Media Briefing

Selection of Next Generation NBN OpCo

3 April 2009

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Programme

A. 5:00 pm – 5:10 pm	**Opening Remarks by Ms Yong Ying-I, Chairman Infocomm Development Authority of Singapore**
B. 5:10 pm – 5.30 pm	**Presentation by Mr Khoong Hock Yun, Assistant Chief Executive (Infrastructure & Services Group) Infocomm Development Authority of Singapore**
C. 5:30 pm – 6:00 pm	**Question & Answer Session**

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A

Opening Remarks by

Ms Yong Ying-I

Chairman

Infocomm Development Authority of Singapore

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B

Presentation by

Mr Khoong Hock Yun

Assistant Chief Executive

(Infrastructure & Services Group)

Infocomm Development Authority of Singapore

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Outline of Presentation

1. **Recap of Next Gen NBN Project**
2. **Operating Company Request for Proposal (OpCo RFP)**
3. **Highlights of Selected Proposal**
4. **Summary**

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1 Recap of Next Gen NBN Project

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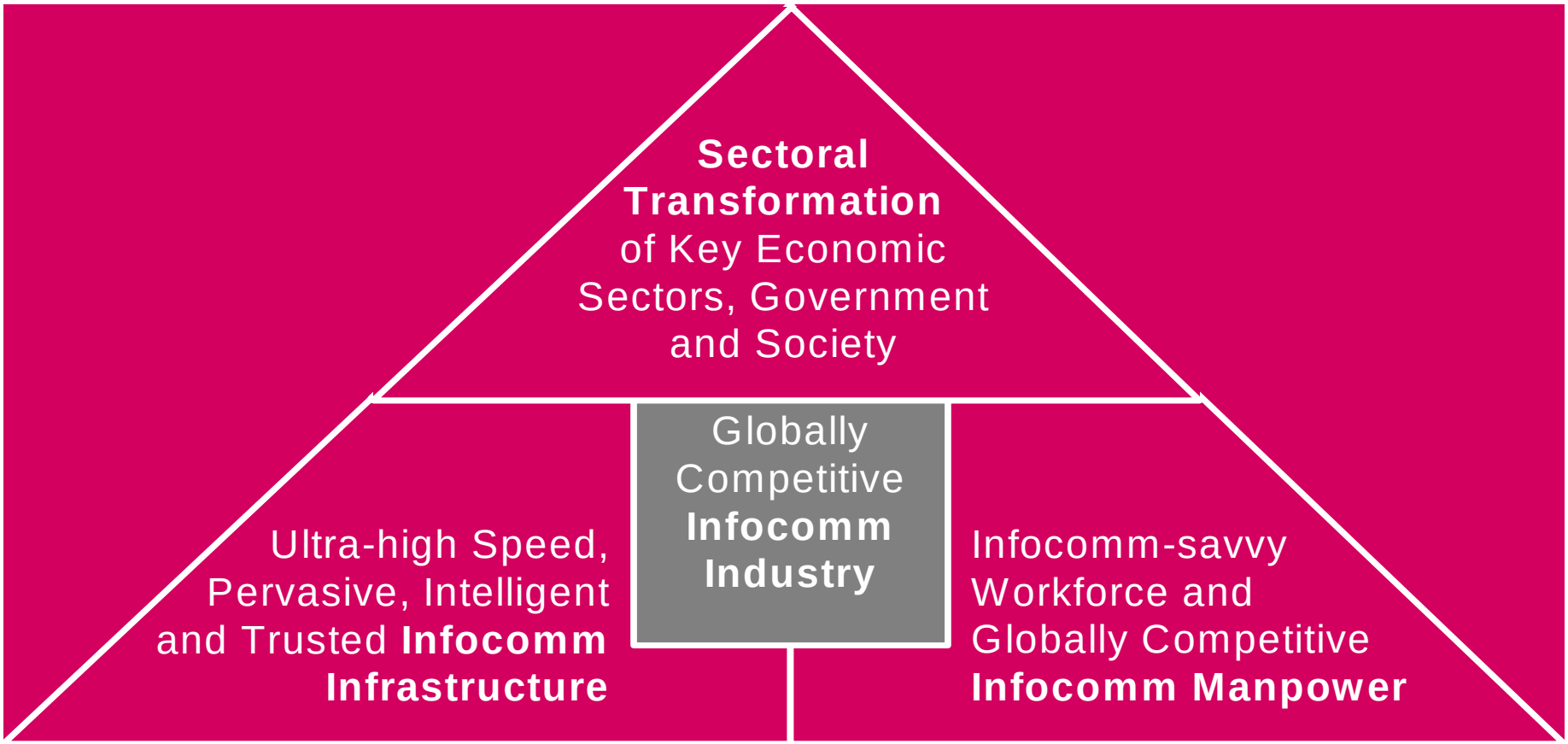
Recap of Next Gen NBN Project

