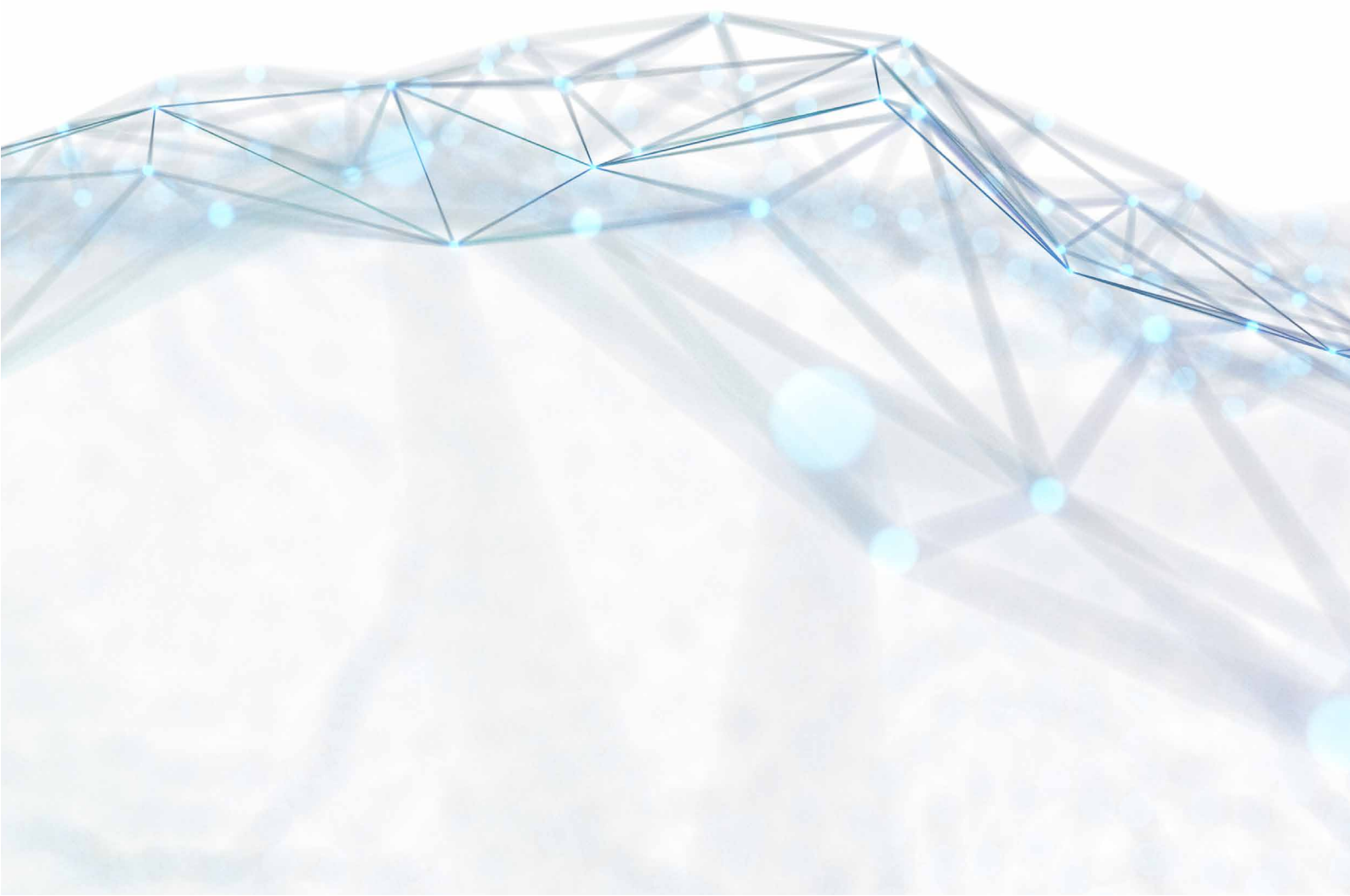# DIMENSION LOADTEST

Take The Stress Out Of Stress Testing

" **We would not have gone live on EnterpriseOne 9.2 (migrating from World Software) with the level of confidence that we had without using Dimension LoadTest.** **"**

Kevin Criswell, Application Services Manager, MYR Group Inc.

