One Laptop per Child

Country Technical Support

September 18, 2008

Planning for Deployments

- Planning in advance
  - Establish Country Team
  - Imaging and Choosing Content
  - Protocol for End User Support
- Deployment Guide
  - http://wiki.laptop.org/go/Deployment_Guide

Technology-Planning Phase

- Activities and Content
    - Choose and Test
    - Translate
    - Language and Keyboard
- Power
    - What is available in Schools
    - Equipment for Charging

Technology Roll-out Phase

- Installation and Upgrade
    - Be ready to upgrade and image all XOs
    - USB Upgrades
- Plan for upgrades after deployed
    - School Server
   - WAN
    - USB Drive

Security

- Pre-Activated Laptops:
    - No keys required, no process needed
    - Arrive in default condition; countries must specify need for Anti-theft
- Un-Activated Laptops: Anti-theft in Delivery
    - Recommended for >5000 laptops
    - Activation keys required
    - Deployment tech contacts must obtain activation keys and learn process
    - Important planning required at warehouse and at activation point

Connectivity

- Network
    - Infrastructure: Wired/Wireless
    - RF Environment
    - Scale: Number of XOs in class and school

XO under a tree

Up to 10 laptops per mesh channel (3 channels) can collaborate with no wireless infrastructure
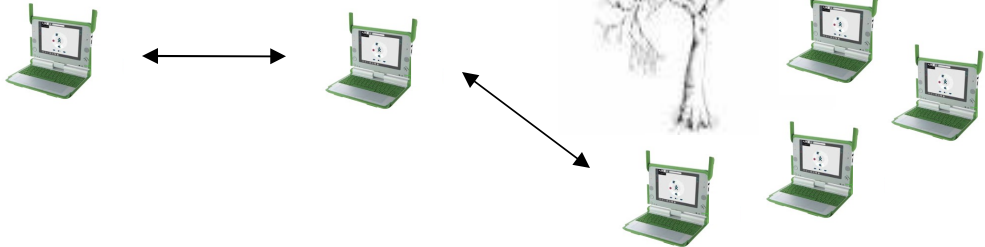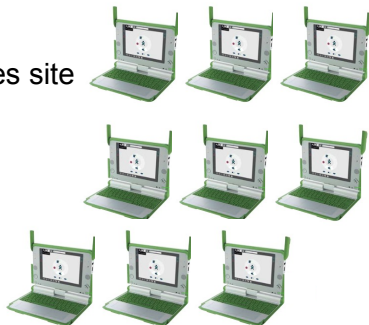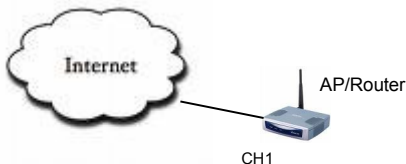
XO with AP

Up to 20 Laptops / Access Point

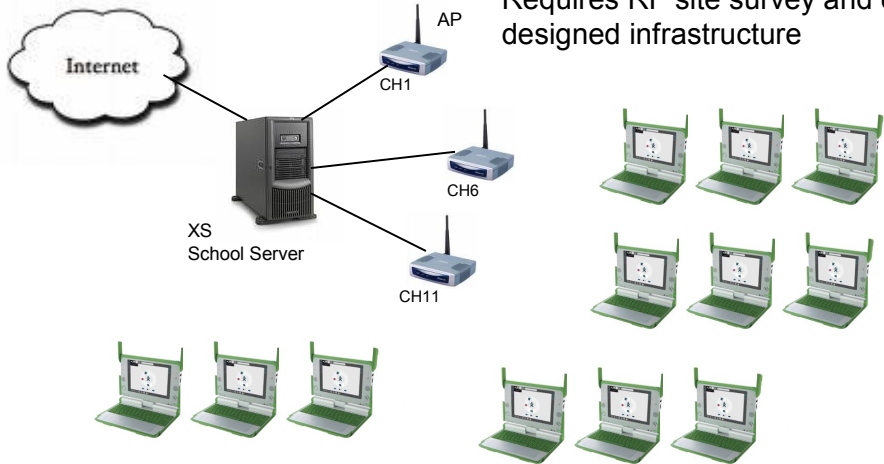More than 60 laptops and 3 Access Points requires site survey and carefully designed infrastructure

XO with XS Server

Up to 30-40 laptops per AP

Up to 300 laptops per school server. Requires RF site survey and carefully designed infrastructure

Connectivity/Collaboration

- Connectivity with other XOs and Internet:
  - Simple mesh, up to 10
  - 802.11b/g - via infrastructure access point, up to 20 XOs
  - With ejabberd on school server, 30-40 laptops per access point
- Collaboration, typical session <1 hour:
  - Chat, 30-40 laptops can share a chat
  - Write, 2-3 laptops can collaborate on a Write document
  - Record, 8-10 laptops can share Record photos (sharing video is not supported)
  - Browse, 30-40 laptops can share Browse link

