

Certify and Fly Right: Preparing for DO-297 Certification

Keith Custer

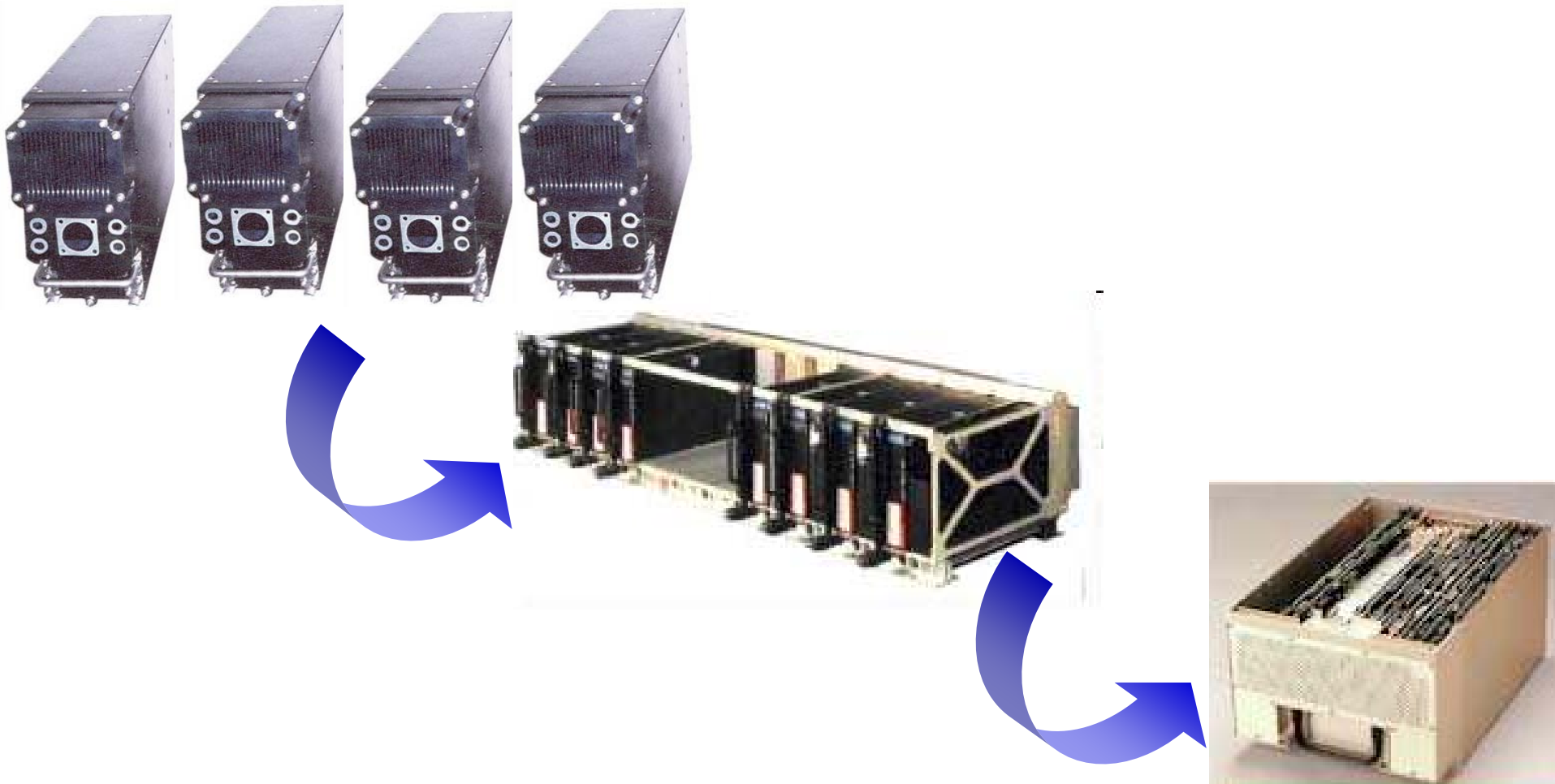
