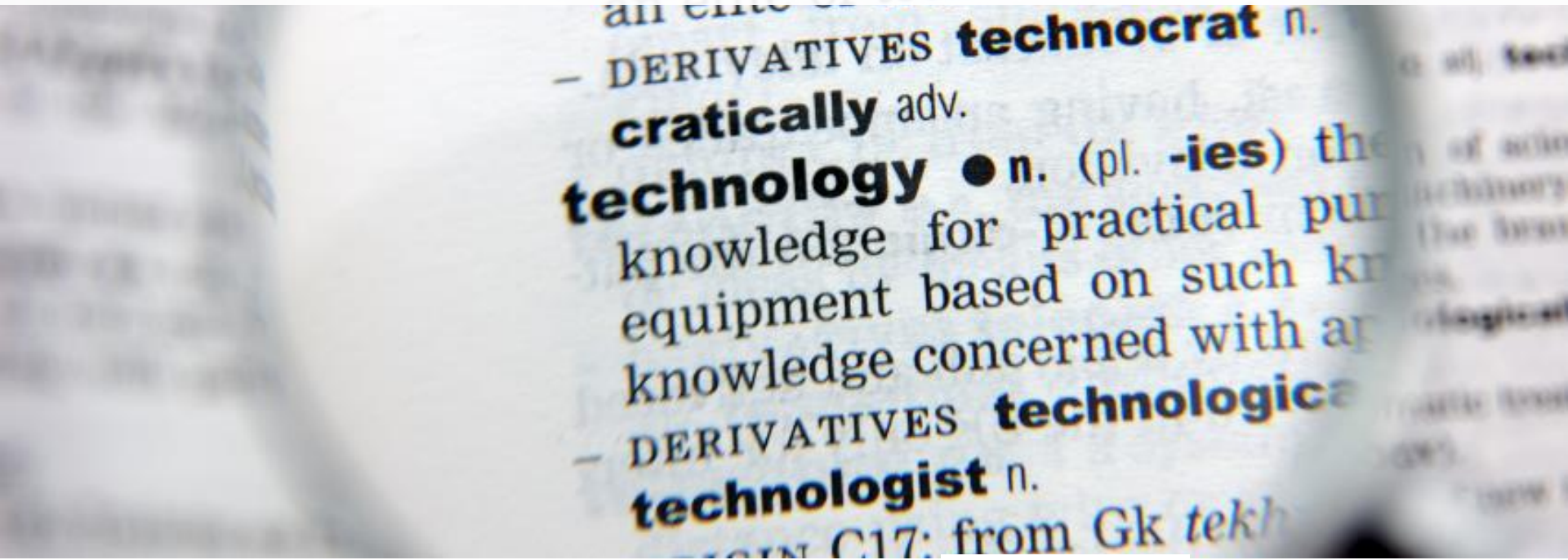


Assessing Quality in Telehealth Technology



Garret Spargo

*Director of Product Development
Alaska Native Tribal Health Consortium*



Alaska Native Tribal Health Consortium

Alaska Tribal Health System

Voluntary affiliation of 30 Alaskan tribes and tribal organizations providing health services to Alaska Natives/American Indians (~158,000 beneficiaries)

