



## Improving Property Online Performance

Since the completion of the provincial rollout of LIN-NS (the new base system that supports Property Online) to staff in May 2004, the Registry 2000 technical team has been working to improve system performance and response times for Property Online users. Performance tuning is a normal step in the rollout of any large system and was a planned exercise for the technical team, but it became a priority in the spring when some of our users let us know that system response time was not quite as fast as it had been the previous year.

Although system speed can be affected by many factors, the largest impact on Property Online's response time came in March to May 2004 when staff across the province began using the new system to do traditional document indexing work in the registries. One of the benefits of having all staff and users working on the same system is that users can have online remote access to document recording particulars as soon as documents are indexed at any registry office. Before province-wide rollout of LIN-NS, the information shown in Property Online was loaded periodically from the old operational systems that supported the 18 registries and five Land Information Centres.

When implementing a new system such as LIN-NS on a provincial scale, planning and sizing are necessary to determine how much computer horsepower is essential to efficiently run the software. More specifically, this sizing exercise requires:

- knowledge of the needs of the software used to store all of the Province's land information;
- the expected amount of usage, based on the number of transactions that occur in the province on an annual basis and projected growth. These transactions included filings in registries and the number of queries conducted by external users; and
- information on computers used by the Province of New Brunswick, which operates a version of the Property Online/LIN-NS software.

As demands on our system change, response times are monitored and changes are made to get results to our users faster. To date, tuning activities included:

- adding or changing database indexes – the lookups used to retrieve information requests more quickly;
- changing data buffers – the space used to store information in memory as requests are processed; and
- code improvements – changes made by the application developer to retrieve information faster and more efficiently.

Unfortunately, other factors outside of the team's control can impact performance and response times. For example, slow response times can occur when Internet providers are not able to move large amounts of information to individual users during their peak periods.

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Internet slow-downs have occurred a few times over the past six months and are a fact of life in providing a web-based service. In addition to impacting response times, the efficiency of the Internet can also affect the speed with which users receive email notifications from the system. Once an email leaves the government email structure, the time it takes to be delivered is dependent on the efficiency of the Internet. As a result, the technical team is working to remove the application's dependence on email.

Soon the application will be changed so users can access notifications online directly through an enhanced worksheet area. Other performance factors, such as the effect that government data networks and security firewalls have on the speed with which registry information flows to our users, are not directly in our control, but we are working with government network administrators to improve performance. As the project moves forward, we will continue to work to make the Property Online application response faster.

## Electronic Submission and E-Payment Take Shape

In the April 2004 issue of Deeds & Dialogue, we announced the start-up of an electronic submission initiative (expanding the number of documents that can be electronically submitted to Land Registration Offices) and outlined some of the preliminary analysis work we have done. Over the busy summer months, the project team has continued to plan and design added functionality to rollout e-payment and e-submission in the spring of 2005. We have completed the following:

- ✓ Evaluation and selection of an electronic forms software package (PureEdge) that provides for simple and efficient submission of highly secure, tamper-proof forms to the Land Registration Office;
- ✓ Consultations with banks/lenders, accounting staff of several major law firms, and practising lawyers to discuss the issues, options and design of the e-submission and e-payments processes;
- ✓ Design of electronic funds transfer processes for monthly Property Online usage charges and electronic document filing fees; and
- ✓ Determination of the extent of the pilot implementation – one county (Halifax), five to 10 law firms, submitting three main documents (transfer, mortgage and release of mortgage).

The Registry 2000 team is now working on the design of the e-submission documents and needs to identify the pilot users who will participate in the e-submission rollout starting before the end of March 2005 and continuing for six to eight months. This targeted incremental rollout of e-submission will give us time to work through any early system or procedural issues and improve the system before a full implementation.

### **REMINDER TO: Halifax County Lawyers and Legal Assistants Sign Up and Attend Land Registration Training NOW**

A number of lawyers and legal assistants have cancelled out of hands-on training that was scheduled in September and October, resulting in eight or nine cancelled sessions to date. There are a limited number of hands-on training spaces available, so lawyers and legal staff should be booked for **(and attend)** these sessions before December 1, 2004. **The Registry 2000 training team will not be able to provide additional sessions in Halifax County until after April 2005.** This is due to the fact that the trainers start training in the eastern and southern regions right after Halifax rolls out and continue to support those regions until the end of March 2005.