WHY DO WE TEST?

There is an age-old comparison of quality versus quantity that resonates within the world of testing. Of course, when it comes to testing it's not a case of quality or quantity, but both.

Quality of output is assessed using functional testing. IE: if input = A+B, output = C. For ERP software like JD Edwards EnterpriseOne it's important that every workflow delivers a predictable and consistent result. When updates or code changes are applied, functional testing plays a key role in ensuring the continued quality of output, and that all dependent workflows continue to work as expected.

However, functional testing alone is not enough to test the resilience and predictability of your system. Running a sequence of simulated functional tests is not an accurate reflection of the real-world demands that are likely to be placed on your systems. This is where quantity comes in.

Enterprise software applications, and the platforms or infrastructure used to deliver them, need to be able to deliver the same reliable outcome to thousands of concurrent users. The only way to establish this reliability is to simulate load and test with different loads.

The failure of customer-facing systems can be embarrassing – we've all seen the headlines detailing website crashes during periods of unexpectedly high demand, or customer service applications stretched to breaking point.

Of course, the connected nature of most organizations means that even the failure of a seemingly insignificant internal system is likely to impact on the customer experience.

Remember, testing is not an activity, it's a process. It is an important part of every software project; development projects, implementation projects, upgrade projects and even code-current change event projects. At its heart, change involves risk and testing is all about mitigating risk.

LOAD TESTING BEST PRACTICE

When dealing with ERP and other business-critical software applications, a lot of time and effort is spent on functional testing to ensure that systems perform as expected; that a given input results in a given output. However, functional testing (i.e. unit, system and integration testing) alone is not enough to test the resilience and predictability of your system. Simply running a sequence of functional tests is not an accurate reflection of the real-world demands that are likely to be placed upon your systems.

During exceptionally busy periods, whole systems and applications or jobs do not always perform as expected. That's why testing with load is so important, whether you are volume testing, performance testing, network testing, or even stress testing.

HOW DO WE TEST?

