Your Journey to the Cloud Starts with IT Asset Discovery

CloudAtlas

The Cloud in its various forms, especially Platform as a Service (PaaS), is providing enterprise IT with what is considered as a transformational moment. At the same time, Cloud solutions offered through Software as a Service (SaaS), Infrastructure as a Service (IaaS) and PaaS continue to evolve with feature-level updates estimated as frequently as every 4.6 hours by major Cloud vendors. Moving to the Cloud is not "once and done".

Effectively migrating from a traditional, On-Premises IT environment to a Hybrid IT environment that may include elements of SaaS, IaaS, and PaaS requires a logical set of steps. As Gartner has noted, "An organization cannot simply 'jump' to the Cloud. There need to be activities that are part of a phased evaluation and plan to move to the Cloud."

Moving elements of an IT infrastructure, important storage components, and / or critical applications to the Cloud should follow a logical and proven approach in three phases:

- **Discover & Assess** – Create an inventory of applications and workloads that are candidates for the Cloud: SaaS (replace), IaaS (relocate), PaaS (refactor / rebuild). Use criteria such as data compliance requirements, architecture, hardware dependency, software End of Service, and mission criticality.

- **Target & Migrate** – For PaaS-bound apps, determine the specific services required (e.g., Compute, Storage, Network), validate at the code level what refactoring is necessary, remediate, and test against PaaS standards you develop. Use this same process for new "Cloud-born" apps.

- **Monitor & Report** – Using a baseline of enterprise standards for Cloud IT controls and best practices, monitor and report on app compliance as PaaS environments evolve, apps are changed, and enterprise standards are updated.

In some ways, this approach may look like that used to migrate from one version or release of a Server to the next, say the upgrade from Windows Server 2008 R2 to Windows Server 2012. What is different about the Cloud is that feature level releases are happening on close to a daily basis as Cloud Service Providers (CSPs) are looking to constantly enhance their platforms to improve their customers' experience as well as to maintain a competitive edge. One lesson is that application development and testing tools designed for the On-Premises world are not designed to accommodate this degree of change. As you will see in this white paper, the CloudAtlas® suite of tools built for Private Cloud installation and as a Public Cloud Service meets these unique needs.

Inc. 5000 #353 2015

Microsoft Gold Partner

Microsoft Cloud Solution Provider

Discover and assess your IT environment

The foundation for an enterprise as it builds its Hybrid IT environment, including the various elements of the Cloud (e.g., SaaS, IaaS, PaaS), is based on three critical success factors:

- **Modern IT** – A current, On-Premises IT environment (ideally Windows Server 2016, Windows 10, Modern Apps) that can be part of Hybrid IT.

- **Mature Cybersecurity** – Cybersecurity controls and capabilities at least at a "Standardized" maturity level across key critical security control that address both On-Premises and Cloud risks.

- **Flexible Licensing** – An innovative approach to licensing that allows flexibility to migrate, as needed, to various Cloud solutions.

A Cloud Readiness Assessment, often in conjunction with periodic IT asset management reviews, is an ideal way for an enterprise to look at these three areas. These reviews typically look at the entire IT landscape across all vendors and IT assets, including performance data, such as Servers, VMs, Databases, Clients, Applications, Workloads and various devices that are attached to your network. These reviews also have the advantage of gaining the attention of IT and senior management.

The Cloud Readiness Assessment process sets out to answer fundamental questions that will help ensure you start your journey to the Cloud properly prepared:

- What older On-Premises applications should be retired in favor of SaaS solutions?

- Is your Client environment ready to utilize SaaS solutions with current browser technology?

- What is your strategy around authentication and authorization regarding SaaS solutions?

- Which workloads can move to an IaaS environment for e-mail, VMs and storage?

- How can a Cloud platform accelerate and reduce costs around application development?

- How will these Cloud environments impact, and be impacted by, Cybersecurity risks?

- Do you understand the OpEx vs. CapEx financial model associated with Cloud options?

Many of the answers to these questions can come from a data-driven analysis of what you have deployed for IT assets today using discovery tools and asset managed services available today. Tools like the Microsoft Assessment and Planning (MAP) toolkit and the SAM Live! Managed Service.

