

Presentation to the SITAC Meeting

**August 19, 2013
Pioneer Room
State Capitol Building**



Agenda



2:00	Welcome/Opening Comments	Mike Ressler
2:05	EA Waivers and Standards	Jeff Quast
2:25	Enterprise Architecture 2.0	Jeff Quast
2:40	Visual ND	Bob Nutsch
2:55	Legislative Update on IT Projects	Dirk Huggett
3:10	BREAK	
3:20	Desktop Support Study	Dirk Huggett
3:35	Security Update	Dan Sipes
3:55	Wrap-up	Mike Ressler



Jeff Quast, Program Administrator

Enterprise Architecture





Requests for Exemption

- Request for Exemption to [ST002-04.1](#) from Dept. of Emergency Services - Approved
 - To use a Remote Control/Support Appliance to support and manage remote user computers
 - EA is planning to update the standard and ITD is planning to offer an enterprise service (if there is demand)



EA Standards

- New Email standard created - [CT001-13.1](#)
 - Actually combining two older, separate standards
 - Moves service details out of the standard and into an ITD Service Level Agreement
 - Removes reference to state.nd.us email addresses
- Updated Employee Security Awareness standard - [ST009-05.2](#)
 - Minor changes to terminology to bring standard up to date (i.e. remove reference to Modems)
 - Removed option to substitute an agency provided tutorial instead of the state approved version



EA Standards

- Created new Acceptable Use of Electronic Communications Device standard [ST001-13.1](#)
 - Actually a revision of an ITD policy, now officially an EA standard
 - Standard requires agencies to develop an AUP and gives guidance



Other EA Activities

- Project Management Guidebook
 - Updated and Transitioned to Electronic book on ITD's web site (done soon)
- Multi-Factor Authentication
 - Initial study and coordination
 - Currently in pilot phase
- Input on ITD Service Level Agreements
- Complete review of ALL standards



Other EA Activities

- Discussion Items
 - Agencies texting to citizens
 - Personal use of network resources
 - Microsoft licensing and direction
 - STAGEnet 2015 refresh
 - Security Awareness Training for Contract Employees
 - Tablet computing and encryption of tablets
 - Data Visualization, Dashboards, UI design
 - Monitoring employee web usage



Enterprise Architecture

Questions?



Enterprise Architecture 2.0



- The move to a new EA model, “2.0”, is underway
- EA was established in NDGOV in 2003
- Addressed Technical Architecture only, as did most EA models at the time
- New model will address 4 Architectures
 - Technical
 - Application
 - Data
 - Business
- Security Architecture has been discussed



Enterprise Architecture 2.0

- Brainstorming session held in 2011 involving all EA participants identified strengths and weaknesses
 - Main Strengths
 - Gives everyone an opportunity to participate
 - Opportunity to collaborate and share knowledge
 - Established standards and policies
 - Ad hoc study groups provide great value
 - Main Weaknesses
 - Process is too complex and moves too slowly
 - Team makeup is out of date and too hierarchical
 - EA is reactive, not proactive
 - Too many initiatives not being addressed (Data, Business)

