

Live Nation: Realizing Business Value with AWS

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Cloud Economics

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“Moving to AWS shouldn’t be just for the cost savings, it’s for the business changing, game changing benefits of the Cloud.”

**– Jake Burns,
VP of Cloud Services, Live Nation**

17 month migration

Introduction

Customer engagements and third party research¹ have revealed that customers recognize business benefits beyond cost savings after moving workloads to AWS. The analyst firm, IDC, interviewed 27 AWS customers and quantified the financial benefit realized by moving to AWS. On average, these customers realized a 5 year net present value of \$62.9M per organization and a ROI of 637%. ”Study participants reported achieving much more than cost savings with AWS. They explained that AWS has enabled them to provide IT services more cost effectively, but more importantly, AWS has helped them change the role IT plays in supporting their businesses. With AWS, these organizations have leveraged more cost-effective, efficient, reliable, and agile IT operations to spur improved business results and operational efficiencies at an organizational level.”

This Value Realization study focuses on the business value achieved by Live Nation Entertainment, Inc (NYSE: LYV), who announced it was moving its global IT infrastructure to Amazon Web Services.²

Details of the Migration:

- Started in 2016. The first 90% was completed in 12 months and the remaining 10% completed 5 months later
- Migration completed by Live Nation’s Cloud Services team without additional headcount or budget
- Scope: 118 applications / 668 servers

¹ [Larry Carvalho and Matthew Marden, "Fostering Business and Organizational Transformation to Generate Business Value with Amazon Web Services" IDC, 2018](#)

² [“Live Nation Selects Amazon Web Services as Cloud Infrastructure Provider,” BusinessWire, 2017](#)

In May 2018, [Michael Chu](#) and [Niraj Zaveri](#) from AWS Cloud Economics sat down with [Jake Burns](#), VP of Cloud Services at Live Nation, to understand the business value realized by moving to AWS. Four areas of value, were identified using the Cloud Value Framework (CVF):



Cost Savings

Cost Savings refers to the Total Cost of Ownership (TCO) reduction by moving to the cloud. This includes Compute, Storage, and Network cost savings. Leveraging the benefits of elasticity, scale, and right-sizing drive significant cost savings. The AWS customers in IDC’s study saw an average of 51% lower TCO. Live Nation examples:

- **18% estimated savings** in the original business case to migrate to AWS.
- **40% actual savings, 1 year post migration.** For the original set of workloads migrated, post migration cost optimization exercises have led to a total *realized* TCO reduction of 40%. Cost optimization activities like right-sizing instances and volume management, have led to the additional savings. “We have an iterative process to proactively identify and delete unused instances and unattached volumes that are no longer needed. We also proactively right-size instances to the minimum the size needed to support the application,” says Burns.
- **58% actual savings, to-date.** From a budgetary standpoint Burns states “We have been able to lower our total AWS spend by **another** 18% so far this year, while bringing on another 12 instances per week.” Burns continues, “People who come to the conclusion that cloud is too expensive are doing something

“People who come to the conclusion that the cloud is too expensive are doing something wrong.”

18%
estimated savings

58%
actual savings to-date

“There is definitely a reduction in man-hours to fulfill a request, but that’s a linear improvement. The reduction of total cycle time is what’s exponentially valuable.”

50%
reduction on tactical work

10X
projects supported

wrong. We use Amazon CloudWatch, AWS Console, APIs and CLIs to identify and act.”

Staff Productivity

Staff Productivity refers to FTE productivity gained from reducing or eliminating time spent on tasks no longer needed with the cloud. Traditional / legacy IT operations tasks including hardware procurement and refresh projects, installing / repairing / maintaining hardware, patching / updating operating systems, facilities management, and more are eliminated or significantly reduced. Additionally, fully managed services such as DynamoDB and Redshift further reduce administrative burden, allowing high value engineers to focus on their core competencies. The AWS customers in IDC’s study saw on average 62% more efficient IT operations staff. Live Nation examples:

- **50% reduction in traditional IT tasks.** For example, Live Nation is capturing efficiency benefits in multiple areas, in particular around Procurement and Performance process areas. “Tasks around hardware troubleshooting and tuning have been eliminated while capacity planning and procurement have been reduced by 90%,” says Burns. He continues with an example around performance tuning for a storage array. “Typically you have to buy a new array or reconfigure hardware to get the performance you need. With AWS you bump up provisioned IOPS to meet your needs.”
- **10x projects supported with the same size staff.** In addition, project requests are also being served *faster*. “With projects, there is definitely a reduction in man-hours to fulfill a request, but that’s a linear improvement. The reduction of total cycle time is what’s exponentially valuable. For instance, we now no longer need finance and procurement approval to get a purchase order and wait for vendor responses,” says Burns.
- **Improved automation and backup process with managed services.** Burns states, “We started with a lift and shift and realized we could start using other services that could help us with operations. We’re currently using DynamoDB to help improve automation and backup. The great thing is you get all the benefits of cost savings and agility by moving to the cloud. Optimizing applications on AWS is easier than optimizing on-prem applications.”

