Synoptek Managed AWS:
Cloud Optimization & Risk Mitigation

amazon
web services

⇆ Synoptek®

Snap your fingers.

If you're among those who think that cloud computing works like that, you've been watching too many commercials. Like the many who think that putting up a firewall provides complete security, expecting cloud computing to be self-operating is simply wishful thinking.

Cloud computing is, however, a great way to obtain vastly superior information technology (IT) services at a substantially lower cost which can, in turn, increase your company's operating profit.
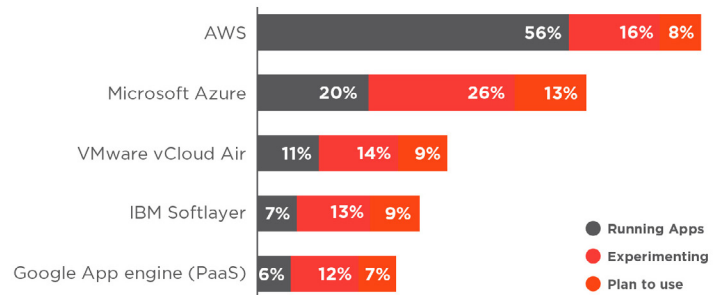
HOW CLOUD CREATES VALUE

While many prefer to perpetuate the supposed mystery surrounding cloud computing, the reason that large companies like Amazon have entered the business is because they can afford to invest in massive resources that can then deliver professionally operated IT services to many customers thereby distributing the cost among them. This achieves an unparalleled economy of scale that results in customers each paying a far lower price than they would to produce those services internally, while Amazon still enjoys a healthy profit. Everyone wins.

BEYOND SNAPPING YOUR FINGERS

The important issue to be cognizant of is that subscribing to Amazon Web Services (AWS) for cloud computing resources is not the final step in the cloud process; it is only the first of many, from transitioning to the new cloud environment, establishing operations in the cloud, managing capacities and spend, implementing information governance, regulatory compliance, data and network security, user support, operational management and more.

Adoption Of Enterprise Cloud

	Running Apps	Experimenting	Plan to use
AWS	56%	16%	8%
Microsoft Azure	20%	26%	13%
VMware vCloud Air	11%	14%	9%
IBM Softlayer	7%	13%	9%
Google App engine (PaaS)	6%	12%	7%

The good news is that highly capable assistance is available to you. The fact is that most AWS subscribers are not prepared to take on all the challenges presented by the move to cloud computing, but all want the benefits and cost savings available.
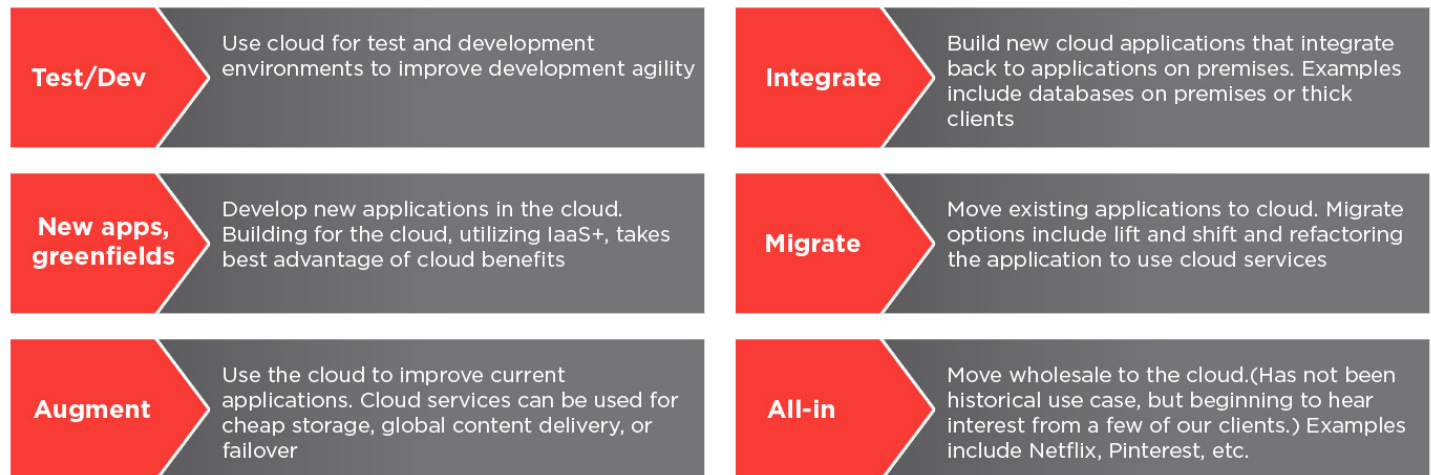
Synoptek has developed a formalized, structured program which enables any company to take full advantage of AWS without the delay and expense involved in getting personnel trained to manage it. This program, which we call the "Synoptek Managed AWS Program" is designed to deliver these key value propositions:

