

LEGISLATIVE BRANCH USE OF INFORMATION TECHNOLOGY DEPARTMENT SERVICES

This memorandum provides information related to the information technology cloud computing initiatives being implemented by the Information Technology Department (ITD) and identifies impacts to the legislative branch and potential concerns.

LEGISLATIVE BRANCH USE OF INFORMATION TECHNOLOGY SERVICES

The legislative branch utilizes many information technology (IT) services provided by ITD, including wired and wireless networks, VPN (remote access to state network), telephones, Active Directory (user account management), Microsoft Exchange (email), Microsoft SharePoint (collaboration), Skype for Business (instant messaging/desktop sharing), Ipswitch MOVEit (managed file transfer), Drupal and Apache (public website), IBM WebSphere (application server), Oracle (database), Atlassian Confluence (wiki), Bomgar (remote desktop support), business application hosting, and software development.

The legislative branch use of the executive branch IT services is not a common operating practice in most states. The North Dakota legislative branch has a long-term relationship with executive branch IT which provides many efficiencies and cost savings for infrastructure, software licensing, and human resources. The judicial branch maintains separate IT functions and services.

Changes to the following two ITD services may affect the business operations of the legislative branch.

BUSINESS APPLICATION HOSTING

The Information Technology Department hosts several mission critical legislative branch business applications. These **mission critical business** applications support the necessary information technology data processing for each legislative regular session beginning in January of each odd-numbered year and lasting up to 80 legislative days. Legislative session proceedings take place in the legislative chambers and committee rooms in the State Capitol.

Mission critical business applications include the chamber calendar, standing and conference committee hearing schedules, fiscal notes, constituent views, budget status, and bill tracking. These business applications are hosted on ITD's shared IBM WebSphere environments, which ITD may move to the Microsoft cloud (Azure). The Information Technology Department also hosts the mission critical LEGEND drafting system on dedicated server environments. LEGEND includes bill drafting and amending, LAWS, daily journals, the administrative code, meeting notices, agendas, minutes, and vouchers.

The legislative branch WebSphere and LEGEND mission critical business applications will continue to be hosted onsite in the state's data centers. Legislative branch test environments are located in the Mandan data center and production environments in the Bismarck data center. Legislative branch business applications will not move to the cloud with executive branch systems because of the 80 legislative-day limit for a legislative session. The Legislative Assembly cannot risk mission critical business processes not being available due to unavailable business applications or performance issues with business applications.

Potential Legislative Concerns and Questions

Budgetary Implications

- Will ITD move business applications hosted on the shared IBM WebSphere environments to the cloud? If so, when?
- Will other agency business applications running in the shared IBM WebSphere environments continue to be hosted in the state's data centers?
- Did ITD perform a cost-benefit analysis to determine if the state would realize any cost savings by moving IBM WebSphere business applications to the cloud?
- Will legislative branch hosting costs be impacted if ITD moves other business applications hosted on the shared IBM WebSphere environments to the cloud?
- Will ITD establish dedicated network connections between the state network and the Microsoft data center to ensure the WebSphere applications moved to the cloud do not have any service interruptions due to loss of Internet or slower response times due to network latency? What will the dedicated network connections cost?
- Will ITD moving business applications to the cloud impact the Mandan data center?

EMAIL

The Information Technology Department is in the process of moving state email services to the cloud (Microsoft Exchange Online). During this process, ITD has implemented a hybrid Exchange email environment with some email mailboxes hosted onsite and others in the Microsoft cloud. Legislative branch mailboxes are stored onsite. At some point, ITD may no longer support this hybrid model and will require all @nd.gov email accounts be hosted in the cloud, including legislative branch mailboxes.

Potential Legislative Concerns and Questions

Security

- How will subpoena requests for email stored on servers located in a third party data center be affected?
- How will ITD ensure there is no unauthorized access to email accounts by Microsoft employees or contracted employees?
- Will external network access to email via the Windows desktop Outlook application continue to require VPN connection to access email accounts?
- Will email messages continue to route through the state's email security gateway solution or go directly to Microsoft servers? If not through the state's email security gateway solution, will this same security service be included in the cloud?

Performance

- Will the Windows desktop Outlook application experience any performance issues accessing email messages?
- What has been the Windows desktop Outlook application user experience for ITD users and other customers who have moved to Exchange Online?
- Will performance issues require ITD to purchase dedicated network circuits between the state network and Microsoft data centers? At what cost?
- Have any users switched to web access to avoid performance issues?

Budgetary Implications

- Did ITD perform a cost-benefit analysis to determine if the state will realize any cost savings by moving state email services to the cloud?
- Are there additional costs incurred with moving state email services to the cloud? Is the cost for security services included in the standard cloud email cost or are security services an add-on cost?
- Will the move to Online Exchange affect the ITD technology fee rate in future bienniums?