“AWS has enabled us to improve security while simultaneously reducing our costs.”

99.999%
availability with
AWS

0
performance
complaints

Operational Resilience

Operational Resilience refers to the benefit of improved security and availability. AWS customers reduce their downtime from the stability, scalability, reliability, and security of the AWS environment. The AWS customers in IDC’s study saw on average a 94% reduction in unplanned downtime. According to a survey of 198 AWS customers by Nucleus Research³, AWS customers saw a 29% reduction in planned downtime and a 32% reduction in unplanned downtime after migrating on-prem infrastructure to AWS. Live Nation examples:

- **99% Improvement in Availability.** Previous application availability was 99.9% on-prem vs 99.999% with AWS.
- **Improved security posture.** The shared responsibility model is far better than on-premises. “With the Shared Responsibility Model, we no longer need to worry about data center, server, or hypervisor security. AWS dedicates huge amounts of resources towards ensuring these areas are secure, which allows us to focus our attention on securing our applications.” says Burns. He continues, “In addition to this, AWS provides a mature set of tools that give us unprecedented levels of visibility and control over our security settings that is consistent across all of our systems in AWS.” This has also helped Live Nation’s cost optimization efforts by reducing the need for many third-party solutions. “Because they build security natively within the platform, AWS has enabled us to improve security while simultaneously reducing our costs.”
- **Near zero performance complaints.** Infrastructure performance is no longer an issue whereas previously Live Nation spent significant time attempting to optimize hardware specifications. “First, the total number of complaints have dramatically dropped since the nature of infrastructure has changed. Second, when there are performance complaints we’re able to respond and tune in hours. This was something

³ Availability And Reliability In The Cloud: Amazon Web Services.” Nucleus Research, 2014.

“When you know you have the ability to quickly deprovision, it makes you bolder to say yes and try new things”

10X
increase in
experiments

4 hr
business SLA

90%+
business user
satisfaction

we previously dealt with on an ongoing basis. Now, those complaints are gone. It’s a night and day difference,” says Burns. He continues, “In the old world you wouldn’t want to buy over-spec’d hardware because you pay so much for it. On AWS you can aim high and customize which reduces the number of complaints.”

Business Agility

Business Agility is the benefit from being able to innovate more and respond faster. AWS enables customers to reduce time to market, develop more applications, update applications more frequently, and improve software quality. This in turn leads to more satisfied customers and employees, higher revenues, and higher profits. The AWS customers in IDC’s study delivered almost 3x more features and ran development cycles 38% faster. Live Nation examples:

- **10x increase in to innovation pipeline.** “Previously we were able to support 10 product experiments at once, with a 3-6 month lead time to provision hardware. With AWS, we now can support 100 concurrent experiments, spinning up instances in a day. Additionally, if projects fail, there are no additional costs or idle hardware, and we can quickly deprovision hardware. When you know you have the ability to quickly deprovision, it makes you bolder to say yes and try new things,” says Burns.
- **Reduced SLAs to the business from 6 months to 4 hours.** The ability to meet business needs is greatly improved. “We’re no longer tied to provisioning hardware on a 3–6 month cycle,” says Burns.
- **90%+ business user satisfaction with Cloud Services.** “We have tools to monitor satisfaction, after adopting AWS the Cloud Services team is consistently ranking at 9 or 10 in satisfaction,” states Burns.

Conclusion

Live Nation has realized significant business value by investing in AWS – Cost Savings, Staff Productivity, Operational Resilience, and Business Agility. In addition, as Burns and his team further explore AWS Services there are more opportunities to drive efficiencies and innovation for Live Nation. “We’ve completely embraced the cloud with AWS. We’re fortunate to have such a great team here at Live Nation. With the help of AWS, we have moved from troubleshooting hardware and capacity planning to delivering true value to Live Nation and its customers,” says Burns.