

INVITATION

THE
FAST
MODE

Trends & Outlook 2024

Reinventing networks

in the era of
big tech and hyperscalers



INVITATION

Trends and Outlook 2024

Big tech and hyperscalers have grown leaps and bounds as the race towards digitalization intensifies. Virtually everything we do today depends, to a large extent, on advancements in the digital space. Whether it's placing food orders, launching a new car model, attending college lessons, managing factory floors or saving wild animals from illegal poaching – digitalization has made everything way more accessible, scalable and simple.

The era of big tech and hyperscalers simply means that more and more of the digitalized world now resides within digital brands that come with unrivalled IT software/hardware/infrastructure capabilities and a strong global presence. It also means that an increasing share of private and public content now navigates the dominions built by these giants.

Players in the data and connectivity space – from service providers in the telecom, cable and satellite industries, to vendors providing a plethora of IT and networking solutions that connect applications to users – continue to operate in a world that is being increasingly defined by these giants. To succeed in such a world, service providers and vendors have to continuously improve their offerings and reinvent their business models.

To take a deeper dive into this topic, The Fast Mode's 2024 Trends and Outlook **invites players in the data and connectivity space to share your predictions for 2024**, focusing on cutting-edge technologies and continuous innovation in your respective verticals, as you work alongside tech giants and hyperscalers, to create a common digital future. Your predictions will be published on The Fast Mode and also reproduced as an e-book. More than 70 leading companies participate in the series every year.

Join us and submit your entries anytime from now to 31st January 2024.

