



# Sneak Peek at the Future

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*CTO, Audinate*



Recent events & review

# STATE OF DANTE



# State of the Ecosystem

- Numbers
  - 275 manufacturers
  - 675 Dante products available
  - Product catalog at [audinate.com](http://audinate.com)
- Strong growth continues
  - 145% increase in the number of commercially available products since ISE last year



# Releases in 2015

- Dante Via released!
  - Use computer audio ports in a Dante network
  - Make a computer-only Dante network
- AES67 support on Brooklyn II platform



AES67, SAP Discovery, AVB & other buzzwords..

# STANDARDS UPDATE



# AES67 status

- AES67 added to Brooklyn-II firmware
  - Available to OEMs Apr 2015
  - New AES67 transport option
  - Update for existing products
- Used at various plugfests and demos



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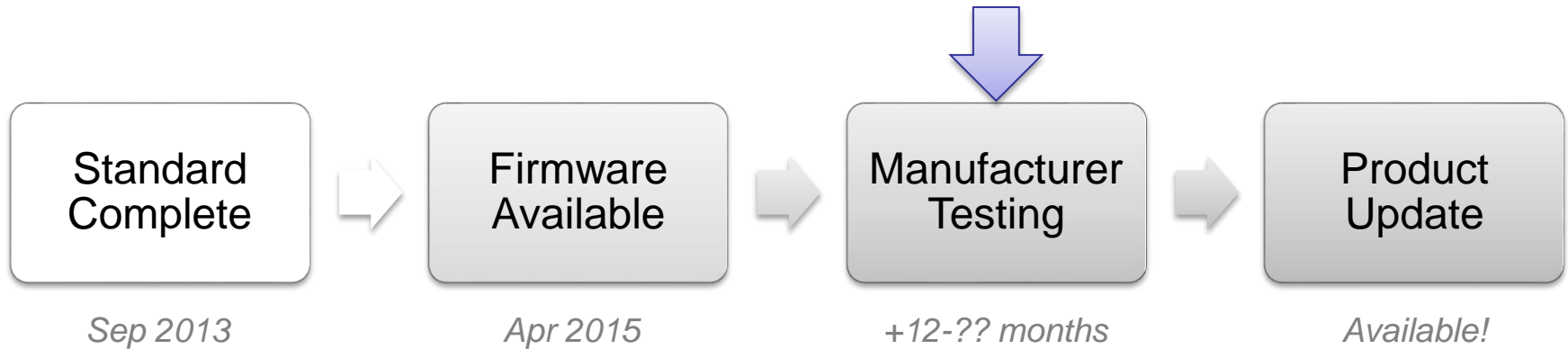


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# Steps to Availability



# Is AES67 Plug & Play?

- No discovery mechanism is mandated by the AES67 standard
- Problem: people expect one
  - Especially if they have used Dante
- Manufacturers worry about support calls





# What to do about discovery?

- Simple answer: implement SAP
  - Mature standard, optional in AES67
- Dante has AES67 *and* SAP
  - Makes AES67 plug & play
- *Want plug & play? Ask for SAP*



# What about AVB?

- Last year's trends continue
  - Declining ProAV interest
  - Standards competition coming from AES67, etc
  - AVnu focusing on automotive & industrial



