NETWORK STABILITY & QUALITY

WHY WE CARE

Demand for connectivity and communication services has soared over recent years, especially since the onset of the pandemic. All segments of society – businesses, Governments and the general public – require fast and quality connection to live, work and play. Even just a moment of downtime can impact our stakeholders. For individuals, interrupted services can limit their access to critical services, such as banking or e-learning, thus negatively affecting the customer experience. Businesses that face outages can experience disruption and losses, with the severity based on the sector.

As a strategic partner for Malaysia's sovereign communications, any network failure can cause severe consequences to the Government and their ability to serve its people. Therefore, optimal network performance is a bedrock for our long-term value creation. This means delivering fast, high-quality and reliable services that truly make life easier while accelerating our Digital Malaysia aspirations.

What Our Stakeholders Expect

- High-quality and fast Internet
- Uninterrupted network service

WHAT IS OUR APPROACH

At TM, we strive to actively protect our stakeholders from network issues. We are continuously improving our network resilience against network disruptions. Our BCM system and DRP are designed to ensure fast recovery against potential threats that may disrupt our service, which include natural disasters, cyber security breaches, riots/public disorder and disruption to logistic operations due to theft/robbery.

↳ *For more information on BCM and DRP, please see pages 217 to 222*

Beyond network continuity, we also ensure that the high-quality service delivered is fast and reliable. Our products and services are governed by a range of regulations, certifications and standards that ensure we consistently deliver world-class service quality and performance that meet the needs of our customers.

Policies, Certifications & Regulations
- TM Business Initiative Governance Framework Policy
- Mandatory Standards of Access & Mandatory Standards of Quality of Services
- MCMC Short Range Devices Technical Standards
- QMS ISO 9001
- BCMS ISO 22301:2019
- ISMS ISO 27001:2013
- Standards for Customer Premise Equipment
- Metro-Ethernet Forum (MEF) Certification

Deployed Capitals:　*Met Strategic Aspirations:*　*Stakeholders Affected:*　*Sustainability Impact:*

HOW WE CREATED VALUE IN 2022

1 Addressing Network Disruption

We face a range of factors and challenges that threaten our network's reliability and continuity. Therefore, throughout the year, we intensified efforts to improve service quality and assurance through various initiatives. This includes proactively monitoring sources of potential disruption to strengthen the resilience of our infrastructure and services.

How We Address Network Disruption

Top Issues Related to Network Stability	Improvement Measures
Third-Party Fibre Issues	Worked closely with third-party contractors like TNB, Prasarana (LRT3 and MRT work), Syabas and local councils to reduce potential network damage incidents that can affect customer services (i.e. accidentally hitting TM's cables during any roadwork/MRT/Air Selangor construction work)
Natural Disasters	Strengthened collaborations within our Crisis Management Team, consisting of the management and recovery teams, to ensure crises are managed swiftly and effectively
Old/Aged Equipment	Replaced old and ageing technology (i.e. copper, metro-ethernet network, Soft-switch and Optical Line Terminal (OLT)) with new technologies via network modernisation exercises
Fibre Cut by External Parties	Revised network design through more extensive use of fibre networks to increase the fault tolerance from fibre cuts
Inefficiencies in Network Recovery	Proactively monitored our network through an automated system (RPA) for infrastructure and services recovery Deployed Next-Generation OSS Solution, a single platform that enables Service Impact Analysis to detect and react to incidents more efficiently

2 Recovering from Disasters

Our infrastructure network is exposed to damages from natural disasters, such as floods, landslides and storms. Ensuring the reliability of our network means protecting our assets and stakeholders against such events. With this in mind, we established TM's Crisis Management Team to effectively manage any crises that occur. The team is made up of members of our management team and recovery team.

The Crisis Management Team's abilities were tested during the 2021/2022 Malaysian flash floods. Through a joint effort between various teams, including Network Operations Centre (NOC), Network Maintenance Operations (NMO), Facility Management (FM) and PAKAR Semboyan, we mobilised our resources to swiftly recover our network and services, as well as rescue stranded employees at a hill station. We also replaced customers' equipment that was damaged during the flood at zero cost to ease their burden and ensure they remain connected.

IMPACT & ACHIEVEMENTS

87% of the network infrastructure and **98%** of services **successfully recovered** within 20 days during the flood

Replacement of equipment at **11,009 Customer Premises**

Awards & Recognition: Business Continuity Institute (BCI) APAC Award 2022

Business Continuity Institute (BCI) Global Award 2022

🔍 **NETWORK STABILITY & QUALITY**

③ **Delivering High-Speed Internet**

To thrive in a Digital Malaysia, customers will require access to high-speed Internet connectivity. Hence, our nation building efforts include continuously expanding our high-speed broadband connectivity to more areas. This helps boost the growth of local industries as well as deliver a more seamless online experience for customers.

In 2022, Unifi offered fast unlimited Home Fibre with speeds up to 800Mbps. This resulted in Unifi reaching three (3) million subscribers who benefited from fast broadband experience.

④ **Faster Installation Times**

In keeping customers connected to our network, we improved manpower optimisation and quality of installation for our fibre broadband.
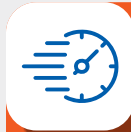
▶ **96%**
of new fixed services installed within four (4) days

▶ **91%**
of customers experienced no fault within their first 30 days

⑤ **Knowledge Sharing on Quality**

We believe in the power of exchanging knowledge with others to create a better ecosystem that benefits everyone. This approach extends to our network quality, with our experts engaging in various knowledge-sharing opportunities to contribute to as well as learn from others.

This year, we actively contributed to two (2) platforms:
1. **International Convention on Quality Control Circles (ICQCC) 2022** is a prominent international platform for productivity and quality practitioners, as well as organisations from various countries, to congregate and compete against each other to improve their innovation projects. Two (2) teams from TM's NOC participated in the event.

2. **Malaysia Technical Standards Forum Berhad** develops and recommends codes for the communication and multimedia industry in Malaysia. TM is an active member of the organisation and participated in the International Telecommunication Union (ITU) events for quality standardisation.

⑥ **Overall Performance**

90% of customers' Internet services were restored **within 24 hours**

55% reduction in fibre cable faults

96% installation cycle time as per the agreed timeline with customers