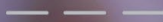aws | **TATA CONSULTANCY SERVICES**

WHITE PAPER

Accelerate and simplify your journey to the cloud

With Tata Consultancy Services (TCS) and Amazon Web Services (AWS) cloud migration

Cloud adoption is most definitely on the rise. Recent analyst research (Gartner; IDC) shows that by 2020 we'll see massive adoption of hybrid cloud as the cost of cloud, hosting, and traditional infrastructure reach par, and cost optimization and efficiency continue to improve.[1,2] Factors that are driving the rapid growth of cloud services include faster innovation, flexibility, scalability, higher availability, faster time to market, and reduced ROI.

Enterprises like yours have many choices when it comes to cloud platforms and services, and the difference in offerings can be complex. Best-of-breed cloud providers deliver a clear cloud roadmap and strategy, along with detailed implementation and management.

With the right partner, you can accelerate the pace of cloud adoption, using automation to the highest degree.

With successful cloud migration, you can…

- **Reduce** ROI and TCO

- **Accelerate** response; speed time to market

- **Eliminate** risk of manual error

- **Simplify** and speed up IT infrastructure management

- **Increase** availability and scalability

- **Improve** security and compliance

[1]Gartner, "Gartner Forecasts Worldwide Public Cloud Revenue to Grow 17.5 Percent in 2019," April 2019.

[2]IDC, "IDC FutureScape: Worldwide Cloud 2019 Predictions," October 2018.

Migrate with confidence

By moving core business applications to the cloud in the right way, you can achieve significant improvements in time to market, business outcomes, ROI, user/customer experiences, IT performance, cost optimization, scalability, availability (always on, everywhere), and more. TCS and AWS partner to assess your cloud needs, design an appropriate solution, and assist you in deployment and management. Our proven approach to cloud migration—evidenced by hundreds of successful customer engagements—relies on these key aspects.

1. Fast and efficient assessment

Rely on a rapid discovery and assessment of your "as-is" infrastructure, and data and application landscape, providing the right recommendation and solution on AWS cloud and seamlessly migrating to AWS with a mature, modernized architecture.

2. Trusted partnership of industry leaders

AWS and TCS combine to create a trusted partnership that delivers proven results to thousands of businesses worldwide as they develop and refine their cloud strategies.

3. Comprehensive cloud services portfolio

We deliver a complete, end-to-end cloud services portfolio. Offerings include cloud advisory services, strategy and roadmap definition, assessment, deployment and implementation, workload migration, and hybrid managed services—all spanning public, private, and hybrid cloud environments.

4. Intelligent mapping and data capture

AWS and TCS blueprint the cloud migration journey, accelerating the discovery and assessment phase with intelligent mapping of products and services to the future state, based on a very simple data-capture matrix.

5. Machine First™ mindset

Our cloud migration factory is unique in its ability to accelerate each phase of migration to the AWS cloud, achieving faster time to business value.

TCS and AWS differentiators

Together, we help enterprises transform and migrate seamlessly to the cloud with proven solutions that are highly scalable, secure, reliable, cost-effective, and future-ready.

AWS Center of Excellence support with best practices, methodologies, and templates

Cloud migration and transformation

20,000+ AWS **Experienced practitioners** with operations in all major market geographies, and presence in all major industry sectors