Traditionally, load testing has been perceived by many JDE users as an activity that only needs to be carried out as part of major release upgrades or brand new 'green field' implementations. However, the complex nature of many organizations and industries means that even the smallest change can result in a failure, which can have a huge impact on the system.
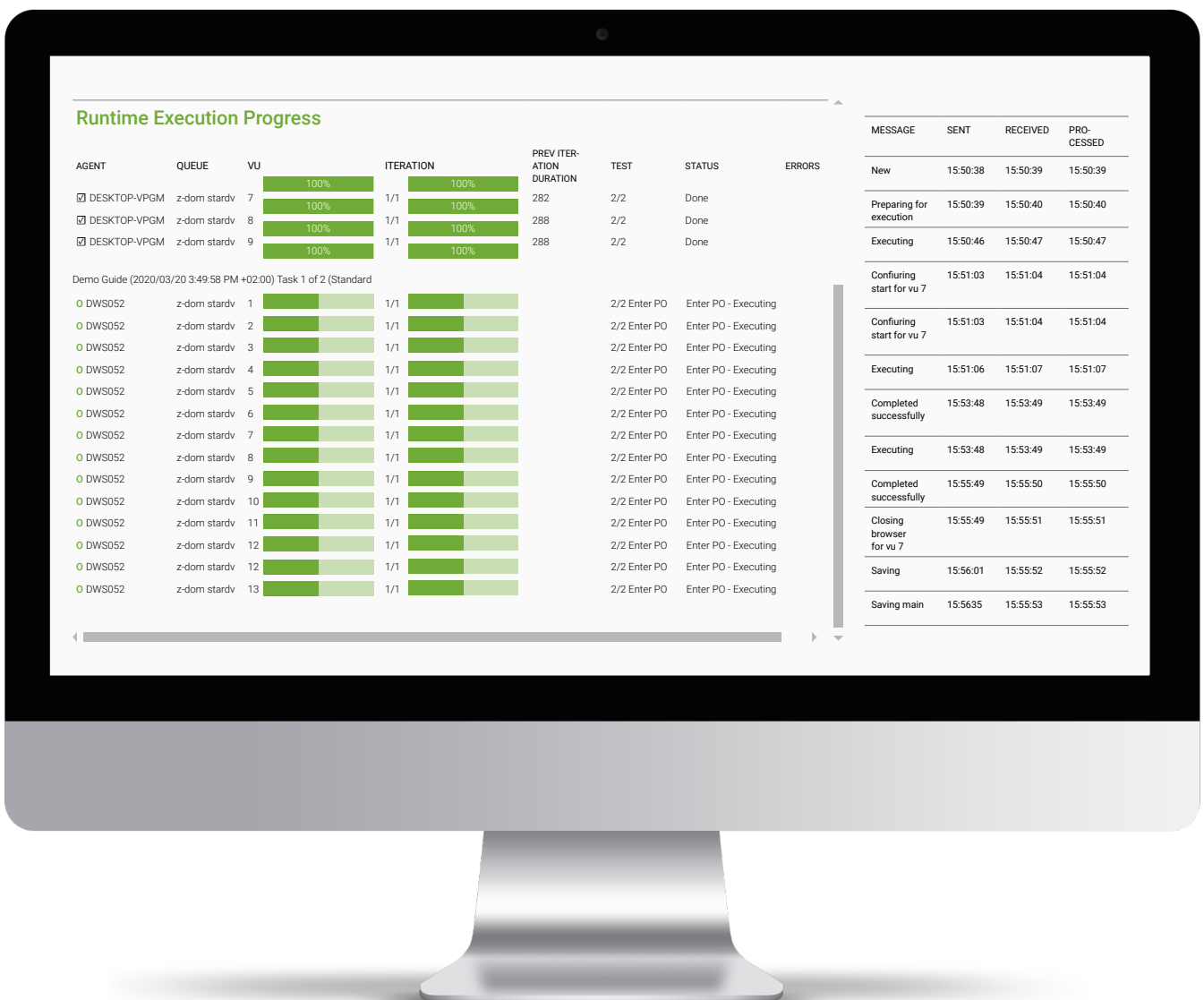
Remember, testing is not an activity, it's a process. Below are some examples of where LoadTest can support you:

- Implementing major platform changes involving your operating systems or databases

- Applying hardware changes, swaps and additions within your JD Edwards ecosystem

- Simulating user load on specific JD Edwards applications to aid troubleshooting

- Performing benchmark testing on JD Edwards workloads migrated to cloud infrastructure

- Validating disaster recovery and business continuity planning; simulating load on restored systems to ensure optimal performance before switch-over

- Assisting with user community growth; simulating the user load expected from on-boarding new subsidiaries to your existing JD Edwards system

- Benchmark testing satellite offices; aiding performance-related troubleshooting and the delivery of a consistent level of service to key stakeholders

TAKE THE STRESS OUT OF STRESS TESTING

Dimension LoadTest is a flexible and powerful product that allows users to simulate the impact of load on their JDE E1 applications and on any supporting technical infrastructure. It can be used to test instances of JDE E1 that reside on-premise or in the cloud and allows customers to easily simulate load and do the work of hundreds of users in a fraction of the time, reducing overall test resource by more than 95%!

Dimension LoadTest allows users to go live with confidence; providing a greater level of quality assurance and risk management.

