

Amazon Web Services

TTI Presentation

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Bottom Line Up Front

Vendor	JHC Technologies (Reseller of AWS Services)
Background:	Cloud computing is the on-demand delivery of compute power, data storage, applications, and other IT resources through a cloud services platform via the internet with pay-as-you-go pricing. These services help organizations improve reliability, deploy systems faster, and pay for what they actually use.
Purpose:	The City currently subscribes to several <i>separately contracted</i> Amazon Web Services (AWS) platforms. This will create a citywide enterprise contract for all City AWS subscriptions.
Contract Amount:	\$12,946,101.00
Contract Term:	3 years + 2 option years
MWBE Goal:	Under negotiation
Primary Department Users:	HPW, DON, ARA, HFD, HITS, HAS, HPL

Benefits of Cloud Computing



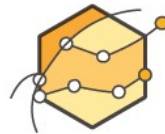
Trade capital expense for variable expense

Instead of having to invest heavily in data centers and servers before you know how you're going to use them, you can only pay when you consume computing resources, and only pay for how much you consume.



Benefit from massive economies of scale

By using cloud computing, you can achieve a lower variable cost than you can get on your own. Because usage from hundreds of thousands of customers are aggregated in the cloud, providers such as Amazon Web Services can achieve higher economies of scale which translates into lower pay as you go prices.



Stop guessing capacity

Eliminate guessing on your infrastructure capacity needs. When you make a capacity decision prior to deploying an application, you often either end up sitting on expensive idle resources or dealing with limited capacity. With cloud computing, these problems go away. You can access as much or as little as you need, and scale up and down as required with only a few minutes notice.



Increase speed and agility

In a cloud computing environment, new IT resources are only ever a click away, which means you reduce the time it takes to make those resources available to your developers from weeks to just minutes. This results in a dramatic increase in agility for the organization, since the cost and time it takes to experiment and develop is significantly lower.



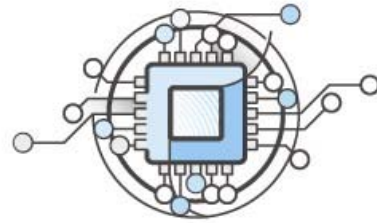
Stop spending money on running and maintaining data centers

Focus on projects that differentiate your business, not the infrastructure. Cloud computing lets you focus on your own customers, rather than on the heavy lifting of racking, stacking and powering servers.



Secure

Comprehensive security capabilities to satisfy the most demanding information security requirements.



Private, Isolated Resources

Choose the right level of isolation for your apps, and integrate with existing resources.



Compliant

Rich controls, auditing and broad security accreditations to enable compliance with FedRAMP, CJIS, HIPAA, FERPA and more.











Hybrid

Build hybrid IT architectures that extend your on-premises infrastructure to the Cloud.

Security & Gov Cloud Options



Current COH Platforms in AWS

Department(s)	Services	
HPW	<ul style="list-style-type: none"> • Water Utility Billing (Infor IPS) • Houston Permitting Center eServices <ul style="list-style-type: none"> ➤ Infor CDR ➤ Project Dox ➤ iNovah • Transportation & Drainage Operations (Infor IPS) 	    
MYR – Innovation HITS	<ul style="list-style-type: none"> • Open Data Portal 	
HPW DON HFD (in progress) ARA (in progress)	<ul style="list-style-type: none"> • Permitting and Inspections 	
HAS	<ul style="list-style-type: none"> • Enterprise Asset Management 	



Customer Account Services
Houston Public Works
an Official Site of the City of Houston

 Remember Me[Reset/Forgot Password](#)[Login](#)[Register Account](#)

High Usage Alerts

Take Charge. Conserve Water. Save Money.

[Read More >](#)[Quick Pay \(by Check Only\)](#)[Need Help?](#)[Live Chat](#)

TAKE CHARGE



Here you can pay your bills using multiple payment methods, view account transactions,

START, STOP OR TRANSFER SERVICE

Start, Stop or Transfer your water service today for residential customers only.






Potential additional AWS services

Department(s)	Services	
HPW	<ul style="list-style-type: none">• CIPMS Replacement• Migrate ILMS to Infor• ePlus• MDM Repository• SOA• CIMS• Big Data Modeling Applications	<p>**These are projections of legacy applications that <i>could potentially</i> move to AWS. Each AWS application would need an environment for Production, Test, and DR.</p>
HAS	<ul style="list-style-type: none">• Data Warehouse and Data Center Migration• Web Services• Migrate www.Fly2houston.com• Migrate Infor Enterprise Asset Management from SaaS to IaaS model	 

Potential additional AWS services (continued)



Department(s)	Services	
<p>HITS HFD ARA</p>	<ul style="list-style-type: none"> • HRD / ARA Permitting and Inspections (includes retirement of legacy applications Smart CM and CDP) • Open Data portal expansion • Infrastructure Disaster Recovery & storage 	 
<p>HPL</p>	<ul style="list-style-type: none"> • Storage for backup, through S3, Glacier, and Storage Gateway 	 <p>Houston Public Library Linking YOU to The World</p>

Forecasted Spend

			JHC Technologies					
DEPT	FUND		FY2019	FY2020	FY2021	FY2022	2023	TOTALS
HITS	1002	Revolving Fund	\$ 61,800.00	\$ 63,654.00	\$ 65,563.00	\$ 67,529.00	\$ 69,555.00	\$ 1,056,101.00
			\$ 1,200.00	\$ 1,400.00	\$ 1,600.00	\$ 1,800.00	\$ 2,000.00	
				\$ 180,000.00	\$ 180,000.00	\$ 180,000.00	\$ 180,000.00	
Houston Airport System	8001	HAS Revenue	\$ 64,600.00	\$ 75,400.00	\$ 86,200.00	\$ 97,000.00	\$ 107,800.00	\$ 681,000.00
			\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	
Houston Public Works	1001	Project Recovery	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 11,109,000.00
	2301	Building Inspection	\$ 550,000.00	\$ 550,000.00	\$ 550,000.00	\$ 550,000.00	\$ 550,000.00	
	2302	Stormwater		\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	
	2310	DDSR	\$ 59,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	
	8300	Water and Sewer Operations	\$ 1,000,000.00	\$ 1,300,000.00	\$ 1,400,000.00	\$ 1,400,000.00	\$ 1,400,000.00	
Houston Public Library	1000	General	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 100,000.00
Total			\$ 2,006,600.00	\$ 2,640,454.00	\$ 2,753,363.00	\$ 2,766,329.00	\$ 2,779,355.00	\$ 12,946,101.00

		Totals by Department					
		Totals	FY19	FY20	FY21	FY22	FY23
8%	HITS	\$ 1,056,101.00	\$ 63,000.00	\$ 245,054.00	\$ 247,163.00	\$ 249,329.00	\$ 251,555.00
5%	HAS	\$ 681,000.00	\$ 114,600.00	\$ 125,400.00	\$ 136,200.00	\$ 147,000.00	\$ 157,800.00
86%	HPW	\$ 11,109,000.00	\$ 1,809,000.00	\$ 2,250,000.00	\$ 2,350,000.00	\$ 2,350,000.00	\$ 2,350,000.00
1%	HPL	\$ 100,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
	Totals	\$ 12,946,101.00	\$ 2,006,600.00	\$ 2,640,454.00	\$ 2,753,363.00	\$ 2,766,329.00	\$ 2,779,355.00

Questions?