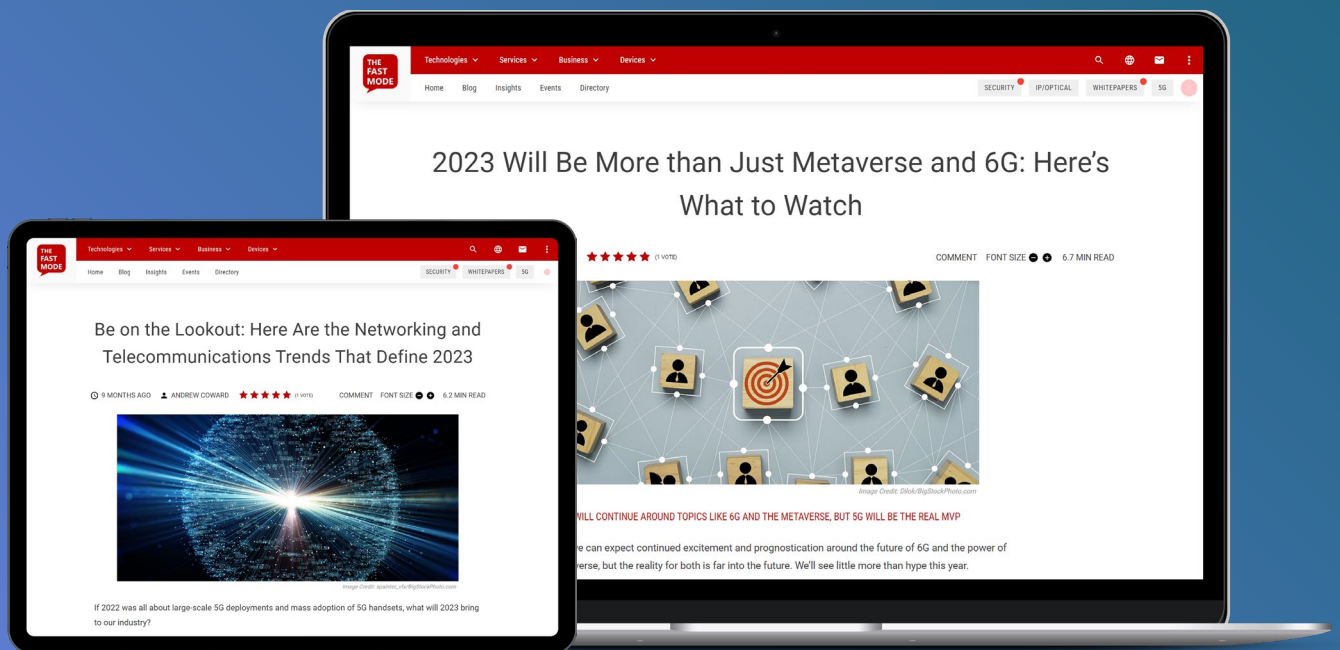
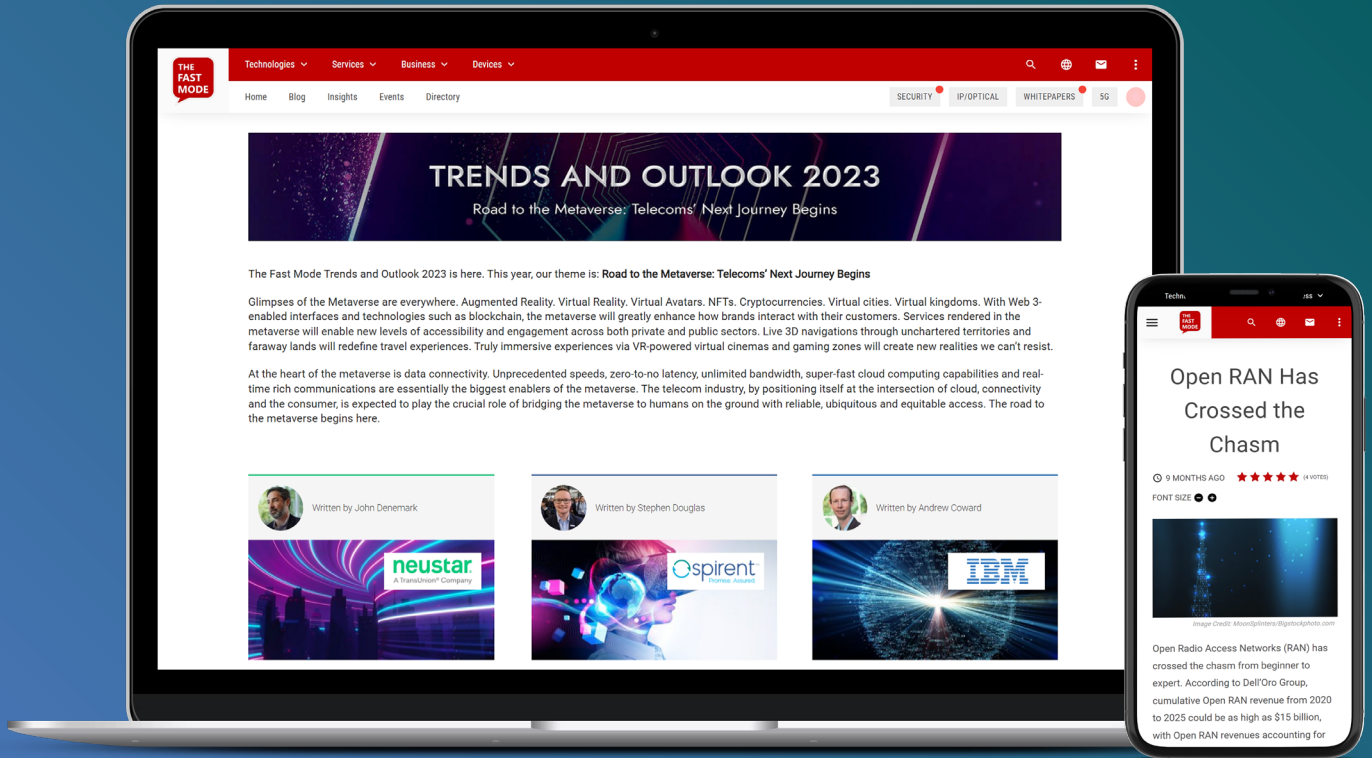
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WEB VERSION



DIGITAL VERSION

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THE FAST MODE

ROAD TO THE METAVERSE

TELECOMS' NEXT JOURNEY BEGINS

Predictions from **48** leading telecom tech companies on the metaverse, 5G, the cloud, network security, artificial intelligence, sustainability and more

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METAVERSE

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THE ROAD TO THE METAVERSE: 3 'POTHOLES' THAT COULD SLOW PROGRESS

Written by John Denenakis, Senior Vice President and General Manager, Carrier Provisioning, Neustar, a TransUnion company

The Metaverse won't just be about wearing VR goggles while our legless avatars play online games. It's much bigger than that. The Metaverse will become the next iteration of the Internet - what's being referred to as Web3.0. And just like the current Internet, it's not a single company or product.

