

CITC
Internet Development Phase II
IPv6 Task Force Project



IPv6 Task Force Saudi Arabia

CITC

July 30, 2008

CITC IPv6 Task Force Saudi Arabia Project



- **Agenda**
- **Background of the Project**
 - Internet Services Development Phase I
 - Internet Services Development Phase II
- **Objectives of the IPv6 Task Force Project**
- **Project Deliverables Briefing and Project Work Flow Map**

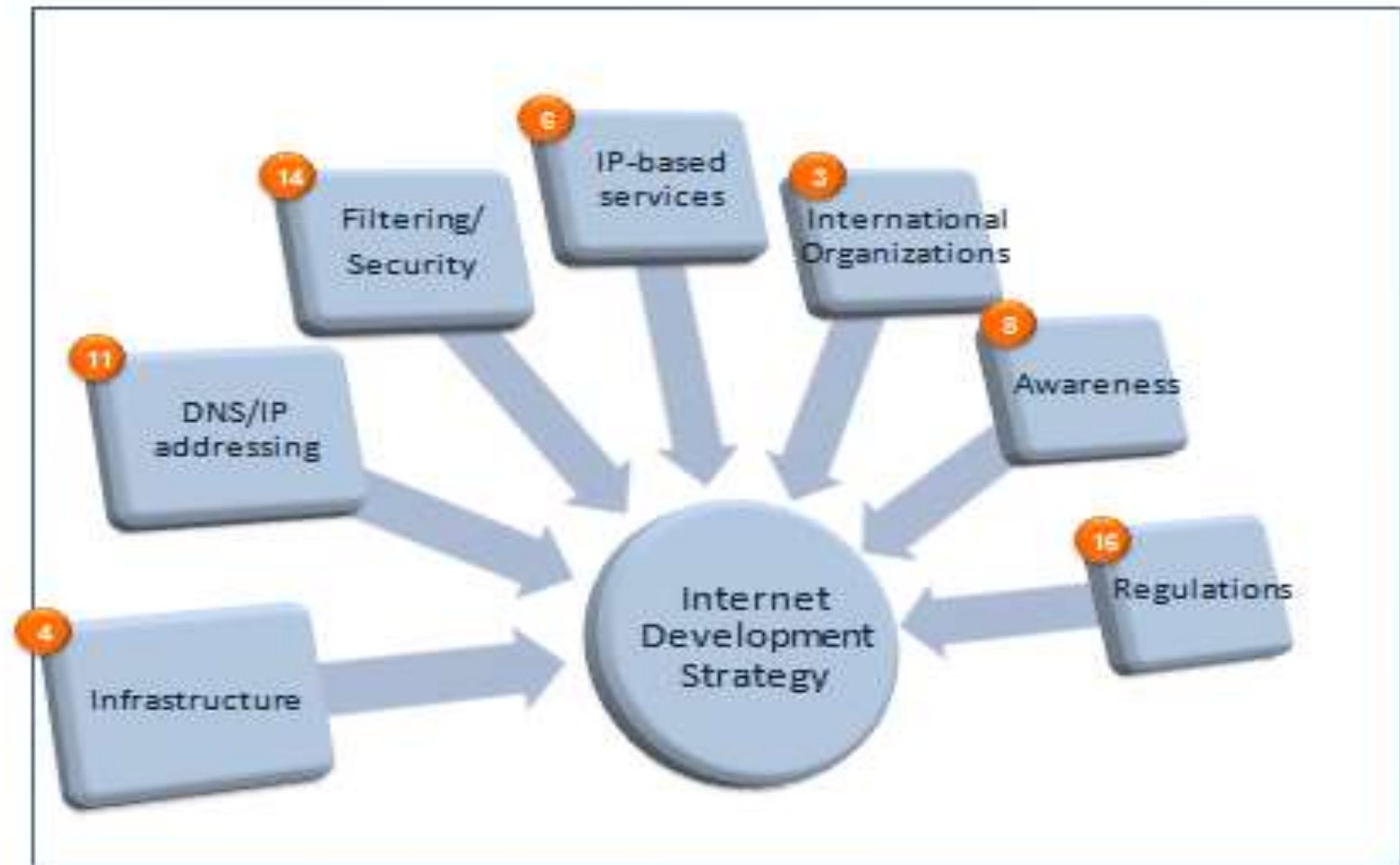
Internet Development Project Workflow



D1 to D9 Define the Deliverables at each progress stage



