



SAUDI WEB SOVEREIGNTY

WEB USE BY HOSTING LOCATION

Rayed Al-Rashed, Wirefilter

Osama I. Al-Dosary, Cisco Systems

About this presentation, data and tools

- Based on Rayed Alrashed report/webpage aiming to raise awareness of the lack of Internet hosting and exchange points in Saudi Arabia, and the slow adoption of Saudi TLD ".sa".

http://dev.rayed.com/ix_report

- Web ranking using Alexa API from Amazon

<http://aws.amazon.com/awis/>

- Geolocation discovery using GeoLite DB from MaxMind

http://www.maxmind.com/app/geoip_country

Increasing Internet Effectiveness through Localization Efforts

- Language Localization
 - developing local-language versions of application/content
Skype, Twitter, Facebook, etc.
- Content Localization
 - developing content that is locally relevant
uk.yahoo.com, losangeles.cbslocal.com , alriyadh.com
- Traffic Localization
 - keeping locally bound traffic local
Local peering, and Internet Exchange Points (IXP)
and local hosting



Direct Benefits of Traffic Localization

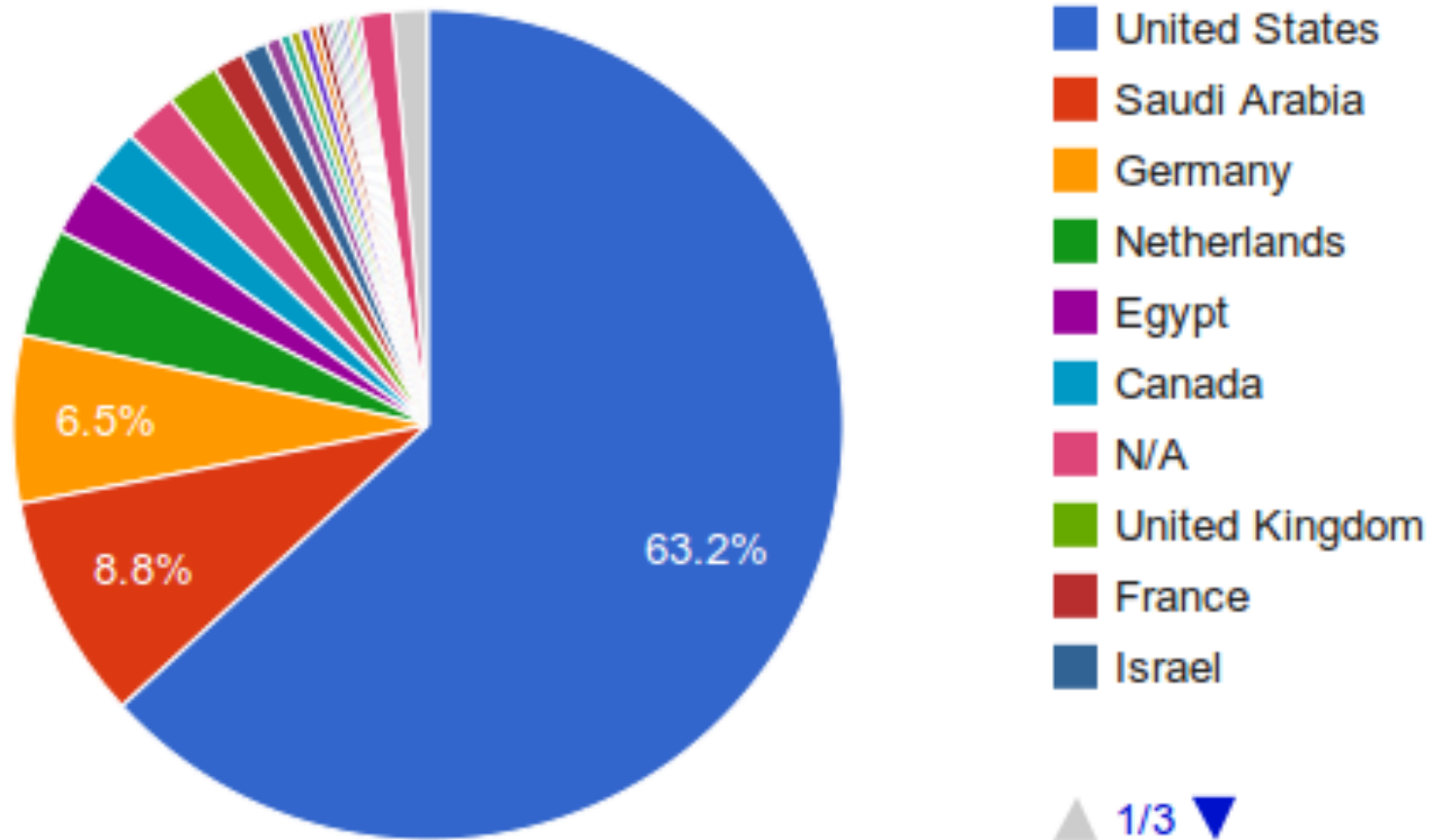
- Reducing transit circuit costs
- Improving application performance
- Improving resiliency
- National security/sovereignty considerations

