



BRING YOUR OWN DEVICE: *A CAUTIONARY PERSPECTIVE*

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Today's Overview

- TBH Background
- BYOD: Promise or Premise?
- Personal Disclaimer
- Technologies and Requirements
- Enforceable Policies
- Lessons Learned
- Open Discussion



TOUCHSTONE BEHAVIORAL HEALTH

partnering with families

- Underserved Juvenile Population
- 160 Mobile Caregivers
- 5 Locations Statewide
- Capitated Funding
- HIPAA Compliance

TBH Timeline

- **1968:** Arizona Boys Ranch
- **1995:** Evidence-Based Programs
- **2007:** Electronic Medical Records
- **2010:** VoIP and Virtualization
- **2012:** Stage 1 Meaningful Use

TBH Context

- Social Service Professionals
 - ***Job 1*** = Behavior Modification
 - Varied Technical Skill Levels
- ‘Mom-n-Pop’ Technology History
 - **Not** A Competitive Differentiator
 - Resistant to Change

BYOD: Promise or Premise?

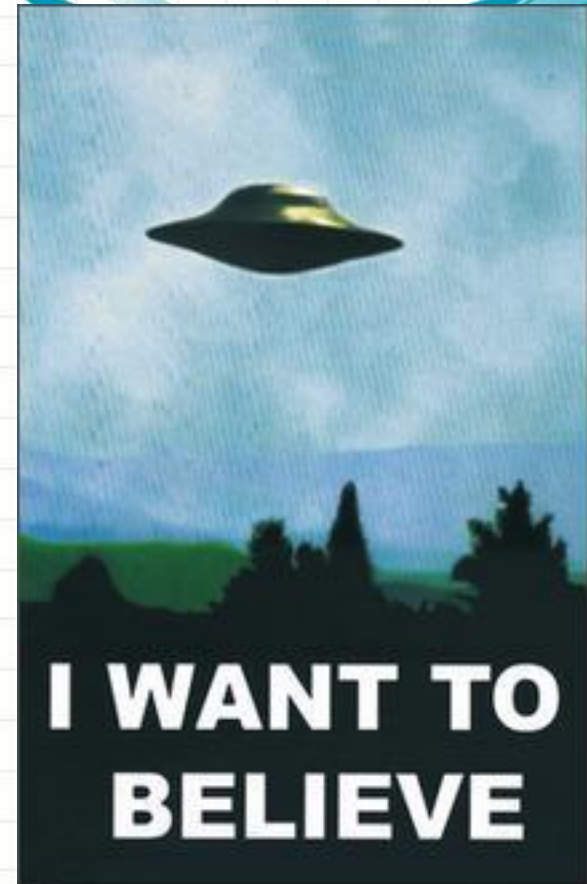
“BYOD will save money”

- ***Promise*** (transitive & intransitive verb): to assure somebody that something will certainly happen or be done
- ***Premise*** (noun): a proposition that forms the basis of an argument or from which a conclusion is drawn

Personal Disclaimer

Beta Initiatives

- Microsoft ChromePicture
- BizTalk Services
(Great Plains + SQL = EDI services)
- Symantec Hamlet
- Essential Business Server
- Cloud-based content filtering
- VDI, NAC, MDM...





LAPTOPS

Technologies and Requirements

Personal Laptops in the Enterprise

- ***Plug In and Go:***
 - No Active Directory integration
 - No Group Policy control
 - No Security assurance
- ***Network Access Control (NAC):***
 - Segment network access through AD
 - Whitelist hardware and software
 - Confirm security and patch compliance
 - Remediate or quarantine

