



## Victorian Electoral Commission. Wyse Thin Client technology helps manage the early votes for Australian State Government voting body.

### Customer:

- Victorian Electoral Commission

### Challenges:

- Setting up temporary offices for Early Voting around Victoria, replacing notebooks which had proven hard to manage.
- Reduce likelihood of illegal double voting.
- Reduce cost and break free from over-burdened council data links.

### Results:

- Almost instant office set up, with Standard Operating Environment and plug and play set up with web based applications.
- Instant check off for voter name at head office, rolls updated in real time.
- Saving 50% of total project costs, set up, support and management.

### Applications:

- Election Management System 2000

### Server:

- 3 x X336 servers running Metaframe PS 4.0 enterprise
- 1 x X336 server running Wyse Device Manager software

### Network:

- Private

### Solution:

- 100+ Wyse Thin OS Thin Clients

“ Wyse Thin Client easily outperformed notebook computers in all areas at our Early Voting Centres, they reduced our costs by over 50%”

### The customer: Victorian Electoral Commission

The State of Victoria has a long and proud history in the world of electoral reform. Originally a British colony and part of New South Wales, from which it separated in 1851, Victoria joined the Australian Federation in 1901. Its capital, Melbourne, was formed back in 1835 and was the seat of the first federal government and temporarily Australia's capital from Federation until the move to Canberra in 1927.

Victoria is the smallest mainland state in area but the most densely populated and urbanized. While only 3% of the Australian land mass, Victoria is only a tad smaller than the UK with around 10% of their population. The discovery of huge amounts of gold in 1851 transformed it into a leading industrial and commercial centre.

Victoria has a parliamentary form of government based on the UK Westminster system with a Governor, a lower house; the Legislative Assembly with 88 seats and an upper house; the Legislative Council with 40 seats. Both houses have elections late in November every four years. The last State election was held in November 2006. Both elections are independently conducted by the Victorian Electoral Commission (VEC) as are four yearly elections for local councils throughout Victoria. The next round of local council elections will be on the 29th of November 2008 and then every four years.

Victorians are proud that they were first in the world to introduce secret voting at Parliamentary elections in 1856, some 16 years before England, using government printed ballot papers with all candidates listed. This replaced the age old public voting system where only certain classes voted with full public disclosure of intent.



## The Challenge: Reduce the complexity and time in set up and running early voting centres and reduce the support cost

The VEC has traditionally established Early Voting Centres (EVCs) around the State for those voters who for a variety of reasons cannot attend a voting booth on State Election Day, which in 2006 was held on the 25th of November. These voting centres numbered 36 in 2006, spread widely around Victoria. They are established in various small locations on a short term rental basis for four weeks before the election day to provide early voting facility for the two weeks leading to the election.

VEC also established over 54 Elections Offices (EO) around the State for approximately three months to handle nominations, information to the public and enrolments queries before the elections as well as trialling Electronic Voting in six E-Centres in and around Melbourne.

“The problem for VEC in running the remote office locations, in particular the EVC’s has been the complexity and cost of renting PCs for such short periods, making sure all were standardised (impossible really with rented gear), and the security and operational efficiency,” said Shripad Joshi, Infrastructure team leader, VEC.

“For State Election 2002, we rented over 400 notebooks for use in each EVC where a voter was marked off the roll and then the notebook was taken back to head office to extract and transfer updates to the central database. It was a complex operation to setup 400 identical laptops and manage information extraction to update the central database. It also opened the possibility of fraudulent multiple voting.”

“In 2005 we trialled Citrix software using council provided desktops with limited bandwidth to facilitate nomination process from council premises. This enabled us to run standard applications at each site directly connected to our central servers however it soon became apparent that using infrastructure provided by others was a very expensive and unmanageable proposition.”

## The Solution: Wyse Thin Client

The trial with Citrix showed that thin client technology was definitely the way to go for the VEC; however the use of notebooks or third party infrastructure was not.