- Risk Mitigation
- Experience & Expertise
- Optimized Costs
- Compliance Assistance
- Digital Transformation Guidance

This last item, Digital Transformation, deserves extra focus. While there is much talk about Digital Transformation, seldom does that talk focus on "why" companies want to digitally transform. After all, it sounds so disruptive. But the most important implication of Digital Transformation lies in finding ways to improve the way a business does business using information technologies. It could just as easily be called Digital Improvement. That is certainly the goal.

Defining your cloud journey

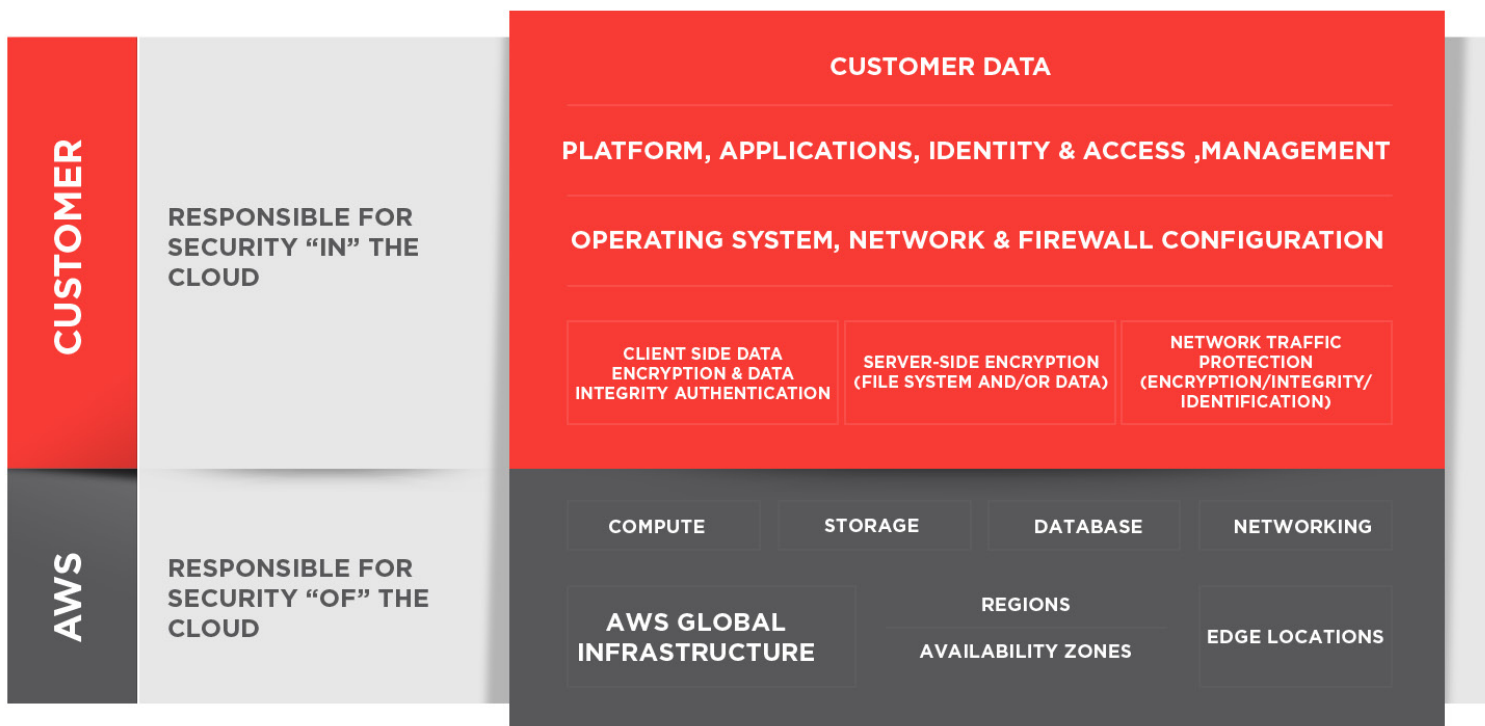We see many enterprises moving to cloud and AWS. To get started, we typically see one of the below patterns:

