



# Powering Smart Devices With Dumb Cables

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Phil Robinson

THE NEXT GENERATION OF PORTABLE POWER.™

## What We'll Explore

- **The Problem With Portable Power**
- **What's A Power Manager?**
- **Short-Term Fix: Smart Cables**
- **Long-Term Solution: Dumb Cables, Smart Devices**
- **Path Forward**

# The Problem With Portable Power





# The Problem With Portable Power (con't)



# What's a Power Manager?





## The Power Manager's Dilemma

- **Users Don't Know Power**
- **User Don't Want to Know Power**
- **Power is Non-Standard**
- **Must be able to self-configure – but how?**



## Short-Term Fix: Smart Cables

- Show VPM and SPM cables, describe Device ID

## What's In An ID?

- **Everything Needed For Power !!**
  - What the device is.
  - Voltage and amperage ranges.
  - Average and peak power.
  - Environmental limits.
  - Default priority.
  - Data capability.
  - Lots more...
  
- **When is critical: Before applying power !**



## Long-Term Solution: Dumb Cables, Smart Devices

- Show Device ID migrating from cable into end device

## Why Bother?

- **Maintains usability by non-power-wizards.**
- **Standard Multi-Purpose Cables.**
- **Component most likely to be damaged or lost is now common to everything.**
- **Does not require standardization of power: a decades-long effort.**

## Status

- **Smart Cables deployed: more than 30,000.**
- **Several device manufacturers already putting ID into experimental devices being developed for labs – because labs required it.**



## Path Forward

- **All DOD organizations specifying portable devices should begin requiring inclusion of the \$0.75 ID chip on the power port.**
- **As more and more devices are supported, critical mass will be attained, and DOD will no longer need to require it – the market will require it.**
  - Good for users: they can use new devices with power sources they already have.
  - Good for manufacturers: they get a robust power source for their device without having to develop it.
  - Good for DOD: they save money and build commonality.