It will impact everything, and take decades to evolve, leading to innovation in areas we can't yet fully imagine. The immense power behind it will allow us to blur the boundaries between today's physical and digital worlds.

But what will it take to get there? Do communication service providers (CSPs) have what it takes to become a full participant in the metaverse? I'd like to highlight three areas that, if we're not careful, could become 'potholes' along the way.

#1: THE METAVERSE REQUIRES AN ECOSYSTEM OF INNOVATORS

Consumers won't be the only ones who will benefit. Enterprises will likely be the heaviest users of the Metaverse, depending on it for AI and industrial manufacturing processes through applications built around augmented reality and the concepts like digital twins and blockchain.

To drive demand for the new data speeds that 5G, 6G and Web3.0 will enable, some CSPs have already begun providing ways to attract an ecosystem of innovators by allowing them to test out new services and applications.

The Telefonica Metaverse Innovation Hub in Madrid hosts a 5G laboratory that provides an end-to-end testbed built on Meta and Telefonica's network infrastructure and equipment. Microsoft, Verizon, SK Telecom, and others have all built platforms that work towards combining the digital world with real-life environments.

According to Marty Resnick, research vice president at Gartner, "Enterprises will have the ability to expand and enhance their business models in unprecedented ways by moving from a digital business to a metaverse business. By 2026, 30% of the organizations in the world will have products and services ready for metaverse."

Laying the groundwork for innovation is critical, but what else will it take to get there?

Do we really have the business processes in place to create the future world we all envision? And how will we work with hundreds, or possibly thousands, of partners in the seamless way future services will require?

#2: OUTDATED BUSINESS PROCESSES HAMPERING PROGRESS

The Metaverse will be powered by network connectivity that seamlessly flows across an entire ecosystem of endpoints, applications, technologies, data centers, service providers, and consumers. But no single operator can offer connectivity everywhere. Delivering service to these 'off-net' locations should be a frictionless process of leasing network circuits from other operators. But that's not happening today.

Seemingly simple - but critical - functions, like the way carriers buy and sell network services from each other, are horribly outdated.

Today, if a company wants to open a new branch office or factory, it can take weeks - or even months - to get them online, especially if the new office is located outside of their operator's network footprint.

That's because all the behind-the-scenes commerce that happens between service providers: the circuit orders, inventory, workflows, contracts, payments, SLAs and KPIs - are all currently being managed in an ad-hoc way, often through separate siloed systems, phone calls and emails. Mistakes happen. Orders get delayed. Productivity is impacted - and enterprise customers get irate.

#3: INTER-CARRIER COLLABORATION IS CRITICAL

Changing long-entrenched processes requires fundamental shifts in how networks are architected and deployed, which in turn will mean a huge industry-wide collaboration spanning tech companies, mobile network operators, internet providers and everyone in between.

“Today, if a company wants to open a new branch office or factory, it can take weeks - or even months - to get them online, especially if the new office is located outside of their operator's network footprint.”

125,000+

annual
visitors

10

consecutive
years

750,000+

total article
views

300+

industry influencers
and thought leaders

250+

featured
companies

380+

cumulative
articles

1,100+

cumulative
predictions

2,000+

average views per
article

15,000+

highest per
article views

WEB+

digital versions

HOTTEST

and
latest topics

MOST READ

prediction series
in telecoms

SUBMISSION GUIDELINES

Past submission

1. Content must be original and exclusive
2. Article must be accompanied by a title
3. The article should discuss 3-6 predictions with each prediction presented with a SUBTITLE
4. The article must be written in a continuous form, with appropriate paragraph lengths
5. The article length must be within 800 - 1200 words
6. The article must be accompanied by:
 - a. Author's full name
 - b. Author's position
 - c. Author's 50-word bio
 - d. Author's hi-res headshot
 - e. 50-word description of organization
 - f. Organization logo
7. Inclusion of direct links to organization's website and/or insertion of banners are available for selected plans. Please see the rest of the brochure.