iN2015 Masterplan



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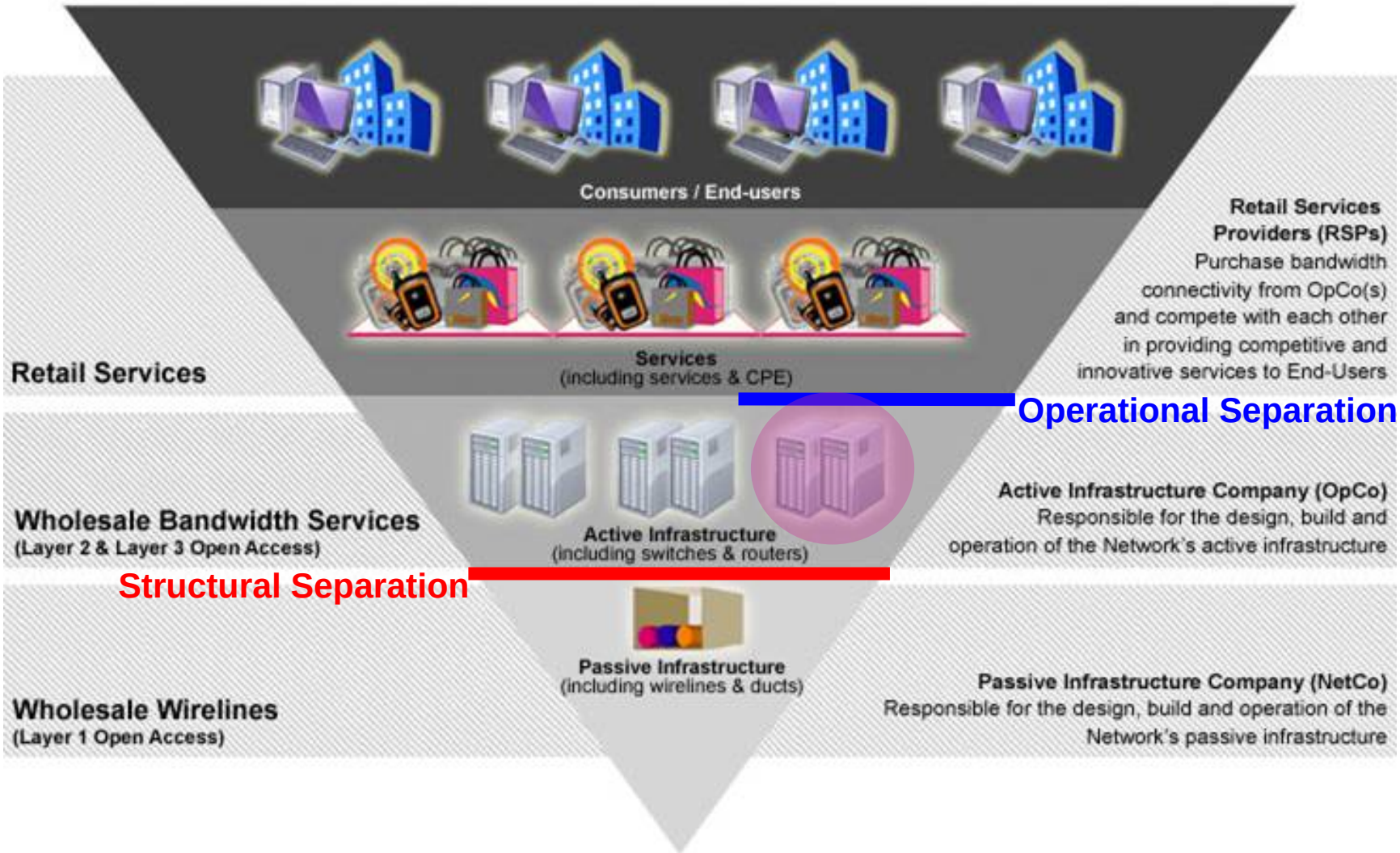
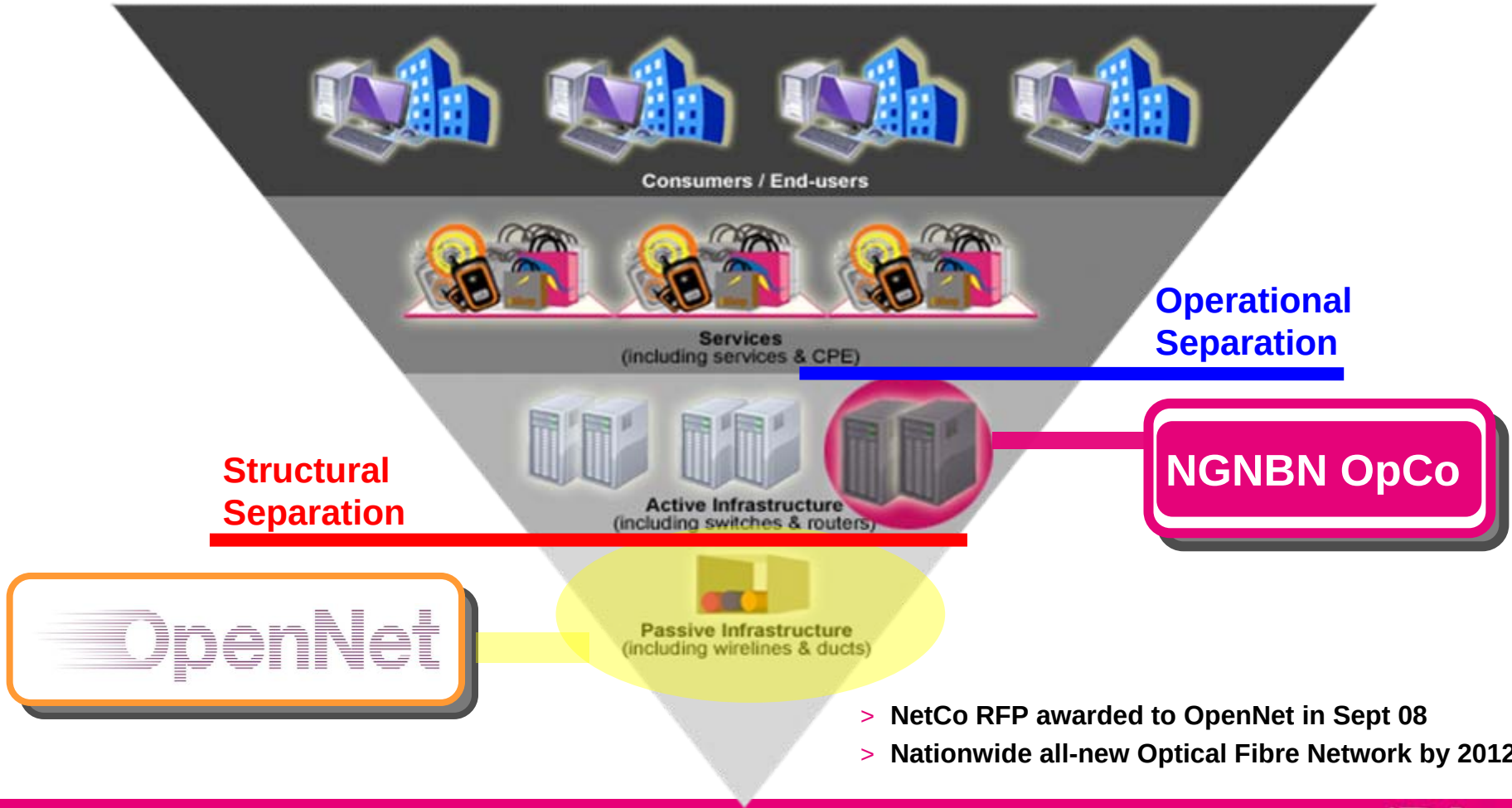
Recap of Next Gen NBN Project

Next Gen NBN Industry Structure



Recap of Next Gen NBN Project

OpCo Services over OpenNet's Fibre Network



- NetCo RFP awarded to OpenNet in Sept 08
- Nationwide all-new Optical Fibre Network by 2012

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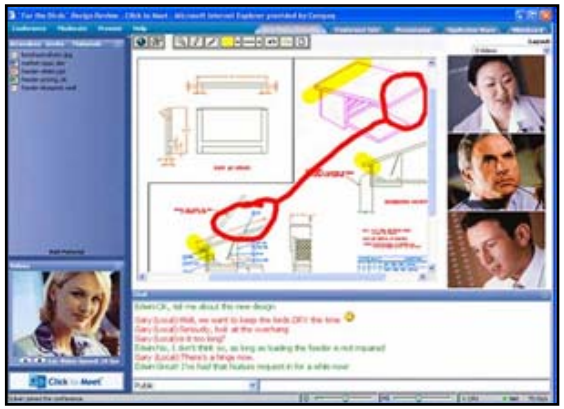
Open Access Fosters Vibrant Broadband Market



Multiple video streams used in multi-party collaboration

Examples

> **Multiplay services - combining Voice, Video and Data**

> **High bandwidth:**
- **enhances Cloud Computing capabilities; and**
- **lowers barrier for adoption of Software-as-a-Service (SaaS)**

> **Enables collaboration through high quality video conferencing (2D and 3D)**

> **Greater choice of bandwidth services to meet the needs of business users**

Source: Gartner

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Open Access Fosters Vibrant Broadband Market

Interschool exchange via Video-Conferencing

- **High-speed symmetric broadband at affordable rates enables new teaching and learning paradigms**
  - Learning and sharing across borders
  - Immersive Learning

Multiple Camera Views

- **New capabilities and services through interactive IPTV**
  - Multi-play
  - On-demand TV
  - Audience voting
  - Multiple camera views
  - New advertising models

