



The Advantages of V3locity Managed Services

White Paper

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Introduction

Vitech's market-leading, cloud-native, V3locity platform is well known in its target markets. Its transformative suite of complementary business, enterprise, and digital applications have established it as an elite solution among its competitors. But V3locity is also lauded by clients and industry experts for its managed services capabilities, which increase agility, efficiency, resilience, and information security for benefits administration. Using the public cloud for delivering benefits administration software has become a growing trend, but it is important to understand the advantages of this approach. Through V3locity Managed Services, Vitech takes full responsibility of managing the software and related infrastructure to allow our clients to focus their time and resources on managing and improving their businesses.

1. V3locity Managed Services: An Integrated Platform Approach

Vitech has optimized V3locity, our benefits administration software, to run in Amazon's AWS cloud using AWS virtual servers, databases, storage, and other infrastructure. V3locity is a complete managed service, so that our clients can rely on Vitech to manage the software directly for ongoing upgrades, troubleshooting, and overall production operations. Behind the scenes, AWS provides innovative, robust infrastructure functions, including elastic compute capacity scaling, response time optimization, load balancing, automated disaster recovery, multilayered information security, and other value-added services. This integrated, optimized, platform approach results in newfound business agility and other important capabilities unavailable in on-premise, co-location, private cloud, or other deployment models (see Figure 1: V3locity Managed Services Increase Business Agility).

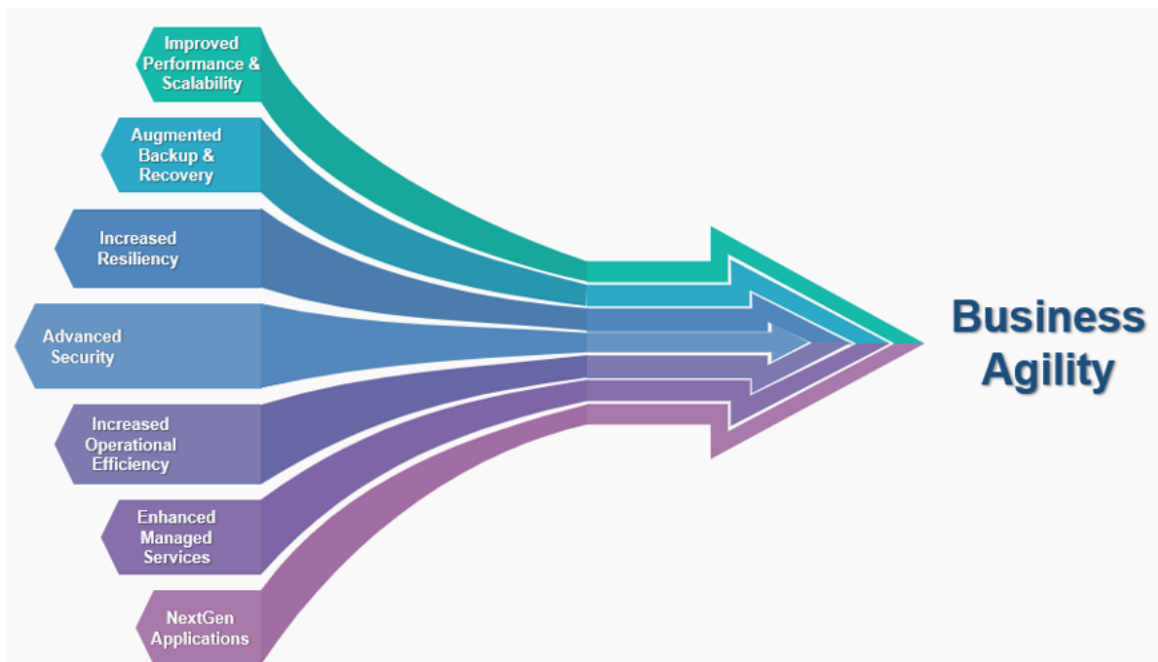


Figure 1: V3locity Managed Services Increase Business Agility

2. Simplify and Streamline Ongoing Upgrades and Production Support

One of the main benefits of upgrade as a service is that it enables our clients to take advantage of the rapid pace of innovation, which empowers them to deliver differentiated value to their own customers and improve overall servicing. Vitech has also made it an important priority to make the upgrade process as easy as possible for our clients. V3locity Managed Services allows our clients to receive upgrades of the V3locity software, releases, and security patches practically seamlessly. Often, our clients' primary involvement with upgrades needs to only be final user acceptance testing. With direct access to the software in the AWS public cloud, Vitech owns all troubleshooting and production support requirements for the V3locity software and relieves our clients of any oversight (see Figure 2, V3locity's Upgrade as a Service Parallel Environment).

