Protecting Your Maps and Data when using ArcGIS Server

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Agenda

• Stopping Data Theft
• Stopping Unauthorized Use
• Q&A
Stopping Data Theft
What is Data Theft?

Data Theft

• Either a violation of law (personal information)
• A violation of a license
• Can be your data or someone else’s
  • Need to protect vendor data
What types of data theft occur?

Violation of re-distribution clause for
- Features
- Cache tiles
What can you do about it?

• Prevention
  • Communicate your policy and license
  • Service security
  • Cache security
  • Throw in subtle errors for theft identification
  • Keep query limit
  • Monitor web server requests
    • Look for excessive hits from a user, domain, or ip

• Responding
  • Communicate – many apparent thefts are just mistakes
  • Block ip or domains at router or web server level
  • Remove account access to secured services
Stopping Unauthorized Use
What is unauthorized use?

- Unauthorized use is any violation of law or license
- Most common examples:
  - Deleting data
  - Service being accessed by unauthorized client
  - Manager exposed to Internet
  - Opening up “services directory” to cross-site scripting attack
  - People can “sniff” my data
What can I do about data deletion?

- Every feature service with the edit capability should be secured.
Unauthorized client

- Use long-term token combined with monitoring
- Monitor and change
Manager Exposed to Internet

• Normally administration actions through DCOM, blocked by firewalls
• Manager secured by username/password
  • Could be subject to brute force attack
  • Java Manager on port 8399, usually safe
    • Can be turned off
  • .Net Manager, usually installed on port 80 (same as services)
    • Instead don’t install Manager on default instance
    • Run AddInstance.exe to add Manager to second instance
Services Directory Cross-Site Scripting

• Upgrade to 10 SP2
• Turn off services directory when exposed to Internet.
Data Sniffing

• Make your folders encrypted in Manager
• Will require https and won’t allow http requests
• If you don’t check encrypted people can accidentally use http
Evaluations

- http://www.esri.com/sessionevals
Q&A