

## MEMORANDUM

**TO:** All Panel Attorneys  
**FROM:** Jay M. Kohorn  
**DATE:** April 15, 2007  
**RE:** eClaims Security and Reliability

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This week marks the half decade anniversary of the submission of the first eClaim. As you know, after five years of continuous use, one of the eClaims servers crashed last month. The purpose of this letter is to let you know what happened and how we are addressing the issues precipitated by that event.

First, thank you for your patience, understanding and good will. As we worked around the clock to get the program back up and running and to restore the data, we received many supportive emails from panel members. With very few exceptions, we were successful in restoring the data, largely because of protective processes we had previously integrated into the program, combined with the diligent concern and attention of good people at each of the appellate projects. From the beginning, maintaining the security and reliability of eClaims has been central in our focus.

### **What happened?**

The crash corresponded with an automatic update of the Windows Operating System performed remotely by Microsoft on one of our servers that hosts eClaims. It appears that a corrupted Windows update file crippled the operating system and made the files – both software and data – on that system unreadable. Other technical consequences followed, including the backup data not initially being capable of attaching to the program in our separate redundant system.

### **How do we ensure the security and reliability of the data?**

Safety and reliability are complex objectives in an ever-shifting technology environment and unstable world. We all have to pay attention to these issues for our own desktop and laptop computers. For a program of state-wide usage such as eClaims, these objectives are even more critical. They involve security from viruses, worms and hackers as well as hardware integrity that handles the inevitable failures of such equipment as hard drives and power supplies. The terminology used to describe the design that protects such a system is “business continuity plan.”

The eClaims program has had, from the beginning, a comprehensive “business continuity plan,” with protections from outside threats – including a system of firewalls, bank-level password protection, and field-specific constraints on data entry – as well as hardware and software redundancy. For example, the eClaims computer servers have arrays of multiple hard drives and multiple power supplies so that the inevitable hardware failures – of which there have been several in the last 5 years, all transparent to the users – automatically trigger the move to one of the redundant units, requiring no down time whatsoever.

The entire eClaims system is housed in two unrelated limited-access locations in different parts of California, with real-time communications between the locations in order to have sufficient redundancy so that even after a catastrophic event such as an earthquake, the program and data would become available from the secondary location with the flip of a few switches (unless both locations are under water). In addition, backups are made and copied to both locations so that the data could be restored from them as well, if necessary.

### **Infrastructure improvements.**

We are now in the process of further improving the “business continuity plan,” accounting even for corrupted operating system updates from outside sources. We have purchased, set up and tested new computers and have updated operating systems and software. With outside expertise, we have also analyzed the entire system and have identified obscure potential points of hardware and software failure and are in the process of plugging those holes, including unlikely switch, firewall and web access failures.

The changes will be implemented within the next two months. They will require very little down time, and any such time will be well spent to test that all backup systems work as expected. In the future, we will notify the panel on the Home Page of eClaims prior to performing tests of the backup systems, which will now be done regularly, benefitting everyone.

While our investment in time, energy, hardware, software, and experts has been substantial, the effort is necessary and worthwhile. As I explained in my last communication to the panel, technology is not flawless. With these new efforts, however, we are focused on keeping the integrity and security of eClaims at a level that makes you comfortable and confident in accessing the benefits of the program.

As always, I remain available most any time for help or if you have comments or suggestions.