

Improving WIC Services in Remote Areas of Oregon by Connecting WIC Satellite Clinics to the Internet

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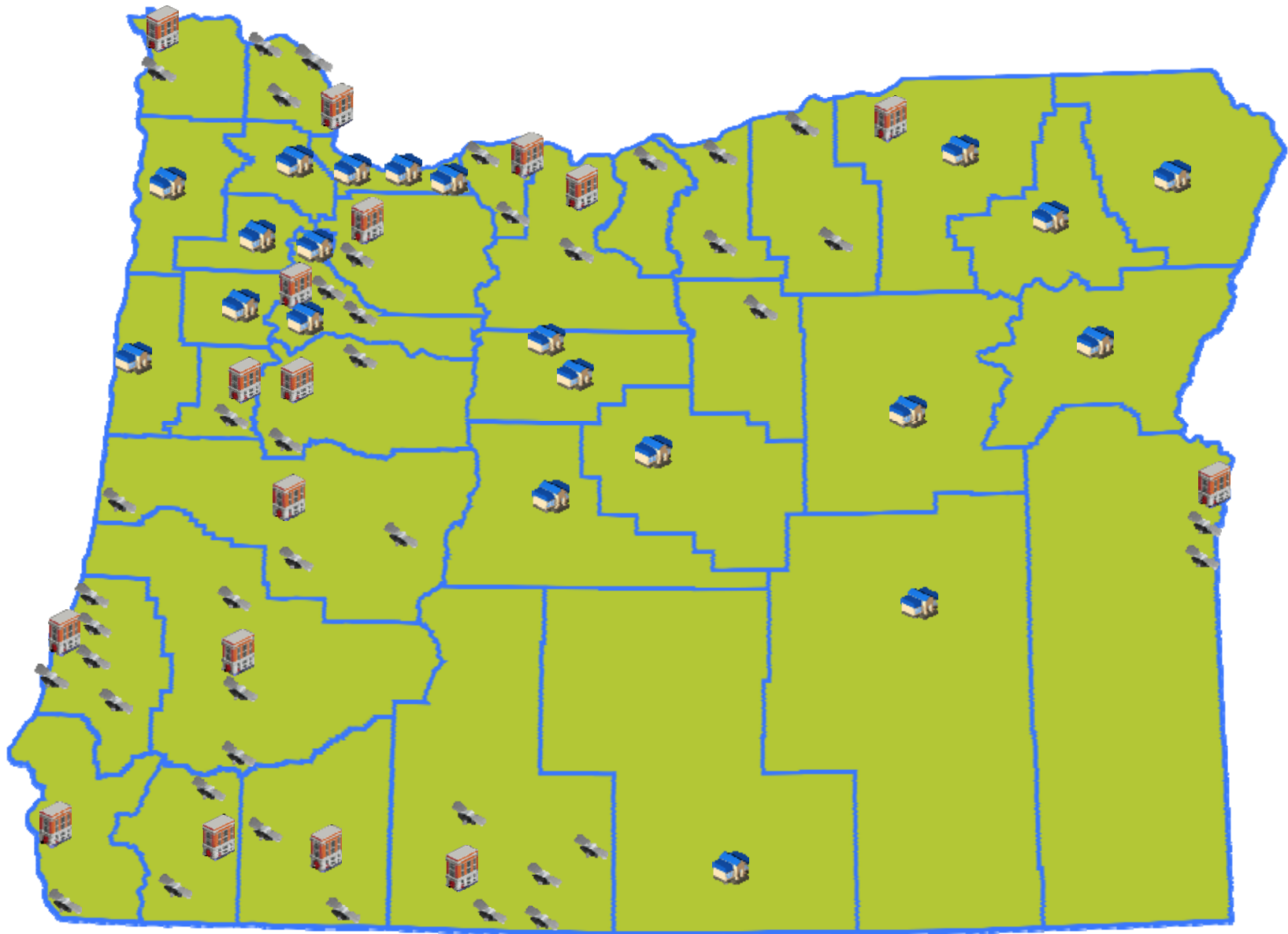