Each is autonomous and serves a specific geographical area



Medical Care Service Levels

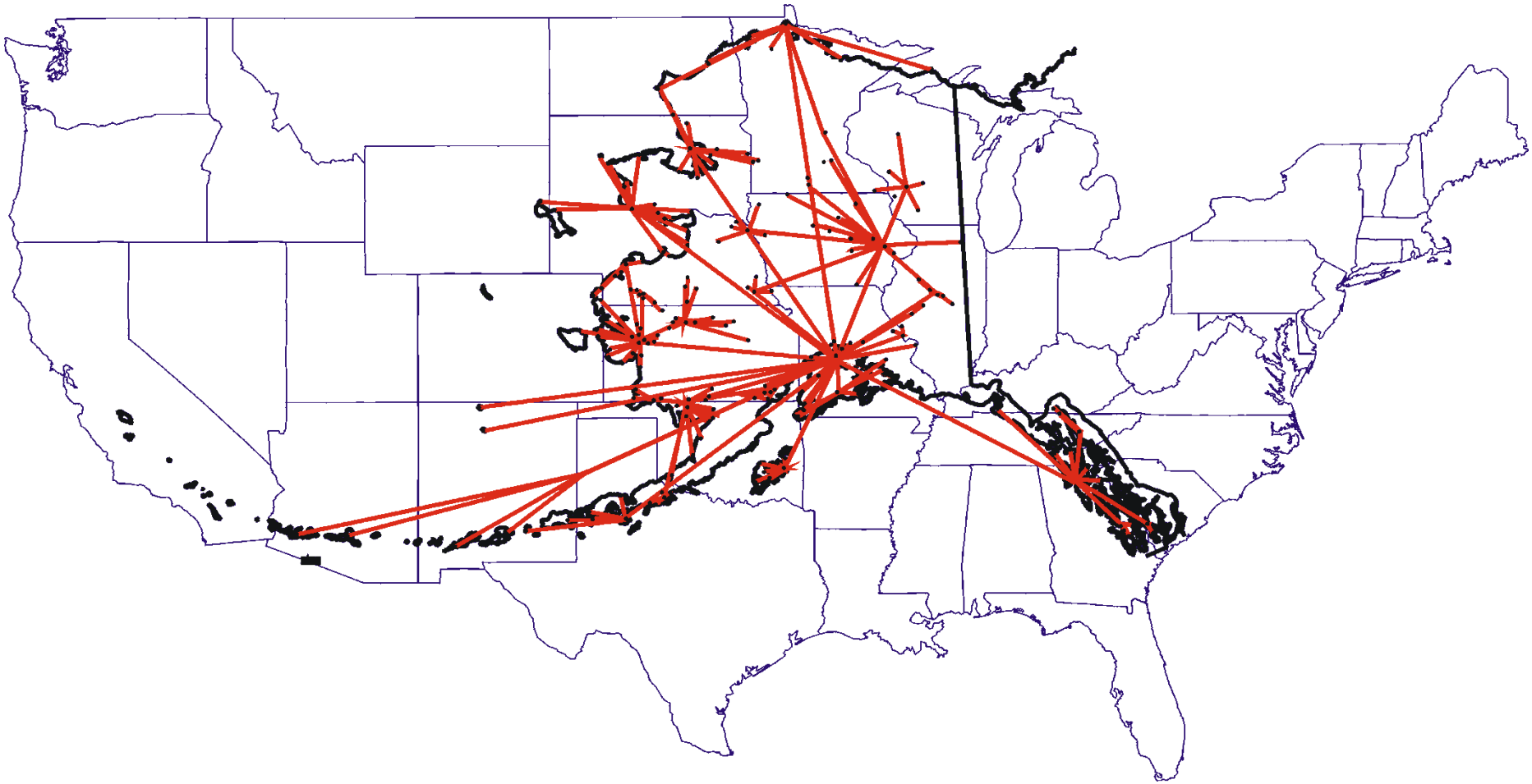
- Alaska Native Medical Center - tertiary care
- 6 regional hospitals
- 4 multi-physician health centers
- 25 subregional mid-level care centers
- 180 small community primary care centers





THE ALASKA NATIVE HEALTH CARE SYSTEM REFERRAL PATTERN

Same Scale Comparison - Alaska Area to Lower 48 States



ANTHC Services

- Alaska Native Medical Center
- Environmental Health and Engineering
- Community Health Services
- Epidemiology Center
- Health Aide Programs
- Telehealth Development



Telemedicine in the ATHS

A Brief History

- 1996 – Alaska Telemedicine Testbed Project
 - “Progress was stalled in getting equipment to the villages, physicians and health aides were slow to begin using the equipment, and in many locations the connectivity could not support the transfer of images.”
 - Eventual success demonstrated the value of telehealth
- ‘96 – Alaska Federal Health Care Partnership
 - DOD, VA, USCG, IHS, PHN collaborative group
- ‘99 – Alaska Federal Health Care Access Network
 - \$30.68M, 4-year project to reach 200 sites



Telehealth Technology Assessment Center

- 2009 – Interagency Agreement
 - Create toolkits
 - Support TRCs
- 2012 – National Telehealth Resource Center
 - Same as above, plus nationwide support
- 2016 – One-Year Continuation
 - Same as above, plus development of new types of content (short-form videos)
- 2017 – Cooperative Agreement
 - To be determined ...



