

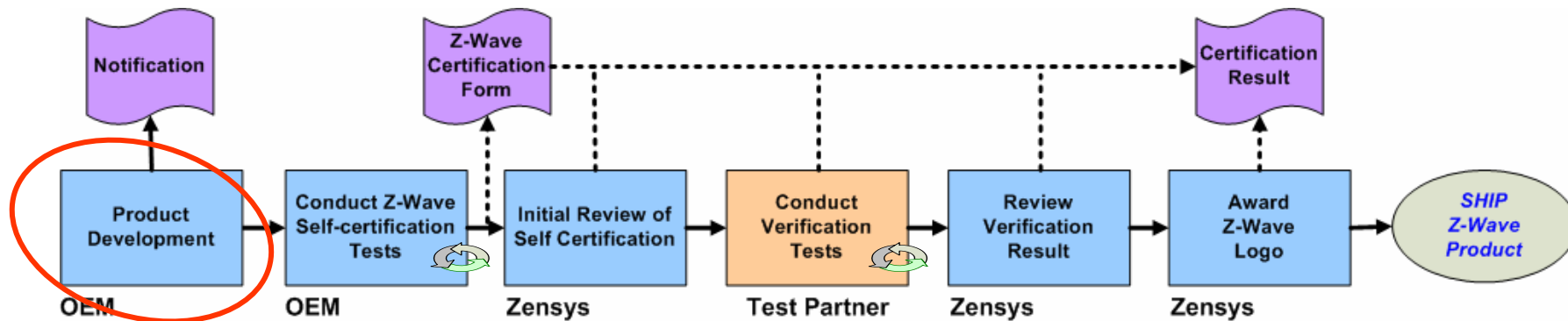
Certification Process

Z-Wave

ZigBee



Z-Wave Certification Process

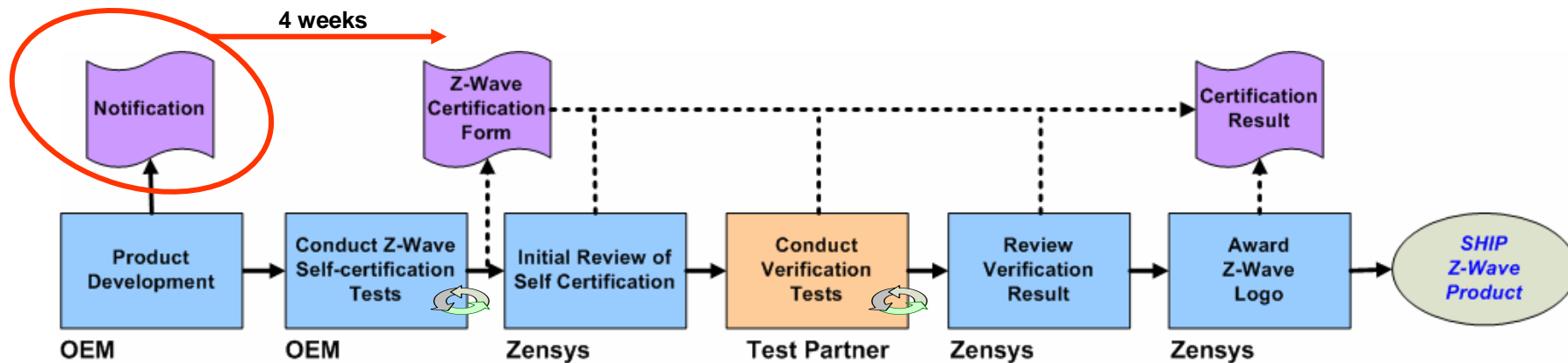


- Annual Fee**

Principal Member	Full Member	Affiliate Member
30,000 \$	2,500 \$	300\$
- The OEM customer designs, implement, and tests the product**
 - As part of the product design, the OEM will decide the specific Z-Wave related functionality of the product and chose which Device Classes and Command Classes are implemented