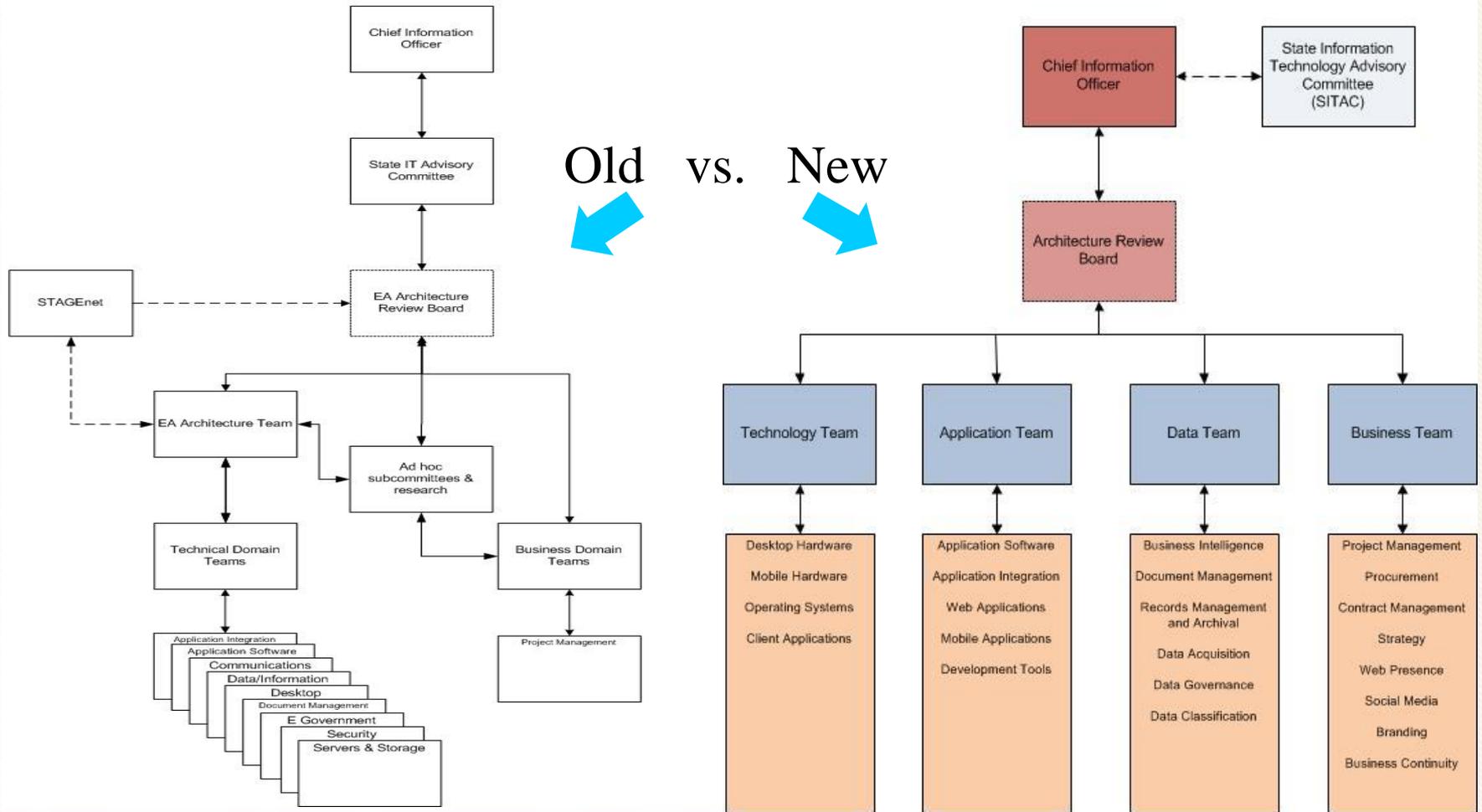


Enterprise Architecture 2.0



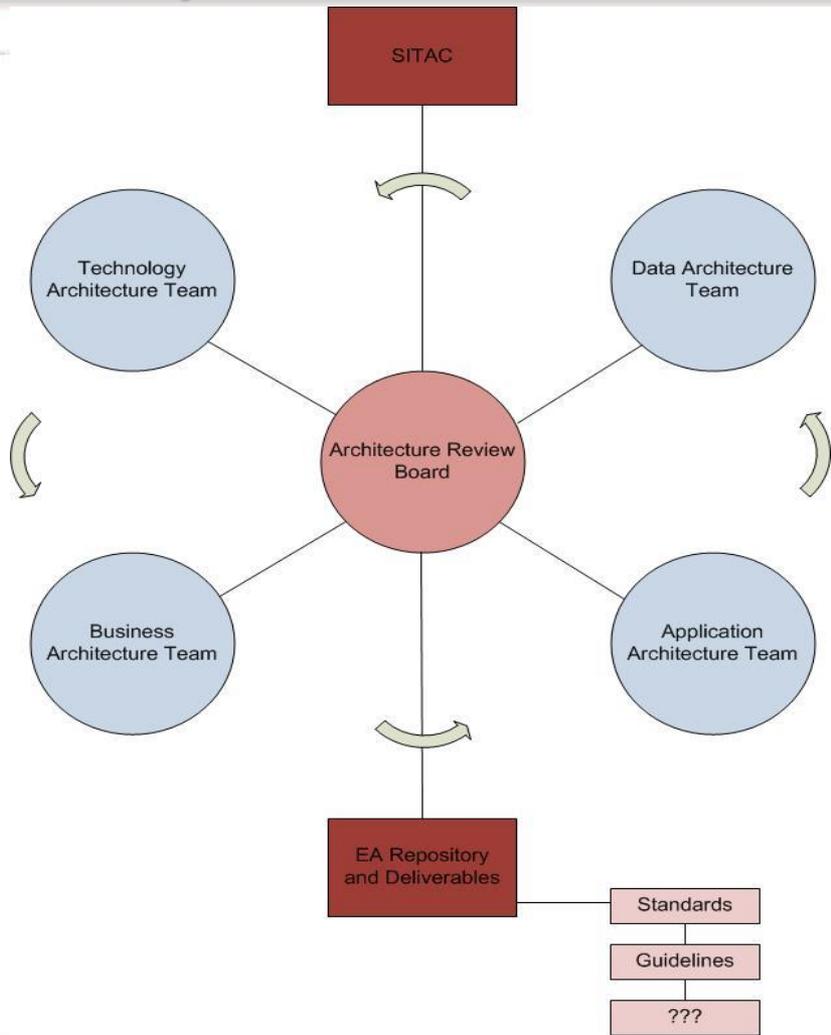
Enterprise Architecture 2.0 Governance Diagram