Test/Dev	Use cloud for test and development environments to improve development agility
New apps, greenfields	Develop new applications in the cloud. Building for the cloud, utilizing IaaS+, takes best advantage of cloud benefits
Augment	Use the cloud to improve current applications. Cloud services can be used for cheap storage, global content delivery, or failover

Integrate	Build new cloud applications that integrate back to applications on premises. Examples include databases on premises or thick clients
Migrate	Move existing applications to cloud. Migrate options include lift and shift and refactoring the application to use cloud services
All-in	Move wholesale to the cloud.(Has not been historical use case, but beginning to hear interest from a few of our clients.) Examples include Netflix, Pinterest, etc.

THE SYNOPTEK MANAGED AWS PROGRAM

The name "Synoptek" is derived from "the synergy of operations and technology" which very ably describes the benefits of the Synoptek Managed AWS Program.

Synoptek is a member of the Amazon Web Services Partner Network, enabling us to manage your entire subscription transaction and relationship with AWS. Going well beyond that, Synoptek makes available Certified AWS IT professionals and advanced IT management tools providing essential IT services AWS does not offer, including:

- A full set of "layered" IT security protection and detection monitored 24×7 (see below)

- Systems and Application Monitoring, Remediation and Management

- Backup Management

- OS and Application Patch Management

- Network, VPN, Firewall Management, intrusion detection

- Service Level Reporting

- Antivirus / Anti-malware Management

- Best Practice Assessments and Recommendations

- Develop and Track AWS Roadmap

- Cost Assessments and Utilization Recommendations

- 24×7 Dedicated Phone Support with AWS Escalation paths

- ITIL-Based change management processes and governance

- AWS Inventory, Resource Utilization, and Recommendations

That's a substantial list of services, so let's briefly examine the value they offer to clients of the Synoptek Managed AWS Program.

CUSTOMER	RESPONSIBLE FOR SECURITY "IN" THE CLOUD	CUSTOMER DATA		
		PLATFORM, APPLICATIONS, IDENTITY & ACCESS ,MANAGEMENT		
		OPERATING SYSTEM, NETWORK & FIREWALL CONFIGURATION		
		CLIENT SIDE DATA ENCRYPTION & DATA INTEGRITY AUTHENTICATION	SERVER-SIDE ENCRYPTION (FILE SYSTEM AND/OR DATA)	NETWORK TRAFFIC PROTECTION (ENCRYPTION/INTEGRITY/ IDENTIFICATION)
AWS	RESPONSIBLE FOR SECURITY "OF" THE CLOUD	COMPUTE · STORAGE · DATABASE · NETWORKING		
		AWS GLOBAL INFRASTRUCTURE	REGIONS · AVAILABILITY ZONES	EDGE LOCATIONS

YOU CAN, AND WILL, GET THERE FROM HERE

Before you undertake a transition to AWS, you need to take a good hard look at where you are when you place your subscription for AWS:

- What data assets do you currently own, and where are they currently residing?

- What applications are you running?

- Which user communities are using which applications and which databases?

- How are all these users connecting to these resources?

- What have their challenges been with the current environment?

There are far more questions, but you get the idea. You need to have a comprehensive inventory of your information landscape. Then you'll need to figure out how to migrate each data workload and each application to AWS. Some applications may need to be modified. Others may need to be replaced completely. Some may be easily transferred.

The experts from Synoptek have the experience, the knowledge, and the certified training to help you make the best and most informed decisions.

## SECURITY OF THE CLOUD. SECURITY IN THE CLOUD.

Another very important area which press coverage, marketing, and advertising may have caused confusion in is data and network security.

While it was long thought that cloud-based data services were inherently less secure than on-premise ones, nothing could be further from the truth. Large cloud service providers like Amazon have invested heavily in securing their data centers and have the resources to create far more effective protection than most companies could ever create for themselves. AWS assures that the infrastructure components from the host operating system (virtualization layer) down to the physical security of their data centers are incredibly secure.

They are also quick to point out, however, "AWS manages security of the cloud, security in the cloud is the customer's responsibility."

