

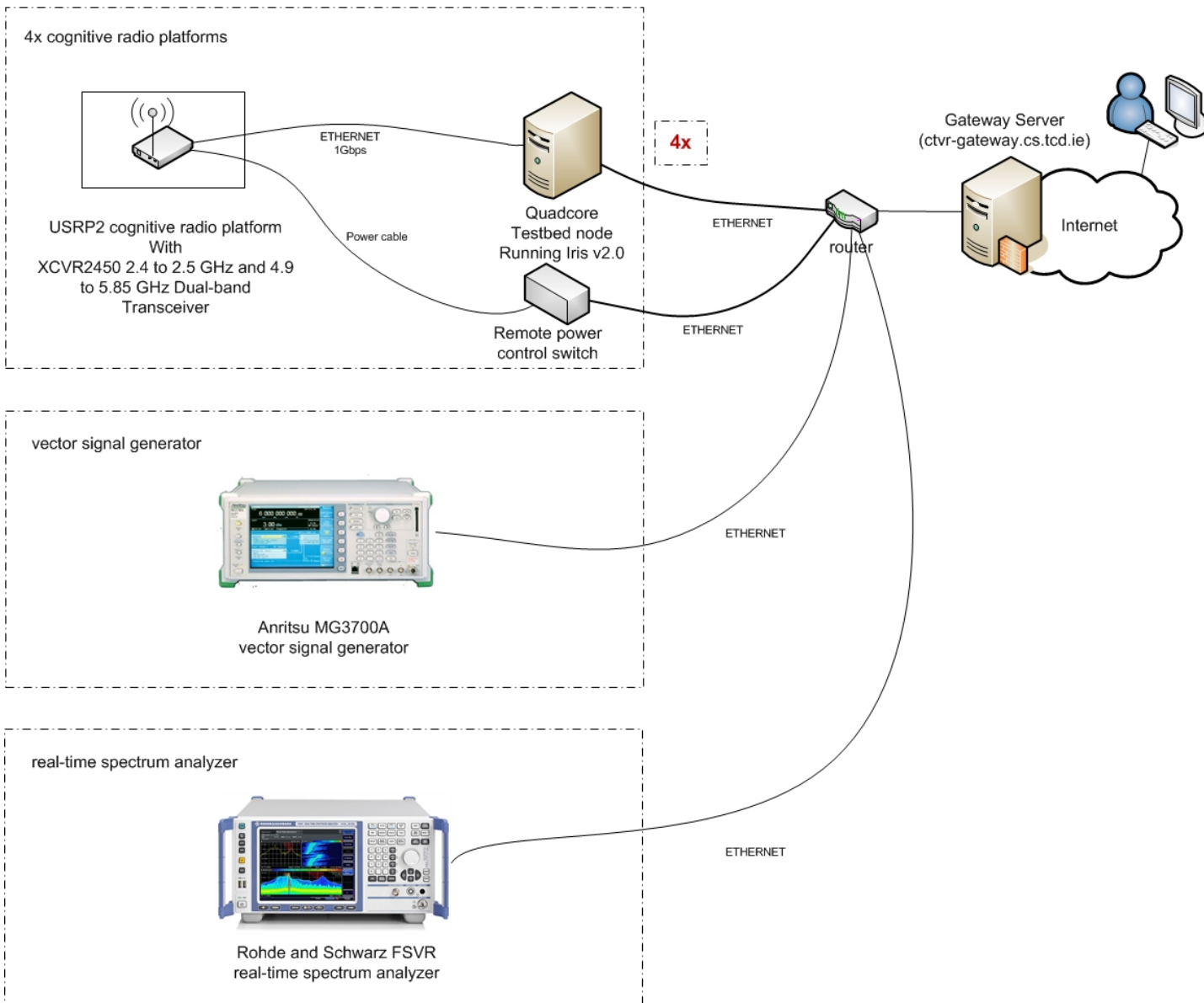


CTVR Iris Testbed, Dublin

Cognitive Radio Experimentation World

CREW Open Call Information Session,
Brussels,
14/09/2011



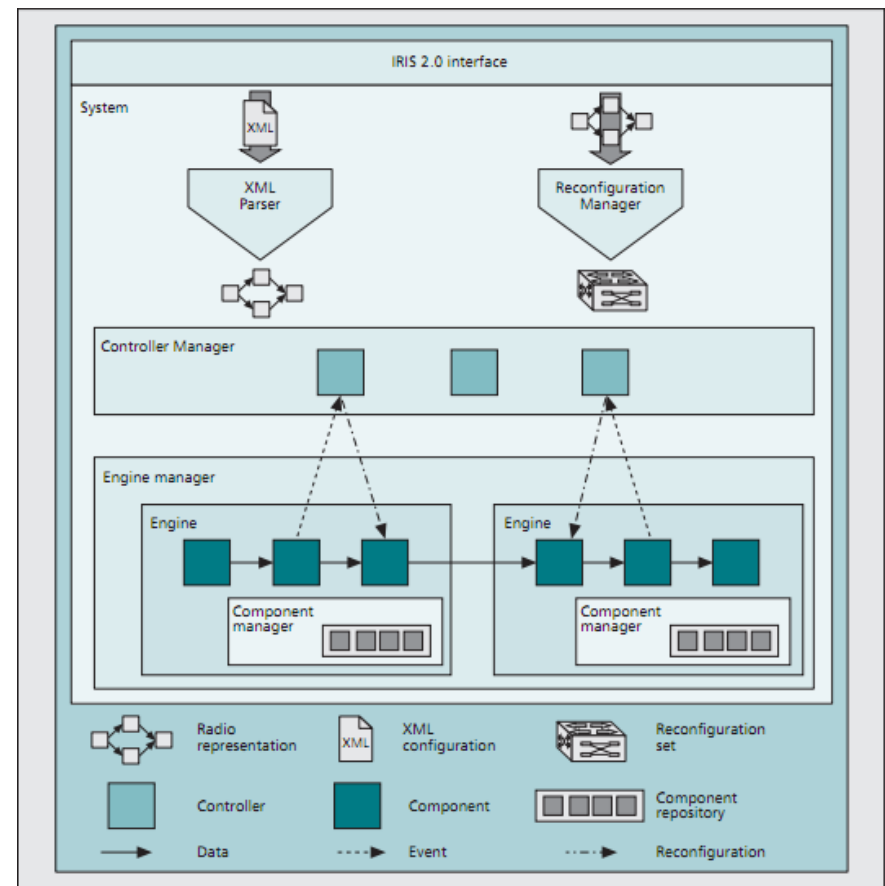


- **4 USRP2s connected to quadcore testbed computers**
- **Ettus Research USRP2s are:**
 - Highly flexible low cost RF transceiver.
 - Require software to define how they operate
 - This is done by Iris (more info on next slide next slide)
 - Can operate in a wide variety of spectrum bands depending on which daughter board is used (itinerary of daughter boards available online)
 - Can sample up to 25Msamples/sec.

