



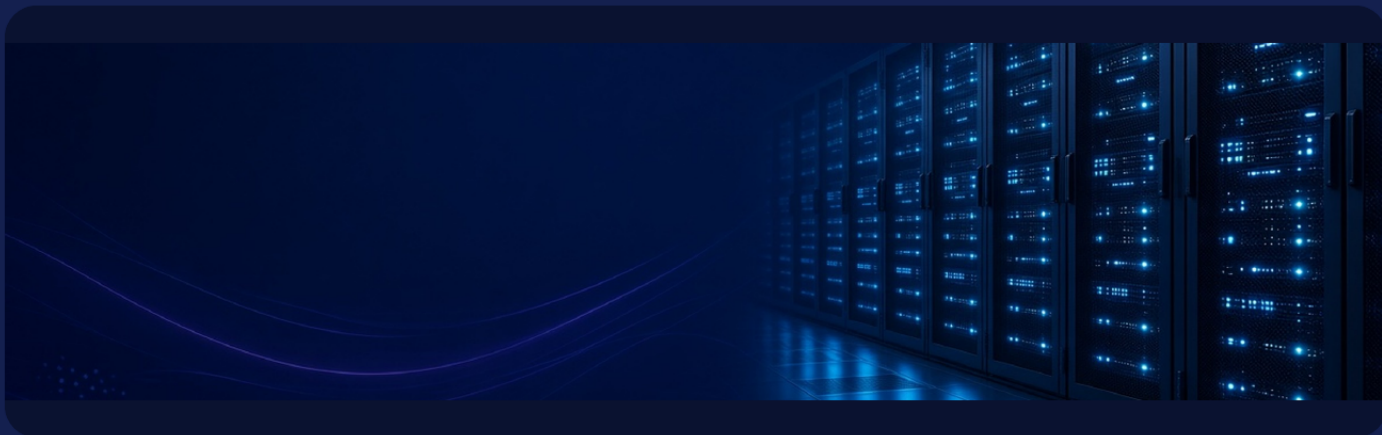
CitraTest VU®

CitraTest VU

Performance & Load Testing from the Real User GUI

Performance & Load Testing for Citrix, RDS & Cloud

Glass-level load testing for CVAD, Citrix DaaS, Microsoft RDS, AVD & Windows 365



Real client GUI

Keyboard & mouse
like a real user

Image recognition

See what the
user sees

One license

Citrix · RDS ·
AVD · W365

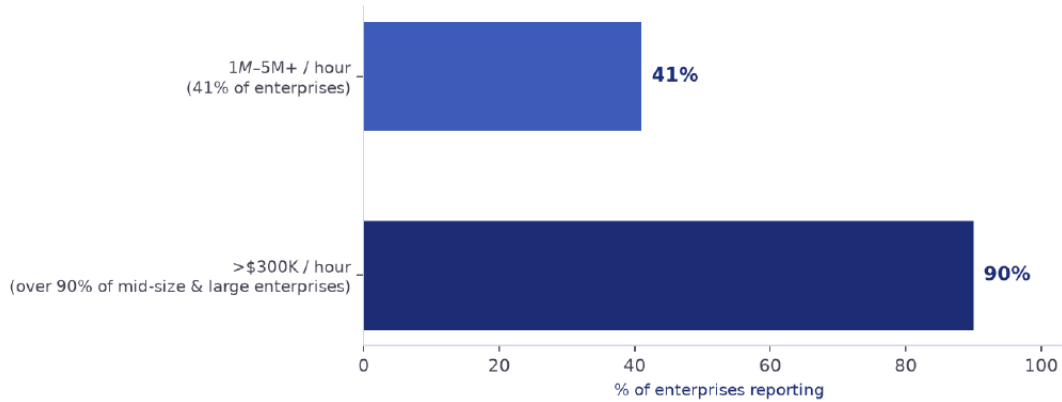
2026 methods

Login storm vs
density / sustain

Downtime and outages are board-level numbers

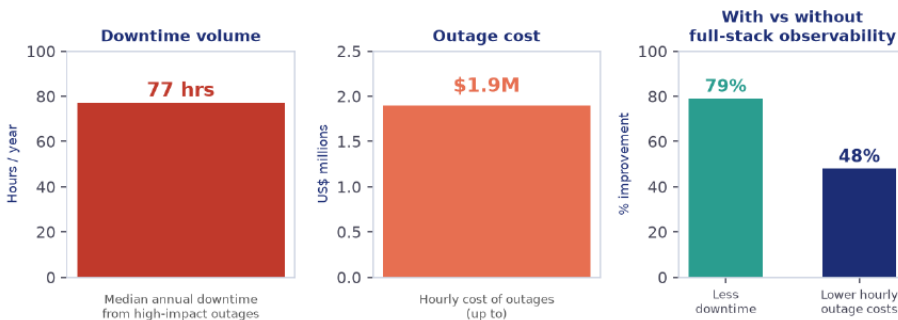
Virtual apps and desktops fail in ways dashboards miss. When HDX or RDP sessions degrade, users lose the chart, the record, the login shell — and the business loses hours. Industry research puts hard dollars on those hours. CitraTest VU exists to prove the experience holds under concurrent load before production feels it.

ITIC 2024 — Hourly Cost of Downtime



Source: ITIC 2024 Hourly Cost of Downtime Report — itic-corp.com

New Relic 2024 Observability Forecast



Source: New Relic press release Oct 22, 2024 / Observability Forecast 2024

Aberdeen — End-User Experience Monitoring (as cited on Tevron.com)

53%

of app issues uncovered via EUEM

48%

MTTR improvement for EUEM-found issues

42%

HDX and RDP deliver pixels — not pages

Citrix DaaS, Virtual Apps and Desktops, Microsoft RDS, and cloud VDI still paint a desktop. A Workspace URL or RD Web Access check is the front door. The farm is the session host — and the number that matters is whether the chart appeared on the glass under concurrent load.

