



# **Chemical Summit**

**August 1, 2012**

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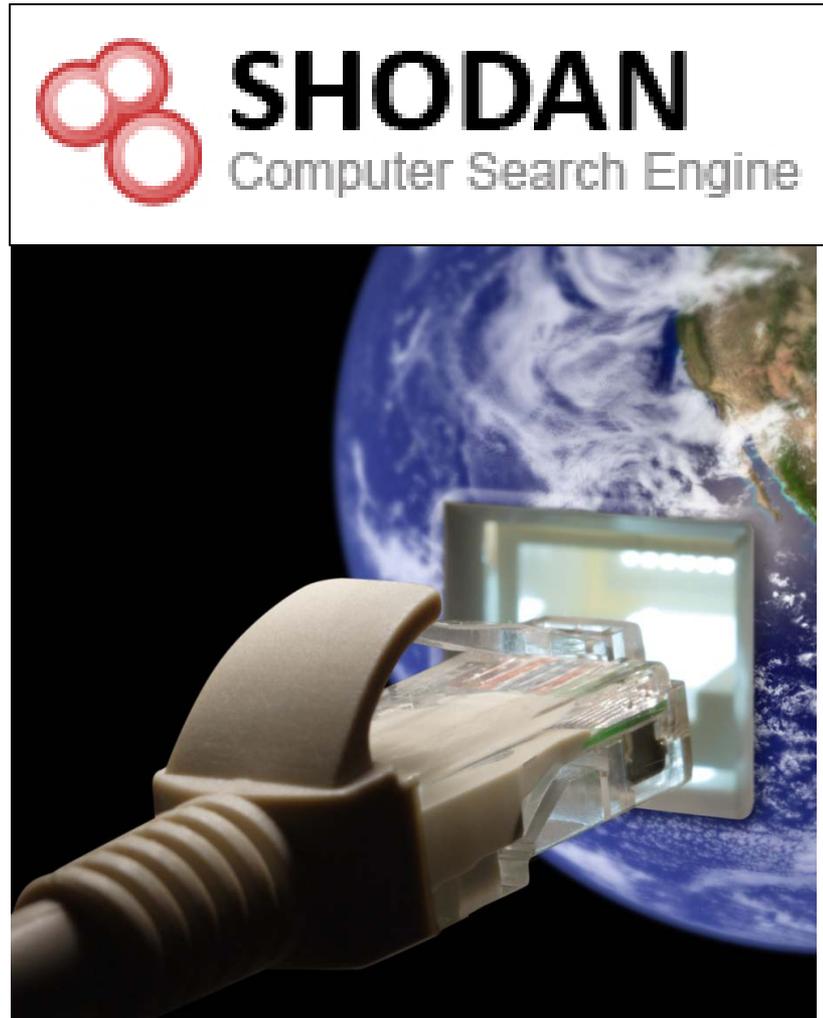
**ICS-CERT**

**CyberSecurity & Communications (CS&C)**

**U.S. Department of Homeland Security**

# Shodan Search Engine

- Internet facing control system devices are a BAD idea
- Locate control system networks and remote devices behind firewalls with properly configured rules
- When remote access is required, use secure methods, such as Virtual Private Networks (VPNs)
- Default passwords are BAD – change your passwords!