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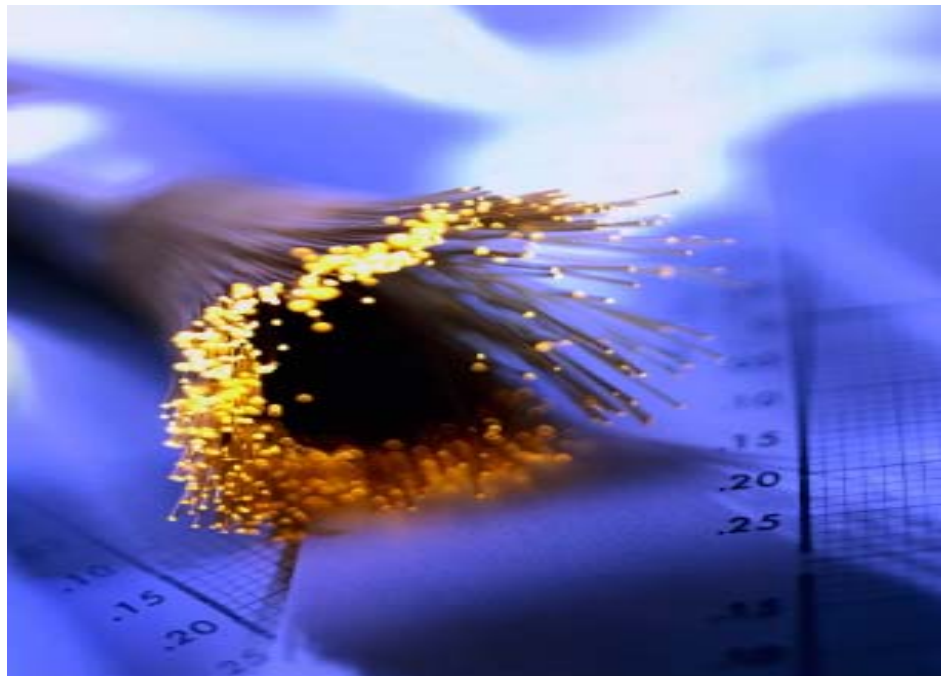
Recap of Selected NGNBN NetCo Proposal

Highlights of OpenNet's Proposal

- **New, all-fibre network to the homes and businesses**
- **Future-proof, capable of supporting more than 1 Gbps**
- **Leverage existing underlying passive infrastructure assets, such as ducts, manholes and exchanges**



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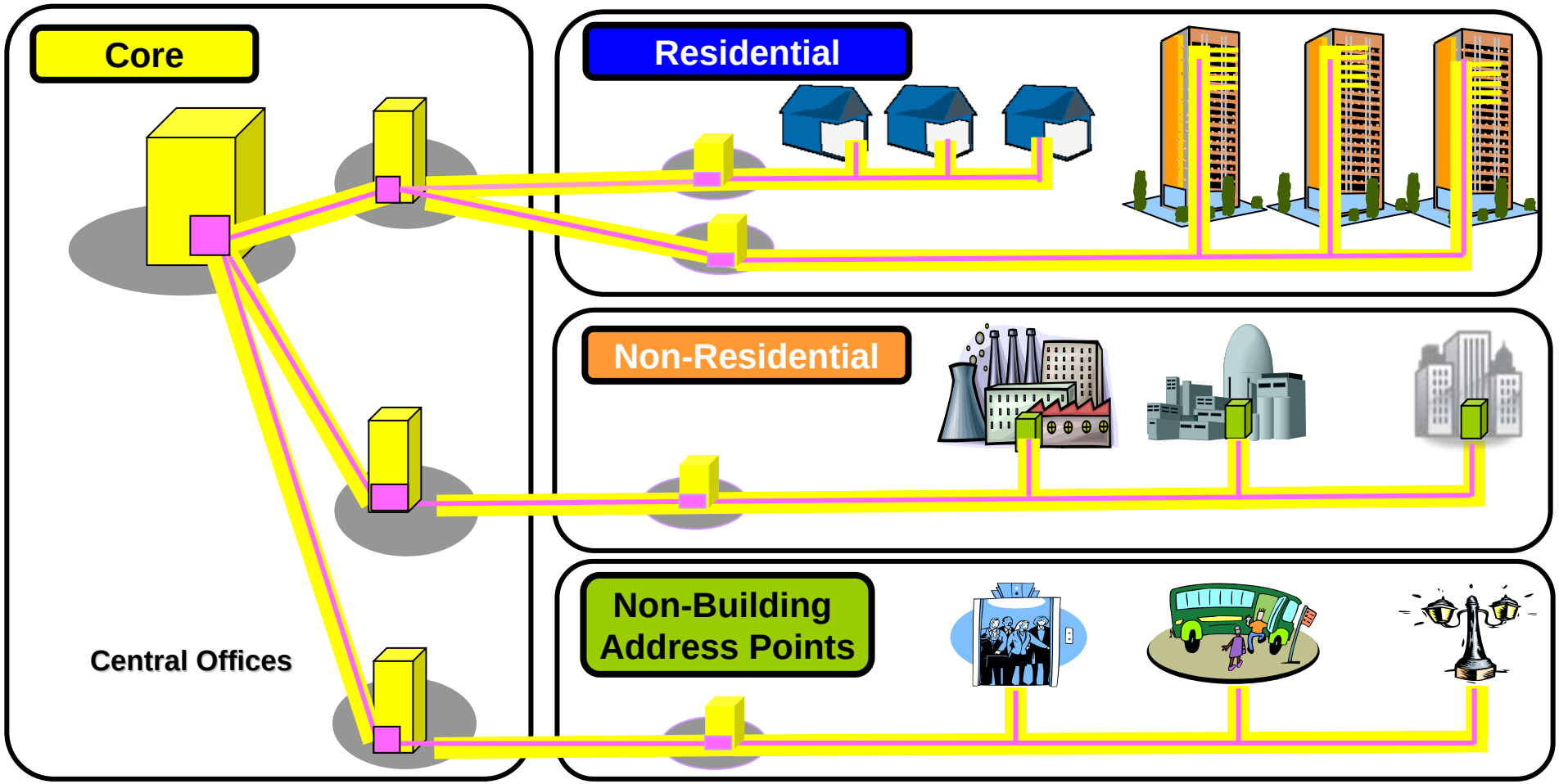
Recap of Selected NGNBN NetCo Proposal

Highlights of OpenNet's Fibre Deployment



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Recap of Next Gen NBN Project

Next Gen NBN Project Timeline

Budget 2006 Speech
17 Feb 2006

Committee of Supply
3 Mar 2006

Request for Concept (RFC)
Mar 2006

Phase 1 - Competitive Dialogue (CD)

CD Stage	Competitive Dialogue with Pre-Qualified Bidders Dec 06 – Nov 07

Phase 2 - Request for Proposals (RFP)

Next Gen NBN RFP

NetCo RFP	11 Dec 07 – 26 Sep 08
OpCo RFP	7 Apr 08 – 3 Apr 09

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2 Operating Company Request for Proposal (OpCo RFP)

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Key Licence Obligations & Targets of Next Gen NBN OpCo

Key OpCo Obligations

- Operational Separation
- Interconnection Offer (ICO)
- Universal Service Obligation (USO)
- 25 year Licence period

Key OpCo Targets

- Adoption targets by Year 2015
  - 330,000 Residential subscribers
  - 80,000 Non-Residential subscribers

Government Support

- Up to $250m Grant to catalyse further private sector investments

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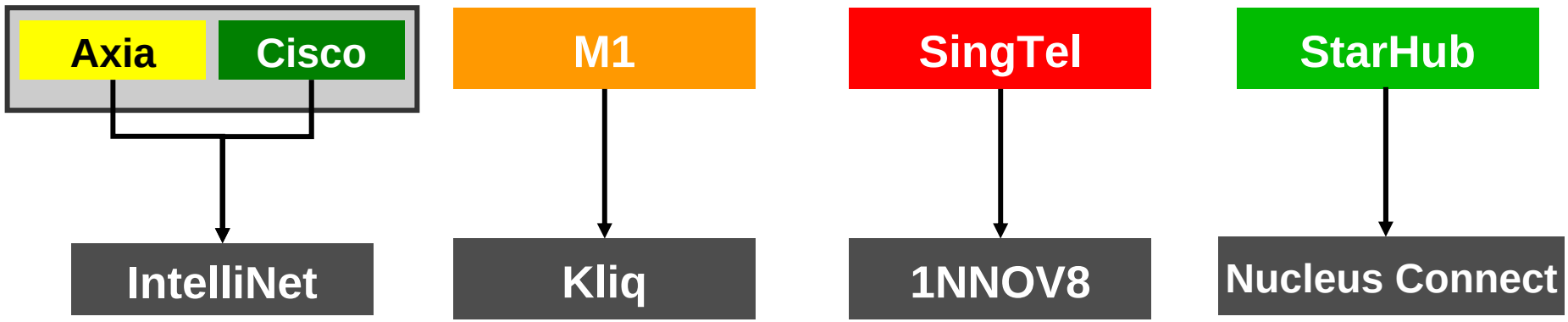
OpCo Proposals Received