**Please book now!**

# Counting Down to December 1, 2004

## Preparing for Halifax Land Registration Implementation

In just under two months the new land registration (LR) system will be implemented in Halifax County, where more than 40 percent of all land transactions in the province arise. These large volumes alone make the rollout of the land registration system in Halifax a special undertaking which requires different steps and procedures from implementations in other counties. Since early in 2004, the project team has been working on a plan to ensure a smooth implementation in Halifax County. Preparation is under way on many fronts:

- Halifax Registry staff have shifted staff resources to minimize the backlog of documents awaiting indexing. Typically, documents are now being indexed as they are being received at the front counter. This ensures that the priority of documents is maintained. Changes to the LRA proposed in Bill 95 (currently before the House) will deem the date of registration of documents to be the date and time the documents are first indexed at the front counter.
- To ensure that the priority of both land registration and traditional documents is maintained after land registration is implemented, procedures are being developed to separate the two streams of documents at the front counter. This will likely require those submitting documents to separate LR documents from documents that are being registered under the *Registry Act*.
- All staff vacancies in the Halifax operation have now been filled; however, a large operation like Halifax frequently experiences staff turnover as staff members are promoted or move to other activities. Over the summer, the Halifax operation was missing five experienced full-time people, which greatly impacted document processing.
- Six additional temporary workers are being hired to support Halifax in preparation for rollout and for most of the year after rollout. These contract workers are assisting with the parcel indexing on the mapping side as well as the registry front and back counter processes to speed up document processing and mail-back. They will also assist with PDCA and AFR processing after December 1.
- Existing Halifax vault space is being evaluated and reorganized to create additional space for the anticipated increase in title searchers post-implementation.
- The base system (LIN-NS) is in the process of being modified to improve the efficiency of front and back counter document processing; further changes will be live in the system in December and early January.
- Three scanning initiatives are under way:
  - In late October the Halifax Registry will begin scanning all documents received daily. This will make those documents available online and will complete the rollout of scanning province-wide.
  - As well, the scanned images for documents registered between 1982 and 1996 that are currently accessible only in the Halifax Registry are also being converted to be included in the Property Online system.
  - Finally, paper documents registered in the Halifax registry between 1997 and the start of the daily scanning will also be scanned and made available through Property Online. When completed in the spring of 2005, staff and clients will be able to view scanned documents from 1985 to present. As well, this initiative will allow us to remove more than 1,800 books from the vault.
- A Halifax County Land Registration Liaison Group, which includes representatives of all stakeholder groups, has been established and has held two meetings to discuss implementation plans and provide input on preparation activities.
- The LR External and Internal Procedures Advisory Groups continue to meet monthly to iron out any procedural and system wrinkles in the established land registration counties. Their work will make life easier for new land registration counties.
- The project team hosted a forum, "Land Development and the LRA," to provide land and condominium developers, surveyors and lawyers with important information regarding the LRA. Due to the number of participants, two sessions were held.

# Amending the Land Registration Act and Regulations

The summer and fall have been very busy as the *Land Registration Act (LRA)* and *Land Registration Administration Regulations (LR Admin Regs)* are readied for amendment. Changes to the LRA are now before the House in the form of Bill 95, which was introduced on September 24, 2004 by the Minister of Service Nova Scotia and Municipal Relations.

The LRA has been amended twice since it was enacted in 2001. In 2002, various improvements, identified during preparations for the first land registration implementation in Colchester County, were passed. In 2003, subsection 52(2) was amended to settle questions about the law in Nova Scotia relating to unadvanced portions of security interests.

Users and staff have now had 18 months of operational experience with the LRA and have identified more than 50 amendments that will improve the new land registration system. These improvements will streamline and clarify this complex legislative framework, and reflect the department's commitment to respond to user feedback.

To see the full slate of amendments go to [www.gov.ns.ca/legi/legc/index.htm](http://www.gov.ns.ca/legi/legc/index.htm) and click on Bills, then under 2003-04, look for Bill 95.

The changes adjust the mortgage trigger to allow lenders to mortgage before conversion; however, until the parcel is converted and the mortgage recorded, the mortgage does not give the lender a security interest in the parcel. This change should take some of the pressure off conversions tied directly to refinancing of mortgages as well as mortgages entered into where the property is not being sold.

Another change will allow large landholders to enter

into an agreement with the Minister to convert large quantities of parcels over a period of time, rather than having them brought in for conversion in the ordinary queue where they could potentially hold up conversion for all the owners who are just selling or mortgaging one parcel at a time. Yet another change will allow owners to grant an easement or restrictive covenant from one parcel they own to another parcel they own.

The Administration Regulations underwent significant amendment in December 2003 due to the operational experience we gained in Colchester County. The new regulations were brought in as the new system went live in Pictou, Antigonish and Cumberland Counties. Since that time we have been collecting suggestions from staff and users for improvements to the procedures which are set out in the regulations.

The Administration Regulations will be amended in two stages. Amendments to the PDCA process, effective as of October 1, 2004, support the policy changes about staff review that were brought in June. As PDCA submitters know, mappers no longer vet every legal description for completeness, accuracy and compliance with the Administration Regulations. Obvious errors are identified on submission, but more in-depth review is restricted to a percentage of the submissions. With the new regulations, submitters remain responsible for legal description content, but system changes will allow the mapper to flag problem descriptions for correction within 30 days.

Other amendments to the Admin Regulations will be effective December 1, 2004. If the amendments are authorized by the Minister, details will be posted online and will be sent to the Nova Scotia Barristers' Society, and all eligible lawyers.