Protocol / URL testing alone

- Hits the broker or web portal — not the host session experience
- Replays packets or HTTP; cannot prove the EHR chart rendered
- Green Director / Azure dashboard ≠ usable desktop
- Autoscale can hide a bad sessions-per-host number
- Misses FSLogix attach, first paint, and in-app response

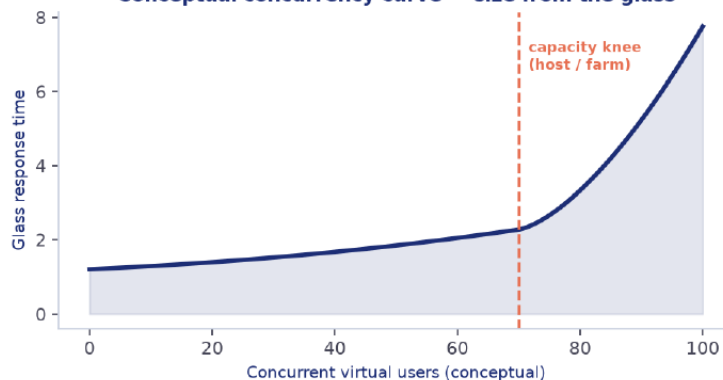
Glass-level testing with CitraTest VU

- Drives the real client with keyboard and mouse
- Compares the live screen to baseline images
- Measures time until the UI proof appears
- No agents required on the session hosts
- Sizes the host from the glass, not the broker

Size the host from the glass, not the broker.

Tevron CitraTest VU positioning — tevron.com/load-testing-citratest-vu.aspx

Conceptual concurrency curve — size from the glass



Conceptual illustration — not a Tevron benchmark or customer result

CitraTest VU® load tests Citrix Virtual Apps and Desktops, Citrix DaaS, Microsoft RDS, and cloud-hosted sessions the way users actually work: from the client GUI, with image recognition — not a protocol replay. Each test script executes in its own desktop and opens its own client connection to the server-under-test, just as a group of real users would.

Test real user experience

Mouse & keyboard strokes like a real user; measure response at the client UI under controllable load.

Non-intrusive

Rapidly test new apps with no code changes and no agents on session hosts.

Point-and-click scripting

Replicate clicking, typing, comparing, verifying, awaiting — no scripting skills required.

