

Davenport Group | ESRI System Architecture Assessment

Are You Ready for Enterprise GIS?

The purpose of this assessment is to gather information about your organization's current IT environment, evaluate your goals and objectives, and identify any potential performance or implementation issues associated with deploying enterprise GIS. There may be questions in this assessment that are outside your domain. Please answer each question to the best of your ability; we will fill in gaps, if needed, at a later date.

Thank you for your interest in ESRI and Davenport Group. We look forward to assisting you with your GIS needs.

Please begin the assessment on the following page.



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I. Your Organization

Help us understand your organization and your role:

- 1. Your industry:
 - Business
 Conservation
 Defense, Intelligence
 Education
 Architecture, Engineering, Construction
 Government (Federal)
 Government (State or Local)
 Healthcare
 Natural Resources
 Public Safety
 Transportation
 Utilities, Communications
 Other:
- 2. Organization Size:
 - Less than 25 employees
 25 49 employees
 50 99 employees
 100 199 employees
 200 499 employees
 500 999 employees
 1000 2499 employees
 2500 4999 employees
 5000 + employees
- 3. Size of jurisdiction population (government respondents only):
 - Less than 25,000
 25,000 49,999
 50,000 99,000
 100,000 249,999
 250,000 499,999
 500,000 999,999
 1,000,000 2,999,999
 3,000,000 4,999,999
 5,000,000+
- 4. Your Department:
- 5. Your Position or Title:

I. Your Applications

Help us understand how your organization uses IT and GIS today. The more detail you provide, the better we will understand your current environment.

VYesNoYesNoAccounting/Financial Systems </th <th>What software applications are in use throughout your organization? (Check all that apply)</th> <th>How many users</th> <th>y applic</th> <th>ation</th> <th>If yes, how many of the users edit GIS?</th> <th>to G</th> <th>plans iIS- le in</th>	What software applications are in use throughout your organization? (Check all that apply)	How many users	y applic	ation	If yes, how many of the users edit GIS?	to G	plans iIS- le in
Accounting/Financial Systems		1/	Vas	No			
Agenda Preparation	A approximating /Financial Systems						
Agricultural Management							
Apprecial/CAMA							
Asset Management							
Budget Image: Sinter Sinte			<u>H</u>				
Business Intelligence	5						
Business Licensing							
Candidate Filing			<u> </u>				
Campaign Finance/Reporting			<u> </u>				
Code Enforcement							
Computer Aided Dispatch Image and the second se							
Court Systems							
Customer Relations Management							
Defense/Military							
Document Management							
e-Commerce			<u> </u>				
e-Government			<u> </u>				
Engineering/CAD							
ERP/SAP							
Executive Dashboard							
Facility Management	•						
Field/Incident Reporting							
Fire/Emergency Management			<u>H</u>				
Fleet Management			<u> </u>				
HR/Personnel Management							
Inventory Control			<u> </u>				
Jail Management							
Jury Management							
Land Records Management Land Surveying Mapping Motor Vehicle Tax Property Tax Property Tax Public Safety/RMS Purchasing SCADA Tax Billing IVR Time & Attendance Transportation Utility Billing Voter Registration Work Orders							
Land Surveying Mapping Motor Vehicle Tax Property Tax Public Safety/RMS Purchasing SCADA Tax Billing IVR Time & Attendance Transportation Utility Billing Voter Registration Work Orders			<u>H</u>				
Mapping Image: Constraint of the second							
Motor Vehicle Tax Image: Collections Image: Collections Puse Attendance Image: Collections Image: Collections Tax Billing IVR Image: Collections Image: Collections Time & Attendance Image: Collections Image: Collections Vitility Billing Image: Collections Image: Collections Tax Billing IVR Image: Collections Image: Collections Time & Attendance Image: Collections Image: Collections Vitility Billing Image: Collections Image: Collections Voter Registration Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections Image: Collections			<u> </u>				
Property Tax Public Safety/RMS Purchasing Purchasing SCADA SCADA Tax Billing & Collections Tax Billing IVR Image: State and ance Transportation Utility Billing Voter Registration Work Orders			<u> </u>				
Public Safety/RMS							
Purchasing							
SCADA							
Tax Billing & Collections							
Tax Billing IVR Image: Constraint of the second s			<u> </u>				
Time & Attendance Image: Constraint of the second	-						
Transportation Image: Constraint of the system Utility Billing Image: Constraint of the system Voter Registration Image: Constraint of the system Work Orders Image: Constraint of the system							
Utility Billing Image: Constraint of the second s							
Voter Registration Work Orders			<u> </u>				
Work Orders			<u> </u>				
			<u> </u>				
	Other (specify)		<u> </u>	<u> </u>			<u> </u>

