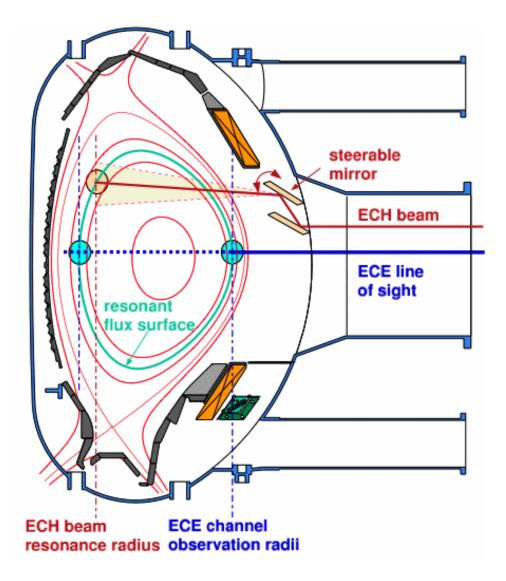


# Control of Neoclassical Tearing Modes, an Example



#### Goal :

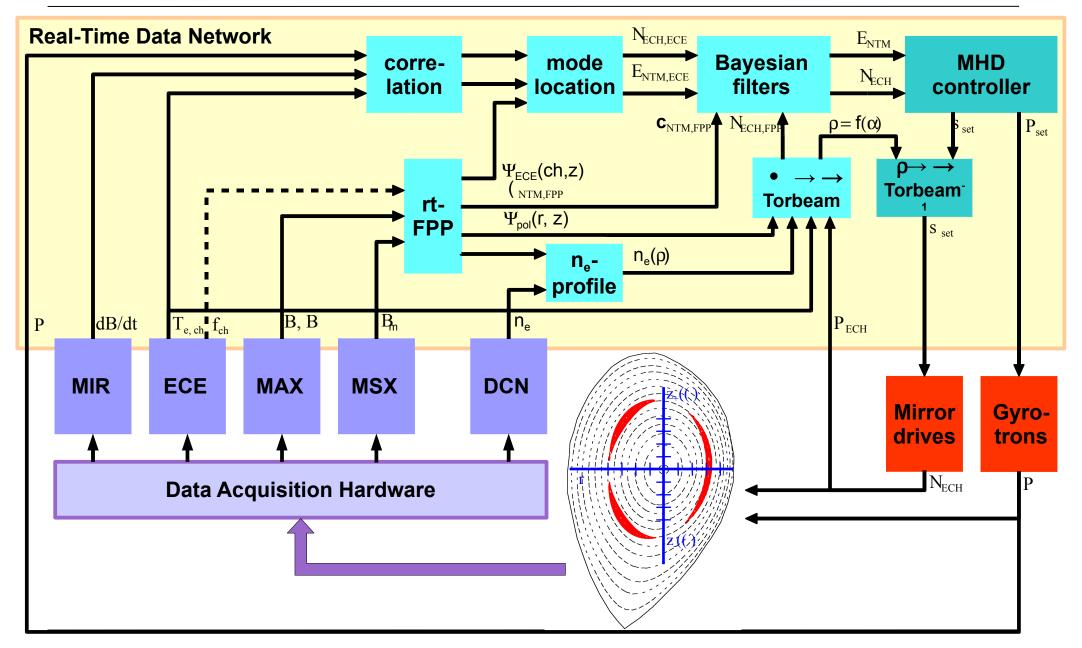
- suppress or mitigate neoclassical tearing modes (NTM)
- avoid disruptions due to locked modes
- improve plasma confinement

#### **Control Recipe :**

- move mirrors to guide Electron Cyclotron Heating (ECH) beams to the magnetic flux surface
- turn on ECH power when there
- drive current at the location of the NTM magnetic island to make it disappear