Media: Digital Cameras DSLR Toolkit

[Home](#) » [Digital Cameras DSLR Toolkit](#)

- Anatomy
- Education
- Equipment
- Illustrations
- Patient Exam Cameras
- Software
- Toolkits
- TRC Activities
- User Reviews
- Videos

Featured Photos

We want you to see what we see



DSLR - Wound - Zoom Room Lighting - A

Assessment Process Overview



- Establish Requirements
- Review the Market
- Procure the Devices
- Plan the Tests
- Test the Plan
- Select a Device
- Deploy and Support

The Problem of 1-10-100-10000

The cost of finding a defect:

- 1 – During design
- 10 – During development
- 100 – During testing
- 1000 – After deployment

1

10

100

1000

The Problem of 1-10-100-1000

The cost of the wrong technology:

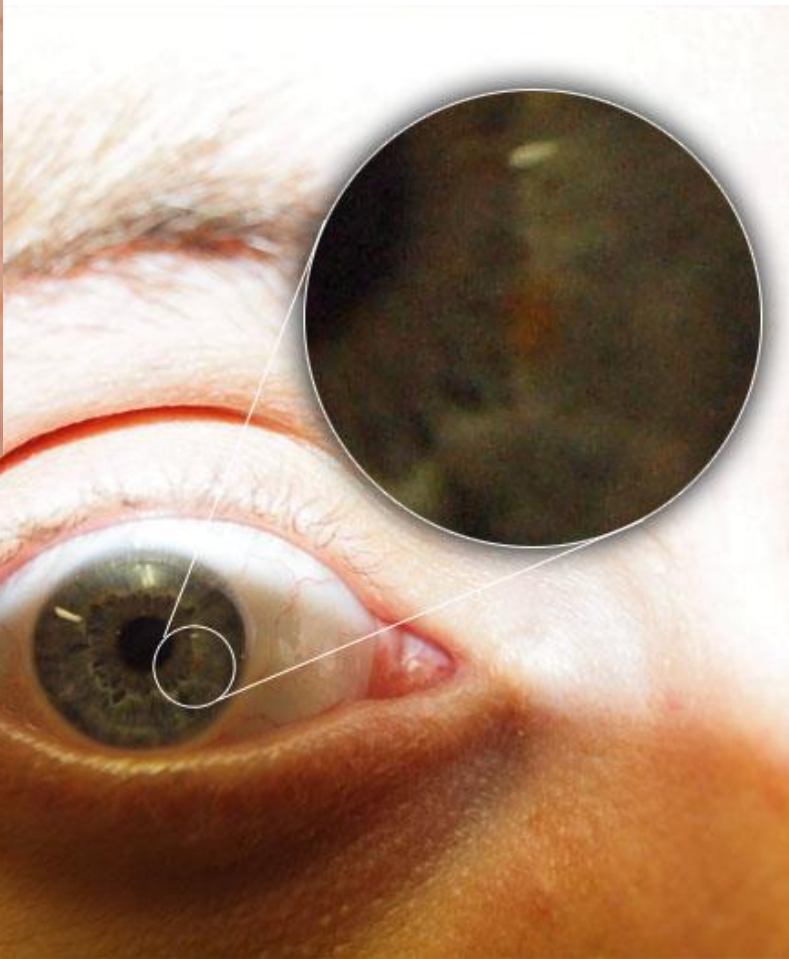
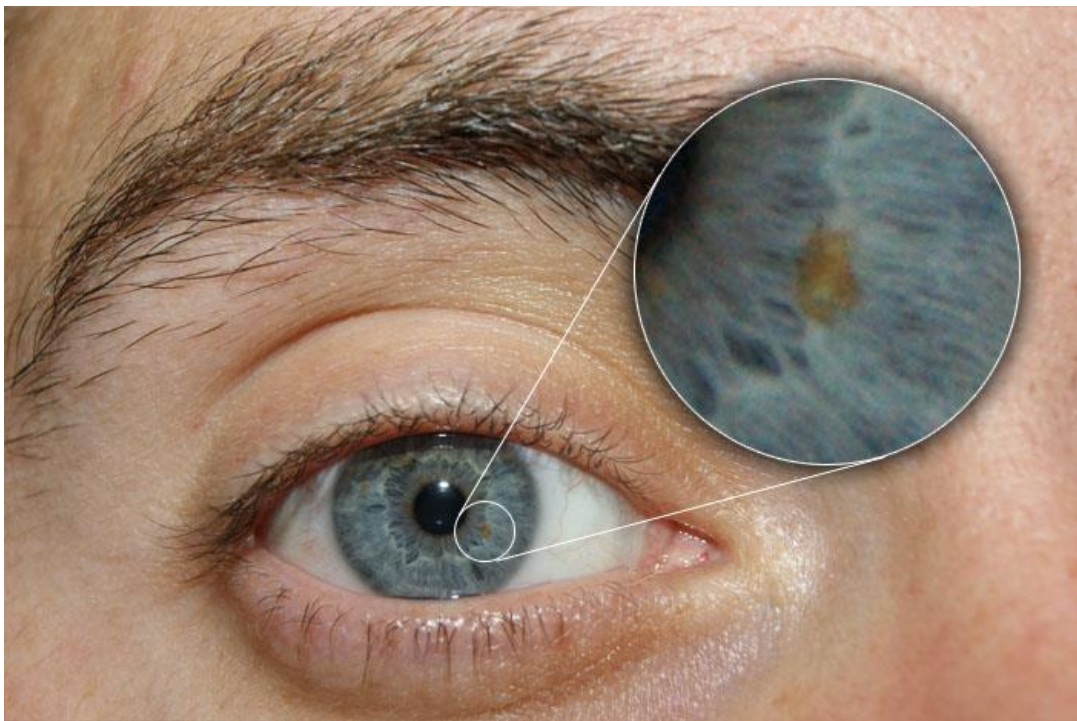
- 1 – During planning
- 10 – During assessment
- 100 – During staging
- 1000 – After deployment