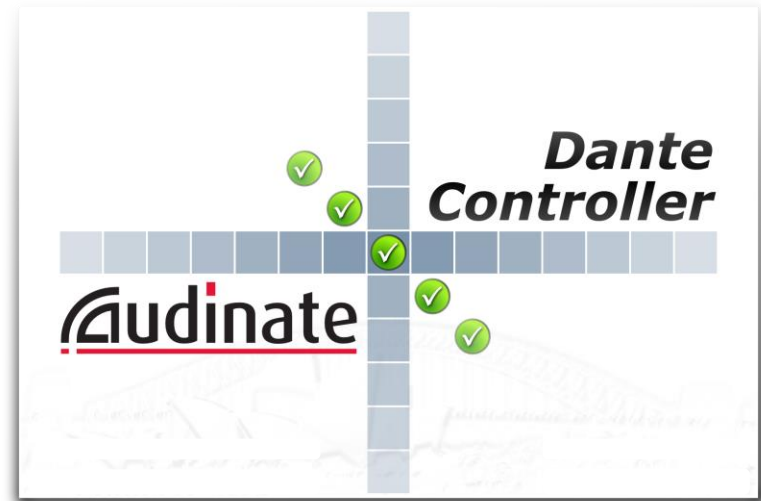
New features

# DANTE CONTROLLER 3.10



# Three New Features

- Device Lock / Unlock
- Advanced Filters
- Wireless Control



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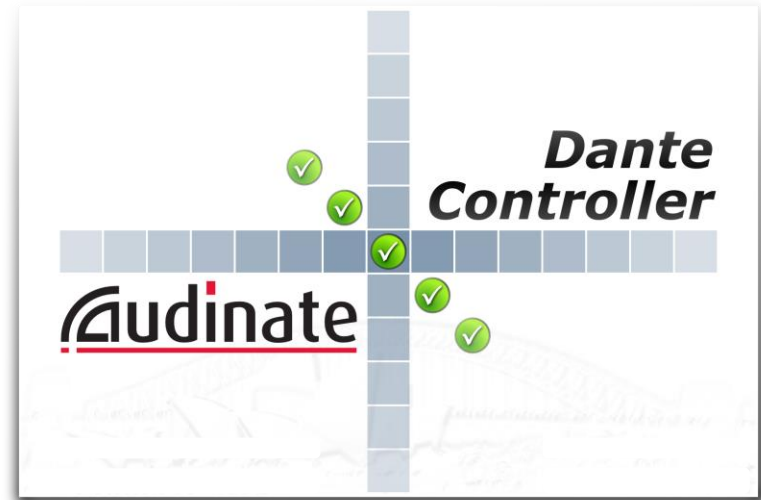
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# Device Lock/Unlock

- Prevent changes to Dante device configuration
- Implemented in Dante *devices*
- Simple PIN system
  - With simple recovery mechanism
- Works with DVS & Via



# Locking a Device



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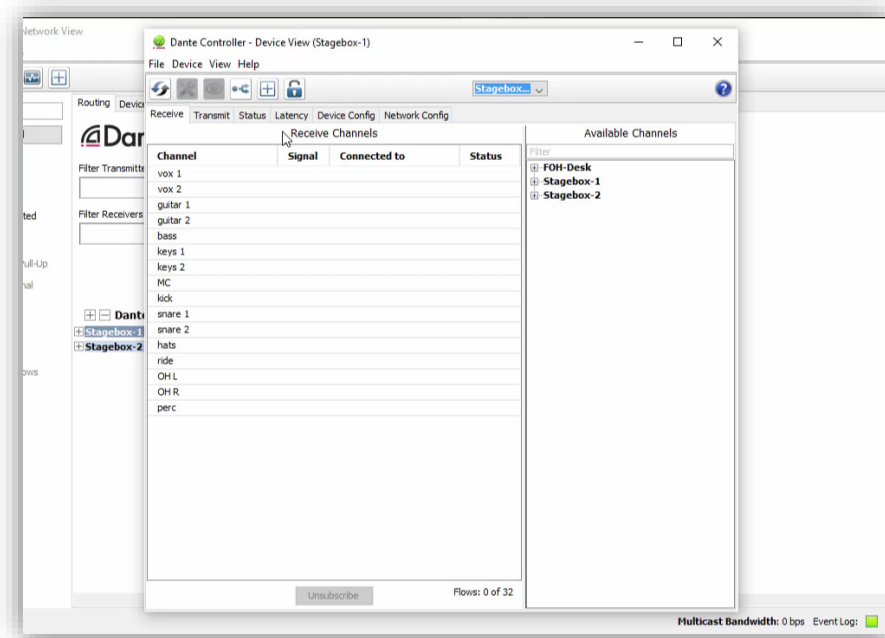
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# Unlocking a Device



