# PREFACE

This study outlines the adoption of Cloud computing services by Small and Medium Enterprises (SMEs), including India's recent policy initiatives to increase faster adoption of cloud. An analysis of the various Government of India initiatives such as National Telecom Policy 2012, National e-Governance Plan, National Optical Fibre Network, GI Cloud-Meghraj, Project Badal and Digital India shows that despite the well laid down strategies and programme goals, the expected results to transform India into digital empowered society and knowledge economy and providing governance and services on demand and infrastructure as a utility to every citizen are yet to be achieved on ground. In spite of the documented advantages of the cloud-based architecture such as drastic reduction in capital expenses and maintenance, low barrier to entry, minimum risk, faster returns on investments, lower capital expenditure on hardware and software, business continuity, mobile workforce, and IT agility, the SMEs are yet to adopt the Cloud in a big way. A number of cloud research organizations have established the advantages of adoption of cloud for the national economy and growth of the country; hence it becomes more important to understand the present cloud computing ecosystem in India to understand the possible reasons for such slow adoption of Cloud by SMEs.

As the terms and conditions of contract between the cloud service provider and its client are defined in service level agreement (SLA) which is a legally binding contract stating the quality of service (QoS) guarantees required by cloud customer, this study is aimed to ascertain and examine the expectations of SME clients with respect to the Service Level Agreement. SLA also serves as the benchmarking or comparison tool for the client to evaluate various service providers and to make a decision, thus helping faster adoption of Cloud.

This study has relied extensively on a mix of primary and secondary research. Using a pre-designed questionnaire, information has been gathered from SME clients on their expectations for faster adoption of cloud. The most important parameters that emerged out in this study are cost, clarity of terms and conditions, metering and billing accuracy, ease of doing business, grievance redressal mechanism, service response time, understandability of services, transparency, ease of installation, ease of learning and operation of services, availability of services, transparency in billing, financial structure, accuracy of services as per SLA, functionality of features, financial agility, suitability of features, maintainability of services, recoverability of services, reliability of services, strict penal provisions for non compliance by a service provider, governance of SLA, compliance of SLA and comparability of terms and conditions of different service providers. In addition to meeting these expectations, the other most important hindrances for adoption of cloud are indicated as issues with third party technology acquisition and data integration, unclear scheme in pay per use approach, unclear advantages of adoption of Cloud, and issues with interaction with the existing infrastructure.

The study indicates that the most important parameters for increasing adoption of cloud are increasing the level of awareness of advantages of adoption of cloud, monitoring of services offered by cloud service providers, establishing a grievance redressal mechanism for protecting interests of clients, integration with mobile platforms, auditing of services of service provider by independent agency, governance mechanism to monitor services offered by cloud service providers, compliance with local and global regulations, and focused approach to increase reliable telecom network connectivity and power supply availability.

A suggested set of recommendations have been put forth in the conclusive part of the study that could help faster adoption of Cloud by SMEs. For instance, establishing a **governing mechanism** to work as a facilitator, coordinator and monitoring body shall be beneficial for faster adoption of cloud. This mechanism shall work for increasing level of awareness of advantages of Cloud, provide a platform for comparability of performance on quality of service parameters of different cloud service providers, put in place a mechanism to audit the services of service provider by independent agency, establish a grievance redressal mechanism for protecting interests of clients and coordinate with different agencies on various issues such as to increase reliable telecom network connectivity and reliable power supply availability, integration with mobile platforms, third party technology acquisition and data integration. This mechanism shall be instrumental in evolution of regulations and compliance with local and global regulations, provisioning of strict penal provisions for non compliance by a service provider and studying necessary tax subsidies and incentives for innovations and adoption of cloud computing. However, further research is required for setting up such **governing mechanism**.