Scope and Objectives of FDS
- a Review

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From last September...

The need for **F**unction **D**iscovery

■ There is a need for **a common (protocol/bus independent) method for finding (describing) a function** in a multi-device(node) topology.

"How do we find a printer in a multi-device/multi-protocol topology?

...We don't want to utilize a specific protocol JUST to find a function in a topology"

■ Approved as a need by IEEE MSC

(IEEE1212 task group)

■ Other proposals addressing same issue

- SDD , "Proposal to add mode_unit_id" etc.

Function **D**iscovery scheme - Objective

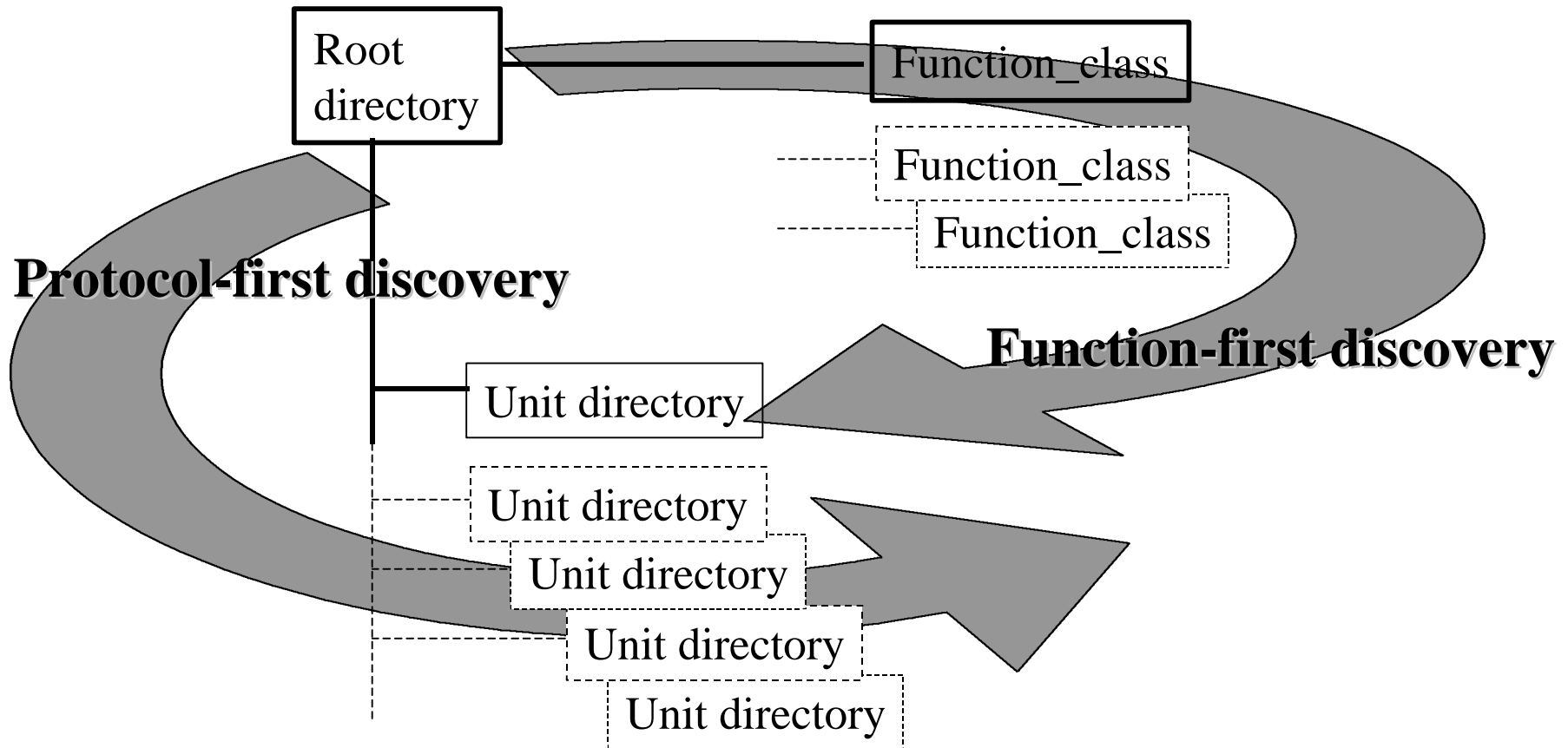■ **Objective:**

● Provide a

unit (protocol) independent method for :

(Initial) Function Discovery.

