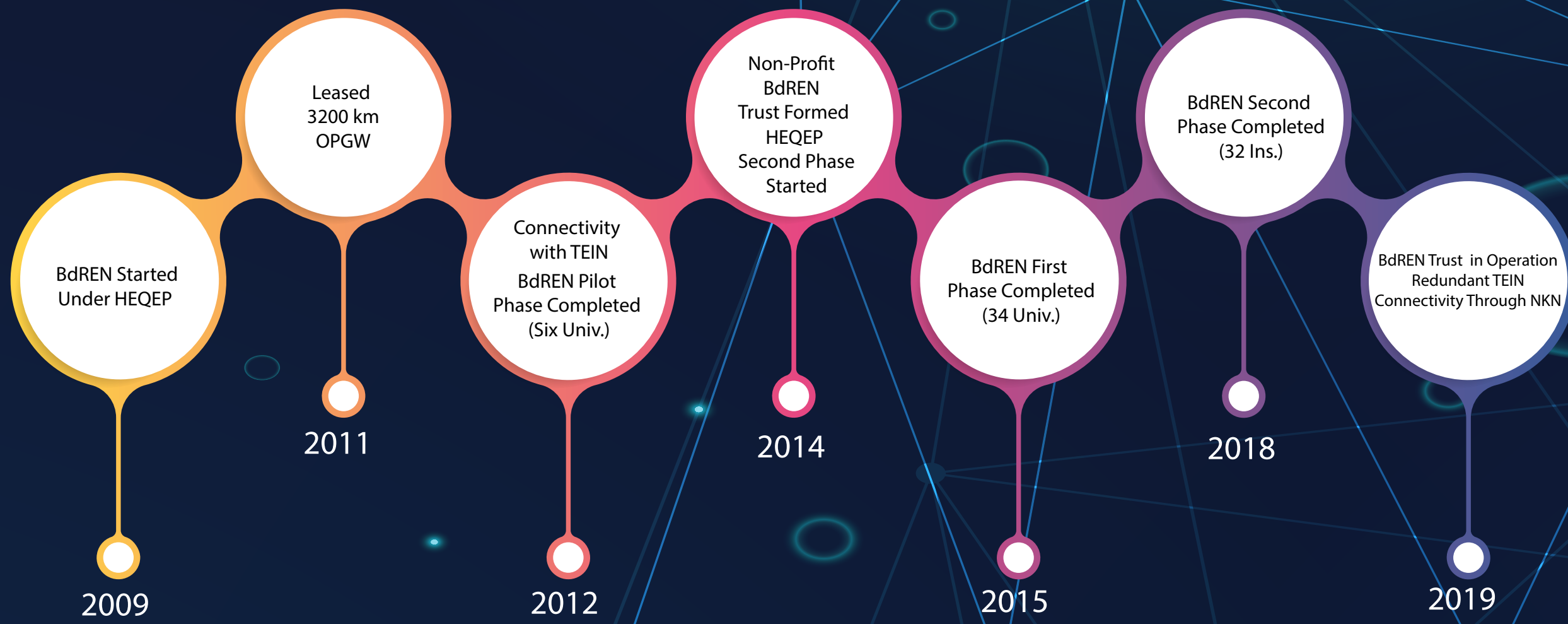




Bangladesh Research and Education Network

Emerging Digitization in Bangladesh Research and Education Sector

HISTORY

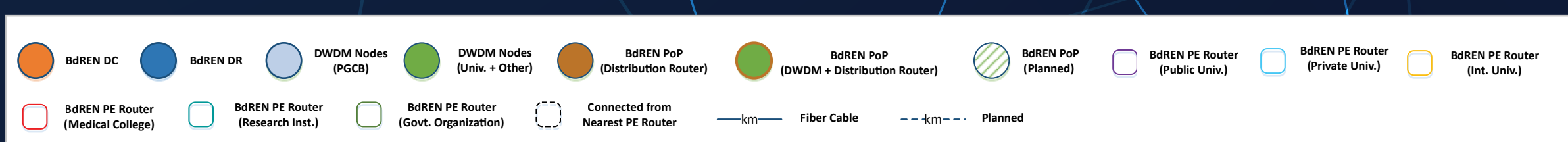


NETWORK MAP

Connected Institutions

Public Universities	
1. SAU	Bangladesh Agricultural University, Mymensingh
2. BCU	Bangladesh Open University, Gazipur
3. BRU	Bangladesh University of Veterinary and Animal Sciences, Moulvibazar
4. BSU	Bangladesh University of Science and Technology, Dhaka
5. BSMTU	Bangladesh Sheikh Mujibur Rahman Science and Technology University, Gopalganj
6. BSMMU	Bangladesh Sheikh Mujibur Rahman Medical University, Dhaka
7. BU	University of Barisal, Barisal
8. BUET	Bangladesh University of Engineering and Technology, Dhaka
9. BUP	Bangladesh University of Professionals, Dhaka
10. BUTEX	Bangladesh University of Textiles, Dhaka
11. CU	Cumilla University, Cumilla
12. CU	University of Chittagang, Chittagang
13. CUET	Chittagang University of Engineering and Technology, Razgan, Chittagang
14. CUHAU	University of Chittagang, Chittagang
15. DU	Dhaka University of Engineering and Technology, Gazipur
16. DUET	Hajee Mohammad Danesh Science & Technology University, Dinajpur
17. HSTU	Hajee Mohammad Danesh Science & Technology University, Dinajpur
18. IU	Islamic University, Bangladesh, Kushtia
19. JNU	Jahangirnagar University, Savar, Dhaka
20. JU	Jagannath University, Dhaka
21. JU	Jahangirnagar University, Savar, Dhaka
22. JUST	Jessore University of Science & Technology, Jessore
23. KU	Khulna University, Khulna
24. KUET	Khulna University of Engineering & Technology, Khulna
25. MBSTU	Mawlana Bhashani Science and Technology University, Tangail
26. MBSTU	Mawlana Bhashani Science and Technology University, Noakhali
27. NU	National University, Dhaka
28. PSTU	Pattaya University of Science & Technology, Dumki, Patuakhali
29. PSTU	Pattaya University of Science & Technology, Patuakhali
30. RU	University of Rajshahi, Rajshahi
31. RUET	Rajshahi University of Engineering & Technology, Rajshahi
32. SAU	Sylhet Agricultural University, Sylhet
33. SAU	Sher-e-Bangla Agricultural University, Dhaka
34. SUT	Shahjalal University of Science and Technology, Sylhet
Private Universities	
1. AUST	Abanubhai University of Science and Technology, Dhaka
2. BRACU	BRAC University, Dhaka
3. IUT	East West University, Dhaka
4. IU	Eastern University, Dhaka