Figure 1. Enterprise Architecture Governance Diagram





Enterprise Architecture 2.0



- EA does not have to be a “Hierarchy”.
- EA does not need a series of meetings from various teams to accomplish things
- Ad hoc teams can exist when needed

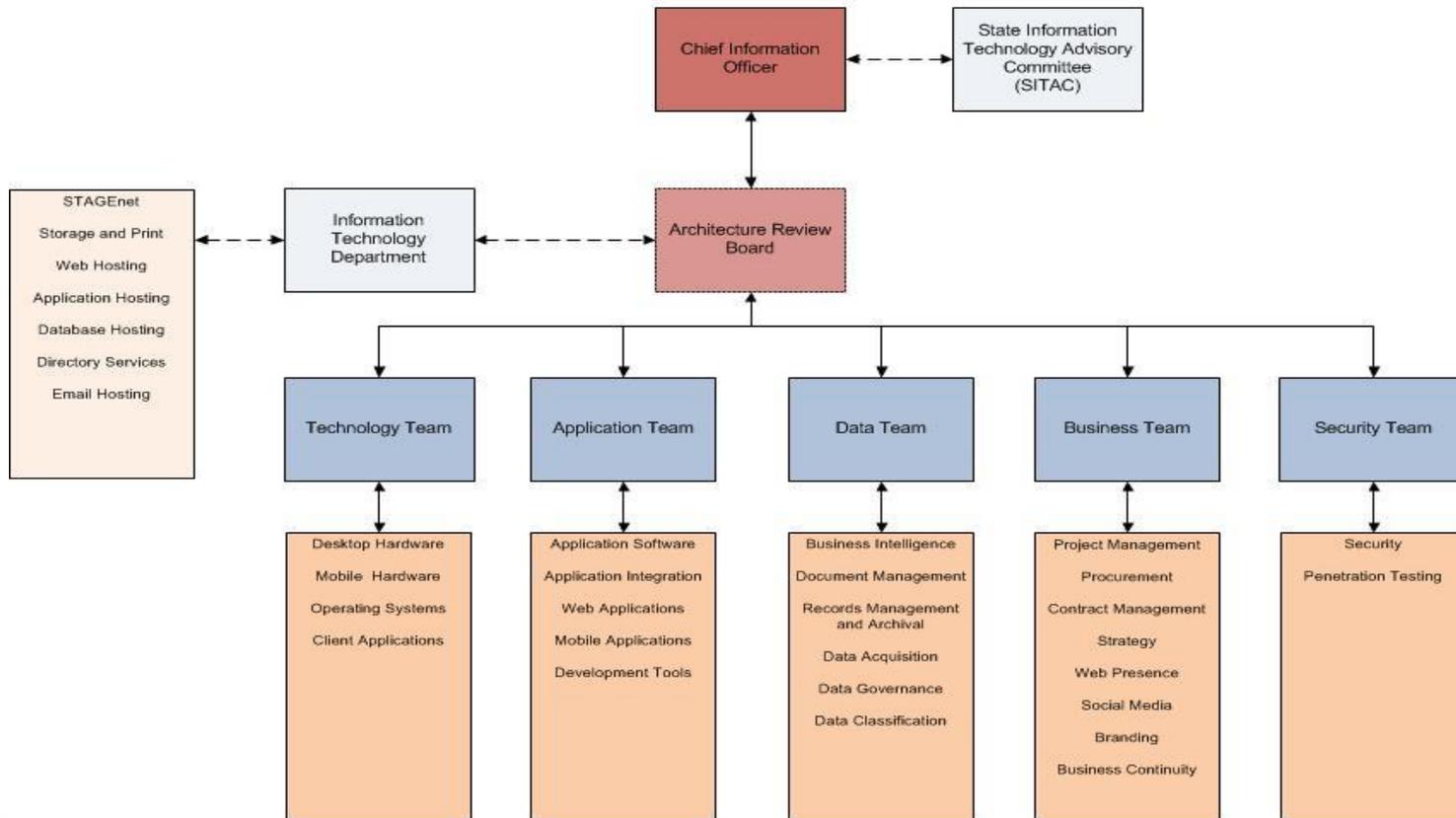


Enterprise Architecture 2.0



What about ITD? What about Security?.....This is still Draft

Enterprise Architecture 2.0 Governance Diagram





Enterprise Architecture 2.0

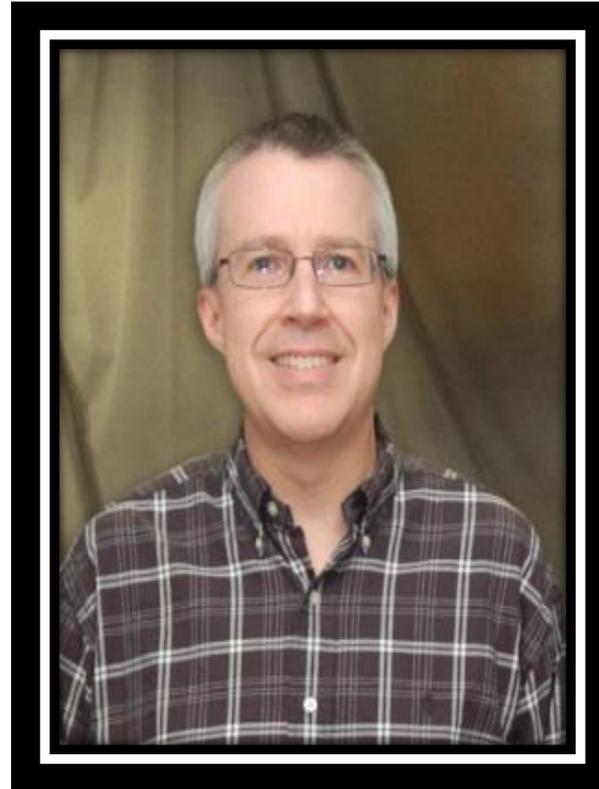


Questions?