Esterline Control Systems - AVISTA



Boeing 777



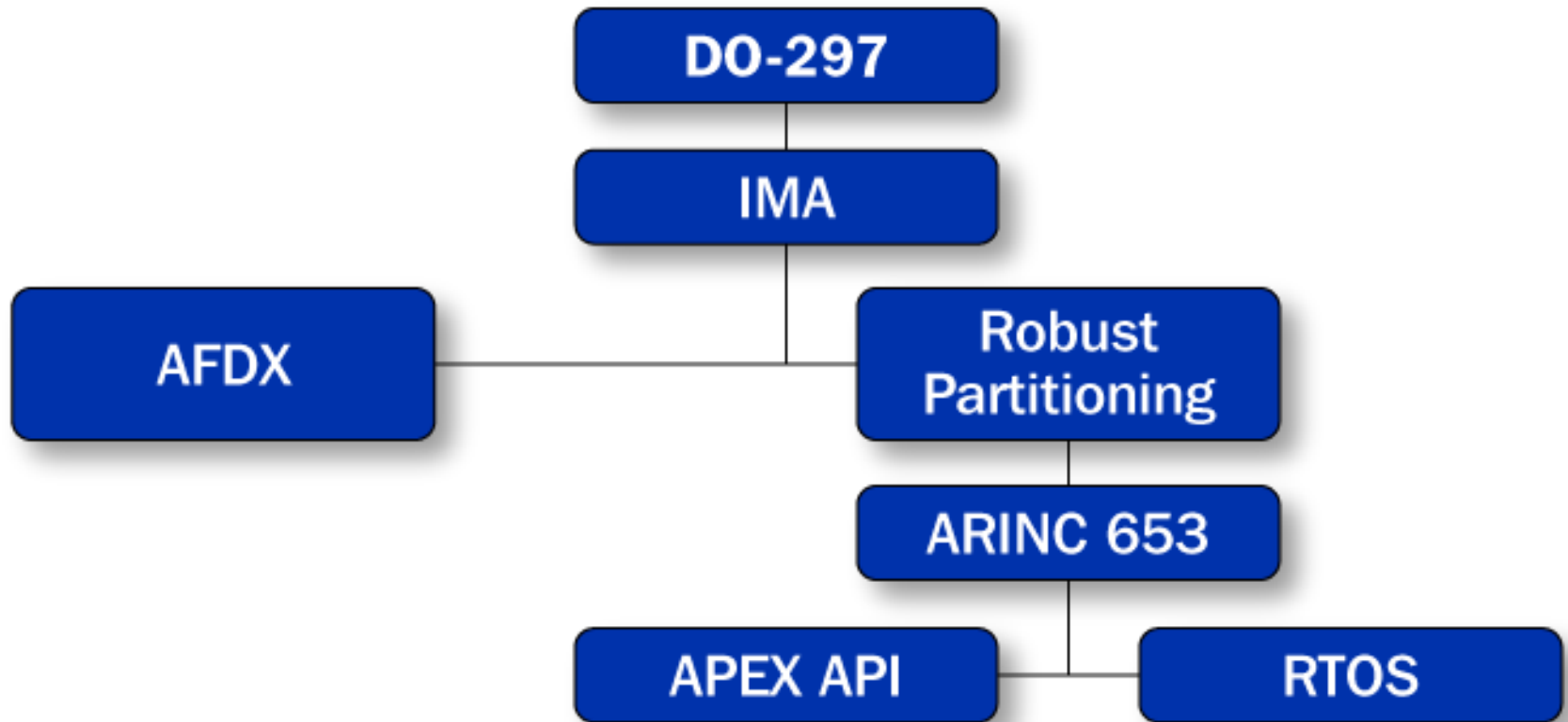
Integrated Modular Avionics (IMA)