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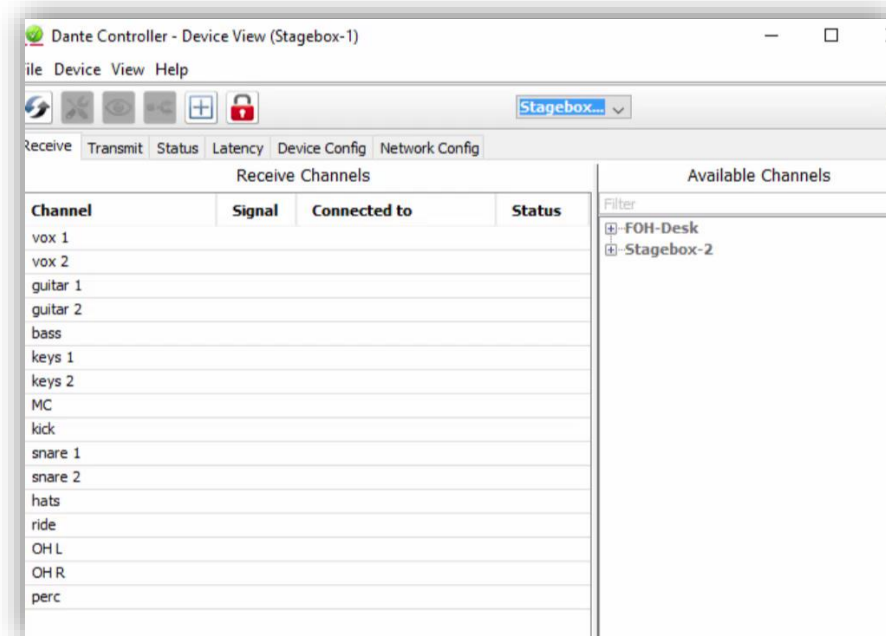
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# What if I forget the PIN?

- The PIN of a locked device can be reset if the device is *lonely*
  - i.e. if the device is *alone on the network*
- Dante Controller can reset the PIN by:
  - Directly connecting the device to a computer
  - Configuring network switches to make a private network with only the device and Dante Controller



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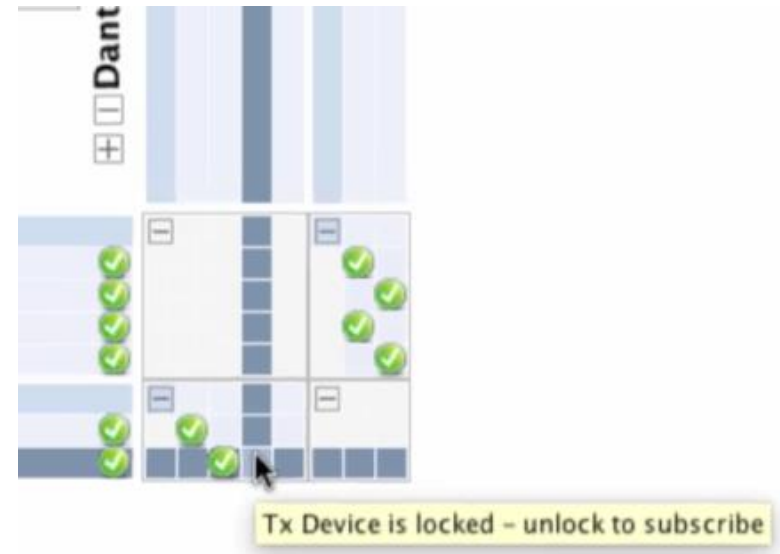
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# Attempting to make changes

- Locking a device prevents configuration changes
  - Device name
  - Sample rate, bit depth
  - Latency, network configuration
- Dante Controller tells you that devices are locked