Saudi Peering Status

- ~50 *Legacy* ISP licenses, ~20 still active
- Top Internet players are those with DSP licenses who are:
 - STC
 - Mobily
 - Atheeb
 - ITC
- Local Peering
 - Almost full mesh peering between DSPs
 - Little to know *Legacy* ISP peering

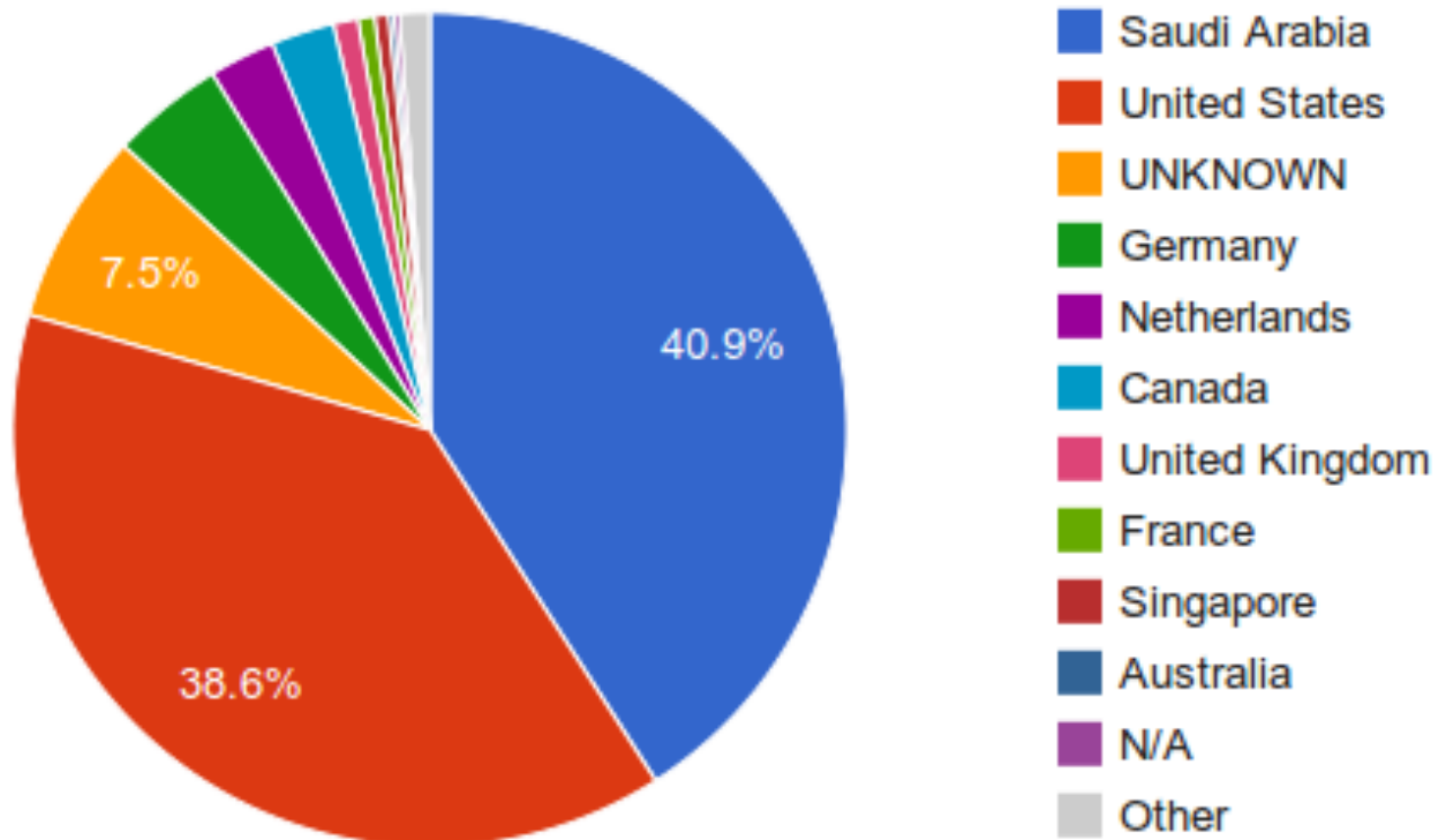
REPORT ON TOP 1000 MOST POPULAR WEBSITES IN SAUDI ARABIA