Images courtesy of avionicszone.com and Trade India



DO-297 Overview & Terminology



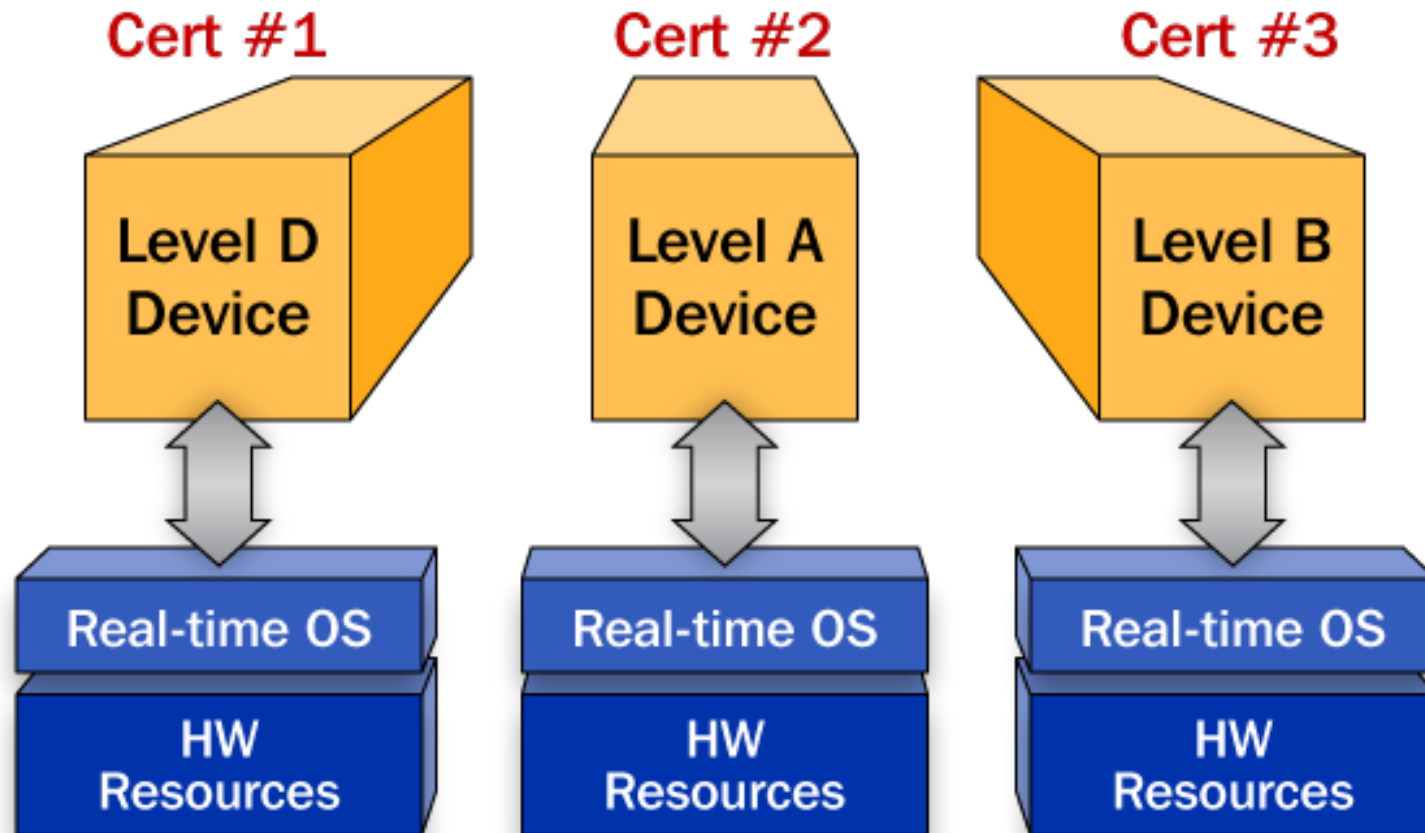
IMA Time Partition

```
/* Single Application */  
switch(timeSlice)  
{  
  case 0:  
    ReadLabels();  
  
  case 1,3,5,7:  
    MainProcess();  
  
  case 2,4:  
    SaveLog();  
  
}
```

