

Nevada Affordable Housing Assistance Corporation

NMAS Budget Analysis

Background

The Nevada Affordable Housing Assistance Corporation (NAHAC) requires an Information Technology (IT) infrastructure to build the automated Nevada Mortgage Assistance System (NMAS). NAHAC is responsible for creating three environments for this effort. These environments include the Development/Testing Environment used by Speridian Technologies (the developer of NMAS) to create and test NMAS; the Staging Environment used by Speridian Technologies (Speridian) to test NMAS in an environment identical to the production system and used just prior to deployment; and the Production Environment which is the actual live system that NAHAC and contracted organizations will use to run NMAS. Additionally, there are other considerations which include an environment for system backups and disaster recovery.

Initially, NAHAC considered building NMAS using a cloud based environment known as Microsoft Azure for the NMAS environment. This environment is more modern and would link to NAHAC's Microsoft Office 365 environment. In an effort to keep costs down, NAHAC has opted for a virtual server environment. Below is a cost comparison of the two environments over a 30-month period (the estimated lifetime of available funding for NAHAC's Hardest Hit Fund program).

IT Infrastructure Cost Comparison

Table 1 shows the estimated costs of the NMAS IT Infrastructure over a 30-month period using Microsoft Azure.

NMAS IT Infrastructure (Azure Solution)	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
NMAS Azure Virtual Server Environment (Test/Development Environment) (based on Microsoft metered estimated)	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656
NMAS Azure Virtual Server Environment (Production Environment) (based on Microsoft metered estimated)	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464
Azure Operations Management Suite (Backups,DR, Security & Compliance, Analytics)	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70
Azure (NonProfit Discount)													-\$5,000		
IT Infrastructure Cost Totals	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	-\$811	\$4,189	\$4,189

NMAS IT Infrastructure (Azure Solution)	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	30-month total
NMAS Azure Virtual Server Environment (Test/Development Environment) (based on Microsoft metered estimated)	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$1,656	\$49,667
NMAS Azure Virtual Server Environment (Production Environment) (based on Microsoft metered estimated)	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$2,464	\$73,917
Azure Operations Management Suite (Backups,DR, Security & Compliance, Analytics)	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$2,100
Azure (NonProfit Discount)									-\$5,000							
IT Infrastructure Cost Totals	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	-\$811	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$125,683

Nevada Affordable Housing Assistance Corporation

NMAS Budget Analysis

Table 2 shows the estimated costs of the NMAS IT Infrastructure over a 30-month period using RackSpce (The IT hosting Company of choice).

NMAS IT Infrastructure (RackSpace)	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
rackspace - Dedicated Test/Development Server	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270
rackspace - Cisco Firewall (High Availability)	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225
rackspace - Dedicated File Server	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409
rackspace - Web/App/SQL DB Server	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383
rackspace - Cisco Firewall	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160
rackspace - Web/App/SQL DB DR Server	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383
Microsoft SQL Server Standard Licenses (Qty 2) (includes 20 CALS total)	\$3,250														
Microsoft SQL Server 2012 (15 CALS)	\$2,925														
Rebex SFTP (Developer License)	\$349														
FTPToday - Compliant Enterprise Plan	\$2,700												\$2,700		
IT Infrastructure Cost Totals	\$11,055	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$4,531	\$1,831

NMAS IT Infrastructure (RackSpace)	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	30-month total
rackspace - Dedicated Test/Development Server	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$270	\$8,113
rackspace - Cisco Firewall (High Availability)	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$225	\$6,758
rackspace - Dedicated File Server	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$409	\$12,270
rackspace - Web/App/SQL DB Server	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$11,495
rackspace - Cisco Firewall	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$4,793
rackspace - Web/App/SQL DB DR Server	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$383	\$11,495
Microsoft SQL Server Standard Licenses (Qty 2) (includes 20 CALS total)																\$3,250
Microsoft SQL Server 2012 (15 CALS)																\$2,925
Rebex SFTP (Developer License)																\$349
FTPToday - Compliant Enterprise Plan										\$2,700						\$8,100
IT Infrastructure Cost Totals	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$4,531	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$69,547

Table 2

Additional Procurement Items

Independent of the choice selected for the NMAS IT infrastructure, NAHAC will require additional 3rd party dependency programs and services from outside organizations (some of which are at no costs and some that are priced on an as-use basis). Additionally, NAHAC will incur the development costs for Speridian to include two additional Programs into the Phase 1 release of NMAS and the development costs for Speridian to migrate the full database from the current NAHAC Document Management System (DMS) to NMAS. These costs are identified in Table 3.

Nevada Affordable Housing Assistance Corporation

NMAS Budget Analysis

NMAS (Additional Procurements)	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
Speridian NMAS Data Migration		\$10,680													
Speridian NMAS Enhancements and SMRP Implementation		\$16,210													
Kodak Capture Pro - Auto Import Edition	\$6,359														
IT Infrastructure Cost Totals	\$6,359	\$26,890	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

NMAS (Additional Procurements)	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	30-month total
Speridian NMAS Data Migration																\$10,680
Speridian NMAS Enhancements and SMRP Implementation																\$16,210
Kodak Capture Pro - Auto Import Edition																\$6,359
IT Infrastructure Cost Totals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,249

Table 3

Table 4 and Table 5 shows the combined total IT costs comparison between the Microsoft Azure IT implementation and the RackSpace IT implementation. For instance, the total combined IT cost for the Azure Solution for May 2017 (\$10,548) includes the Azure IT Infrastructure Environment cost (\$4,189) + the Additional Procurement costs for May 2017 (\$6,359). The total combined IT cost for the RackSpace Solution for May 2017 (\$17,414) includes the RackSpace IT Infrastructure Environment cost (\$11,055) + the Additional Procurement costs for May 2017 (\$6,359).

	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
Total IT Cost (Azure Solution)	\$10,548	\$31,079	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189

	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	30-month total
Total IT Cost (Azure Solution)	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$4,189	\$148,932

Table 4

	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018
Total IT Cost (RackSpace Solution)	\$17,414	\$28,721	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$4,531	\$1,831	\$1,831

	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	30-month total
Total IT Cost (RackSpace Solution)	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$4,531	\$1,831	\$1,831	\$1,831	\$1,831	\$1,831	\$102,796

Table 5