The best way to understand the distinction is to remember that the data is yours, and that the one party that would be most damaged by the exposure, corruption, or loss of that data is you. As such, the responsibility for the safety and security of the data managed in the cloud will always rest with you. AWS provides a system whose security performs exceptionally. Responsibility for the data rests with you.

AWS Cloud Adoption Framework (CAF)
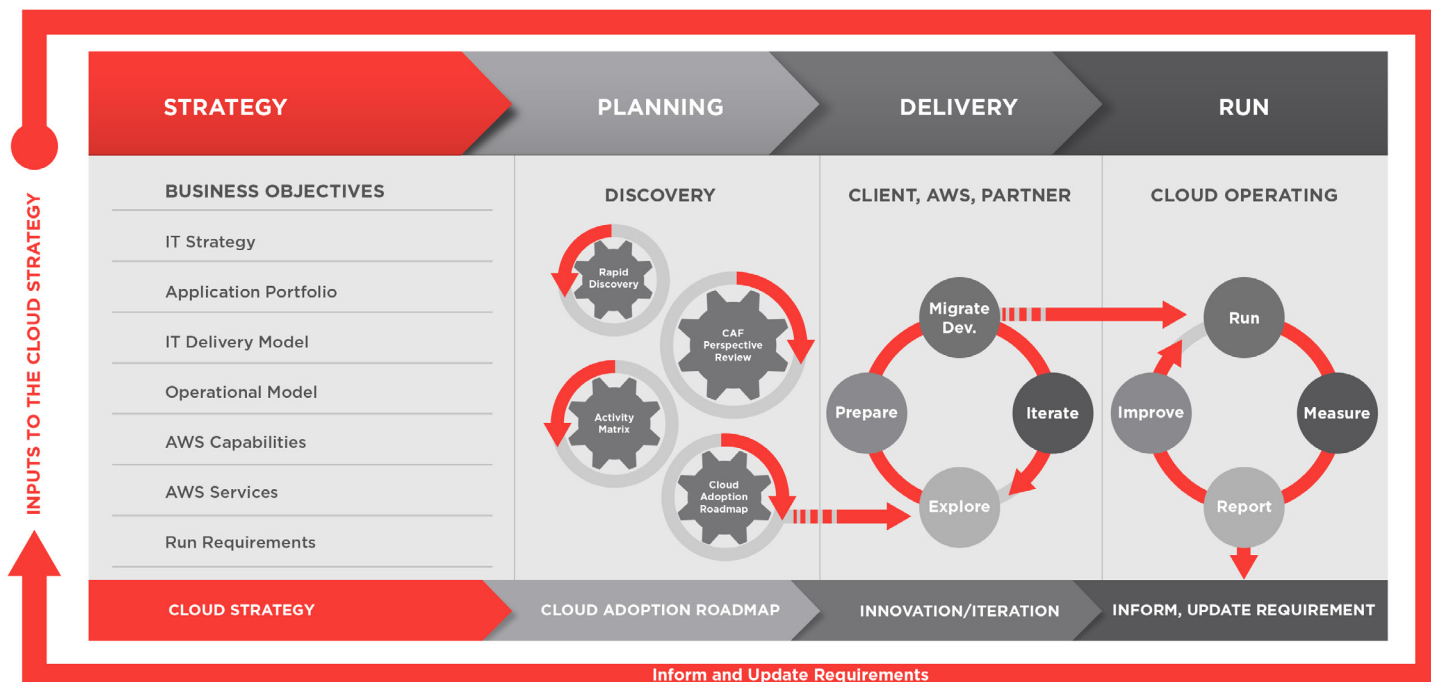
Synoptek supports you in implementing the measures necessary to protect your data as it travels into and out of the AWS environment, providing proactive monitoring, alerting and remediation of performance and availability issues that arise on workloads and network centric services running on AWS.

Perhaps the most effective "failsafe" is to assure full-time encryption of all data not only during transit across the network, but also while it is at rest in storage. Even were someone to overcome AWS' extraordinary security, they'd end up with useless garbled data unless they could also obtain your encryption key.

Ongoing Operations

Once you've migrated all your existing workloads and applications to AWS you begin to enjoy the true functional advantages of cloud computing. You're probably accustomed to worrying each day about whether all the servers are operating, or if any of the drives have failed or did the backups run last night, but those concerns will be gone.