Just having a data dump of your current situation is not helpful by itself. You need to analyze the IT data you have collected to determine your readiness to move to the Cloud, to look at the Cybersecurity risks you face that can be addressed by moving to the Cloud, and to analyze the costs associated with you operating in the Cloud. CloudRecon®, described further below, provides that capability to you.

Moving to target and migrate applications

A Cloud Readiness Assessment can pinpoint the near-term opportunities, the "low-hanging fruit", in a number of Cloud scenarios particularly around applications. Scenarios like hybrid and phone applications, media services applications, connected devices and the modernization of critical line of business applications…all provide opportunities to leverage IaaS and PaaS Cloud environments.
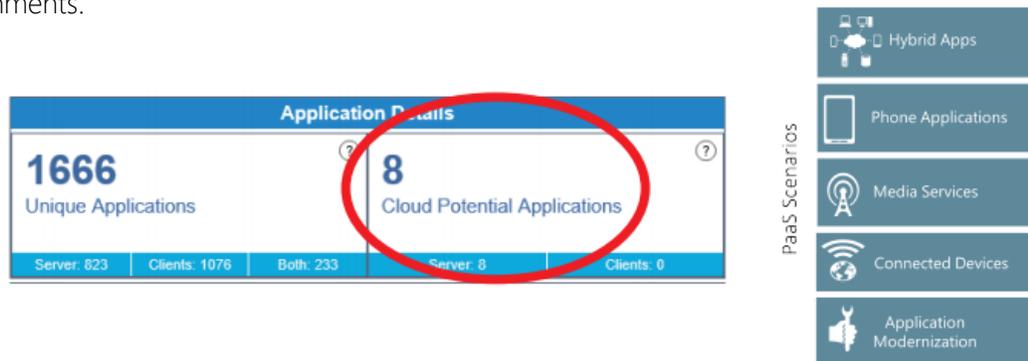
By looking at factors such as the nature and age of the infrastructure, the type of storage, and the development platform, a set of applications can be identified and ranked based on their Cloud potential. Once you have identified the candidates for moving to the Cloud and have defined your overall strategy, the effort to execute that strategy can begin. However, it can be heavy lifting for organizations that do not have experience in the Cloud. Important questions need to be answered such as:

- What will it cost to modernize these applications and do you actually have the skill sets to pull it off?

- Which Cloud Services (e.g., Compute, Network, Storage) do you need to spin up into a Cloud subscription in support of these applications?

- What specific coding changes do you need to make and how do you know that your coding will allow for efficient operation in the Cloud?

- How can you be consistent in this approach across your IT teams?

- And even once you make those changes, how do you know these applications, as well as the Cloud Services they require, meet your internal standards and controls?

As described below, a second solution in our suite, CloudPilot®, provides the answers to these questions that you can use internally or in collaboration with systems integrators you may be working with.

Cloud realty: never once and done requires ongoing monitoring and reporting

A Cloud operating environment can by highly dynamic. As noted above, the CSP on whose platform the applications are hosted will frequently enhance its offerings. Cloud platform capabilities that are released on a frequent basis will need to be evaluated against specific regulatory requirements (e.g., PCI, HIPAA). Or, your enterprise risk management controls may call for specific values in the hundreds of settings found in the Services that are deployed in a Cloud subscription for a group of applications.

These underlying controls and Service settings, critical to the effective and proper operation of applications hosted in the Cloud, highlight the need for ongoing monitoring at the application, subscription and enterprise (across multiple subscriptions) levels. Your IT operations management and risk management professionals will need to feel confident that these controls are in place and monitored in order to sign off on the Cloud. In fact, many industry regulations will require that you do so. CloudAtlas tools are designed to provide confidence that your Cloud subscriptions are in control and well-managed.

UnifyCloud™ developed the CloudAtlas® suite from experience gained by migrating some of the largest and most complex environments to Azure. CloudAtlas accelerates migration to Azure while providing detailed control over Cost, Cybersecurity and Governance & Regulatory Compliance (GRC). CloudAtlas is the only integrated suite of tools to accelerate migration to Azure, using Static Code Analysis, with an underlying knowledgebase to stay current with Compliance (GRC), Cybersecurity, Cost and Best Practices.