Technologies and Requirements

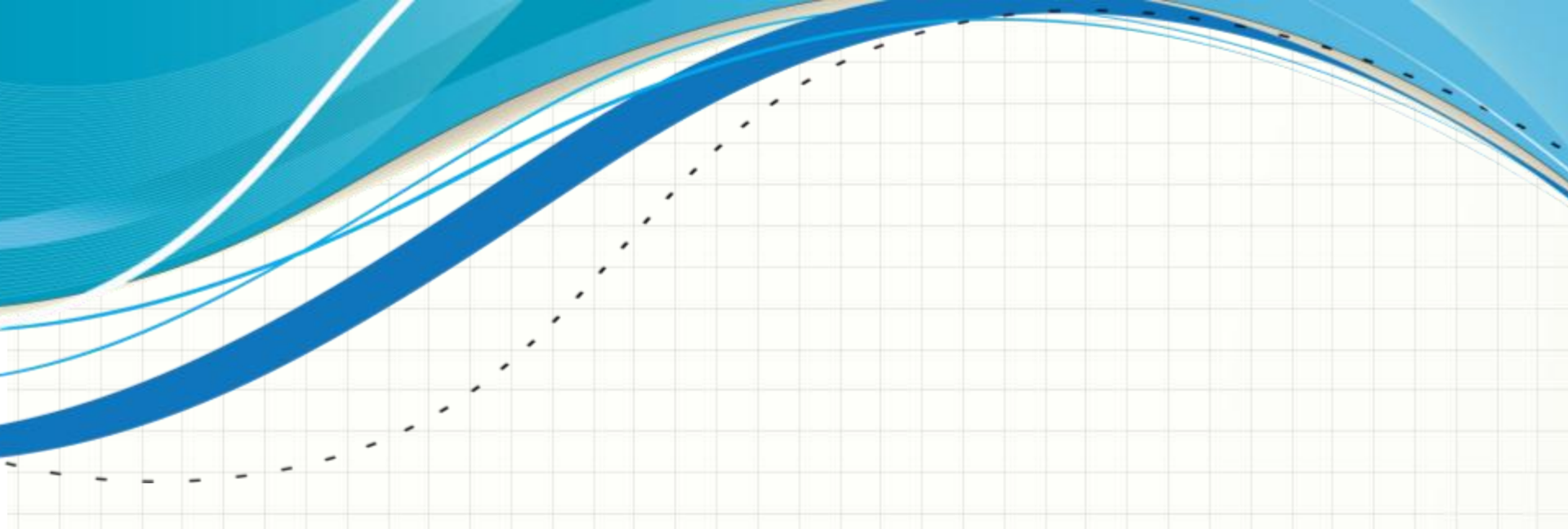
Laptop Virtualization

- ***Late 2008: Citrix internal BYO program***
 - Stipends for ‘Bring Your Own’
- ***Premise:***
 - Lower corporate costs
 - Increased employee satisfaction
 - Corporate security maintained
- ***End-User Stipulations:***
 - Supported hardware list
 - Personal responsibility for support

Technologies and Requirements

Laptop VDI (continued)

- ***Technical Requirements:***
 - VDI client software installed
 - Not all peripherals recognized
 - No direct connection to internal resources
 - Increased bandwidth necessary
 - Internal infrastructure
 - Servers, RAM, storage, licensing
 - Virtual environment
 - Client Operating Systems



SMARTPHONES

Technologies and Requirements

Smartphone Timeline

- **2003:** Blackberry
 - BES corporate standard
- **2008:** iPhone & Android released
 - Cool kids and renegades
- **2010:** iPhone4, 'Droid (Price/Performance)
 - IT developers and network admins
 - Executive and Management Teams
 - Road-Warriors, Marketing & Creative

Technologies and Requirements

Smartphones

- ***Premise:***
 - Enhanced productivity
 - Telephone, plus
 - Email and attachments
 - VPN connectivity
- ***Threats:***
 - Limited security
 - Easily lost
 - Comingling of data

Technologies and Requirements

Mobile Device Management

- ***Premise:***

- Corporate security enforcement
- Application whitelisting
- Compliance transparency