Oregon WIC Satellite Clinics

The Oregon WIC Program conducts 42 remote area satellite clinics in 20 counties throughout the state through relationships with:

- **Community centers**
- **Churches**
- **Fire departments**
- **Tribal centers**
- **Head Start programs**





WIC Agency with
Satellite Clinics



Satellite Clinic



WIC Agency without
Satellite Clinics

Previous Configuration

- **Internet not available at most remote area satellite clinics**
- **Data management system operated on a centralized Citrix Server system, with a second stand-alone laptop server version developed for the laptops used at satellite clinics**
- **Citrix client software loaded onto laptops, with one laptop designated as laptop server**



Previous Configuration

- **Satellite clinic participant data downloaded to laptop server at main WIC agency**
- **Access point used to connect workstation laptops to laptop server at satellite clinic**
- **After returning to main WIC agency, updated data would be uploaded from laptop server to central servers**



Previous Configuration



Previous Configuration – Drawbacks

- **Participant data was downloaded and stored on the laptop server, making laptop theft or loss a security risk**
- **Only select data elements from WIC participant records were available from laptop server**
- **Downloaded records were “locked out” of the main data system while on the laptop server**



Previous Configuration – Drawbacks

- **The laptop server download/upload process and access point configuration was time-consuming and problematic**
- **Each main application release (every 2 months) needed a matching laptop release**
- **New food package changes to laptop version would be very extensive**

