1. What is the Church's mobile strategy?

We have a way of working in the future that we call "narrow and deep". That means that when we do features we will do a small number of features at a time, which represents narrow. Instead of doing really large projects that takes several years to accomplish. We will iteratively develop and we're starting to use a methodology called SCRUM. We'll do very small numbers of features. But when we do those features, we'll do them right. So we'll do them for mobile devices, they'll be accessible and appropriate. We'll do them for languages world-wide, and so forth. This is our strategy going forth as we go from labs, to beta, to lds.org.

2. What is the future of the Local Unit Web sites?

For those who don't know, Local Unit Web site is a Web site you can are access through lds.org that lets you see your ward calendar, your ward directory, and other information about your ward. Right now it is only available in the United States. We'd like to make this available world-wide. We don't know when that will be done yet. But we are working on something that will have languages and allow you to access that data wherever you are.

3. What is the Church doing to improve two-way communication with forum members when they have concerns or questions directed to the Church about products?

The main thing we are doing is just having the forum. You can go to the forum, and we have many moderators and people who are surfing those forums all the time to be able to answer your questions. Hopefully you are getting the access you need. If you're not you are welcome to go to my blog at ldscio.org and post your question there. I try to answer those or forward those to somebody who can answer the questions.

4. What is the current direction or plans for ward leadership to access MLS remotely via the Web?

We haven't announced any plans. But I think over time you will probably see some of the features that are available in MLS start to move to the Internet and get integrated with things like the stake and ward Web site. Again, I'm not making any announcements or anything like that. But I think you can imagine those types of things will start to move. Especially if we do some community projects like this HT/VT app. That will help move some of the features to the Internet.

5. Currently the Church standardizes on Windows for PC desktops. Are there plans to move towards Linux, perhaps in other countries where it is more common?

We have employees, employees who worry about things that worry about things like getting our taxes paid and various things like that. Those employees need PC's to work on and today those PC's run on Windows. Linux is a free option; typically there is some cost for it. We get pretty great prices for Windows when we purchase PC's. It's not a really cost prohibitive thing for us. The nice thing about it for employees is that is typically what they want at home. So the likelihood of employees going to Linux anytime soon is very low. We also have ward clerks who are using Windows on their machines in the chapels. The likelihood of us going to Linux on those machines is also low. Because folks are usually

using Windows at home and so having them learns some new system when they come to the chapel just doesn't make sense. The prices we get are so cheap that it doesn't make sense for us to move off.

6. What is the future of maps.lds.org?

Great things are going to happen there. When we created maps.lds.org we did it using services that will enable us to do things like, when you go to your stake and ward Web site in the future you will be able to see that new map version, the hybrid, the satellite and so forth, that you will be able to see the members who are in your ward or the ward boundaries, or things like this. As these new systems come out, integrating maps into them will be easy because of the way we created the service.

7. The Church currently uses a lot of Java in its development. I recently heard of some .NET applications being developed. Is this signaling a move away from Java to a Microsoft environment?

No. Java is a great enterprise development environment. .NET is also a fine enterprise development environment. Typically Java is our standard language of preference. The times we use .NET are when it makes sense specifically because we want a rich client, for example and have found better success developing rich clients with .NET. Or when there is integration with Office documents. We have a better experience using .NET for that type of thing. But most of our solutions, particularly those that are available on the Internet, will be using Java.

8. What are the Church's plans for harnessing the software development talents of members worldwide?

Well we talked about that a little bit. We're excited to get you involved. We're making great strides. We have a subversion tree set up. We have LDS Account working now. We have the wiki and we're looking to start actually developing these projects. For your information, we have in our sandbox environment some web services that give developers access to fake dummy membership data. So, if you were going to help us you would work together, with us, to create a server application. We would host that server application and it would get access to that dummy data. You could check in your code and you would see the changes start to happen online in that dummy environment. Eventually at some point, when the system gets to a state where it's ready. Then we would go for appropriate approvals and if the Brethren decided they wanted to move this to a labs environment, then that would happen. So we are excited to have you help us; to give your time and your energy and your talents to this great work.

9. What is going to be the impact of cloud computing in the way that the Church processes its information?

Cloud computing, for those who don't know, is where a company provides a service --software is often called a service. So that instead of a company, or an enterprise, or the Church, buying or developing its own systems. You would use a system provided by somebody. Google is an example of cloud computing. Many people access their e-mail, or their documents, or things like that from Google.com. We're trying to be smart about accessing information in cloud computing. We're appropriate without giving up any

security or privacy information. So, the only types of systems that we would have hosted in a cloud like that would be things where we're not concerned about privacy or having information released that would be inappropriate. Like members' private data about their addresses and things like that. We would never want that available on the Internet.

10. Is there any chance Church applications could support social networking features beyond a ward and stake?

I don't know the answer to that. Is there a chance? Yes. But this is something that we would leave up to the Brethren to decide; if we were ever going to do social networking types of features. Certainly we realize how popular social networking is and the potential good that can be done. That said, if kids are doing social networking out on Facebook, or wherever they're doing it, I don't know that it makes sense for the Church to create a replacement for a big system like that. We are certainly talking about it and at the end of the day the Brethren would make the decision whether we do that or not.