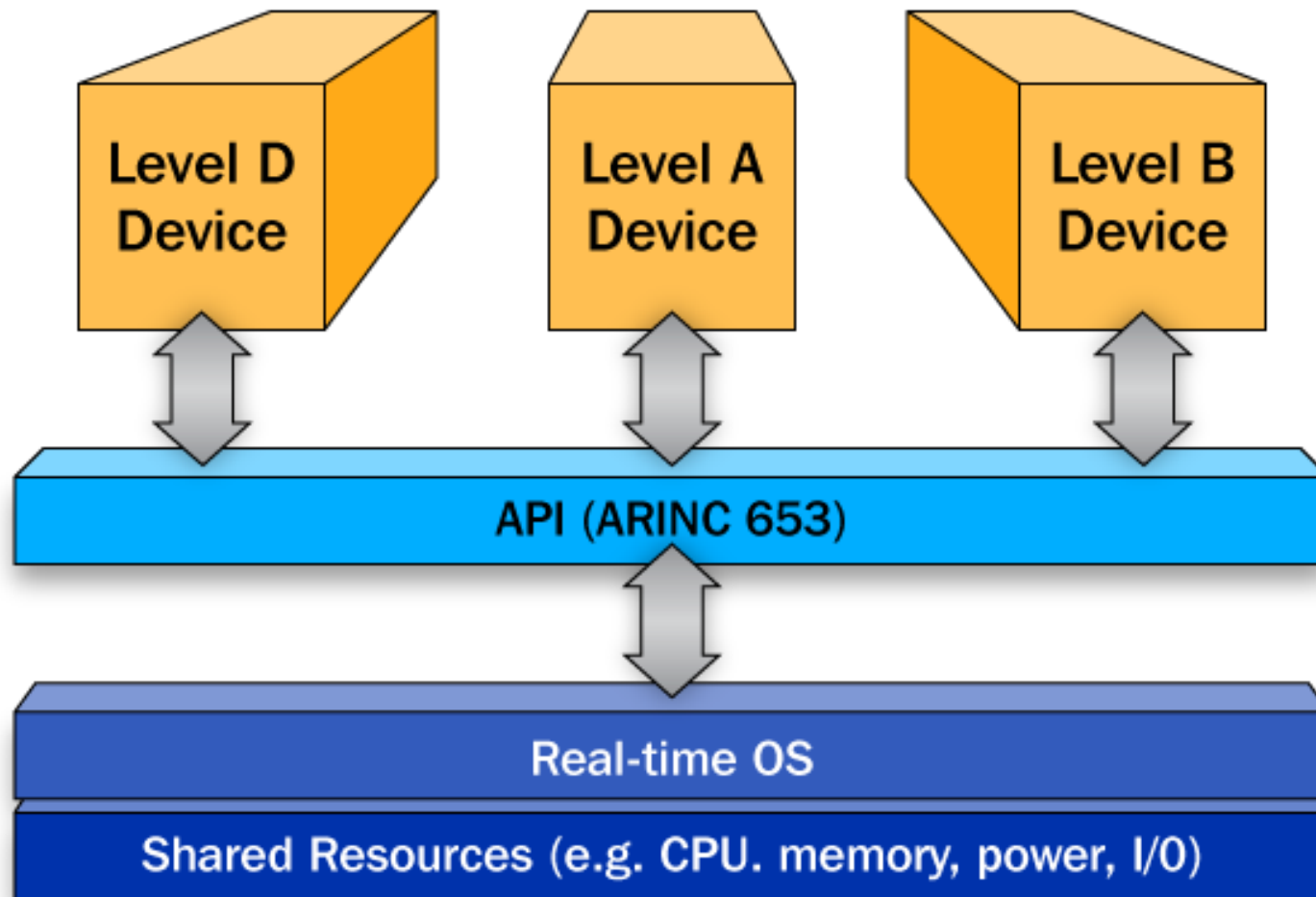
```
/* IMA System of Systems */  
switch(timeSlice)  
{  
  case 0:  
    Maintenance_Sys();  
  
  case 1,3,5,7:  
    Autopilot_Sys();  
  
  case 2,4:  
    CDU_Sys();  
  
}
```