Be on the Lookout: Here Are the Networking and Telecommunications Trends That Define 2023

9 MONTHS AGO ANDREW COWARD ★★★★★ (1 VOTE) COMMENT FONT SIZE 6.2 MIN READ



If 2022 was all about large-scale 5G deployments and mass adoption of 5G handsets, what will 2023 bring to our industry?

A precipitous drop in the price of 5G chips and enhancements in 5G technology will begin to unlock use cases promised, but not previously delivered. *Here are five trends IBM expects to see in the year ahead, along one highly anticipated trend we believe won't happen in 2023.*

#1: AN EMERGENCE OF 5G IOT

Cellular Internet of Things (IoT) is nothing new, for years, low-bandwidth chips have been facilitating the connection of sensors for smart networks in applications such as industry and smart cities. In fact, the phaseout of 2G networks has been hindered by the reality that perhaps billions of devices are still in use for low bandwidth and low cost IoT purposes.

The price of a 5G chipset in 2022 hovered around \$40. For the most part, this kept the cost of 5G consumer smartphones above \$300. In 2023, we expect to see the cost of the 5G chipsets cut in half. The effect of this cut will lead to a majority of smartphones being shipped with 5G by the end of 2023, but more importantly, enables a much larger ecosystem of connected things to become practical, along with much lower power consumption. Aside from making 5G handsets much more affordable, the new chips are likely to be embedded in a new generation of IoT devices, with higher bandwidth endpoints making a greater degree of connectivity and telemetry possible.

#2: CONTINUED GROWTH OF FIXED WIRELESS ACCESS

While many of us who live in large cities take high-speed internet access for granted, many rural areas and villages lack the fiber infrastructure to enable the degree of bandwidth required to participate in today's world of education, business, and entertainment.

Fixed mobile access will continue to bridge this digital divide in 2023. Rather than running DSL or fiber to remote locations, consumers can install a device connected by 5G from a mobile carrier that provides high-speed internet to the home. Verizon and T-Mobile have been competing in their efforts to bring this connectivity to more locations throughout the United States, and this will continue a rapid growth path throughout 2023.

#3: THE INVESTMENT IN EDGE COMPUTING WILL ONLY INCREASE

The cloud has dominated the conversation around computing and data for some time, but edge computing is emerging as a major player in network architecture and data storage. As 5G networks reach higher levels of deployment, telcos have been rolling out mobile edge computing farms that bring the power of cloud processing closer to its users. In return, this reduces latency for higher performance, while increasing resilience. In 2023, look to telcos to lean heavily into expanding their services around the edge for enterprises as this architecture becomes much more pervasive around the world.

#4: WE'LL SEE AN INCREASED DEMAND FOR PRIVATE 5G

While ORAN received lots of hype and attention going into 2022, its adoption ultimately did not meet deployment expectations, which is a trend we expect to continue into 2023 as telcos spurn ORAN in favor of mainstream 5G vendors.

Not stuck on the starting line is private 5G, where adoption on campuses, factory floors, warehouses, ports and mining will move out of the pilot stage, into deployment. Driving these use cases are industries where high resiliency of service and network stability are critical, and any down-time in the network has large financial repercussions.

There will be an overlap in both technologies and coverage between telco/public 5G and private 5G as devices leave the factory enabled for public 5G (for initial setup) and will then be "adopted" into a private 5G network.

Couple this move with reduced 5G chipset costs, and we can see how more robots, industrial machinery, retail and office equipment will likely ship out of the factory 5G enabled.

