

Resources Certification Deployment in the African region

X.509 Resource Certification Project

Capital Stock, \$150,000.00

This Certificate is issued to Alain P. AINA in the name of

Alain P. AINA President, Vice President of the National Capital Bank of the

AfrINIC X.509

not paid out
see 100100010

incorporated into the books of the Corporation by the holder
hereof to receive the same as if it were a share of the Capital

Alain P. AINA
Special Project Manager



In Witness Whereof, The said Corporation has caused this receipt
and to be signed by its duly authorized officers, and to be sealed with its Seal of the
Corporation this 11th day of April, 1985.

LEADS TO EACH \$10.00 EACH

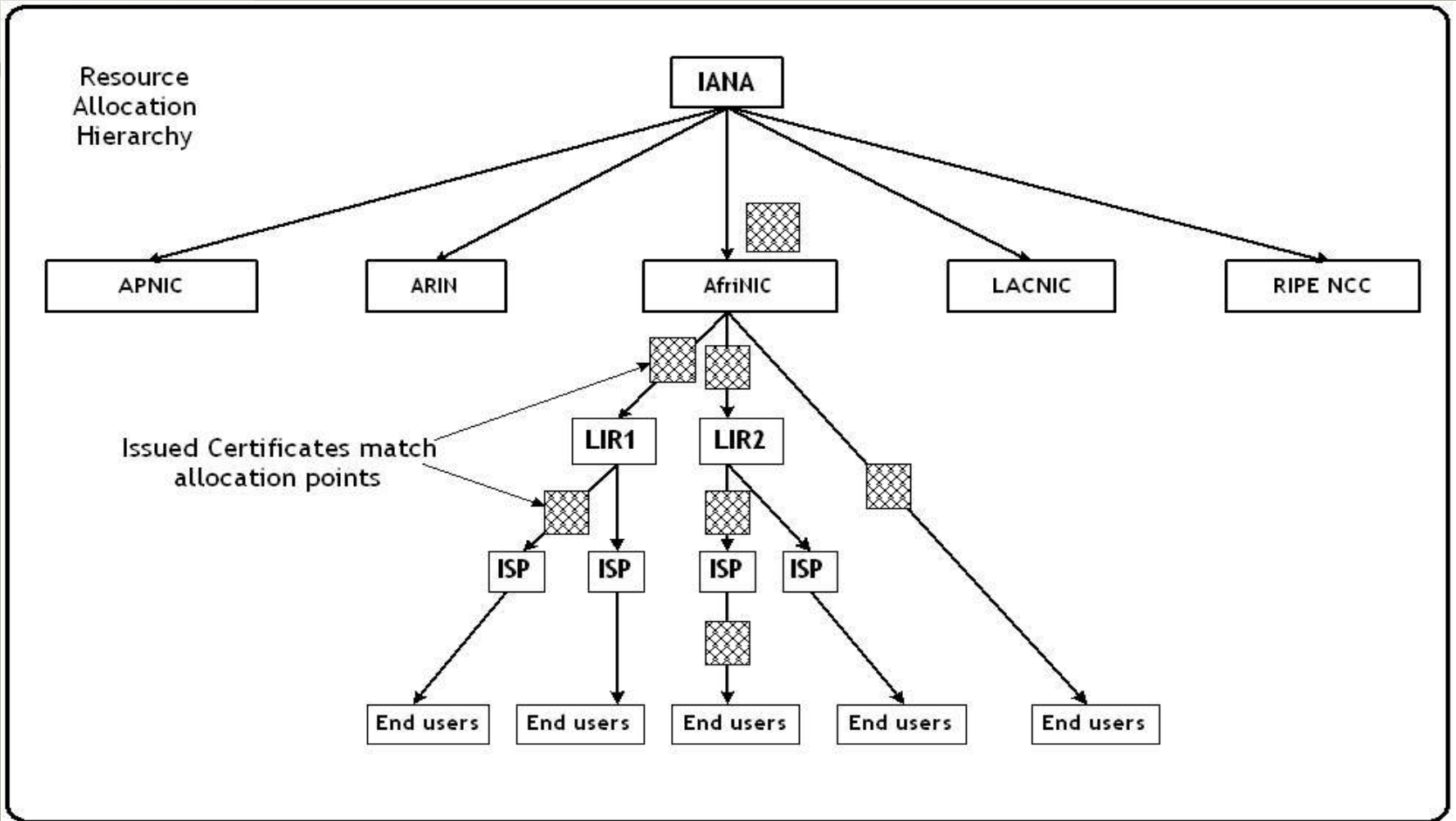
What is Resource Certification ?

