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# The case for removing the HR/DSSS/FH option.

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Submission

Slide 1

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## What is it?

- HR/DSSS/FH is first and foremost an FH system.
  - A HR/DSSS/FH station joins an FH BSS and “hops” with the rest of the BSS.
  - CCA and “medium reservation” is done in a 1 MHz wide channel.
  - High Rate transmission of the PDU consumes a 22 MHz channel.
- It is an FH system that speeds up to HR DS when possible.
- It is NOT a system that operates at high speed and falls back to 2 Mbps FH.

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## Why remove it?

- No Coexistence.
- The HR/DSSS/FH mode interferes with all other 802.11 PHYs.
- If approved, it will be the worst possible interferer that we have defined.
  - Bad interferer for existing FH and DS systems
- It doesn't even coexist with it self.
  - co located HR/DSSS/FH systems will not work well

## Why remove it?

- It is a single cell system.
  - Applications are limited
- There is no migration path from existing FH to high speed DS.
- It does not provide backwards compatibility from the high rate PHY to FH systems.

January 1999

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## Why remove it?

- It is a new PHY.
- It does not interoperate with the HR/DSSS PHY.
- The charter for TGB states that we are to develop a single PHY.
  - This clearly violates that charter.
- Options in the standard are bad.

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## Why remove it?

- Adding this option causes confusion in the market.
  - Creating two new incompatible PHYs
  - 802.11 should present a unified position
- High Rate capability is expanding the market for WLANs.
- Why repeat the same mistake we made with FH and DS in the 2.4GH band?
- This option is yet another thing to explain.
  - It becomes an obstacle to adoption

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## Please vote to remove HR/DSSS/FH

- it is technically ugly
  - not well defined in current draft
- it is not benign
  - “electronic warfare”
- it has limited application
- it will be expensive
- it slows the market adoption of WLANs
- 802.11b schedule issues

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Slide 7

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