Promethean KUNO and Promethean Manage

Network Administrator Guide

July 2014
Overview

The Promethean KUNO education tablet system transforms the classroom into a safe, learner-centered environment, allowing students to play a more active role in their own learning and providing teachers the data they need to differentiate instruction.

Teachers and administrators can access their customized Promethean Manage site to integrate with school/district data systems, create and assign lesson content, centrally manage application and web link content, and distribute and receive content to and from student tablets. Student course materials and assignments are available for use both online and offline.

Promethean KUNO features include:

● Centralized management of content
● Interface optimized for the classroom
● Cloud-based central repository
● Connected with student devices
● Built-in student response functionality
● Monitor and control each student’s device screen
● Automated delivery of homework
● CIPA compliant secure web filter
● Maximize existing classroom technology
Promethean KUNO and Promethean Manage Network Basics

- Schools must have TCP/IP network capabilities
- Promethean KUNOs require a stable, strong wireless signal
- Devices must have access to SSID
- Devices must be able to reach the external Internet
Promethean KUNO and Promethean Manage
Minimum Network Requirements

- Bandwidth: 50Mbps per 1000 students/teachers.
- Preferably, teachers and students will be on the same network. If not, students and teachers will both need access to networks that share a subnet.
- Device-to-device communication must be enabled.
- Throughput: 100Mbps full duplex, 100Mbps backbone.
- Wireless Access Points: One Access Point for every two classrooms with a maximum of 60 connections per Access Point.
- Wireless connection type: 802.11 (B, G) 2.4GHz.
Promethean KUNO and Promethean Manage Optimal Network Standards

- Bandwidth: 100Mbps per 1000 students/teachers or better
- Throughput: 1Gbps full duplex, 1Gbps backbone
- Wi-Fi coverage: One Access Point per classroom and multiple Access Points in high-traffic or high-density areas
- Wireless connection type: 802.11n 5GHz
Security

The Promethean KUNO education tablet system's unparalleled security helps ensure that students are focused on learning. Free from concerns about Internet safety, teachers can offer learners the freedom to explore, dive into the deep end, be creative and pursue learning objectives in the unique ways that inspire them.

- Promethean KUNOs feature a CIPA compliant secure web filter
- Permission changes can be performed from the Promethean Manage site and pushed out to devices
- Students and teachers are assigned a particular device with a unique and personal login
- Logins can be synced by LDAP or Active Directory
- Students can work in Off-Line mode
- Administrators have the ability to drill into teachers’ courses and can set up assignments and other activities for the teacher as needed
- Teachers have the ability to view their students’ tablets via the Connect functionality and can control an individual student’s tablet as necessary to assist instruction
- WiFi Manager helps teachers and administrators to determine best network connections for devices
Security (cont.)

- Student web-filtering can be configured through apps or through filtering methods already in-place at district.
- Promethean Manage comes with either LightSpeed or NetNanny pre-loaded as a hidden app.
- Admin will need to deploy LightSpeed or NetNanny to students for functionality to appear.
- Filtering apps run as a hidden app.
- LightSpeed and NetNanny may need additional configuration if there are already web filters in place.
Data Integrations

Creating Logins

- A user import is necessary to load initial user logins and register the devices. Under User/Devices ➔ User Management, administrators can download the User Import Template, populate the spreadsheet with the appropriate information. Under Import Users, click Select and browse to your file to upload.

- In order to realize the full set of functionality available in your Promethean Manage site, a full data import including users, school information, courses, and classes will need to be performed. Please refer to the the Data Import Guide and the Data Integration Guide for more information.
LDAP Configuration

Promethean Manage can be configured to use Active Directory through an LDAP connection string. The LDAP connection string can be set in the Admin Portal under Global Settings. Select the Global LDAP Configuration tab, and enter the required information. Click Test Connection when complete.

- District must setup LDAP server with external IP address
- Requires Admin username and password
- Your LDAP Administrator will be an excellent resource for further information on configuration
- Network firewall must be configured to allow the following server IP addresses access to external IP via ports 389 and 636:

  50.57.54.221      166.78.123.77
  184.106.243.188    50.57.45.54
  50.57.123.118      50.57.75.10
  50.57.75.20        162.209.3.142
LDAP Configuration (cont.)

- Check *Use LDAP*
- Sync Frequency: this will specify how often the system will sync up user changes in LDAP
- Admin user and password: Please add LDAP server admin credentials
- Connection String: Please specify the connection string using standard LDAP format
- OUFilter: Here you will generate and specify particular LDAP filter parameters to set user classes using Unicode
Local Content Appliance (LCA)

The Local Content Appliance or LCA is a server device that is usually used in deployments of over 250 Promethean KUNO devices. It houses, maintains and distributes content to ensure the swift delivery of content to devices. Once installed with the network, Promethean Implementation Support will need the IP address of the machine to add the device to the Promethean Manage site.

