

Solution Guide for Secure Access Using FabulaTech Remote Scanner and Biometric Solutions, VXL Thin Clients and Citrix Workspaces



Biometrics and document scanners are as widely used by remote and branch offices as employees at headquarters. Remote and branch employees need similar experience to collaborate, scan documents and images and remain productive just as employees at headquarters even when accessed from hundreds of miles away.

Setting up document scanners and biometrics can be a challenge when moved to VDI as these scanning applications are built for traditional local PC installations. Additionally, as Thin Clients are the access devices of choice in VDI environments, they have to conform to the extra security requirements of large enterprises and in particular the finance and banking sectors.

Together Citrix, FabulaTech and VXL enable you to deliver a simple, flexible and highly optimized document scanning and biometrics solution. In addition, end users can access from anywhere, without compromising security standards or user experience.

This solution guide outlines how Citrix Workspace, VXL Thin Clients, and FabulaTech remote scanner and biometric solutions deliver a best-in-class experience for remote and branch offices to solve their remote document scanning and biometric challenges. The guide also explains how to deploy this bundled solution.

Business Challenges and Need for Bundled Solution

With so many branch offices worldwide, banks are becoming increasingly dependent upon the benefits of biometrics. The State Bank of India is an example that illustrates the industry trend toward biometrics. The bank is currently installing 5,000 biometric units, and may ultimately install biometrics in all of its 14,700 branches.¹ Biometrics devices have now been standard at all Indian banks as a second-factor authentication methodology for secure access.

However, there have been some speedbumps encountered in the rush to deploy biometrics. Some of these problems include:

- High latency VSAT environments affect user experience of biometric two-factor authentication.
- Multi-user operating systems are not fully designed to handle multiple USB devices' accesses.
- One solution is [Generic USB redirection](#), but this does not leverage any Citrix optimization, thereby slow speeds.

Similar issues are encountered with remote document scanners, including:

- It is difficult to redirect document scanners and biometrics to remote VDI sessions.
- Not all image scanning software (especially custom developed) is [TWAIN compliant](#); this leads to supportability issues.
- Multi-user operating systems are not fully designed to handle multiple USB devices' accesses.
- System administrators have to install scanner drivers on remote side. Have to install scanners on each virtual machine.

Banks are exploring ways to modernize their IT infrastructure that can provide efficient, safe and secure banking for its customers by adopting cloud-ready solutions such as Citrix Workspaces. Biometrics including fingerprint taking is essential part of authentication. While its integration is essential in various workflows, it leads to a lot of user experience and productivity challenges.

What This Bundle Addresses

The Citrix bundled solution featuring FabulaTech remote scanner and biometric solutions and VXL Thin Clients provides a unified, contextual and secure user experience. It enables organizations to access the benefits of remote desktop no matter where they're located. The bundled solution fills those needs in the following ways:

- **Unified:** The solution unifies across apps, services, and cloud networks.
 - Solution can easily redirect scanners and biometrics via remote application.
 - Solution works just like cable extender from local PC to remote application, and all authentication and authorization processes perform remotely without using any software on local computers.
 - High latency environments don't slow down user experience.
- **Secure:** The solution addresses security from an analytics-based, user-centric perspective.
 - Solution makes it possible to use biometric devices remotely.
 - It allows users to move to an environment where authentication/authorization software is published on remote side with no physical access, making the entire environment much more secure, since all security processes are running on remote side.

- Popular core banking apps are web-based that require ActiveX component to be activated, which can be a significant source of security problems. Solution makes it possible to communicate securely between ActiveX component and the locally plugged fingerprint reader.
- It allows users to connect different operating systems (for instance, a choice of either Linux or Windows Embedded is available on the Thin Client devices).
- **Contextual:** The solution automatically adapts content, performance and access to match each worker's requirements.
 - Biometric devices can be used in multi-user environment (like XenApp).
 - End users can choose between XenDesktop and XenApp.
 - Any Windows operating system can be used on remote side (including Terminal Server OS).

Products Included in This Bundle

Citrix:

- **XenDesktop and XenApp:** Citrix provides a complete virtual app and desktop solution to meet all your needs in a single, easy-to-deploy platform, giving employees the freedom to work from anywhere while cutting IT costs. They deliver Windows, Linux, web, and SaaS applications or full virtual desktops to workers on any device, anywhere.
- **NetScaler Software-Defined WAN (SD-WAN):** SD-WAN technology reshapes the modern enterprise network by providing improved performance, reduced costs and enhanced security. With an SD-WAN solution that combines real-time path selection, edge routing, stateful firewall, end-to-end QoS, and WAN optimization, users can have the reliability and efficiency their business demands.