11. Approximately what percentage of wards and branches have Internet access, either phone or high speed?

I don't know the exact percentage. We don't talk about the exact percentage. I actually don't know it. But, most of the family history centers have Internet access today. We think there are a number of buildings that have Internet access that don't have protection, like firewalls and web filtering. That is one of the reasons why we've developed this solution for those who want to be protected and have the Internet so they'll have that solution.

12. Does the Church plan on using social media tools, like Facebook, on lds.org?

I was very amused about a rumor that went around last week that indicated that the Mormon Church has made an offer to purchase Facebook.com. I couldn't stop laughing when I read about that. It's funny how ridiculous rumors get started. I guess if that was a question I would say no the Church has never, nor has there ever been any interest or be even capable of being involved in some kind of acquisition like that. That's absurd. But, would we ever want to integrate with Facebook or some other social networking tool? I don't know the answer to that. We're starting to do more things like that. You'll notice that the number one number video on YouTube is a video that we took of Elder Holland talking at conference that we did some editing to. We're starting to do more things like that because we want to get the word out as broadly as we can.

13. What volunteer opportunities or projects are available for programmers that don't work directly for the Church but may want to help out with something on the side?

I think we've probably covered that one.

14. Is the Church concerned about security?

Yes, we're very concerned about security, we think about it all the time. We're trying to secure our systems, both in the chapels and at Church headquarters. We spend a lot of time thinking about that.

15. What kinds of platforms and languages are included in the Church's technology stack?

We have two technology stacks. Well, three really. The first is a content management system called Vignette for content management for lds.org and other Web sites. It's the standard Vignette package that we use. We are also using a tool for XML, an XML database called Mark Logic, that allows you to store XML data natively in a database and bring it back up much faster than you would be able to in a normal relational database. For .NET we basically use the .NET stack that comes from Microsoft with integration with LDS Account and with some other security features that we've developed in house. Our Java Stack, we pieced together on our own. Our Java Stack has components like Hibernate, JSF, Spring, and other tools that are standard. If you are interested more about the specifics of our Java Stack visit tech.lds.org where it is discussed in more detail. In fact, there is an entry on my blog from about a year ago where I list all of the components individually.

16. Is the Church going to keep tech teams centralized in Salt Lake City or will satellite offices be set up in other regions?

That's a great question. We have many great members of the Church who understand technology all over the world. We have great developers in Mexico and the Philippines and in other places. The question is, how can we leverage folks like that better? Well, this is a start; creating community development opportunities to give their time and talents to the Church on a volunteer basis is the first toe in the water toward that kind of thing. Whether we'll do it in the future, whether we'll have professional developers in other areas, I don't know the answer to that. But we are looking forward to people worldwide who are looking to contribute going to tech.lds.org and help contribute.

17. How involved are the Brethren in the IT approval process? Do they understand IT issues well or rely on recommendations?

The answer is that the Brethren are very involved. The decisions about technology; how much we spend and what types we spend on are driven by the Brethren. They make these types of decisions. Because we want to be divinely guided in the decisions that we make. It would be really easy for a technologist to say that these are the most important things, the latest whistles and bells and technical stuff. It's easy for a technologist to say that those are the most important things in the world. That we have to have Facebook integration and we have to have web services and we have to have this and that. But the Brethren are able to tell us what's really important and we're grateful for their participation in making those decisions.

18. What is the strategy for providing more printed material online?

The answer is that we are moving toward that model rapidly. In the next year you will see many more of our materials start to be provided online. You see now that the Sunday School lessons, Priesthood lessons, and Relief Society lessons are now online. You can go to lds.org and print it off. How often do you see someone walking into sacrament meeting on Sunday with a printed off of their lesson that they got from lds.org.; hopefully the week before and not the hour before. We'll be going more and more in that direction.

19. Are you going to provide e-mail accounts serviced through ward Web sites?

I think that we probably would not do that, though the Brethren might decide otherwise. People have their own e-mail accounts and it probably doesn't make sense for the Church to provide an e-mail account for when they can just get one and people when most have one on their own.

20. The membership system doesn't meet the needs of Young Single Adult tracking. Are there plans to update MLS to meet these requirements?

I don't know the answer to that question. We're looking at all types of systems. I'd love to hear more about what needs are not being met for Young Single Adults. If you can, please give us some more information and we will look into that.

21. Does the Church have plans to hire full-time developers who live outside of Utah and can work remotely?

We talked about that a little bit. I don't know the answer to that but we'd love to have you contribute to community development.

22. What is the Church's technology plan in helping missionaries worldwide?

There is a lot of great stuff that is happening worldwide for missionaries. First of all, when missionaries apply for missions they go to a Web site. All of the workflow in applying for a mission is done online now. It goes all the way through and follows you through the system of when your call is made and you go into the Missionary Training Center, and when you get into your mission. Systems are used to track those missionaries. We have a new mission office system that we just completed that is being used in those missions. To pay the rent to the missionaries and there is a great transfer board so that when a mission president is making transfers and moving companionships; there is graphical way that he can do that. It's a really neat system, so that is available right now.

23. If an application is written not in Java by the community will it still be considered to be used by the Church?

Of course, we'll consider any kind of application. We probably prefer Java applications but we'll look at other applications as well. We'll try to make the decisions together with the community about what makes sense. Our data center and infrastructure engineers are geared to Java; that is what we do. So we kind of have a bias toward Java, but we will look at all kinds of opportunities.