



# InMage Cloud Optimized Infrastructure

## Scalable, Flexible, Low Overhead Cloud Computing Foundation

- Goes beyond just better resource provisioning in the cloud to support differentiating, solutions-oriented, cloud-based services across recovery, administration, and production off-load use cases
- Leverages cloudbursting to bring applications into the mix of cloud-based services in a way that no other infrastructure vendor can
- A simple deployment model which touches client-side production servers just once yet enables a broad range of tiered services
- A unique set of next generation recovery technologies managed through a single pane of glass only available through InMage

In the past, most information technology (IT) organizations built their own in-house infrastructures, typically oversized to accommodate infrequent or seasonal resource usage spikes. Because peak usage often varied significantly from average usage, IT infrastructures often exhibited low utilization for much of the time. Cloud computing can offer a flexible way to cost-effectively accommodate short term spikes in resource utilization while shifting to a “pay as you go” model that lowers in-house infrastructure costs and hits operational not capital budgets.

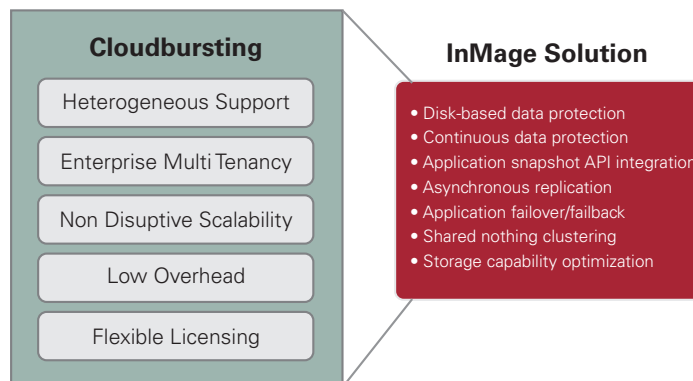
Unfortunately, most cloud computing infrastructures have been focused on resource provisioning rather than solutions-oriented services. The increasing maturity of server virtualization technology has enabled a new option, called “cloudbursting”; that makes it easy to provision application-ready platforms on demand within the cloud. However, moving application services into and out of the cloud has so far not been easy. Cloudbursting is the rapid, on-demand provisioning/de-provisioning of cloud-based virtual servers pre-configured with desired CPU, memory, storage, and operating system resources.

### Enter InMage Cloud Optimized Infrastructure

InMage leverages cloudbursting to bring applications into the mix of cloud-based services

InMage leverages next generation recovery technologies, including disk-based recovery, continuous data protection (CDP), application snapshot API integration, asynchronous replication, application failover/failback, shared nothing clustering, and storage capacity and WAN optimization, to provide a “cloud optimized infrastructure” for cloud and managed service providers that enables a broad set of higher value, solutions-oriented services that leverage cloudbursting. All these technologies

are managed together as a single infrastructure solution through an enterprise-class, multi tenant management interface, called the RX Dashboard, which can manage literally thousands of remote servers through a single pane of glass.



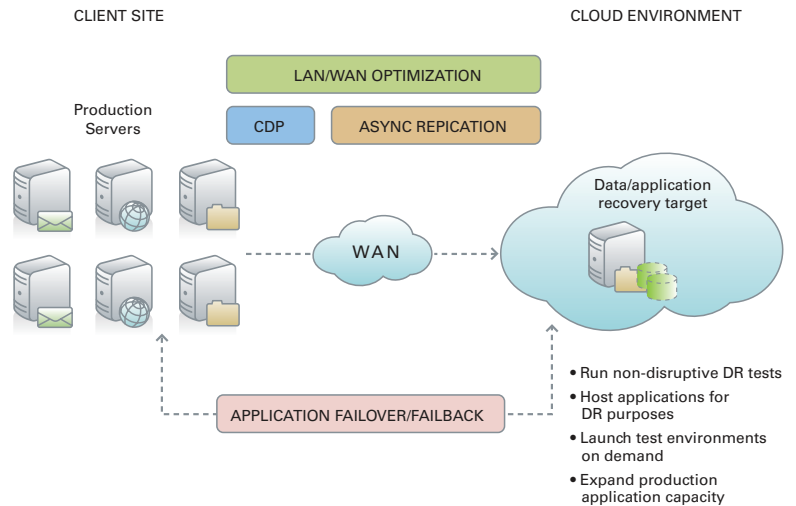
**Figure 1.** InMage’s Cloud Optimized Infrastructure is supported by key next generation recovery technologies and sets a new, higher bar for cloud infrastructure capabilities that provides benefits to both end users and cloud providers.