## Halifax Training Reminder

If you work in Halifax County, please sign up **now** for land registration training sessions in preparation for the December 1, 2004 rollout. Click on [www.servicens.ca/property/registry](http://www.servicens.ca/property/registry) then "Training" for more information.

## Upcoming Training for East and South

If you work in the southern or eastern regions, training sessions will be held in your area in January and February in preparation for province-wide rollout on March 1, 2005.

# When the System Goes Down, Then What?

When the technology environment for the new land registration system was designed in 2002, the project team gave key consideration to the reliability of system components to ensure a dependable and readily available system for users.

A number of factors influenced the design decisions:

- the probability of system failure;
- the tolerance level for down-time with the user community; and
- the cost of implementing solutions which would ensure acceptable levels of system reliability.

Balancing these factors, the Property Online application is considered robust by industry standards, and the probability of failure within an individual hardware component is low. The servers used for Property Online are configured so that if a failure occurs, a second device will continue to operate until the initial problem can be addressed. Since implementation in March 2003, these servers have performed well, and failures in the architecture have had little impact on the availability of Property Online.

A recent problem with one of the Registry 2000 servers has caused us to revisit the issue of contingency plans on system failure. As you will recall, a server failed on a busy Friday in July, and Property Online was unavailable for more than seven hours before the problem was fixed. During that time users were unable to submit land applications (PDCAs and AFRs), query users were not able to query the system, and staff was not able to process documents. As a result, the productivity of users inside and outside government was negatively affected.

Our initial goal when Property Online was implemented was to ensure that the system was available 99 per cent of the time (not counting planned system outages for maintenance purposes). This equates to an accumulated outage time of approximately three-and-a-half days per year. We have met and exceeded this goal with a low level of outages over the past two years since land registration rollout began. A significant investment in hardware and software would probably be required to increase the level of system availability beyond 99 per cent.

We have recently reviewed the system availability levels with the Nova Scotia Barristers' Society (NSBS) and members of the Project Steering Committee. They have indicated that 99 per cent availability is appropriate for the land registration system and the cost of making the system available 99.9 per cent is too high given all the other government and land system priorities. It is therefore important that all of our users become aware of the steps they need to take if the system is not functioning for a number of hours. The NSBS will be reviewing this issue with members to develop business practice guidelines or rules for when the system is unavailable.

On the technology contingency planning front, the Registry 2000 team will be going through a business continuity planning exercise to improve our response to technology failures. The resulting plan will include notification plans to ensure all users are kept informed and a plan for activities to maintain business continuity while we are addressing the failure.

These upcoming exercises and the resulting measures should improve the stability and availability of Property Online and also help us respond more quickly when failures occur.

# Land Registration Training Calendar

Halifax County - Fall 2004 (Dates and locations are subject to change)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<b>October</b>					1 Legal Assts Hands-on	2
3	4	5 NSBS Module 4	6 NSBS Module 4	7 NSBS Module 4 Subdivision Training (2 sessions)	8 Surveyor Training	9
10	11 Thanksgiving Day	12 Legal Assts Hands-on	13 Lawyer Hands-on	14 Lawyer Hands-on	15 Legal Assts Hands-on	16
17	18 Legal Assts Hands-on	19 Legal Assts Hands-on NSBS Module 2	20 Lawyer Hands-on NSBS Module 2	21 Lawyer Hands-on NSBS Module 2	22 Title Searcher Hands-on	23
24	25 Legal Assts Hands-on	26 Surveyor Training NSBS Module 3	27 Subdivision Training (2 sessions) NSBS Module 3	28 Realtor Training (2 sessions) NSBS Module 3	29 Surveyor Training	30
31						

<b>November</b>						
	1 Legal Assts Hands-on	2 Legal Assts Hands-on NSBS Module 4	3 Lawyer Hands-on NSBS Module 4	4 Lawyer Hands-on NSBS Module 4	5 Legal Assts Hands-on	7
7	8 Surveyor Training	9 Subdivision Training	10 Surveyor Training	11	12 Title Searcher Hands-on	13
14	15 Legal Assts Hands-on Staff Training	16 Title Searcher Hands-on	17 Staff Training	18 Staff Training	19 Staff Training	20
21	22 Title Searcher Hands-on	23 Lawyer Hands-on (2 sessions) Realtor Training (2 sessions)	24 Staff Training Realtor Training (2 sessions)	25 Staff Training Realtor Training (2 sessions)	26 Staff Training	27
28	29	30				

<b>December</b>			1 Halifax LRA Implementation Staff Training	2	3	4
5	6 Staff Training	7 Staff Training	8 Lawyer Hands-on	9 Legal Assts Hands-on	10 Legal Assts Hands-on	11
12	13	14	15	16	17	18

☺ Check the Registry 2000 training web site for exact locations, session times and to register online: [www.servicens.ca/property/registry/training](http://www.servicens.ca/property/registry/training).