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What software applications are in use throughout your organization? (Check all that apply)		How many users?	ls t applic GIS ena	ation	If yes, how many of the users edit GIS?	lf no there to C enab the fu	BIS- le in
	\checkmark		Yes	Νο		Yes	No
Other (specify)							
Other (specify)							
Other (specify)							
Other (specify)							
Other (specify)							

6. What GIS applications are used? (Check all that apply and indicate license type.)

GIS Applications		Number	of Licenses
	\checkmark		
Desktop GIS		Single	Floating / Concurrent
ArcInfo		N/A	
ArcEditor		N/A	
ArcView			
ArcReader			N/A
ArcExplorer			N/A
ArcGIS Engine Runtime			N/A
ArcView GIS (3.x)			
MapObjects		N/A	
Other (specify)			
Server GIS			
ArcGIS Server Advanced			
ArcGIS Server Standard			
ArcGIS Server Basic			
ArcSDE			
ArcIMS			
ArcGIS Image Server			
Other (specify)			
Mobile GIS			
ArcGIS Mobile (SmartClient)			
ArcPad			
StreetMap Mobile Software (SDK)			
ArcInfo			
ArcEditor			
ArcView			
ArcReader			
ArcExplorer			
ArcGIS Engine Runtime			
ArcView GIS (3.x)			
MapObjects			

GIS Applications		Number of Licenses
	\checkmark	
Other (specify)		
Online GIS		
ArcGIS Online		
ArcWeb Services		
Other (specify)		
3 rd Party Access		
AutoCad		
Microstation		
OGC clients (specify)		
Other (specify)		

7. What is your IT organizational model?

- Centralized (single IT manager/authority)
- Cooperative (any multi-jurisdictional authority, e.g. a steering committee)
- Distributed (department-level authority)
- Disjointed (multiple authorities without coordination)

8. What is your GIS organizational model?

- Centralized (single GIS manager/authority)
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- Distributed (department-level authority)
- Disjointed (multiple authorities without)
- 9. Is GIS part of the IT department?

🗌 Yes

🗌 No

□ Not sure

10. If no, in what department is GIS located?

II. - Your Environment

Tell us all you can about your IT environment. We understand you may not be an IT person but do the best you can. If you do not know the answer, check "not sure" and move on to the next question. The more detail you provide the better we will understand your organization's IT environment.

11. How many servers do you have in your primary data center? Select one.

Less than	5
5-25	
25-50	
50-100	
100+	
Not sure	

12. How many servers support GIS? Select one.

	 None 2-5 5-9 10-14 15-24 		□ 25-29 □ 50-99 □ 100+ □ Not sure	
13.	Do you have more than one data cer	nter?		
	Yes	🗌 No		□ Not sure
14.	If yes, how many additional sites do	you have?		
	□ 1 □ 2 □ 3		☐ 4 ☐ 5+ ☐ Not sure	
15.	Do you use DAS (Direct Attached St	orage)?		
	Yes	🗌 No		□ Not sure
16.	If yes, please list brand, model, and c	apacity.		
17.	Do you use NAS (Network Attached	Storage)?		



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18. If yes, please list brand, model, and	capacity.	
19. Do you use a SAN (Storage Area Ne	twork)?	
Yes	🗌 No	□ Not sure
20. If yes, please list brand, model, and c	capacity.	
21. How much storage do you currently	have? Select one.	
 Less than 500GB 500-750GB 750GB-1TB 1-2TB 2-4TB 4-6TB 6-10TB 	 ☐ 10-15TB ☐ 15-25TB ☐ 25-50TB ☐ 50-100TB ☐ 100TB+ ☐ Not sure 	
22. How much storage do you anticipate	e adding in the next 12 months?	Select one.
 Less than 500GB 500-750GB 750GB-1TB 1-2TB 2-4TB 4-6TB 6-10TB 	 10-15TB 15-25TB 25-50TB 50-100TB 100TB+ Not sure 	
23. Approximately how much of your to	tal storage is currently in use?	
 Less than 25% 25-49% 50-74% 	☐ 75-89% ☐ 90-100% ☐ Not sure	
24. Which of the following Operating Sy	stems (OS) do you use? (Checl	all that apply.)
 Windows Novell Linux Sun 	 UNIX Other Not sure 	
25. Describe your network environment,	both LAN and WAN.	

