

E-volving
since 1949



Implementation of Biometrics and
Single Sign-On for Access to
Electronic Health Records

Nick Ivon

Clark & Daughtrey Medical Group, PA

Who We Are

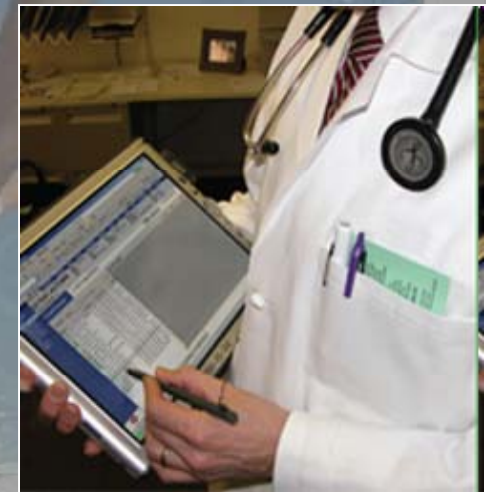
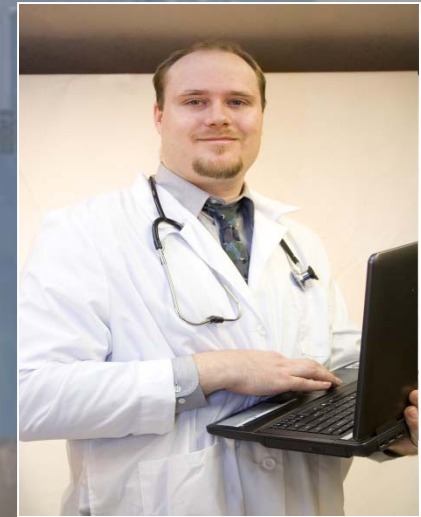
Clark & Daughtrey Medical Group, a midsize multi-specialty, multi-location provider group in Lakeland Florida, is celebrating it's 60th anniversary this month. Over the past eight years, C&D has invested heavily in technology and EMR. Our network infrastructure has been completely rebuilt from the ground up.



Clark & Daughtrey Medical

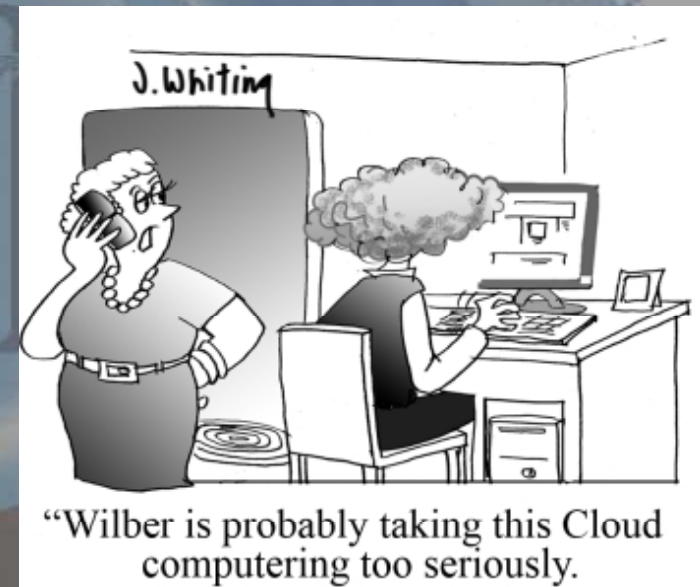
Full EMR

Over the past three years we have transitioned all our providers to 'point-of-care', meaning each visit is electronically documented during the patient encounter. This means no paper charts, and minimal transcription services. C&D has realized a net savings of over \$500k due to these achievements.



Small I.T. Department

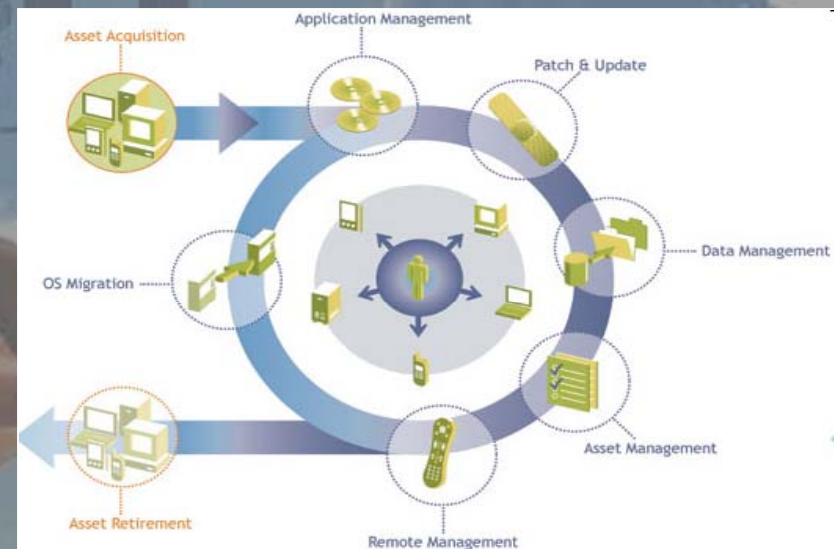
We have four people in our I.T. department that manage our entire technology infrastructure, from firewalls, routers, and wireless network, to servers, PBX/IP telephony, over 400 workstations, 100 tablets, for all 7 locations. We are currently virtualizing our datacenter with VMware vSphere 4.



Use Smart Technologies

To keep our I.T. department small, we use technologies to help us manage our environment. Novell ZENworks is one tool we use to manage our servers, workstations, automate application installations and updates, and apply consistent policies throughout our organization.

