

A satellite image of a large hurricane with a well-defined eye and spiral cloud bands, centered over the Gulf of Mexico. The surrounding landmasses of North and Central America are visible in shades of green and brown.

TWDB and the Cloud: Sunny Days and One Big Storm

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*Unless specifically noted, this presentation does not necessarily reflect official board positions or decisions.

Texas Water 
Development Board

THE PLAYERS



THE BACK STORY

2005: HB 1516

Consolidate agencies' IT infrastructure in order to

Reduce statewide costs for IT services,

Modernize aging infrastructure, and

Increase overall security and disaster recovery capability.

+1 IBM – 4 TWDB IT staff positions  ***FRUSTRATION***

OPPORTUNITY

Pilot Texas
Cloud
Offering
Program



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\$30,000/month
35-40 servers

Product Name	Item	Usage Amount	Unit Price	MSRP Total	Cost to Agency	Currency
AmazonCloudWatch	\$0.10	100000000	\$ 0.10	0.11	USD	
AmazonCloudWatch	US		\$ 16.27	17.08	USD	
AmazonCloudWatch	Vir		\$ 0.03	0.03	USD	
AWS Key Management Service	\$		\$ 0.07	0.08	USD	
AWS Key Management Service	\$1 per custe		\$ 4.54	4.77	USD	
AWS Lambda	AWS Lambda - Total Compute - US East (Virginia)		\$ 0.78	0.82	USD	
AWS Support (Business)	10% of monthly AWS usage for the first \$0-\$10K	3897.95791	0.10000000	\$ -	0	USD
Support Business	10% of monthly AWS usage for the first \$0-\$10K	6875.968827	0.1	\$ 687.60	721.98	USD
Infrastructure as a Service	Backup to Vintage IT Services Storage - 1TB	1024	0.45	460.80	\$ 435.00	USD
Infrastructure as a Service	VDC Backup Monitor		50.00	350.00	\$ 336.00	USD
Monthly Services - Storage (ECS)	Fiber Storage Res - 1	48	80.00	3,840.00	\$ 3,648.00	USD
Monthly Services - Network (ECS)	Committed Bandwidth	20	25.00	500.00	\$ 500.00	USD
Monthly Services - Hosting (ECS)	Enterprise Cloud C	56	320.00	17,920.00	\$ 16,128.00	USD

\$30,000/month
35-40 servers

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MONTHLY COST ESTIMATES

	Amazon Cloud	DIR Data Centers	Cloud-based Savings
Standard application server	\$625	\$2,266	\$1,641
Database server	\$810	\$2,075	\$1,265

CLOUD ADVANTAGES

- ✓ Affordable
- ✓ Scalable
- ✓ On-demand pricing
- ✓ Resilient
- ✓ Redundant
- ✓ Secure
- ✓ Real-time performance evaluation
- ✓ Local control