26. Does your organization support VPN access over WAN environments, dial-up access to central computer facilities, or any other access to their internal LAN/WAN environment?

	Yes	🗌 No		□ Not sure
27. lf	yes, please describe.			
28. Is	your data stored on database or fil	e servers?		
	 File Servers (Shape Files/Cov DBMS (SDE/Geodatabases) Not sure 	erages)		
29. Do	o you use any of the following DBM	IS database appl	ications? (checl	(all that apply)
	 Oracle Microsoft SQL My SQL Oracle Spatial 		OtherNot sure	
30. Do	o you use server virtualization?			
	Yes	🗌 No		□ Not sure
31. If	yes, which virtualization technolog	y do you use?		
32. Ho	 VMWare Microsoft Virtual Server Virtual Iron Vou manage backup? 		OtherNot sure	
	 Tape Back-up Appliance Web/Service Provider Replication 		OtherNot sure	
33. W	hat backup software do you use?	(Select one)		
	 None Veritas Net Backup Veritas Backup Exec Legato 		☐ CA ☐ Other ☐ Not sure	
34. E	Do you keep a copy of your backup	offsite?		
	Yes	🗌 No		□ Not sure
35. If	yes, how current is the copy?			

36. Do you test your backup ar	nd recovery?	
Yes	🗌 No	☐ Not sure
37. If yes, how do you test it?		
38. Do you have a disaster reco	overy plan?	
Yes	🗌 No	☐ Not sure
39. If yes, how often do you tes	st it?	

III. -Challenges, Opportunities, Constraints

Tell us all you can about the challenges you face and your projects and plans for the future.

40. Which areas of IT and/or GIS present the biggest challenges? (Check all that apply.)

Data growth	Limited staffing
Storage capacity	🗌 Other
Backup and recovery	🗌 Not sure
Network performance	
Aging infrastructure	

41. Specifically, what are your organization's biggest pain points?

42. What types of IT projects do you plan to implement in the next 24 months? (Check all that apply.)



Network infrastructure] Backup Disaster recovery

Virtualization
Other
Not sure

43. What types of GIS projects are you planning to implement in the next 24 months? (Check all that apply.)

Migration to ArcGIS Server	Computer Aided Dispatch Integration
Ortho-imagery	CAMA Integration
	Elections/Voting System Integration
Pictometry	Public Health Integration
Executive Dashboard	Environmental Health Permit Integration
SCADA Integration	Real Estate/Property Management I
Work Order Integration	Land Development Integration
Asset Management Integration	ERP/SAP Integration
Business Intelligence Integration	Transportation Systems Integration
Public Safety Integration	Not sure
Web project (Describe)	🗌 Other
Mapping project (Describe)	Mobile project (Describe)

44. Does your organization have a standard O/S platform for desktops?

	Yes	🗌 No	□ Not sure
45. lf	yes, indicate the platform:		
	 Windows Unix Other 	Linux SUN	
46. D	ooes your organization have a standa	ard O/S platform for servers?	
	☐ Yes ☐ No ☐ Not sure		
47. If	yes, indicate the platform:		
	 Windows Unix Other 	☐ Linux ☐ SUN	
48. D	oes your organization have a standa	ard database management sys	stem (DBMS)?
	Yes	🗌 No	□ Not sure
49.	If yes, indicate the DBMS:		
	 ☐ Microsoft SQL ☐ Oracle ☐ MySQL 	🗌 Other	

Tell us about your data and system availability requirements:

50. How important is it that data and systems be available during "normal" business hours (i.e. Monday - Friday, 8:30 AM to 5 PM) (Check one.)



☐ Very important Somewhat important Not important

51. How important is it that data and systems be available 24 hours a day, 7 days a week? (Check one.)



Very important Somewhat important Not important

52. What type of web access security does your organization use?

Reverse proxy
Authentications
Firewalls
Not sure

Tell us about your connectivity:

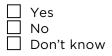
53. What type of connectivity do you have between departments/facilities? (Check all that apply.)