A major problem was all the different user credentials for all the different systems we have to access. We needed a smart way to manage all the user logins to all the different systems.

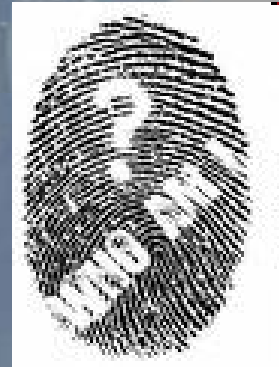


Biometric / Single Sign-On

A Powerful Combination

The Problem:

- **Over 25 different applications users must log into.**
- **Cannot control credentialing policy for most apps.**
- **More and more use of outside systems and extranets – makes password management even more difficult.**
- **Dozens of user id/password help desk tickets every week.**

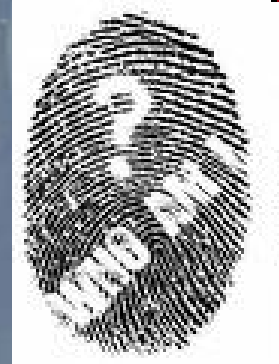


Biometric / Single Sign-On

A Powerful Combination

The Solution:

- Combines biometric network authentication with Novell SecureLogin for single sign-on.
- Encapsulates user/password intelligence into the network.
- Automates application login.
- Supports workstation sharing by employees.
- Supports HIPAA regulatory requirements.
- It Actually Works!



Solutions biometric

IdentiPhi (now Imprivata):

The IdentiPhi biometric solution, which includes the SAFsolution product line and BIO-key technology, allowed the use of different fingerprint readers from different vendors with one stored fingerprint.

We register users on desktops with SecuGen fingerprint readers, and these same users can biometrically login to a Fujitsu or Motion Computing notebook that uses a different fingerprint reader (usually Authentec or UPEK for portables).



Solutions

single sign-on

Novell SecureLogin:

- Integrates with Microsoft AD, Novell eDirectory or other LDAP directories for application management.
- Delivers the same SSO experience in both on-line and off-line modes.
- Works with Windows apps, Internet browsers, Java, and Terminal Emulation sessions.
- Uses 168-bit triple DES or AES encryption to secure passwords during transmission and storage.
- Supports smart cards, proximity cards and tokens in addition to biometric devices.
- Supports shared workstations and fast user switching.
- Considered an industry-leading ESSO technology by [Gartner, Inc.](#)
- Built-in SNMP monitoring, allowing administrators to track events such as application logins and performance measurements (e.g., how long did it take a user to log into an application)

Benefits of Biometric Authentication & Single Sign-On

- Virtually Password Free
- Drastically reduced number of password-related help desk tickets.
- Can re-verify biometric authentication when launching applications or any identified window or event.
- Dramatically increases security.
- Centralized administration with network directory integration.

Bio Re-Verify Identity

```
#=====
#
# EXE/URL:      lrmc.netavillo.com
#=====
#
#
GetURL ?URL
#=====
#
# Initial Login and Invalid Login
#=====
#
#
If "preauth/login.cgi" -in ?URL
  AAVerify ?Result
  If ?Result Eq "True"
    SetPrompt "Username: "
    Type $Username #1
    SetPrompt "Password: "
    Type $Password #2
    SetPrompt "Please enter your LRMC Physicians Access information."
  EndIf
EndIf
EndIf
```

Clark & Daughtrey Medical Group, PA

Automate Processes and automatically Notify I.S. of Events for Proactive Action

```
#-----  
# Name:          Identphi/SAFmodule automation  
# Type:          Windows  
#-----  
#-----  
# Handle error window - Enrollment Failed or Cancelled  
#-----  
Dialog  
  Title "SAFmodule: Fast Enroll - Error"  
  Class "TSafMessageForm"  
EndDialog  
  
Type \Alt+O  
KillApp "FastEnroll.exe"  
KillApp "CDBioEnrollHelper.exe"  
Run "C:\Program Files\SAFLINK Corporation\FastEnroll\SendUserAbortEnrollError.exe"  
Run "C:\Program Files\Novell\Desktop Automation Services\ShowAllItemsOnDesktop.exe"  
  
#-----  
# Handle error window - Biometric Not Found  
#-----  
Dialog  
  Title "Error - SAFmodule"  
  Class "TSafMessageForm"  
EndDialog  
  
Run "C:\Program Files\SAFLINK Corporation\FastEnroll\SendNoReaderEmailError.exe"
```

Additional tools like Auto-IT can help automate and complete the entire management process.

Almost any window or event can be identified, allowing the creation of an appropriate response.

Here we are identifying error windows and sending e-mail notifications to the I.T. department.

Simple Example of Self Healing Application

Dialog

Title "Misys EMR"

Class "#32770"

Ctrl #2 "OK"

Ctrl #20

Ctrl #65535 "Cannot locate ifx1 service/tcp service in /etc/services."

EndDialog

Run c:\windows\regedit.exe "/s"

"\\zensever\sys\PUBLIC\Zenapps\EMR8\SetIfxFix\IFXfix.reg"

Click #2

Conclusion

- Corporate environment is more secure.
- Superior desktop and application management.
- I.T. can be proactive instead of reactive.
- Fast ROI.
- Keeps us HIPAA compliant.
- Lays the foundation to deploy other identity management technologies (like provisioning) in the future.
- Life isn't good, it's great!

Fingerprint Enrollment Aborted



Fingerprint enrollment has been aborted.

Information Systems has been automatically notified.

OK