Hosting Locations



- 9% hosted locally (89 websites)
- 5% have ".sa" domain (49 websites)

".sa" Hosting Locations



- 82 "gov.sa" Websites Hosted Outside Saudi Arabia!!

TCP Connect Time Test by Location

For 90% of the Top 1000

Country	Percentage of Hosting	Average Latency (Seconds)	Minimum Latency (seconds)
USA	63.2%	0.349	0.205
Saudi	8.8%	0.199	0.021
Germany	6.5%	0.263	0.217
Netherlands	4.2%	0.291	0.217
Egypt	2.3%	0.380	0.252
Canada	2.3%	0.414	0.235
UK	2.1%	0.345	0.213
France	1.2%	0.237	0.212

Measured through the webserver TCP Connect time using 'curl'

```
for url in `cat t1k.csv`; do echo -en "$url, " && curl -s -w "%{time_connect}\n" -H 'Pragma: no-cache' --retry-delay 1 --retry 0 -m 1 -o /dev/null "$url"; done
```

WEB SOVEREIGNTY INDEX

Web Sovereignty Index: Middle East

Country	WSI Local Hosting %	Local Domain %
Turkey	51	16.2
Iran	21.4	29.4
Saudi Arabia	8.8	5.7
Tunisia	7.5	7.7
Egypt	6.2	3.4
Kuwait	6	4.1
United Arab Emirates	5.8	7.9
Palestine	5.2	8.4
Morocco	5	7.5
Jordan	4.9	4.7
Syria	4.9	4.5
Lebanon	4	5.2
Qatar, Bahrain, Libya, Oman, etc.	< 3.7	

Web Sovereignty Index: Other Countries

Country	WSI Local Hosting %	Local Domain %
United States	85.9	0.6
China	82.9	21.8
Japan	62.5	43.5
Germany	57.3	52.7
France	55.7	30.5
Netherlands	48.5	45.2
Italy	41.1	44
Brazil	38.4	52.1
United Kingdom	33.9	22.3
Australia	30.3	34.8
Republic of Korea	28.7	11.5
Malaysia	23.4	18.5
Austria	21.9	27.2
Singapore	20.7	17.4

