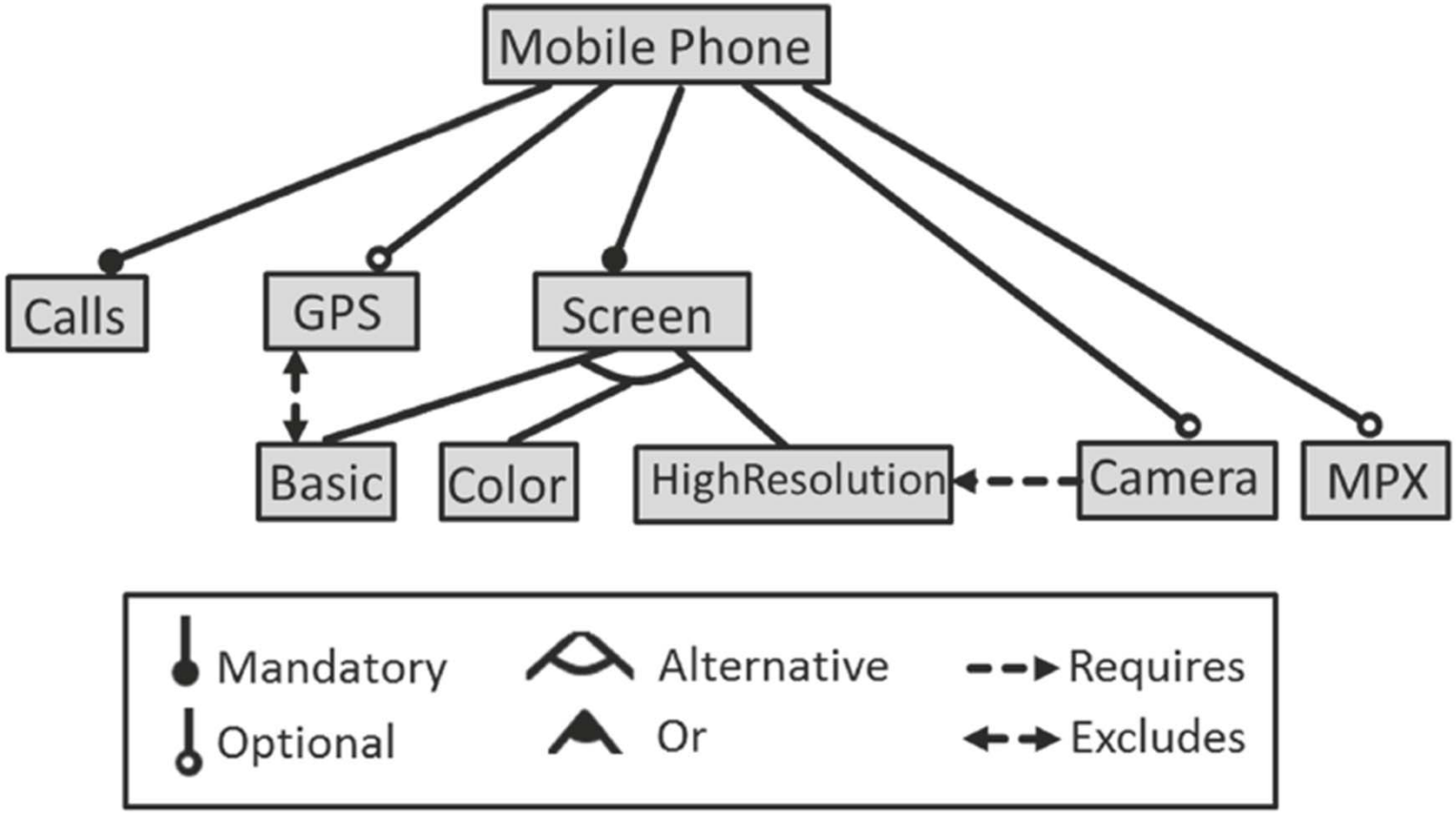
Knowledge-Based Configuration

- From Research to Business Cases -

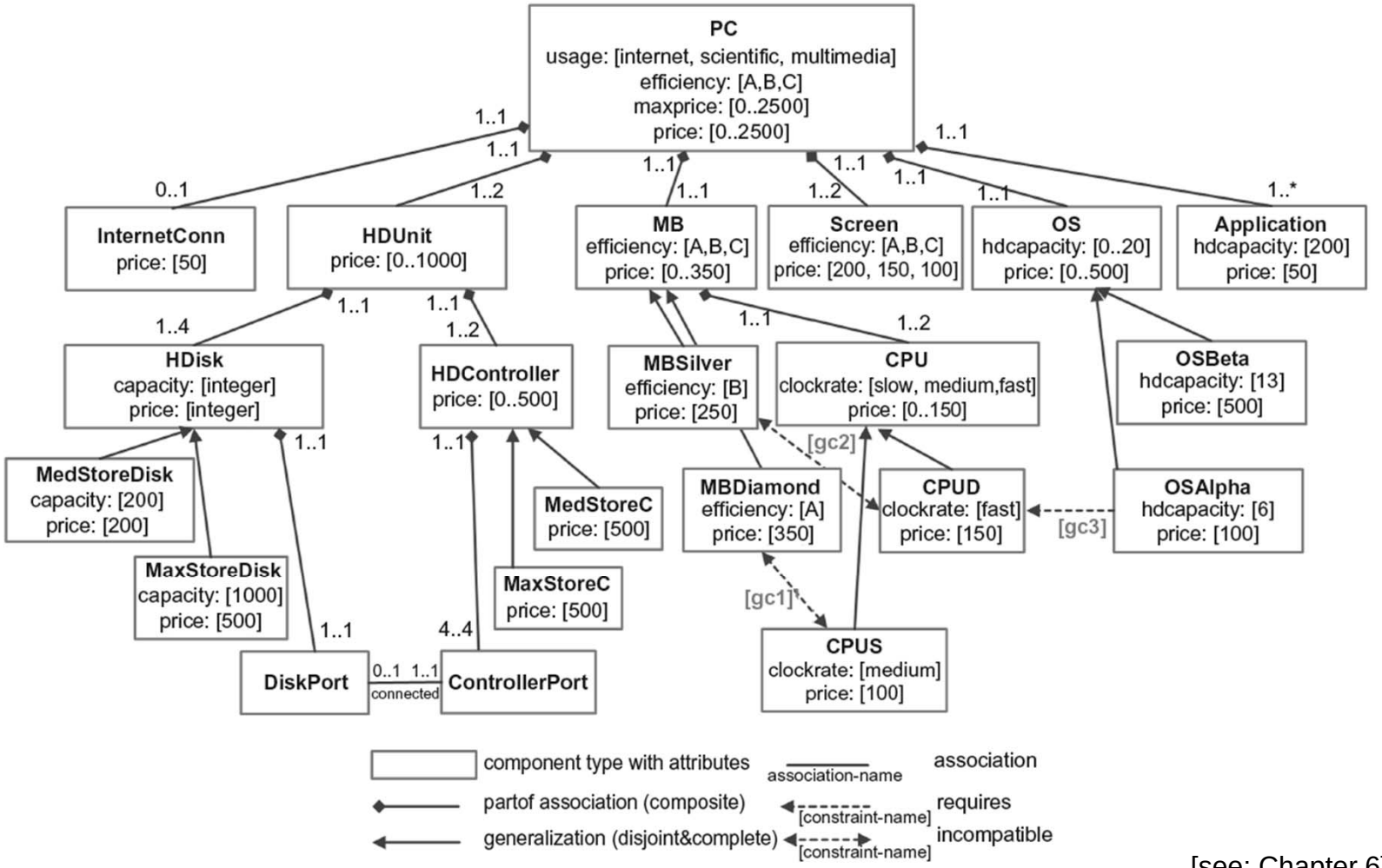
Example Configuration Models

Feature Model Example



[see: Chapter 6]

Configuration Model Example (1)



[see: Chapter 6]

Configuration Model Example (2)

Table 6.2 Constraints related to the configuration model shown in Figure 6.7.

Name	Description
gc1	CPUs of type CPUS are incompatible with motherboards of type MBDiamond.
gc2	CPUs of type CPUD are incompatible with motherboards of type MBSilver.
gc3	Each OS of type OSAlpha requires a CPU of type CPUD.
prc1	The price of one harddisk unit (HDUnit) is determined by the prices of the disks (HDisk) and controllers (HDController) part of the HDUnit.
prc2	The price of one personal computer (PC) is determined by the prices of the HDUnits, the motherboard (MB), the CPUs, the operating system (OS), the Screens, additional applications (Applications), and the Internet connection (InternetConn).
resc1	The computer price must be less or equal to the maxprice defined by the customer.

[see: Chapter 6]

Configuration Model Example (3)

resc2	The consumed hdcapacity (consumed by instances of component type OS and Applications) must be less or equal to the produced capacity (produced by instances of type HDisk).
crc1	Intended internet usage or multimedia usage (attribute of PC) requires the existence of an Internet connection (InternetConn).
crc2	scientific usage requires CPUs of type CPUD.
crc3	The required energy efficiency (attribute efficiency of PC) must be supported by the MB.
crc4	The required energy efficiency (attribute efficiency of PC) must be supported by the included Screens.
compc1	The price of an efficiency A Screen is 200 units.
compc2	The price of an efficiency B Screen is 150 units.
compc3	The price of an efficiency C Screen is 100 units.

[see: Chapter 6]

Thank You!