenticating. We didn't go into a lot of client configuration pieces but things like that can affect your end-users directly so your Client Clock can give you some insight there as well.

Mark [0:37:22.4]: Ok, great. Well, thank you very much. I appreciate you taking the time today. As part of the podcast, we'll be providing the transcription as well as links to documents and other information that we referenced today.

END

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