CloudRecon   CloudPilot   CloudSupervisor   CloudOrigin

Assess: CloudRecon® uses actual customer infrastructure data to develop a Cloud Strategy in minutes, not months.

Migrate: CloudPilot® uses static code analysis to migrate identified apps to the Cloud in minutes, not months

Control: CloudSupervisor® provides Continuous Cloud Controls for Cost, Performance, Security & Compliance.

Configuration Management: CloudOrigin® Knowledgebase ensures cybersecurity, GRC compliance & cost controls stay current.
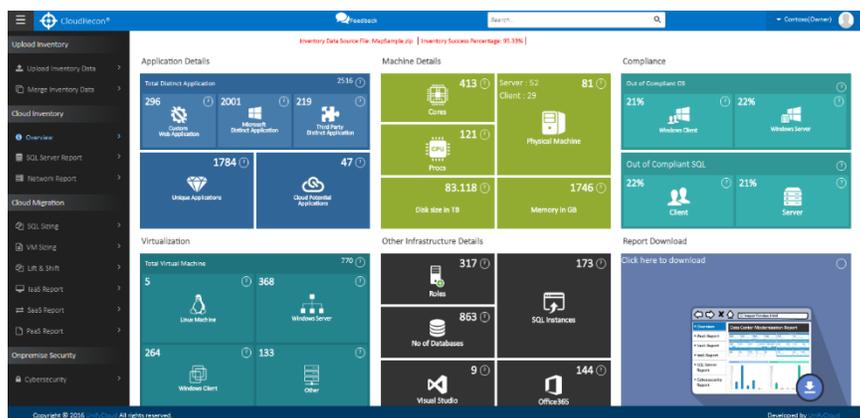

CloudRecon® - Used during Discover & Assess to determine the readiness of an enterprise to move to the Cloud providing detailed technical analysis on your entire On-Premises IT environment including VMs, Physical Servers, Databases and Client machines. CloudRecon® uses data from leading IT discovery tools or asset management Managed Services.

Benefits of CloudRecon:

- **Assessments in Minutes; not Months** enable you to deliver more engagements, driving more revenue. Sell additional managed services to your customers, increasing profitability
- **Simplify & Automate Infrastructure Assessments** - CloudRecon automates and accelerates M365 migration by assessing your customers on-premise infrastructure with a focus on identifying opportunities for Security, O365, Windows, and Azure
- **Be in Control -** Software assisted assessments using actual historical infrastructure data increase accuracy in M365 migration planning

- **Data Driven Decisions -** Automatically produce M365 cloud strategy reports using information from Infrastructure assessment tools such as MAP, SCCM, Service Now, Movere, Lansweeper, SNOW Software and other leading asset discovery tools

CloudPilot® - Used during Target & Migrate to quickly plan and efficiently remediate custom apps to run efficiently in the Cloud. Based on static code analysis, configuration data, and development team interaction, CloudPilot provides you with a deep and detailed analysis of applications and their readiness to migrate to a Cloud environment.