Runtime Execution Progress

AGENT	QUEUE	VU	ITERATION		PREV ITER-ATION DURATION	TEST	STATUS	ERRORS
☑ DESKTOP-VPGM	z-dom stardv	7	100% / 1/1	100%	282	2/2	Done	
☑ DESKTOP-VPGM	z-dom stardv	8	100% / 1/1	100%	288	2/2	Done	
☑ DESKTOP-VPGM	z-dom stardv	9	100% / 1/1	100%	288	2/2	Done	

Demo Guide (2020/03/20 3:49:58 PM +02:00) Task 1 of 2 (Standard

○ DWS052	z-dom stardv	1	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	2	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	3	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	4	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	5	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	6	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	7	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	8	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	9	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	10	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	11	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	12	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	12	1/1		2/2 Enter PO	Enter PO - Executing	
○ DWS052	z-dom stardv	13	1/1		2/2 Enter PO	Enter PO - Executing	

MESSAGE	SENT	RECEIVED	PRO-CESSED
New	15:50:38	15:50:39	15:50:39
Preparing for execution	15:50:39	15:50:40	15:50:40
Executing	15:50:46	15:50:47	15:50:47
Confiuring start for vu 7	15:51:03	15:51:04	15:51:04
Confiuring start for vu 7	15:51:03	15:51:04	15:51:04
Executing	15:51:06	15:51:07	15:51:07
Completed successfully	15:53:48	15:53:49	15:53:49
Executing	15:53:48	15:53:49	15:53:49
Completed successfully	15:55:49	15:55:50	15:55:50
Closing browser for vu 7	15:55:49	15:55:51	15:55:51
Saving	15:56:01	15:55:52	15:55:52
Saving main	15:5635	15:55:53	15:55:53

This is achieved by:

- Working natively with JD Edwards EnterpriseOne

- Utilizing a very small footprint which can be installed in minutes

- Simulating large numbers of virtual users, with variable profiles

- Supporting cloud-based workloads, anywhere in the world

- Featuring easy-to-use "no-code" script building functionality

- Replicating a wide range of end-to-end business processes

- Employing a flexible SaaS model, based on virtual user days

- Providing in-depth analytics at the test-script "Action" level to enable performance reviews

| Define | Execute | Analyze | Repeat |
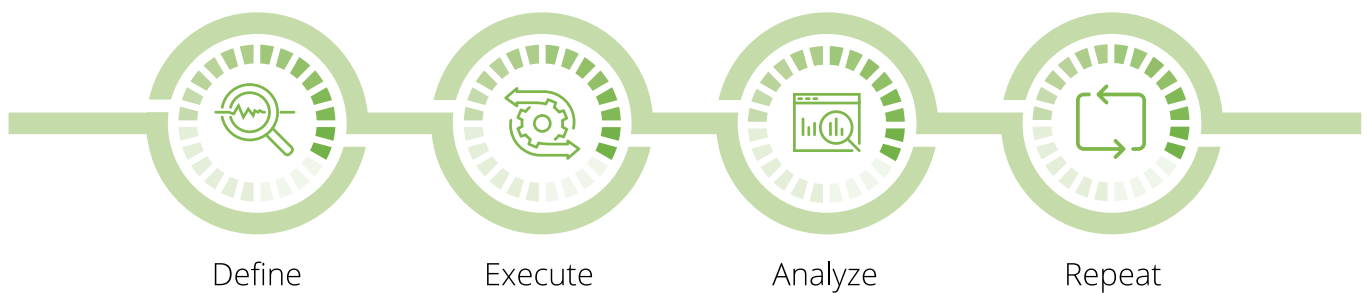
"Do the work of hundreds of users in a fraction of the time."

GET TESTING QUICKER

Unlike other load testing tools, Dimension LoadTest allows users to take advantage of their functional testing assets. Pulling in information directly from Dimension SwifTest™, it's easy to create test queues that can run on separate agents. Testing different functional areas concurrently, without the need for tedious setup, ensures users can start testing faster.

LoadTest definitions may contain multiple agents, each handling a number of virtual users, each with their own functional processes, that can be set to run as many instances as required. This allows agents to be individually sped up or slowed down, allowing users to test actions, duration's and user-specific variables. (E.g. it's possible to reflect the (slower) behavior of new starters and/or the behavior of experienced users that interact differently with these systems).