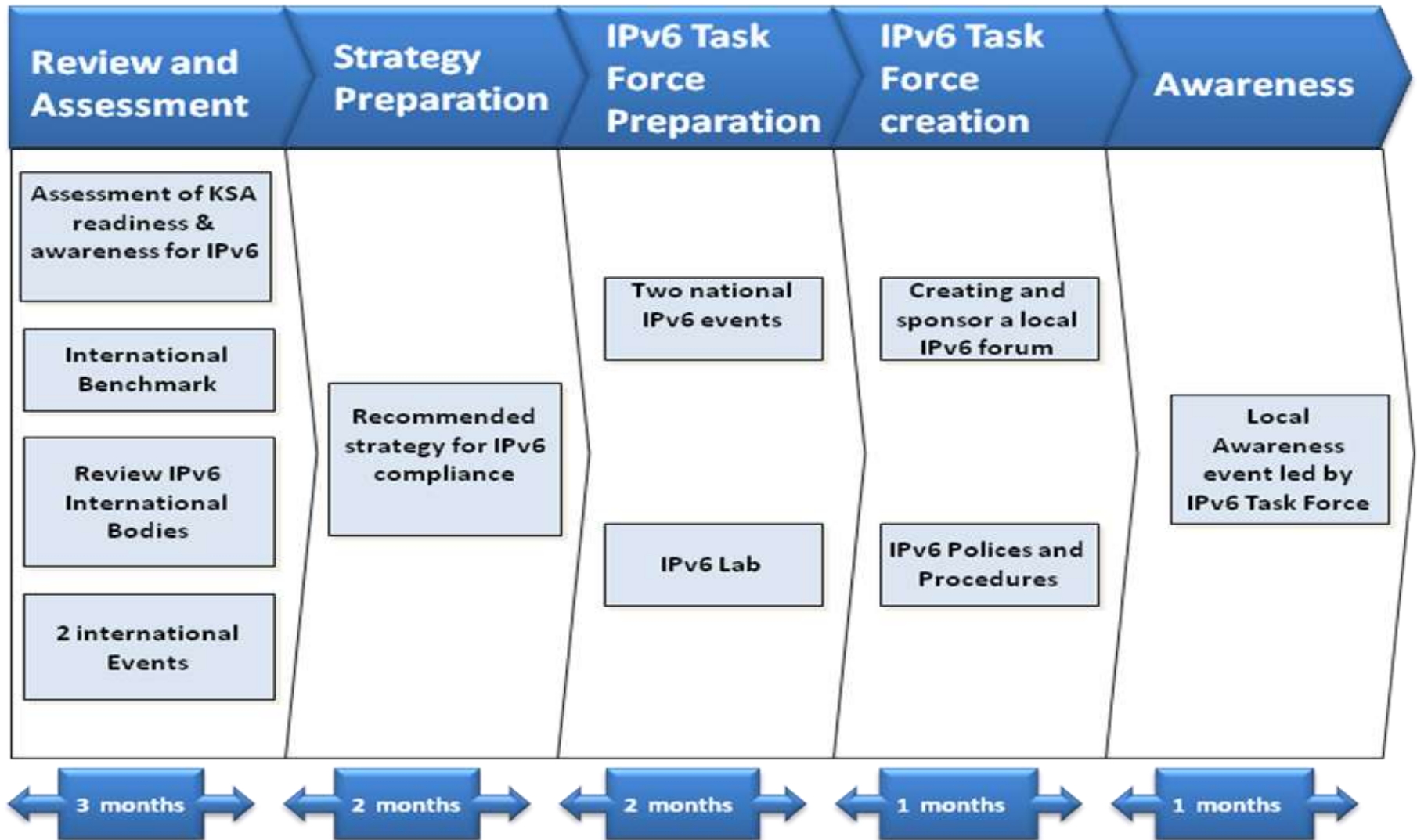
Internet Development Strategy Map



Internet Services Development Phase II



IPv6 Task Force Project Flow Diagram



IPv6 Task Force Project Objectives



- To facilitate the IPv6 adoption in Saudi Arabia by encouraging the deployment and raising the awareness
 - **Vision for nation wide IPv6 deployment**
 - **IPv6 Task Force to own, implement and sponsor items of IPv6 Strategy**
 - **Gather stakeholders to consolidate efforts and share knowledge**