- **"Discover the gross function(s) first,**
  then their supported protocols.
  (and further function description)"

as an alternative to current "protocol-first" discovery.
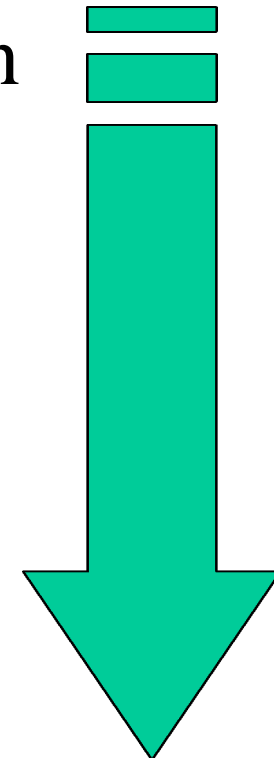
Unit-first ~~vs~~ Function-first
and

Root directory

Function_class

Function_class

Function_class

Protocol-first discovery

Function-first discovery

Unit directory

Unit directory

Unit directory

Unit directory

Unit directory

FDS will not restrict the discovery method, it will expand it.
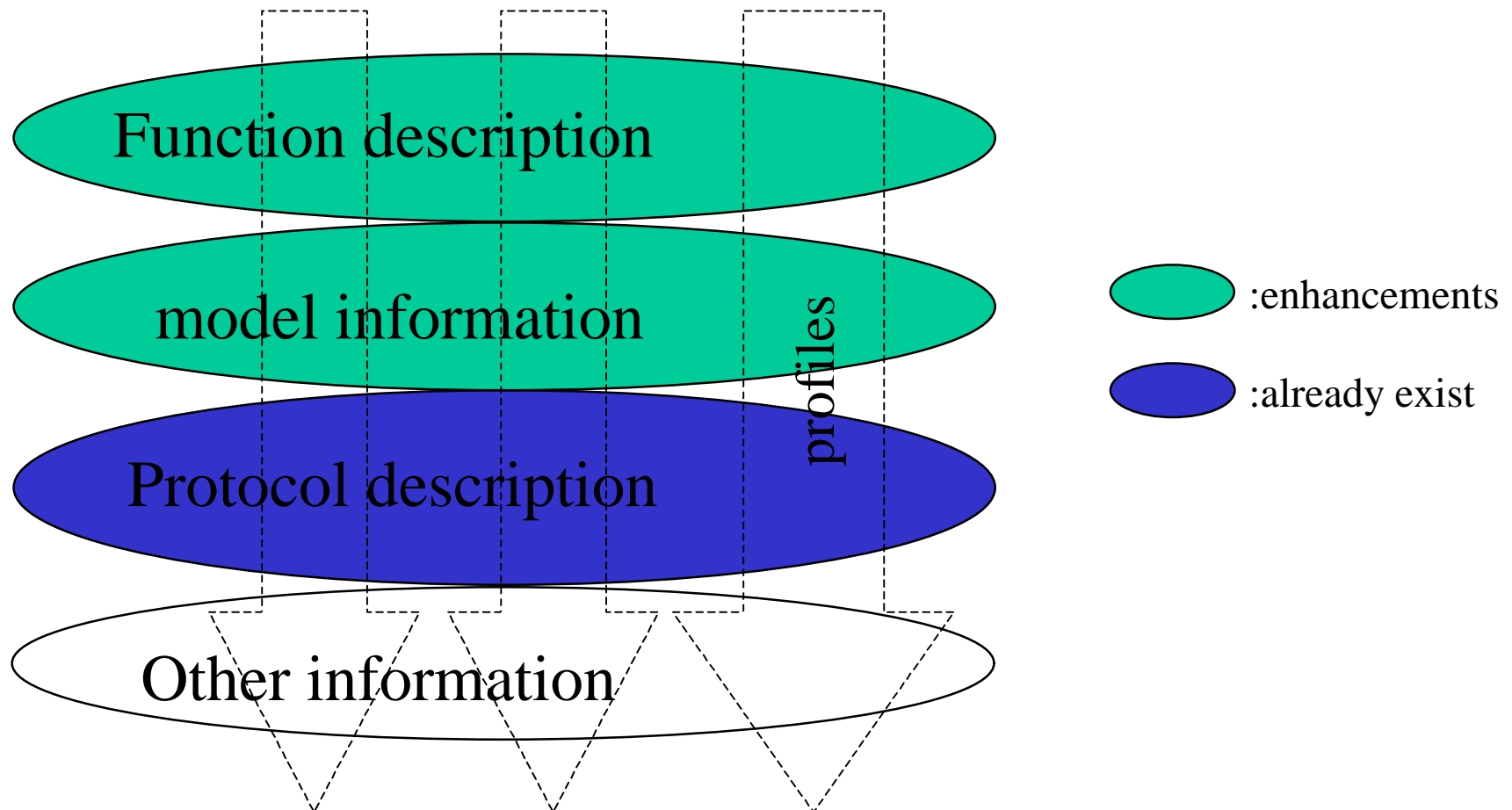
Scope of FDS

priority

Main Purpose

1   Provide gross functional information

  - function_class entry

2   Provide detailed information about the function

  -function info directory

3   Provide pointers to associated directories

  (unit dir and function info dir)