> **4 proposals received on 5 Dec 2008:**



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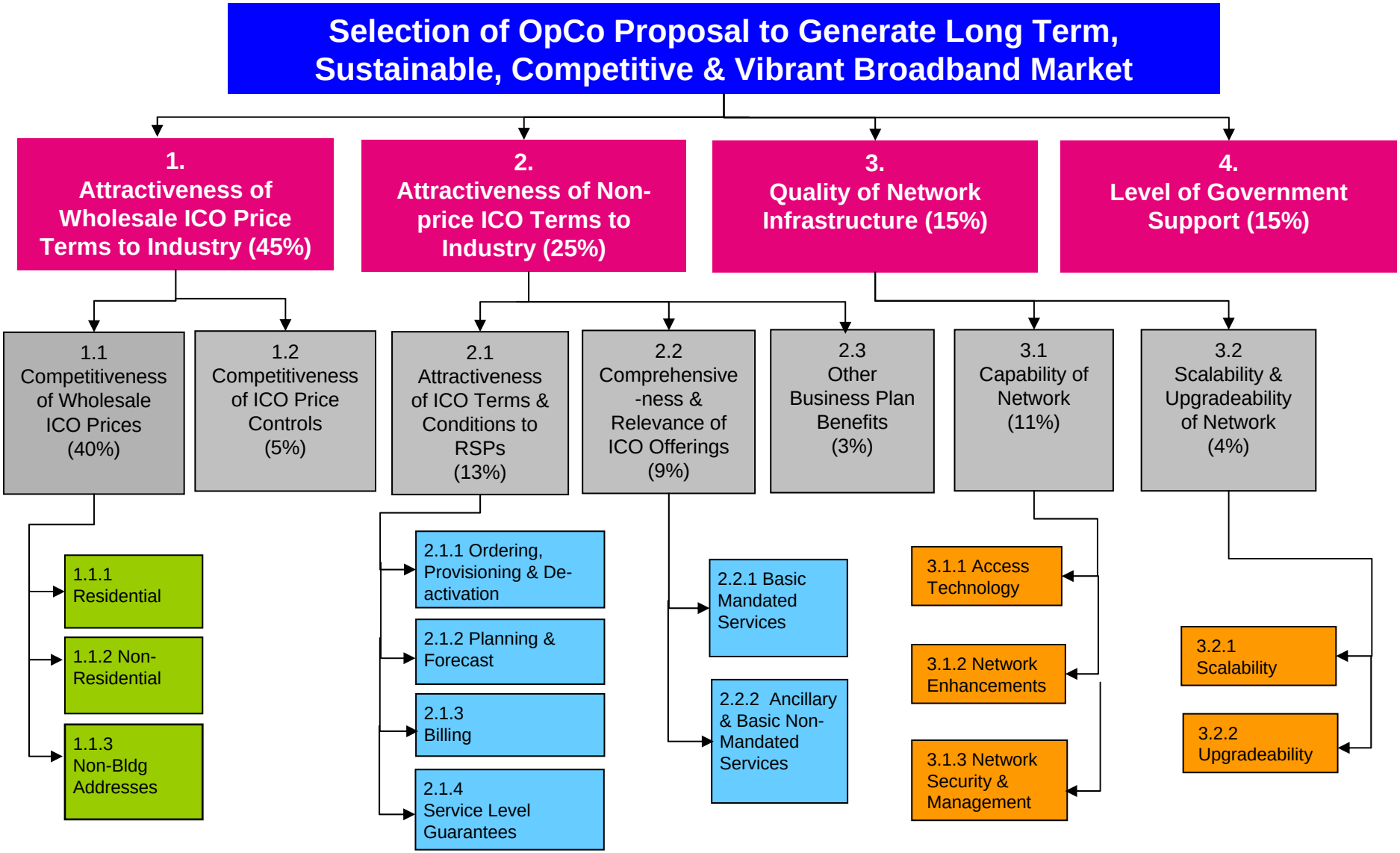
Operating Company Request for Proposal (OpCo RFP)

OpCo Evaluation Criteria



Operating Company Request for Proposal (OpCo RFP)

OpCo Proposals Received

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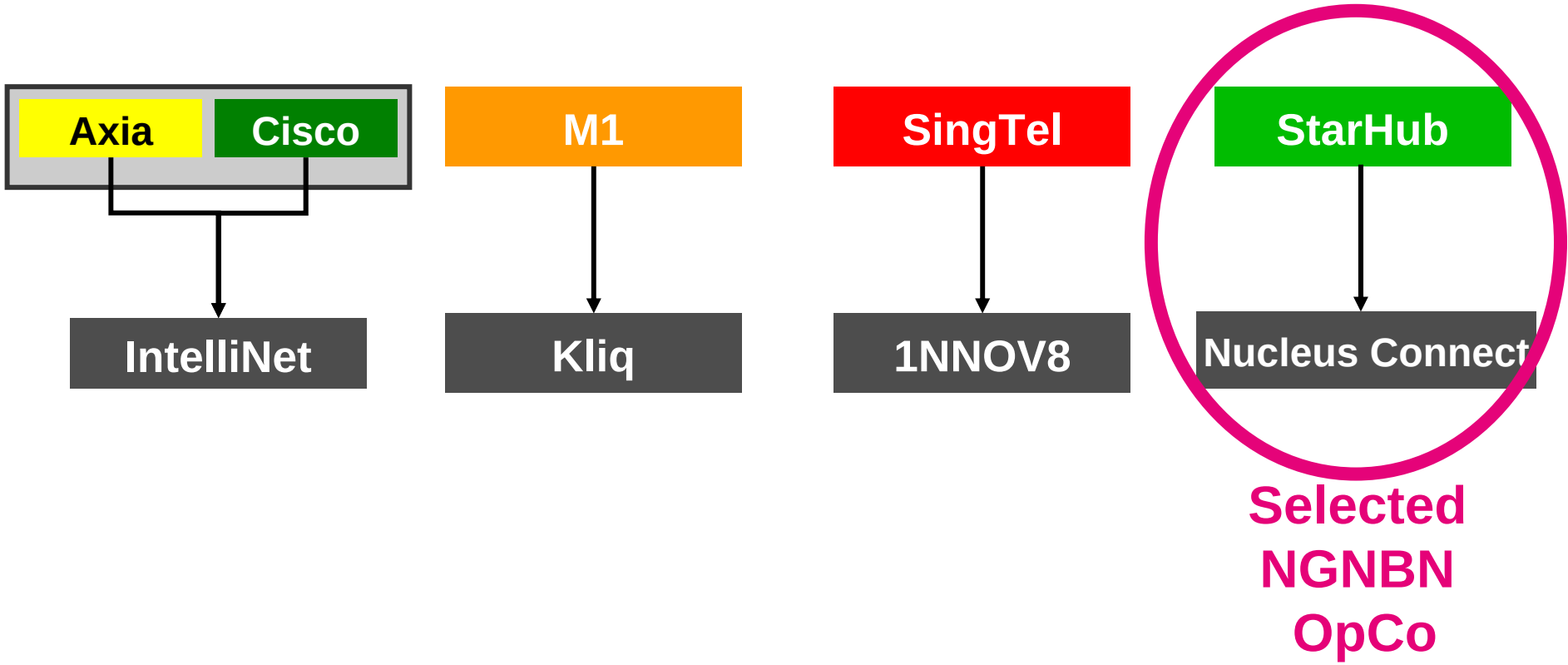