IPv6-D1: IPv6 Status Quo and Readiness Assessment



- **IPv6-D1: IPv6 Status Quo and Readiness Assessment**
- **Impact of IPv6 on Stakeholders: infrastructure, existing applications, operations, Engineering and Tech. Personnel, IPv6 Address Planning**
- **Status Quo and Readiness Assessment :**
 - **Questionnaires: DSPs, ISPs, Enterprise**
 - **ISD Phase I Input**
- **Status of IPv4 in Saudi Arabia**

Questionnaires to 9 FBO – 4 Answers - Results



Q1 - IPv6 Knowledge	50% in depth Knowledge, 50% Basic Knowledge
Q2 - Procurement IPv6	25% yes, 50% no, 25% partly
Q3 - IPv6 connectivity to end users	50% yes, 50% no
Q4- Plans to offer connectivity to end users	50% ongoing, 25% already available, 25% dist. Fut. >2011
Q5 - Economic Drivers and Added Value to Bus. Act	50% yes, 50% no assessment
Q6 - Critical to Future Bus. Act	75% no assessment, 25% not critical
Q7 - Most Important Obstacles towards IPv6	100% No Market Demand
Q8 - IPv6 Address Space	25% yes, 75% no

Questionnaires to 9 FBO – 4 Answers - Results



Q9 - IPv6 Task Force Participation	50% Active Participation, 50% limited to attendance
Q10 - IPv6 Training Plans	25% yes ongoing, 25% near future (2008-10), 50%no plans
Q11 - OS Support	50% partly, 50% IPv6 support but feature not enabled
Q12 - Applications Support	50% partly, 50% No assessment has been done
Q13 - IPv6 Compliant Networks	75% yes but feature not enabled, 25% no but planning initiated
Q14 - IPv6 Networks Planning	75% distant Future, 25% ongoing planning
Q15 - IPv6 Peering	75% no, 25% yes
Q16 - IPv6 Upstream	75% no, 25% yes

Questionnaires to 9 FBO – 4 Answers - Results



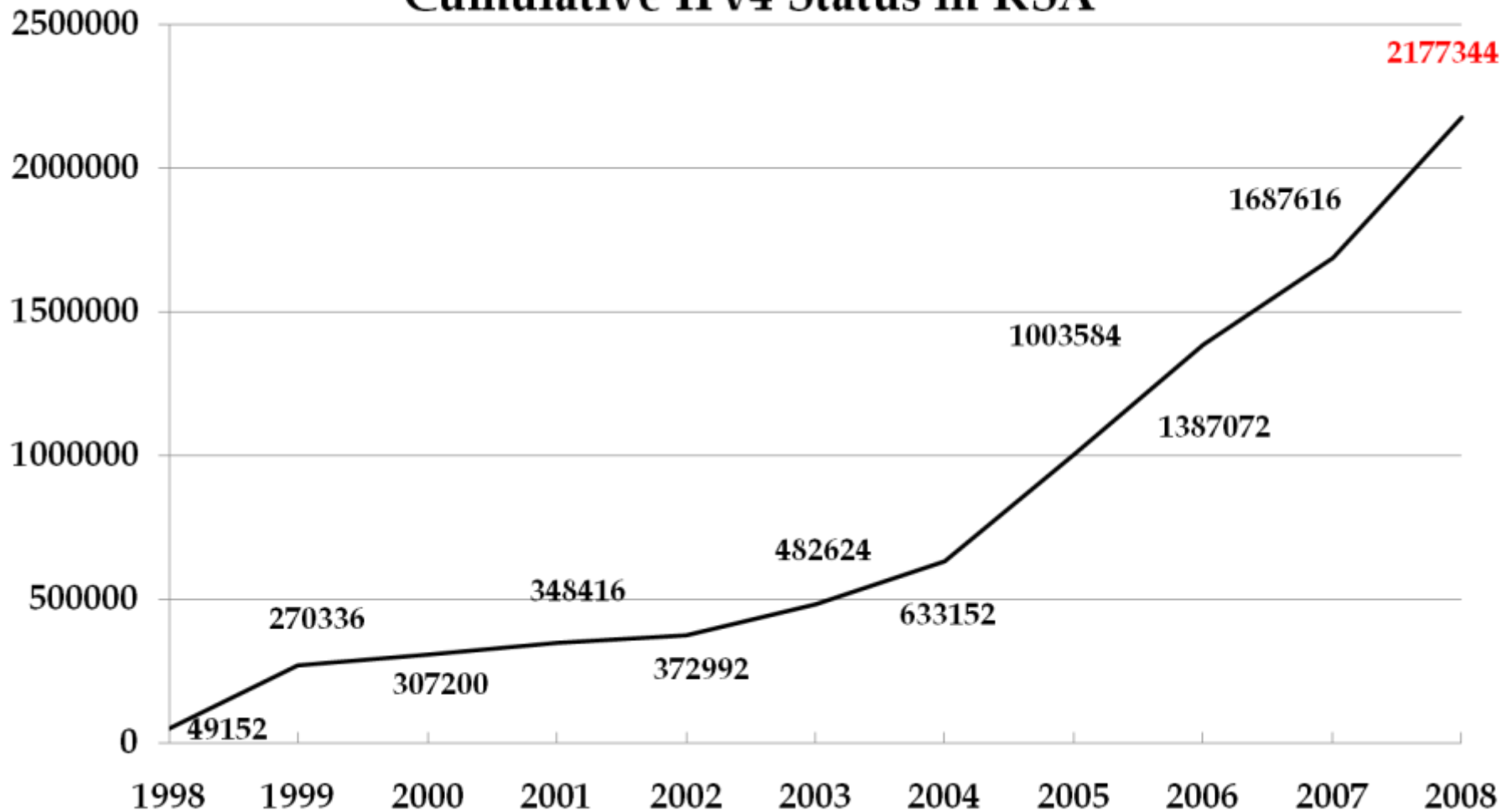
Q17 - Membership in IPv6 WGs,
Forums, TFs