Collaborative skill development strategy

Machine First™ mindset assures **faster** value realization
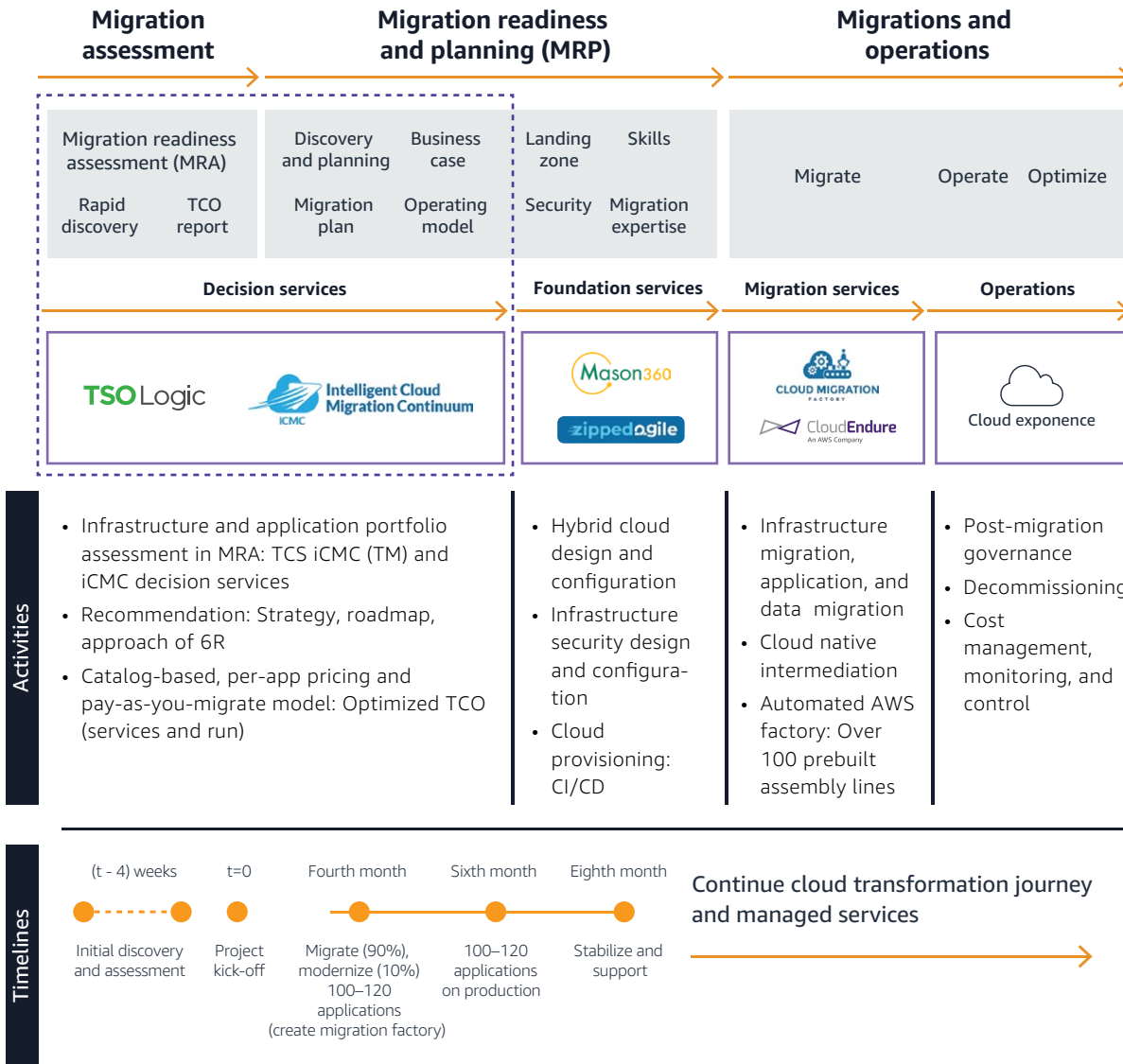
Transform while you migrate

Deliver **sustainable** technology and services

Rely on a unique approach to cloud migration

We understand that you want to rapidly build and deploy new capabilities—both internally for your business and externally for your customers. Unique to TCS, our Business 4.0 traits—agile, automated, intelligent, and on the cloud—help enterprises like yours transform their business to a modern paradigm. Business 4.0 helps you achieve exponential business value, embrace risk, and enhance the customer experience.

TCS relies on contextual knowledge gained through in-depth engagement with its clients to provide business-aligned solutions. With a wealth of experience in providing IT services to various industries, TCS builds tailor-made solutions to ensure mass personalization for augmenting the user experience. A host of cloud tools and workloads are shaping how businesses are consuming technologies in the cloud today, and TCS cloud services cover end-to-end needs for customers through assessment, build, migration, and operations, and on to managed services.