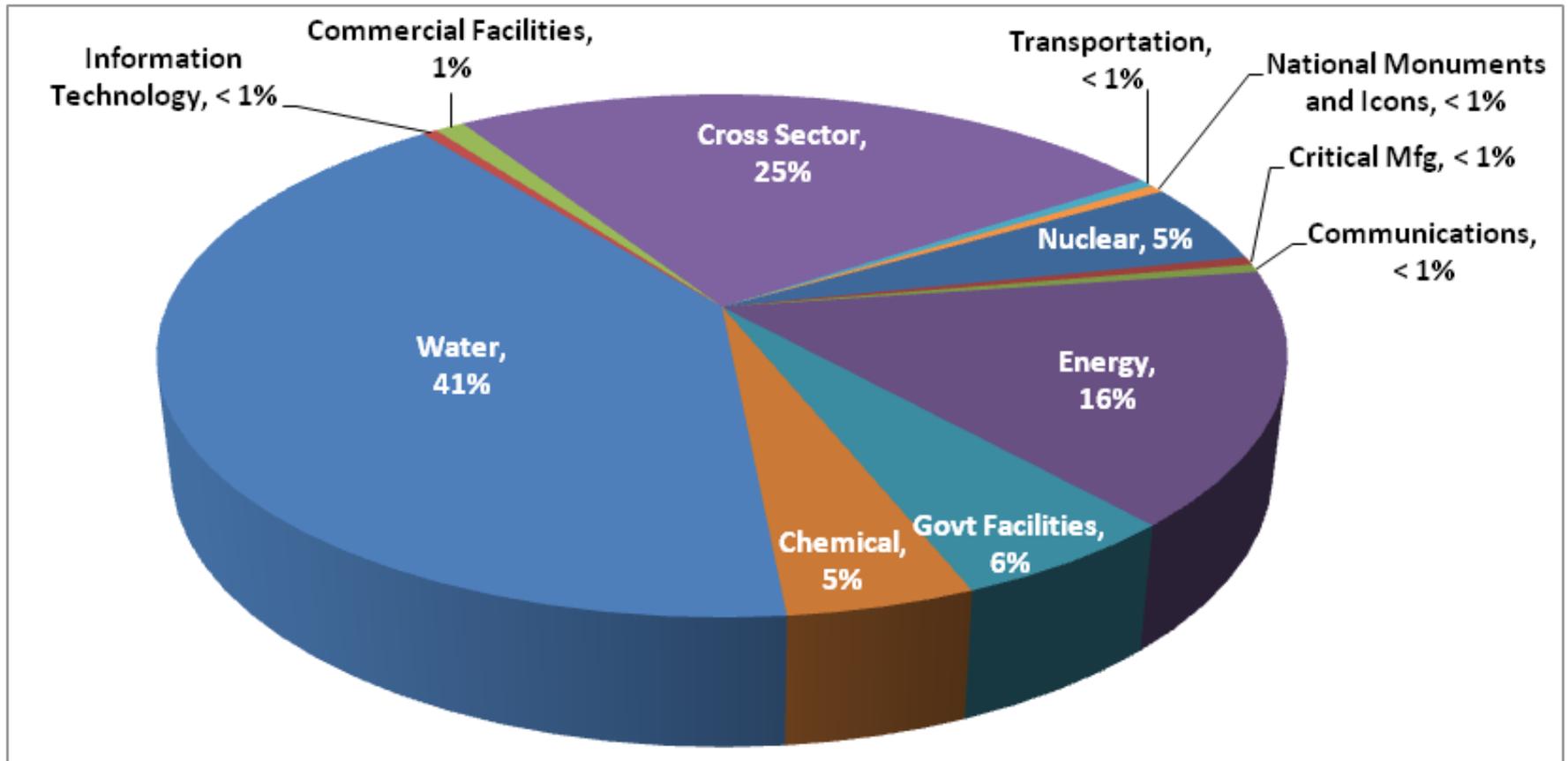


# SHODAN Information

- SHODAN is a search engine that lets you find specific computers (routers, servers, etc.) using a variety of filters. Some have also described it as a public port scan directory or a search engine of banners.
- Web search engines, such as Google and Bing, are great for finding websites. But what if you're interested in finding computers running a certain piece of software (such as Apache)? Or if you want to know which version of Microsoft IIS is the most popular? Or you want to see how many anonymous FTP servers there are? Maybe a new vulnerability came out and you want to see how many hosts it could infect? Traditional web search engines don't let you answer those questions.
- So what does SHODAN index then? Good question. The bulk of the data is taken from “banners,” which are meta-data the server sends back to the client. This can be information about the server software, what options the service supports, a welcome message or anything else that the client would like to know before interacting with the server.



# 2011 Incidents by Sector



DHS ICS-CERT, 2011 Year in Review, Annual Report, December 2011.



# Key Control Systems Contacts

## Participation

- Join an ICSJWG Subgroup  
[icsjwg@hq.dhs.gov](mailto:icsjwg@hq.dhs.gov)
- Join ICS-CERT Portal & Collaborate  
[cssp@dhs.gov](mailto:cssp@dhs.gov)
- Learn more about us  
[www.us-cert.gov/control\\_systems/](http://www.us-cert.gov/control_systems/)
- Download CSET  
[http://us-cert.gov/control\\_systems/csetdownload.html](http://us-cert.gov/control_systems/csetdownload.html)

## Key Contacts

- Report ICS Incidents  
[ics-cert@dhs.gov](mailto:ics-cert@dhs.gov)  
877-776-7585
- General cyber activity  
[soc@us-cert.gov](mailto:soc@us-cert.gov)  
888-282-0870
- Lisa Kaiser  
[Lisa.Kaiser@dhs.gov](mailto:Lisa.Kaiser@dhs.gov)





# Homeland Security



Homeland  
Security