1

10

100

1000



White

Black

Gray

Blue

Beige



Establish Requirements

- Gather input from all stakeholders
- Create shared meaning around the requirements
- Think through a wide range of requirement types:
 - Functionality
 - Portability
 - Interoperability of Interfaces
 - Interoperability of Data
 - Usability

If this is all you do, you will be ahead of those who just head to the market immediately.

Review the Market

- Use online resources – Google, Bing, Amazon, etc.
- Phone a friend – TRCs, OAT Grantees, TTAC
- Talk to organizations that have existing programs
- Contact manufacturers and vendors

If you find yourself doing this before you have a firm grasp on requirements, go back a step.

Procure the Devices

- Manufacturers and vendors can be very useful
 - Loaners are a great thing!
- Buy and borrow what you need
- Keep it all organized
- Try to get devices in at the same time

Your budget and time may not allow this – consider finding a way to get access to the devices at a store, conference, or from another telehealth program.

Plan the Test

- Quantify your requirements
- Develop methods to test against the requirements
- Planning and testing can be iterative

This does not need to be an all-inclusive, massive test suite – determine what you are really looking for with these tests.

Test the Plan

- Test independently or in a group setting
 - Independent tests can prevent “group think”
 - Collaboration can foster new discussions
- Document EVERYTHING
- Be consistent
- Update the test as needed

Have the right people involved at the right time – you can save a lot of frustration and repeated (or unnecessary) effort if the equipment is evaluated by the correct people.

Select a Device

- Get the reviewers together
- Discuss the scores – clarify discrepancies
- Consider bringing in the initial requirements team
- Be prepared for a second review of top devices
- Make a decision and share your results

This will happen regardless of how many of the previous steps you have taken – your exact process here will vary depending on your other efforts.

Deploy and Support

The background features two faint, light-gray silhouettes. On the left, a person is walking towards the right, carrying a large box. On the right, a person is pushing a cart or trolley loaded with several boxes.

