ATADATA – A Novel Cloud Migration Approach

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Abstract – *In the present scenarios live migration of workloads prevails from any-to-any migration of complex and multi-tiered Windows and Linux Machines of Omni platforms over the line irrespective of size of the application and databases [1]. So to suffice that lift and shift migration strategies are the need of the hour. In traditional PaaS approach, much impetus is provided to the platform migration rather than the infrastructure and platform as a whole. Thus, atadata aims to replicate the entire migration process with the underlying from source to target production environment by replicating it and migrating the workloads through seamless delivery process and achieving the reliability.*

Key Words: ATAVISION, ATAMOTION, ATASPHERE, ATAMIRROR, ATATRANSFORM, ATAGUARD, CLOUDCAST.

1. ATADATA

ATADATA tool aims in delivering the workload migration to the customers and enterprises through map, manage, migrate and protect etc. It is an Omni-Platform technology. ATADATA takes the complexity out of discovery and workload migration, through automation, and allow for true workload portability between ANY major supported physical, virtual and cloud environments. ATADATA is a company founded by seasoned technologists with a mission to simplify complexities in enterprise cloud and data centre transformation through automation.[4] It has different modules mainly:

1.1 ATAVision

Identifying servers over multiple subnets within an organization can be cumbersome thus ATAvision [5] discovers your complete infrastructure using proprietary, automated technology and provides standard and customized reporting making identifying servers and mapping applications a snap. It removes the gaps in traditional discovery models and accelerates the customer's transformation timeline and deliver cost savings. It uses an agentless architecture and is deployed to automate the management of the server infrastructure and application discovery process.

1.2 ATAMotion

ATAmotion[6] is an agentless platform that gives enterprises the ability to migrate and auto-provision multi-tiered live workloads directly into any physical machine, cloud or hypervisor. It drastically simplifies the migration process utilizing its agentless deployment and innovative architecture. It automates the transfer of live workloads to any physical, virtual, or cloud environment entirely online with no business disruption and even orchestrates the provisioning of target infrastructure for customer.

1.3 ATAMirror

ATAmirror Synchronizes drives from Source to Target. While ATAmotion just lift and shifts the machine from the production environment the actual data is synchronized by the ATAmirror. [8] The synchronization is of two types: Image Based and Block Based and also it enable you to keep source and target servers in synch until it is convenient for the business to perform the final cutover and it eliminates the needs for extended downtime whilst you wait for latest updates to be applied to the target system.

1.4 ATATransform

The ATAtransform module upgrades multiple live Windows servers and re-platforms live Linux workloads across derivatives. The remediation can be delivered in-place or during a re-platform of any physical, virtual or cloud environment with greater simplicity and fewer man hours. [7]It can either be used as a stand-alone technology for in-place upgrades or added to the ATAmotion Migration Module as part of an enterprise migration transformation.

2. ATADATA Reporting Module

Once the discovery is completed successfully ATAvision generates a set of reports which can be retrieved from the database and viewed for analysis and planning of IT transformation projects such as cloud migration, data center consolidation, and disaster recovery planning.

Listed below are the different types of reports generated by ATADATA:

2.1 Subnet Scan Report:

In ATAvision, this is the first report generated and allows the Transformation team to get a complete picture of what lives on a subnet. It identifies all active IP devices on that subnet. By using this report, the team can begin to understand how large the environment is and also begin to uncover unknown devices.

2.2 Connection/Affinity Report:

This report allows for Infrastructure and Transformation teams to review the data and make assessments to help define what high/medium/low affinity servers are and understand who they are talking to.

2.3 Inventory Report:

The Inventory report collects all system specific data for each server. It evaluates all software installed, network mount points, configuration data, storage view etc.

2.4 Pre-Migration Report:

This report allows users to analyze the data using a number of different methods so that the data can be used for planning IT Transformational projects. This report has historically been used as a foundation of data to build out run-books for transformation teams. This spreadsheet contains the different worksheets such as Server Information, Product Information, Local Storage Information, Shared Storage Information and Mapped Storage Information.

2.5 Utilization Report:

These reports display the utilization of CPU and memory servers where a data collection was executed. Reports will contain a number of graphs that visually present utilization of these system resources over the data collection duration.

2.6 Executive Summary:

The Executive Summary provides high level statistical data about the discovery that was performed using the ATAvision technology. This report provides value for Executives and key decision makers and gives a high level view of the scope of work that was executed.