The result is a more realistic and accurate load test. Users can introduce real-world workflows, benchmark, and test a wide spectrum of scenarios. From 'the worst day ever' to specific business-critical processes, LoadTest provides a platform for quick, accurate, easily repeatable testing that no longer relies on large groups of people or manual tasks.

> " **Reduce overall testing resource by 95%.** "

Execute a Load Test

STATUS

Generating Load Test

Confirming if the Load Test has agents.

Checking if the load Test has any deleted agents.

Checking if the load Test has any deleted agents pool

Confirming if the agents are online.

saving generated data.

Sending messages to Agents.

SIMULATING AND EXECUTING YOUR LOAD TEST

DWS designed Dimension LoadTest such that any experienced System Administrator/CNC should be able to scope, schedule, action and monitor load tests.

Dimension LoadTest is designed to provide users with the type and size of load they need, where and when they need it. Agents can be rapidly spun up on physical or virtual machines, to test internal load, as well as in multiple locations around the world to test external load.

Load Tests
Enables experienced systems adminstrators and CNCs to define the different loads as required

Agents
Agents can execute any combination of work across your environments, testing different functional areas concurrently

DWS DIMENSION LOADTEST - 2019 2.1

User   Load Tests   Execution   Agents   Update

Execution Results

Demo Guide (2020/03/20 3:49:58 PM)
DIM-1342
DIM-1341 (2020/03/15 4:02:14 PM)
DIM-1341 (2020/03/15 2:51:10 PM)
001 - Create Load (2/28/2020 11:08:14
001 - Create Load (2/28/2020 11:08:14
001 - Create Load (2/27/2020 11:08:14
jvw 2020 1.1 new actions (2020/02/27
jvw 2020 1.1 new actions (2020/02/27
jvw 2020 1.1 new actions (2020/02/27
jvw 2020 1.1 new actions (2020/02/27
jvw 2020 1.1 new actions (2020/02/27
jvw 2020 1.1 new actions (2020/02/27
jvw 2020 1.1 new actions (2020/02/27

Summary by Agent Summary by Test Queue Execution Detail

AGENT	TEST QUEUE	VIRTUAL USERS	ITERATIONS	TOTAL TESTS	SUCCESSFUL TESTS	FAILED TESTS
☑ DWS021	z-dom stardv po : ohs123lina:7777	2	20	80	80	0
☑ DWS004	z-dom stardv po : ohs123lina:7777	2	20	80	80	0
☑ DWS045	z-dom stardv po : ohs123lina:7777	2	20	80	80	0

Repeatable
Tasks can be run and repeated at any time, allowing you to benchmark and improve

Test Queues
Business analysts and super users create tests queues to define what work is being performed by the virtual users

Insights
Status updates can be accessed via an intuitive user interface while tests are being executed, delivering powerful insights

Users can define specific load to run over specific functional areas, such as time entry or purchase order requisition, or combine functional areas within a single load test for the ultimate 'peak time' test. One of the core benefits of Dimension LoadTest is that it automates and standardizes load, creating identical test conditions, every time.

PREVENTION IS BETTER THAN CURE

Any change event has the potential to have a negative impact on operations. We test to identify potential points of failure and to mitigate risk. Once functional testing is complete, load testing should be performed as part of each and every change-event project.

