IBMManaged DevOpsOffering

Introduction

IBM Managed DevOpsdeliversIBM software products in a managed virtual private cloud environment.Customers access their IBM software products through a secure site-to-site virtual private network connection from their own internal networks. The IBM products available within this service include the Collaborative Lifecycle Management suite, System Architect, Design Manager, Asset Manager, Performance Test server, Test Virtualization Server, and others.

The IBM Managed Service team deploys the IBM DevOps products into an IBM SoftLayer data center, and delivers ongoing infrastructure, application, and support service remotely. This includes the IBM SoftLayerFedRAMP certified ATO data centers.The service team monitors the system for 24x7 availability and providesall infrastructure-related support, including patch installation and optional upgrades on the customer's schedule.

Each customer account has a Client Success Manager available to ensure the successful deployment of the solution. This role coordinates the successful relationship between IBM, the client, and any business partner providers.

Service Benefits

- Reduces the upfront capital costs typically associated with Information Technology (IT) infrastructure investments.

- Relieves customer responsibility for the day-to-day operation and maintenance of IBM software products.

- IBM provides on-going expertise to assist in deriving the most value from their IBM software deployment.

- IBM assigns a Client Success Manager for the duration of the service toensure overall customer satisfaction, drive adoption of the service, and provide best practice guidance.

- IBM data center facilities are certified against SAS-70 Type II and SSAE 16 Type II and have built-in high availability, redundancy and failover supporting infrastructure.

- Upon contract expiration, customers can maintain their project data on the existing SoftLayer infrastructure. The Managed DevOps service would not be maintained and the Customer will work directly with IBM SoftLayer for hosting.

Service Feature Highlights

Installation and product configuration

IBM provisions the infrastructure for the service, including network, hardware, and software that is necessary to support the IBM software products. IBM monitors the application and infrastructure 24 x 7 using industry-leading system monitors for availability.

Hosting Services

Alerts and Notifications
The IBM Managed DevOpsoffering provides proactive customer communications about application changes, planned maintenance and outages.

Advanced Reporting
IBM provides standard reports outlining the availability and usage of the production system.

Project Entitlement
Project entitlements are unlimited, meaning there is no limitation on the number of users that can be supported simultaneously in the hosted environment.

IBM Managed DevOps Customer Support
Customers receive two levels of support: There is product support and managed services support.

Customers receive product-level technical support as specified in their software and services agreement. Customers must have a valid software product maintenance contract in order to receive any kind of support. IBM staffs and maintains a 24 x 7 x 365 service desk which is the single point of contact for all issues related to the infrastructure and support for IBM software products.

IBM provides ongoing managed services support for the Customer throughout the duration of the agreement. Customers may contact IBM via telephone or web 24 hours a day, 7 days a week, 365 days a year. The severity of the request will determine the response and resolution times for each request.

User Authentication

The customer can map existing LDAP accounts to user logins for IBM solution tools by mapping the solution tool instances to the customer's localized LDAP server, or by using an LDAP server provided by theManaged DevOps service.

Security and Compliance

IBM Managed DevOpsprovides secure, site-to-site connectionsover a VPN, ensuring that the machines are at least managed to the IBM security standards andwill work with customers to ensure their specific security and compliance requirements are met.

Availability Service Level Objective

Managed DevOpsfor IBM software products is designed for an availability service level objective of 99.9%, starting on the Go Live Date. "The Go Live Date" is the date at which point the customer's end-users access the production environment with production data.

The hosting and Managed DevOpsavailability service level objective shall not apply to the following kinds of performance issues caused by or resulting from:

- Overall Internet congestion, slowdown, or unavailability.
- Unavailability of generic Internet services (such as DNS Servers) due to virus or hacker attacks, and so on.
- *Force majeure* events as described in the Terms.
- Actions or inactions of the customer (unless undertaken at the express direction of IBM) or third parties beyond the control of IBM.
- The customer's equipment or third-party computer hardware, software, or network infrastructure not within the sole control of IBM.
- Scheduled Cloud Infrastructure maintenance.
- Downtime to implement major version upgrades.

Disaster Recovery

As part of IBM's approach to risk management, IBM has developed processes and procedures to recover from potential disaster scenarios.

To provide for the unlikely scenario of a total data center loss, IBM can replicate customer data for storage in our Disaster Recovery Center. IBM customers can additionally opt for warm or hot Disaster Recovery packages that provide for industry-best RTO (Recovery Time Objective) and RPO (Recovery Point Objective).

IBM data centers are designed and tested for the wide range of disaster scenarios including fire, loss of Internet connectivity, physical security breaches, and power outages.

It is our intent to rebuild a customer's environment as fast as possible following any disaster event. The fastest turnaround time we can achieve for an individual of a pair of application/DB servers is 24 hours. However, if in the case of a site-wide catastrophe on a larger scale (such as a longer-than-expected act of nature), or if our network environment is affected, we will do a **best effort** attempt to bring the

customer back on line as fast as possible. If you require redundant or high availability resources these would be assessed as an add-on cost.