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3 Highlights of Selected Proposal

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Highlights of StarHub's Proposal

Operational Separation Requirements

StarHub

Nucleus Connect

- Separate legal entity
- Distinct & separate brand
- Non-discriminatory treatment of all QPs

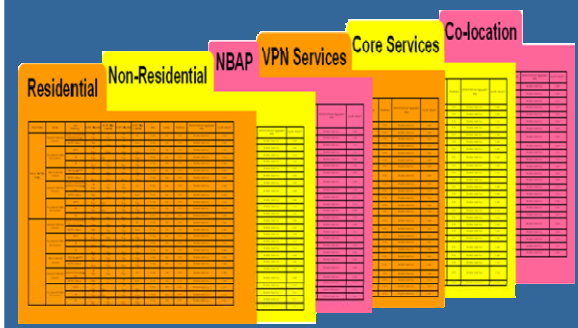
Financial Support

Up to S$250 million

Grant Amount

S$250M

Wholesale Service Offerings



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Highlights of StarHub's Proposal

Operational Separation Requirements

> **StarHub's proposal meets the Operational Separation Requirements:**

Equivalence of Input (EOI)

> Treat all RSPs, including Affiliated Operators the same:
  - Provision of the same services and information

Independence of OpCo from its Affiliates

> Separate Legal Entity
> Separate Premises
> Separate Branding from Affiliated Operators.

Monitoring Compliance

> Indicators to monitor OpCo's compliance to the Operational Separation Requirements

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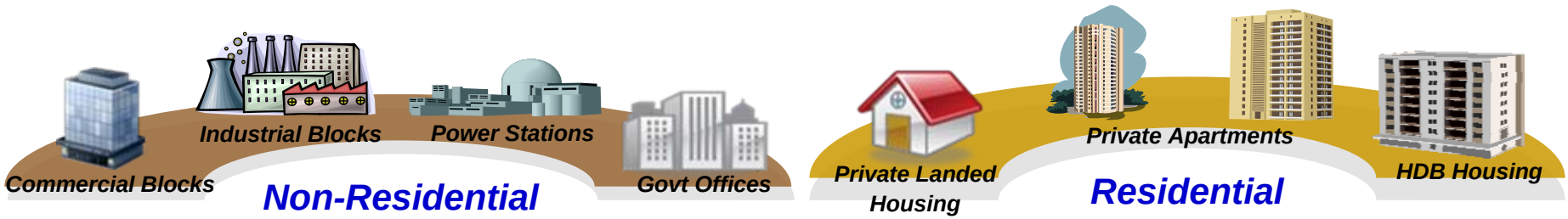
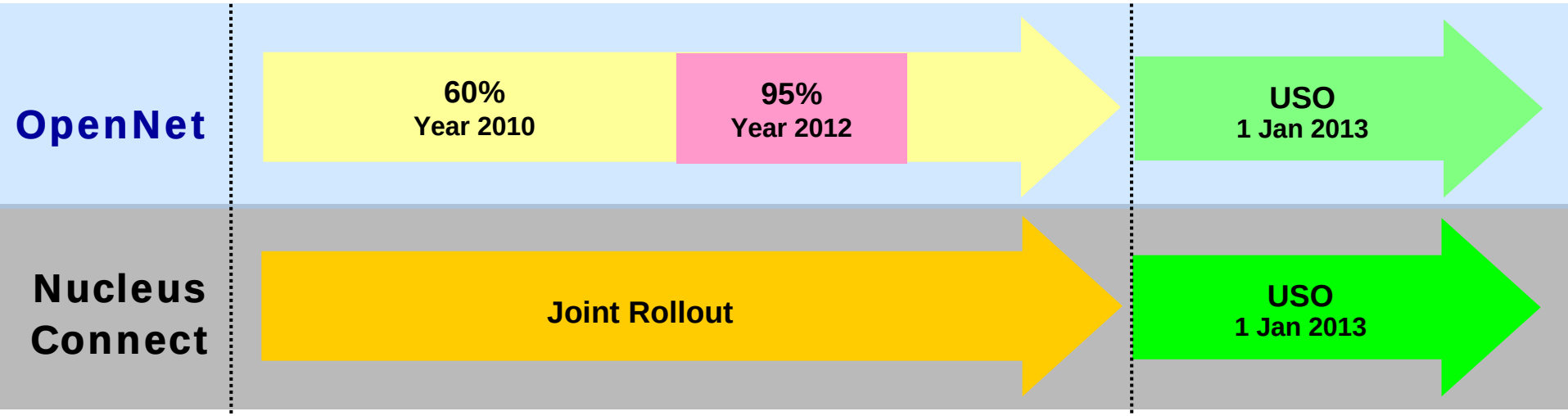
Highlights of StarHub's Proposal

Nucleus Connect's Rollout Commitments





- Nucleus Connect's services made available soon after OpenNet has declared coverage of a building;
- Universal Service Obligation (USO) from 1 Jan 2013.

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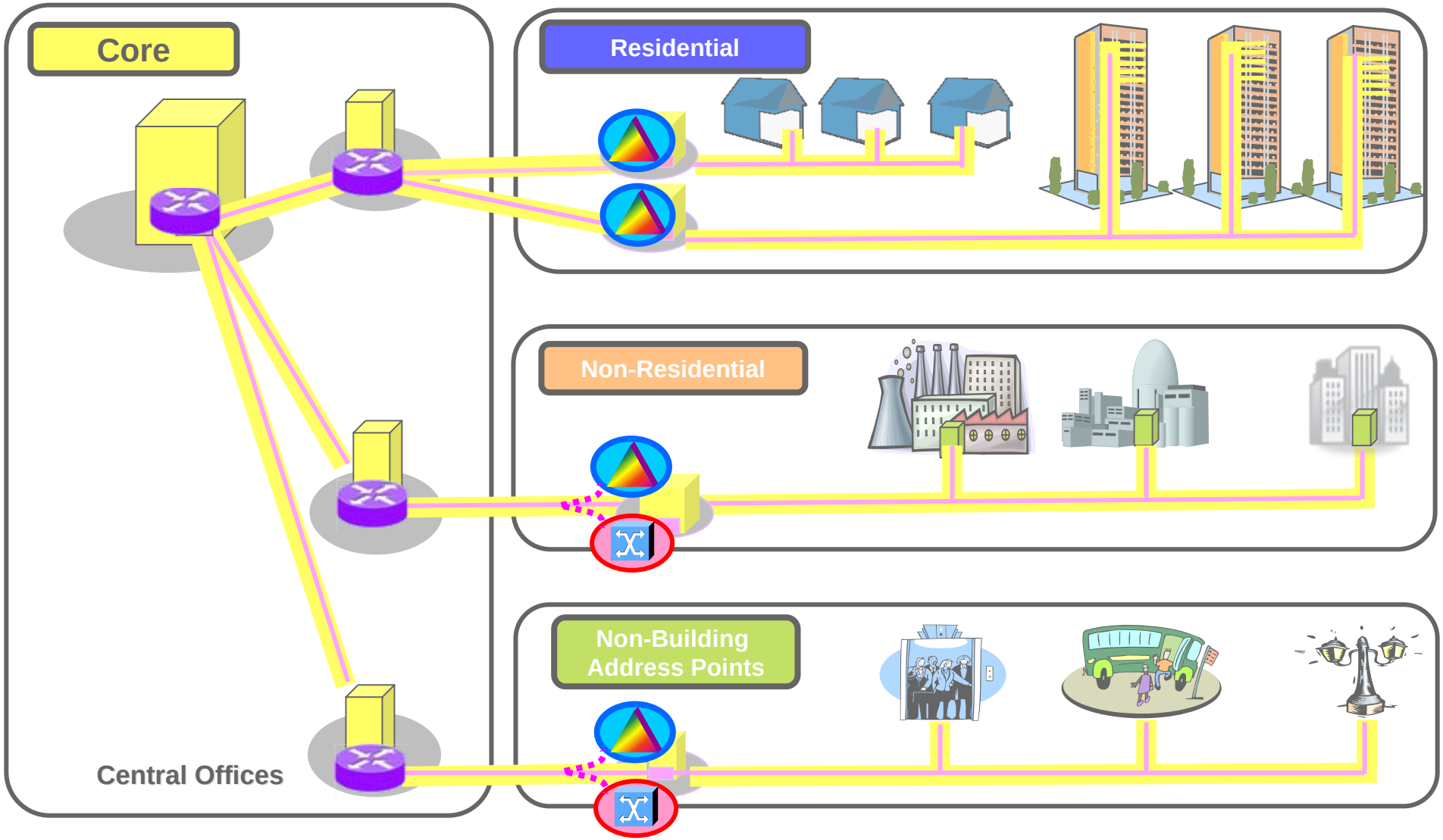
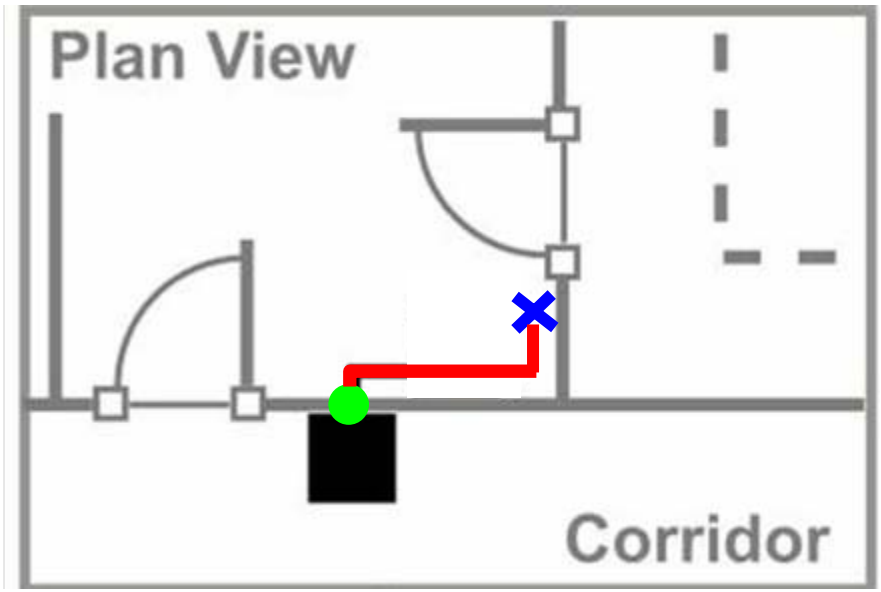
Highlights of StarHub's Proposal