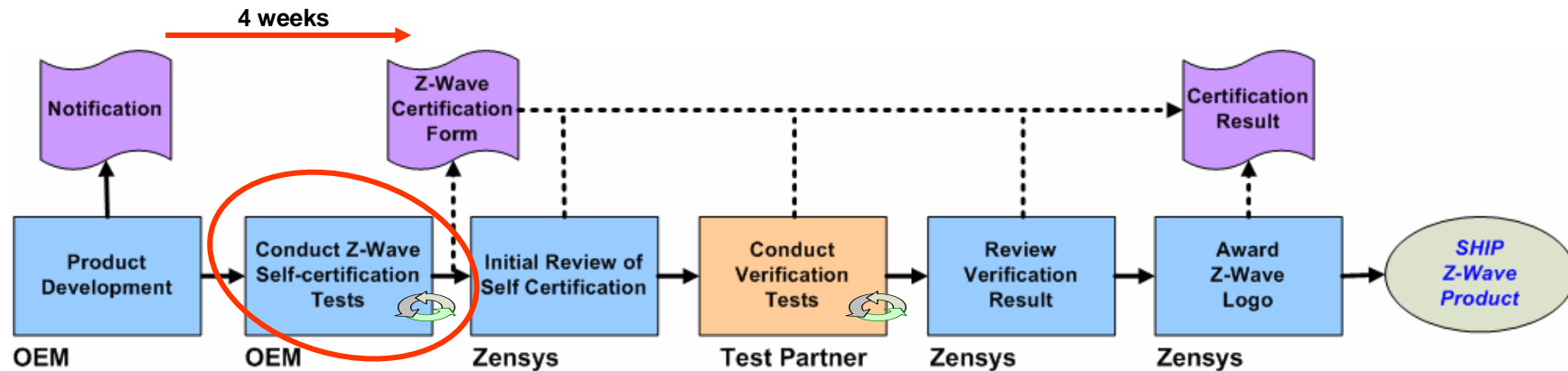
Z-Wave Certification Process



- **The OEM provides a notification about the upcoming Z-Wave Certification to Zensys at least 4 weeks before submission of the Certification Form**



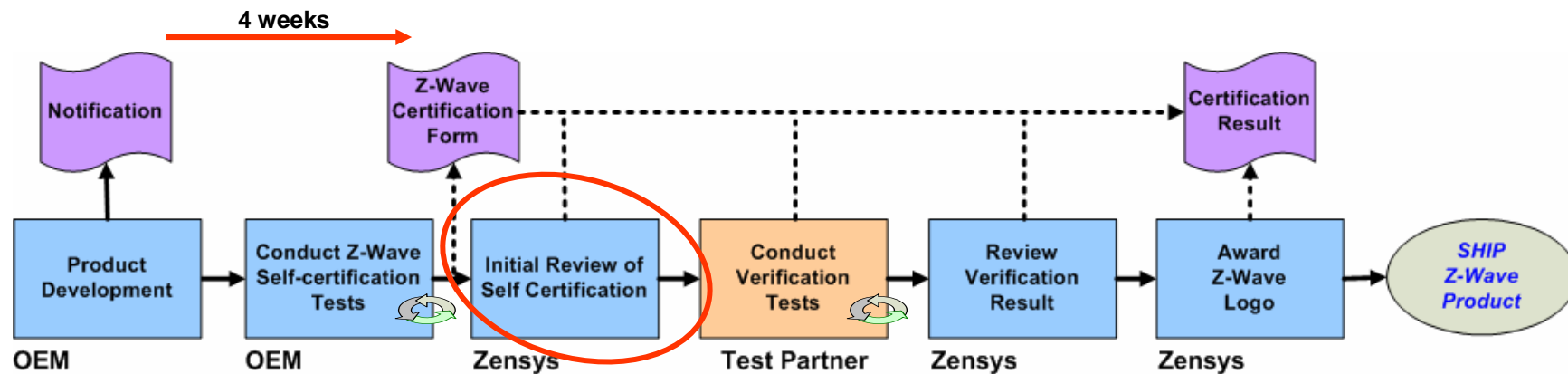
Z-Wave Certification Process



- **The OEM conducts the Self-certification and submits the Z-Wave Certification Form**
 - As part of the Self-certification, the OEM conducts tests that confirm the actual functionality and compliance of the product, at least related to the Z-Wave functionality
 - The **Compliance Test Tool (CTT)** that is provided by the Z-Wave Alliance aids in such tests



