1. Overview

This RESTful API provides the ability to utilize the iBoot Cloud Service (iBCS) to retrieve and set configuration for devices in the cloud. The API utilizes a token to validate authorization and JSON structure to perform all operations.

2. RESTful API v3 Specifications

2.1. Token

An Authorized token is required for All RESTful API communications. The token is valid until a programmable amount of inactivity has elapsed. The inactivity timer is programmable from 1 minute to 12 months. It can be programmed from the RESTful API or via the Web UI. All tokens can be revoked at any time through the RESTful API v3.

- Authorization Tokens is acquired from:
  https://iboot.co/services/v3/auth
- Authorization Requests uses the following JSON Structure:

```
{
        "username":"<username>",      //Username
        "password":"<password>",      //Password
        "timeout": {                  //optional timeout
                "interval":"",        //timeout interval
                "scale":""            //Minutes, Hours, Days, Months
        },
        "revoke":"token"              //optional token to revoke
}
```

- Authorization requests responds with the following JSON structure:

```
{

        "success":"<true|false>",     //Result code true or false
        "message":"<message>",        //Error Message from the server. See appendix
        "token":"####-####-####-####" //64 bit randomly generated token
}
```

2.2. Control

- Control is accessed at: https://iboot.co/services/v3/control
- Control uses the following JSON structure:

```
{
        "token":"",                  //Authorization Token
        "mac":"",                    //MAC address of the iBoot
        "outlet":"",                 //Output to control [0|1|2|3|4|5|6|7]
        "control":""                 //Action to take [cycle|on|off]
}
```

- Control responds with the following JSON structure:

```
{
        "success":"",                //Result code [true|false]
        "message":""                 //Message from the server
}
```

2.3. Retrieve

- Retrieve is accessed at: https://iboot.co/services/v3/retrieve
- Retrieve uses the following JSON structure:

```
{
        "token":"",                  //Valid Token
        "mac":""                     //MAC address of the iBoot
}
```

- Retrieve responds with the following structure for iBoot-G2/PoE:

```
{
        "success":"true",                    //Result code [true|false]
        "message":"",                        //Message from the server
        "status":{                           //Status Information
                "Main":"ON",                 //Main Outlet Status
                "AP-1":"Fail",               //Autoping-1 Status
                "AP-2":"OK"                  //Autoping-2 Status
                },
        "triggerInfo":{                      //Trigger Information
        "APT1":"0"                           //Autoping Trigger Info
                }
}
```

- Retrieve responds with the following structure for iBoot-G2+/G2S:

```
{
        "success":"true",            //Result code [true/false]
        "message":"",                //Message from the server
        "status":{                   //Status Information
        "Main":"On"                  //Main Outlet Status (Valid in expansion mode)
        "EXP-1":"OFF",               //EXP-1 Status (Valid in expansion mode)
        "EXP-2":"OFF",               //EXP-2 Status (Valid in expansion mode)
        "Main-2":"ON",               //Main-2 Outlet Status (Valid in Independent IO
                                     Mode)
        "Input-1":"Closed",          //Input-1 Status (Valid in Independent IO Mode)
        "Input-2":"Closed",          //Input-2 Status (Valid in Independent IO Mode)
        "Output-1":"Open",           //Output-1 Status
        "Output-2":"Open",           //Output-2 Status
        "AP-1A":"Inactive",          //Autoping-1A Status
        "AP-1B":"Inactive",          //Autoping-1B Status
        "AP-2":"Inactive",           //Autoping-2 Status
        "AP-3":"Inactive",           //Autoping-2 Status
        "HB":"OK"                    //Heartbeat Status
        },
        "triggerInfo":{              //Trigger Information
```

```
                "APT1":"0",              //Autoping-1A & 1B Trigger Info
                "APT2":"0",              //Autoping-2 Trigger Info
                "APT3":"0",              //Autoping-3 Trigger Info
                "HBT1": "0"              //Heartbeat Trigger Info
                }
}
```

- Retrieve responds with the following JSON structure for the iBoot-PDU:

```
{
        "message": "", //Message from the server
        "status": [ //Status Information
                {
        "Outlet-1": "On" //Outlet-1 Status
        },
        {
        "Outlet-2": "On" //Outlet-2 Status
        },
        {
        "Outlet-3": "On" //Outlet-3 Status
        },
        {
        "Outlet-4": "On" //Outlet-4 Status
        },
        {
        "Outlet-5": "On" //Outlet-5 Status
        },
        {
        "Outlet-6": "On" //Outlet-6 Status
        },
        {
        "Outlet-7": "On" //Outlet-7 Status
        },
        {
        "Outlet-8": "On" //Outlet-8 Status
        }
        ],
        "success": "true", //Result code [true/false]
        "triggerInfo": [] //Future Use
}
```

2.4. Configuration Set

The Configuration Set command can be used to change the settings of an individual iBoot, a configuration file, or a list of iBoots.

All configuration sets are done through:
https://iboot.co/services/v3/configuration/iBoot/set

JSON Objects:

- Command:

```
{
        "token":"",                     //Authorization token
        "mac":"",                       //MAC address of the iBoot to be configured.
                                        //This variable can only be used if the
                                        //configuration object is not present
        "configuration": {              //This object contains the name, target and device
                                        //type.
                "name":"",              //Name of the configuration to be updated
                "target":[""],          //Optional list of device(s) to apply the config to
                                        //Change target to All, Location, Device, or MAC
                                        //Fill the array with location name(s), device
                                        //name(s)or MAC address(s)
                "type":""               //device type, iBoot-G2, iBoot-G2S, iBoot-G2+, or
                                        //iBoot-PoE
        "table 1":{                     //The table in the shadow database
                "variable 1":"",        //The first variable
                        •
                        •
                        •
                "variable n":""         //The last variable
                }
                •
                •
                •
        "table n":{                     //The table in the shadow database
                "variable 1":"",        //The first variable
                        •
                        •
                        •
                "variable n":""         //The last variable
                }
}
```

- Response:

```
{
        "Success":""                    //true or false
        "message":""                    //message describing the error
}
```

2.5. Configuration Get

The Configuration RESTful API is used to get the entire configuration or any part thereof, of the selected iBoot.