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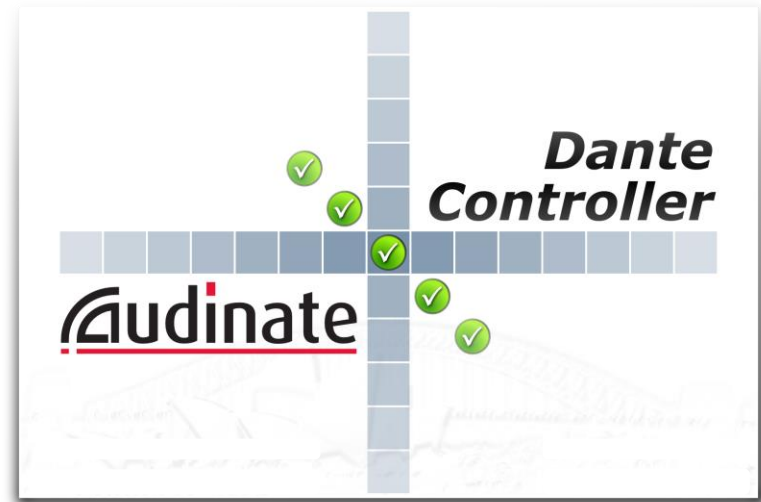
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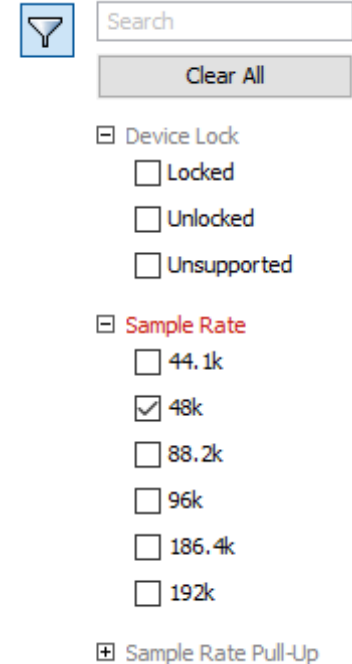
# Three New Features

- Device Lock / Unlock
- Advanced Filters
- Wireless Control



# Advanced Filters

- Filtered views of Dante network
- Wide range of parameters
- Use in any combination



Search

Clear All

Device Lock

- Locked
- Unlocked
- Unsupported

Sample Rate

- 44.1k
- 48k
- 88.2k
- 96k
- 186.4k
- 192k

Sample Rate Pull-Up



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# Advanced Filters

- Device Lock
- Sample Rate
- Sample Rate Pull-Up
- Sync to External Clock
- Encoding
- Latency Settings
- Subscription status
- Multicast Flows
- AES67 capable



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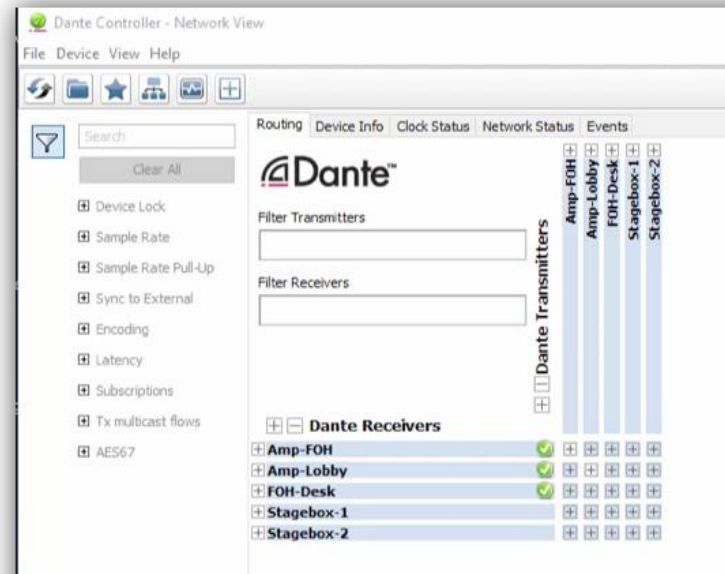


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# Using Filters

Find devices with:

- That are unlocked
- Broken subscriptions
- External clock inputs
- AES67 support
- ...and much more



