







VWA: Secure 3270 Terminal Emulation

Solution







Topics and Presenters

- ► Introduction and IE11 Support Ending Details
 - Lori Kettles, Sales Manager at SDS
- ► High-Level Overview of Virtel Web Access Architecture
 - Guillaume Fournier, Consultant at SysperTec
- ▶ Demonstration of Virtel's Application Tier Menu
 - Domenic Cifani, Systems Engineer at SysperTec







Quality Mainframe Software since 1982

- Expert development & technical support teams based in Minneapolis, MN.
- ▶ 25+ products for z/OS, z/VM, z/VSE, and distributed platforms.
- Hundreds of organizations worldwide rely on SDS solutions.
- Focus on mainframe security and compliance.
- Cost savings and legacy tool replacements: DO MORE WITH LESS!
- Long-standing global partnerships complement SDS software.
- Recognized for providing highest quality technical support.









Introduction





End of IE11 Support: June 15, 2022

- ► Security, Security!
- Continuing to run IE11 without security updates presents a major security risk











Cost of a Data Breach Report 2021 - Ponemon

- ► Average cost of a data breach: \$4.24 million
 - 10% increase in average cost of a breach from 2020-21
- ▶ \$1.07 million additional cost where remote work was factor in causing breach
- Average time it takes to identify and contain a data breach is 287 days!

"2021 Cost of Data Breach Study: Global Overview" - Ponemon Institute, IBM Security, July 2021



Introduction





End of IE11 Support: Additional Considerations

- You'll miss non-security updates, resulting in potential conflicts
- ► Will your customers be affected?
- Requiring users to continue using a less-than-optimal browser will negatively impact their productivity



Introduction





End of IE11 Support: Additional Considerations

- ► Modern browsers no longer support plugins
 - Edge, Chrome, Safari, Firefox
- ► Only IE11 still supports plugins
- ▶ Need to replace plugin-dependent solutions
 - Older versions of Reflection for the Web, HOD, etc.
 - Some web modernization and integration solutions
- ► Switch to thin-client, browser-based 3270 TE



VWA Benefits





Modern, Thin-Client Architecture & Familiar Look

- ► Instant deployment
- ► Highly customizable
- ► Familiar 3270 screens
- ► Application Tier Menu



Virtel Web Access (VWA)

Serves 3270 screens (CICS, IMS, TSO, etc.)



As HTML/JS web pages with 3270 emulation ergonomics

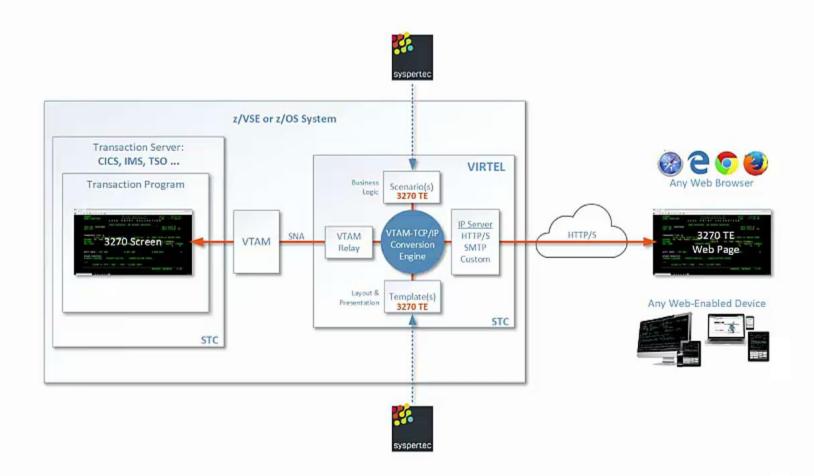


To thin clients straight off the mainframe (no middle-tier servers)

- Replaces legacy TN3270 emulators
 - PCOMM, HOD, Reflection, BlueZone, EXTRA! ...