Making the cloud adoption journey simpler and easier

Migration assessment	Migration readiness and planning (MRP)		Migrations and operations

Migration readiness assessment (MRA)	Discovery and planning	Business case	Landing zone	Skills			
Rapid discovery	TCO report	Migration plan	Operating model	Security	Migration expertise	Migrate	Operate	Optimize

Decision services · **Foundation services** · **Migration services** · **Operations**

TSO Logic · Intelligent Cloud Migration Continuum ICMC	Mason360 · zippedagile	CLOUD MIGRATION FACTORY · CloudEndure An AWS Company	Cloud exponence

Activities

- Infrastructure and application portfolio assessment in MRA: TCS iCMC (TM) and iCMC decision services
- Recommendation: Strategy, roadmap, approach of 6R
- Catalog-based, per-app pricing and pay-as-you-migrate model: Optimized TCO (services and run)

- Hybrid cloud design and configuration
- Infrastructure security design and configuration
- Cloud provisioning: CI/CD

- Infrastructure migration, application, and data migration
- Cloud native intermediation
- Automated AWS factory: Over 100 prebuilt assembly lines

- Post-migration governance
- Decommissioning
- Cost management, monitoring, and control

Timelines

(t - 4) weeks	t=0	Fourth month	Sixth month	Eighth month	Continue cloud transformation journey and managed services
Initial discovery and assessment	Project kick-off	Migrate (90%), modernize (10%) 100–120 applications (create migration factory)	100–120 applications on production	Stabilize and support	

Leading the industry with proven experience and knowledge

Together, TCS and AWS help thousands of enterprises worldwide migrate their infrastructure and applications confidently to the AWS cloud. We help you achieve a fast, accurate assessment of your existing application landscape, then define a new architecture on AWS.

With a strong workforce of AWS cloud migration experts (over 20,000 AWS practitioners and over 3,600 certified associates), we deliver:

- Ready-to-use, quick-start deployment templates and automation to accelerate migration

- Proven methodologies, in-house tools, and solution accelerators for cost-effective cloud migration and governance

- Sustainable, lightweight technology and service fabric

- Machine First™ mindset to assure faster differentiation for business

- Innovative software-driven approach

- Ability to "transform while you migrate," achieving business value faster

Comprehensive portfolio— from assessment and design through migration

TCS and AWS jointly offer a variety of cloud migration offerings to reduce your time to market and deliver successful business outcomes. These cover all aspects of assessment and design, migration and modernization, and ongoing operations.

Assessment and discovery

- TCS iCMC™: Accelerates the assessment and blueprint stage of migration.

- TSOLogic: Actionable analytics for improving performance, cutting costs, and transforming IT. Full visibility into IT compute and application delivery.
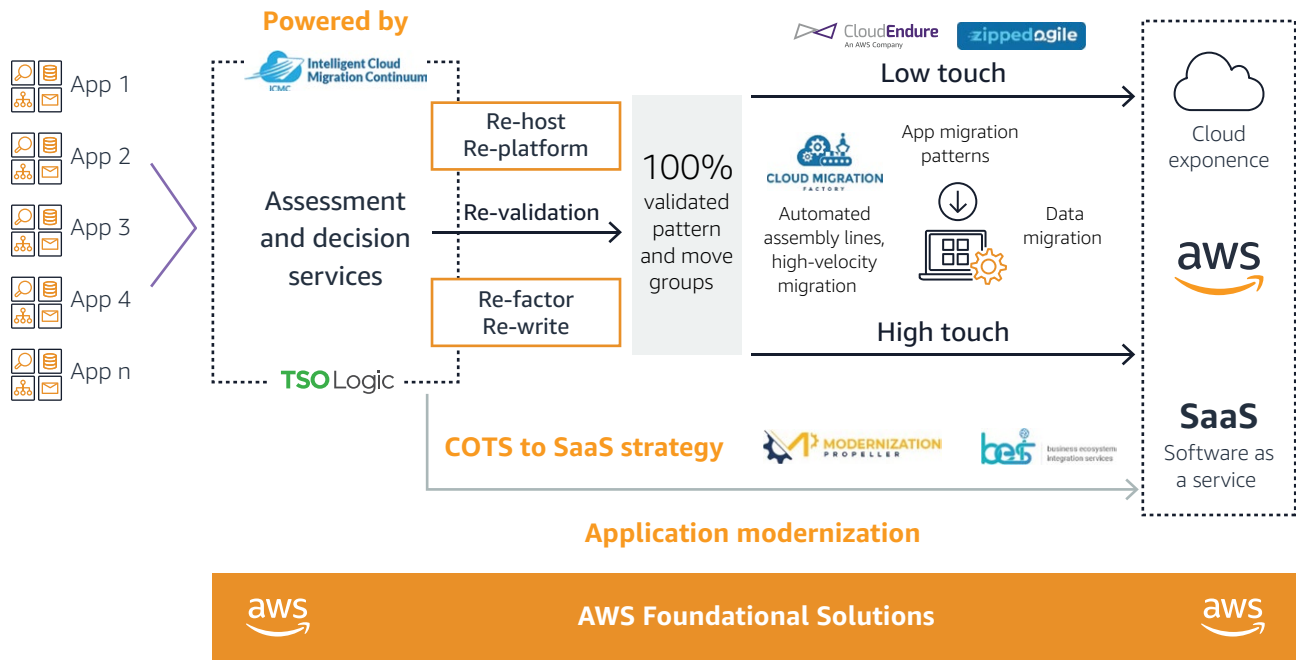
Migration and modernization