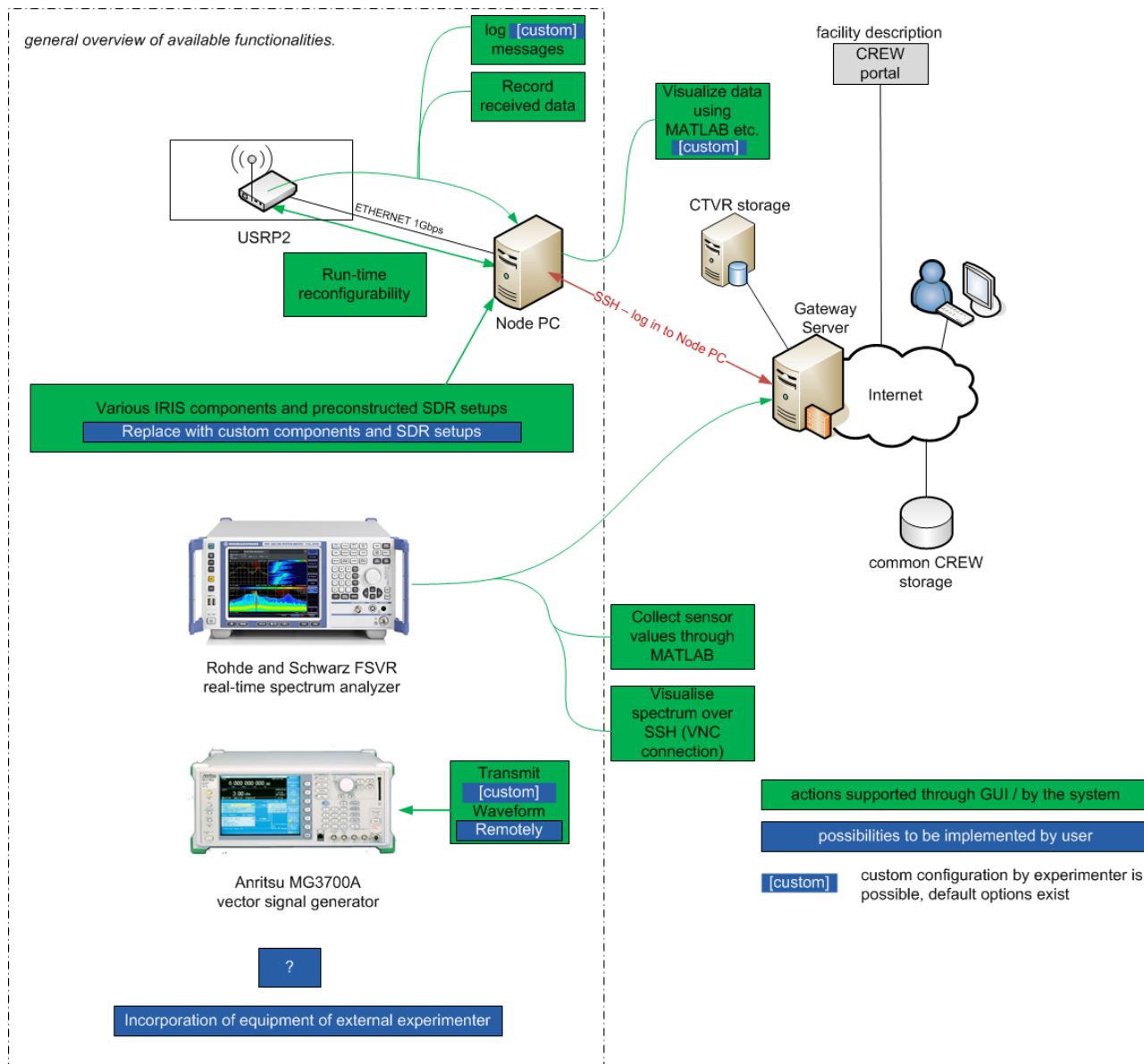


■ Iris

- Component based architecture for software defined radio
- Designed and developed in CTVR, Trinity College Dublin
- Highly reconfigurable
- Parameters and components of radio can be changed in real time.

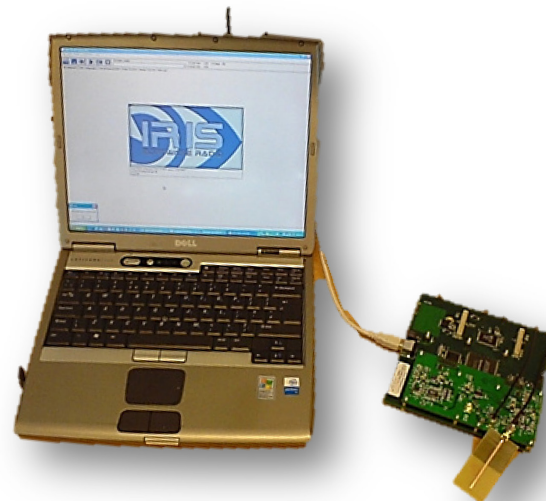


Iris Testbed Usage Overview



■ Reconfigurable radios and adaptation mechanisms in a cognitive network

- Iris SW radio platform: dynamic adaptations at multiple layers in the protocol stack, including the physical layer
- spectrum sculpting for better coexistence with co-located and/or adjacent systems
- the implementation of a cognitive medium access control (MAC) protocol
- use of TV white spaces through sensing and geolocation database methods



- For more details on accessing and use of the testbed see

<http://www.crew-project.eu/portal/IRISdoc>

Or contact us by email:

Justin Tallon tallonj@tcd.ie

Danny Finn finnda@tcd.ie

Luiz DaSilva dasilval@tcd.ie