

# BUILDING TOMORROW'S INTERNET

## Zaheduzzaman Sarker on Bangladesh's digital blind spot



MOHAMMAD KAWSAR UDDIN

As protocols evolve and networks transform, Bangladesh's absence from global standards development could cost the nation its digital future.

In an exclusive interview, ANM Zaheduzzaman Sarker, Principal Standardisation Lead and Chief Architect for Transport Networks at Nokia, discusses his journey from Bangladesh to becoming a key figure in global internet standards development. As chair of two Internet Engineering Task Force (IETF) working groups and a former Transport Area Director, Sarker offers unique insights into how internet protocols are shaped and why Bangladesh's limited participation in these crucial conversations could hamper the nation's digital ambitions.

**Can you share the journey that led you to your current role at Nokia?**

**Zaheduzzaman Sarker:** I started my career at Ericsson Research 18 years ago, working on different projects and standardisation efforts. I've always tried to keep myself hands-on—whether coding, designing, or simulating. I gained expertise in different protocol layers within 3GPP and Internet architecture while holding leadership positions both internally and at the IETF. My diversity of knowledge and determination to take on challenges led me to join Nokia as Chief Architect.

**How do you see the evolution of transport protocols shaping the future of the Internet and telecom networks?**

**Zaheduzzaman:** Transport protocols have undergone significant evolution. The major shift came in 2016 with QUIC, which involved the entire Internet industry—service providers, browser vendors, OS designers, and telcos working together. QUIC reduces dependency on kernel implementation and fights network ossification while providing the best user experience.

We've also seen technologies like

L4S (Low Latency, Low Loss, Scalable throughput), invented at Nokia Bell Labs and standardised at IETF, becoming tools for real-time applications. These evolutions can help replace outdated protocols and provide a more cloud-friendly protocol stack, a simplified and performant architecture that will have a profound impact on future telecom networks.

**What motivated you to get involved in the IETF, and how has your experience evolved?**

**Zaheduzzaman:** My primary motivation was getting standards for technologies deployed on the Internet. I started with WebRTC and ECN standardisation. What attracted me was the IETF's inclusiveness and belief in running code, which suits me well.

Initially, the experience was overwhelming. Meeting legends and those who write code and run Internet services was eye-opening. The diverse participants had diverse pain points, but they shared the same goal: making the Internet even better. This helped me grow and extend my capabilities. When the TAPS chair position was offered, I took it despite the challenges. The AD role later showed me how critical it is to lead by organisational practices while allowing changes to achieve the goals of a large SDO like the IETF.

**What are the main goals of the TIPTOP and TSVWG working groups today?**

**Zaheduzzaman:** TIPTOP aims to bring IP-based communication to space communications—bonding networks on celestial bodies with orbiting equipment and Earth's Internet. We're defining key characteristics, use cases, and requirements for space communication, and configuring protocols like QUIC for this purpose.

The TSVWG deals with generic protocol evolution and serves as a home for transport protocol topics that lack dedicated working groups. It's currently

focusing on L4S deployment, SCTP extensions, and DSCP code points.

**What do you think are the most misunderstood aspects of IETF standards development?**

**Zaheduzzaman:** The most misunderstood aspect is the fear of engaging with big companies and industry legends. The IETF requires an email address and internet connectivity to participate, which is different from other SDOs, where company affiliations are typically required. Although the IETF operates on a meritocracy, you can achieve recognition by participating in discussions, reviews, and contributing to drafts. If you have a genuine problem to solve that will improve the Internet, consider joining a working group mailing list or emailing IESG members for assistance.

**Bangladesh has very low participation in the IETF. What challenges do you see?**

**Zaheduzzaman:** That's correct and very unfortunate. The challenges are multi-fold. First, universities teach networking using books that describe IETF protocols but don't introduce IETF as a source. Students remain unaware of the standardisation process. Universities should collaborate with local ISPs or mobile operators to identify protocol issues and propose solutions.

Second, ISPs and mobile operators using IETF protocols show little interest in improving them. While this takes time and money, they gain early insights into improved protocols. They can develop solutions tailored to their specific problems, ultimately resulting in more efficient and secure networks with reduced operational expenses.

Third, the government lacks initiatives to be involved in SDOs. Bangladesh has vast numbers of Internet users, so understanding these technologies would help shape regulations for socio-economic growth. The government should establish

policies to send participants to SDOs, such as the IETF.

**What is your view on policymakers and non-technical participants engaging in the IETF?**

**Zaheduzzaman:** The internet has become crucial for socio-economic growth. To build efficient and secure network infrastructure and Internet governance, policymakers need to understand technology and standardisation developments. IETF is a melting pot for industry, academia, and research—a place to update knowledge and network with stakeholders.

Some countries have bodies that track standard changes and give recommendations on network features for national safety and security. They send representatives to the IETF. EU commission units also engage with the IETF for protocol and technology views. Policymakers must attend IETF meetings to identify technical issues that can be addressed and make informed decisions about efficient network building and Internet governance.

