Delivering iDataFax access when desktops and networks are locked down
Dan Trottier

Delivering iDataFax Access when PCs and Networks are Locked Down “or unstable”

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What the issue is

• Local policy restrictions
  – No unapproved 3rd applications on desktops
  – No direct access to the Internet
  – Proxy servers not allowing non web based SSL traffic on port 443
What the issue is (cont)

• Unstable Internet pipes
  – 3rd world site locations
  – Overloaded Proxies/Firewalls/Routers
  – Misconfigured Network Infrastructures

What the issue is (cont)

• Support and troubleshooting challenges
  – Language
  – Timezones
  – Prioritization by remote IT support
Examples

- VA Hospitals in the USA require FIPS-140 certification for encrypted connections

- Clinic in Toronto with mis-configured home base router losing packets

- Norwegian Hospital sites PC and Network lockdown
  - Lengthy approval process for 3rd party applications installs
  - Access to port 443 directly or via proxy server not allowed

- Unstable Internet pipes in certain countries

Initial Steps

- Created Troubleshooting Guide
  - Instructions provided to help user isolate cause
  - Not very effective at resolving the problem but only in helping identify likely cause
  - Users are powerless to solve the issue without buy-in from their local IT services provider
  - End users often don’t understand how local IT policy enforcement impacts their use of outward-facing applications
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Initial Steps

• Purchase of independent laptop and broadband wireless service
  – Expensive solution - both capital and ongoing monthly costs
  – Local wireless service can still be unstable
    • Distance from towers
    • Interference from location in buildings
    • Optics of having to have separate hardware, etc

Solution Requirements

• Zero client install delivery
• Connection fully encrypted
  – Ideally FIPS-140 compliant
• Able to tunnel through Proxy servers
  – Supports SSL encryption over port 80
• Can re-establish connection to iDataFax login session if connection drops
• Can be managed locally
• Is cost effective for PHRI to provide
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### Solutions Explored

- Separate Laptop and broadband wireless
- Citrix services
- Windows 2008 TermServ RemoteApp
- Thorin Remote iDataFax Virtual Client
- Anyware Group ROAM Solution

### Separate Laptop and broadband wireless

- Not very cost effective
- Laptop/Windows service difficulties
  - Updates, virus protection, break/fix servicing
- Still presents issues if wireless reliability is not good
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Citrix services

• Benefits
  – Enterprise solution
  – Mature solution

• Drawbacks
  – Is not part of current PHRI ICT service offerings
  – Net new application environment to support
  – Higher costs to implement and support

Windows 2008 TermServ RemoteApp

• Benefits
  – Allows remote desktop over HTTPS
  – Client and access is part of standard Windows OS

• Drawbacks
  – Requires the acceptance of an ActiveX component which may be prevented by local security policies
  – Requires configuring and managing Terminal Services Gateway for HTTPS encryption
  – Terminal server licensing considerations for large user base
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Thorin Remote iDataFax Virtual Client

• Benefits
  – Very clean interface
  – No extraneous components required (ActiveX or Java Runtime version requirements)
  – Can license just the number of keys needed. No minimum user levels required.

• Drawbacks
  – Physical USB sticks to manage
  – More and more site implementing USB lockdown
  – Higher cost than alternative solution

Anyware Group ROAM Solution

• Benefits
  – Completely Web based. No hardware to manage
  – Appliance based (locally installed)
  – FIPS-140 encryption compliant
  – Easy and flexible user management

• Drawbacks
  – Requires Java runtime at a certain minimal version
  – Requires user to click OK to some items prior to getting login screens
  – Minimum user license level purchase required
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Chosen Solution

• Top 3 finalists were:
  – Windows RemoteApp
  – Thorin Key
  – Anyware ROAM

• PHRI selected Anyware ROAM
  – It met all our requirements
  – It provided a known service level for a known cost
  – It was an appliance based solution requiring little to no additional PHRI staff support load
  – It had a very responsive and directly available vendor team to address any needs we had

How ROAM works
A Live Demonstration

• Any web browser to:
  – https://apps.phri.ca

• If port 443 is blocked then use:
  – https://apps.phri.ca:80

Questions and Answers

• Thank you