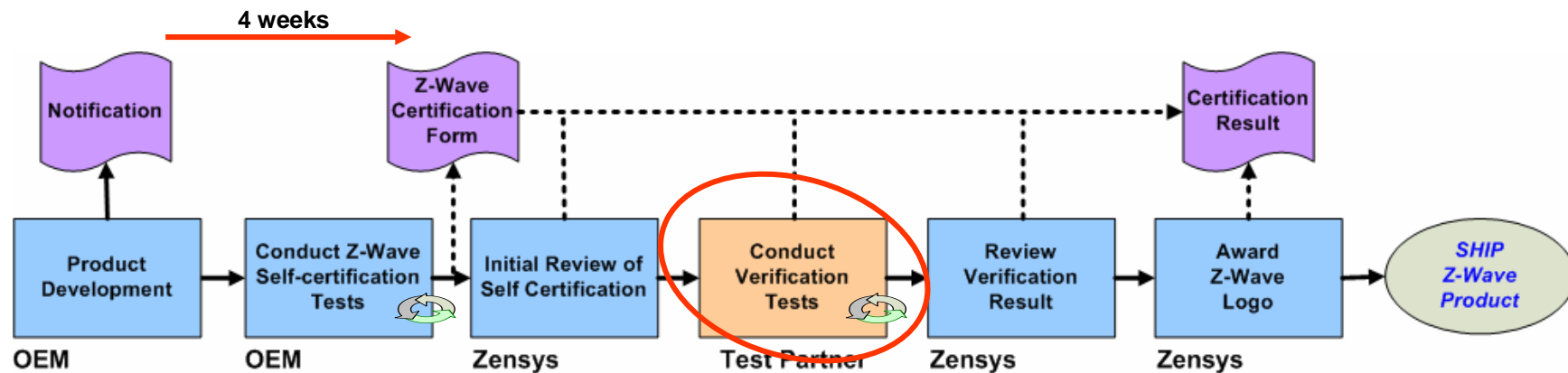
Z-Wave Certification Process



- **The Zensys Certification Group conducts the Initial Certification Review**



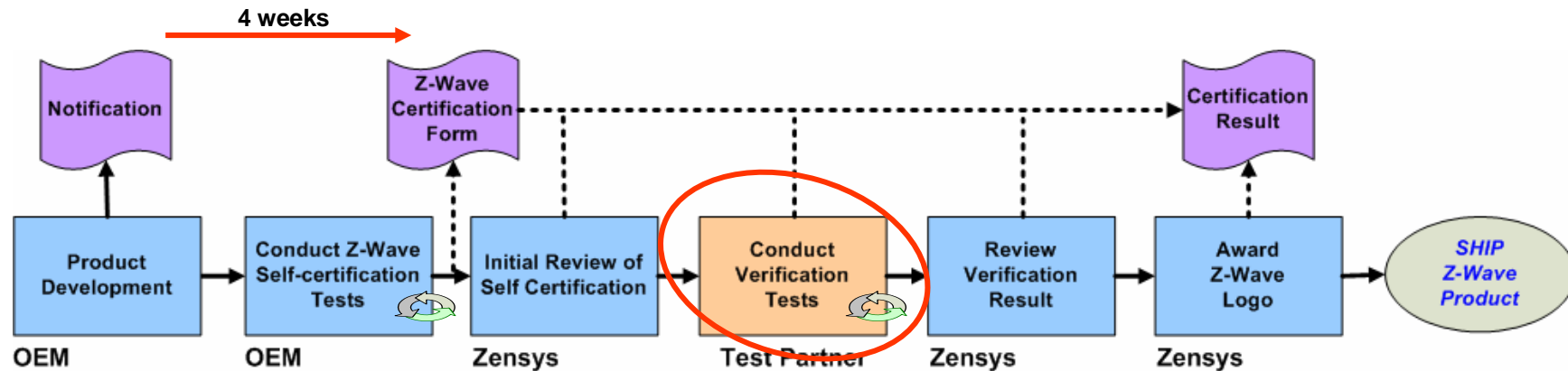
Z-Wave Certification Process



- **Upon completion of the Initial Certification Review, the Certification Form is submitted to the Z-Wave Test Partner**
 - The test partner is selected by the OEM from a list of authorized test partners
 - New test partners in June 2008
 - BuLogics
 - University of New Hampshire Interoperability Lab
- At this time Zensys invoices the OEM the Certification Fee. The regular **Z-Wave Certification Fee is \$750**



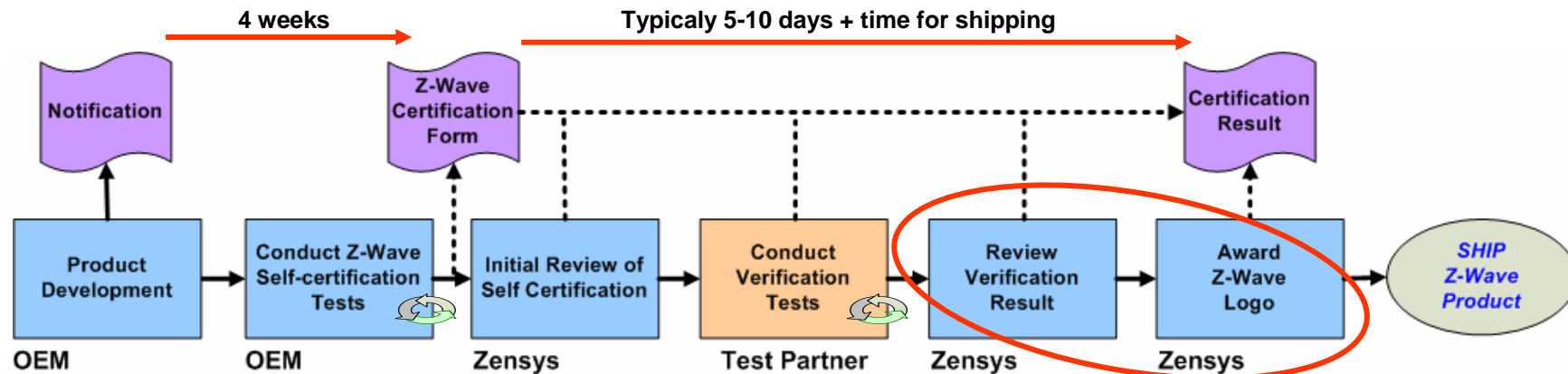
Z-Wave Certification Process



- **The Z-Wave Test Partner conducts the Verification Tests**
 - The Verification Test covers all aspects of Z-Wave compliance as defined in this Certification Form
 - The test house follows the same structure like the Self-Certification provided the CTT is used in the Verification Tests
- **Test Partner → OEM**
 - The Test Partner contacts the OEM and arranges the shipment of the product to be tested
 - If questions arise during the Verification Test, the Test Partner contacts the OEM directly