Data Backup & Retention Policy

Nightly backups are taken M-F (all incremental) with synthetic full backups taken on Saturdays and Sundays. Each environment includes a minimum of 5 recovery points with 1 recovery point daily. Additional restore points and additional backup targets (onsite or offsite) are available at an additional fee. As an IBM standard, all disk-based backups are stored off the production arrays and are not stored on the same SAN as the primary data storage. All file systems run on redundant virtualized Storage Area Networks.

Beyond the rolling backup and retention period, IBM can tailor an archival schedule to meet customer needs,whether monthly, quarterly, or annually. These packages can include off-site tape storage, or delivery of encrypted data to secure third party storage archival vaults.

Capacity and Performance Management

All tiers of the hosting infrastructure are proactively monitored for capacity and performance. Our architecture allows for additional capacity to applications, databases, and storage which is increased as required by the utilization of the products.

Change Management

IBM follows a set of standardized methods and procedures for efficient and prompt handling of all changes to the infrastructure and application, in order to enable beneficial changes to be made, with minimum disruption to the service.

Software Upgrades

Product upgrades, patches, and fixes are part of the service when an upgrade version is made generally available. The Managed DevOpsservices team conducts, at most, two major upgrades per year. We provide a test environment to the customer for evaluation before upgrading the production environment. If the customer requests that IBM perform this validation, an additional cost may be incurred.

IBM Responsibilities

Client Success Manager

- Oversees Customer's on-boarding process
- Serves as Customer's liaison to IBM
- Serves as an escalation point-of-contact between the Customer and IBM
- Coordinates with the Customer during required and periodic system maintenance

Applications Team

- Primary point of contact for all service requests, which is a request by the Customer for all services such as support and maintenance services or issues regarding availability of the infrastructure technical support
- Provides IBM software product support and Cloud infrastructure support

Infrastructure Team

- Monitors the hosted systems for availability
- Performs all system related tasks such as backups, archiving, and restoration of the instances according to IBM's standard practices and schedule

Customer Responsibilities

Business Owner

- Owns the business relationship between the Customer and IBM
- Owns the business relationship with the range of departments and organizations using IBM software products and services
- Manages contract issues

Project Manager

- Coordinates Customer resources as necessary
- Serves as the point-of-contact between the Customer and IBM
- Drives communication from the Customer side
- Serves as the point of escalation for issue resolution and service related issues

Software Product Owner (or Product Administrator)

- Serves as the 1st point of contact for product end users for problem isolation
- Performs IBM software product user and project administration
- Works with IBM to escalate support issues for resolution
- Coordinates end user testing as required
- Leads ongoing solutions validation
- Responsible for training end-user community
- Coordinates all infrastructure related activities at the Customer site

Subject Matter Expert (IBM Software Product End Users)

- Leverages the product functionality designed by the IBM software product administrators
- Provides periodic feedback to the IBM software product administrator for potential areas of improvement
- Responsible for end user testing when needed

Base vs. Add-On Feature Comparison

Feature	Base	Add-On
Security Compliance		
IPSEC site-to-site VPN connection	✓	
Use of customer LDAP for CLM user authentication (if applicable)	✓	
Choice of data center	✓	
Dedicated IT infrastructure		✓
FISMA compliance		✓
CLM hosted image set-up		
Solution deployment architecture to address customer needs	✓	
Creation & Provisioning of CLM image	✓	
Lifecycle customization (CLM)		✓
Specific integrations with customer dev/test tools		✓
Setup services		
IES Network connectivity - Transparent server access	✓	
Use of Dedicated Managed Service Provider LDAP for user authentication (if applicable)	✓	
User on-boarding assistance	✓	
Project startup assistance	✓	
Training and Mentoring		✓
User data migration (from CLM, from DevOps services)		✓
License Key Management (RD&T only)		
Connect to customer license server	✓	
Host license key server		✓
Infrastructure and hosted image support		
24x5 support	✓	
Availability SLO - 99.9%	✓	
Monitoring services and gathering metrics for capacity planning	✓	
Disaster Recovery	✓	
Patch and upgrade installation	✓	
Daily back-up	✓	
Project and User administration	✓	

Feature	Base	Add-On
24x7 support	Severity 1 outages	✓
Client Success Management		
Client Success Management	✓	
Dedicated Client Success Management		✓

Assumptions and Dependencies

- To import Customer project data, it must be available to the Managed DevOpsteam at the appropriate implementation step, and in the IBM designated format, as defined in the agreed project plan.

- All changes to project scope require written approval.

- Customer is responsible for maintaining the list of authorized users who may access the system, including creation of usernames and passwords and keeping the lists current, accurate and confidential according to Customer's internal policies.

- Customer performs validation activities related to implementation and external application setup during the service initiation and on-going phases. This includes validation after service packs or emergency product patches have been applied to each of the Customer's instances according to the change schedule.

- All services are performed remotely unless other arrangements are made.

- Customer agrees to respond in a timely fashion on requests for Customer business and technical data, documentation, and other information or assistance needed to provide service for IBM software products. Customer is responsible for the accuracy, and the completeness of all information it provides.

- Customer is responsible for all data cleansing and data accuracy as part of any import. These activities are to be completed in a manner consistent with the project timeline. IBM is not responsible for the accuracy of the data provided in the import.

- Customers who plan to do their own configuration must have qualified personnel who have been through the IBM software product training for project planning and customization.