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
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

Teachersones Admin Students

FAQ Manuals Training

Problem tracking system

Escalation path: OLPC Tech Support

Country team

OLPC

FAQ Wiki Docs Release Notes

Trac (SW/HW bugs)

OLPC Problem Tracking
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)
  - 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?

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