**Bob Nutsch,
GIS Manager**

Visual ND



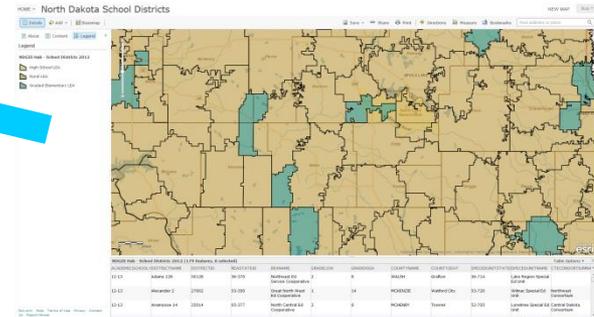
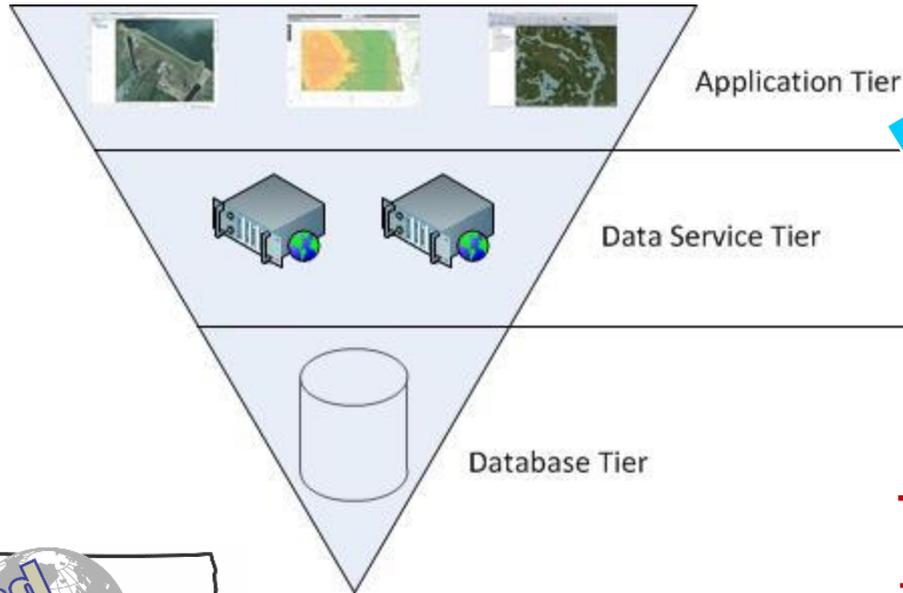


Visual ND - What is it?

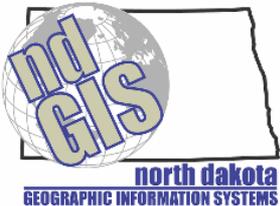
- Enterprise license of Esri's ArcGIS Online
- Cloud-based tool for hosting data, services, maps
- Doesn't replace Desktop GIS tools already in use
- Doesn't replace the ND GIS Hub
- No cost (2013-2015) for state agencies to use
- Goal: central contract to leverage buying power



Visual ND - How Does it Fit In?