Realistic & accurate

Each VU runs in its own desktop with its own client connection — true multi-user load.

See what the user sees

Compares live screen to baseline images; proprietary intelligent image recognition.

Server metrics under load

Record host CPU, memory, sessions for SKU choice and autoscale decisions.

Flexible business days

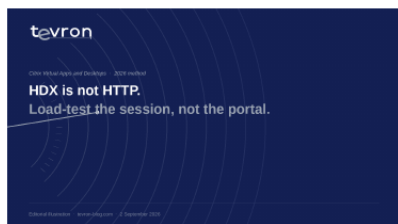
Validate multi-step flows: logon, published app, open record, save — including EHR.

One license, many farms

One license covers CVAD, Citrix DaaS, Microsoft RDS, AVD, and Windows 365.

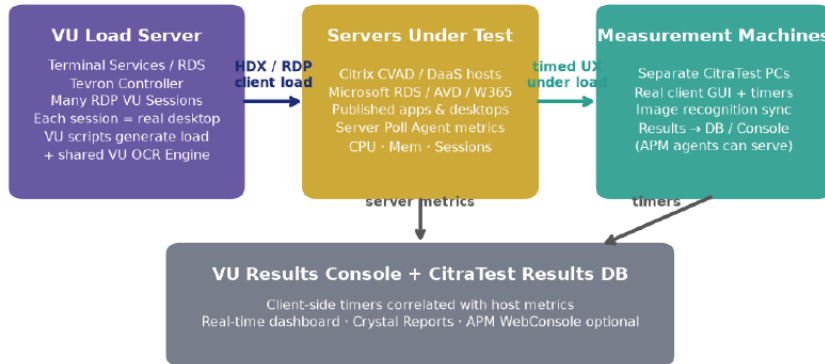
Built on the CitraTest visual model

Scripts encode a real end-user workflow with bitmap images and OCR, then drive the Windows desktop with real mouse and keyboard. Architecture-agnostic: thick client, browser, Citrix, RDS, and cloud session clients — because the script only needs to see the desktop. (User Guide 8.80a1 · Quick Start 2026.)



CitraTest VU operations require a minimum of two roles: a load server that generates real multi-user client load, and separate measurement machines that time the experience under that load. The Tevron Controller and Tevron Agent orchestrate VU Sessions; timers land in the results database and VU Results Console. (CitraTest User Guide, Chapter 11 · Quick Start Rev 46.7.7.2026.)

CitraTest VU Architecture — Load Server + Measurement Machines



Source: CitraTest User Guide Ch 11 + Quick Start Rev 46.7.7.2026 — VU OCR Engine [878a1]

Roles at a glance

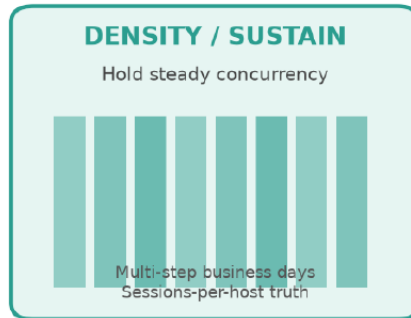
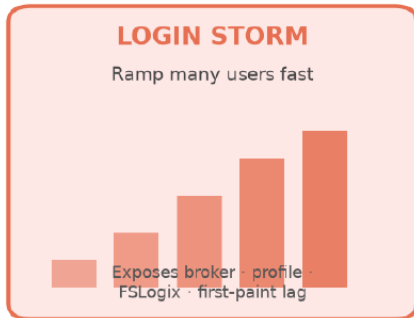
VU Load Server	Hosts many RDP "CitraTest VU Sessions." Each session is an end-user desktop running VU scripts that create real client load. Timers are not taken here.
Tevron Controller / Agent	Controller opens/closes VU Sessions and runs scenarios. An Agent instance inside each session launches VU scripts on command.
Measurement Machines	Separate CitraTest workstations play measurement scripts with response timers while load runs. Existing APM machines can serve this role.
Results & Server Poll	Timers → CitraTest Results DB / VU Results Console. Optional Server Poll Agent correlates host CPU, memory, and session counts.