- All configuration get is done through:
  https://iboot.co/services/v3/configuration/iBoot/get

- The configuration get request uses the following JSON structure:

```
{
       "token":"",                    //Authorization token
       "mac":"",                      //MAC address of the iBoot configuration to get
                                      //This cannot be used when the configuration
                                      //variable is present
       "configuration":"",            //The name of the configuration to get
                                      //This cannot be used when the mac variable is
                                      //present.  Using the name __all__ will return a
                                      //list (array) of all configuration names, as
                                      //table 1 in the return JSON packet
       "tables":[""]                  //optional list of tables to get
}
```

- The configuration get request responds with the following JSON structure:

```
{
       "Success":""                   //true or false
       "message":""                   //message describing the error
       "table 1":{                    //The table in the shadow database
               "variable 1":"",       //The first variable
                      •
                      •
                      •
               "variable n":""        //The last variable
               }
               •
               •
               •
       "table n":{                    //The table in the shadow database
               "variable 1":"",       //The first variable
                      •
                      •
                      •
               "variable n":""        //The last variable
               }
}
```

2.6. Configuration Apply

The Configuration Apply command can be used to copy configuration from any device or file to another device, devices, specific location or locations. Supports any single device or configuration file as source, and any configuration, location, set of locations, device or set of devices as target.

All configuration applies are done through:

https://iboot.co/services/v3/configuration/iBoot/apply

JSON Objects:

- Command:

```
{
       "token":"",                    //Authorization token
       "sourceType":"",               //configuration or device
       "source":””,                   //  configuration-file name
                                      //  device-device name
       "targetType":””,               //configuration, location, device or mac
       "target":””,                   //  configuration-file name
                                      //  location-location name or array of locations
                                      //  device-device name or array of device names
                                      //  mac-mac address or array of mac addresses
       “type”:””                      //iBoot-G2, iBoot-G2+. iBoot-G2S,
                                      //  iBoot-PoE, iBoot-PoE-P
}
```

- Response:

```
{
       "Success":""                   //true or false
       "message":""                   //message describing the error
}
```

3. iBoot-G2 Configuration Set

3.1. Device Configuration Set

The following is used to POST JSON structure that will make changes to the iBoot-G2's Device settings. https://iboot.co/services/v3/configuration/iBoot/set

The iBCS Configuration RESTful API functions same as the current version. The only change is the username and password is replaced by Authorization Token for all RESTful API configurations.

Note: If the Location is changed a reboot is required.

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "device":{                                  //Device configuration structure
                "location":""                       //1-20 characters
                "cycleTime":""                      //1-999 seconds
                "initialState":""                   //On | Off | Last
                "disableOff":""                     //1=enable | 0=disable
                "upgradeEnable":""                  //1=enable | 0=disable
                "autoLogout":""                     //0-99 seconds
        }
}
```

3.2. Network Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "network": {                                //Network configuration structure
                "ipMode":"",                        //static | dhcp
                "ipMode":""                         //dotted decimals (192.168.1.254)
                "subnetMask":"",                    //dotted decimals (255.255.255.0)
                "gateway":"",                       //dotted decimals (192.168.1.1)
                "dns":""                            //dotted decimals (8.8.8.8)
            }
}
```

3.3. Advanced Network Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "advancedNetwork": {                        //Advanced Network configuration structure
                "httpPort":"",                      //1-65535
                "linkbackUrl":""                    //1-64 characters
                "telnetPort":"",                    //1-65535
                "dxpPort":"",                       //1-65535
                "cloudEnabled":""                   //1=enabled | 0=disabled
                "enableTimeServer":""               //1=enabled | 0=disabled
                "timeServerAddress":""              //1-64 characters
                "timezone":""                       //-12 to 12
                "enableDst":""                      //1=enabled | 0=disabled
                "dstStartWeek":""                   //1st | 2nd | 3rd | 4th | last
                "dstStartDay":""                    //Sunday through Saturday
                "dstStartMonth":""                  //January through December
                "dstStartTime":""                   //hh:mm in 24 hour format
                "dstStopWeek":""                    //1st | 2nd | 3rd | 4th | last
                "dstStopDay":""                     //Sunday through Saturday
                "dstStopMonth":""                   //January through December
                "dstStopTime":""                    //hh:mm in 24 hour format
            }
}
```

3.4. Autoping Configuration Set

```
{
        "token":"####-####-####-####",               //Authorization token
        "mac":"00-0d-ad-01-02-03",                   //MAC address of the iBoot to be configured
        "autoping": {                                //Autoping configuration structure
                "apAAddress":"",                     //address to be pinged 1-32 characters
                "apBAddress":""                      //address to be pinged 1-32 characters
                "apAFrequency":"",                   //1-999 seconds
                "apBFrequency":"",                   //1-999 seconds
                "apAFailcount":""                    //1-999 failures
                "apBFailCount":""                    //1-999 failures
                "apAMode":""                         //and | or | single
                "apAAction":""                       //None|On-Latch|On-Follow|Off-Latch|Off-
                                                     //Follow|cycle

                "apACycles":""                       //0-999
                "apARestart":""                      //0-999 seconds
            }
}
```

3.5. Schedule Configuration Set

