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Subject: Additional Feedback on Yesterday's eCourt and HIX Meeting

Several topics/questions came up at yesterday's JCLAIMT that I feel needed further comment/explanation (there wasn't time during the meeting to do so).

1. **eCourt Program** - one of the major reasons why the California version of eCourt got into trouble ($200M original estimates, $1.2B spent so far, cancelled 53% down the road) was its unwillingness to do foundational work before it moved forward with design and construction. The CA quality assurance (QA) report clearly says that the project skipped numerous foundational steps and failed to develop key documents to guide the project – they jumped into design and construction far before they were ready. The last two years of work that we've put OJD's eCourt effort through has forced them to get everything ready before moving forward. In general, well run projects have long "planning and design phases" and short "construction and implementation phases." Poorly run projects have short "planning and design phases" and long (sometimes very long) "construction and implementation phases" (i.e. even long after it became operational, MMIS is still dealing with design and implementation issues). Failing to plan (and design well) is planning to fail (or at least to take a long time and spend a lot more money than is necessary). Pay me now or pay me later. That's the choice. All too often, project managers and stakeholders want to jump into building the system way too son. Usually, a very bad idea.

2. **HIX Business Plan** – the HIX Corporation's director said that a detailed business plan, like what a bank would expect, isn't needed by HIX, because this isn't a private sector org asking for a loan, the HIX project was mandated by the feds and by the Oregon legislature. This is wrong on a number of fronts. Every state (CA, MT, OR, WA, AK, ID, etc.) I've ever worked in requires detailed business cases and plans for all major efforts (not just IT ones). DAS just briefed the JCLAIMT on their requirements for projects over $1M during our February 20, 2012 JCLAIMT hearing. A business case and plan are required (particularly when a whole new program with a long revenue stream need is being set up). A $120M effort requires a business case and plan, regardless of where the funding comes from. Besides being a "best practice" and "due diligence," good financial stewardship and accountability requires that we know what the business problem is, what solution was identified as best (and why), and what is the business plan for any new programs that are going to be set up. Any serious audit of our HIX effort (like was done on the CNIC – State Data Center Project) would clearly find the state negligent for not insisting that this foundational work was done to support our new healthcare exchange. The business case and business plan are "living docs" that are utilized throughout the project (and after) to verify that the business case that the effort was based on is still valid, and that the business plan is the foundation for subsequent system modeling and design work. This is not a step that you can, or should skip. The CNIC/SDC Project skipped this step and has been paying for that mistake ever since. No one can agree on whether the project was a success or not. Evaluation evidence that could have helped answer that question of the project itself, and the new data center (via performance measures) was not clearly identified upfront. To this day, arguments continue on whether the project was well run or not, and whether the SDC actually met its original business/performance goals. Everyone has an opinion, but no one has definitive proof.

3. **Status of web portal access software question** – during the JCLAIMT hearing, Rep. Sheehan asked the status of web software and the use of other options to provide this system need. Only one of the three presenters could have answered the question (Ms. Lawson, CIO for OHA). Due to the complexity of the all components of the answer, I believe that about all I heard was, this is difficult to say as there are many options to provide this software capability. No one was trying to be evasive with the answer. The problem is that requirements are not well defined, the business is not well defined, the system lifecycle that will be used to develop the system is very, very complex (and new), the Oracle products and tools that will be utilized to build all components of the final systems are many, and final decisions have not been made on exactly which products/tools will be utilized. The web-access capability is important, but it is only one of 100's of capabilities that will be needed. The options for providing these software needs are many. Some will be built from scratch (utilizing SOA architecture, Java, XML, SQL, SOAP, WSDL, and many, many other software development tools). Some system capabilities will be provided by the "products" that come with the Oracle framework (i.e. these are COTS products that provide generic case management services, messaging services, accounting services, search services, security services, etc.). The Oracle framework provides 100's of canned services that can be used individually or together to build individual HIX business functions. In addition, the HIX team has the option of buying powerful services from service providers such as software as a service (SAD), PayPal, Web Portal service providers, financial management software, ERP's, etc. to add to anything that they build from scratch to support the 11 main lines of business that the HIX Corp will ultimately support.