- Device Staging
- Configurations
- Spares
- Warranties
- Customer Support
- Troubleshooting
- Training
- Replacing Equipment

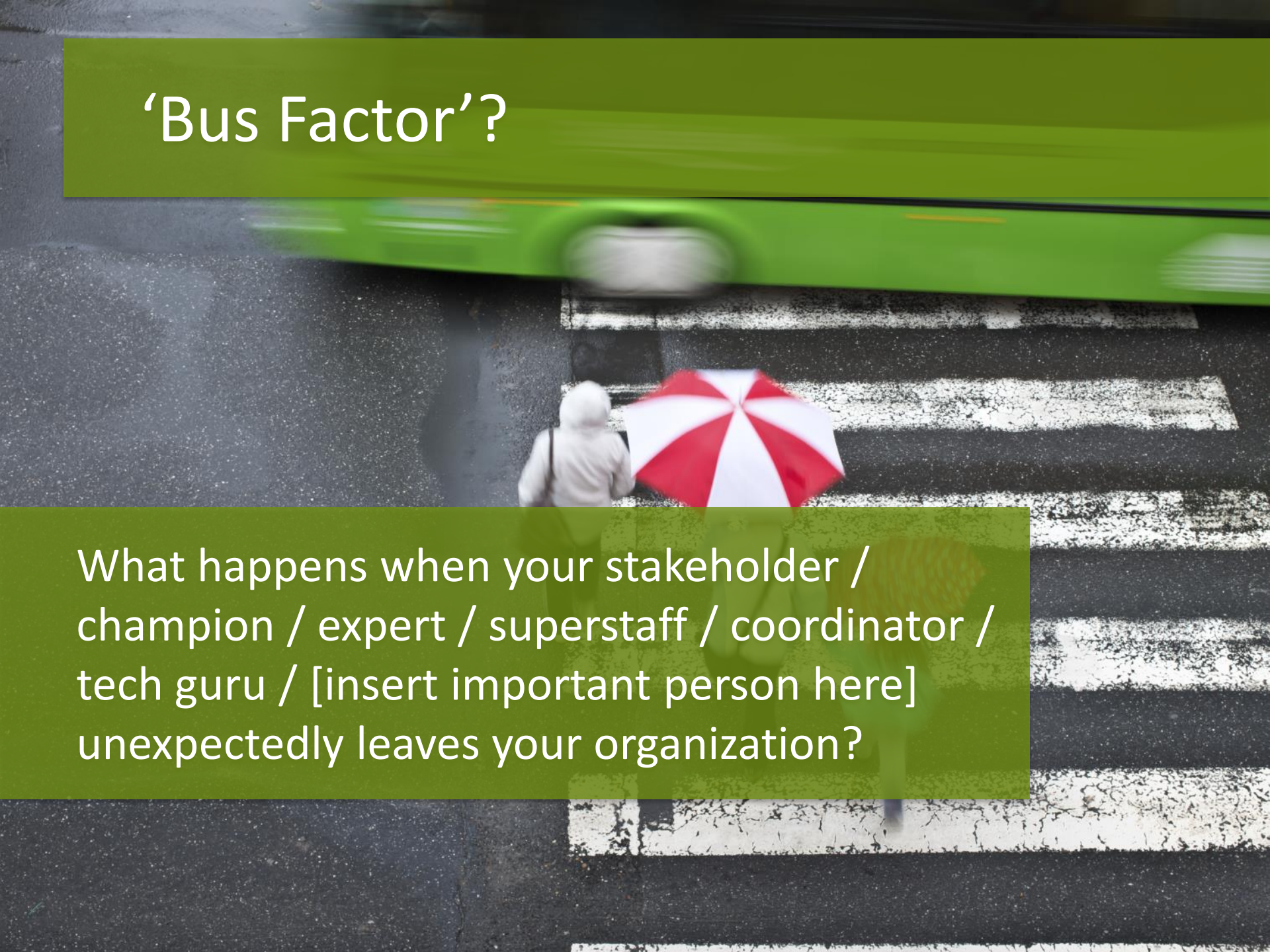
This requires its own plan, process, and work that will likely be somewhat unique to each technology, organization, and deployment size.