100% No

Cumulative IPv4 Status in KSA



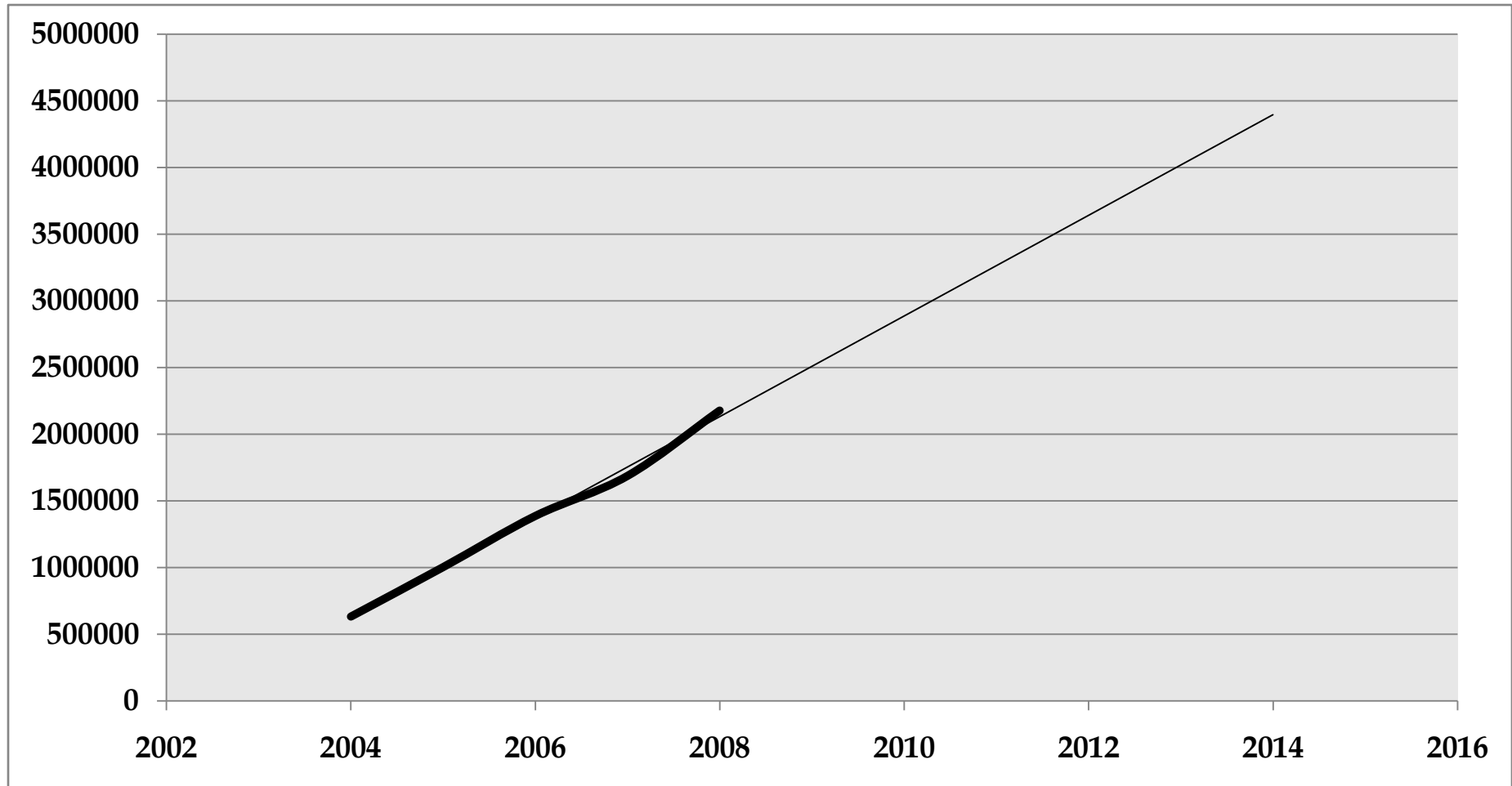
Cumulative IPv4 Status in KSA



KSA Demand Forecast – 6 Years – Linear Regression



▪ Saudi Arabia Demand Forecast – 6 Years – Linear Regression



CITC IPv6 Task Force Saudi Arabia Project



- **Status of IPv4 at IANA/RIRs**
- **As of July 2008, 39 /8 IPv4 prefixes are available for allocation - ONLY 15%**
- **IPv4 Address Report by Geoff Huston**
 - **IANA IPv4 pool to be depleted by JAN 2011**
 - **RIRs IPv4 pool to be depleted by DEC 2011**
 - **Source: <http://www.potaroo.net/tools/ipv4/>**
- **In 2007, all (RIRs), the ICANN, and national Internet registries (NIRs) made public statements emphasizing the need for all those who need IP addresses to deploy IPv6**

IPv6-D2: IPv6 Countries Benchmark Study

- **IPv6-D2: IPv6 Countries Benchmark Study**
- **Drivers : IPv4 Exhaustion, Economical, Political, Technological**
- **Selection Criteria**
- **Assessment Criteria**
- **Assessment of Countries IPv6 Efforts**
- **Lessons Learned**
- **Applicability of Lessons to the Kingdom of Saudi Arabia**

IPv6-D3: IPv6 International Organizations and Bodies



- **IPv6-D3: IPv6 International Organizations and Bodies**
- **Identification of Key Bodies and Organizations involved in IPv6**
- **Address Management Bodies: ICANN, IANA, RIRs, etc**
- **Standardization Bodies: IETF, ITU, ISOC, etc**
- **IPv6 supportive networks and backbones: 6Net, GEANT, TEIN2, etc**

IPv6-D4: Two (2) International IPv6 Events



- **IPv6-D4: Two (2) International IPv6 Events**