#### **Functional Overview**

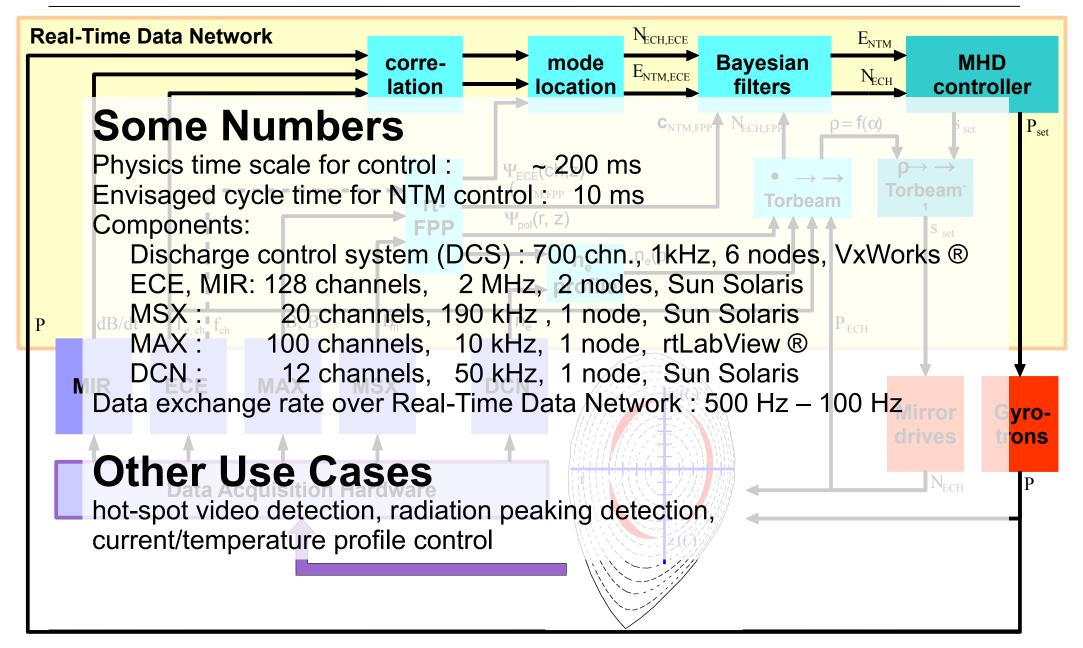




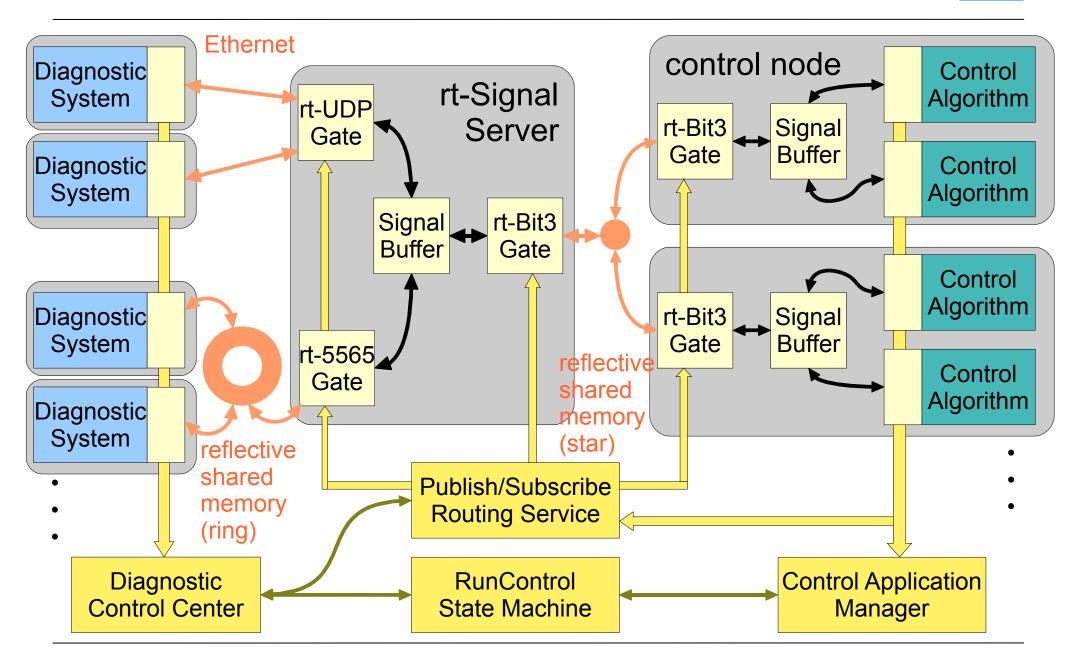
16<sup>th</sup> IEEE NPSS Real Time Conference 2009, Beijing, China, 10-15 May, 2009

# **Challenge by Diversity**





## Software Framework with Real-Time Networks

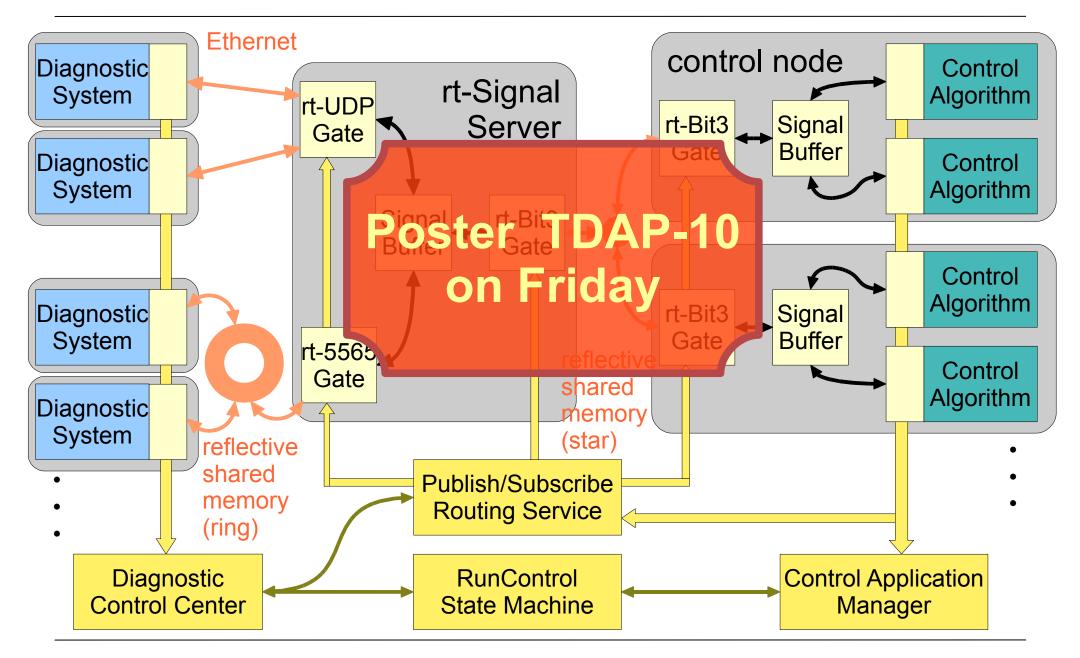


16<sup>th</sup> IEEE NPSS Real Time Conference 2009, Beijing, China, 10-15 May, 2009

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## Software Framework with Real-Time Networks





16<sup>th</sup> IEEE NPSS Real Time Conference 2009, Beijing, China, 10-15 May, 2009