

*Sent Via Electronic Mail*

January 17, 2022

**RE: Dominion's Online Remote Voting Scalable Architecture**

The Corporation of the City of Brantford  
100 Wellington Square  
Brantford, ON, N3T 2M2

To Whom it may concern,

Leading into the 2022 Canadian election cycle, Dominion Voting Systems (Dominion) would like to reiterate our statement regarding the internet service slowdown experienced during the 2018 election. Dominion conducted a thorough review of that event and has taken strong measures to ensure optimal capacity for future election cycles. Your review and consideration of the information below is appreciated.

On October 22, 2018, Dominion issued a statement acknowledging that several municipalities in Ontario experienced slow traffic to their Internet Voting system. This load issue was documented, reviewed, and determined to be the result of a Toronto-based internet colocation provider that placed an unauthorized limit on incoming voting traffic, that was roughly 1/10th of the system's designated bandwidth.

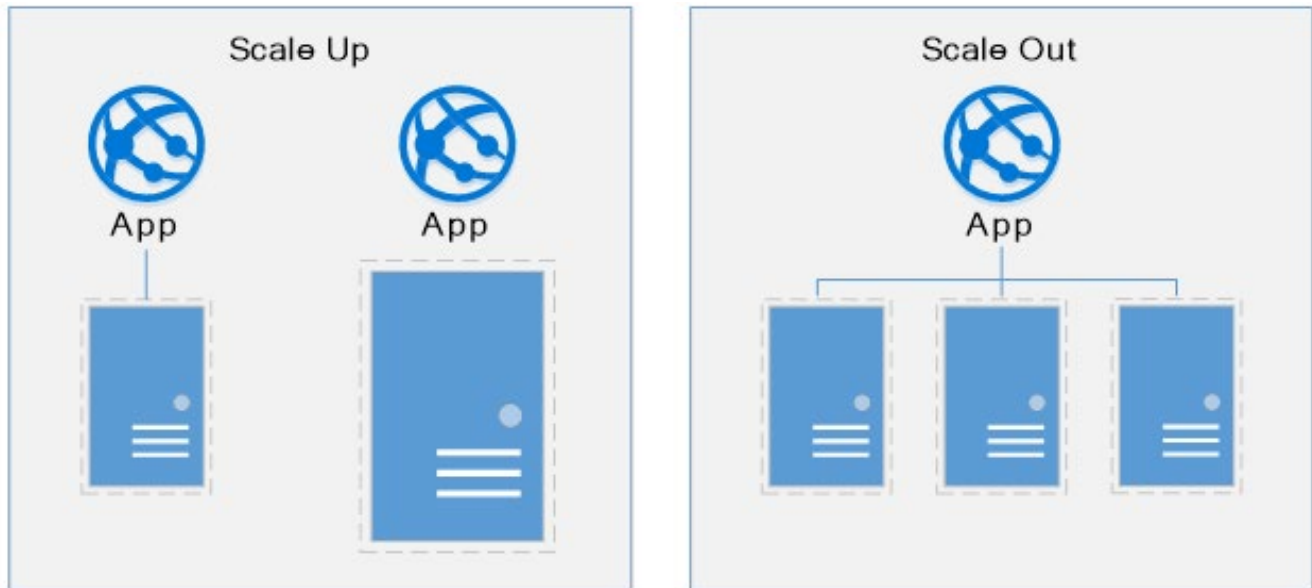
Our company was unaware of the issue until our municipal customers and their voters reached out to us for assistance. Once aware of the problem, Dominion was able to quickly identify the source of the issue and work with the provider to resolve the issue. Unfortunately, during the approximate 90-minute slowdown, some voters experienced slow response times and system time-outs.

Given this issue was no fault of the voters who attempted to cast ballots during this time, affected voters were advised to check with their election office for more information on options that were available to them, while some municipalities extended voting hours for the election. Dominion regrets the challenges that the system load issue posed, and we have worked diligently to provide a robust solution to ensure these issues would not be repeated.

In addition to reviewing our communication protocols, and system monitoring policies and procedures, we have taken extensive measures to ensure proper bandwidth for future elections. The most impactful change focused on migrating the Internet Voting application from a physical co-location model to a secure, cloud-hosted infrastructure on Microsoft's Azure platform. This change gives more control over the distribution of resources and allows the ability to make real-time adjustments as needed. A major benefit of using Azure is scalability, which allows for two main methods to scale resources, as detailed below:

- Vertical: Scaling Up and Down
- Horizontal: Scaling Out and In

With the up and down scaling, Azure enables Dominion to easily scale the number and power of resources up and down.



When scaling out and in, Azure can increase or decrease the number of hardware resources that the application utilizes – increasing or decreasing the number of instances. This could mean that instead of utilizing two servers, Dominion’s online remote voting offering can utilize three when needed. Scaling out and in is a manual operation and administrators will now be able to scale out or in based on accurate metrics (e.g. CPU percentage or memory percentage) or adjust scaling based on the scheduler (e.g. every Monday and Friday from 6 AM to 6 PM).

We are confident the infrastructure changes will eliminate any bandwidth concerns in future elections.

Should you have any questions or require clarification regarding Dominion’s online remote voting solution, please do not hesitate to contact me.

Sincerely,

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