**How do you see the role of open standards evolving in an increasingly fragmented global Internet landscape?**

**Zaheduzzaman:** I disagree that there's an increasingly fragmented global Internet landscape, not yet. While geopolitics impacts technology and protocol standards, open standards serve as the glue that holds the Internet together, especially IETF protocols.

The IETF develops protocols based on service requirements, which can then be used to achieve various services. Having open standards for basic Internet building blocks allows for a focus on usage rather than the expense and time required to create regional standards. This is an even better motivation for why policymakers should engage with the IETF and the IETF should be consulted before approving policies.

## JOBS SPOTLIGHT

**Square Pharmaceuticals PLC.**



Executive, Regulatory Affairs Department  
Deadline: July 19

**Eligibility:**  
• M. Pharm/M. SC in Biochemistry and Molecular Biology/Biotechnology, with prior relevant experience.  
**Minimum experience:** 2-4 years

**Prime Bank**

**Prime Bank PLC**  
Relationship Manager - Priority Banking  
Deadline: July 23

**Eligibility:**  
• Bachelor's degree in any discipline from a UCG-approved local or reputed foreign university.  
**Minimum experience:** 2 years

**BEACON Pharmaceuticals Limited**

**Beacon Pharmaceuticals PLC**

Executive/Sr. Executive - Training (Oncology/Biotech/Palliative Care)  
Deadline: July 19

**Eligibility:**  
• MBBS from a reputed medical institution, with prior experience in the relevant field being preferable.  
**Minimum experience:** 1-2 years

**Aldi Services Asia Limited**



Specialist, Sourcing  
Deadline: August 8

**Eligibility:**  
• Tertiary education with prior relevant working experience, preferably gained in sourcing/buying offices, working with consumer products.  
**Minimum experience:** 5 years

FOR MORE DETAILS AND THE APPLICATION LINKS, SCAN THE QR CODE BELOW.



## THE BOSSMAN BY E. RAZA RONNY



## Job sites axe 1,300 roles due to AI

NEXT STEP DESK

Indeed and Glassdoor, two popular job searching platforms, are laying off around 1,300 employees as their parent company, Japan's Recruit Holdings, accelerates its shift towards artificial intelligence (AI). The job cuts, representing about 6% of the company's global workforce, were announced in an internal email sent to staff on July 10. In the memo, Recruit Holdings CEO Hisayuki "Deko" Idekoba stated, "AI is changing the world," and emphasised that the company must

adapt accordingly.

Teams affected by the layoffs include research and development, as well as "people & sustainability" departments in the United States, though other regions and divisions will also likely see reductions. Recruit Holdings said the move is part of a broader strategy to use AI to reshape the hiring process, both for job seekers



and employers. As part of that plan, Glassdoor will be absorbed into Indeed, with Glassdoor CEO Christian Sutherland-Wong stepping down, states the report.

The announcement arrives amid growing tension between enthusiasm for AI's efficiency and concerns over its economic fallout. However, some executives think that AI will help in skill development rather than unemployment.

## AI-POWERED CODING? Study finds it may take more time than it saves

NEXT STEP DESK

A new study published by METR, a non-profit AI research organisation, has found that using AI-powered coding tools may actually slow down experienced developers despite expectations that such tools would speed up software development.

METR conducted a randomised controlled trial involving 16 experienced open-source developers who completed 246 real tasks drawn from large codebases they regularly contribute to. Each developer was randomly assigned tasks either with or without permission to use AI coding tools.

According to the study, before beginning the tasks, developers estimated that AI would reduce their completion time by 24%. However, research shows that allowing AI actually increases completion time by 19% which means developers are slower when using AI tools.

While nearly all participants had prior experience using web-based AI tools in coding, only 56% had used



Cursor, the main tool tested in the study. METR stated that they did provide training to ensure developers were familiar with the tool's features before the trial.

The researchers suggest several reasons why AI tools might have slowed down performance. Developers often spent more time formulating prompts and waiting for AI responses than writing code

themselves. The tools also struggled to navigate the complexities of the large codebases used in the study.

Despite the findings, the researchers cautioned against drawing broad conclusions. They do not claim that AI coding tools fail to improve productivity across the board. In fact, other large-scale studies have shown efficiency gains in various software engineering contexts.

## Huawei announces winners of Seeds for the Future Bangladesh 2025



Huawei has named eight Bangladeshi university students as winners of its Seeds for the Future 2025 programme who will travel to China later this year for further training and competition.

The 2025 cohort comprises Syed Atif Ryhan of American International University-Bangladesh (AIUB); Farisa Zaynah Zaman of North South University (NSU); Nafim Karim Khan of BRAC University; Md Rezwon Ullah of Bangladesh University of Engineering and Technology (BUET); Tasnia Hifat of the University of Dhaka (DU); Md Safius Sifat of Rajshahi University of Engineering and Technology (RUET); and Nufsat Farooque and Wasif Uddin of Islamic University of Technology (IUT).

According to a press release, this year's competition began with a review of around 3,000 applications. 60 candidates were invited to a boot camp that covered subjects such as 5G, artificial intelligence (AI), cloud computing, digital power and business strategy. Following written examinations, presentations and team assignments, 21 students advanced to a final round in which they devised technology-driven business proposals aimed at socio-economic impact.