Table -1: ATADATA Comparison with Other Competitors

SR No	Features	Ata Data	Double Take	River Meadow	Cloud Endure	Plate Spin	Rack ware	Racemi
1	Disaster Recovery	Y	Y	N	Y	Y	Y	Y
2	Any-to-Any Migration	Y	Y	Y	Y	Y	Y	Y
3	Agentless	Y	Y	Y	N	Y	Y	N
4	OS Upgrade	Y	**N**	Y	N	N	NA	Y
5	Auto Discovery	Y	Y	N	N	Y	NA	Y
6	Manual Execution	Y	Y	NA	Y	N	Y	NA
7	Report Generation	Y	Y	Y	NA	Y	Y	Y
8	Replication & Sync	Y	Y	Y	Y	Y	Y	Y
9	Windows & Linux versions supported	Y	Y	Y	Y	Y	Y	Y

As we can infer from the above table, ATADATA holds the competitive advantage over other competitors as it provides aforementioned underlying features from other competitors like any-to-any migration, disaster recovery, agentless delivery, OS upgradation on the go, Auto Discovery of machines, Manual Execution, Report Generation, Replication and Synchronization and Support for various Windows and Linux Versions and other Platforms.
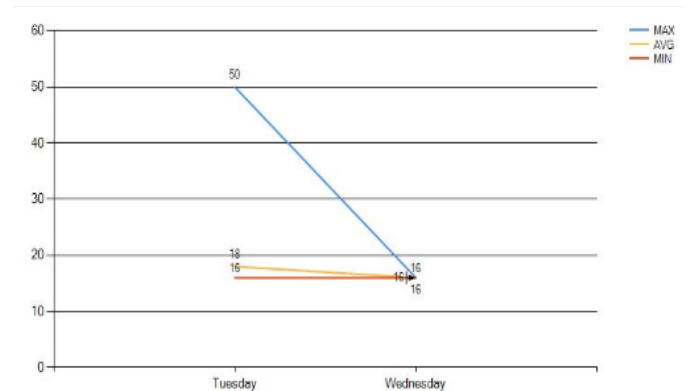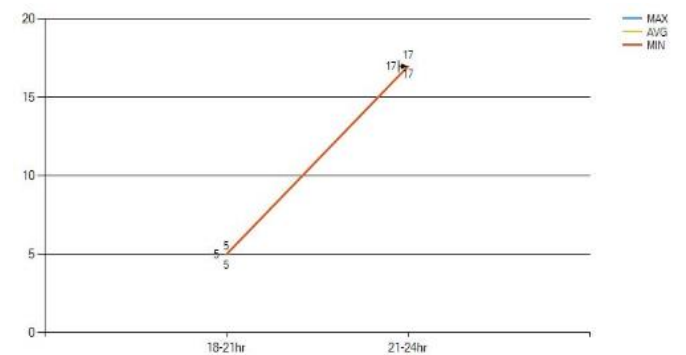

Chart -1: Weekly Utilization Report

Chart -2: Hourly Utilization Report

The above aforementioned reports are generated with the help of ATAvision reporting module and in this reports it analyses the IT transformation of the Business Projects and helps the Enterprise Management in better Resource Handling, Disaster recovery planning, Business Continuity Planning,[3] etc. The above charts indicate the CPU Utilization, Memory Utilization etc. on the Weekly Basis and Hourly Basis as they are required.
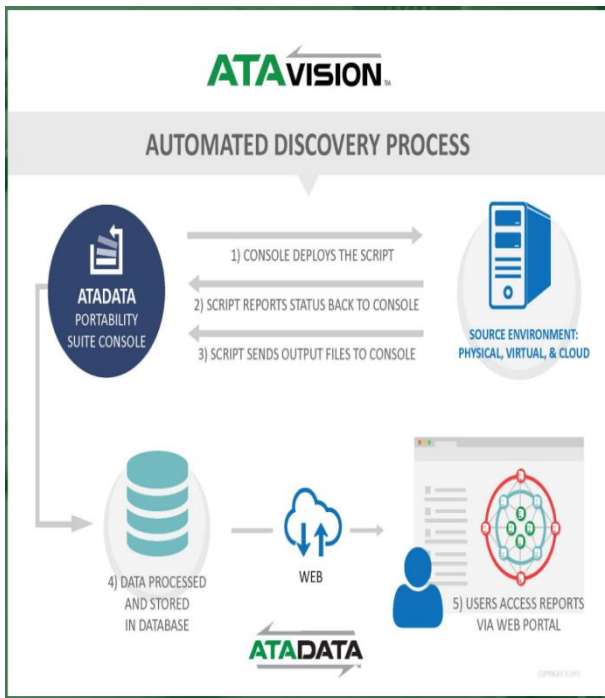
Fig -1: ATADATA AUTOMATION DISCOVERY

The ATADATA Automation Module gives your customers line of sight across their entire current state enterprise IT infrastructure regardless of platform by removing manual discovery through automation. Automated discovery increases accuracy, lowers project costs and accelerates the timeline, moving your customer toward their transformation goals more quickly and effectively. The overall discovery follows an activity based approach as per the figure below.

3. CONCLUSIONS

ATADATA provides service delivery partners and enterprise customers a seamless way to map, manage, migrate & protect any-to-any combination of applications across data centers, hypervisors, private clouds and public clouds. With a simple GUI interface, agentless deployment, and borderless automation and portability, it is the industry's first managed Workload Mobility Platform (mWMP), specifically for the enterprise, across cloud and hybrid IT.

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Disclaimer – The facts and the figures whatever has been mentioned in manuscript has been compiled from our knowledge of the subject and referred from the various sources and references and drafted this in our personal capacity.

The aforementioned contents in the manuscript are true as per our knowledge till date and it may vary in the future.

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BIOGRAPHIES

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