```
{
        "token":"####-####-####-####",               //Authorization token
        "mac":"00-0d-ad-01-02-03",                   //MAC address of the iBoot to be configured
        "schedule": {                                //Autoping configuration structure
                "date1": "",                         //mm/dd/yyyy or blank
                "date2": "",                         //mm/dd/yyyy or blank
                "date3": "",                         //mm/dd/yyyy or blank
                "date4": "",                         //mm/dd/yyyy or blank
                "date5": "",                         //mm/dd/yyyy or blank
                "date6": "",                         //mm/dd/yyyy or blank
                "date7": "",                         //mm/dd/yyyy or blank
                "date8": "",                         //mm/dd/yyyy or blank
                "time1": "",                         //hh:mm or blank
                "time2": "",                         //hh:mm or blank
                "time3": "",                         //hh:mm or blank
                "time4": "",                         //hh:mm or blank
                "time5": "",                         //hh:mm or blank
                "time6": "",                         //hh:mm or blank
                "time7": "",                         //hh:mm or blank
                "time8": "",                         //hh:mm or blank
                "repeat1": "",                       //0-999
                "repeat2": "",                       //0-999
                "repeat3": "",                       //0-999
                "repeat4": "",                       //0-999
                "repeat5": "",                       //0-999
                "repeat6": "",                       //0-999
                "repeat7": "",                       //0-999
                "repeat8": "",                       //0-999
                "repeatPeriod1": "",                 //days | hours | minutes
                "repeatPeriod2": "",                 //days | hours | minutes
                "repeatPeriod3": "",                 //days | hours | minutes
                "repeatPeriod4": "",                 //days | hours | minutes
                "repeatPeriod5": "",                 //days | hours | minutes
                "repeatPeriod6": "",                 //days | hours | minutes
                "repeatPeriod7": "",                 //days | hours | minutes
                "repeatPeriod8": "",                 //days | hours | minutes
                "action1": "",                       //on | off | cycle
                "action2": "",                       //on | off | cycle
                "action3": "",                       //on | off | cycle
                "action4": "",                       //on | off | cycle
                "action5": "",                       //on | off | cycle
                "action6": "",                       //on | off | cycle
                "action7": "",                       //on | off | cycle
                "action8": "",                       //on | off | cycle
                "enable1": "",                       //1=enabled | 0=disabled
                "enable2": "",                       //1=enabled | 0=disabled
                "enable3": "",                       //1=enabled | 0=disabled
                "enable4": "",                       //1=enabled | 0=disabled
                "enable5": "",                       //1=enabled | 0=disabled
                "enable6": "",                       //1=enabled | 0=disabled
                "enable7": "",                       //1=enabled | 0=disabled
                "enable8": ""                        //1=enabled | 0=disabled
            }
}
```

3.6. Reboot

```
{
        "token":"####-####-####-####",            //Authorization token
        "mac":"00-0d-ad-01-02-03",                //MAC address of the iBoot to be configured
        "reboot":"1",                             //1=reboot
}
```

4. iBoot-G2+/S Configuration Set

The following is used to POST JSON structure that will make changes to the iBoot-G2S or iBoot-G2+'s Device settings. https://iboot.co/services/v3/configuration/iBoot/set

The iBCS Configuration RESTful API functions same as the current version. The only change is the username and password is replaced by Authorization Token for all RESTful API configurations.

4.1. Device Configuration Set

```
{
        "token":"####-####-####-####",            //Authorization token
        "mac":"00-0d-ad-01-02-03",                //MAC address of the iBoot to be configured
        "device":{                                //Device configuration structure
                "location":"",                    //1-20 characters
                "outletName":"",                  //1-20 characters
                "exp1OutletName":"",              //1-20 characters
                "exp2OutletName":"",              //1-20 characters
                "cycleTime":"",                   //1-999 seconds
                "exp1CycleTime":"",               //1-999 seconds
                "exp2CycleTime":"",               //1-999 seconds
                "initialState":"",                //on | off | last
                "exp1InitialState":"",            //on | off | last
                "exp2InitialState":"",            //on | off | last
                "disableOff":"",                  //1=enabled | 0=disabled
                "upgradeEnable":"",               //1=enabled | 0=disabled
                "autoLogout":"",                  //0-99 seconds
                "delayTime":""                    //0-999 seconds
        }
}
```

4.2. Expansion Configuration Set

```
{
        "token":"####-####-####-####",            //Authorization token
        "mac":"00-0d-ad-01-02-03",                //MAC address of the iBoot to be configured
        "expansion":{                             //Expansion configuration structure
                "expMode":"",                     //iBoot Expansion Unit|Independent
                                                  //I/O|PowerControl
                "exp1Hide":"",                    //1=enabled | 0=disabled
                "exp2Hide":"",                    //1=enabled | 0=disabled
                "exp1linkToMain":"",              //1=enabled | 0=disabled
                "exp2linkToMain":"",              //1=enabled | 0=disabled
                "exp1RemoteIp":"",                //dotted decimals (192.168.1.253)
                "exp2RemoteIp":"",                //dotted decimals (192.168.1.254)
                "exp1Relay":"",                   //1 through 8
                "exp2Relay":"",                   //1 through 8
                "exp1Username":"",                //1-15 characters
                "exp2Username":"",                //1-15 characters
                "exp1Password":"",                //1-15 characters
                "exp2Password":"",                //1-15 characters
                "input1Outlet":"",                //main | exp1 | exp2
                "input2Outlet":"",                //main | exp1 | exp2
                "input1Action":"",                //on | off | cycle | toggle
                "input2Action":""                 //on | off | cycle | toggle
        }

}
```

4.3. Network Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "network": {                                //Network configuration structure
                "ipMode":"",                        //static | dhcp
                "ipMode":""                         //dotted decimals (192.168.1.254)
                "subnetMask":"",                    //dotted decimals (255.255.255.0)
                "gateway":"",                       //dotted decimals (192.168.1.1)
                "dns":""                            //dotted decimals (8.8.8.8)
            }
}
```