Technology-Ongoing Phase

- Post-Installation Support
    - Help establish and train for local repair centers
    - Provide contacts, process, pricing for ordering spare parts
    - Provide appropriate sysadmin, teacher training:
        - Connectivity, Networking
        - Upgrades, Backups, Power issues
        - Development, test and community groups
    - Problem tracking DB
    - Escalation system for OLPC bugs

Escalation for problem tracking

Country team | OLPC

FAQ
Wiki Docs
Release Notes

FAQ
Manuals
Training
Man

Teachers
Admin
Students

Trac
(SW/HW bugs)

Problem
tracking
system

OLPC
Problem
Tracking

Escalation path:
OLPC Tech Support
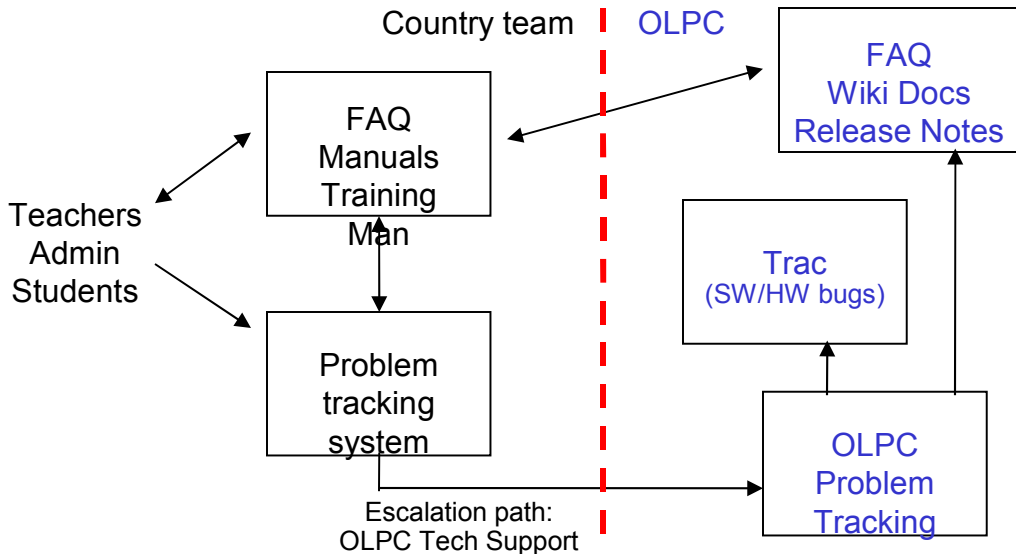
Tech Support - Countries

- Country's Role for Tech Support

    - Create localized FAQ (based on OLPC FAQ)

    - Create Network/IT documentation for country specific needs

    - Build a database for deployment and for problem tracking

        - Track which laptop goes to which school

        - Track laptops that have hw and sw problems

        - Keep records of problems/resolutions to build knowledge base

    - Provide local teachers/administrators with info on how to track problems

    - E-Mail to OLPC for problems not resolved locally

Tech Support - Countries

- OLPC Role for Tech Support

    – Provide repair center ideas, guidelines, troubleshooting manuals and information

    – Encourage use of problem tickets, local help centers, FAQ, documentation of work

    – Encourage the use of volunteers and local open source development resources

    – Provide information on customizing activities and content; localization

    – Provide an Escalation path to OLPC

Hardware Support

- Warranty
    - Additional 1% shipped at no charge to cover 90 day breakage warranty
    - Use DOA (Dead on Arrival) XOs to seed spare parts for Repair Centers
- Escalation
    - Contact OLPC if >1% failure rate.
        - i.e. previous batteries that did not charge

Hardware Support

- Repairs
    - OLPC supplies troubleshooting documentation (English)
        - http://wiki.laptop.org/go/XO_Troubleshooting_Guide
    - Country supplies local repair center
        - Student Workers
        - Volunteers
        - Encourage Small Business
- Spare Parts
    - Large Deployments: >10,000 XOs direct contact with manufacturer, i.e. batteries, displays, etc..
    - Smaller Deployments: work with OLPC/Brightstar for orders

Software Support

- Open source software
  - Allows/encourages contributions from many sources
  - No proprietary or licensing issues
  - No formal support programs
  - http://lists.laptop.org
  - http://wiki.laptop.org

Software Support

- OLPC releases
  - Target of 2 major releases per year
    - Continue improvements in security, power management, collaboration, upgradability
  - Minor or patch releases
    - Address urgent security issues
    - Critical bugs, Language/keyboard support
  - Most Activities are developed outside of OLPC
  - http://wiki.laptop.org/go/Releases

Questions?

- Contact me: reuben@laptop.org
- Country Team Contact:
  - olpc-techsupport@laptop.org