This is one more tool at the Application Tier





Visual ND - Dashboard

HOME GALLERY MAP GROUPS MY CONTENT MY ORGANIZATION

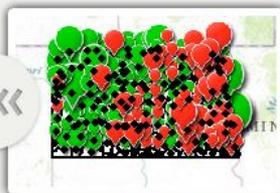
1 Bob

North Dakota

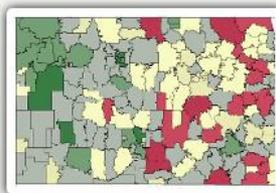
nd.gov Official Portal for
North Dakota State Government



Featured Content



2012-13 Fall Enrollment
Count Changes - Heat



Five-Year Fall Enrollment
Count Changes



K-12 Schools in Legislative
Districts



North Dakota School Districts

State of North Dakota



Visual ND - Ready-to-use Maps

HOME - North Dakota Workforce Lodging in the Bakken

NEW MAP Bob

Details Add Basemap

Save Share Print Directions Measure Bookmarks Find address or place

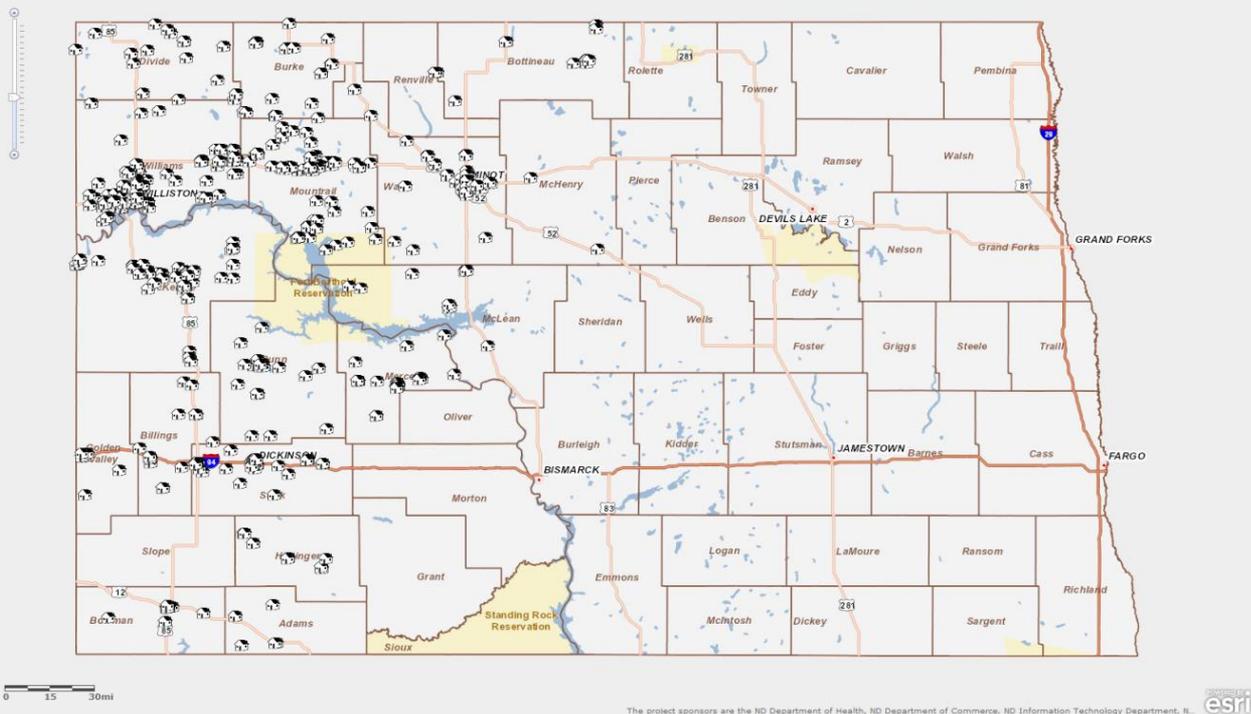
North Dakota Workforce Lodging in the Bakken

This dataset represents western North Dakota workforce lodging locations ("crew camps") used by Bakken oil and gas workers.

Web Map by ND-GISHUB
Last Modified: May 9, 2013
(0 ratings, 0 comments, 310 views)

More Details...

Make your own map
Add to this map
Make a new map



Add your own data





Visual ND - Ready-to-Use Templates

North Dakota nd.gov Official Portal for North Dakota State Government

Missouri River Flooding: Before, During, and After

Missouri River - October 2010 Missouri River - July 2011 Missouri River - September 2011

SYNCHRONIZE MAPS:
 ■ Scale
 ■ Location

Panning tip: Left-click on a map and drag mouse.
 Zooming tip: Left-click on a map and use the mouse wheel OR hold down the shift key, left-click on the map and draw a box.
 Right-click on a map for more options.

