



# Nokia CDMA

Using GHRC and CCF for New Technology and Services

**NOKIA**

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# Nokia and CDMA



- Nokia is committed to CDMA technology and will deliver the best terminals for all tiers.
- Nokia has selected to partner with ODM vendors to integrate third party chip sets into their terminals.
- Nokia has a complete and exciting set of products covering all segments in its roadmap.
- Nokia's commitment to quality in every tier is a key driver in our strategy.

# Nokia's Technology and Service Strategy



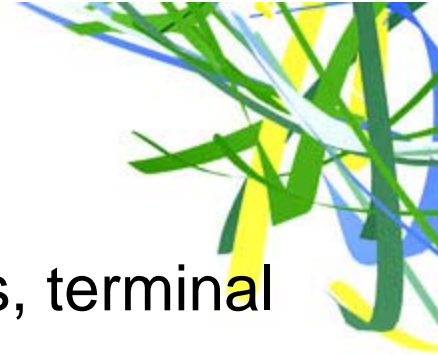
- Develop/co-develop new services and technologies
- Use GHRC to define, refine and standardize the specifications for these new technologies and services
- Work with CCF to create a testing process for these new services that can be used easily by operators
- Constantly promote and support the GHRC and CCF so that more operators and handset vendors can benefit from the economies of scale

# Technologies and services Nokia is working on

- RUIM
- PRL
- Java
- AWS support
- Innovative music services
- Turn by turn navigation
- Social Networking
- Adobe Flash
- Long SMS

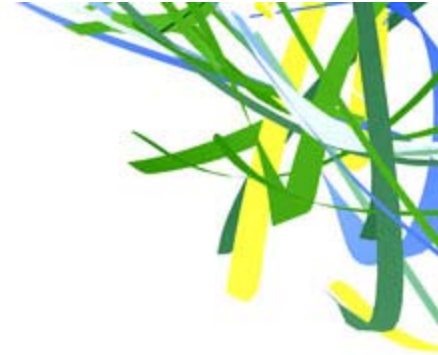


# How has Nokia benefited from CCF?



- In emerging markets, due to large number of operators, terminal certifications is very challenging!
- CCF has played a key role in making certification and interoperability more manageable.
  - As an example there are over 30 operators in 450 MHz band. Unless a CCF process were used it would be very difficult to conduct all the certifications and interoperability tests for the operators.
- Nokia wishes that CCF certification process is adapted by tier one carriers as a common ground. Device vendors then should submit devices for operator specific requirements only.
- Nokia sees tremendous benefit in doing this as time to market is significantly reduced.
- Tata (India) estimates savings in hundreds of thousands since its adoption of CCF.

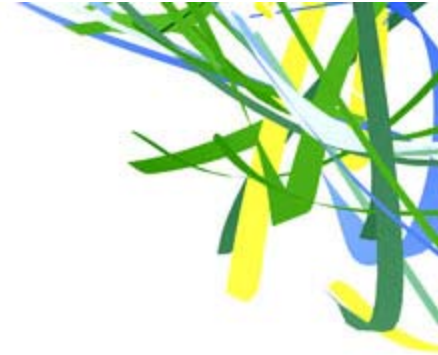
# CCF Accomplishments



- Device Certifications
  - 46 Devices Certified, 5 More Are in Process
  - 16 Operators & Vendors Have Adopted
  - CCF & CTIA certification programs converged
- CCF Saved Industry (vs. CDG1,2,3)
  - US\$14 Million & 10 Years Processing Time in 2006
    - at 18% market penetration
  - Device vendors saving as much as \$3 per device

Source: CCF

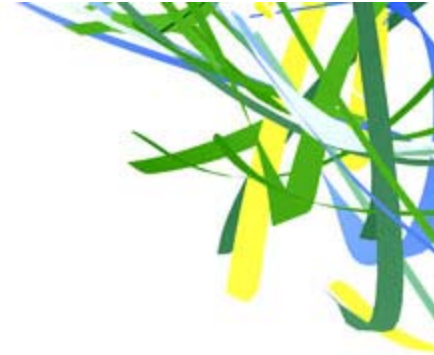
# CCF Benefits!



- Operators Enjoying
  - 6 Week Reduction In Acceptance Testing
  - Reduced Cost of Acceptance & Opportunity
  - No Field Issues On Certified Parameters
- Vendors Enjoying
  - 12 Week Reduction in Certification Testing
  - US\$400K + Savings per Device Certification
  - Single Device To Multiple Markets

Source: CCF

# CCF Authorized Testing Facilities



- CCF-L

- NewsIQ US
- WTS US
- TTA Korea
- CATR China
- Nokia US
- PCTEST US
- Qualcomm India
- Qualcomm US
- **RadioSky China (Recently authorized)**

- CCF-FIO

- Qualcomm India
- NewsIQ US
- Qualcomm US
- WTS\* US

\* In progress



# Thank you

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