InMage defines “cloud optimized infrastructure” as follows:

- **Flexible licensing** which supports the elastic expansion/contraction of cloud-based services and accommodates the billing implications
- **Low overhead** in deployment and use across server, network, and storage resources, making it a great fit for virtual machine environments that are a key supporting technology in cloud-based computing
- **Non-disruptive scalability** which accommodates the need for server, storage and other infrastructure growth on both the end user and cloud provider sides without impacting client-side production servers
- **Enterprise multi tenancy** that provides for the secure delivery of reliable services to multiple customers with a scalable management model
- **Broad heterogeneous support** that maximizes cloud provider market opportunities by covering a wide range of server, storage, and application environments found in customer settings

## New Use Cases Broaden the Market Appeal of Cloud Services

InMage’s cloud optimized infrastructure enables new cloud services-based use cases in the areas of recovery, administration, and production. In addition to disaster recovery and business continuity offerings, the use of InMage as a foundation technology allows cloud services customers to bring platform and application resources on-line quickly and easily to build out test harnesses, enabling applications to be tested at scale without capital expenditure. Test beds can also be brought on-line for patch validation, performance tuning, and other maintenance purposes to meet short term needs without impacting client-side production operations in any way. And, in cases where cloud providers are making the necessary investments to meet client-side performance, reliability, and security requirements, they may offer the use of cloudbursting to meet seasonal demand for additional production capacity or easily bring up integrated workspace services like mail, portal, collaboration, and messaging.



**Figure 2.** Cloud and managed service providers leveraging InMage as an infrastructure foundation solution can leverage cloudbursting to offer a set of tiered services based around recovery, administration, and production use cases.

No other supplier to cloud and managed service providers offers the breadth of next generation recovery technologies managed as a single solution. CDP, deployed to capture data from production servers at customer sites, provides a much less disruptive, lower overhead way to collect data than conventional, point-in-time oriented backups or host-based replication products. InMage’s CDP is a game-changing technology that eliminates backup windows, can meet the most stringent recovery point (RPO) and recovery time objectives (RTO), and interfaces with application snapshot APIs to provide rapid, reliable application recovery on (and/or migration to) target virtual servers in the cloud.

InMage’s block-based asynchronous replication is used to move data to and from cloud locations over IP networks without impacting production operations, while our integrated WAN optimization technologies make the most efficient use of available bandwidth. Application-aware recovery solutions leverage shared nothing clustering to provide flexible application service migration options, and InMage’s productionized recovery solutions cover the key enterprise application environments that most providers will encounter, including Microsoft Exchange, SQL, and SharePoint, as well as Oracle, MySQL, BlackBerry Enterprise Server, SAP, and any Windows, Linux, or Unix file systems.

Another unique InMage technology is the InMage Analyzer. This tool allows providers to accurately gauge deployment requirements using quantitative data from prospects’ actual environments so that there are no surprises when it comes to configurations, performance, and cost.

## InMage: A Differentiating Infrastructure Foundation

InMage’s Cloud Optimized Infrastructure solutions open up new opportunities for providers to differentiate themselves against their competition.

InMage’s Cloud Optimized Infrastructure solutions open up new opportunities for providers to differentiate themselves against their competition while at the same time offering new “IT elasticity” options to end user customers as cloud-based services. By bringing application services into the mix through the use of cloudbursting that is easily accessible, InMage allows providers to go far beyond just provisioning resources to enable new use cases across recovery, administrative, and production off-load scenarios.