Dimension LoadTest allows users to iteratively refine their tests before actioning them fully. Once the scenario is set up as required, users can test, set a baseline, adjust the settings and test again.
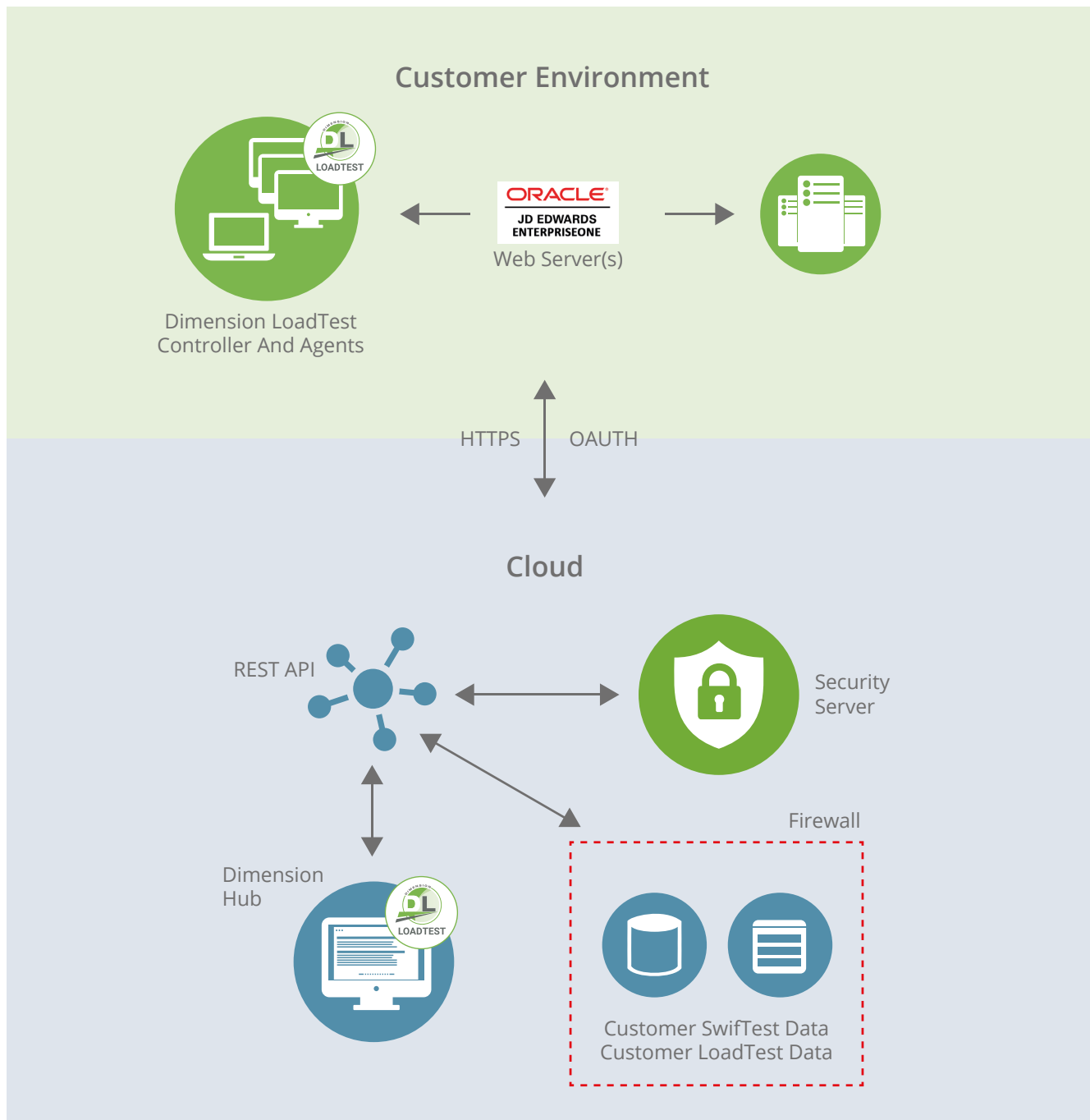

Unlike other load testing tools, Dimension LoadTest allows analysts to drill-down into the test data to examine individual actions. Data can be downloaded and manipulated to identify bottlenecks; it can also be used with third party database, network, and CPU monitoring products to monitor the effect(s) of the load in real-time, allowing you to identify individual points of potential failure.