54. What type of connectivity do you have to the Internet? (Check all that apply):

DSL T1 (1.544Mbps)	Cable
T3 (45Mbps)	🔲 Dial-up
Fractional T1 (256+) Metro-Ethernet (10Gbps+)	☐ None ☐ Don't know

55. Does your organization have adequate bandwidth to support current web services?

Internally (for departmental/Intranet users)



Externally (for public/Internet users)

Yes	
No	
Don't	know

56. Based on existing projects and plans, will your organization have adequate bandwidth to support web services one year from now?

Internally (for departmental/Intranet users)

Yes
No
Don't know

Externally (for public/Internet users)

Yes
No
Don't know

57. Do you run batch processes during the day?

Yes	
No	
Don't	know

58. If yes, how does this impact system performance for other users?

59. Do you run backups during the day?

know

Yes
No
Don't

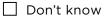
60. If yes, how does this impact system performance for other users?

61. Do you support a printed map facility?

Yes	
No	
Don't	know

62. Do you support an interactive map production service?





- 63. If yes, how does this impact system performance for other users?
- 64. How many concurrent users access dynamic GIS mapping services? (e.g. users of ArcIMS Server)



15-19
20+
None

65. How many concurrent users access cached services? (Only available in ArcGIS Server.)

1-10	31-49
11-20	50+
21-30	🗌 None

66. How many concurrent users access mash-ups/fused services?

1-4	🗌 15-19
5-9	20-30
10-14	31+

67. How many concurrent editors?

1-4	15-19
5-9	20-30
10-14	31+

68. How would you characterize the majority of your edits? (Mostly short transactions, e.g. quick attribute changes; or long transactions, e.g. COGO subdivision entries?)

69. How current must your maps be?

70. Is the database exclusive for GIS or shared with other applications?

GIS exclusive
Shared
Not sure

71. Is there perceived value in moving from printed maps to interactive maps?

Yes
No

Already doing this
 Not sure

72. Would staff be likely to use SmartPhones, PDAs or other handheld devices to access maps in the field?

Yes
No

Already doing this Not sure

- 73. Would field crews be accepting of field data entry through mobile devices if their edits were directly approved and accessible?
 -] Yes] No

Already doing this
Not sure

V. Support and Staffing

74. How does your organization currently support hardware and software? (Select all that apply.)



Maintenance Agreements
 Not sure
 Other

75. How does your organization support networks or maintain user accounts across the enterprise? (Select all that apply.)

☐ Self-support ☐ Contractors	☐ Not sure ☐ Other
IT staff	
Maintenance Agreements	

76. Identify any standards or strategic initiatives related to support that could impact GIS.

77. What specific positions provide IT or GIS support (check all that apply):

IT Help DeskDBAsPC TechniciansOther IT staffNetwork Admin/TechsGIS TechniciansStorage Admin/TechsGIS CoordinatorsProgrammersGIS AnalystsSystem AdministratorsMapping TechniciansSystem AnalystsOther GIS staff

78. What specific training investments have been made to support IT/GIS personnel?

Self-study
 Virtual campus courses
 Instructor-led courses (onsite)
 Instructor-led courses (offsite)
 Training by consultants
 Online seminars/webinars
 Conferences/workshops
 Other

79. What, if any, additional training is needed?

VI. Financial Considerations

- 80. What if any purchasing constraints impact hardware or software procurement in your organization (e.g. budget process, formal/informal bid requirements, etc.)
- 81. What if any policies or strategies are in place for deploying new technology or upgrading the infrastructure (e.g. an asset management/replacement policy, strategic IT plan, etc.)
- 82. Describe how budgets are established in your organization.
- 83. Is there support for seeking additional funding through mechanisms such as grants?

🗌 Yes	🗌 No	🗌 Not sure
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VI. Other

84. Please describe any other pertinent information about your organization's current system architecture that could aid in the system architecture design effort.

VII. Your Contact Information

Name: Title:

Organization:

Email:

Phone:

Address:

Best time/way to reach you:

Congratulations!

You have taken your first step toward enterprise GIS. Thank you for taking the time to complete our System Architecture Assessment questionnaire.

Our GIS infrastructure evaluation team will review your information and then contact you for further discussion before making our recommendations.

We appreciate this opportunity to assist you.