- **Participation by CITC**
- **IPv6 Summit / RIPE Meeting Dubai (Oct.)**
- **Direct contact with IPv6 international bodies and IPv6 experts, good exposure**



- **IPv6-D5:IPv6 Strategy for the Kingdom of Saudi Arabia**
- **Strategy objectives to ensure a smooth nation wide adoption to IPv6**
- **Promotion, Awareness**
- **Success Criteria milestones**
- **Milestones : “Where We Are” == > “Define Milestones”**

IPv6-D6: IPv6 Awareness Sessions



- **IPv6-D6: 3 IPv6 Awareness Sessions**
- **CITC to promote awareness on IPv6 adoption and the findings of the strategy**
- **More Meetings to be held with DSPs - ISPs and other stakeholders in Saudi Arabia**
- **Promotion will be for the whole of Saudi Arabia**

IPv6-D7: IPv6 Testing Lab

- **IPv6-D7: IPv6 Testing Lab**
- **Ongoing**
- **International IPv6 Connectivity**
- **DSPs/ISPs will be able to connect and test**
- **Serve as a pilot network (applications, interoperability, equipment testing and verification - no risk to production networks)**

IPv6-D8: IPv6 Policies, Guidelines and Procedures



- **IPv6-D8: IPv6 Policies, Guidelines and Procedures**
- **Policies: determined after Benchmark, Strategy and further discussions and inputs from stakeholders**
- **Guidelines: Transition Guidelines for the recommended approach to migrate from IPv4 to IPv6 and guidelines for public to raise awareness and readiness to IPv6**
- **Procedures**

CITC IPv6 Task Force Saudi Arabia Project



- **Questions**
- **Meeting Frequency (?)**
- **Thanks!**