Leverage Resources & Build Capacity

People may have the skills you want
Skills may exist that you don't know you want
Increase organizational capacity
Reduce your 'bus factor'



'Bus Factor'?



What happens when your stakeholder / champion / expert / superstaff / coordinator / tech guru / [insert important person here] unexpectedly leaves your organization?

The Impact of the Bus

A blurred green bus is moving across a crosswalk on a rainy street. A person with a red and white umbrella is crossing the street. The background is a dark, wet pavement with white crosswalk lines.

Systems become underutilized
Disorganized updates / upgrades
Projects scrapped completely
Loss of collaborative relationships
Return of the risk of '1000'



Initial 20 Findings Analysis Overview



Safeguarding Health Information: Building Assurances Through HIPAA Security

The question is not if you will have a breach,
but more so when.

*Linda Sanches, Sr. Advisor, Health Information Policy
Department of HHS*



Analysis of Findings by Rules






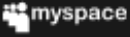














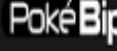























OCR



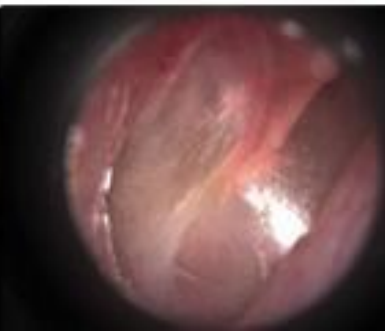
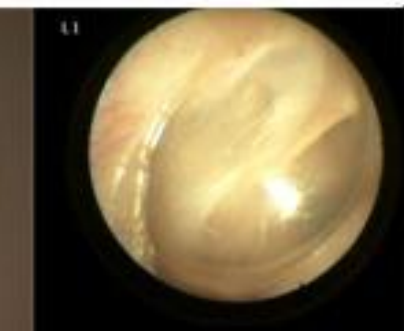
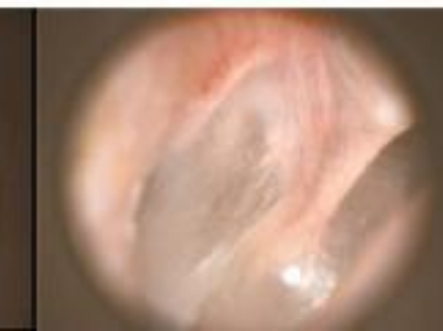
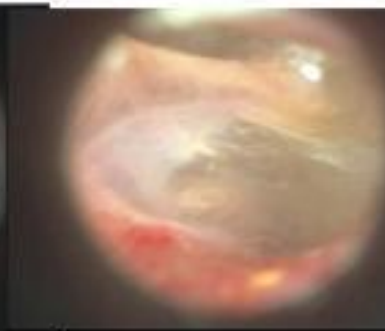
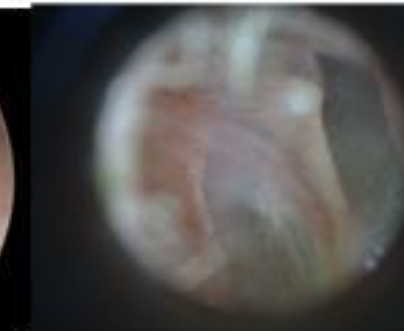
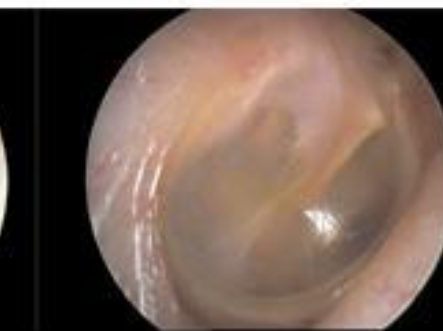
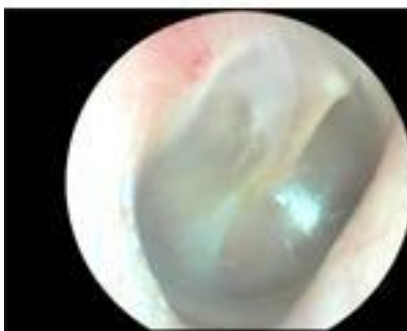
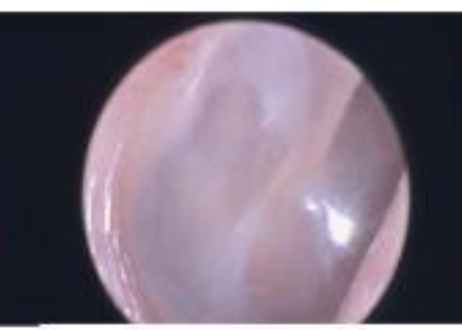
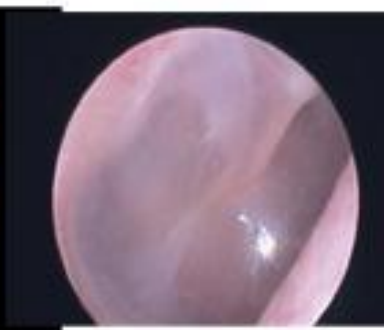
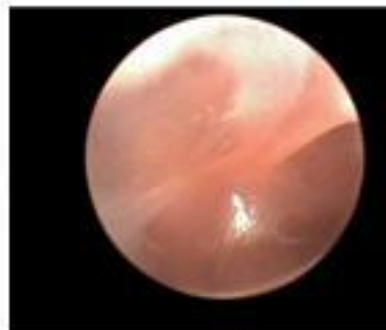
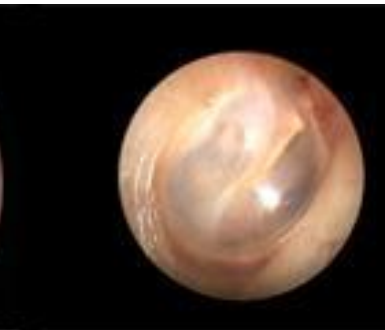
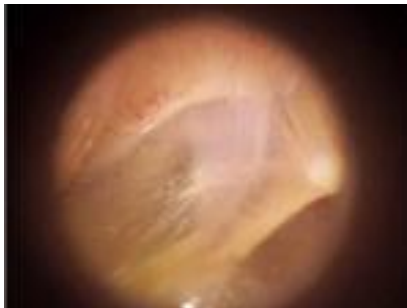
Breaches

