SECTION 27 10 00: SPECIAL NETWORK DEVICE INSTALLATION

1. GENERAL

A. This section addresses the installation and network configuration procedures for any device that needs to be connected to the “Facilities Utilities” campus Ethernet network. Brown Computing and Information Systems (CIS) refers to these as ‘special network devices’ (SND). Examples include:
   - Electric meters
   - Emergency/standby generators,
   - Central Uninterruptable Power Supplies (UPS),
   - Automatic transfer switches,
   - Building Automation System (BAS) controllers and specialty HVAC controllers,
   - Elevator controllers,
   - Lighting controllers

B. The steps listed below are divided into four sections, Steps A and B can be done in parallel:
   1. Physical tap preparation,
   2. Device IP address request,
   3. Vendor scheduling
   4. final turn-up

2. ROLES & RESPONSIBILITIES

NTG (Brown CIS Network): Network Technology Group that handles configuration of network equipment and allocation of vLANS and IP addresses through Deskpro tickets.

Comm-Ops (Brown CIS): Communication Operations group performs all physical work related to connecting devices in the field based on work orders (telecom@brown.edu)

Telecom (Brown CIS): Telecommunications group that initiates work orders on behalf of customers such as Facilities Management for CIS-Comm-Ops to perform work (telecom@brown.edu)

Operations (Brown CIS): Group that maintains operational monitoring of devices.

PM (Brown Facilities Management project manager): responsible for the overall project which needs the device(s) installed.

GC/CM: General Contractor or Construction Manager

FM IT: Facilities Management IT group (FM_IT@brown.edu)

VENDOR: Vendor or VAR responsible for installation and setup of the device(s) to be connected to the network.
3. INSTALLATION AND NETWORK CONFIGURATION

A. SND setup example:

B. PHYSICAL TAP PREPARATION

1. GC/CM notifies PM of a requirement for a network device. PM sends an email to Telecom (Telecom@brown.edu) to open a work order, including an account# and due date, which is assigned to Comm-Ops for site infrastructure assessment as soon as possible.

2. Comm-Ops locates the nearest TR and designates a port on a patch panel or the location for a new patch panel if no ports are available. Confirms port availability on existing switches.

3. GC/CM installs device, raceway, backboard and cable from network device to the designated TR patch panel. (Reference the diagram)

4. GC/CM or Comm-Ops terminates and tests the cable to the designated patch panel; sends test results and account# to Telecom@brown.edu

5. Comm-Ops activates jack and installs patch cord from patch panel to network switch. Contacts NTG to remotely configure switch port for the correct VLAN and confirms communication via Ping test to one-touch. NTG sends email to FM_IT_Helpdesk@brown.edu when complete.

6. FM IT notifies PM of tap complete.

Do not connect anything to wall tap at this time.
Device, if already installed, must remain disconnected until vendor is on site (see step D below)
C. IP ADDRESS REQUEST

1. **PM** sends request for IP address to **FM IT** (FM_IT_Helpdesk@brown.edu).
2. **FM IT** sends current IP Request Form to **PM**.
3. **PM** works with **GC/CM** to complete IP Request Form and transmits the completed google form to **FM IT**. Note: must include MAC address.
4. **FM IT** submits Deskpro ticket to **NTG**.
5. **NTG** creates “RESERVED IP” or assigns a “STATIC IP” address (if the device is NOT DHCP capable), updates Deskpro ticket with details and assigns back to **FM IT**.

D. VENDOR SCHEDULING

1. **PM** schedules date/time with vendor to be on-site to connect device to the Brown network and emails FM_IT with date/time and contact cell#.
2. **FM IT** updates Deskpro ticket with vendor mobile phone# to contact and assigns to Comm-Ops with NTG as a follower.

E. DAY OF INSTALLATION

1. **Vendor** installs and configures the network device; connects patch cord from network device to wall jack and confirms network device is online or troubleshoots with **Comm-Ops** and **NTG**.
2. **FM_IT_Helpdesk** confirms communication via Ping test and adds to Master Network IP list.
3. **FM_IT Helpdesk** submits Deskpro ticket to **Operations** to add the IP address to Intermapper for monitoring.
4. Responsible FM Group adds device to corresponding head-end system.
5. **Operations** updates Intermapper to begin monitoring device and closes the Deskpro ticket.
**PHYSICAL TAP INSTALLATION**

1. Identify location of SND (building/room)
2. Identify SND wall tap location (building/room)
3. Existing wall taps?
   - NO: New taps installed by CC/CM or Div. 3, Telecom
   - YES: Contact FM IT; provide tap location ID's
4. FM IT emails telecom requesting ping test to OneTouch; move to utilities VLAN
5. Wall tap ready for SND activation

**IP ADDRESS REQUEST**

1. FM IT emails SND form to requester
2. Requester works w/device owner to obtain all SND form information
3. Requestor submits form (automatically submitted to FM IT)
4. FM IT submits Deskpro ticket for reserved IP; assigns to NTG (3 business days)
5. NTG reserves IP address on utilities VLAN
6. NTG notifies FM IT of reserved address
7. FM IT adds device to Master IP Google sheet
8. FM IT emails requester/FM with IP address

**DEVICE ACTIVATION**

1. Installer activates SND on network confirms communications
2. FM IT confirms w/requestor if SND needs to be on Intermapper
   - NO: Install complete
   - YES: Requestor works with FM IT to define naming convention and notification settings
   - FM IT creates Intermapper object on Intermapper
   - FM IT emails Comm-Ops to upload device to production Intermapper server

SND: Special Network Device