4.4. Advanced Network Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "advancedNetwork": {                        //Advanced Network configuration structure
                "httpPort":"",                      //1-65535
                "linkbackUrl":""                    //1-64 characters
                "telnetPort":"",                    //1-65535
                "dxpPort":"",                       //1-65535
                "cloudEnabled":""                   //1=enabled | 0=disabled
                "enableTimeServer":""               //1=enabled | 0=disabled
                "timeServerAddress":""              //1-64 characters
                "timezone":""                       //-12 to 12
                "enableDst":""                      //1=enabled | 0=disabled
                "dstStartWeek":""                   //1st | 2nd | 3rd | 4th | last
                "dstStartDay":""                    //Sunday through Saturday
                "dstStartMonth":""                  //January through December
                "dstStartTime":""                   //hh:mm in 24 hour format
                "dstStopWeek":""                    //1st | 2nd | 3rd | 4th | last
                "dstStopDay":""                     //Sunday through Saturday
                "dstStopMonth":""                   //January through December
                "dstStopTime":""                    //hh:mm in 24 hour format
                "enableDxpControl":""               //1=enabled | 0=disabled
                "enableDxpQuery":""                 //1=enabled | 0=disabled
            }
}
```

4.5. Graceful Shutdown Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "gracefulShutdown":{                        //Graceful Shutdown configuration structure
                "gsMainEnabled":"",                 //1=enabled | 0=disabled
                "gsExp1Enabled":"",                 //1=enabled | 0=disabled
                "gsExp2Enabled":"",                 //1=enabled | 0=disabled
                "gsMainIp":"                        //dotted decimals (192.168.1.254)
                "gsExp1Ip":"",                      //dotted decimals (192.168.1.254)
                "gsExp2Ip":"",                      //dotted decimals (192.168.1.254)
                "gsMainUser":"",                    //1-20 characters
                "gsExp1User":"",                    //1-20 characters
                "gsExp2User":"",                    //1-20 characters
                "gsMainPassword":"",                //1-20 characters
                "gsExp1Password":"",                //1-20 characters
                "gsExp2Password":"",                //1-20 characters
                "gsMainShutdownDelay":"",           //1-999 seconds
                "gsExp1ShutdownDelay":"",           //1-999 seconds
                "gsExp2ShutdownDelay":"",           //1-999 seconds
                "gsMainRebootDelay":"",             //1-999 seconds
                "gsExp1RebootDelay":"",             //1-999 seconds
                "gsExp2RebootDelay":""              //1-999 seconds
        }
}
```

4.6. Autoping Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "autoping":{                                //Autoping configuration structure
                "apAAddress":"",                    //address to be pinged 1-31 characters
                "apBAddress":"",                    //address to be pinged 1-31 characters
                "apAFrequency":"",                  //1-999 seconds
                "apBFrequency":"",                  //1-999 seconds
                "apAFailCount":"",                  //1-999 failures
                "apBFailCount":"",                  //1-999 failures
                "apAMode":"",                       //and | or | single
                "apAControl":"",                    //main | exp1 | exp2
                "apAAction":"",                     //none|on-latch|on-follow|off-latch|off-
                                                    //follow|cycle
                "apACycles":"",                     //0-999
                "apARestart":",                     //0-999 seconds
                "ap2Address":"",                    //address to be pinged 1-31 characters
                "ap3Address":"",                    //address to be pinged 1-31 characters
                "ap2Frequency":"",                  //1-999 seconds
                "ap3Frequency":"",                  //1-999 seconds
                "ap2FailCount":"",                  //1-999 failures
                "ap3FailCount":"",                  //1-999 failures
                "ap2Control":"",                    //main | exp1 | exp2
                "ap3Control":"",                    //main | exp1 | exp2
                "ap2Action":"",                     //none|on-latch|on-follow|off-latch|off-
                                                    //follow|cycle
                "ap3Action":"",                     //none|on-latch|on-follow|off-latch|off-
                                                    //follow|cycle
                "ap2Cycles":"",                     //0-999
                "ap3Cycles":"",                     //0-999
                "ap2Restart":"",                    //0-999 seconds
                "ap3Restart":""                     //0-999 seconds
        }
}
```

4.7. Heartbeat Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "heartbeat":{                               //Heartbeat configuration structure
                "source":"",                        //none | usb | network
                "port":"",                          //1-65535
                "frequency":"",                     //1-999 seconds
                "failCount":"",                     //1-999 failures
                "action":""                         //none|on-latch|on-follow|off-latch|off-
                                                    //follow|cycle
                "cycle":"",                         //0-999
                "control":""                        //main | exp1 | exp2
        }
}
```