   In the most simple terms, the HIX Corporation is at the beginning of the systems development lifecycle (not detailed design as indicated by the federal govt's 4th date review) and should be busy defining its business and requirements. Some of this is being done. However, they are not well downstream on system development (or even design, for that matter), and probably have not given major thoughts to the options for providing the web portal capabilities that will be needed by the new HIX Corporation. All of the options that I have mentioned that the Corporation can choose from to build its new business (and associated application systems) could be viewed as a bunch of different types of "legos" or "Lincoln logs." Perhaps, a bit simplistic, but IT today is not limited to writing a system from scratch using COBOL, JAVA, XML, SQL, etc. via .NET or J2EE toolsets. We have the option of defining our business and its design, and then picking and choosing from a set of existing products/services (i.e. legos or Lincoln logs) to build our new system from. If we run out of legos to use or reuse in our design, than we have to build anything that doesn't already have an existing product/service (i.e. we actually write our own legos and support infrastructure for areas of our new system where we can't buy an existing capability). This is very powerful approach and saves us a lot of time and money, but the products and services that are often available are typically meant for a wide variety of users. In short, many often don't do exactly what we want. In those cases we either modify them (if we can) or we have to build the capabilities from scratch. If the product/service belongs to a vendor, they may not be willing to modify their generic product to make it work perfectly with our system (they have other users of the service who like it the way it is). In those cases, we may buy their product to meet one piece of our business need, modify it, and then lose all future updates from the vendor due to the fact that we modified their product. As simple as I've tried to make this, I think you can see that IT has come a long ways since the mid-60's when I started in the USAF, and the answers to your questions are not always simple. However, this you can count on. The HIX Exchange will look at all cost-effective solutions for each business capability and function, and it will avoid building from scratch whenever possible to build the exchange. That said, we must be careful to not try to use too broad of a set of products, or the maintenance, interfaces, interactions, and data management of the new health exchange IT infrastructure will be very difficult and costly to maintain.

4. **Jumping the gun** - In closing, one of the major concerns that the LFO was trying to share with everyone yesterday, is the fact that after 9-10 months of work, the new HIX business is not as yet defined, its business model does not exist, its requirements are still a long ways from being finalized, and there is a major push by impatient team members and managers to move forward and begin to "play with the legos and Lincoln logs" and try to build the new system before its even been defined. While Oracle's iterative Agile/SCRUM system development lifecycle (SDLC),which is being used instead of the more traditional "waterfall" SDLC, does allow you to begin development without everything being known or finalized, there are certain elements of a system design that must be finalized before you start, or you will be plagued with a system that is not what the customer wants, or you will be doing significant "re-do'ing" throughout the next 20 iterations. The LFO believes that the corporation is suffering from a long standing problem that IT project managers run into, the desire to start building way too soon before adequate planning and design has been undertaken. For 40-50 years, this problem has been called by the acronym WISP or WISC (Why isn't somebody programming/coding). The use of Oracle's OUM iterative SDLC does not make it ok to jump the gun and start building before you know what type of

"house" you want to build (and many other critical details). For example, if you do not know that the final house needs to have three stories, you can go a long ways down the "single floor road" before you have to start almost complete over (your wiring and plumbing from a single floor design will not handle a three floor design). You don't need to know everything to start construction, but you shouldn't be starting when you don't know much of anything, and then try to make it all fit together. Results are often not pretty or useful when this approach is being used. The LFO plans on watching this closely. That said, the Corporation is very reluctant to slow down its development work (despite iteration #9 – their first real development effort, failing miserably). If they continue to charge and the requirements/business design end up being very different from what they thought they would be, there will be considerable rewrite. My guess is that they are going to try and develop the software and derive the business design and requirements from their development efforts (this is backwards to the correct process – business drives design which drives the application VS application drives design which in turn drives the business). Business driven design is the industry best practice. I'm seeing technology and the IT'ers driving the design of the new HIX healthcare exchange business. This is highly dangerous, IT'ers typically do not know as much as they think they do (and that includes me J).

I hope that some of this helps clarify some of the discussions we had at yesterday's JCLAIMT meeting. No doubt the discussion of the web portal access issue is far too techie and complicated for most, but I think it is important that the JCLAIMT realize that answers to what appear to be simple questions can be very difficult, and that in trying to make it meaningful to legislators who are not IT experts, that our answers sometimes do not make sense, or may even appear evasive. After 46 years in the IT field, with 30 additional parallel years teaching IT at the graduate level, and multiple masters degrees and a PHD in the field, I even struggle with fully understanding a field that is changing faster than our ability to roll new info into what we already know.

Thanks again, for taking the time to sit on the JCLAIMT and to provide the LFO and agencies with a forum to address major IT issues, and to help direct agencies to effectively use the state's limited IT resources and associated funding. While it may not always seem that the committee's efforts result in major impacts to the agencies and the LFO, I can assure you that knowing that they have to be accountable to the members of the JCLAIMT, puts a lot of "good pressure" on agencies to do what is right on their IT projects. I might also add that your involvement in the oversight of OWIN, eCourt, DOR-TaPR, and HIX has already resulted in the savings of 100's of millions of dollars that might well have been wasted had the legislature not insisted that these projects follow a disciplined project management, design, and construction approach. By not giving project managers all the money at the beginning of an approved project, and then waiting until they run out of money (and then coming back with their song of woe and request for more money), you have effectively stopped major project failures in their tracks by finding major issues early in the process, and forcing agencies to fix them before they become very costly and catastrophic. The recent major failures of IT projects in the billions of dollars in California and elsewhere in the country clearly show the need for constant legislative and independent oversight of these major investments in taxpayers money. Please rest assured, that your quarterly time makes it possible for me to be effective throughout the year and especially when the legislature is not in session.

Thanks!

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