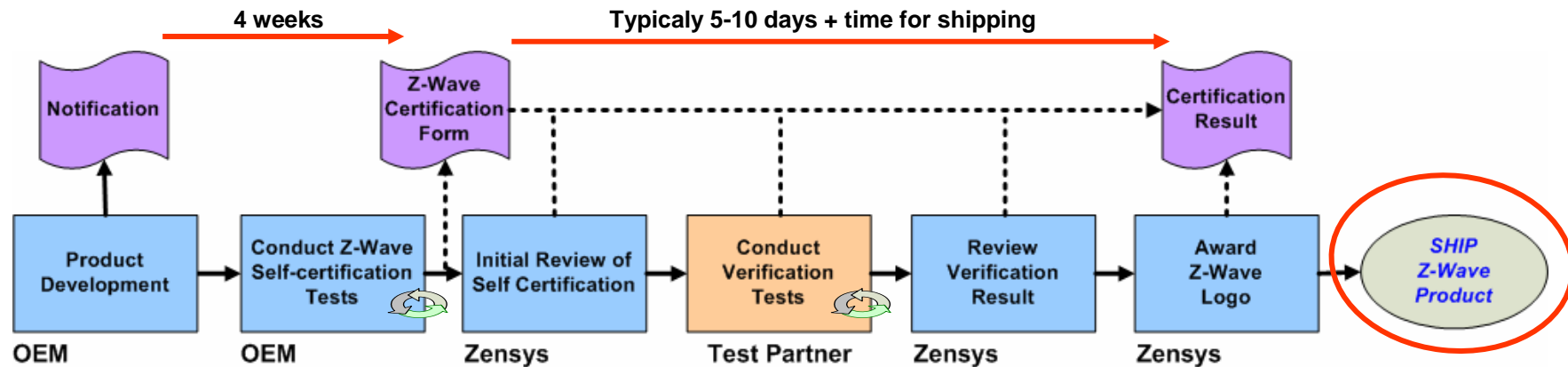


Z-Wave Certification Process



- **The Zensys Certification Group reviews the Verification Test result and awards the Z-Wave Logo**
 - The OEM will be informed about the test results in this step
 - If the tests are passed, a Certificate of Compliance is issued
- **General Requirements before Certification Issue**
 - The OEM must have executed a Zensys Volume Purchase Agreement or a Z-Wave Certification Agreement before the Certificate of Compliance can be issued
 - The Certification Fee need to be paid by the OEM before the Certificate is issued

Z-Wave Certification Process



- **The OEM manufactures and ships Z-Wave products**
 - The OEM monitors the production process to ensure that the guidelines of the Z-Wave Certification Maintenance are followed before relevant changes are introduced