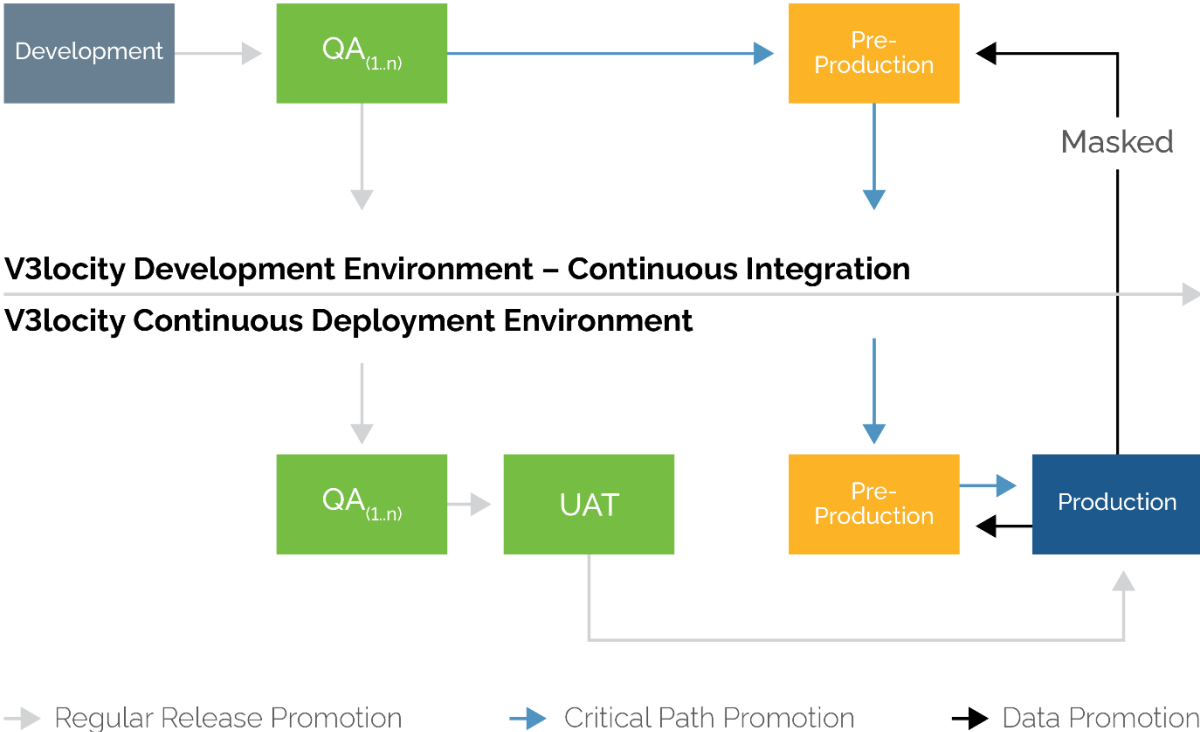


Figure 2: V3locity's Upgrade as a Service Parallel Environment

3. Improve Performance and Scalability

On-premise licensing, provisioning, installing, and updating hardware and software often results in idle infrastructure, higher-than-necessary fixed costs, and wasted time for clients that choose to manage their benefits administration software behind their own firewall. V3locity Managed Services makes AWS' state-of-the-art data centers available to our clients via the Internet, relieves them of managing their own data centers, and provides the following benefits:

- The AWS elastic scaling continually monitors server and storage virtual instances to ensure desired performance levels (see Table 1: V3locity Performance Service Levels).
- The elastic scaling avoids the typical high costs from underutilized infrastructure, where the on-premise infrastructure can support usage spikes, but then not scale down when usage normalizes.
- Highly optimized database software in the AWS public cloud matches or exceeds the performance of on-premise database installations and storage growth is automated and optimized over time.
- Advanced caching capabilities increase browser response times and overall application usability.

Table 1: V3locity Performance Service Levels

Application performance	<= 3 seconds for 90% of all normal transactions
Uptime	99.75% with standard exclusions
Recovery point objective (RPO)*	15 minutes
Recovery time objective (RTO) †	30 minutes (within region)

*RPO -- Computes the amount of data that could be lost or damaged in the event of a disaster.
†RTO -- How much time an application can be down without causing significant damage to an organization.