FabulaTech:

- **Scanner for Remote Desktop:** Scanner for Remote Desktop is software that provides a convenient way to scan documents within a remote desktop session. It allows secure redirecting of image scanners over Citrix ICA to individual remote desktop session without any headache.
- **Biometrics for Remote Desktop:** Biometrics for Remote Desktop is a reliable software solution that redirects locally plugged biometric scanners to remote desktop session.

VXL: VXL has the industry's widest and most advanced lineup of desktop Thin Clients, delivering the very best user experience across diverse industry sectors. VXL offers affordable, secure, low-carbon Thin Client solutions compatible against latest versions of Citrix XenDesktop and NetScaler SD-WAN.

VXL range of product offerings includes:

- Zero and entry-level Thin Clients
- Midrange Thin Clients
- High-performance Thin Clients

Technical Overview

Deployment of this bundled solution will be easy to implement for virtually all organizations. Key deployment considerations for each component of this bundle include the following:

Citrix. XenDesktop can be securely deployed in a variety of ways: on premise, cloud-hosted, as a Citrix Cloud service, or with a service provider. Organizations can choose the deployment option that best aligns with their enterprise cloud strategy. Citrix also enables a hybrid cloud deployment for organizations that wish to deploy Citrix software in a cloud, but manage on premises.

Deploying XenDesktop begins with installing the following components. This process prepares for delivery of applications and desktops to users inside your firewall.

- One or more Delivery Controllers
- Citrix Studio
- Citrix Director
- Citrix StoreFront
- Citrix License Server
- One or more Citrix Virtual Delivery Agents (VDAs)
- Optional components and technologies such as the Universal Print Server, the Federated Authentication Service, and Self-Service Password Reset

System requirements for XenDesktop Install can be found [here](#).

FabulaTech. FabulaTech Scanner for Remote Desktop and Biometrics for Remote Desktop are both Citrix Ready verified. Both applications are comprised of workstation and server components. Once both components are installed and the remote desktop session is established, the remote applications accept the hardware plugged into workstation as if it were plugged directly to remote desktop session.

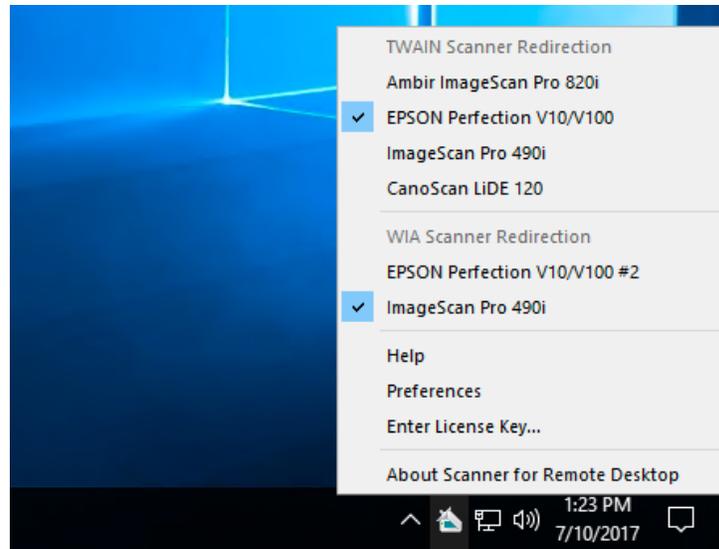
Virtually all of the most popular biometric scanner solutions are supported by Biometrics for Remote Desktop, including:

Futronic BlackFin	Futronic SOI966	3M Cogent CS500i	Fujitsu PalmSecure Sensor	Nitgen Fingkey Hamster Series
Futronic FS50	Futronic SOI968	3M Cogent CS500e	Secugen Hamster Pro	Nitgen Fingkey Mouse Series
Futronic FS88H	3M Cogent CSD200	3M Cogent CS500p	Secugen Hamster Pro 20	
Futronic FS90	3M Cogent CSD330	3M Cogent CS1000p	Secugen Hamster Plus	
Futronic Sweep	3M Cogent CSD450	Safran MorphoSmart 1300 Series	Secugen Hamster IV	

FabulaTech Scanner for Remote Desktop supports all TWAIN- and WIA-compatible document scanners, regardless of the interface used by the scanner. Webcams, digital cameras, card scanners – even x-ray machines and digital microscopes – can also be used as input devices by remote desktop sessions.

Software agents for FabulaTech workstation components are embedded in VXL devices at the factory, greatly simplifying the deployment of FabulaTech remote solutions and eliminating the need to pay a workstation-side licensing fee. Accordingly, FabulaTech licensing is required for the remote side only (a license for every occurrence), and is available in two options:

- A. Named licenses: A license is applied to every remote server where the solution is installed (the license total will depend upon the maximum number of sessions per server).
- B. Site licenses: Separate license software is installed which counts the total number of sessions where scanning is used.