- Modernization Propeller: Pilot project to demonstrate the potential migration journey of a monolith application (re-host, re-platform, modernize).

- Zipped Agile: Infrastructure provisioning using infrastructure-as-code concept. Addresses DevOps challenges.

- Migration Factory Services: TCS Machine First™ delivery model, automated migration assembly lines, migration lifecycle monitoring.

- Enterprise Cloud Foundation Services: Services to rapidly define, design, and deploy a cloud foundational platform using multiple cloud providers.

- Cloud Endure: Automated disaster recovery and migration services.

Operation

- Cloud Exponence: Multi-tenant cloud management platform that delivers multiple managed public cloud across geographies.

TCS and AWS cloud migration—modernization journey

Customer successes at a glance

Application migration for a large U.S. commercial bank

Key metrics:

- 47+ applications migrated

- 200+ integration points

- 2 TB of storage

TCS and AWS partnered to help a leading U.S. bank migrate more than 47 complex applications to the AWS cloud. The results were immediately impressive.

- 30% cost optimization in the first year

- 100% automated deployment and monitoring

- 70% improvement in response time using ElastiCache

- 50% performance optimization

- 60% faster sprint cycles

Migrating to AWS gave the bank the ability to serve thousands of concurrent users faster and more effectively. In addition to reducing costs, it also delivered higher levels of availability, automated backup and monitoring, and significantly improved scalability.

Infrastructure transformation for a leading multinational HR firm

Key metrics:

- 7,500+ servers migrated

- 4+ petabytes storage

- 1,650+ database instances

- 1,000+ applications

- 150+ standard operating procedures

For a global leader in HR services, TCS and AWS designed and deployed an innovative, end-to-end cloud marketplace. The transformation virtualized the firm's entire IT infrastructure to deliver full visibility into lead generation, management, digital customer interaction, and analytics. Results:

- Transferred more than 100 apps and 10 terabytes of data to AWS platform

- Critical apps are now 100% accessible

- Resource utilization improved by 75%

- Overall IT performance increased by 100%

About TCS

Tata Consultancy Services (TCS) is a global leader in IT services, cloud transformation, and business solutions. TCS offers a consulting-led, cognitive-powered portfolio of IT, business, and technology services. This is delivered through a unique, location-independent, agile delivery model, recognized as a benchmark of excellence in software development. A part of the Tata Group, India's largest multinational business group, TCS has over 394,000 consultants in 46 countries.

Find out more: **www.tcs.com**

Migrating to AWS with TCS

Migrating to the cloud with AWS is the first step to modernizing your technical platform and creating a foundation for rapid innovation and scalability. AWS has the most comprehensive and mature migration tools in the industry, the most complete migration solutions, and a proven partner ecosystem to ensure implementation without interruption.

AWS and trusted Migration Partner TCS have helped numerous enterprises transform seamlessly to the cloud with proven solutions that are highly scalable, secure, cost-effective, and future-ready.