#5: THERE WILL BE A NEW WAY TO MANAGE NETWORK POLICIES

If our industry has largely solved the challenge of "let's connect everything to everything else", this has given rise to a concurrent concern: how to manage and regulate the connections we've built. For regulated industries like banking, it's critical to have a tight handle on the way traffic flows. The move most enterprises have made to operate their systems in multiple public and private clouds has compounded this issue. In fact, network policy and compliance are so rigidly interconnected today, that it's throttling the ability of regulated industries to innovate and scale. Expect to see new multi-cloud policy management solutions from many network vendors as they compete for what we're calling SDN 3.0.

#6: THE METAVERSE? NOT YET FOR MANY IN TELECOMMUNICATIONS

The telco industry does not yet have a real understanding or working definition of the metaverse. While the metaverse's capabilities have emerged in other industries and devices, it's applications in telco are still unclear, which is why this trend won't likely pick up speed in 2023. Expect the continued delivery of yet more bandwidth which will go on to support not just the metaverse, but upcoming technologies such as smartphone holography.

tags: trends 2023, ibm, internet of things, chipsets, edge computing, private 5g, multi cloud, metaverse



Andrew Coward

Andrew Coward is General Manager of IBM Software Defined Networking. Andrew has over twenty five years' experience in telecommunications and networking, and has held executive management positions in Brocade, Juniper, Carrier IQ and Unisphere in network engineering, product management, strategy, sales and marketing. Prior to joining IBM, Andrew was CEO of Lumina Networks, an open-source networking vendor, focused on SDN solutions.

ENTRY TYPES - SUMMARY

Entry type	Standard	Tech special	Premium	Prime	Star
Cost	FREE	USD 650	USD 1,350	USD 4,900	USD 9,500
Article type	Free	Sponsored	Sponsored	Sponsored	Sponsored
Slots available	Unlimited	15	10	2	1

Web version	Publishing	✓	✓	✓	✓	✓
	Minimum reads	✗	1,500	2,000	4,000	5,000
	In-article banners	✗	728x90px	970x250px	970x250px	970x250px (2)
	In-article links	✗	1	2	3	4
	Minimum clicks	✗	100	200	500	1,000
	Article order	30th onwards	14th onwards	4-13th	2-3rd	1st
	Full width entry on main event page	✗	✗	✗	✓	✓
	Event page banners	✗	✗	400x150px	400x500px	400x500px

Digital (PDF) version	Publishing	✓	✓	✓	✓	✓
	Co-branding	✗	✗	✗	✗	✓
	Logo in featured contributors list	✗	Under 'Tech Special'	Under 'Premium'	Under 'Prime'	Under 'Star'
	Banner advertising	✗	Quarter page	Half page	Full page	Double spread
	Article order	30th onwards	14th onwards	4-13th	2-3rd	1st

+ ADD ONS

Advertorial	Writing+editing+publishing of a 900-word article; Direct solution/brand mention; 2 backlinks; Banner insertion (970x250px); Socmed and newsletter (40k recipients) promotion	USD 1150
Podcast	Online interview+recording+publishing of a 40-minute podcast; Inclusion in Spotify, Google and Apple Podcasts; Direct solution/brand mention; Socmed and newsletter (40k recipients) promotion	USD 350
Videocast	Online interview+recording+publishing of a 40-minute videocast; Direct solution/brand mention; Socmed and newsletter (40k recipients) promotion	USD 1100

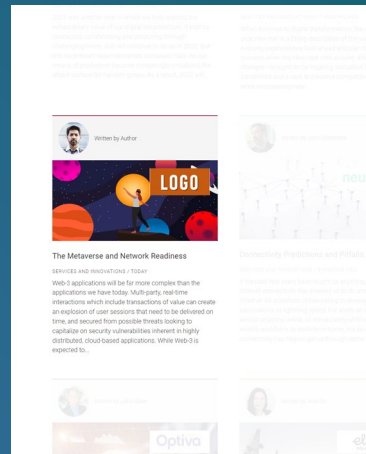
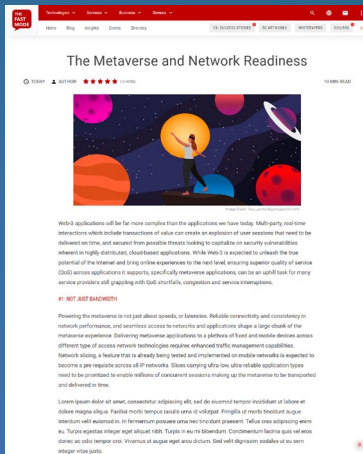
STANDARD ENTRY