4.8. Schedule Configuration Set

```
{
        "token":"####-####-####-####",              //Authorization token
        "mac":"00-0d-ad-01-02-03",                  //MAC address of the iBoot to be configured
        "schedule": {                               //Autoping configuration structure
                "date1": "",                        //mm/dd/yyyy or blank
                "date2": "",                        //mm/dd/yyyy or blank
                "date3": "",                        //mm/dd/yyyy or blank
                "date4": "",                        //mm/dd/yyyy or blank
                "date5": "",                        //mm/dd/yyyy or blank
                "date6": "",                        //mm/dd/yyyy or blank
                "date7": "",                        //mm/dd/yyyy or blank
                "date8": "",                        //mm/dd/yyyy or blank
                "time1": "",                        //hh:mm or blank
                "time2": "",                        //hh:mm or blank
                "time3": "",                        //hh:mm or blank
                "time4": "",                        //hh:mm or blank
                "time5": "",                        //hh:mm or blank
                "time6": "",                        //hh:mm or blank
                "time7": "",                        //hh:mm or blank
                "time8": "",                        //hh:mm or blank
                "repeat1": "",                      //0-999
                "repeat2": "",                      //0-999
                "repeat3": "",                      //0-999
                "repeat4": "",                      //0-999
                "repeat5": "",                      //0-999
                "repeat6": "",                      //0-999
                "repeat7": "",                      //0-999
                "repeat8": "",                      //0-999
                "repeatPeriod1": "",                //days | hours | minutes
                "repeatPeriod2": "",                //days | hours | minutes
                "repeatPeriod3": "",                //days | hours | minutes
                "repeatPeriod4": "",                //days | hours | minutes
                "repeatPeriod5": "",                //days | hours | minutes
                "repeatPeriod6": "",                //days | hours | minutes
                "repeatPeriod7": "",                //days | hours | minutes
                "repeatPeriod8": "",                //days | hours | minutes
                "action1": "",                      //on | off | cycle
                "action2": "",                      //on | off | cycle
                "action3": "",                      //on | off | cycle
                "action4": "",                      //on | off | cycle
                "action5": "",                      //on | off | cycle
                "action6": "",                      //on | off | cycle
                "action7": "",                      //on | off | cycle
                "action8": "",                      //on | off | cycle
                "enable1": "",                      //1=enabled | 0=disabled
                "enable2": "",                      //1=enabled | 0=disabled
                "enable3": "",                      //1=enabled | 0=disabled
                "enable4": "",                      //1=enabled | 0=disabled
                "enable5": "",                      //1=enabled | 0=disabled
                "enable6": "",                      //1=enabled | 0=disabled
                "enable7": "",                      //1=enabled | 0=disabled
                "enable8": ""                       //1=enabled | 0=disabled
                "date9": ""                         //mm/dd/yyyy or blank
                "dateA": ""                         //mm/dd/yyyy or blank
                "dateB": ""                         //mm/dd/yyyy or blank
                "dateC": ""                         //mm/dd/yyyy or blank
                "dateD": ""                         //mm/dd/yyyy or blank
                "dateE": ""                         //mm/dd/yyyy or blank
                "time9": ""                         //hh:mm or blank
                "timeA": ""                         //hh:mm or blank
                "timeB": ""                         //hh:mm or blank
                "timeC": ""                         //hh:mm or blank
                "timeD": ""                         //hh:mm or blank
                "timeE": ""                         //hh:mm or blank
                "repeat9": ""                       //0-999
                "repeatA": ""                       //0-999
                "repeatB": ""                       //0-999
                "repeatC": ""                       //0-999
                "repeatD": ""                       //0-999
                "repeatE": ""                       //0-999
                "repeatPeriod9": ""                 //days | hours | minutes
                "repeatPeriodA": ""                 //days | hours | minutes
                "repeatPeriodB": ""                  //days | hours | minutes
                "repeatPeriodC": ""                  //days | hours | minutes
                "repeatPeriodD": ""                  //days | hours | minutes
                "repeatPeriodE": ""                  //days | hours | minutes
                "action9": ""                        //on | off | cycle
                "actionA": ""                        //on | off | cycle
                "actionB": ""                        //on | off | cycle
                "actionC": ""                        //on | off | cycle
                "actionD": ""                        //on | off | cycle
                "actionE": ""                        //on | off | cycle
                "enable9": ""                        //1=enabled | 0=disabled
                "enableA": ""                        //1=enabled | 0=disabled
                "enableB": ""                        //1=enabled | 0=disabled
                "enableC": ""                        //1=enabled | 0=disabled
                "enableD": ""                        //1=enabled | 0=disabled
                "enableE": ""                        //1=enabled | 0=disabled

                "outlet1": ""                        //main | exp1 | exp2
                "outlet2": ""                        //main | exp1 | exp2
                "outlet3": ""                        //main | exp1 | exp2
                "outlet4": ""                        //main | exp1 | exp2
                "outlet5": ""                        //main | exp1 | exp2
                "outlet6": ""                        //main | exp1 | exp2
                "outlet7": ""                        //main | exp1 | exp2
                "outlet8": ""                        //main | exp1 | exp2
                "outlet9": ""                        //main | exp1 | exp2
                "outletA": ""                        //main | exp1 | exp2
                "outletB": ""                        //main | exp1 | exp2
                "outletC": ""                        //main | exp1 | exp2
                "outletD": ""                        //main | exp1 | exp2
                "outletE": ""                        //main | exp1 | exp2
            }
}
```

4.9. Reboot

This JSON structure is used to reboot the iBoot-G2S, iBoot-G2+. It has the same effect pressing the reset button on the iBoot-G2.

```
{
        "token":"####-####-####-####",               //Authorization token
        "mac":""                                     //MAC address of the iBoot
        "reboot":"1"                                 //1=reboot
}
```

5. iBoot-G2 Configuration Get

The RESTful API Retrieve is a new mechanism where users can request current device configuration data from iBCS.

The following is used to POST JSON structure that will retrieve current configuration of iBoot-G2's Device settings from iBCS. https://iboot.co/services/v3/configuration/iBoot/get

```
{
        "token":"",                              //Authorization token
        "mac":"",                                //MAC address of the iBoot to be configured
        "tables":["device","network","advancedNetwork","autoping","schedule"]
}
```

Upon posting the JSON structure above to iBCS, iBCS will return current configuration for specified tables list. The response to the RESTful API configuration get is as follows:

5.1. Device Configuration Get

```
{
        "success":"",
        "device":{
                "location":"iBoot-G29ff0",
                "cycleTime":10,
                "disableOff":0,
                "initialState":"last",
                "upgradeEnable":0,
                "autoLogout":2
        }
}
```

5.2. Network Configuration Get

```
{
        "success":"",
        "network":{
              "ipMode":"dhcp",
              "ipAddress":"192.168.1.254",
              "subnetMask":"255.255.255.0",
              "gateway":"192.168.1.1",
              "dns":"8.8.8.8"
        }
}
```