Technology to be Deployed by OpCo

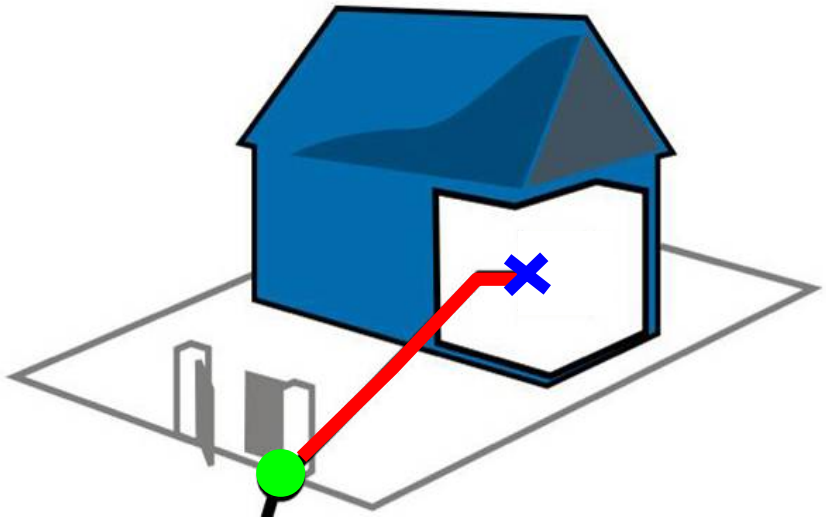


First Termination Point to Residential Premises

HDB Flat / Apartment



Landed Property



- Point of entry
- ≤ 15 metres
- First termination point

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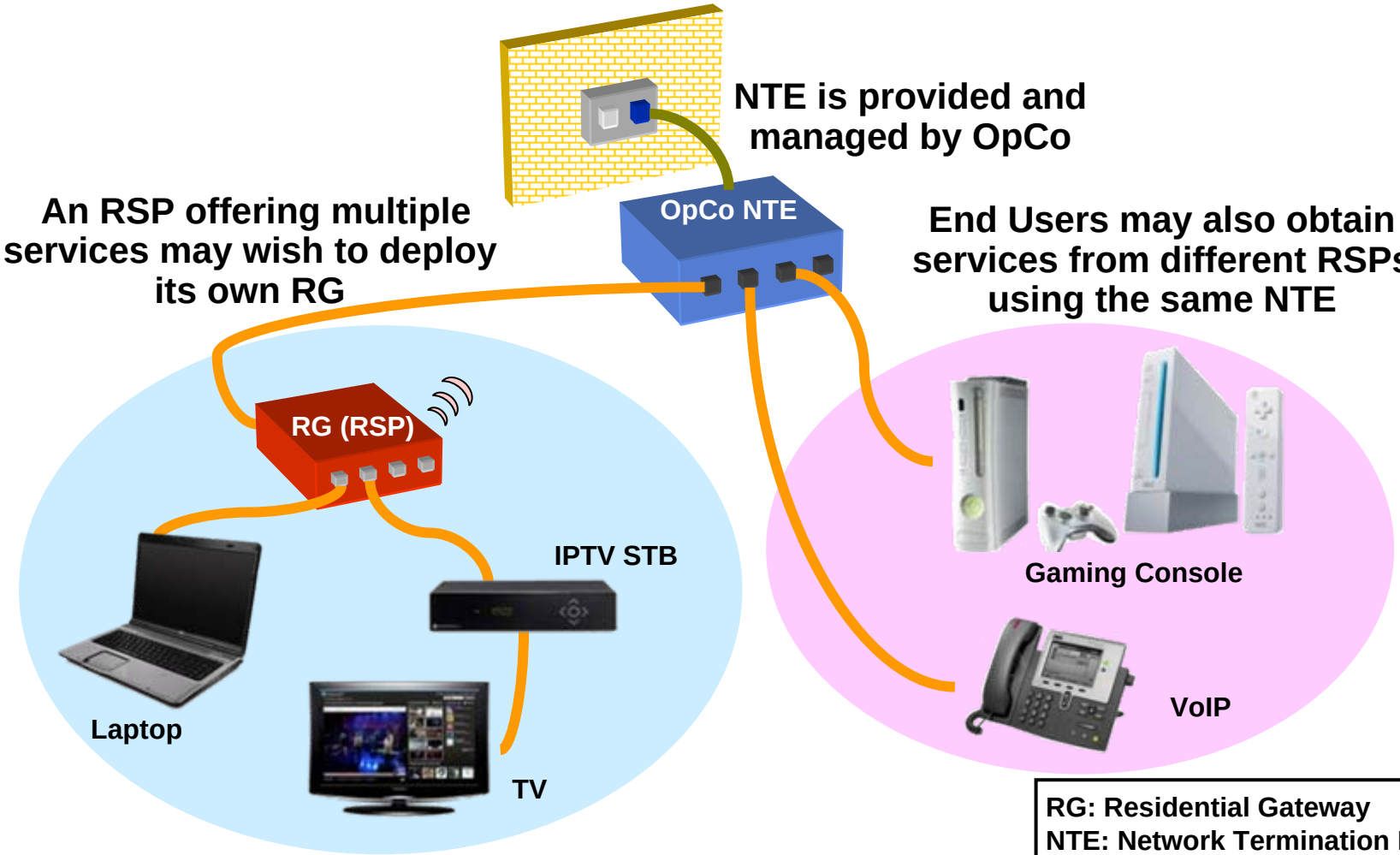
Highlights of StarHub's Proposal

