New Solutions, Challenges, and Opportunities:
CAPI the NASS Way

Seminar on New Frontiers for Statistical Data Collection

Geneva, October 31 - November 2, 2012

David Kleweno
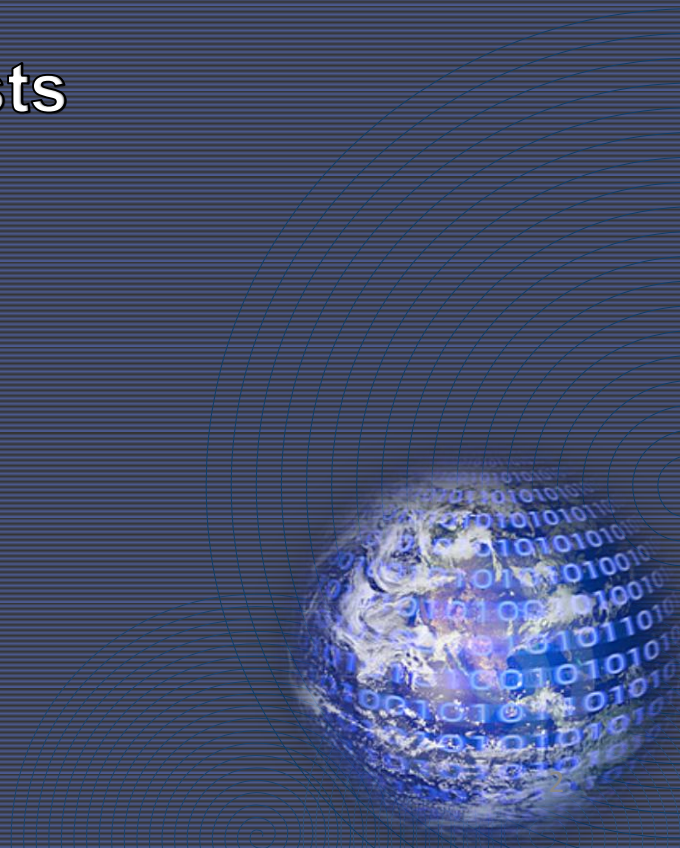
United States Department of Agriculture

National Agricultural Statistics Service

Why??
Efficiencies Gained…Initiative #3

- Decrease Field Office Staff Time

- Printing Costs

- United Parcel Service /Postal Costs

- Improve Data Quality

- Timeliness of Data

- Reduce Respondent Burden

- Increase Response Rates

CAPI History at NASS

- 1980's – 1990's - Conventional Laptop Computer (Indiana and Pennsylvania)

- 2004 - Portable Digital Assistant (PDA) (North Carolina)

- 2005 - Tablet PC (Iowa)

- 2007 - Convertible Laptop/Tablet

- 2010 - Lenovo Netbook (Indiana and New Jersey)

- 2011 - CAPI Solution! Apple iPad (Indiana and New Jersey)

CAPI Team

- ➤ Executive Sponsor: Renee Picanso - Director
- ➤ Business Council Sponsor: David Kleweno
- ➤ Pam Hird: Pam Hird CAPI Project Manager
- ➤ 9 Team members
- ➤ 4 full time / 5 part time
- ➤ Senior Programmer: Mojo Nichols, Contractor