- 1896 breaches impacting 173,794,309 individuals since October 2009
- Did you know that there were breaches of:
 - 80,270 at Washington University School of Medicine last week
 - 279,663 at Urology, Austin, PLLC two weeks ago
 - Nearly 700K at Commonwealth Health Corporation in Kentucky a month ago?
- Ever since Anthem (78,800,000) and Premera (11,000,000) and Excellus (10,000,000), our sense of scales shifted



	393,430,309	River City Media Spam List accounts 		800,157	Onverse accounts
	359,420,698	MySpace accounts		790,724	Brazzers accounts 
	234,842,089	NetEase accounts 		777,387	Black Hat World accounts
	164,611,595	LinkedIn accounts		745,355	Android Forums accounts
	152,445,165	Adobe accounts		738,556	WildStar accounts
	112,005,531	Badoo accounts  		699,793	mSpy accounts
	93,338,602	VK accounts		657,001	Pokébip accounts
	91,436,280	Rambler accounts		648,231	Domino's accounts
	68,648,009	Dropbox accounts		620,677	Final Fantasy Shrine accounts
	65,469,298	tumblr accounts		616,882	Comcast accounts
	58,843,488	Modern Business Solutions accounts		612,414	ThisHabbo Forum accounts
	52,578,183	Zoosk accounts  		611,070	HLTV accounts
	49,467,477	iMesh accounts		599,080	Nulled accounts
	40,767,652	Fling accounts 		590,954	Paddy Power accounts
	37,217,682	Last.fm accounts		583,503	CloudPets accounts
	33,698,126	NetProspex accounts 		568,340	BTC-E accounts
				530,270	Battlefield Heroes accounts





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