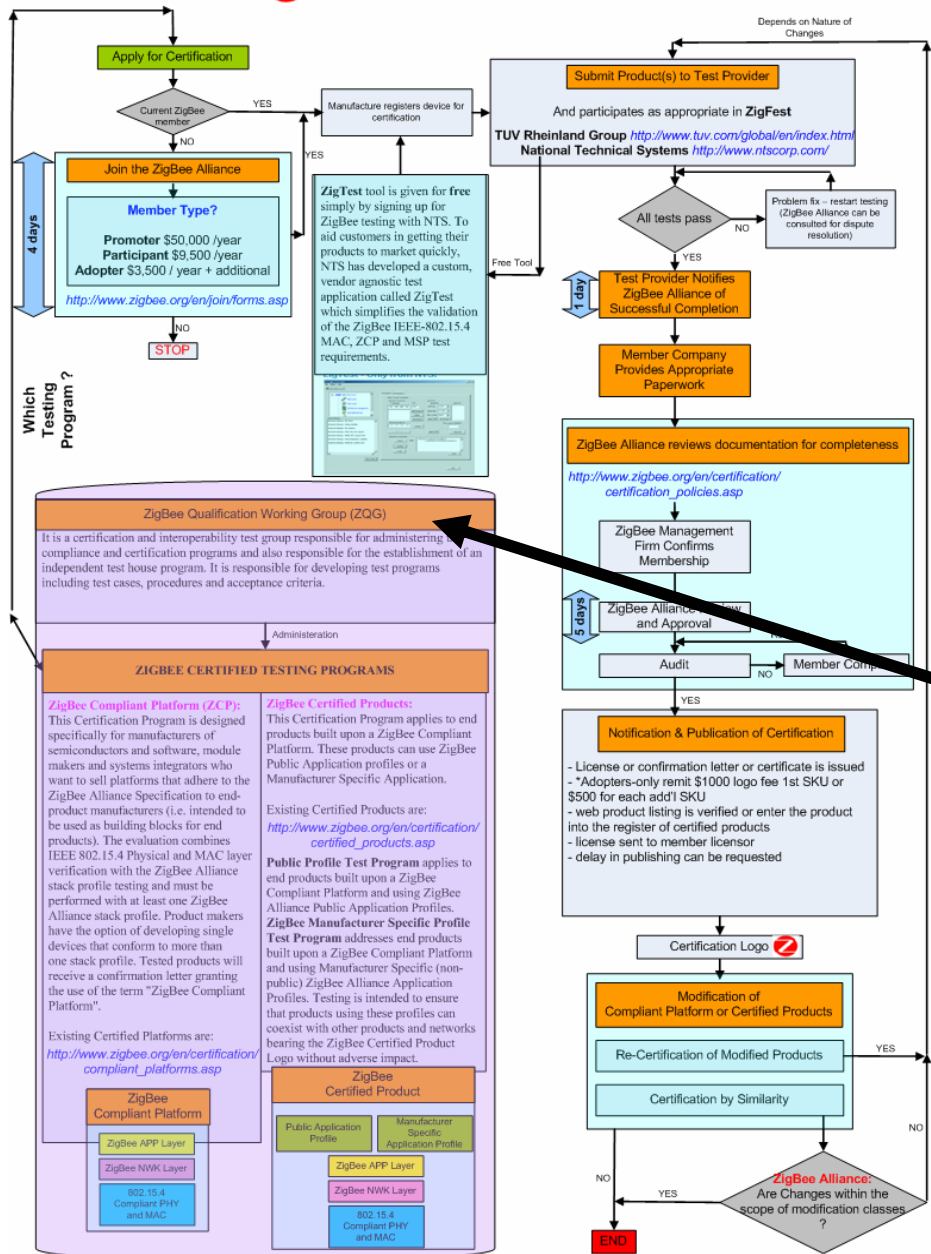


Certification Process

Z-Wave

ZigBee





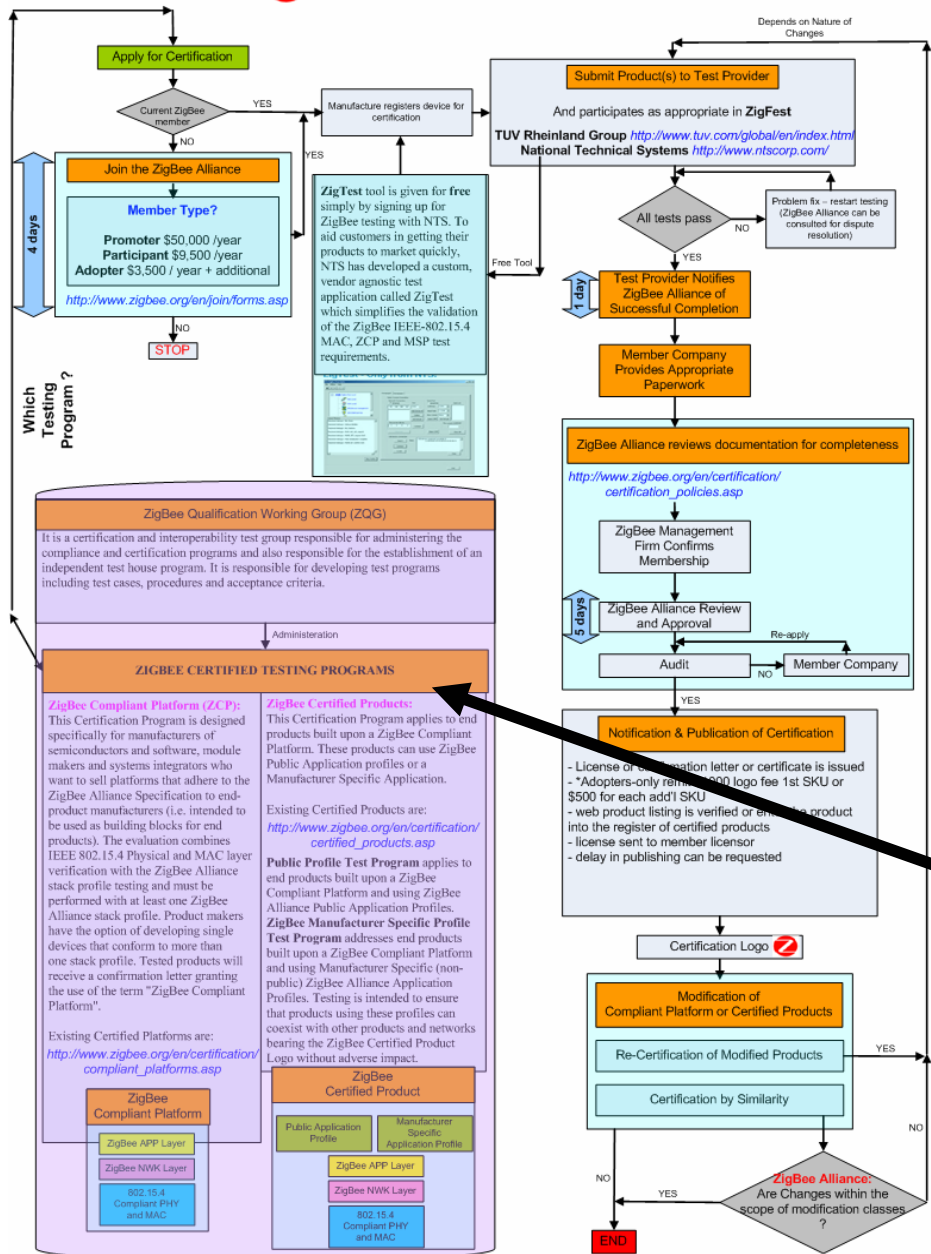
ZigBee Alliance Certification Goal

- Multi vendor Interoperability
- Co-existence of Manufacturer Specific Profile

ZigBee Qualification Working Group

Is a Certification and Interoperability Test Group responsible for developing test programs including test cases, procedures and acceptance criteria





ZigBee Compliant Platform