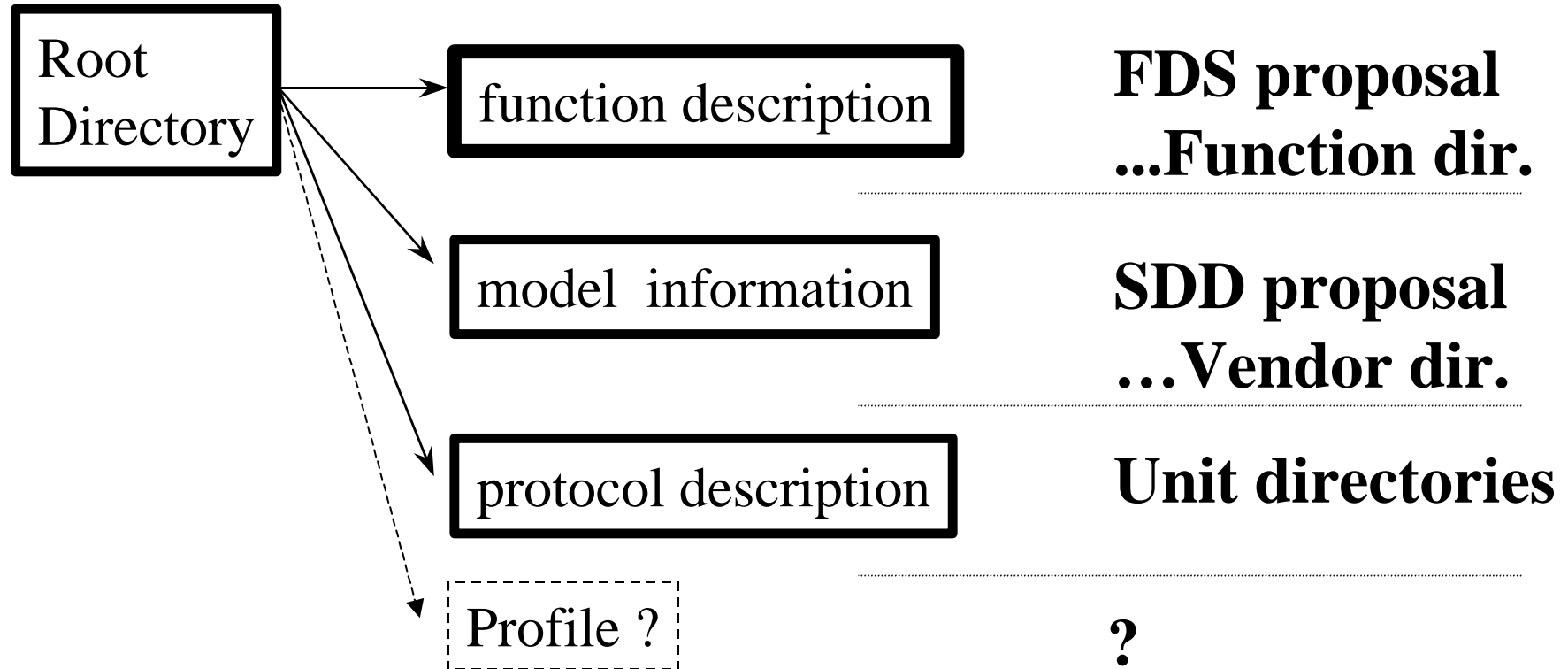 *-function affinity directory*

Additional features

1212 ROM Information

Profiles show a set or a combination (link) of ROM information.
(In case of a device with only 1 profile, the whole ROM is the profile.)

Dedicated directories in ROM

...categorization of information

Root Directory → function description   **FDS proposal ...Function dir.**

model information   **SDD proposal …Vendor dir.**

protocol description   **Unit directories**

Profile ?   **?**

* Easier and clear to define/work.

* Some contents of directories will refer to other directories

Profiles(PDS)

- Profiles may be useful (for the PC)
- Profile IDs for each profile (including info such as unit combination and detailed information) is unrealistic.
- Profile ID = device ID string???
- In any case, Profile Discovery is a **different** concept from Function Discovery

Summary...PDS and FDS

- Protocol independent Function Discovery is necessary
- PDS and FDS have **DIFFERENT** objectives.
  - <u>Function discovery and Profile discovery have different objectives</u>. Profile Discovery is NOT an alternative to function discovery.
    - **F**DS objectives: Provide An information on (gross) functionality
    - **P**DS objectives: Provide a grouping of information