MAP INFORMATION:
 ■ Description
 Content

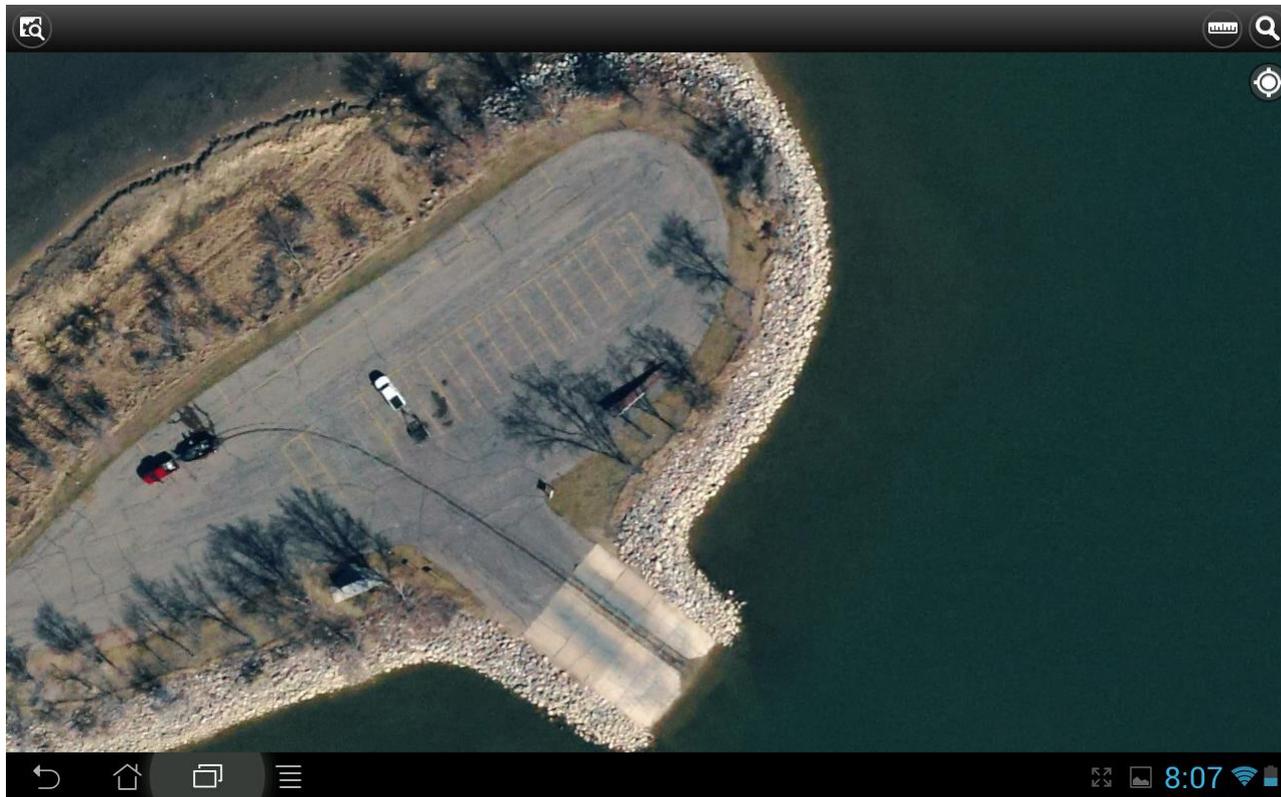
Imagery collected by the ND Department of Transportation on October 19, 2010 for the ND State Water Commission. The imagery extends from about 8 miles south of Bismarck to just north of the Garrison Dam. Pixel size is approximately 0.6-feet. Flow at Bismarck was 31,600 cfs at the time of the imagery collection.

Imagery collected by the ND Department of Transportation during July 5, 7, 8, 2011 for the ND State Water Commission during flood conditions along the Missouri. The imagery extends from about 11 miles south of Bismarck to just north of the Garrison Dam. Pixel size is approximately 0.9-feet. Flow at Bismarck was 141,000 cfs at the time of the imagery collection.

Imagery collected by the ND Department of Transportation on September 23, 2011, for the ND State Water Commission following flood conditions along the Missouri. The imagery extends from about 8 miles south of Bismarck to just north of the Garrison Dam. Pixel size is approximately 0.6-feet. Flow at Bismarck was 33,100 cfs at the time of the imagery collection.



Visual ND - Mobile-Friendly



Lake
Audubon



Visual ND - Embed Maps in Web Sites

North Dakota nd.gov Official Portal for North Dakota State Government



North Dakota
Legislative Branch

[Legislative Assembly](#) [Legislative Council](#)

[Home](#) | [Assembly](#) | [63rd Assembly](#) | [Members](#) | [By District](#) | [63rd Assembly Regular Members: District 1](#)

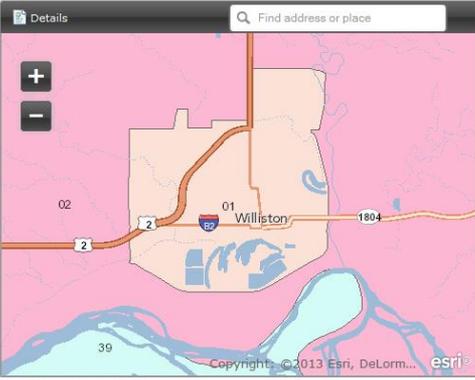
63rd Assembly Regular Members: District 1