- 250 devices deployed or more implementations may need a Tier 1 LCA. Tier 1 Supports 1-2000 devices with 2 NICs.
- 2000 or more devices will need a Tier 2 LCA. Tier 2 supports 1-5000 with 4 NICs.
- 5000 or more devices will need a Tier 3 LCA. Tier 3 supports 1-15000 on 4 NICs.
Using WiFi Manager

**WiFi Manager** is an APK that is deployed to all Manage sites. This APK gives a visual representation of the Wi-Fi strength.

- This utility can be deployed to all users through the Promethean Manage site
- Scans for stronger network connections available to the Promethean KUNO
- Wi-Fi Manager may interfere with ActivEngage2
Using Connect

Connect is a Java program that can be used by teachers to see exactly what their students are viewing on their devices. Connect functionality can be accessed in two ways: through the Promethean Manage site, through *Teacher Information* (see below); or through *Device Management*.

- Teacher computer and student devices must be reachable over ports 5901 and 5902
- This utility is available to all teachers and admins through the Promethean Manage site
- Devices per Connect Session approximately 30
- 802.11n Access Points (a/g support a minimum)
- Java 7 Update 51 or higher
Syncing the Promethean KUNO devices

Changes made in Promethean Manage, like assigning tasks, pushing apps or changing logins will only apply to the Promethean KUNO devices once a Sync occurs.

- Promethean KUNO devices can be set to Sync automatically as per admin settings, manually and upon login.
- Promethean KUNO devices can only Sync when they are on the school network. They cannot Sync outside of the school’s network.
- Promethean suggests teachers ask students to Sync at the end of school day if students take devices home for homework assignments.
- When a student completes a task in the classroom, they should Sync after completion to ensure the completed task is delivered to the teacher.
- Clicking these three dots will allow students to manually Sync their devices.
Promethean KUNO with ClassFlow

Promethean KUNO devices include Promethean’s ClassFlow application. To use this app, the following requirements must be considered. For further information on ClassFlow please [click here](#).

**Requirements:**
- Access to external Internet
- A login for ClassFlow.com
- HTTPS: Port 443 needs to be open to external traffic
Promethean KUNO with ActivEngage2

Promethean KUNO devices include Promethean’s ActivEngage2 application. To use this app, the following requirements must be considered. For further information on ActivEngage2 please [click here](#). To download ActivEngage2 Server software as well as the ActivEngage2 Network Admin Guide, [click here](#).

**Requirements:**

- Device-to-device communication must be set on network
- Teacher computers must have updated ActivInspire
- Ports 80, 443 and 8081 should all be opened
- Proxy settings, if used, must be entered in ActivEngage2 Server console
- Update ActivInspire, ActivDriver, and ActivManager to the latest versions from PrometheanPlanet.com
- We recommend ActivEngage2 live on a central server to which both teacher computers and student devices can connect
Troubleshooting

Promethean KUNO

- Confirm Wi-Fi is turned on
- Perform a network trace from login screen on the Promethean KUNO device by clicking on the snowman (three vertical dots by home icon) and selecting *Network Trace* to display:
  - Network information
  - Capabilities
  - Network Ping
  - DNS Lookup
- Look up Device Applications by clicking on the snowman at the login screen and clicking on *About Device* to display System Applications, their version and last update.
Troubleshooting (Cont.)

Promethean Manage

- Administrators can impersonate a teacher to drill into assignments or add additional information as necessary. Log in to the Promethean Manage site or click on My Portal and click on Teacher List in the left navigation under Departments and Courses. Search for the teacher and click on their name to view that teachers current classes that allows the administrator to drill into assignments and add additional information or view student progress.

- Administrators can verify permissions for individual users by clicking on Admin Portal, select Users/Devices from the top menu and click on Device Management from left navigation. Search for the individual and click on the edit icon to the right. Click on the Profile tab to view the individuals permissions that you can change for the individual, while the users receiving the changes will have to perform a sync or reboot.
Support

Promethean offers a wide range of support options to provide users with all the information they need to make their implementation a successful one.

- **Extensive Public Knowledge Base** available at PrometheanKB.com
- **Implementations Support**: support.pkt@prometheanworld.com
- **End User Support** at our Global Customer Support Centers found [here](#)
- Additional **Product information** found on PrometheanWorld.com