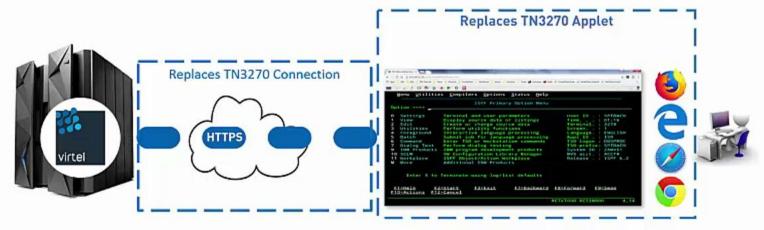


How Does VWA Work?





3270 TE Without TN3270 Technology

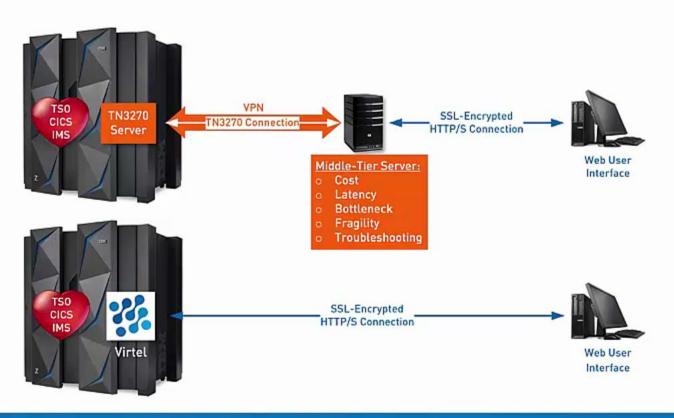


Replaces:

- TN3270 connections with SSL-encrypted HTTP connections
- TN3270 Java applets/plugins with HTML5/JS webpages



3270 TE Without Middle-Tier Server



... when the majority of [us] switched to telework, we started taxing our VPN network. A lot of my colleagues prefer using Virtel as opposed to BlueZone since Virtel doesn't have to traverse across the network as much, so the response time is much faster.

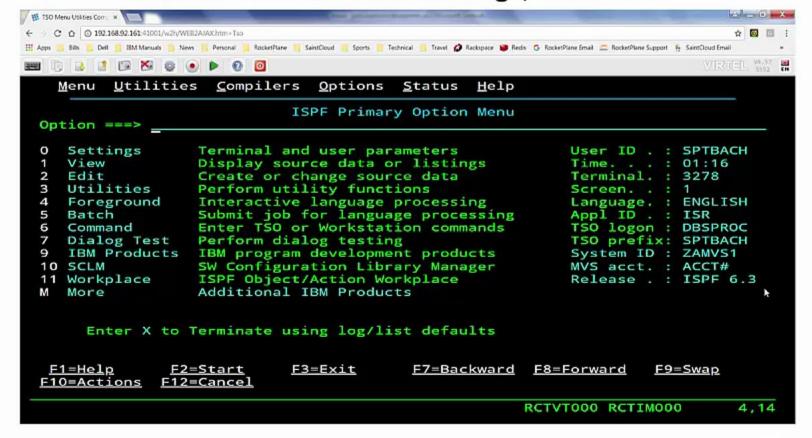
(U.S. Federal Government)



Digital Transformation Virtel Web Suite Virtel Web Access Virtel Web Modernization Virtel Web Integration

Familiar 3270 TE User Experience

- Users retrieve instantly the 3270 screen look and behavior that they are familiar with
- Customizable toolbar for settings, macros ...





Easy Implementation

- Easy to install-administer-support
 - Centralized
 - Nothing to install-admin-support on remote clients
 - No intermediate server
 - No VPN required (SSL-encrypted connections)
- Highly flexible configuration
- Instant deployment
 - Point browser to installation-defined URL/port
- Optional contracted implementation



Works Instantly With Any Client Technology





Thin Client = Secure Client

Nothing but web browser on client device:



- Nothing to hack:
 - No Java/JVM
 - No applets
 - No browser plugins/extensions
 - No macros (macros stored on mainframe instead)



Secure Connections

- SSL-encrypted HTTPS connections
 - Encryption by IBM AT-TLS or ICSF
 - FIPS 140.2 + TLS 1.2/1.3 compliant
- Unique session/exchange identifiers
- Concurrent IPv4 + IPv6 support
- ❖ VPN = optional