5. UB	Independent University, Bangladesh, Dhaka
6. YU	North South University, Dhaka
7. YU	Varendra University, Rajshahi
International Universities	
1. AUN	Asian University for Women, Chittagang
2. IUT	Islamic University of Technology, Gazipur
Medical Colleges	
1. CMC	Chittagang Medical College, Chittagang
2. DDC	Dhaka Dental College, Dhaka
3. DMC	Dhaka Medical College, Dhaka
4. MMC	Mymensingh Medical College, Mymensingh
5. BMC	Bangladesh Medical College, Rajshahi
6. BMC	Bangladesh Medical College, Rajshahi
7. BMC	Bangladesh Medical College, Rajshahi
8. BMC	Bangladesh Medical College, Rajshahi
9. BMC	Bangladesh Medical College, Rajshahi
10. BMC	Bangladesh Medical College, Rajshahi
11. BMC	Bangladesh Medical College, Rajshahi
12. BMC	Bangladesh Medical College, Rajshahi
13. BMC	Bangladesh Medical College, Rajshahi
14. BMC	Bangladesh Medical College, Rajshahi
Research Institutions	
1. BARO	Bangladesh Academy for Rural Development, Cumilla
2. BARO	Bangladesh Academy for Rural Development, Cumilla
3. BRRI	Bangladesh Rice Research Institute, Mymensingh
4. BRRI	Bangladesh Rice Research Institute, Mymensingh
5. BRRI	Bangladesh Rice Research Institute, Mymensingh
6. BRRI	Bangladesh Rice Research Institute, Mymensingh
7. BRRI	Bangladesh Rice Research Institute, Mymensingh
8. BRRI	Bangladesh Rice Research Institute, Mymensingh
9. BRRI	Bangladesh Rice Research Institute, Mymensingh
10. BRRI	Bangladesh Rice Research Institute, Mymensingh
11. BRRI	Bangladesh Rice Research Institute, Mymensingh
12. BRRI	Bangladesh Rice Research Institute, Mymensingh
Government Organizations	
1. UGC	University Grants Commission of Bangladesh

LEGEND



DWDN Transmission Nodes					
1. BU, Barishal	7. Rental House, Pangsha	13. PGCB-SS 230KV, Bogura	19. UGC, Dhaka	25. BAU, Mymensingh	31. NSTU, Noakhali
2. KUET, Khulna	8. IU, Kushtia	14. BRUR, Rangpur	20. BUET, Dhaka	26. APSC, Ashuganj	32. CU, Chittagang
3. BSMTU, Gopalganj	9. PGCB-SS, Ishwardi	15. HSTU, Dinajpur	21. PGCB-SS, Rampura	27. PGCB-SS, Sreemangal	33. CMC, Chittagang
4. JUST, Jashore	10. PGCB-SS, Natore	16. MBSTU, Tangail	22. NSU, Bashundhara	28. SUST, Sylhet	34. PGCB-SS, Dohazari
5. PGCB-SS, Madaripur	11. RU, Rajshahi	17. PGCB-SS, Kabirpur	23. PGCB-SS, Tongi	29. CoU, Cumilla	35. PGCB-SS, Cox's Bazar
6. PGCB-SS, Faridpur	12. PGCB-SS, Shiroganj	18. JU, Savar	24. BTCL Office, Mawna	30. PGCB-SS, Feni	