Instead you'll be focused on which of your projects are on track, and which require your attention. Where do you have opportunities to reduce cost by limiting resource allocation? Are there any requests in your queue that you haven't responded to yet? You'll find you have switched over from completely reactive and putting out fires to completely proactive and finding out where you can light the way.

Part of this happens thanks to the fact that AWS is managing the servers, the storage, and the rest of the infrastructure. Part of it happens because you have Synoptek managing every aspect of your new AWS compute environment. Synoptek thinks about the technology and how to keep it running at peak performance so you can continue to think about how to optimize the performance of your business to maximize your profitability.

An experienced AWS partner, Synoptek has the experience and skill set to help design, implement, and maintain security for your AWS environment. Synoptek provides proactive security and monitoring ensuring that your environment is secure, stable, and compliant — which leaves your internal IT team available to focus on strategic projects to move your business forward.

Designed to keep AWS Services fully operational at all times, Synoptek's Managed AWS Service is bundled with the expertise required to address the kind of rapid changes that often affect the IT operations lifecycle. This service focuses on:

- Operational Support
- Operational Management
- Security Management
- Information Management
- Advisory
- Cost & Utilization optimization
- Risk Management
    - 24×7 Support & Uptime
    - Manage 200 Security & 400 Availability Best Practices
    - Continuous Compliance

- Reduce Costs
    - AWS environment right-sizing
    - Idle resource management
    - Purchasing options

- Optimize Direction
    - Dedicated AWS advisor
    - Strategic Security & Compliance guidance
    - Technology roadmap

CLIENT ADVISOR - THE SYNOPTEK INTERFACE

Since the most important element of the Synoptek Managed AWS Service is the relationship with the client, the most important component of the program is the dedicated Client Advisor. This professional serves as the single point of accountability in delivering all services:

- Establish and manage relationship with identified Customer contacts.

- Work with the operations team proactively to identify opportunities and continually improve.

- Customer experience with respect to the Services outlined here.

- Define key measures and periodically review them with Customer.

- Pro-actively explain any high severity incidents, root causes, and resolution efforts.

- Coordinate with other business units as agreed, to ensure a unified Synoptek solution.

- Support Ticket Review

- Overall Cost Review

- Security focused Best Practice Check & Remediation (AWS Services)

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- Bottom line: The Client Advisor owns total responsibility for making sure that our client is enjoying every possible advantage and the best possible service performance from AWS.

> " Synoptek can maximize the value of your AWS cloud investment and minimize your risks. "

A COMPREHENSIVE PROGRAM

Using Synoptek Managed AWS closely resembles using your own on-premise IT resources except that the rudimentary concerns and fundamental operations are removed from your own personnel. Operations become the sole responsibility of Synoptek.

STRATEGIC BUSINESS PLANNING - Through your dedicated Client Advisor, Synoptek partners with you to perform key business planning surrounding IT, including finance, operations, strategic plans, staff skills and organization processes, and how these are replicated and managed in the cloud.

HUMAN RESOURCES - Synoptek also supports your management decision-making regarding the human resource issues that will change as you shift more operations to the cloud.

INFORMATION GOVERNANCE, control over who is allowed to access which assets and how are they permitted to use them, is often improved as you migrate to a cloud environment. Our experience and expertise inform much of your decision making.

PLATFORM IMPROVEMENTS - After you've migrated workloads and applications to AWS you may come to realize that there are superior opportunities available to you in the form of platforms you could never use on-premise. Synoptek helps you evaluate these opportunities and take advantage of the most meaningful ones.

THERE'S A REASON AWS HAS A PARTNER PROGRAM

Synoptek is proud to participate as a member of the Amazon Web Services Partner Network, and we recognize and respect why Amazon decided to create it.

Simply put, you can't be all things to all people... even if you're Amazon. Amazon doesn't do application management, but most of our AWS clients need their applications managed. They have a given scope of managed services that simply cannot satisfy all types of client needs. They know that most companies do not want to be in the IT business, struggling to hire and retain talented IT professionals in a highly competitive market.

By selecting Synoptek, a highly qualified member of the Amazon Web Services Partner Network, you provide your company with everything you need to run a top-quality IT shop for your business, without having to staff, train, supply, or prepare anyone or anything. AWS handles the performance of the cloud, and Synoptek takes care of everything you want to do in the cloud. A complete solution.

ASK SYNOPTEK

If you've been considering the move to the cloud, or even if you've moved to a cloud environment that you're not certain is delivering everything it can, talk to a Synoptek Advisor today.

Synoptek

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