- [Senator Stanley W. Lyson \(R\)](#)
- [Representative Patrick Hatlestad \(R\)](#)
- [Representative Gary R. Sukut \(R\)](#)

[District 1 Map](#)

District 1 Overview

- [Statistics](#)
- [Components](#)



[View Larger Interactive Map](#)



Visual ND - Create Maps with Excel Data

COUNTYNAME	CNTY_FIPS	FIPS	SQ_MILES	ACRES	POP2010	POP10_SQMI
Ransom	073	88073	863.72864674	552786.33391155	5457.00000000	6.3
Cavalier	019	88019	1511.35728700	967268.66368052	3993.00000000	2.6
McIntosh	051	88051	994.88202932	636724.49876443	2809.00000000	2.8
McHenry	049	88049	1912.37527106	1223920.17347637	5395.00000000	2.8
Logan	047	88047	1010.85263126	646945.68400581	1990.00000000	2.0
Towner	095	88095	1042.54728715	667230.26377397	2246.00000000	2.2
Pembina	067	88067	1122.42723395	718353.42972746	7413.00000000	
Divide	023	88023	1296.00577742	829443.69754756	2071.00000000	
Williams	059	88059	2149.25090411	1375520.57862864	22398.00000000	
Mountrail	061	88061	1942.26212418	1243047.75947318	7673.00000000	
Ramsey	071	88071	1301.56104091	832999.06618009	11451.00000000	
Walsh	099	88099	1294.82045236	828885.08951163	11119.00000000	
Benson	005	88005	1439.70906229	921413.79986609	6660.00000000	
Grand Forks	035	88035	1439.76505400	921449.63456235	66861.00000000	
McKenzie	053	88053	2860.51677905	1830730.73859400	6360.00000000	
McLean	055	88055	2328.61723527	1490315.03057133	8962.00000000	
Dunn	025	88025	2081.73291841	1332309.06778084	3536.00000000	
Traill	097	88097	862.44443886	551964.44086786	8121.00000000	
Mercer	057	88057	1112.53406481	712021.80147946	9424.00000000	
Burleigh	015	88015	1668.20329921	1067650.11149716	81308.00000000	
Oliver	065	88065	730.86270379	467752.13042412	1846.00000000	
Cass	017	88017	1767.51454318	1131209.30763813	149778.00000000	
Morton	059	88059	1945.00223065	1244801.42761879	27471.00000000	
Grant	037	88037	1665.70078386	1066048.50166856	2394.00000000	
Emmons	029	88029	1555.73330765	995669.31689726	3550.00000000	
Richland	077	88077	1445.46208771	925095.73613631	16321.00000000	
Sioux	085	88085	1128.34999849	722143.99903118	4153.00000000	
Wells	103	88103	1290.48999355	825913.59587001	4207.00000000	
Dickey	021	88021	1142.23817203	731032.43009686	5289.00000000	
Burke	013	88013	1129.99811610	723198.79430270	1968.00000000	
Nelson	063	88063	1099.24787067	645018.63722912	3126.00000000	
Griggs	039	88039	716.49504056	458556.82596661	2420.00000000	
Barnes	003	88003	1513.12967294	969402.99067966	11066.00000000	
Billings	007	88007	1153.04227244	737947.05435893	783.00000000	
Kidder	043	88043	1432.56123969	916839.19340029	2435.00000000	
Stutsman	093	88093	2297.81059927	1470598.78353479	21100.00000000	
Stark	089	88089	1340.20950301	857734.08192430	24199.00000000	
Adams	001	88001	988.76644591	632810.52537954	2343.00000000	
Sargent	081	88081	867.52325837	555214.88535770	3829.00000000	
Bowman	011	88011	1167.12830166	746962.11306003	3151.00000000	
LaMoure	045	88045	1151.04663731	736669.84787556	4139.00000000	
Hettinger	041	88041	1133.71316250	725576.42399896	2477.00000000	
Slope	087	88087	1213.41824488	780477.67872404	727.00000000	
Ward	001	88101	2057.11021879	1318550.54002712	61675.00000000	30.0
Bottineau	009	88009	1699.51214619	1087687.77356053	6429.00000000	3.8



Visual ND - Groups

HOME GALLERY MAP GROUPS MY CONTENT MY ORGANIZATION

1 Bob



My Groups

CREATE A GROUP

INVITATIONS (0)

Show

You are a member of 4 groups

Find...