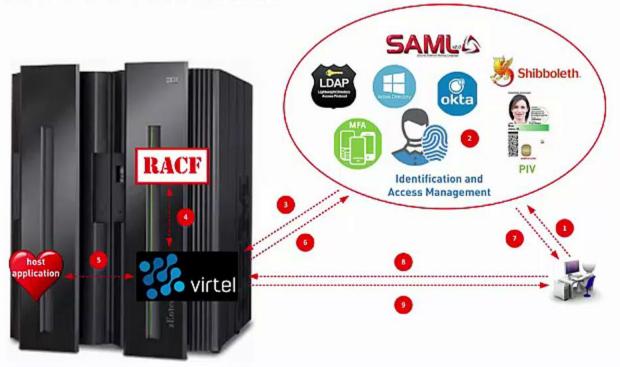


Seamless IAM Integration

No Xfer of credentials over Internet after

1

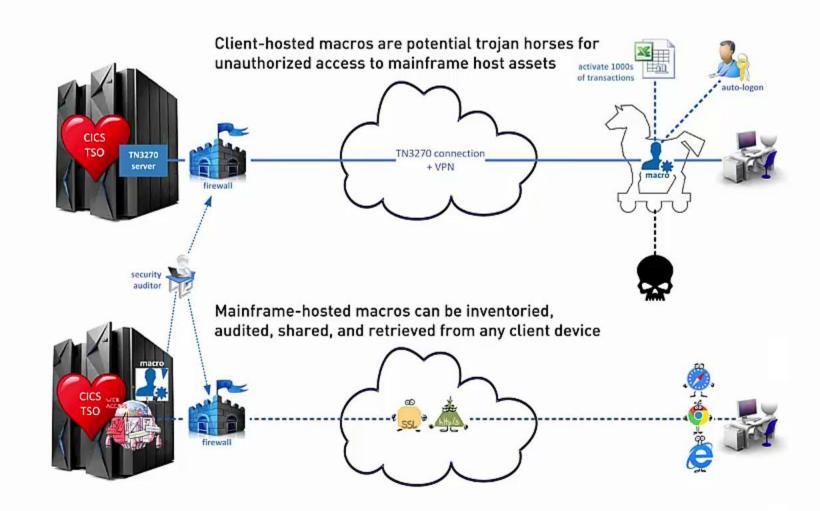
Onetime PassTickets



IAM will eventually require access from web browser and deprecate access from client-running code



Mainframe-Hosted Macros





Session Manager Replacement

Replaces TPX, SuperSession, Tubes, etc.

virtel		Virtel Demo Application Tier Menu Session Manager SYSPERTEC Virtel V4.60 Application Menu			VIRTEL version Line Entry point	VIRTEL6A SOW1 4.60 C-HTTP CLIWHOST
>	CICS Production Regions					
	•	CICSPTCK	CICSTS54 CICSTS54	Logon to CICS with RACF Passticket Logon to CICS (Auto signon to CICS)		
>	CICS Development Regions					
	•	CICSD	CICSTS54	Logon to CICS Development Region		
>	CICS	ICS Test Regions				
	•	CICST	CICSTS54	Logon to CICS Test Region		
>	TSO F	TSO Production Systems				
		TSOP5 TSOPAUTO TSOP4	TSO TSO	Logon to TSO (Model 5) Logon to TSO (Auto signon to TSO) Logon to TSO with SEC=4		
>	TSO E	TSO Development Systems				
	•	TSODOM TSODCST0	TSO TSO	Logon to TSO (model 2) test Logon to TSO (Add ICON URL on the Toolbar)		
>	VTAM	VTAM USSTAB Sessions				
	0	VTAM VTAMUSS	VIR0021U VIR0021W	Logon to VTAM application Logon using VTAM USSTAB		
>	Other Sessions					
		Netview NetvPASS MULTI TSO	NETVS NETVS MULTI TSO	Logon to Netview Logon to Netview with a RACF passticket Logon to Multiterm Session Manager Logon to TSO (model 2)		



Conclusion





Cost Savings Opportunities

- Competitive SLA pricing
- ► Reduced implementation (SE) costs
- No intermediate servers
- ► No VPN requirement
- Session Manager replacement
- Premium Support offerings









Would you like additional information?



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