

Citrix XenApp 7.6

Technical Reference

CIC 2015/CIC 2016

Abstract

This document describes the various client application testing performed in a Citrix XenApp 7.6 environment.

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Contents

[Copyright and Trademark Information 3](#_Toc440289587)

[Introduction 3](#_Toc440289587)

[Understanding application virtualization 4](#_Toc440289589)

[Goals 4](#_Toc440289590)

[Test Environment 5](#_Toc440289591)

[Functional testing 6](#_Toc440289592)

[Load Testing 6](#_Toc440289593)

[Testing methodology 6](#_Toc440289594)

[Load test Results 7](#_Toc440289595)

[Appendix A: Support matrix and configuration notes 8](#_Toc440289596)

[Interaction Screen Recorder Configuration: 8](#_Toc440289597)

[Change Log 9](#_Toc440289598)

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## Introduction

Many Interactive Intelligence customers use client environments virtualized using XenApp from Citrix Systems. With the release of Citrix XenApp 7.6, and the pending end of support for XenApp 6.5, current versions of Interactive’s Customer Interaction Center (CIC) client applications were validated to run on XenApp 7.6, the latest version as of testing.

## Understanding application virtualization

Citrix application virtualization technology isolates applications from the underlying operating system and from other applications to increase compatibility and manageability. As a modern application delivery solution, XenApp virtualizes applications via integrated application streaming and isolation technology. This application virtualization technology enables applications to be streamed from a centralized location into an isolation environment on the target device where they will execute. With XenApp, applications are not installed in the traditional sense. The application files, configuration, and settings are copied to the target device and the application execution at run time is controlled by the application virtualization layer. When executed, the application run time believes that it is interfacing directly with the operating system when, in fact, it is interfacing with a virtualization environment that proxies all requests to the operating system.

## Goals

Our goals for this are fourfold:

1. Confirm the ability of CIC 2015/2016’s client applications to be implemented in a XenApp 7.6 environment
2. Test those applications for the extent of their functionality
3. Perform at least limited scale testing based on the configured environment
4. Support deployment by customers of this style of configuration

This document will provide an overview of the configurations and tests which were performed to fulfill the above listed goals. The information presented herein is not intended to be an exact representation of a customer environment. This reference is solely an additional resource for any engineer considering a conversion or upgrade to using CIC applications on a Citrix XenApp 7.6-based virtual environment.

# Test Environment

#### Overview

For purposes of simplicity, a simplified, basic setup was used for this implementation of Citrix XenApp 7.6. Many production environments will be expected to have a more complex configuration.



Figure 1: Network Diagram

The VDA enables users to connect to desktops and applications. The user applications are installed on this system. It is installed on server or desktop machines within the data center for most delivery methods.

The Controller manages resources, applications, and desktops, and optimize and balance user connections.

The Storefront serves as a gateway for clients, handles user authentication and access to virtual apps

The License Server manages the product licenses for XenApp

#### Test Environment configuration:

For our testing, the configuration was as follows:

* Director, Storefront, Studio, and License Server were installed on a Windows 2012R2 virtual machine on a Hyper-V host
* A pre-existing MS SQL2014 SQL server was utilized for hosting the configuration database, as opposed to the default install of MS-SQL
* Integrated into existing testing domain
* VDA (and CIC apps) were installed on a Windows 2012R2 virtual machine on a Hyper-V host
* An existing test CIC 2016R2 environment with Media Server, SIP Bulk Caller testing tool, and a MS Exchange 2013 email server were used for the test back-end.

# Functional testing

#### Basic Functionality

The scope of testing centered on reproducing the actions of end users on the client side as they would perform their daily business tasks using Interactive Intelligence Inc. suite of client-side applications

Basic tests were performed on our mainstream client-side applications to ensure functionality in a Citrix XenApp 7.6 environment. The tested applications all came from the ICUserApps.msi, ICServerManagerApps.msi, and ICBusinessManagerApps.msi packages. Test Cases were selected either to test a specific feature or to ensure that mechanics and presentation of the software performed in the same way as a comparable installation on a standard desktop computer.

Due to the extensive list of product offerings available from Interactive Intelligence Inc. some applications were not tested. These include but are not limited to such applications as Interaction Designer, SOAP Tracer, and Interactive Update Client.

A list of supported applications and applicable configuration notes may be found in Appendix A of this document.

# Load Testing

## Testing methodology

With the 7.x releases of XenApp, Edgesight is no longer supported for load testing.  The Citrix recommended testing software is now LoginVSI (<http://www.loginvsi.com/documentation/Login_VSI>).

LoginVSI sets up sessions and load tests using MS Office apps, notepad, and other similar apps to generate a load, in addition to your app under test.  The evaluation license used for the test had a 20 session limit, so that was used as the base for the benchmark.  LoginVSI performs the tests and then determines the optimal number of sessions (VSIMax v4).

One test was performed without Interaction Desktop to establish a baseline.  Then, the test was performed with 20 sessions started with Interaction Desktop.  Interaction Desktop was set to silent login for the tests.

It is recommended for the customer to perform their own benchmarking as performance will vary with individual configurations.

## Load test Results

Neither the baseline of 20 sessions without Desktop running nor the test with 20 sessions running Desktop reached the LoginVSI threshold level.  LoginVSI establishes a baseline response level and adds 1000ms to establish the threshold. For both tests indicated, the threshold would be at 1640ms.



Further analysis of the data reveals that no sessions were stuck during either test, and that the baseline and threshold levels are comparable for our baseline test and 20 sessions running Interaction Desktop



# Appendix A: Support matrix and configuration notes

While CIC 2016R2 was the specific version utilized for this test, all R-levels of CIC 2015 and CIC 2016 should be considered supported due to shared codebase. The following is a list of Interaction Center 2016 R2 applications and features that were tested in our XenApp 7.6 test environment:

|  |  |  |
| --- | --- | --- |
| **Application/Feature** | **Supported**  | **Notes** |
| Interaction Desktop | Yes |  |
| Interaction Voicemail Player | Yes |  |
| Interaction Fax Viewer | Yes |  |
| IC Server Manager | Yes |  |
| Interaction Process Automation | Yes |  |
| Interaction Administrator | Yes |  |
| Interaction Attendant | Yes |  |
| IC System Manager | Yes |  |
| IC Business Manager: Supervisor | Yes |  |
| IC Business Manager: Feedback | Yes |  |
| IC Business Manager: Recorder | Yes |  |
| IC Business Manager: Reporter | Yes |  |
| Interaction Screen Recorder | Yes | See Interaction Screen Recorder Configuration section of this document |

## Interaction Screen Recorder Configuration:

When using Interactive Screen Recorder with XenApp, you must create a batch/cmd file to start the screen capture client along with the InteractionDesktop client. The screen capture executable, ScreenCaptureClientU.exe, must be started ***before*** InteractionDesktop.exe.

The batch file would then be added by using the “Add Applications Manually…” button on the Application selection screen in the XenApp “Create Application” wizard.

The batch file used in testing for Screen Recorder was as follows:

@echo off

"C:\Program Files (x86)\Interactive Intelligence\ICUserApps\ScreenCaptureClientU.exe"

"C:\Program Files (x86)\Interactive Intelligence\ICUserApps\InteractionDesktop.exe"

# Change Log

The following changes have been made to this document since release.

| Change | Date |
| --- | --- |
| Initial Release | January 7, 2016 |