All My Groups

Owned by Me
Owned by Others
With New Membership Requests



Featured Content
Group to share content
created by dhuggett on January 23, 2013

[Details](#)



Geospatial Intelligence - FOUO Gallery
North Dakota Department of Emergency Services - Geo-spatial Intelligence - For Official Use Only.
created by jstonneson on April 9, 2013

[Details](#)



Information Technology Department
ITD's group for non-GISHub maps
created by dhuggett on October 8, 2012

[Details](#)



ND Basemaps
Visual North Dakota Basemap Group
created by dhuggett on January 23, 2013

[Details](#)

The organization's groups

The organization's groups that are public

Featured Groups

[National Maps for USA](#)

[Esri Maps and Data](#)

[Community Basemaps](#)

[Landsat Community](#)

[Web Application Templates](#)

[ArcGIS for Local Government](#)

- Use groups to specify who can view your data
- internal to your agency
- internal to other agencies



Visual ND - Demonstrations

- Create a map
- Create an application
- Create a map from a spreadsheet



Visual ND - Wrap-Up

- Low-cost way to get maps out and share information
- Will become a much bigger offering from Esri
- Using it now = well-positioned for the future
- GISTC - published guidelines for using ArcGIS Online
- Contact me if your agency is interested:
 bnutsch@nd.gov
 328-3212



**Dirk Huggett, IT
Program
Administrator II**





Legislative Update on IT Projects

- HB 1069 - Limit of Liability
- <http://www.nd.gov/spo/agency/templates/>
- SB 2021 - \$100k project planning
- Became N.D.C.C. § 54-59-11.1
- Codified 2011 session law
- SB 2033 - “major IT projects” definition
- Definition is in Legislative IT Committee code
- Raised the limit from \$250K to \$500K
- Adjusted ITD code to align with new limit



Legislative Update on IT Projects

- SB 2034 - Executive Order 2011-20
 - Lowered amount to align with new major IT project limit
 - Largest change is in procurement process
 - Officially brings SPO into the process
 - Provides more flexibility
 - Requires OMB and ITD to determine qualifications of PO and PM
 - ESC - minor modifications from the EO clarifying roles/responsibilities
 - No change from EO in signature requirements
 - Removed the requirement to meet quarterly with the Governor's Office



Break



Desktop Support Study

- SB 2021 Section 9
 - Requires ITD to perform a study to determine the feasibility and desirability of centralization of desktop support with ITD
 - Chosen to do an RFP for independent analysis
 - Street date of July 24
 - Proposals were due 8/15
 - Evals to be completed 8/22



Desktop Support Study

- Project to start after Labor Day holiday
 - Will require assistance from a number of agencies
 - Gather current staffing, costs and processes
 - Draft report to ITD by late October
 - Final report available by mid November
 - ITD must report findings to OMB, Budget Section, and LITC before Jan 1, 2014.
 - OMB must report to Budget Section “... findings, recommendations, and any legislation required to implement the recommendations ...”



**Dan Sipes, Director
Administrative
Services**





SITAC Security Update



- Security Focus at ITD
 - ITD continues to focus on expanding security awareness and improving the security posture for the state network and computing resources
- Escalation of Attacks
- Increasing Number of Audits
- Recent Steps Taken by ITD
- Future impact



Attacks continue to escalate

- Utah Department of Health - March 2012
 - 780,000 residents had PII, health data or social security numbers compromised.
- South Carolina Dept of Revenue - August 2012
 - August 2012 a spear phishing attack compromised user credentials resulting in 44 compromised systems and exported 75 GB of encrypted and unencrypted data.
- Websites of Washington Post, CNN and Time - August 2013
 - Syrian Electronic Army uses phishing to gain access



Increasing Number of Audits

- During the last year ITD has been subject to numerous audits
 - State Auditor Security Audit - ManTech Audit (2)
 - State Auditor Service Organization Control Report - pending
 - Federal Audits (4)
 - Federal Reviews (2)
 - PCI Review (1)
- Overall audits are a good thing. However the current risk that ITD must manage is spending too much time on lower level audit issues rather than primary security risk areas.



Recent/Current Security Initiatives

- Expanding Intrusion Detection/Intrusion Prevention solutions at various locations on the network
- Implementation of Security Information and Event Management solution
- Implementation of Multi-Factor Authentication solution
- Initiation of the Security Application Scanning process (AppScan)
- Initiation of Formal Risk Assessment Process
- Implementation of encryption of data at rest solution
- ITD Security Framework 2.0 (mapped to NIST 800-53)



Security Impact

- Security is a trade-off - we often must give something to get an improvement in perceived security posture
 - Time, Money, Convenience, Capabilities, Liberties
 - We must continue to evaluate “Risk” and determine if the trade-off is worth risk we are mitigating.
- Forecasting an increase in the number of resources ITD is committing towards security - time, staffing, solutions.
- When possible ITD is attempting to make security changes “transparent” to its customers, however some changes may bring an impact.
- Thank you for your cooperation and input as we work to continually improve our security posture.



ITD Security Framework

- Security Processes
 - Assess
 - Protect (Prevent)
 - Detect
 - Respond
- Security Areas
 - Network Security
 - Host Security
 - Application Security
 - User Security
- Effective security applies all four processes across all four security areas.



Wrap-up

- Questions?
- Future Topics?
- Closing Comments



Thank You!