Dimension LoadTest
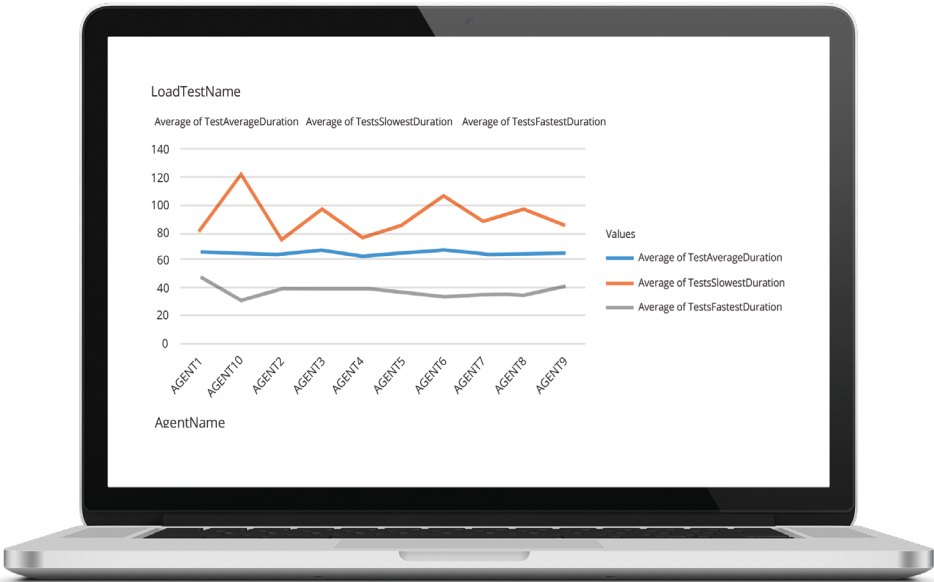
Our extensive knowledge of the JD Edwards EnterpriseOne environment has also allowed us the ability to build in additional functionality, providing JDE-specific insights such as: Identifying how long it took for your users to login to JDE, or the longest time frame for a page to process following a user pressing the 'OK' button. This can be combined with or separated from the wider test results analysis.

Executions Results

Demo Guide (2020/03/20 3:49:58 PM	Summary by Agent	Summary by Test Queue	Execution Detail
DIM-1342	Executionst Agents VUs Test Actions Failures Map		
DIM-1341 (2020/03/20 3:49:58 PM	Load Test Name	Agent	Test Queue
DIM-1342 (2020/03/20 3:49:58 PM	☑ Test 1 (24/02/2020)	☑ DWS021	z-dom stardv po : ohs1213lina:7777
001-Create Load (2020/03/20 3:49		☑ DWS004	z-dom stardv po : ohs1213lina:777
001-Create Load (2020/03/20 3:49		☑ DWS045	z-dom stardv po : ohs1213lina:777
jvw 2020 1.1 new action (2020/02/27			
jvw 2020 1.1 new action (2020/02/27			
jvw 2020 1.1 new action (2020/02/27			
jvw 2020 1.1 new action (2020/02/27			
jvw 2020 1.1 new action (2020/02/27			
jvw 2020 1.1 new action (2020/02/27			
jvw 2020 1.1 new action (2020/02/27			

ARCHITECTURE OVERVIEW

Customer Environment

Dimension LoadTest Controller And Agents

ORACLE JD EDWARDS ENTERPRISEONE
Web Server(s)

HTTPS | OAUTH

Cloud

REST API

Security Server

Firewall

Dimension Hub

Customer SwifTest Data
Customer LoadTest Data

Microsoft Azure

More certifications than any other cloud provider

ISO   CSA cloud security alliance   ITAR   CJIS   HIPAA   IRS

About DWS

DWS is a leading provider of Oracle JD Edwards EnterpriseOne software services and products.

Since 1998, we have been providing development and technical services to organizations looking to customize, integrate, extend, upgrade or support implementations of EnterpriseOne. We also sell EnterpriseOne testing products that leverage our deep domain expertise and help customers run smaller, faster and smarter projects.

DWS serves a global client base using proven methodologies and proprietary DWS Dimension™ tools. Our best-practice approach and eye for detail help us deliver products and services that save time and money and continually drive down your TCO for JD Edwards.

For further information please visit our website, or contact us:

UK: +44 (0) 1494 896 600   US: +1 888 769 3248   ANZ: +64 (0) 9427 9956
sales@dws-global.com   www.dws-global.com

ORACLE | Partner