VXL Technology. VXL and Citrix have been partners since 1996. VXL provides hardware solutions to access Citrix virtual environments. VXL enables a turnkey deployment since it pre packages Citrix Receiver, FabulaTech Scanner for Remote Desktop and FabulaTech Biometrics for Remote Desktop into their thin client operation system.

The VXL product range includes dual-core and quad-core processors, solid-state drives and powerful integrated GPUs for superior graphics capabilities. VXL Thin Clients are designed to connect to most servers, distributed networks and cloud-hosted infrastructures. VXL systems are available running Linux and Windows operating systems, or without any operating system.

Additional features offered by VXL Thin Clients include:

- High-performance RAM
- Gigabyte Ethernet
- Optional Wireless networking
- USB, serial and parallel ports
- HDMI, DP and DVI (varies by model)

VXL Technology Thin Clients are economical to operate and eco-friendly, providing a significantly lower cost of ownership than PCs. The lack of moving parts helps assure minimal maintenance, high reliability and a long service life. And VXL Thin Clients are easy to manage and secure using VXL's proprietary device management suite – Fusion Professional. Fusion Professional device management suite is included as part of the VXL Thin Client package without any additional costs to the users – and is an industry-leading enterprise-class software.

Solution Description

Combining Citrix, FabulaTech remote scanner and biometric solutions, and VXL endpoints into a single unified solution is an easy process. Following are the deployment considerations for supporting the use of each partner in a unified bundled solution.

Citrix. The latest Citrix Receiver must already be installed on the VXL endpoint. If not, the overview of the step-by-step process for installing Citrix Receiver for Windows includes:

1. Downloading Citrix Receiver for Windows
2. Running the CitrixReceiver.exe file
3. Installing using the Citrix Receiver Setup
4. Entering the appropriate server or email address, user name, password and domain

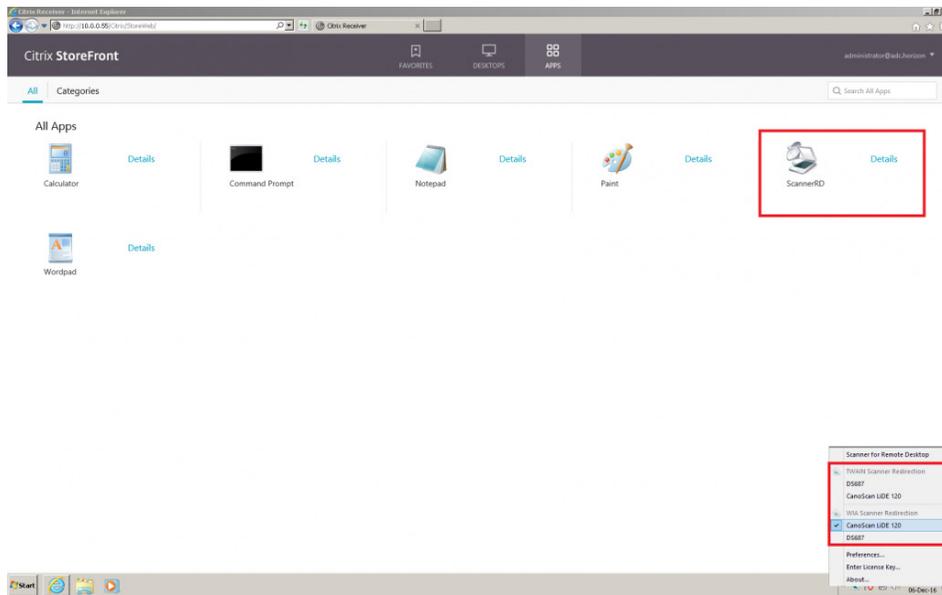
([This link provides guidance](#) for installing Citrix Receiver for Windows.)

FabulaTech. Remote scanner and biometric solutions may be installed on a wide array of workstations and servers, including the following:

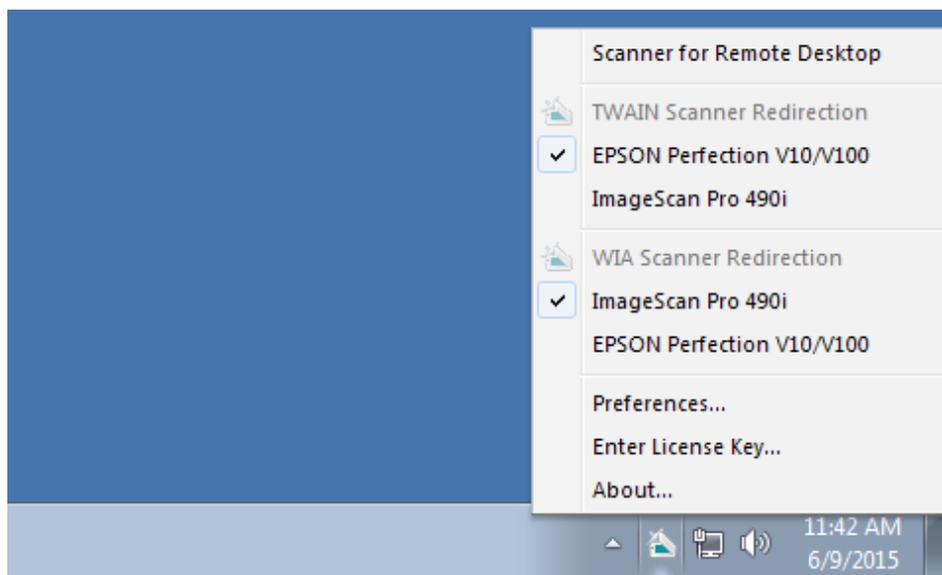
- Workstations
 - Windows 10, 8.1 8, 7, Vista
 - Windows Server 2016, 2012, 2012 R2, 2008, 2008 R2, 2003
 - Linux kernel 2.6.12 or greater, libusb-1.0, libudev1, Citrix Receiver
- Servers
 - Windows 10, 8.1 8, 7, Vista
 - Windows Server 2016, 2012, 2012 R2, 2008, 2008 R2, 2003

There are two components to FabulaTech remote scanner and biometric solutions: a remote desktop component and a remote server component. However, since the desktop component comes pre-installed on VXL endpoints, it is only necessary to install the server component on the remote side where you login. That can be accomplished with a simple two-step process:

Download the latest program installation package (available for [Scanners](#) and [Biometrics](#))



Run the installation program, following the directions of the installation wizard.



Once installed, no configuration is required for either remote scanner or biometric solutions. The solution creates a virtual remote scanner or biometric on the server side and the system accepts it as hardware equipment plugged into the remote computer. FabulaTech solutions support a number of remote desktop protocols, including Citrix, Microsoft RDP, Teradici PCioP and others.

VXL Technology. VXL Thin Clients are shipped from the factory ready to deploy FabulaTech remote scanner and biometric solutions, with the workstation component of the FabulaTech solutions pre-installed. It is only necessary to install the FabulaTech server-side component, as noted above.

Installation guides are available [here](#) for many different hardware models and operating system combos.

A Proven Bundled Solution That Provides Crucial Biometric and Scanning Solutions for Virtual Environments

The teaming of Citrix solutions with VXL Technology's endpoints and FabulaTech remote scanner and biometric solutions fulfills a global need. It's a bundled solution that makes document scanners and biometrics available to all business users everywhere.

Citrix, with its proprietary HDX protocol & ThinWire+ technology, ensures core banking solutions such as Infosys Finacle are efficiently delivered to the user at quantity (bandwidth) and quality (latency) which is a typical characteristic of wide area networks such as VSAT, RF & MPLS technology (80 to 1200ms latency and 64 to 128Kbps bandwidth).

The bundled solution enables remote workers using Citrix virtual environments to deploy scanners and biometric tools with the same ease as workers using physical PCs. Document scanners and biometrics deployed through virtual environments can provide usability, convenience and security that equal the use of these tools in any environment.

Additional benefits include:

- Accelerate access and use of core banking solutions such as Infosys Finacle
- Enhance overall branch user experience
- Reduce bandwidth utilization of branch network
- Reduces operational overhead in end point management, auditing and compliance by centrally delivering the core banking apps

For more information about Citrix Ready solutions and partners, contact [Citrix](#).

For more information about FabulaTech solutions for remote scanning and biometrics, contact [FabulaTech](#).

For more information about the VXL Technology line of Thin Clients, contact [VXL](#).

Additional Links

- <http://www.scanner-for-remote-desktop.com>
- <http://www.biometrics-for-remote-desktop.com>

About Citrix Ready

Citrix Ready identifies recommended solutions that are trusted to enhance the Citrix Delivery Center infrastructure. All products featured in Citrix Ready have completed verification testing, thereby providing confidence in joint solution compatibility. Leveraging its industry-leading alliances and partner ecosystem, Citrix Ready showcases select trusted solutions designed to meet a variety of business needs. Through the online catalog and Citrix Ready branding program, you can easily find and build a trusted infrastructure. Citrix Ready not only demonstrates current mutual product compatibility, but through continued industry relationships also ensures future interoperability. Learn more at citrixready.citrix.com.