“Firstly using only notebooks at the early voting centres was not feasible either stand alone or connected to head office using Citrix,” said Shripad. “In 2002, at a stand alone EVC using a notebook we would mark the voter off the roll at the booth and then eventually, when back at head office, we would physically merge databases and recheck the voter against the master roll. This was not necessary when using Citrix and thin client as we could use one step to mark off and check back with the master database, so marking that person off at all voting stations in real time, eliminating potential administrative overhead and voting fraud.”

*"Since all settings and setup are saved on the server, and using Wyse Thin OS on the terminal, deployment is just so easy. Since all programs and setups reside on the server it is just a matter of plug and play."*

*Shripad Joshi*

*Infrastructure team leader - VEC.*

The trouble with using notebooks is that they are not all the same, and in a thin client environment they need to be. "Renting up to 400 notebooks at a time was expensive and we soon found out that different disk, motherboards and software configurations meant that we did not have the standard operating environment we needed. Even if we had purchased the notebooks at one time, it would not have taken long for them to be out of synch," said Shripad.

VEC started looking for an alternative solution in Q1 of 2006 and trialled Wyse thin client devices. "We were impressed with the pedigree Wyse had in the finance and banking arena so they were our first choice for the trial."

## How Wyse Thin Client performed

The trial soon showed VEC how well Wyse thin client could perform and they quickly moved to order 100 units to be in place for the lead up to the November 2006 State Elections. The VEC decided to purchase the Wyse Thin Client terminals outright rather than rent as they wanted a standard that could be used in all future state and council elections. They also found that the outright purchase was in the long run, more cost effective than renting notebooks due to the savings in running costs. The long life cycle of Wyse Thin clients has allowed VEC to re-use the equipment in upcoming elections which was not possible in the past.

"What we liked right away was the lack of disk, centralized configuration and management, giving us complete control along with standard operating environment. Any Wyse unit could be plugged in to any office, connect to the server, upload and be ready to go in seconds," said Shripad.

*"Since all settings and setup are saved on the server, and using Wyse Thin OS on the terminal, deployment is just so easy. Since all programs and setups reside on the server it is just a matter of plug and play."*

## The Technology

The VEC use Citrix ICA to connect the terminals back to head office citrix infrastructure, which published the Election Management application connecting to a SQL database running on Windows Server. All offices including the 36 Early Voting Centres and the trial six electronic voting stations used the Wyse thin client terminals for the State Election in 2006.

The VEC contracted with Telstra Data Services to provide temporary ADSL based secure private IPWAN connectivity from the Early Voting Centres to the head office. "Telstra was very helpful and professional setting up the 36 offices for us in just 10 days. Previously we had used an expensive ISDN network and were thrilled at the cost saving IPWAN gave us. We worked with their planning team for four months prior to the implementation of ADSL and that really helped. Wyse also greatly assisted in this time which made for a trouble free roll out."

*“With no disk in the Wyse terminal, security was not an issue for us, nothing could be saved locally and no programs introduced from the terminal. We therefore could guarantee the availability and manageability of this critical solution which was a challenge using notebooks in the past.”*

Shripad Joshi  
Infrastructure team leader - VEC.

## The Benefits

“Using the Wyse thin client technology in the early voting centres saved us at least 50% of the costs as compared to the solutions used in the past,” said Shripad. “With such a short period of time allowed for early voting centres to set up prior to the election we just could not afford the time or complexity in providing alternative solution. We had to wheel in and be on line very quickly with no time available for solving PC type issues. We saved enormous amounts by using our own office staff to simply plug in the Wyse, rather than third party contractors as we have done in the past.”

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## The Future

“The 2006 State election showed us that thin client technology together with Wyse’ history of innovation, performance and reliability, and Telstra’s ADSL support could provide innovation and cost savings, and give our stakeholders better service.”

“It is our intention going forward to use the Wyse thin client terminals in future State and local government elections. We are looking at new thin client technology like streaming and desktop virtualisation and also decentralized architecture that will enable the VEC to gain access from regional and satellite offices. As well we are looking at how thin client technology can better help us as we roll out Elections offices for scheduled elections and bi-elections,” said Shripad.



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