CloudPilot is a great tool to assist in the initial assessment of the Cloud migration effort and in development planning; in the refactoring process by offering detailed code-level changes for the Cloud; and in the final testing against enterprise technology controls and policies. It works with Server-based applications not refactored for the Cloud or with Cloud-enabled applications that need testing.
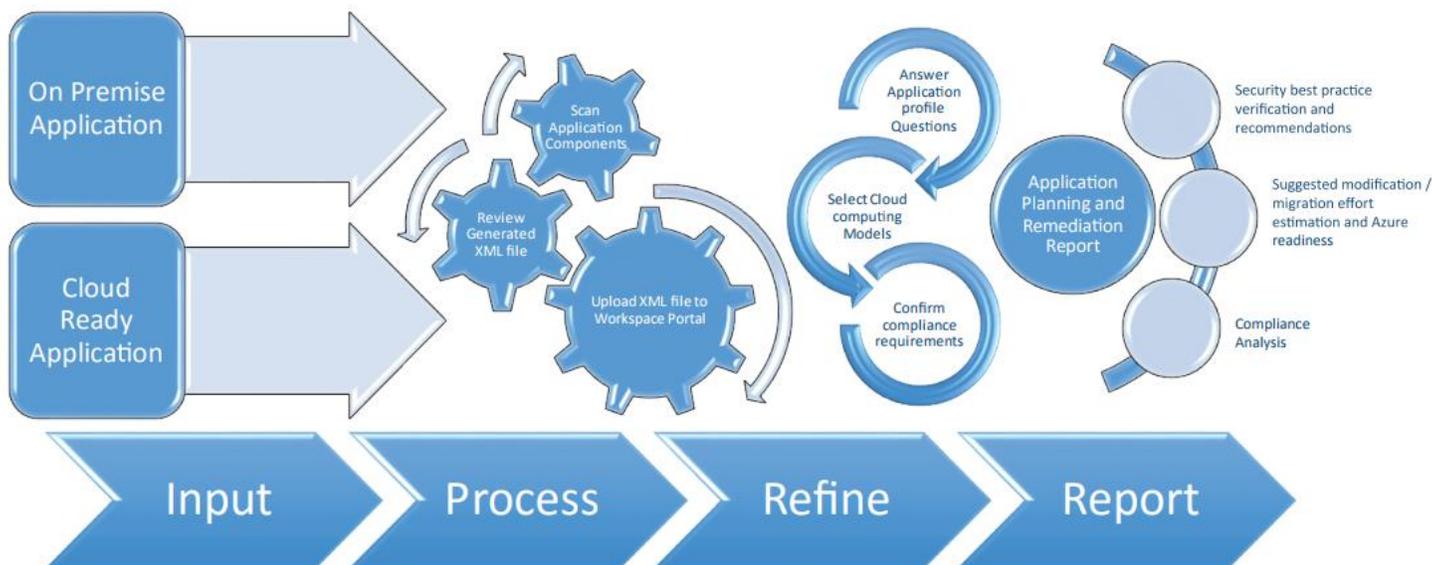
Benefits of CloudPilot:

- **Make More Money** - Offer additional profitable services to customers by accelerating their migration to Azure. Increase consultants' productivity and reduce errors by automating and simplifying migrations

- **Migrate In 7 Clicks or Less** - Offer additional profitable services to customers by accelerating their migration to Azure. Increase consultants' productivity and reduce errors by automating and simplifying migrations with CloudPilot

- **Error Free Migration** - Standardize the migration process using automated tools. Deliver consistent, secure, and error-free migrations

- **"No Code Change"** migrations enable moving applications and data to Azure at scale to VMs, Containers, and App Services

CloudSupervisor® - Used during the Monitor & Report phase to provide IT risk management professionals with Cloud subscription IT Controls oversight. CloudSupervisor is used to monitor applications after they are migrated to the Cloud to provide application owners and Cloud subscription owners visibility into the underlying Cloud Services and whether the settings and other risk management controls are in line with industry standards or your enterprise definitions.
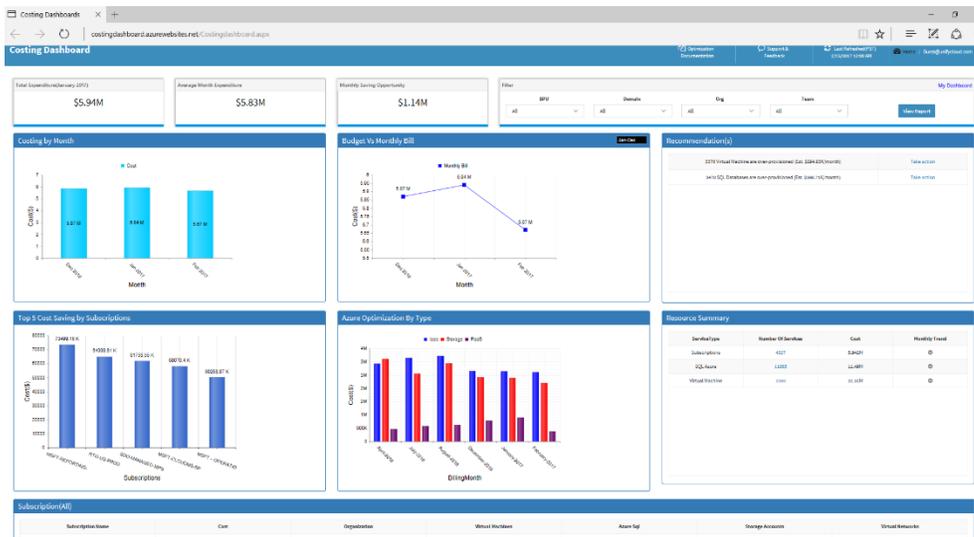
Benefits of CloudSupervisor:

- ☁ **Get GDPR Ready** - Get customers ready for GDPR and offer new services for controlling and managing their cloud environment.
    - ☁ Conduct GDPR Assessments and create Cybersecurity and Compliance baselines (such as GDPR, ISO, SOX and PCI) to assess, audit and evaluate the configuration of Azure resources

- ☁ **Be in Control** - Create custom security and compliance baselines to provide new monitoring services to customers for Security and Regulatory Compliance
    - ☁ Manage and control Azure and Office 365 against cost budgets, security standards and regulatory baselines (e.g. GDPR, ISO, SOX, and PCI)

- ☁ **Cost Management** - Cost Dashboard provides resource optimization for VMs, SQL, and all Azure resources, as well as usage and licensing insights for Office 365
    - ☁ Control Azure costs with snoozing and rightsizing recommendations
    - ☁ Identify un-used or under-utilized O365 licenses

Combined, the suite of tools offered by CloudAtlas span the entire Cloud Migration journey as well as offering monitoring and control once you are operating in the Cloud. The benefits for your Cloud management program include:

- Risk Management oversight capabilities for Cloud-based applications.
- Applications that are developed and monitored against consistent standards and controls.
- Security controls that are closely managed and quickly updated to keep pace with Cloud evolution.
- Lowered costs of Cloud operations, application compliance monitoring, and ongoing remediation.

Underlying CloudPilot® and CloudSupervisor® is CloudOrigin®, a Cloud knowledgebase and repository for Cloud Service settings, used during Target & Migrate and Monitor & Control as a way to stay current with the many revisions that result from frequent CSP feature updates, application enhancements, and changes to regulatory requirements and internal IT control policies.

CloudAtlas: migration and management solutions designed for the Cloud

Using the CloudAtlas® solutions provides an enterprise IT organization with:

- Detailed analyses, down to the individual IT asset level, of specific Cybersecurity risks that your current IT environment

- Cost-effective ways to quickly assess the various Cloud migration options they have along with associated costs of those options compared to today's standard on-premises cost model;

- Detailed estimates on what it will cost to remediate critical line of business applications generated in a fraction of the time and cost often quoted by large application migration firms;

- Technical, code-block level roadmaps on each recommended change, that will reduce the cost of migration, promote standardized Cloud development practices, and leverage scarce Cloud skills;

- Monitoring tools, at both subscription and enterprise levels, that alert app owners when any standard settings or controls have drifted from compliance and support fast remediation.

About UnifyCloud LLC

Headquartered in Redmond, Wash., UnifyCloud is a rapidly growing Global SI and MSP provider, with a development and operations center in Noida, India. The company ranked #353 on the Inc. 5000 list for 2015. UnifyCloud is a Microsoft Gold Partner and a Tier 1 Cloud Services Provider. Learn more about our services at https://www.unifycloud.com

UnifyCloud developed the CloudAtlas suite based on experiences migrating the largest and most complex environments to Azure. CloudAtlas accelerates migration to Azure while providing detailed control over Cost, Cybersecurity, and Governance and Regulatory Compliance (GRC)

For more information about the CloudAtlas solutions visit https://www.cloudatlasinc.com. To schedule a demo, or discuss potential uses of these tools and related services in your enterprise please contact:

Norm Barber, Managing Director (normb@unifycloud.com) or
Marc Pinotti, VP Business Development (marc@unifycloud.com)