4. Take a Modern Approach to Resiliency and Backup

AWS takes a very pragmatic approach to resiliency, by assuming that failure will inevitably happen and maintaining a sophisticated set of capabilities to address malfunctions proactively. Management of disaster recovery and overall resiliency becomes the responsibility of Vitech and V3locity Managed Services through our partnership with AWS. With V3locity Managed Services, our clients gain access to:

- A highly available document repository
- A multi-availability zone architecture and deployment model
- Automatic death detection and restart of failed infrastructure components
- Customized data and document retention policies
- Real-time database and document replication with automatic failover
- A highly available domain name system (DNS) with advanced routing policies

The V3locity platform instances reside in a geographic region in AWS. The region consists of multiple, integrated Availability Zones (AZs). An AZ is one or more discrete data centers with redundant power, networking, and connectivity in an AWS Region. For example, in the case of a failure, the database performs an automatic failover to the standby, so that database operations resume as soon as the failover is complete which, in most cases, is only a few seconds.


5. Access Advanced, Continuously Updated Information Security Capabilities

As an organization that provides software to process sensitive data including PII (Personally Identifiable Information) and PHI (Personal Health Information), Vitech has developed our software and instituted practices (see Figure 3: V3locity Managed Services' Organizational Practices) based on industry-standard security and data privacy constructs. V3locity Managed Services includes two fundamental security concepts: users and roles. V3locity supports role-based security for users. Authorization can be configured for any V3locity asset (forms, documents, portals, menus, fields) either at the role level or the user level. V3locity offers native identity management and authentication, including multi-factor authentication. V3locity data is encrypted in transit and at rest. The AWS key management service (KMS) is used to create and manage cryptographic keys while AWS Secrets Manager is used to rotate, retrieve, and manage the secrets, such as log-In credentials, needed to access the V3locity Managed Services.



Figure 3: V3locity Managed Services' Organizational Practices

Up until a few years ago, information security concerns about public cloud deployments acted as a primary driver for on-premise, behind-the-firewall implementations. Now the opposite is true. Most clients appreciate the sophistication of AWS and its leading public cloud



competitors to maintain infrastructure-level information security and prevent cyberattacks. AWS shares the public cloud computing capacity across its entire client base to provide considerable scale/unit cost advantages, allowing them to invest in information security and other advanced capabilities that even the largest companies find difficult to match.

6. Increase Operational Efficiency

Double-digit percentage cost savings result from continuous technology upgrades instead of more disruptive, big-bang upgrades every three to seven years. Development, test, and disaster recovery environments are only used and paid for when needed, reducing idle capacity and fixed costs. Converting capital costs (large capital expenditures every three to seven years) to yearly operating costs makes it easier to match IT costs to revenues and to identify spending waste.

As a result, client IT staff members focus more of their time on activities that can grow their business/organization. Productivity doubles as the same number of staff members can, on average, manage double the amount of computing and storage capacity. A more automated approach to development operations, integration, and testing increases the productivity of the development staff, with a 4x increase, on average, for code deployment frequency.



7. Enjoy Unique Cloud-Native Types of Advantages

V3locity's REST (representational state transfer) API framework and microservices accelerate internal and external integrations, which used to often be a major bottleneck when introducing new types of capabilities. V3locity's out-of-the-box product accelerator templates expedite the speed-to-market for new capabilities.

Having customer, product, operational, and other data in one data lake that is optimized to integrate easily with other data sources makes it easier for other tasks, like advanced fraud detection. More advanced fraud detection has become an important financial services company use case for the adoption of the public cloud. Other use cases have included a better understanding of consumer/member behavior (e.g., why they did/did not choose certain products or services) and much faster pricing/actuarial calculations.



Conclusion

V3locity Managed Services allows clients to focus their time and resources on their businesses, rather than building and maintaining data centers. Increased agility, efficiency, resilience, and information security has accelerated the adoption of public cloud deployments and associated managed services for benefits administration software. Vitech welcomes the opportunity to understand your business and technology priorities and challenges to determine the correct deployment model for your benefits administration software.

ABOUT VITECH

Vitech is a global provider of cloud-native benefits and investment administration software. We help our Group Insurance, Pension Fund Administration, and Investment clients expand their offerings and capabilities, streamline their operations, gain analytical insights, and transform their engagement models. Vitech employs over 1,400 professionals serving over 100 of the world's most successful insurance, retirement and investment organizations. Our market-leading platform V3locity, is a transformative suite of complementary applications that offers full life cycle business functionality and robust enterprise capabilities. Vitech has been recognized by Celent as a three-time XCelent award winner. For more information, please visit our website at www.vitechinc.com.