Application Certification Today



IMA Certification

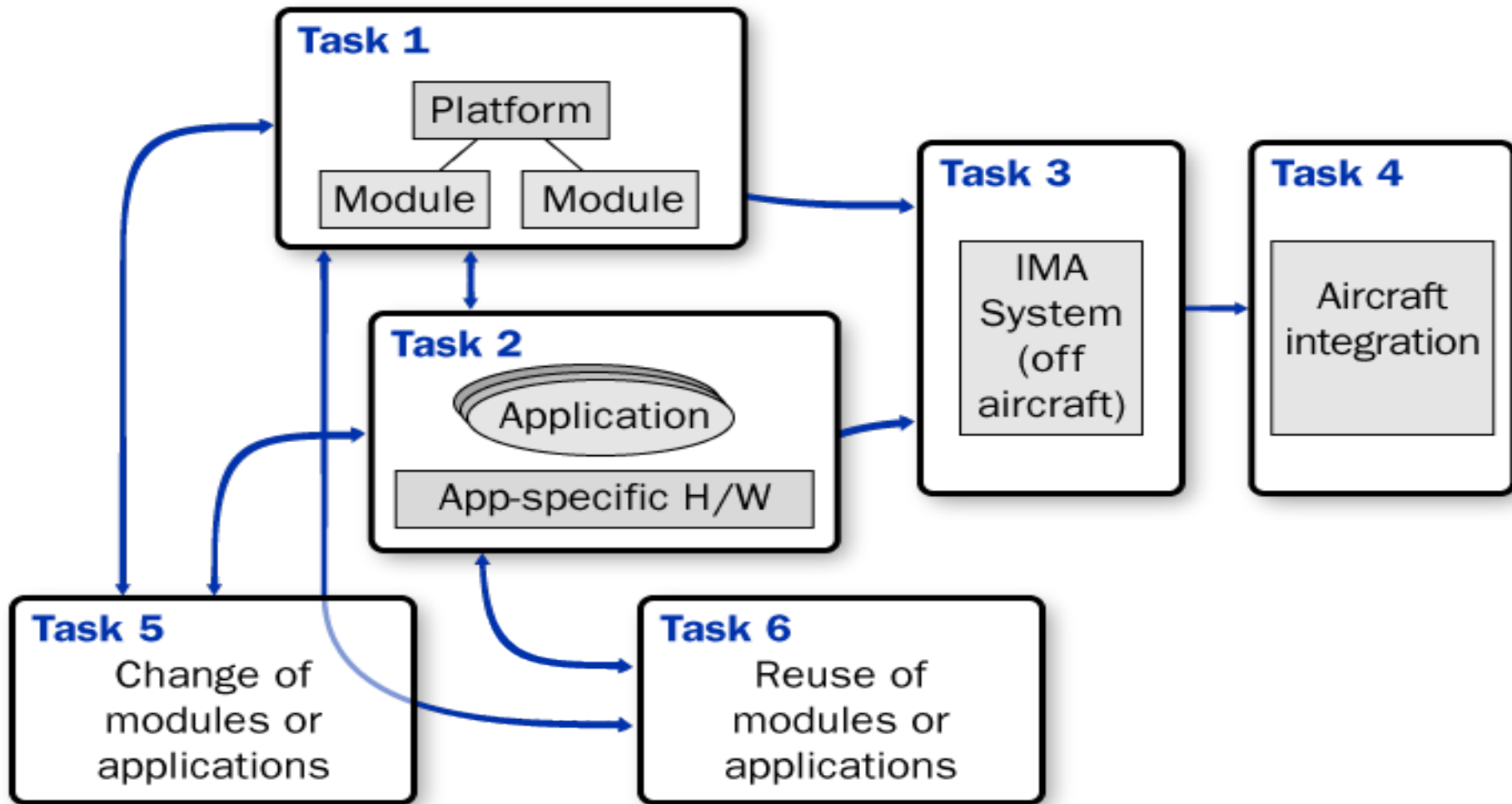


IMA Advantages

- » More complex systems
- » Consolidation of low-level development
- » Lower cost & weight
- » Flexibility & modularity
- » Reuse
- » Maintenance
- » Growth



DO-297 Certification Steps



Challenges



...look for opportunities
for DO-297



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