➤ Resource Certification is a security framework for verifying the association between resource holders and their Internet resources.

Add a verifiable form of a holder's current "right-of-use" over Internet resources in the resources management system

➤ Resource Public Key Infrastructure (RPKI) is a PKI based on the Internet resources management hierarchy and under which X509 certificates with RFC 3779 extensions and other signed objects are published and bound together in a verifiable way.

Overview



Participating in the RPKI

Internet Registries(RIR/LIR/ISP) can:

- Receive their certificates from their “upstreams”
- Issue certificates to their clients or themselves:
End Entities Certificate
- Sign data with operative content using their own certificates

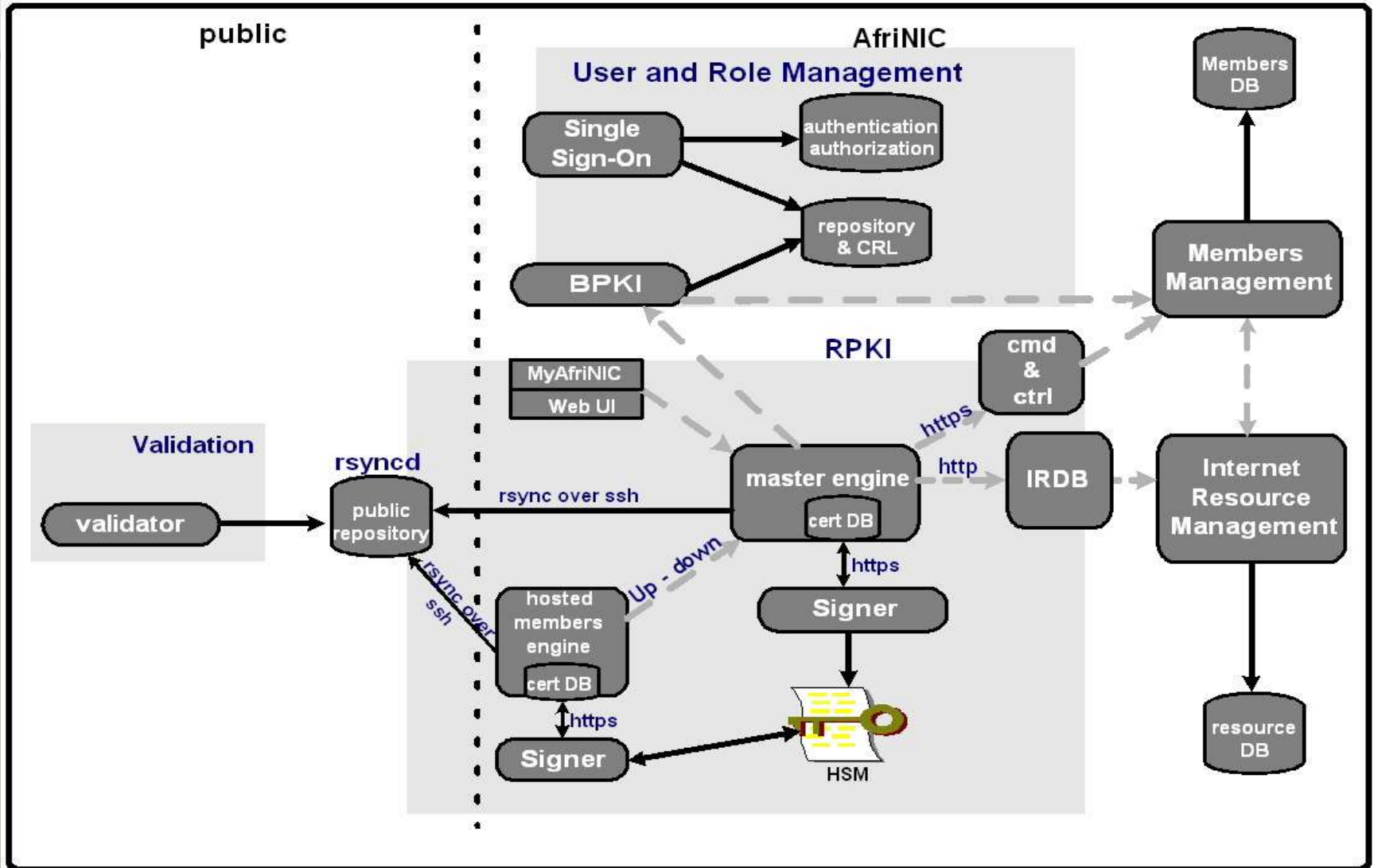
Services for the RPKI

Intended AfriNIC services for LIRs

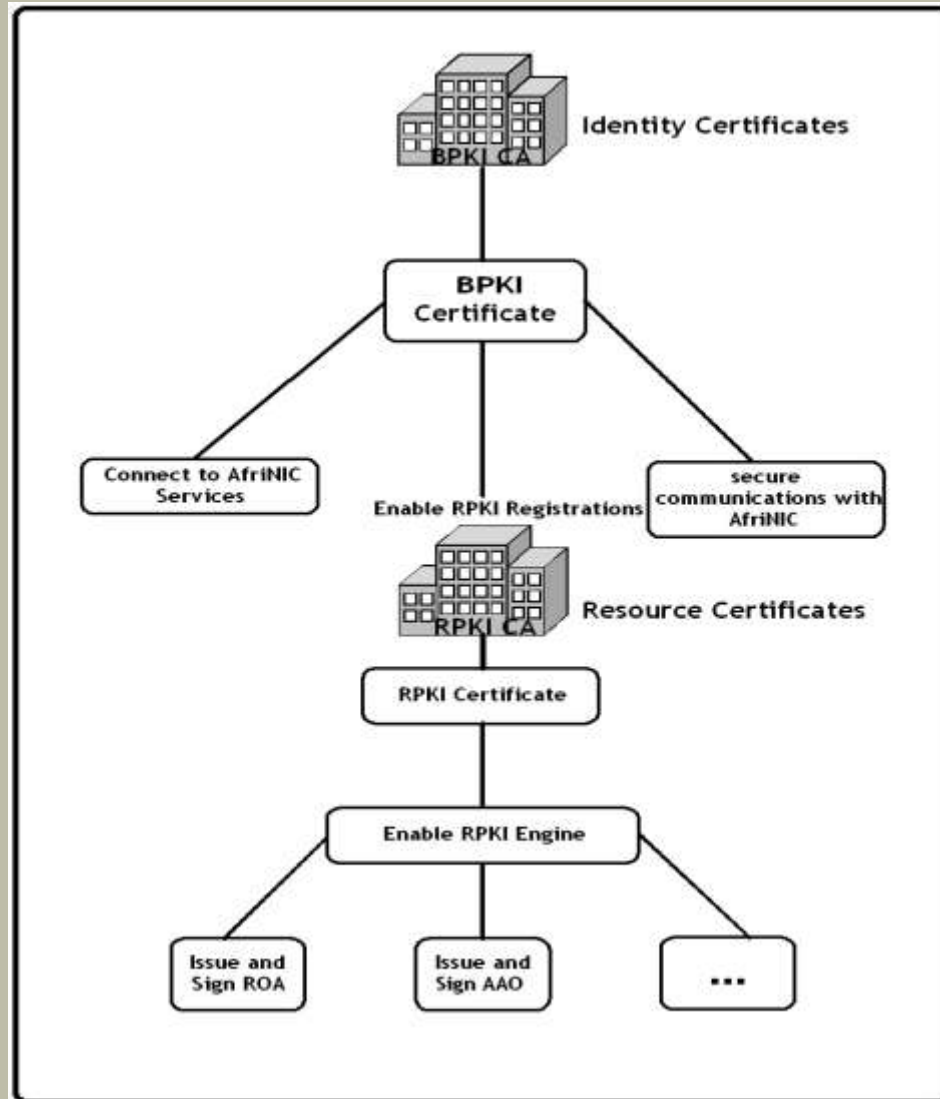
- Certify LIR resources using the AfriNIC's RPKIE
- Provide hosted RPKI services for LIRs:
 - *A full managed RPKIE for LIR*
 - *Run the LIR's RPKIE et give real control to LIRs*
- Deploy the UP-Down protocol to talk to LIR willing to run their own RPKIE
- Provide the necessary public repository
- Access to these services:
 - *Through the normal channels (MyAFRINIC)*
 - *With strong authentication*