VU OCR Engine — shared OCR under load · Rel Notes [878a1] · Quick Start 2026

- CitraTestVUOCREngine on the load server consolidates OCR for all VU sessions with an image cache — auto-starts with Controller scenarios.
- OCR in VU mode is NOT a wait/sync (no timeout). Sync with image functions first, then OCR for dynamic text.
- Not allowed under VU OCR: full-screen OCR or OCR-based Advanced Areas. Image Adv / Relative / Fixed Areas are OK.
-

Tevron's 2026 methods for Citrix Virtual Apps and Desktops, Microsoft RDS, and cloud-hosted virtual apps and desktops (Citrix DaaS, AVD, Windows 365) start from one fact: HDX and RDP deliver pixels, not pages. Walk StoreFront or Gateway, RD Web Access, and cloud catalogs from the glass — and separate the questions that sizing actually needs.

Login storm vs Density / Sustain — different sizing questions



Tevron 2026 methods — HDX/RDP = pixels · separate storm from density · tevron.com

Practical controls you set

Ramp

Control how fast concurrent users arrive.
Storms expose broker, profile, and first-paint lag.

Concurrency

Hold a steady concurrent population for
density and sustain. Measure multi-step
business days.

Autoscale caveat

Density with autoscale off. Scale-out lag
in a second run. Autoscale can hide a
bad sessions-per-host number.

What good evidence looks like

- Login-to-shell, FSLogix attach, and first paint of the published app — timed from the user's screen.
- Sustain timers for open record / save / navigate while host CPU, memory, and session counts are polled.
- SKU and sessions-per-host decisions grounded in glass response, not a green control-plane tile.
- Same split applies across Citrix, RDS, and cloud multi-user / cloud VDI catalogs.

Maximize ROI with just one license. CitraTest VU covers Citrix Virtual Apps and Desktops, Citrix DaaS, Microsoft RDS, Azure Virtual Desktop, and Windows 365. HDX and RDP are still pixels — test them that way.

One license across virtual apps & desktops

CVAD Citrix Virtual Apps & Desktops ✓ Glass GUI	DaaS Citrix DaaS (cloud) ✓ Glass GUI	RDS Microsoft Remote Desktop ✓ Glass GUI	AVD Azure Virtual Desktop ✓ Glass GUI	W365 Windows 365 Cloud PC ✓ Glass GUI
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HDX and RDP deliver pixels — CitraTest VU tests them that way

Capability matrix in brochure · No agents required on session hosts

Capability matrix

Capability	CVAD	DaaS	RDS	AVD	W365
Real client GUI + image recognition	✓	✓	✓	✓	✓
Login storm / density & sustain split	✓	✓	✓	✓	✓
Server metrics under load	✓	✓	✓	✓	✓
Multi-step business-day scripts	✓	✓	✓	✓	✓
EHR on the glass (Epic / Cerner)	✓	✓	✓	✓	✓
No agents on session hosts	✓	✓	✓	✓	✓
Shared VU OCR Engine under load	✓	✓	✓	✓	✓

Documentation companions (cite carefully)

Quick Start Rev 46.7.7.2026 — 2026 onboarding companion (IDE, Edge sample, APM publish, VU OCR). User Guide 8.80a1 — deep reference (Ch 11 VU). Rel Notes through [902c1 March 2025] — VS 2022 / Windows 11 / Server 2022 packaging currency (UG & Quick Start OS lists do not claim Win11).

CitraTest and CitraTest VU measure Epic and Cerner from the user's screen — including Epic Hyperdrive on Citrix Virtual Apps and Desktops, Citrix DaaS, and Azure Virtual Desktop. A Workspace or AVD URL test is not an EHR test. The chart in Hyperspace or Hyperdrive has to appear on the glass.

A Workspace or AVD URL test is not an EHR test.

The chart in Hyperspace or Hyperdrive has to appear on the glass under concurrent load.

Tevron product messaging — Sep 2026 · CitraTest VU / APM / Citrix method

What healthcare load tests must prove

■ Login → shell → app

Time from credential to usable Hyperspace / Hyperdrive / Cerner workspace — not just broker success.

