Cisco IT@Work Case Study:

A Passage to India: The Cisco India WAN CAPNet Project

Cisco Information Technology

March 1, 2006

Overview

- **Challenge:**

  Improve communications between India and the rest of Cisco

- **Solution:**

  Address performance concerns with greater connectivity

- **Results**

  Cost savings, improved performance

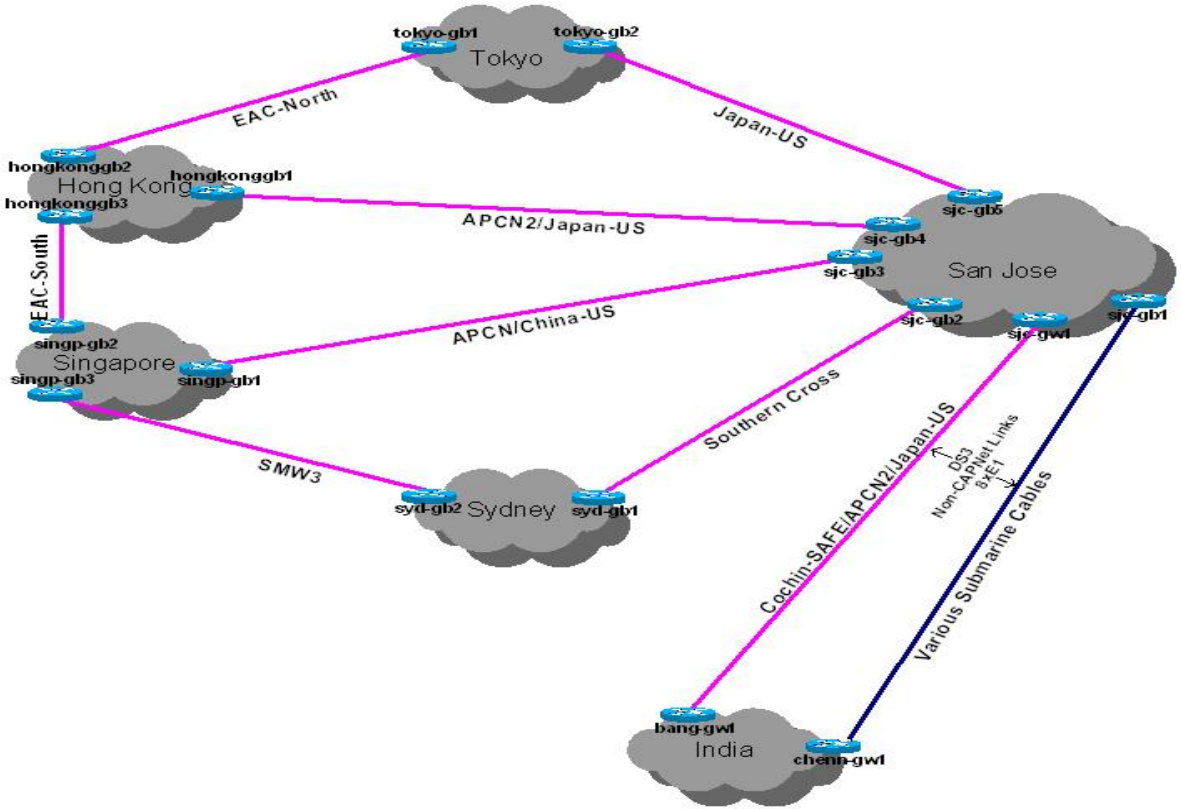
- **Next Steps**

  Continuous improvement

Challenge: Improve communications between India and the rest of Cisco

- The need to upgrade circuits between India and Cisco headquarters in San Jose and India and the rest of Asia Pacific
- Provide bandwidth to support sophisticated voice, video, and desktop conferencing applications
- Overcome high latency and meet network provisioning diversity requirements
- Deal with India's telecommunications infrastructure