X509 Auth with BPKI certs

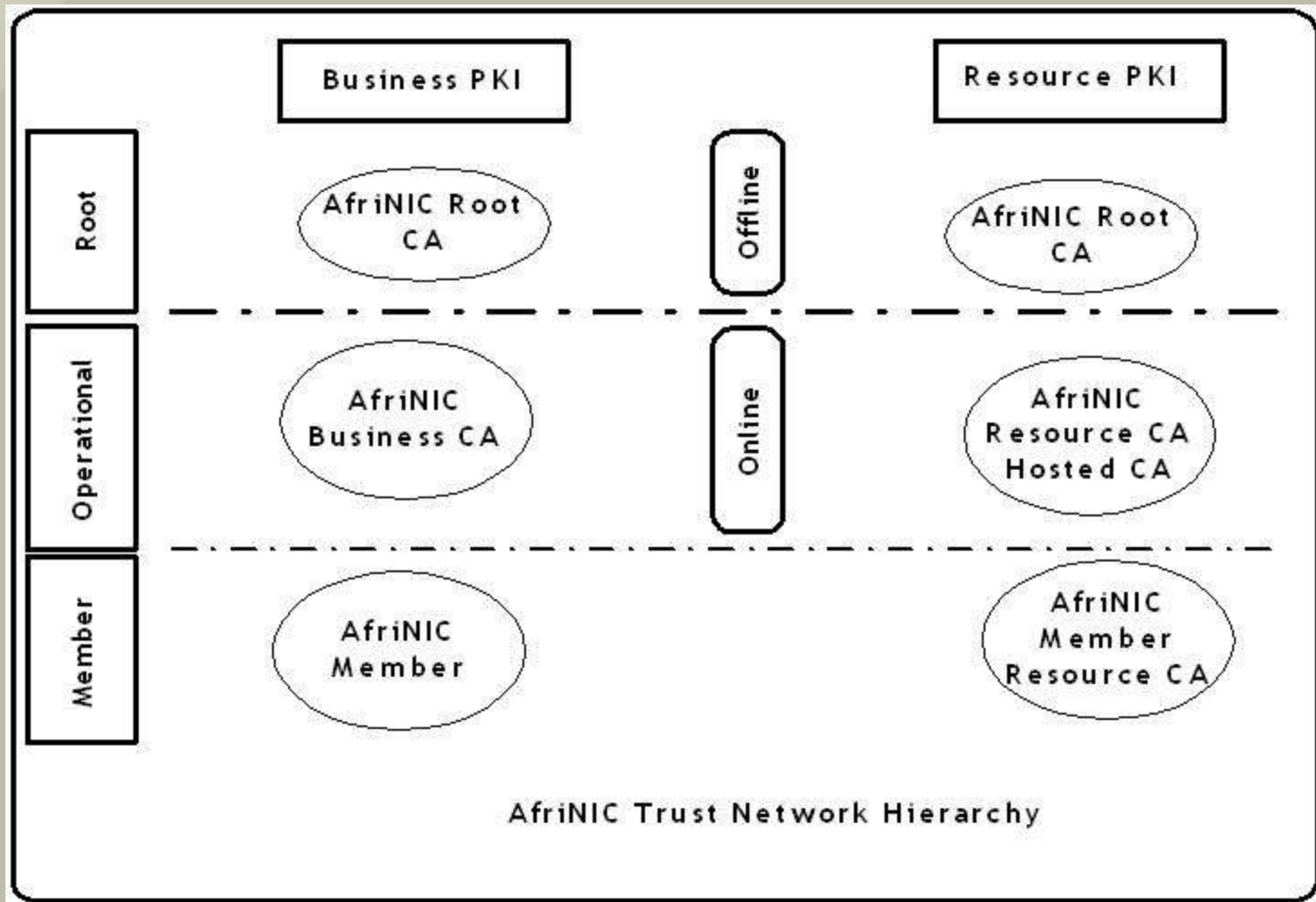
Architecture



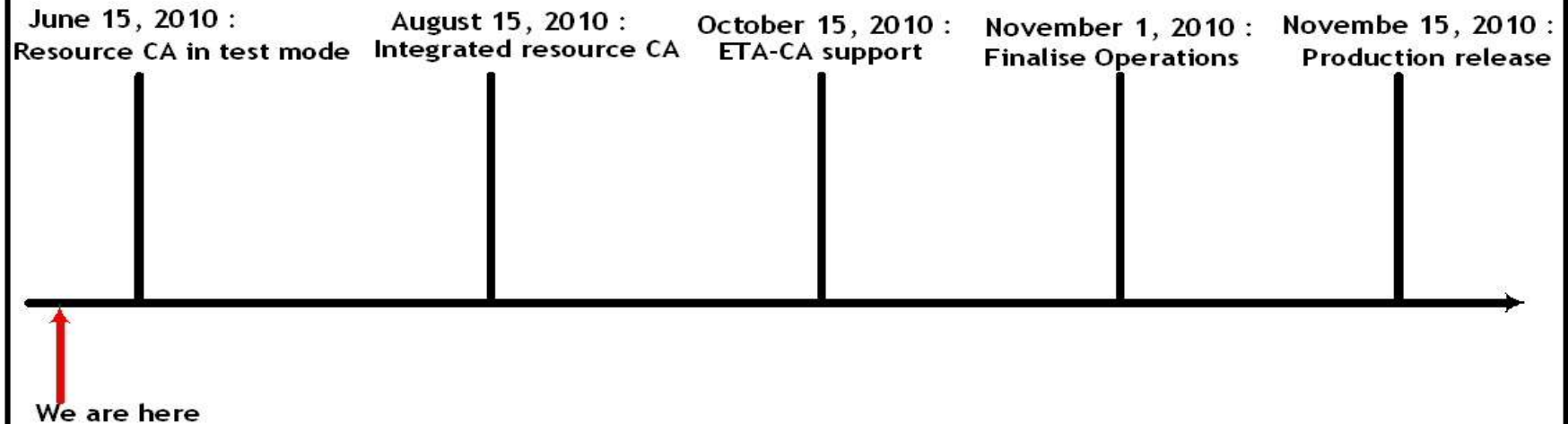
Authorization model



Trust hierarchy



Coordinated timelines



THANKS

- AfriNIC RPKI Team
 - For the continuous efforts

- APNIC
 - For the collaboration

Questions ?