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Inband Management Agent

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Inband Management Agent

Definition:

Piece of software that runs on the host and enables system management

Usage:

- monitoring
- telemetry
- firmware update
- failure prediction
- self healing (memory poison containment)

Why inband ?

Certain monitoring/management is available only inband

- Host CPU metrics
- Host kernel/software metrics
- Memory Check Exception (MCE)
- Memory poison containment

Direct high bandwidth connection to PCIE

- Firmware updates (GPU card, PCIE cards)

Higher processing power of server CPU

Augment Out-of-Band

- Machines without BMC
- Machines with limited microcontroller
- Host agent

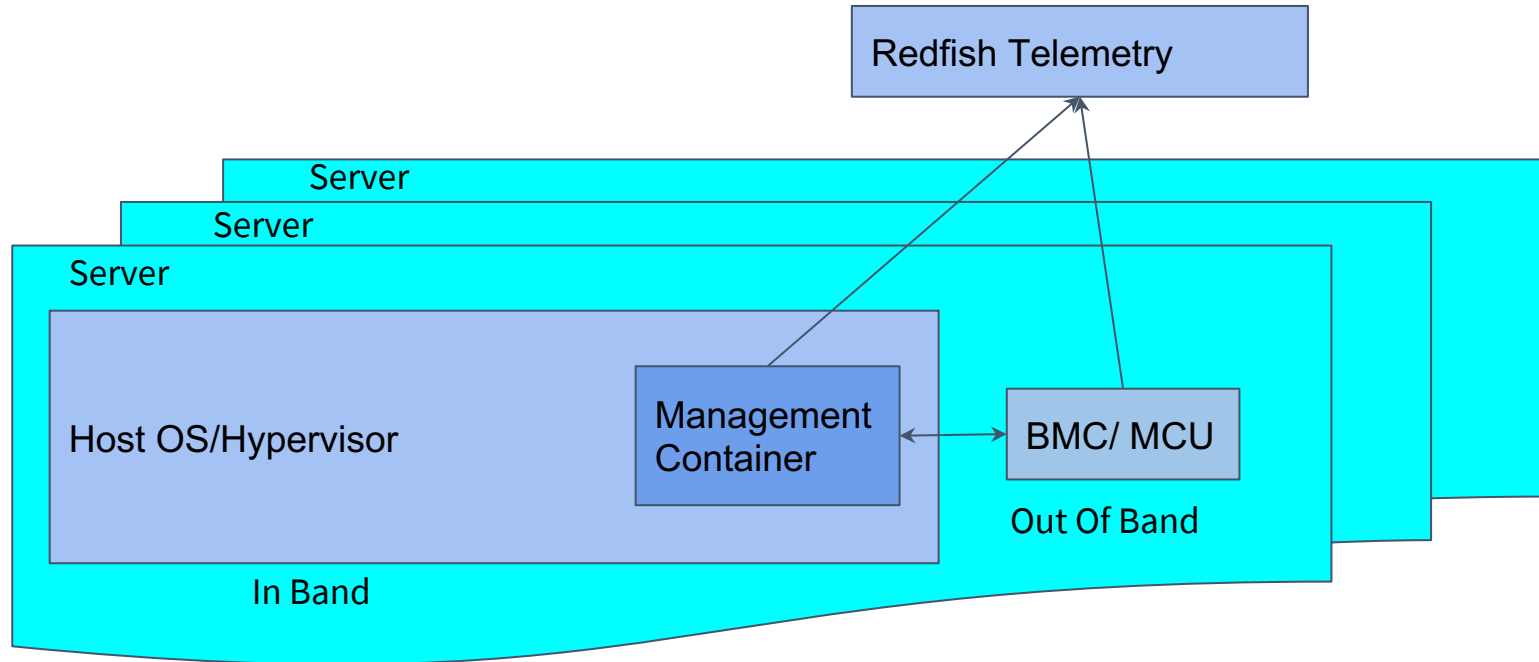
Additional Cost/Complexity of BMC

- Network port usage (or tunneling)

Inband complements Out-of-band

- Inband while server CPU working
- Out-of-band on CPU failure
- Potentially move agents from in-band to out-of-band & vice-versa
- Process/Augment low-level out-of-band data
 - e.g. out-of-band may lack floating point support

Inband architecture



Standardize Inband Management Agent

- Enable collaboration across industry
- Make it easy to write conformant agents
- Share Agents
- Common Telemetry/Common protocol enables replaces custom “N” protocols
 - Easy collection, storage, sharing & analysis of data
 - Vendors benefit from additional data
 - Hyperscalers benefit from being to able to use off-the-shelf components
 - Enables remote/offline debugging
 - Everybody benefits from improved products

Summary / roadmap

- Hyperscalers have custom implementations & Vendors have custom protocols
- Make simple extensible standard
 - Incentivize vendor adoption
- Enable easy incremental adoption
 - Support hyperscalars

Q4 2021: Inband Management Agent architecture, use cases

Q2 2022: Inband Management Agent draft specs



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