Challenges for Deployment……

- Technology

- Signal fluctuation

- Electronic Data Repository (EDR) platform

- Security

- Budget

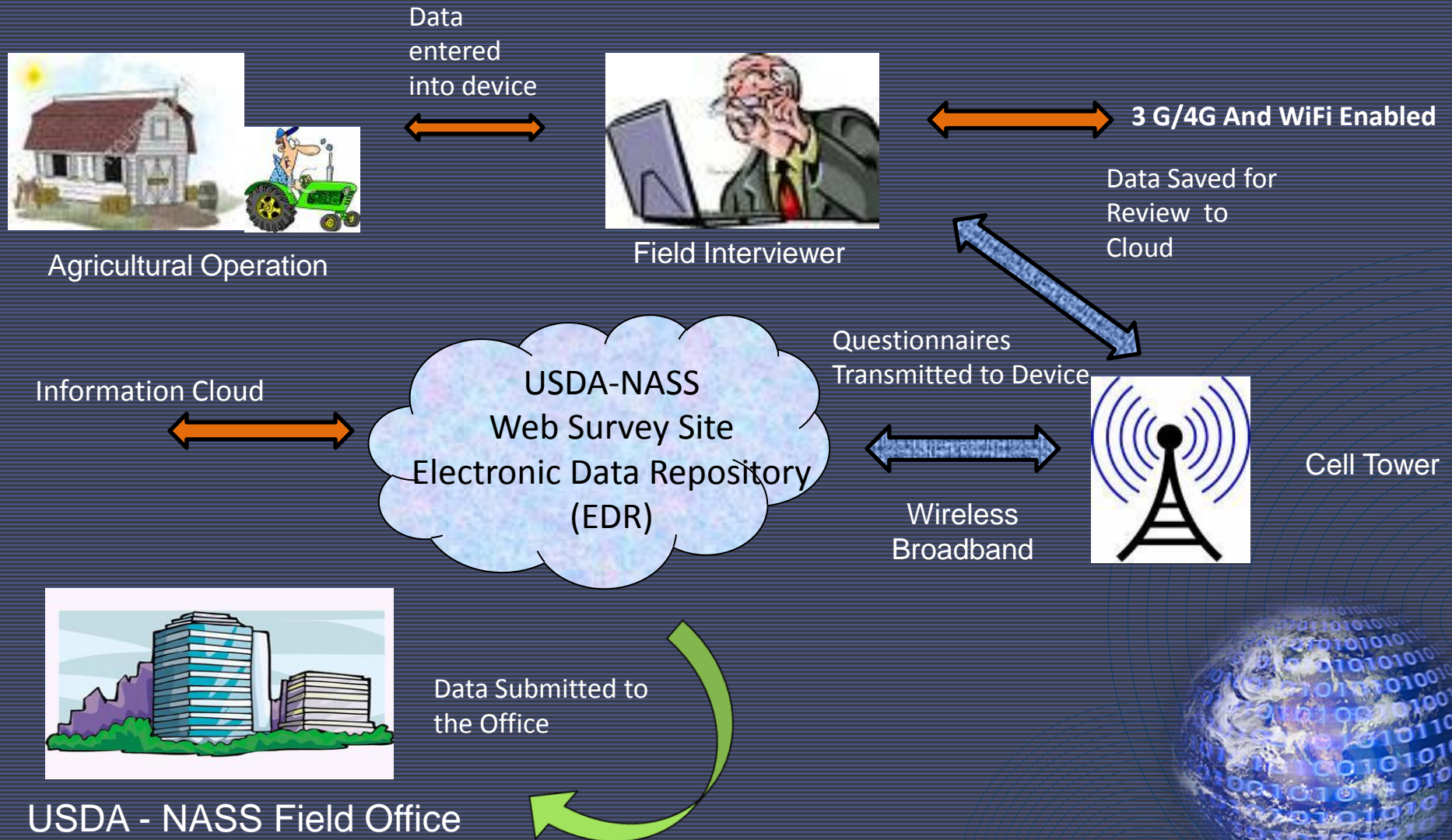- Resistance to change

- Training the end user

Project Timeline

➢ **Phase 1** Proof of Concept – Nov 2009–Dec 2010
- Field Testing (2)
- Recommendation for improvement

➢ **Phase 2** Integration and Optimization – Dec 2010–Sept 2011
- Pilot states (8) added for testing in production

➢ **Phase 3** Full Implementation – Oct 2011–Jan 2013
- 46 field offices

➢ Continuous improvement – put into production and improve over time

CAPI Solution

Data entered into device

3 G/4G And WiFi Enabled

Agricultural Operation

Field Interviewer

Data Saved for Review to Cloud

Information Cloud

USDA-NASS Web Survey Site Electronic Data Repository (EDR)

Questionnaires Transmitted to Device

Cell Tower

Wireless Broadband

Data Submitted to the Office

USDA - NASS Field Office

Unique Elements of the Solution

- Security

- EDR system

- AJAX

- Training program

Solutions .... Training Program

- ➢ Developed over a 2 year timeframe

- ➢ All methods of Learning

- ➢ Instructors – KEY

- ➢ Streamlined training program to 12 hours (50%)

- ➢ Paired Field offices

- ➢ Dynamic and energetic

Solutions…..Build the Excitement

➢ iPad – new and exciting solution

➢ Marketing – internal and external

➢ Ownership in project

❖ End user testing

❖ Incorporated suggestions

❖ Solution makes job easier

Built in Efficiencies

- ➢ Supervisor interface

- ➢ Electronic enumerator assignment

- ➢ Extended data collection timeframe

- ➢ Questionnaire review remotely

- ➢ Quality checks

Trends

➢ Positive acceptance – enumerators and respondents

➢ Training program effective – retention and quality

➢ Significant reduction field office staff hours

➢ Increased data quality

➢ Timeliness of data

➢ Reduction in paper requirements

Projected Savings

➢ Current surveys - $3 million annually

➢ After incorporation of complex surveys

   $6 – $10 million annually

➢ Return on investment – 3 to 5 years

➢ Approximately 20-25% reduction in

   field office costs

Current Challenges…..

- ➤ Changing technology

- ➤ Additional budget constraints

- ➤ Continued training

- ➤ Tightening security

- ➤ Integration into current/developing systems

- ➤ Project expansion beyond scope

What's Next for CAPI ???

Questions ?

Comments ?

dave.kleweno@nass.usda.gov