SAUDI HOSTING SURVEY

All MEA Respondents

**#1) Is Your
Server Hosted
Locally?**

77% No

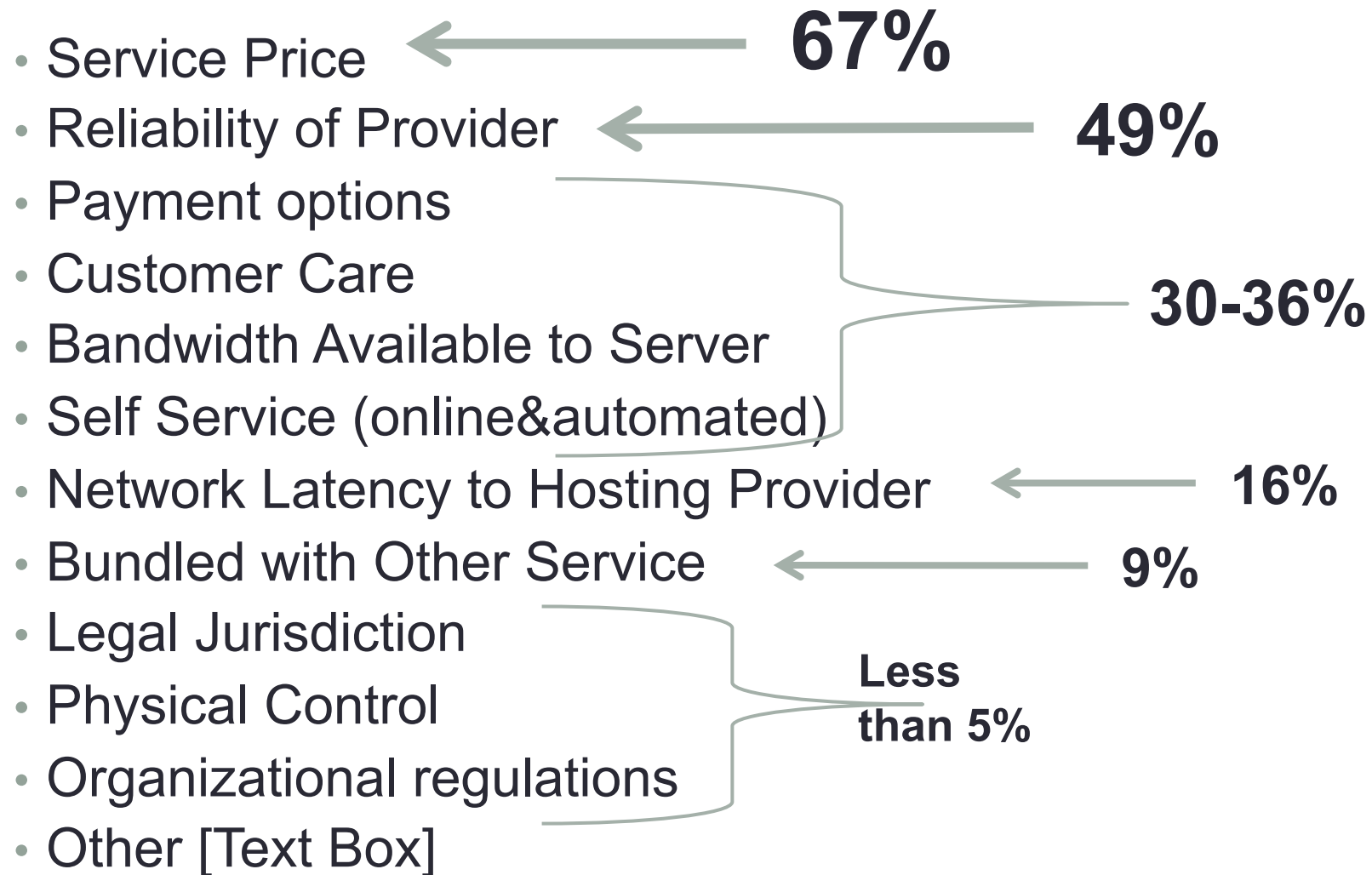
Filtering out all
“Yes”

**#2) Is Physical
Location of Your
Server Important?**

65% Yes

⇒ **56% Yes**
...Its important

#3) Factors that Effect Hosting Decision



THANK YOU