5.3. Advanced Network Configuration Get

```
{
        "success":"",
        "advancedNetwork":{
              "httpPort":80,
              "linkbackUrl":"",
              "telnetPort":23,
              "dxpPort":9100,
              "cloudEnabled":0,
              "enableTimeServer":0,
              "timeServerAddress":"time.nist.gov",
              "timezone":-5,
              "enableDst":0,
              "dstStartWeek":"2nd",
              "dstStartDay":"sunday",
              "dstStartMonth":"march",
              "dstStartTime":"02:00",
              "dstStopWeek":"1st",
              "dstStopDay":"sunday",
              "dstStopMonth":"november",
              "dstStopTime":"02:00"
        }
}
```

5.4. Autoping Configuration Get

```
{
        "success":"",
        "autoping":{
              "apAAddress":"",
              "apBAddress":"",
              "apAFrequency":10,
              "apBFrequency":10,
              "apAFailCount":3,
              "apBFailCount":3,
              "apAMode":"and",
              "apAAction":"cycle",
              "apACycles":1,
              "apARestart":0
        }
}
```

5.5. Schedule Configuration Get

```
{
        "success":"",
        "schedule":{
              "date1":"",
              "date2":"",
              "date3":"",
              "date4":"",
              "date5":"",
              "date6":"",
              "date7":"",
              "date8":"",
              "time1":"",
              "time2":"",
              "time3":"",
              "time4":"",
              "time5":"",
              "time6":"",
              "time7":"",
              "time8":"",
              "repeat1":0,
              "repeat2":0,
              "repeat3":0,
              "repeat4":0,
              "repeat5":0,
              "repeat6":0,
              "repeat7":0,
              "repeat8":0,
              "repeatPeriod1":"days",
              "repeatPeriod2":"days",
              "repeatPeriod3":"days",
              "repeatPeriod4":"days",
              "repeatPeriod5":"days",
              "repeatPeriod6":"days",
              "repeatPeriod7":"days",
              "repeatPeriod8":"days",
              "action1":"on",
              "action2":"on",
              "action3":"on",
              "action4":"on",
              "action5":"on",
              "action6":"on",
              "action7":"on",
              "action8":"on",
              "enable1":0,
              "enable2":0,
              "enable3":0,
              "enable4":0,
              "enable5":0,
              "enable6":0,
              "enable7":0,
              "enable8":0
           }
}
```

6. iBoot-G2+/S Configuration Get

The following is used to POST JSON structure that will retrieve current configuration of iBoot-G2S and iBoot=G2+'s Device settings from iBCS. https://iboot.co/services/v3/configuration/iBoot/get

```
{
        "token":"",                           //Authorization token
        "mac":"",                             //MAC address of the iBoot to be configured
        "tables":["device","expansion","network","advancedNetwork,"gracefulShutdown","autoping","
                                              heartbeat","schedule"]
}
```

6.1. Device Configuration Get

```
{
        "success":"",
        "device":{
              "location":"iBoot-G2P-2171",
              "cycleTime":10,
              "initialState":"last",
              "upgradeEnable":0,
              "autoLogout":2,
              "exp1CycleTime":10,
              "exp2CycleTime":10,
              "delayTime":0,
              "exp1InitialState":"last",
              "exp2InitialState":"last",
              "outletName":"Main",
              "exp1OutletName":"Exp1",
              "exp2OutletName":"Exp2",
              "disableOff":0
        }
}
```

6.2. Expansion Configuration Get

```
{
        "success":"",
        "expansion":{
              "expMode":"iboot expansion units",
              "exp1Hide":0,
              "exp2Hide":0,
              "exp1linkToMain":0,
              "exp2linkToMain":0,
              "exp1RemoteIp":"",
              "exp2RemoteIp":"",
              "exp1Relay":1,
              "exp2Relay":1,
              "exp1Username":"",
              "exp2Username":"",
              "exp1Password":"",
              "exp2Password":"",
              "input1Outlet":"main",
              "input2Outlet":"main",
              "input1Action":"on",
              "input2Action":"on"
        }
}
```

6.3. Network Configuration Get

```
{
        "success":"",
        "network":{
              "ipMode":"dhcp",
              "ipAddress":"192.168.1.254",
              "subnetMask":"255.255.255.0",
              "gateway":"192.168.1.1",
              "dns":"8.8.8.8"
        }
}
```

6.4. Advanced Network Configuration Get

```
{
       "success":"",
       "advancedNetwork":{
             "httpPort":80,
             "linkbackUrl":"",
             "telnetPort":23,
             "dxpPort":9100,
             "cloudEnabled":1,
             "enableTimeServer":0,
             "timeServerAddress":"time.nist.gov",
             "timezone":-5,
             "enableDst":0,
             "dstStartWeek":"2nd",
             "dstStartDay":"sunday",
             "dstStartMonth":"march",
             "dstStartTime":"02:00",
             "dstStopWeek":"1st",
             "dstStopDay":"sunday",
             "dstStopMonth":"november",
             "dstStopTime":"02:00",
             "enableDxpControl":0,
             "enableDxpQuery":0
       }
}
```

6.5. Graceful Shutdown Configuration Get

```
{
       "success":"",
       "gracefulShutdown":{
             "gsMainEnabled":0,
             "gsExp1Enabled":0,
             "gsExp2Enabled":0,
             "gsMainIp":"",
             "gsExp1Ip":"",
             "gsExp2Ip":"",
             "gsMainUser":"",
             "gsExp1User":"",
             "gsExp2User":"",
             "gsMainPassword":false,
             "gsExp1Password":false,
             "gsExp2Password":false,
             "gsMainShutdownDelay":120,
             "gsExp1ShutdownDelay":120,
             "gsExp2ShutdownDelay":120,
             "gsMainRebootDelay":120,
             "gsExp1RebootDelay":120,
             "gsExp2RebootDelay":120
       }
}
```