Unlimited slots | FREE

► Publishing of full article on The Fast Mode

► Publishing in The Fast Mode's Trends and Outlook 2024 event page featuring a short excerpt, logo and author headshot

Web version



► Publishing of full article in an exclusive digital issue distributed to 60,000+ recipients

Digital (PDF) version

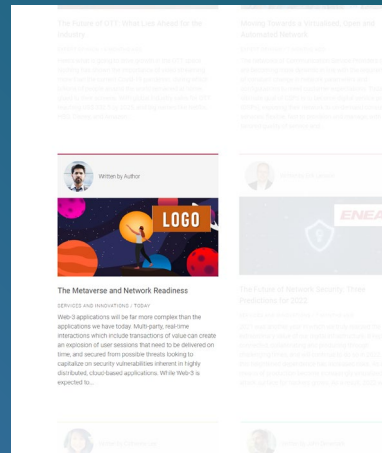
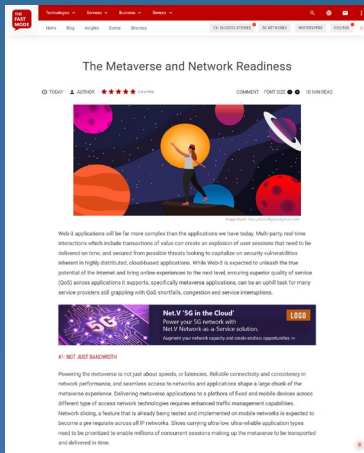


TECH SPECIAL ENTRY

Unlimited slots | USD 650

Web version

- ▶ Publishing of full article on The Fast Mode with a minimum of 1500 reads / views
- ▶ A clickable ad banner of 728px x 90px in article body with 1500 banner impressions
- ▶ Guaranteed 100 clicks to sponsor site
- ▶ 1 sponsor link in article body



Digital (PDF) version

- ▶ Publishing of full article in an exclusive digital issue distributed to 60,000+ recipients
- ▶ Quarter page clickable ad (quarter A4)
- ▶ Clickable logo in 'Tech Special' listing on Featured Contributors page

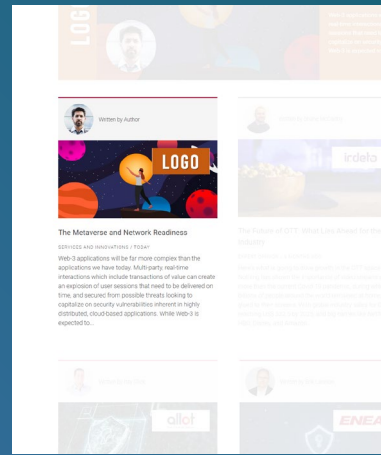
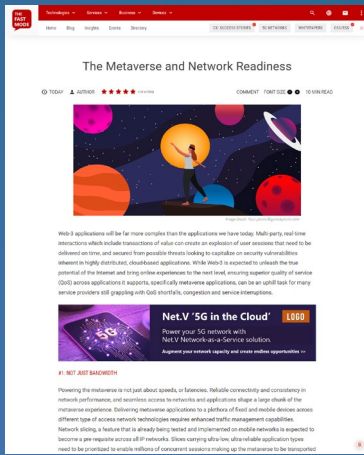


PREMIUM ENTRY

10 slots | USD 1,350

Web version

- ▶ Publishing of full article on The Fast Mode with a minimum of 2000 reads / views
- ▶ A clickable ad banner of 970px x 250px in article body with 2000 banner impressions
- ▶ Guaranteed 200 clicks to sponsor site
- ▶ 2 sponsor links in article body
- ▶ Publishing in The Fast Mode's Trends and Outlook 2024 event page featuring a short excerpt, logo and author headshot ('Premium' slots)
- ▶ A clickable ad banner of 400px x 150px on the Trends and Outlook 2024 event page