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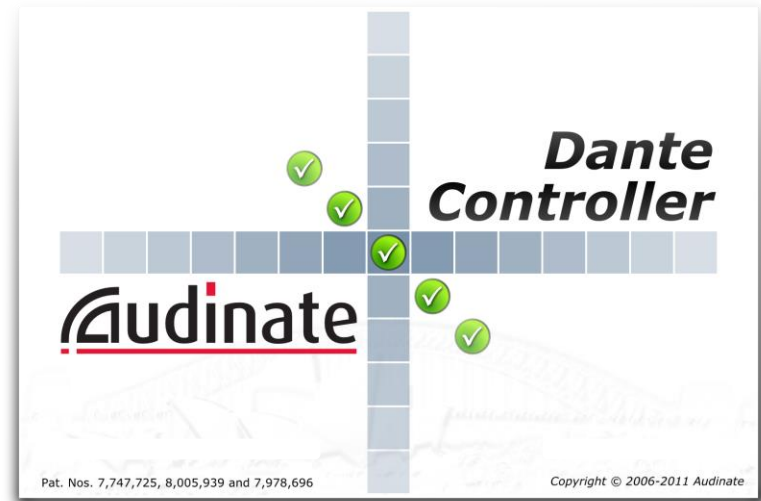
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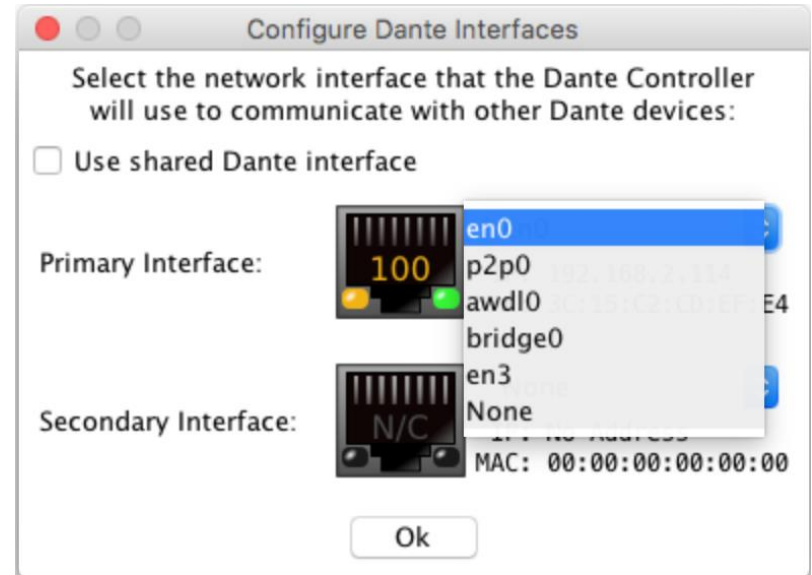
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# Wireless Control

- Use Dante Controller through Wi-Fi
  - E.g. from a laptop
  - Reduce wires, clutter
- Wi-Fi interfaces can now be selected



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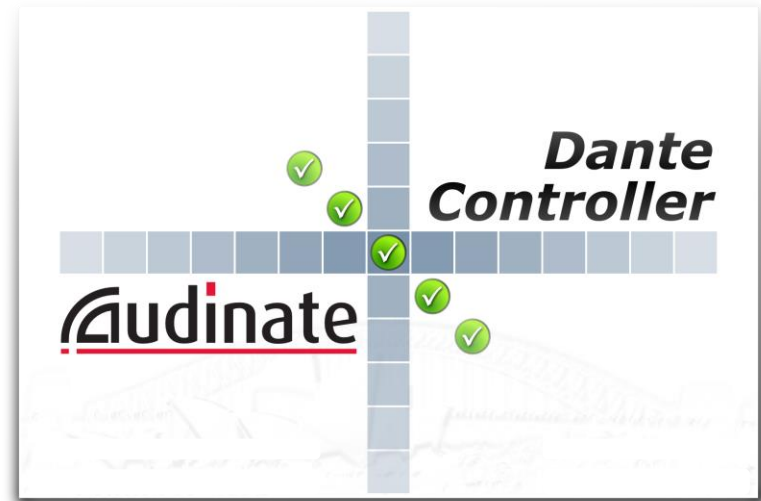
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# Three New Features

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- Come see a demo at Hall6 H148



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# Availability

- Dante Controller 3.10 early Q2
- Dante firmware update 3.10 early Q2
  - Required for Device Lock/Unlock
  - Deployed by manufacturers of Dante-enabled products



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Status update

# NETWORK SERVICES



# Recap Motivation

- Networked AV is growing
- As audio networking becomes ubiquitous
  - Integration like never before is possible
  - Systems become larger
- *Tools and services supporting large scale systems will become critical*

# Four Future Needs

- Combining LAN audio networks into larger systems
  - Sync, transport and discovery across IP routers
- Allow systems to share network infrastructure *without interfering with each other*
- Administrative controls to prevent unauthorized changes
- Logging and tracing
  - For support staff, SLAs, post mortems



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# Where are we today?

- Basic security features are available now
  - Lock / Unlock
- In development
  - More sophisticated security controls
  - Support for routed networks



# Questions?



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