6.6. Autoping Configuration Get

```
{
       "success":"",
       "autoping":{
             "apAAddress":"",
             "apBAddress":"",
             "apAFrequency":10,
             "apBFrequency":10,
             "apAFailCount":3,
             "apBFailCount":3,
             "apAMode":"single",
             "apAControl":"main",
             "apAAction":"none",
             "apACycles":0,
             "apARestart":0,
             "ap2Address":"",
             "ap3Address":"",
             "ap2Frequency":10,
              "ap3Frequency":10,
              "ap2FailCount":3,
              "ap3FailCount":3,
              "ap2Control":"exp1",
              "ap3Control":"exp2",
              "ap2Action":"none",
              "ap3Action":"none",
              "ap2Cycles":1,
              "ap3Cycles":1,
              "ap2Restart":0,
              "ap3Restart":0
           }
}
```

6.7. Heartbeat Configuration Get

```
{
        "success":"",
        "heartbeat":{
              "source":"none",
              "port":9100,
              "frequency":999,
              "failCount":999,
              "action":"cycle",
              "cycle":999,
              "control":"main"
        }
}
```

6.8. Schedule Configuration Get

```
{
        "success":"",
        "schedule":{
              "date1":"",
              "date2":"",
              "date3":"",
              "date4":"",
              "date5":"",
              "date6":"",
              "date7":"",
              "date8":"",
              "time1":"",
              "time2":"",
              "time3":"",
              "time4":"",
              "time5":"",
              "time6":"",
              "time7":"",
              "time8":"",
              "repeat1":0,
              "repeat2":0,
              "repeat3":0,
              "repeat4":0,
              "repeat5":0,
              "repeat6":0,
              "repeat7":0,
              "repeat8":0,
              "repeatPeriod1":"days",
              "repeatPeriod2":"days",
              "repeatPeriod3":"days",
              "repeatPeriod4":"days",
              "repeatPeriod5":"days",
              "repeatPeriod6":"days",
              "repeatPeriod7":"days",
              "repeatPeriod8":"days",
              "action1":"on",
              "action2":"on",
              "action3":"on",
              "action4":"on",
              "action5":"on",
              "action6":"on",
                "action7":"on",
                "action8":"on",
                "enable1":1,
                "enable2":1,
                "enable3":1,
                "enable4":1,
                "enable5":1,
                "enable6":1,
                "enable7":1,
                "enable8":1,
                "date9":"",
                "dateA":"",
                "dateB":"",
                "dateC":"",
                "dateD":"",
                "dateE":"",
                "time9":"",
                "timeA":"",
                "timeB":"",
                "timeC":"",
                "timeD":"",
                "timeE":"",
                "repeat9":0,
                "repeatA":0,
                "repeatB":0,
                "repeatC":0,
                "repeatD":0,
                "repeatE":0,
                "repeatPeriod9":"days",
                "repeatPeriodA":"days",
                "repeatPeriodB":"days",
                "repeatPeriodC":"days",
                "repeatPeriodD":"days",
                "repeatPeriodE":"days",
                "action9":"on",
                "actionA":"on",
                "actionB":"on",
                "actionC":"on",
                "actionD":"on",
                "actionE":"on",
                "enable9":1,
                "enableA":1,
                "enableB":1,
                "enableC":1,
                "enableD":1,
                "enableE":1,
                "outlet1":"main",
                "outlet2":"main",
                "outlet3":"main",
                "outlet4":"main",
                "outlet5":"main",
                "outlet6":"main",
                "outlet7":"main",
                "outlet8":"main",
                "outlet9":"main",
                "outletA":"main",
                "outletB":"main",
                "outletC":"main",
                "outletD":"main",
                "outletE":"main"
        }
}
```

7. Examples

Below are some examples of iBoot-G2 family to control, retrieve, configure get and configure set via RESTful API v3.

7.1.1. Token Retrieval

To get a 20 minute valid token for account myAccount and password myPassword

```
curl -d ‘{"username":"myAccount","password":"myPassword","timeout":{"interval":"20","scale":"minutes"}}’ -X POST
https://iboot.co/services/v3/auth
```

The command above will return a JSON structure as following:

```
{"success":"true","token":"8f1c-546b-a0d7-3205"}
```

7.1.2. Token Revoke

To revoke a valid token (8f1c-546b-a0d7-3205) for account myAccount and password myPassword

```
curl -d ‘{"username":"myAccount","password":"myPassword","revoke":"8f1c-546b-a0d7-3205"}’ -X POST
https://iboot.co/services/v3/auth
```

The command above will return a JSON structure as following:

```
{"success":"true","message":""}
```

7.1.3. iBoot-G2/PoE Control Example

To control an iBoot-G2/PoE to Cycle via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03","outlet":"0","control":"cycle"}' -X POST
https://iboot.co/services/v3/control
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"Sent 'cycle' to 00-0d-ad-01-02-03 outlet 0"}
```

7.1.4. iBoot-G2 Retrieve Example

To query an iBoot-G2/PoE status via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03"}' -X POST https://iboot.co/services/v3/retrieve
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"true","status":{"Main":"ON","AP-1":"OK","AP-2":"OK"},"triggerInfo":{"APT1":"0"}}
```

7.1.5. iBoot-G2 Configure Set Example

To Configure Device setting of iBoot-G2 via RESTful API:

```
curl -d '{"token":"40a7-ee50-2b2c-3e53","mac":"00-0d-ad-01-02-03","device":{"location":"iBoot-
G2","cycleTime":"10","disableOff":"0","initialState":"Last","upgradeEnable":"1","autoLogout":"2"}}' –X POST
https://iboot.co/services/v3/configuration/iBoot/set
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"Sent 'location=iBoot-G2&cycle=10&iMain=2&upg=&aLog=2' to 00-0d-ad-03-9f-f0"}
```