Challenge: Improve communications between India and the rest of Cisco

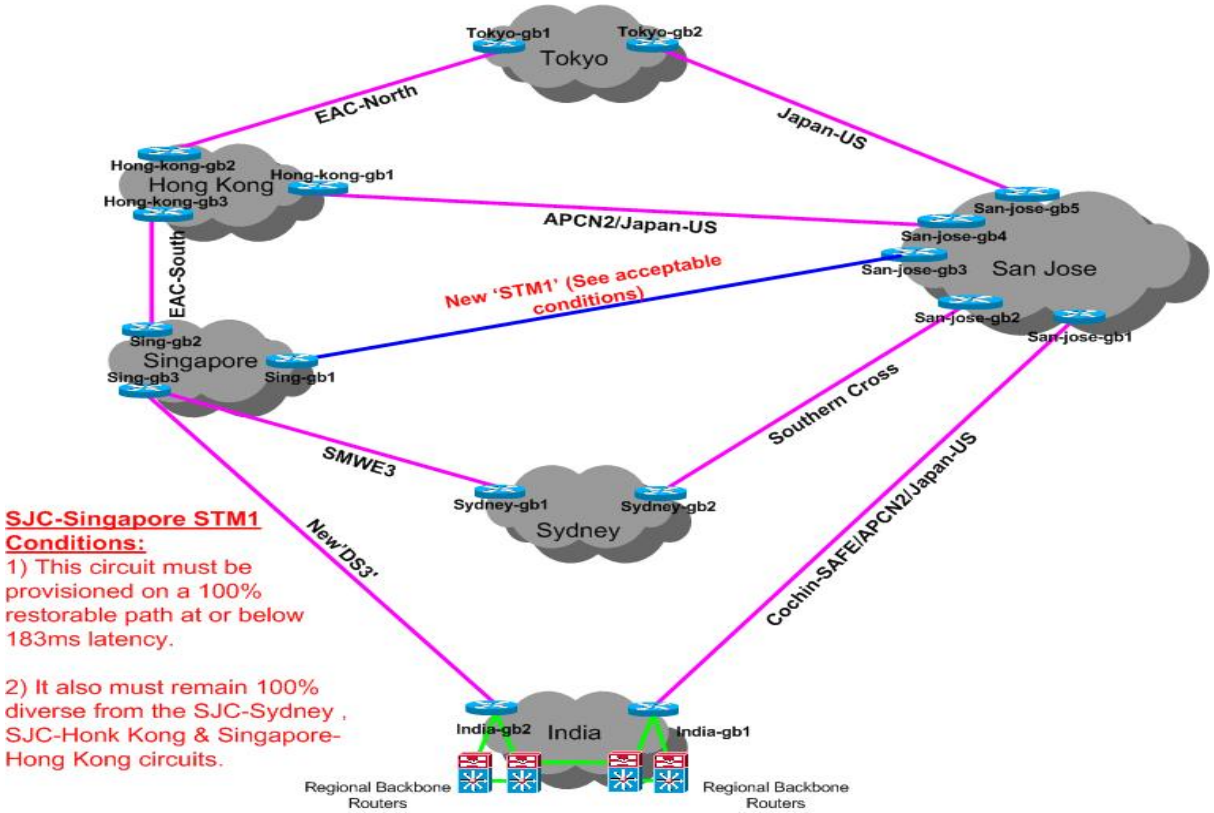


Cisco India WAN prior to redesign

Solution: Address performance concerns with greater connectivity

- **Option 1:**

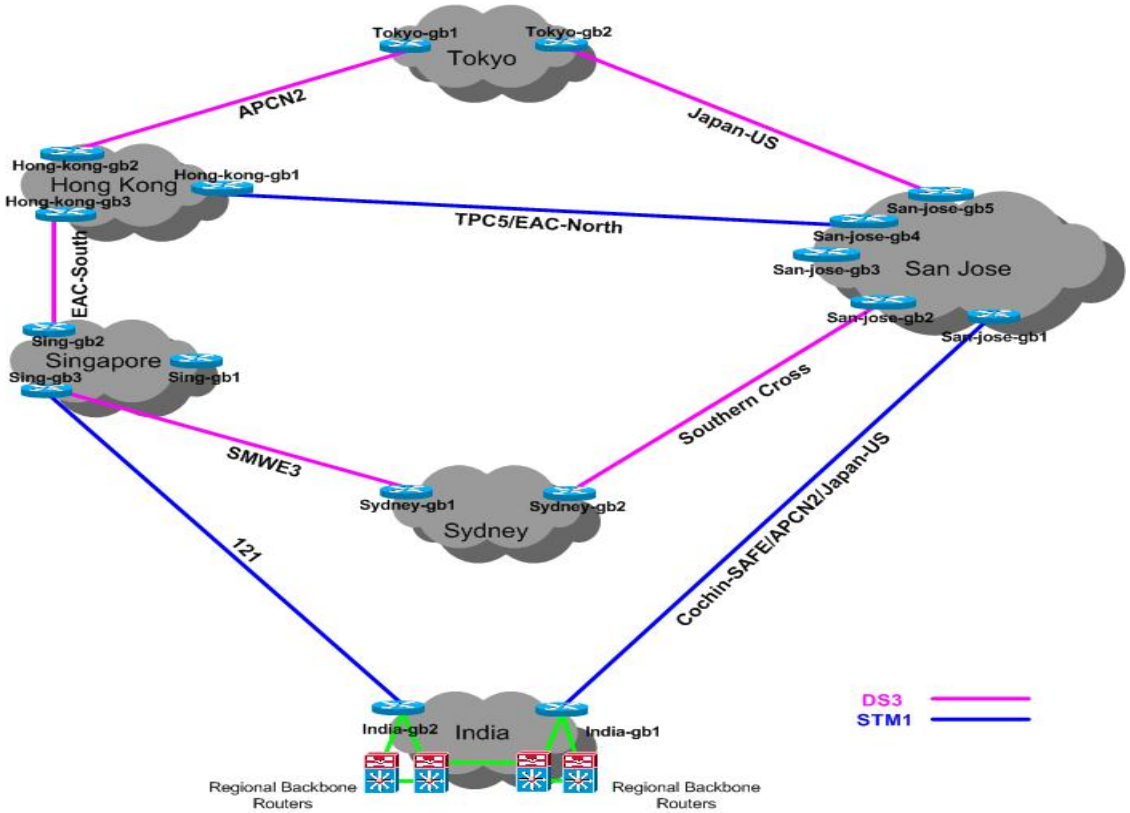
  Upgrade existing Bangalore-San Jose and Singapore-San Jose links and add a new Chennai-Singapore circuit



Solution: Address performance concerns with increased connectivity

- **Option 2:**

  Eliminate Singapore-San Jose circuit. Add a Chennai-Singapore circuit. Upgrade Bangalore-San Jose, Singapore-Hong Kong, and Hong Kong-San Jose circuits.



Results: Cost savings, improved performance

- Savings of $2.4 million through cost reduction measures and disconnecting the San Jose-Singapore circuit
- Overall latency decrease from a half second to 150 milliseconds throughout Asia
  - Conducting conference calls or video conferences is no longer an issue.
- Reliable, high performance connectivity between India and San Jose and inside Asia Pacific

Next Steps: Continuous improvement

- **Stay ahead of demands for bandwidth and improvements in telecommunications technology**
  - **Through Internet Protocol Virtual Private Network (IPVPn and Multiprotocol Label Switching (MPLS)**
- **Ongoing cost control and cost reduction measures**
- **Construction of a CAPNet circuit between Bangalore and Amsterdam**
  - **Scheduled for completion in May 2006**

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