■ Open the chart

Image recognition waits for the patient chart (or critical pane) as the verification point under load.

■ Clinical business day

Multi-step flows: logon, published app, open record, navigate, save — with nested glass timers.

■ Storm vs sustain

Separate login storm from density/sustain so EHR farms are sized for both surge and steady state.

■ Host correlation

Pair client timers with session-host CPU, memory, and sessions-per-host for SKU and autoscale decisions.

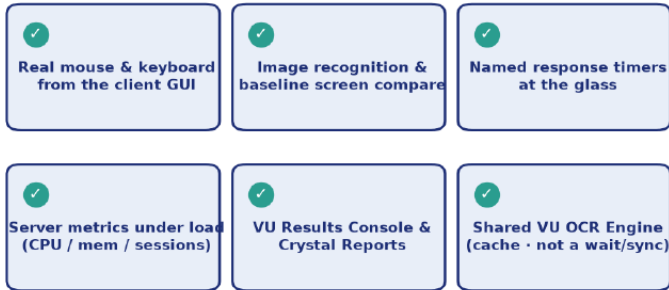
■ Non-intrusive

No agents on Epic/Cerner session hosts; scripts only need to see the desktop.

Why this matters for clinical IT

Clinicians experience milliseconds; the organization experiences percentages — of abandoned workflows, overtime, and risk. Industry downtime and EUEM research (pp. 2 & 10) frame the cost of guessing. Glass-level VU testing replaces guesswork with timed proof that the chart arrived.

CitraTest VU — Feature Checklist



What you measure and report

Glass timers

StartTimer / StopTimer around real UI actions; nested timers for step and end-to-end response from the user's eyes.

Image recognition

WaitForImage / ClickOnImage sync and verify; prefer bitmaps for static text — OCR when values are dynamic.

VU OCR Engine

Shared CitraTestVUOCREngine on the load server with image cache. Not a wait/sync; no full-screen / OCR Adv Areas under VU.

Server metrics under load

Optional Server Poll Agent retrieves CPU, memory, session counts from hosts during the run.

VU Results Console

Dashboard for real-time and historical measurement timers correlated with host metrics.

Results DB / Crystal

ODBC to SQL Server, Oracle, Access, or MySQL; APM WebConsole optional; predefined Crystal Reports.

Operational outcomes

- Roll out new applications and technology with confidence.
- Mitigate risks from virtualization, datacenter consolidation, and application updates.
- Ensure production readiness, optimal performance, and reliability — proven from the glass.
- Reuse CitraTest APM measurement machines and WebConsole where already deployed (UG Ch 11).
- Onboard with Quick Start 2026; go deep with User Guide 8.80a1; confirm Win11 / VS 2022 via Rel Notes.

What Aberdeen said (quoted on the CitraTest VU page)

“

In Aberdeen's recent survey on user experience monitoring, Best-in-Class companies discovered more than half of application issues before end users were affected. Leveraging solutions like Tevron's CitraTest APM ... the Best-in-Class enjoyed an average of 15% reduction in user complaints.

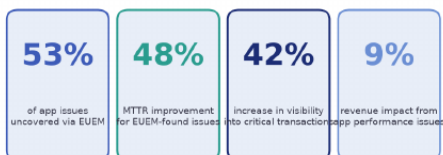
— Russ Klein, VP and Director of IT Research, Aberdeen Group

“

Best-in-Class companies ... were found to be twice as likely as others to manage deployed services proactively. This ... underscores how solutions such as Tevron's CitraTest APM can help companies maximize the business value of their IT investments by monitoring application performance proactively and comprehensively.

— Michael Dortch, Senior Analyst, Aberdeen Group

Aberdeen — End-User Experience Monitoring
(as cited on Tevron.com)



Source: Aberdeen Group research as published on Tevron.com · No invented Tevron customer ROI

Schedule a Demo · Contact Sales

866.788.3650 · sales@tevron.com · support@tevron.com · [tevron.com](https://www.tevron.com)

<https://www.tevron.com/ScheduleDemo.aspx>

CitraTest VU — Performance & Load Testing for all Citrix, RDS and Cloud Environments