7.1.6. iBoot-G2 Configure Get Example

To Retrieve Device configuration of iBoot-G2 via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03","tables":["device"]}' –X POST
https://iboot.co/services/v3/configuration/iBoot/get
```

The command above will return a JSON structure as following:

```
{"success":"true","device":{"location":"iBoot-
G2","cycleTime":10,"disableOff":0,"initialState":"Last","upgradeEnable":1,"autoLogout":2}}
```

7.1.7. iBoot-G2+/S Control Example

To control an iBoot-G2/PoE to Cycle via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03","outlet":"0","control":"cycle"}' -X POST
https://iboot.co/services/v3/control
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"Sent 'cycle' to 00-0d-ad-01-02-03 outlet 0"}’
```

7.1.8. iBoot-G2+/S Retrieve Example

To query an iBoot-G2/PoE status via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03"}' -X POST https://iboot.co/services/v3/retrieve
```

The command above will return a JSON structure as following:

```
{"success":"true", "status":{"Main":"ON","EXP-1":"ON","EXP-2":"ON","Main-2":"ON","Input-1":"Open","Input-
2":"Open","Output-1":"Closed","Output-2":"Closed","AP-1A":"Inactive","AP-1B":"Inactive","AP-2":"Inactive","AP-
3":"Inactive","HB":"OK"},"triggerInfo":{"APT1":"0","APT2":"0","APT3":"0","HBT1":"0"}}
```

7.1.9. iBoot-G2+/S Configure Set Example

To Configure Device setting of iBoot-G2 via RESTful API:

```
curl -d ' {"token":"ff3e-30f9-ce13-89f8","mac":"00-0d-ad-01-02-03","device":{"location":"iBoot-
G2S","outletName":"Main","exp1OutletName":"Exp-1","exp2OutletName":"Exp-
2","cycleTime":"10","exp1CycleTime":"10","exp2CycleTime":"10","initialState":"Last","exp1InitialState":"Last","exp2Ini
tialState":"Last","disableOff":"0","upgradeEnable":"1","autoLogout":"2","delayTime":"1"}}' –X POST
https://iboot.co/services/v3/configuration/iBoot/set
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"Sent'location=iBoot-G2S&outname0=Main&outname1=Exp-1&outname2=Exp-
2&cycle0=10&cycle1=10&cycle2=10&iMain=2&iExp1=2&iExp2=2&upg=&aLog=2&delay=1' to 00-0d-ad-03-21-71"}
```

7.1.10. iBoot-G2+/S Configure Get Example

To Retrieve Device configuration of iBoot-G2 via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03","tables":["device"]}' –X POST
https://iboot.co/services/v3/configuration/iBoot/get
```

The command above will return a JSON structure as following:

```
{"success":"true","device":{"location":"iBoot-
G2S","cycleTime":10,"initialState":"Last","upgradeEnable":0,"autoLogout":2,"exp1CycleTime":10,"exp2CycleTime":10,"d
elayTime":1,"exp1InitialState":"last","exp2InitialState":"last","outletName":"Main","exp1OutletName":"Exp-
1","exp2OutletName":"Exp-2","disableOff":0}}
```

7.1.11. iBoot-PDU Control Example

To control an iBoot-PDU Outlet-1 to Cycle via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03","outlet":"0","control":"cycle"}' -X POST
https://iboot.co/services/v3/control
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"Sent 'cycle' to 00-0d-ad-01-02-03 outlet 0"}
```

7.1.12. iBoot-PDU Retrieve Example

To query an iBoot-PDU status via RESTful API:

```
curl -d '{"token":"####-####-####-####","mac":"00-0d-ad-01-02-03"}' -X POST https://iboot.co/services/v3/retrieve
```

The command above will return a JSON structure as following:

```
{"success":"true","message":"","status":[{"Outlet-1":"On"},{"Outlet-2":"On"},{"Outlet-3":"On"},{"Outlet-4":"On"},{"Outlet-
5":"On"},{"Outlet-6":"On"},{"Outlet-7":"On"},{"Outlet-8":"On"}],"triggerInfo":[]}
```

7.1.13. Configuration File Apply Example (configuration file to device)

To copy an existing configuration file to a specific device via RestFul API:

```
curl -d '{"token":"####-####-####-####","sourceType":"configuration",
"source":"testFilename","targetType":"device","target":"iBoot-G2P-d7ed","type":"iBoot-G2+"}' -X POST
https://iboot.co/services/v3/configuration/iBoot-apply
```

The command above will return a JSON structure as following:

```
{"success":"true","message":""}
```

7.1.14. Configuration File Apply Example (configuration file to location)

To copy an existing configuration file to all devices in a specific location via RestFul API:

```
curl -d '{"token":"####-####-####-####","sourceType":"configuration",
"source":"testFilename","targetType":"location","target":"locationName1","type":"iBoot-G2+"}' -X POST
https://iboot.co/services/v3/configuration/iBoot-apply
```

The command above will return a JSON structure as following:

```
{"success":"true","message":""}
```

7.1.15. Configuration File Apply Example (device to multiple locations)

To copy an existing device to all devices in a specific location via RestFul API:

```
curl -d '{"token":"####-####-####-####","sourceType":"device", "source":"iBoot-G2S-
010203","targetType":"location","target":["locationName1",”locationName2”],"type":"iBoot-G2S"}' -X POST
https://iboot.co/services/v3/configuration/iBoot-apply
```

The command above will return a JSON structure as following:

```
{"success":"true","message":""}
```