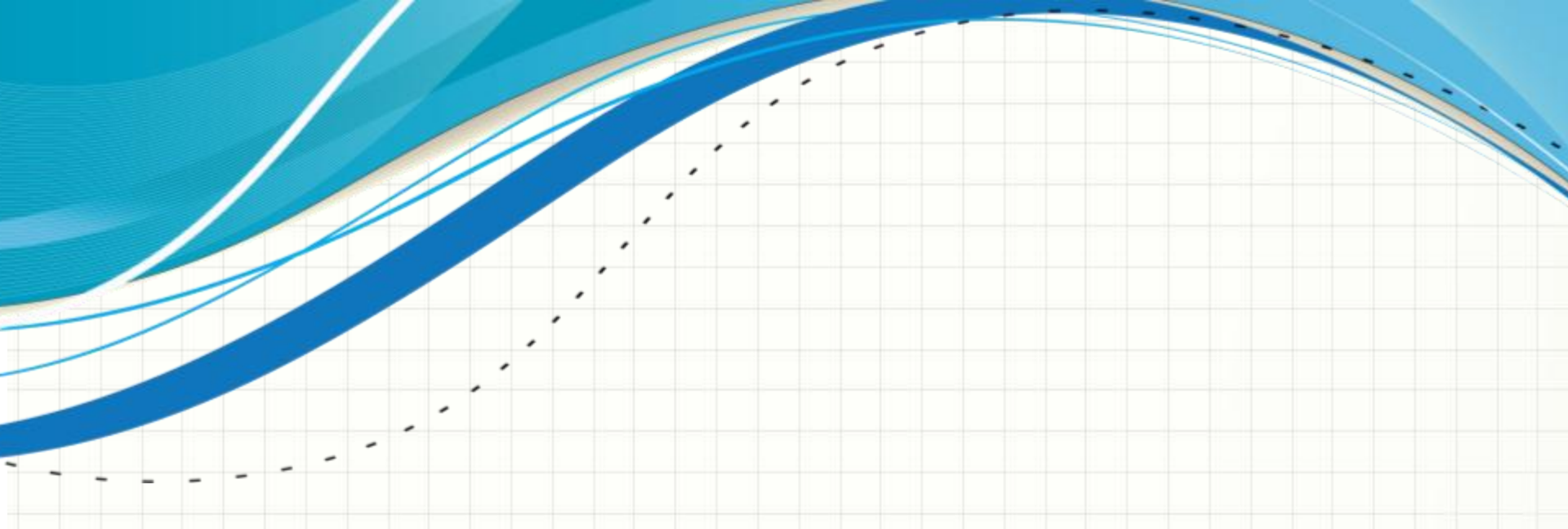
- ***Necessary Functionality:***

- Universal OS support
- Self-registration
- Select data destruction

Technologies and Requirements

Unified Communications

- ***Premise:*** *A software application on a smartphone that will interface with the corporate UC platform to extend internal functionality (voice, presence, messaging, etc.) to a mobile worker.*
- ***Necessary Functionality:***
 - Universal OS support
 - Ease-of-Use
 - *Bullet-proof* operations



TABLETS

Technologies and Requirements

Post-PC Consumerization

- **2010:** Apple iPad and Samsung Galaxy
 - Small, Light, Long Battery Life
 - Great Display, Limited I/O
 - Productivity and Personal Applications
 - Superior Marketing Campaigns
- ***Premise:*** A (relatively) high-priced, under-powered consumer device with limited storage and output options can replace enterprise-grade computers.



POLICIES

Enforceable Policies

Key Considerations and Questions

- ***General technologies:***
 - **MDM** for smartphones and tablets
 - 4 major OS variants, multiple versions for each
 - **Virtual Desktop** and/or **NAC** for laptops
 - Major software clients, or *Virtualization-On-A-Stick*
- ***Technical support:***
 - **Application support** for multiple platforms
 - **Device support** for application conflicts
 - **Data access** by role or position

Enforceable Policies

Key Considerations and Questions

- ***Financial:***
 - **Direct Billing:** staff reimburses company
 - **Stipend:** lump-sum or monthly disbursement
 - **Expense:** budgeted, NTE per eligible employee
- ***Security:***
 - **Risk** for loss of company data
 - **Comingling** of corporate/personal data
 - **Password** enforcement?
 - **Encryption?**