OpCo Service Provisioning



RG: Residential Gateway
NTE: Network Termination Equipment

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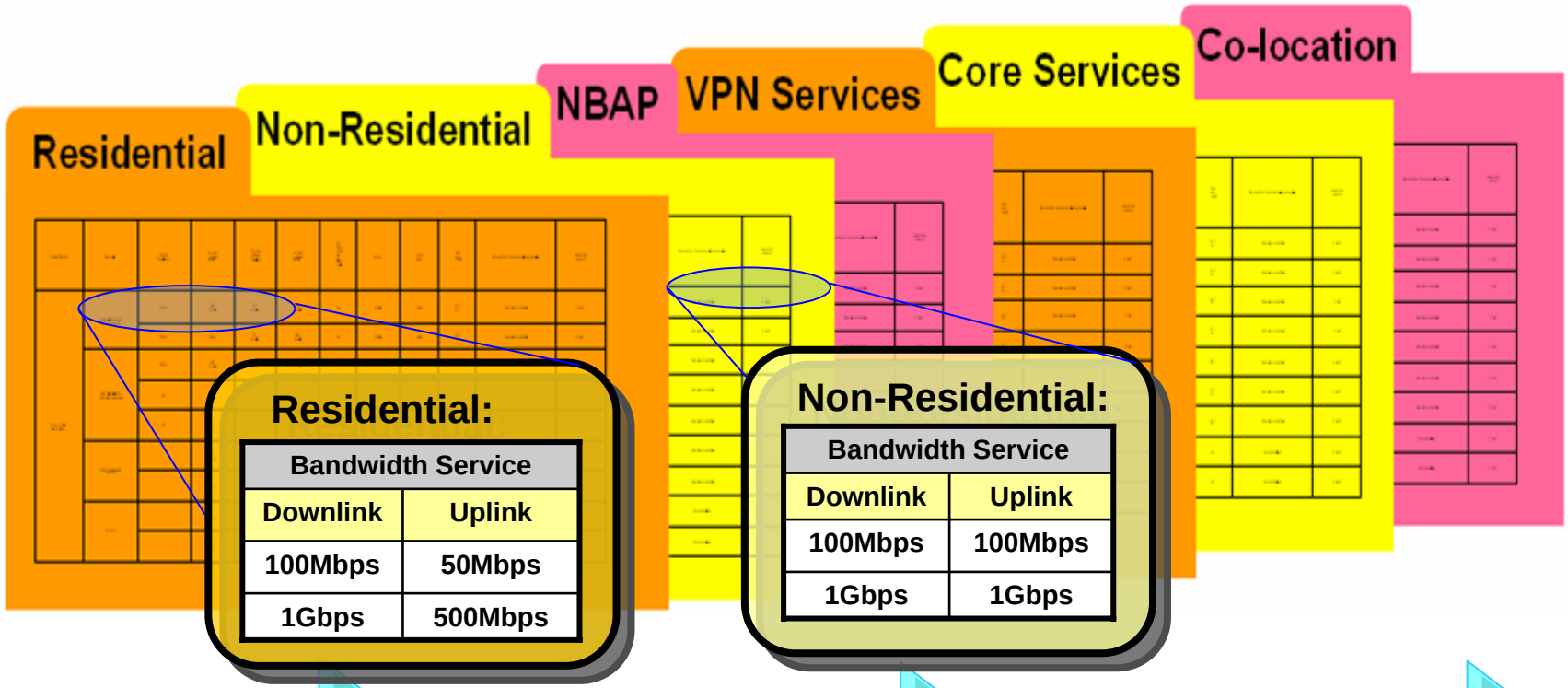
Highlights of StarHub's Proposal

Wholesale Service Offerings



Modular

- Unbundled services
- Able to add-on bandwidth increments and different classes of service

Flexible

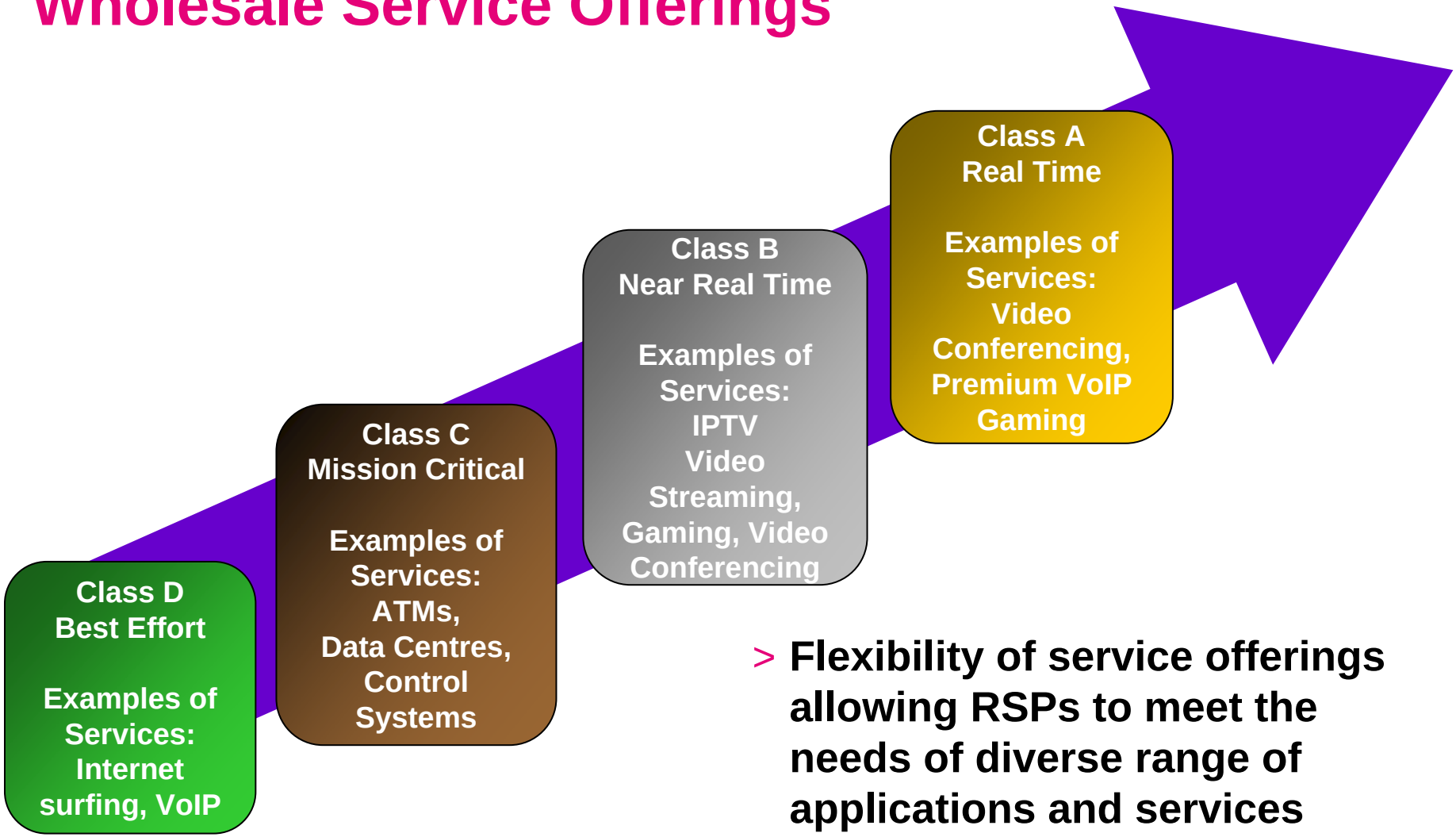
- OpCo provides online platform for self-provisioning by RSPs