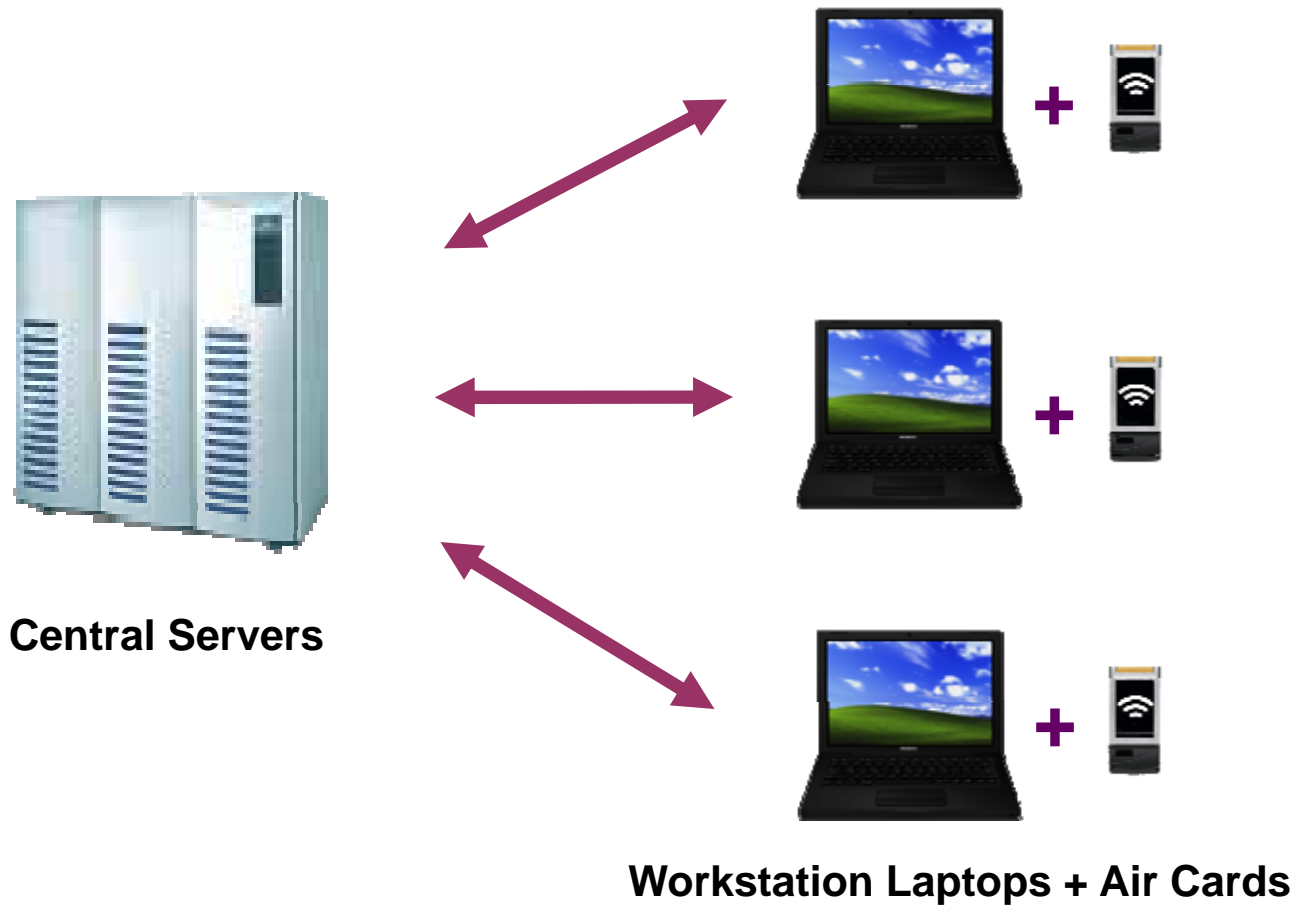


New Configuration

- **Citrix web client and Internet access via cell phone company “air cards”**
- **Each laptop and air card interacts directly with central servers**
- **Access identical to that provided at main agency locations**



New Configuration



Benefits of the New Approach

- **WIC staff has access to complete and real-time participant data records**
- **Improved data security**
- **Decreased staff time needed for preparation, set-up, and troubleshooting**
- **No laptop-specific updates needed for new food package implementation**



Benefits of the New Approach

- **Walk-ins can be accommodated**
- **Immunization clinic participants can be screened for WIC eligibility**
- **WIC clinic participants can have their immunization records verified online**
- **Medicaid enrollment can be verified online**
- **Farmers' Market coupons can be issued**



Benefits of the New Approach

- **Laptops can substitute for main agency workstations during local agency network or workstation failures**
- **Laptops and portable printers can provide additional resources during busy clinic times and for classes**



Pilot Testing

- **3-month pilot test in one county with three satellite clinics**
- **Guided the process for testing and implementation at remaining sites**
- **Guided development work for laptop re-imaging**
- **Pilot testing highly recommended**



Air Card Testing

- **Testing conducted with 3 national wireless providers – Verizon, Sprint, and AT&T**
- **Contractor used SpeedTest.net to get upload/download stats for each carrier**
- **When possible, had local agency staff test connection with WIC application**
- **Contractor staff noted wireless signals where available**



Laptop Re-Imaging

- **54 laptops re-imaged**
- **36 hours programmer time to develop laptop image and instructions for contractor**
- **Image on external drive highly recommended over disks (25 min. vs. 90 min. to complete)**
- **Re-imaging process wiped out old configuration and any potential participant data**



Laptop Printing

- **Emergency Citrix upgrade occurred during re-imaging phase**
- **McAfee patch required**
- **Specific printer settings required**
- **Each laptop needed a unique name**



No Paper Certs Needed!

- **Based on air card testing, anticipated 6 sites having to revert to paper certifications**
- **Verizon worked in unexpected places**
- **No sites have to use paper**



Project Cost and Timeline

- **State WIC covered all development, contractor, and air card fees**
- **Contractor fees \$90/hour (approx. 220 hours total, including travel time)**
- **52 air cards acquired**
- **Air card fees \$45/month each**
- **Overall pilot, testing, and roll-out timeline 8 months**



Results – Everyone is Happy!

- **Overwhelmingly positive response from all parties involved**
- **Broader and more efficient service provided to WIC participants**
- **Much less state and local staff time needed to use and maintain**