Enforceable Policies

Key Considerations and Questions

- ***Acceptable Use:***
 - **Leverage** existing corporate policies
 - **Consider** HR guidelines regarding content
 - **Business** vs. personal accounts
- ***Legal Hold/Separation/Termination:***
 - **Access** to personal device for Legal actions
 - Device reimbursement/replacement?
 - **Remote wipe** and liability
- ***In Writing, with well-defined penalties***



LESSONS LEARNED

Lessons Learned

Landmines and Hand Grenades

- ***Technology*** provides great promise for problems facing business today
- ***Marketing*** offers shiny solutions
- ***Truth*** is subjective to the needs, culture, and infrastructure of your organization

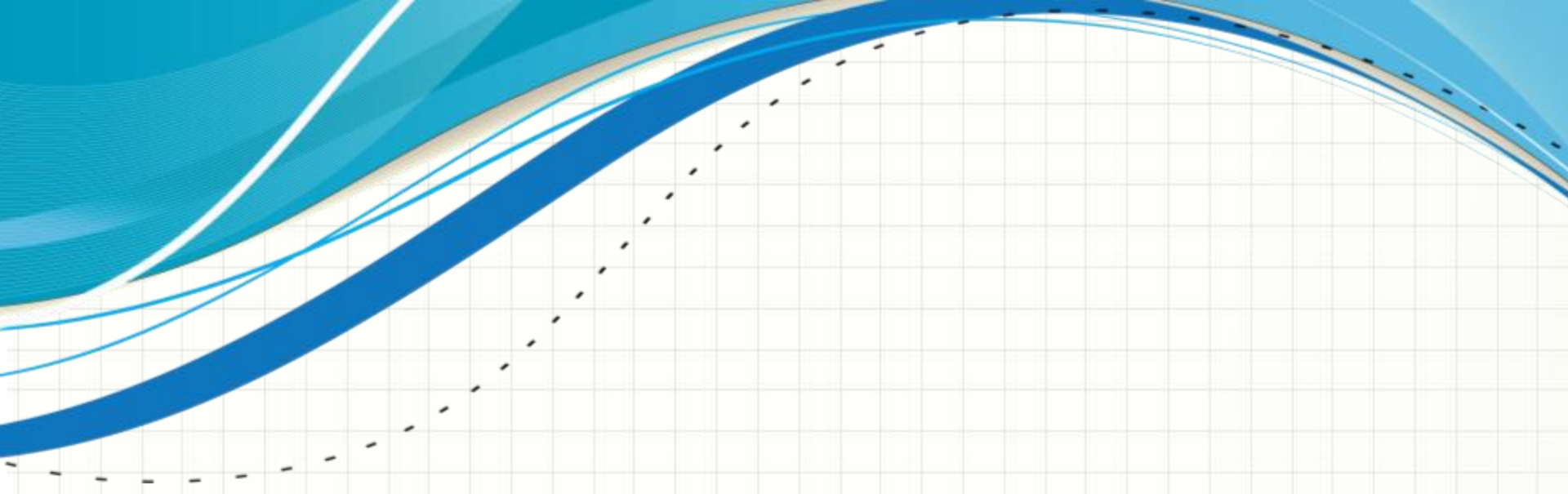
Final Thoughts

- **Plan, or be Steamrolled**
 - Steer the Conversation
- **Perform Your Due Diligence**
 - No ‘One Size Fits All’ Solutions
- **Maintain Personal Flexibility**
 - The Only Constant is Change

Niccolo Machiavelli

The Prince (1513)

“It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage, than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old institutions and merely lukewarm defenders in those who would gain by the new ones”



OPEN DISCUSSION

Resources

- 2011 **Digital Buzz** Mobile Stats Infographic
<<http://www.digitalbuzzblog.com/2011-mobile-statistics-stats-facts-marketing-infographic/>>
- **Gartner** Tablet Sales Forecast
<<http://trak.in/tags/business/2012/04/11/worldwide-tablet-sales-growth/>>
- **Linkedin** BYOD Group
<<http://www.linkedin.com/groups/BYOD-Bring-Your-Own-Device-3700181?gid=3700181&mostPopular=&trk=tyah>>



Thank You!

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