Applies to the platform providers or modules which are intended as building blocks of end products

ZigBee Certified Product

Applies to the end products built on ZigBee Compliant Platform using either

- Public Profile → Interoperability
- Manufacturer Specific Profile → Co-existence

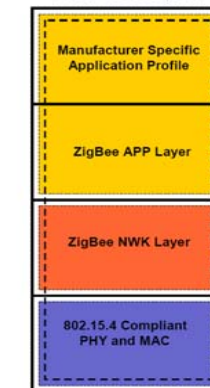
ZigBee Compliant Platform

ZigBee Compliant Platform Test Program

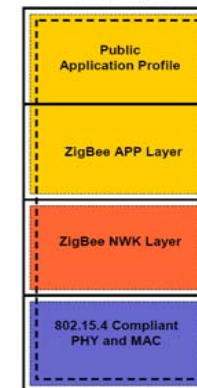


ZigBee Certified Product

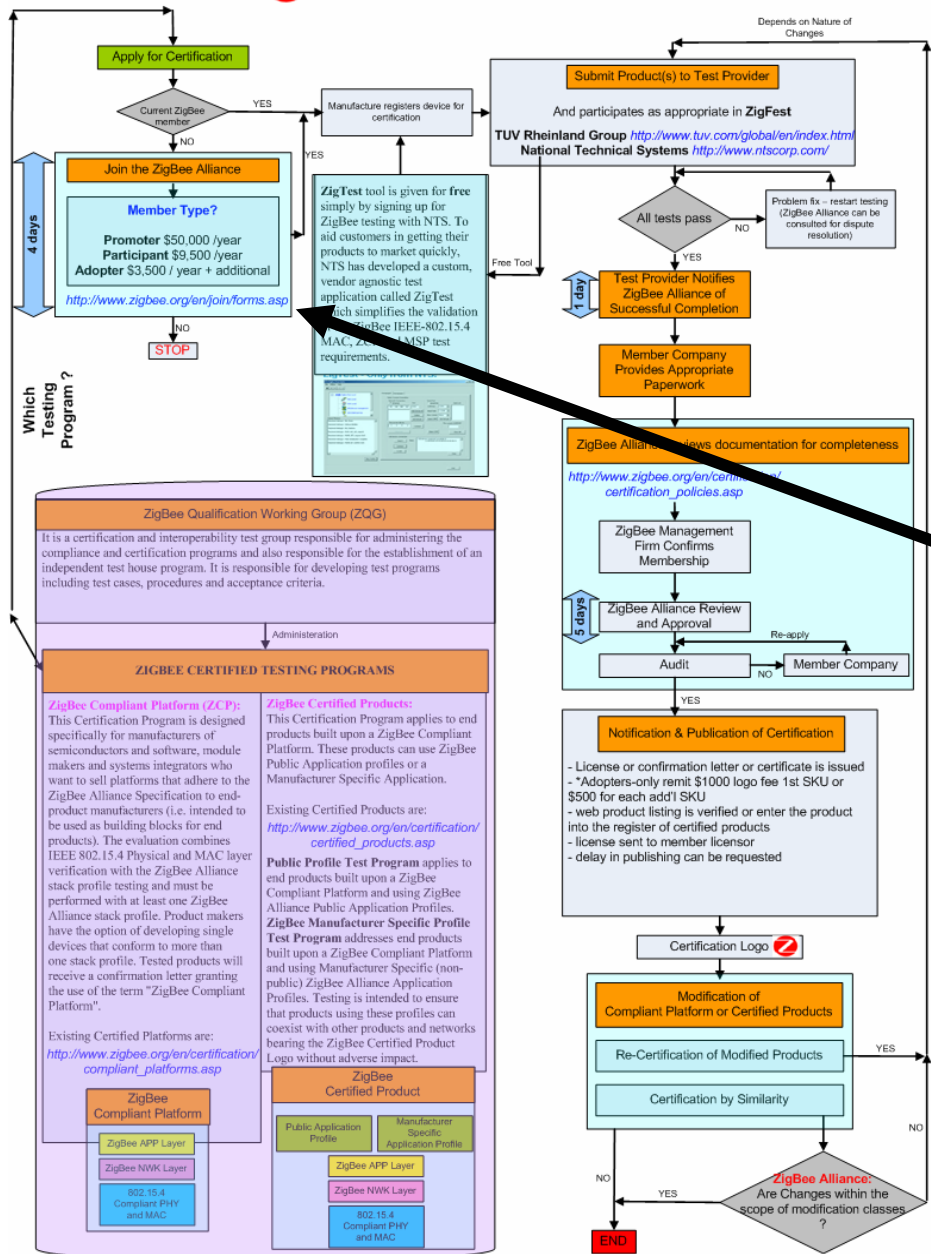
ZigBee Manufacturer Specific Profile Test Program