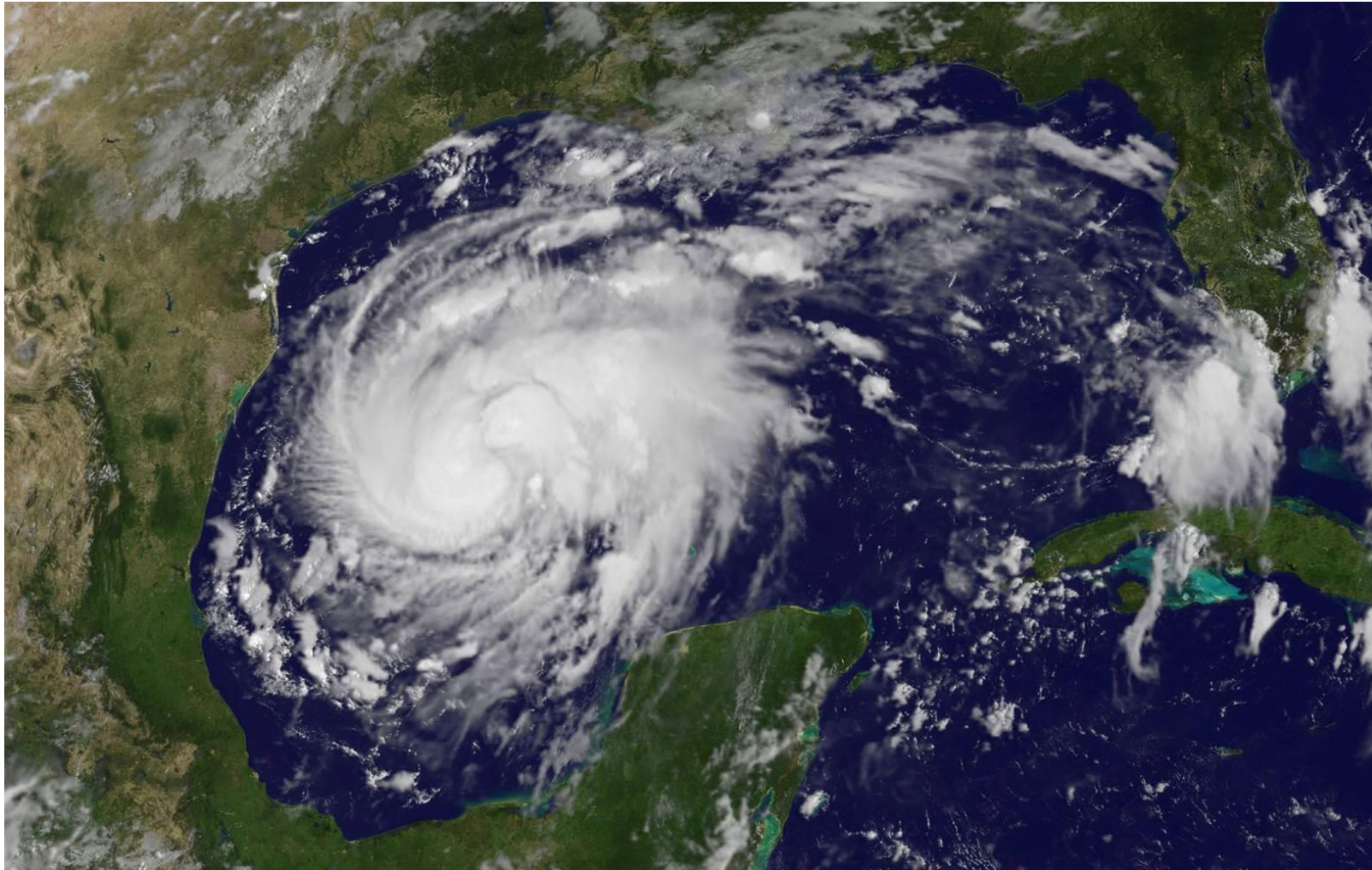
CLOUD CHALLENGES

- Security
- Bandwidth
- Getting started
- Budget uncertainty

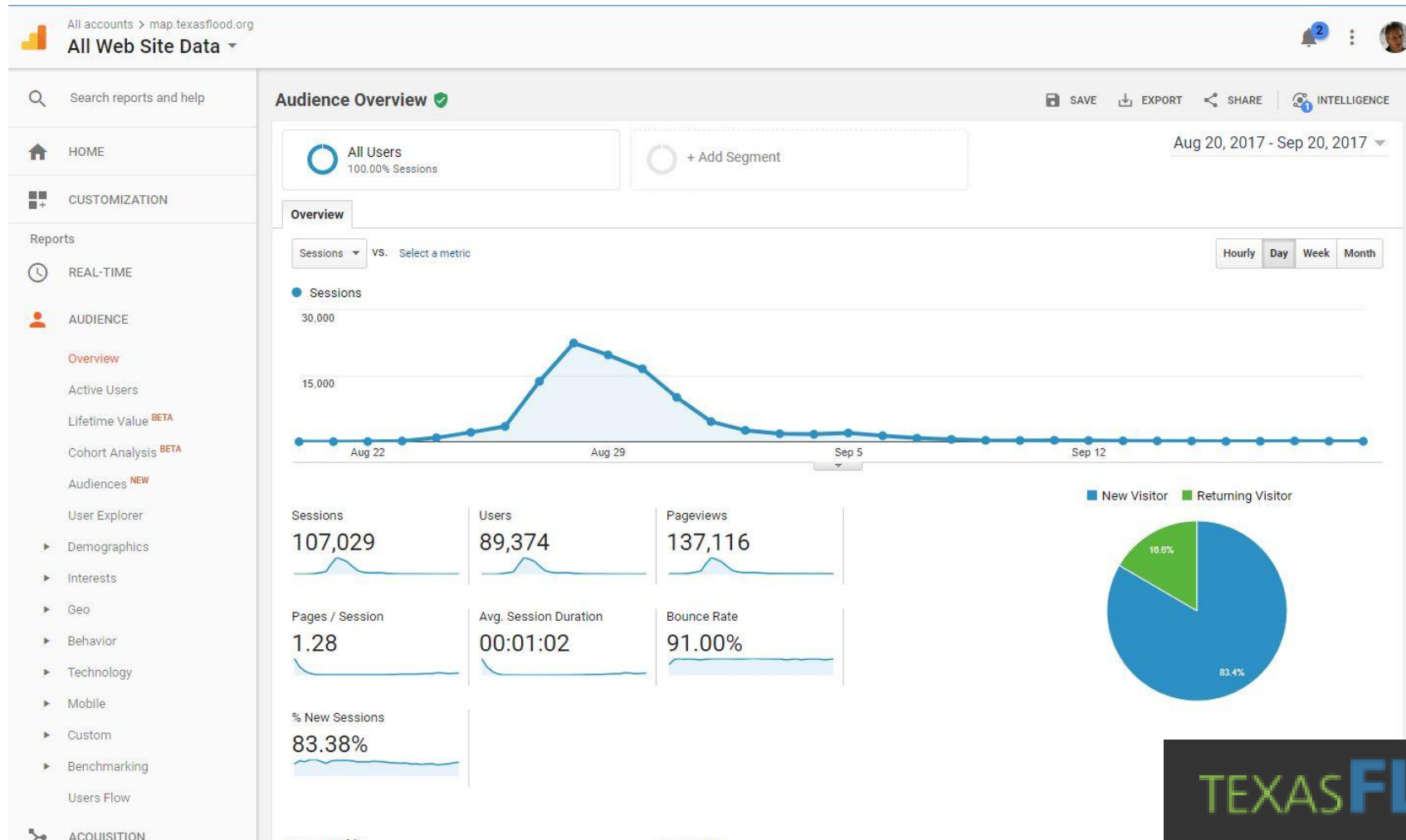
FLAVORS OF CLOUD



ONE BIG STORM



ONE BIG STORM *WEATHERED*



Questions?



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