SUCCESS STORY

Deployed 3600+ Km DWDM based transmission network
Connects 66 public and private universities, medical colleges and research institutes
Uptime: 99.70% (within Dhaka), 98.00% (outside Dhaka)
6+Gbps internet traffic
Implemented Campus Networks for 19 Public Universities
Self sustained National REN

Recent achievement through BdREN Computing Service:

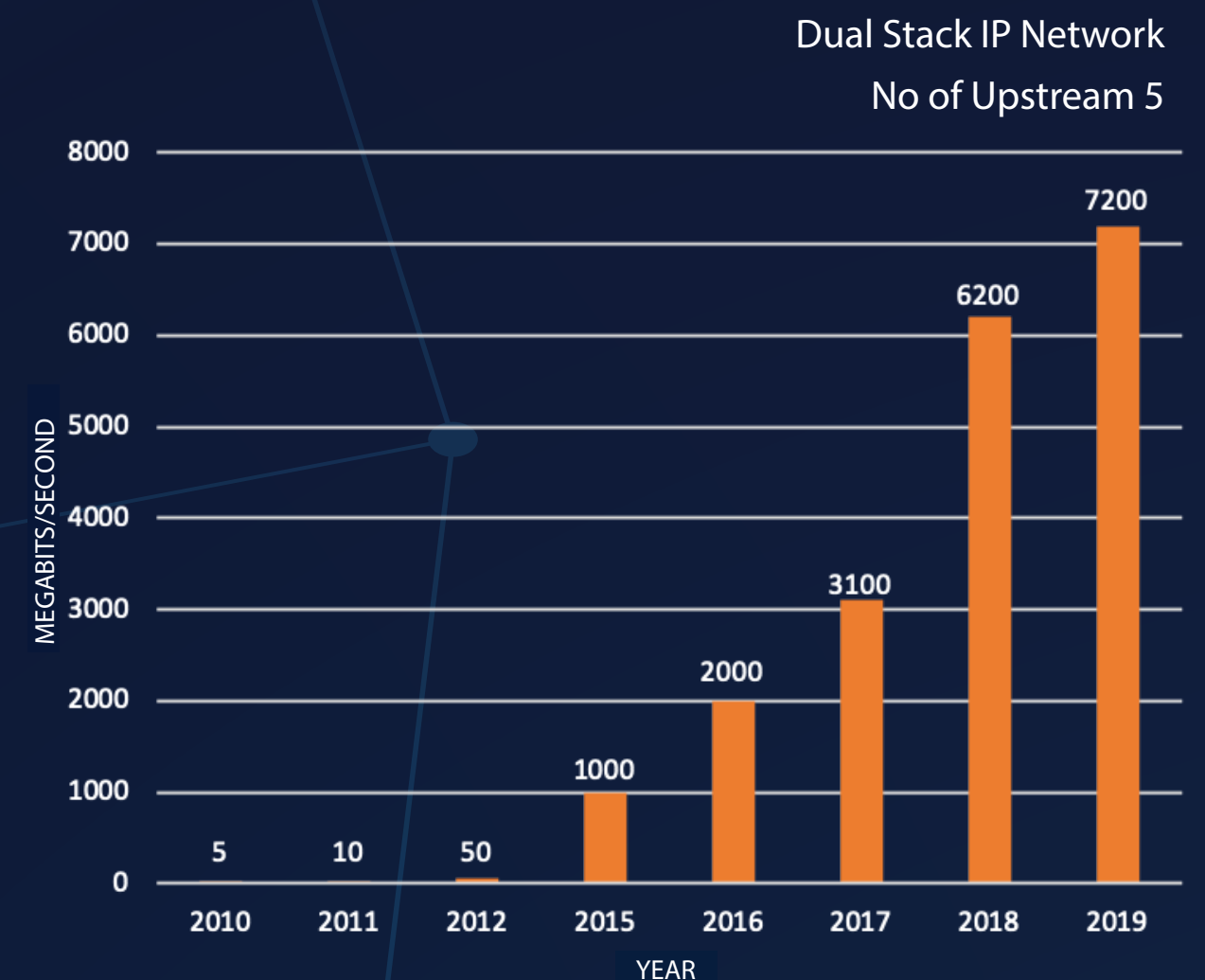
Decode Hilsa Fish Genome Sequence
Optical Modeling of Silicon Nanowire Geometries
DTF study techniques in Quantum Espresso Platform (Doped Titanium Dioxide)
TCAD modeling of Emerging Nanoscale Devices
Simulation on different research areas

CHALLENGES & MITIGATION



BdREN SERVICES

1 Bandwidth and Connectivity



2 Cloud Computing

High Performance Compute Facility
Object Storage
Block Storage
Monitoring
Identity Management
Hosting Service

3 Collaboration



4 Digital Library Access

Provide Digital Library Access to its Member Institutions

5 Eduroam



National Roaming Operator of Bangladesh

FUTURE PLAN

Secured Green Data Center Repository and Caching Service
-Google Caching
-Facebook Caching
-Microsoft Caching
-Akamai Caching
Identity Federation
Cluster Based Admission Test for Universities
Centralized Certificate Verification Service
Plagiarism Checking as a Service
Online Professional Courses
Electronic Research Repository
Increasing Coverage (Horizontal & Vertical)