Digital (PDF) version

- ▶ Publishing of full article in 'Premium' slots (after 'Prime' entries) in an exclusive digital issue distributed to 60,000+ recipients
- ▶ Half page clickable ad (half A4)
- ▶ Clickable logo in 'Premium' listing on Featured Contributors page

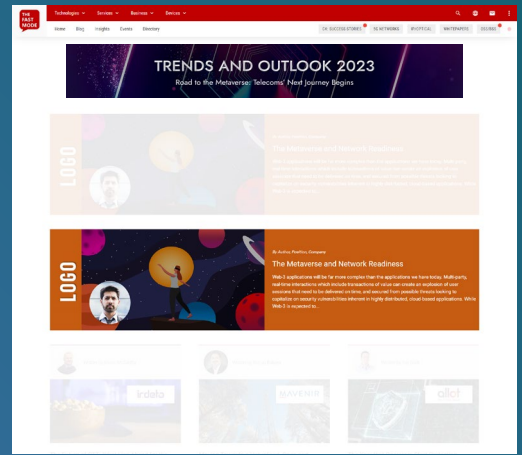
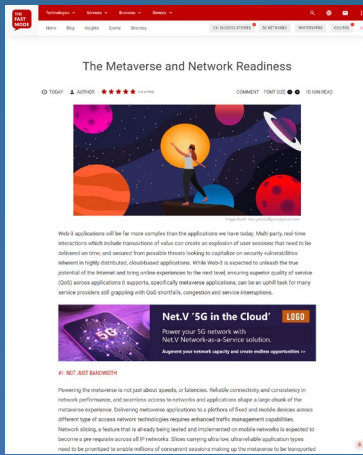