ZigBee Public Profile Test Program



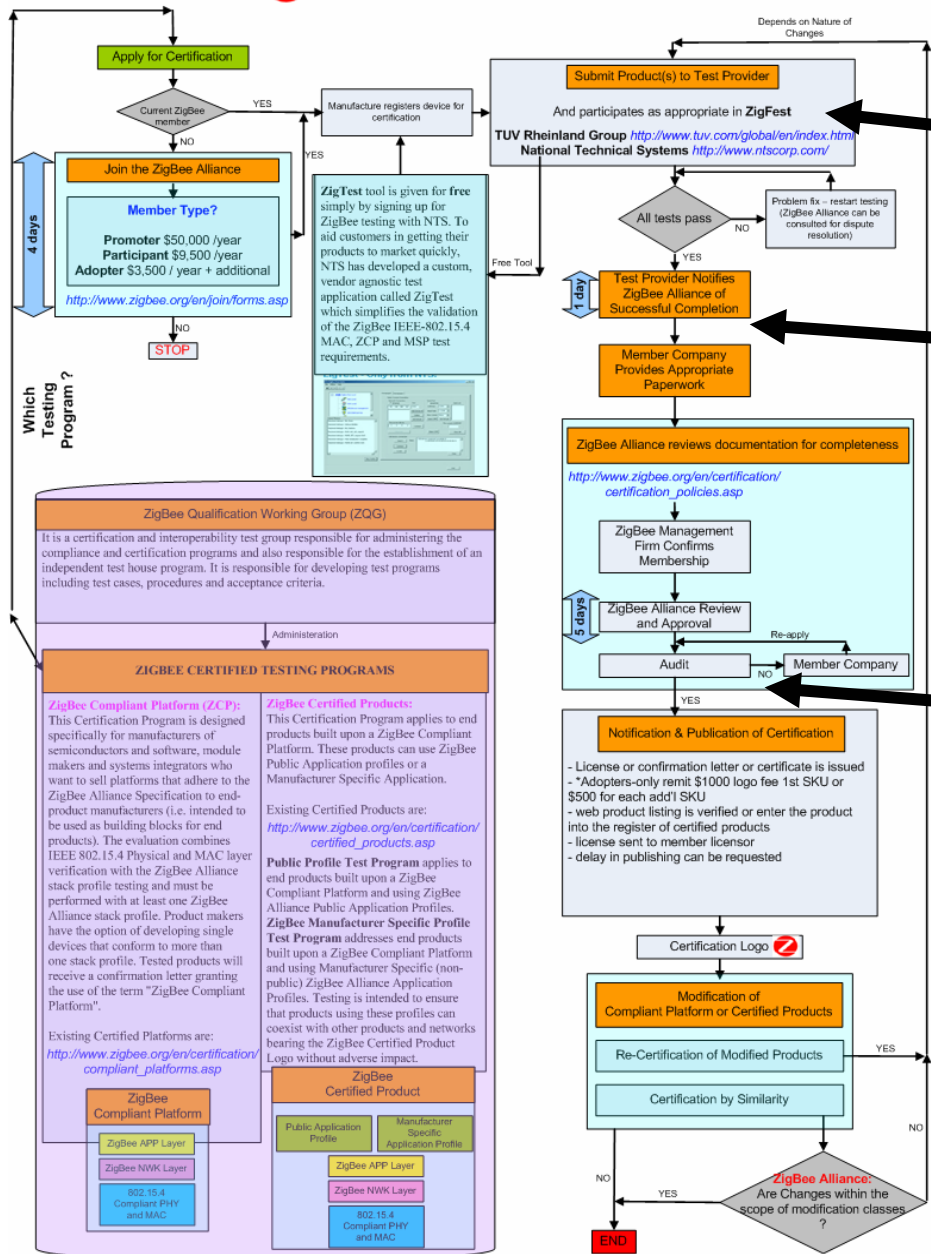
ZigBee Alliance Certification Process



Member of ZigBee Alliance

Class of Alliance Membership	Certification Testing Through Test Service Provider	Logo Administration Fee
Promoter \$ 50,000 /year	Testing fees are set independently by the test service provider.	None
Participant \$ 9,500 /year		\$1,000 for the first and \$500 for each subsequent product
Adopter \$ 3,500 /year		





Who Certifies ?

