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INTERNET @ BANGLADESH

CHALDAL.TECH

ABOUT BANGLADESH

- Population ~180M

- Dhaka – 20M+, Very High Density

- Internet penetration ~40%

- > 90% over mobile data

ABOUT CHALDAL

- Largest online grocery shop in Bangladesh
- 2ND Largest grocery retailer in Bangladesh (online + offline)
- Courier services, Food Delivery, Online Pharmacy, Wholesale vegetable market
- Supply Chains & Refugee Camp
- Backed by
  - World Bank Group, UN World Food Programme
  - Bangladesh Government
  - Y Combinator

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OUR ARCHITECTURE

- Racks in 3 Data Centers (Active / Active / Active)
  - Dhaka / Gazipur / Jashore
  - Connected via leased lines
  - Each connected to the IX / Internet
  - BDIX / BTCL-IX / AIX / ISPAB-NIX
  - Soon - IPLC to Singapore, Mumbai/Chennai, Peer at SGIX/DE-CIX
- ~25 Warehouses each individually connected to the internet
- 98% Traffic Local
- Extremely sensitive to downtime

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PLAYERS

- NTTN - Fiber @ Home, Summit, BTCL
- IIG, ITC, Submarine Cable Company
  - Chennai, Mumbai, Singapore
- Voice: ICX, ANS, IGW, IPTSP
- IXPs – BDIX, ISPAB-NIX, AIX-BD, BTCL-IX
- ISP, Telcos
- BTCL
- Data Centers

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WHAT WORKS WELL

- Relationship-driven
- Flexible / Almost anything is possible
- Management willingness to help
- Fiber network moderately well developed in dhaka
- Easy/Cheap fiber transit
  - BTCL fixed price $0.40/Mbps + Fiber Rent $15/km
- Most ISPs are peered at BDIX with open peering
  - few still aren't
- ISPAB-NIX is also well populated

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WHAT DOESN'T

- Questionable ISP expertise
  - Almost 0 debriefs
  - Patch-work
  - No commitment to uptime
  - Frequent routing issues
- ISP turf wars
- Submarine cables have limited capacity
- Overhead cables near data centers
- Safety issues
  - many data centers in regular office towers
  - Data Centers not up to standard

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INTERNET VS BDIX

- MANY AVERAGE CITIZENS KNOW BDIX

- ISPS SELL BDIX BANDWIDTH VS INTERNET BANDWIDTH

- INTERNET BANDWIDTH IS PREMIUM, BDIX IS GIVEN AWAY

2023 KHAWAJA TOWER FIRE

- OCTOBER 2023

- INTERNET ISSUES FOR 2 WEEKS

- BDIX PRIMARY WAS DOWN

- NOT MANY ISPS PEERED AT SECONDARY

- IIG / ICX WAS DOWN – ALL IN THE SAME ROOM / BUILDING

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2024 PROTESTS AND BLACKOUT

- July 20 – Aug 5

- 4 days of total blackout

- ~1.5 weeks of poor internet

- DNS servers were blocked + other ad-hoc blocking

WHAT NEEDS TO IMPROVE

- ISPs require more training and expertise

- Culture of openness and debriefs

- More emphasis on nationwide fiber-to-home networks

- Content Providers need to peer at BDIX

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