PRIME ENTRY

2 slots | USD 4,900

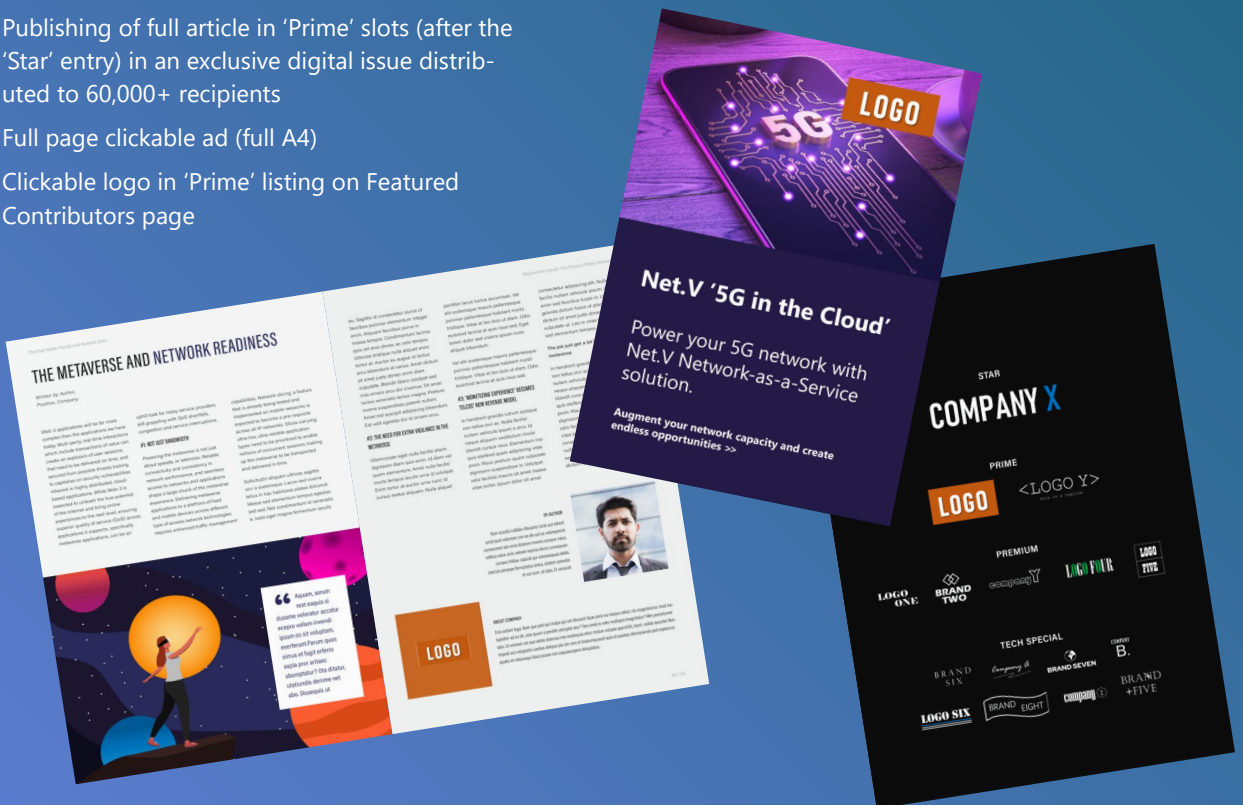
Web version

- ▶ Publishing of full article on The Fast Mode with a minimum of 4000 reads / views
- ▶ A clickable ad banner of 970px x 250px in article body with 4000 banner impressions
- ▶ Guaranteed 400 clicks to sponsor site
- ▶ 3 sponsor links in article body
- ▶ Publishing in The Fast Mode's Trends and Outlook 2024 event page featuring a full width excerpt, logo and author headshot (2nd / 3rd slot)
- ▶ A clickable ad banner of 400px x 500px on the Trends and Outlook 2024 event page



Digital (PDF) version

- ▶ Publishing of full article in 'Prime' slots (after the 'Star' entry) in an exclusive digital issue distributed to 60,000+ recipients
- ▶ Full page clickable ad (full A4)
- ▶ Clickable logo in 'Prime' listing on Featured Contributors page

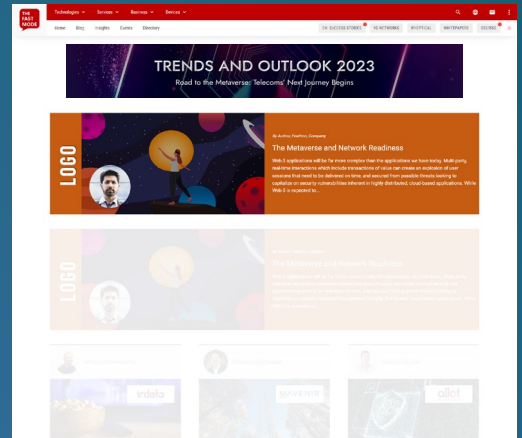
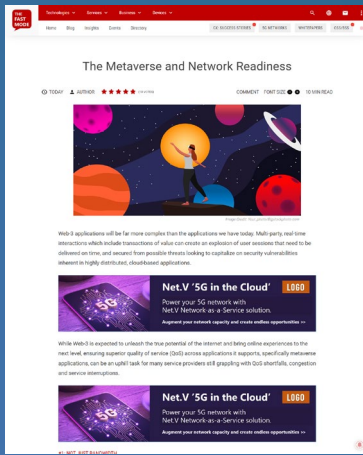


STAR ENTRY

1 slot | USD 9,500

Web version

- ▶ Publishing of full article on The Fast Mode with a minimum of 5000 reads / views
- ▶ Two (2) clickable ad banners of 970px x 250px in article body with 5000 banner impressions each
- ▶ Guaranteed 1000 clicks to sponsor site
- ▶ 4 sponsor links in article body
- ▶ Publishing in The Fast Mode's Trends and Outlook 2024 event page featuring a full width excerpt, logo and author headshot (top most slot)
- ▶ A clickable ad banner of 400px x 500px on the Trends and Outlook 2024 event page



Digital (PDF) version

- ▶ Co-branding (cover page logo) and publishing of full article in 'Star' slot in an exclusive digital issue distributed to 60,000+ recipients
- ▶ Double spread clickable ad (two A4 pages)
- ▶ Clickable logo in 'Star' listing on Featured Contributors page