Test provider confirms the Alliance the successful completion of certification test

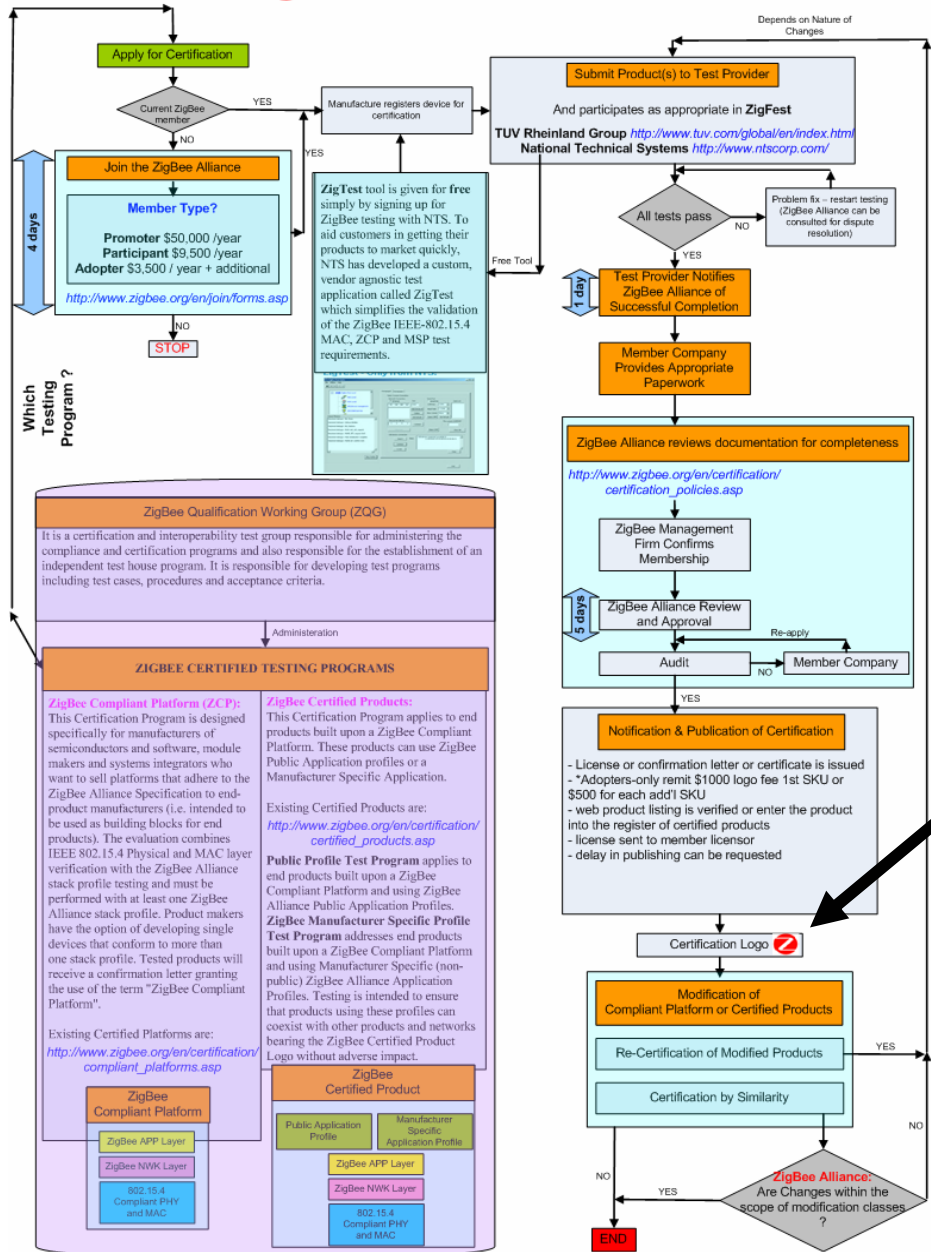
Upon test completion Member Company submit the appropriate paperwork to the ZigBee Alliance.

ZigBee Alliance reviews the documentation for 5 business days

Certification License is issued to Member Company, Logo Fee charged & registered as certified product



ZigBee Alliance Certification Process



Alliance grants Certification of the Product or Platform



Thank You & Questions

Satya (Kris) Venkata

sv@delta.dk

+45 72 19 44 65