Comprehensive

- 1 Gbps available
- Facilitates RSPs having fast and easy market entry

Highlights of StarHub's Proposal

Wholesale Service Offerings



> **Flexibility of service offerings allowing RSPs to meet the needs of diverse range of applications and services**

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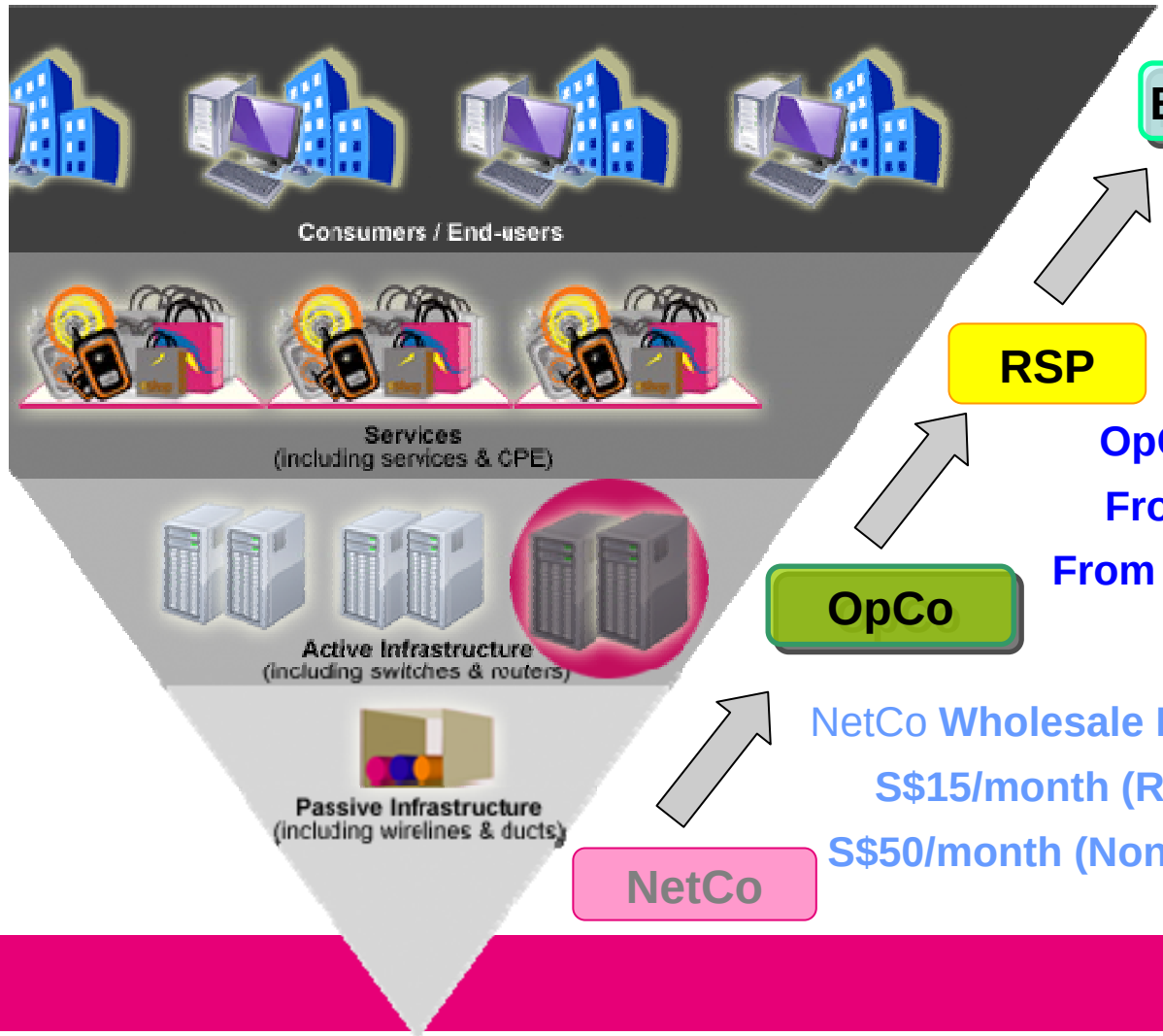
Overview of Next Gen NBN Wholesale Prices



End-Users

Innovative Services and
Competitive Retail Prices

RSP

OpCo Wholesale Price to RSPs:

From S$21*/month (Residential)

From S$75*/month (Non-Residential)

***includes NetCo Wholesale Price**

OpCo

NetCo **Wholesale Price** to OpCo:

S$15/month (Residential)

S$50/month (Non-Residential)

NetCo

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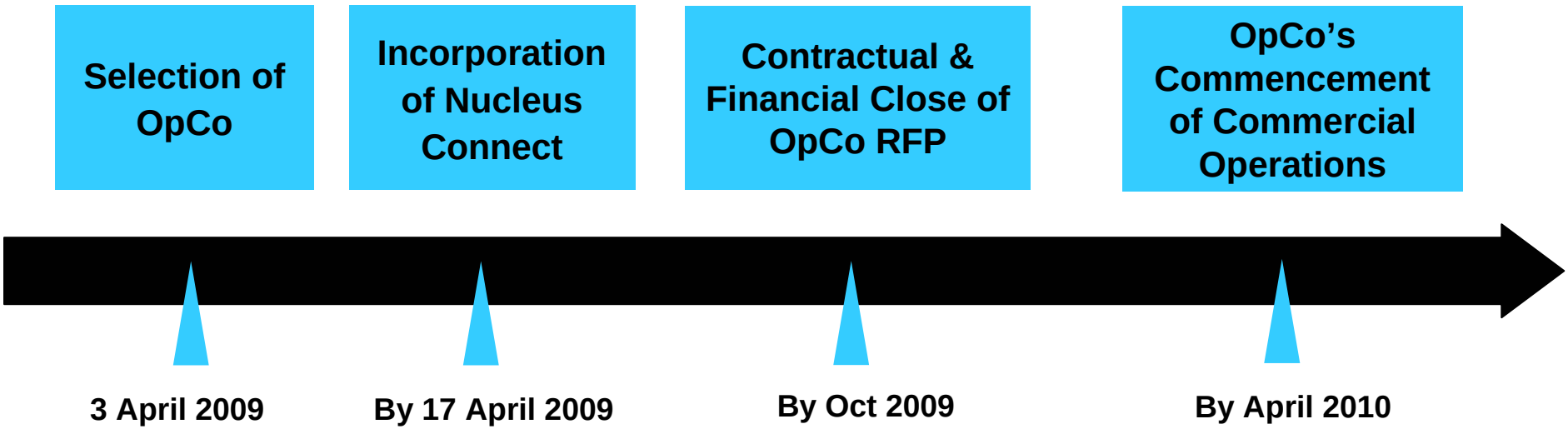
Next Steps



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Summary

- **StarHub's proposal selected for the Next Gen NBN OpCo RFP, bringing Singapore closer to achieving iN2015 goals**
- **Effective Open Access to Next Gen NBN is key enabler for new ways of working, living, learning and interacting**
- **Competitive wholesale service offerings will foster vibrant RSP community:**
  - **Modular**
  - **Flexible**
  - **Comprehensive**
- **Full optical fibre-based bandwidth services of up to 1Gbps available by April 2010**
- **Nationwide availability to all homes and businesses by 2012**

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C

Q & A Session

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