MATRIXX® SOFTWARE

The Digital Dozen

B2B USE CASES

12

A Confluence of Change Agents

Why B2B digital use cases? Why now? Whether it's infusing digital value into existing use cases or creating new, innovative offerings, three key agents of change are driving the need:

1

2

3

The dash for growth With consumer markets flat or low growth, telco shareholder and C-level spotlights are expectantly shining on enterprise lines of business for revenue AND margin growth.
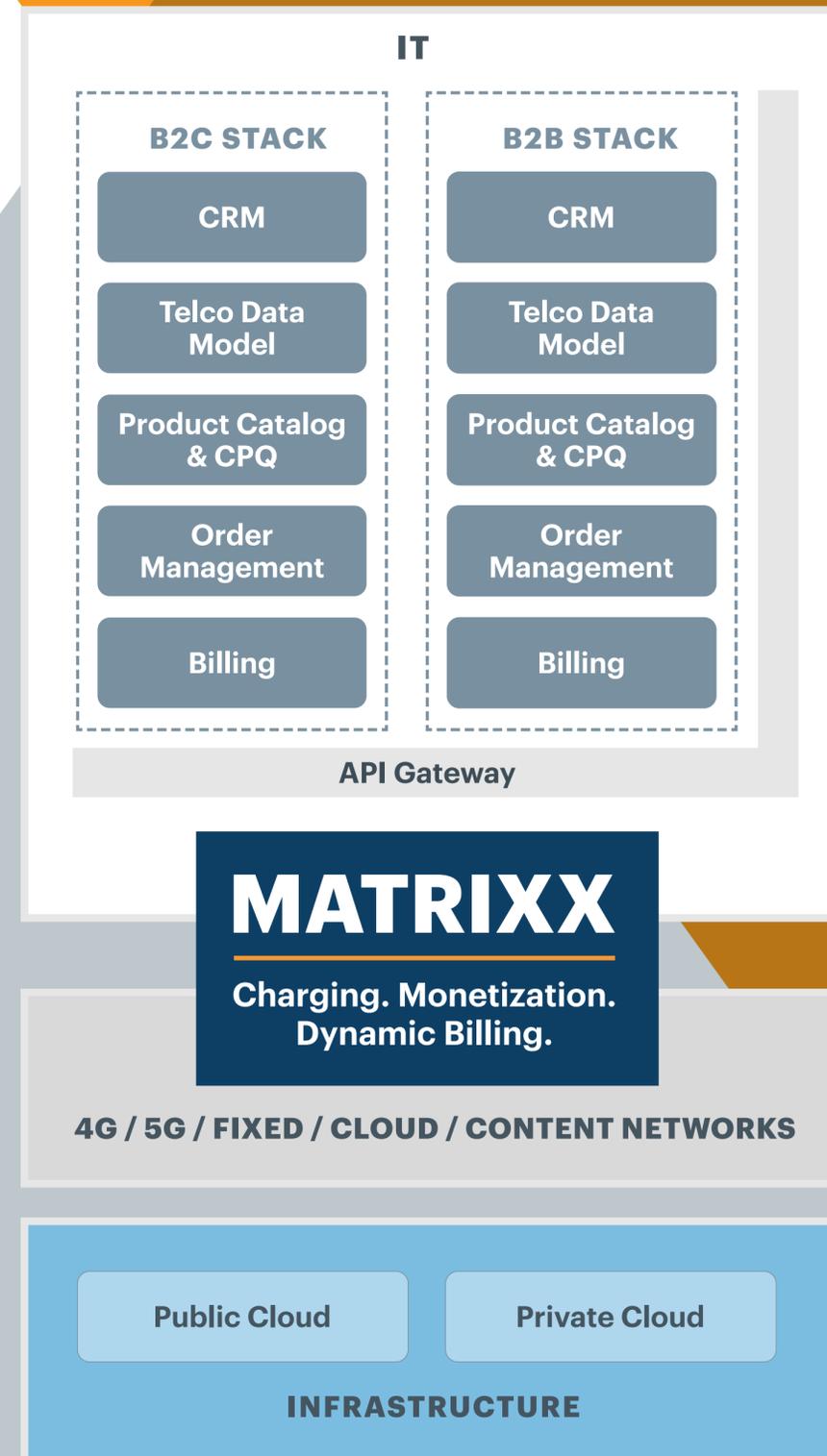
The drive to digital The pandemic acceleration of digital adoption is as real in B2B as it is in B2C environments. Digital is now the primary, default option for B2B ICT service delivery.

Dynamic monetization @scale Delivering feature rich, real-time digital monetization is now achievable at enterprise wide scale and resiliency.

Dynamic Monetization @Scale

Move over legacy, real-time enterprise monetization is here!

Dynamic monetization @scale is the USP of the MATRIXX Dynamic Billing solution, a converged charging and billing system with a rich array of business segment and payment model capabilities. Those capabilities enable it to take the role of the real-time monetization engine at the heart of the enterprise BSS stack, serving all enterprise segments and use cases and becoming the anchor for service delivery via a real-time digital marketplace.

IT

B2C STACK	B2B STACK
CRM	CRM
Telco Data Model	Telco Data Model
Product Catalog & CPQ	Product Catalog & CPQ
Order Management	Order Management
Billing	Billing

API Gateway

MATRIXX
Charging. Monetization.
Dynamic Billing.

4G / 5G / FIXED / CLOUD / CONTENT NETWORKS

Public Cloud	Private Cloud

INFRASTRUCTURE

Business Models and Pricing Schemes

The current post-paid, regular bill cycle model for telco enterprise ICT services has peaked in terms of its effectiveness in an increasingly competitive and dynamic market. Static, revenue collection models offer zero market differentiation and will hold telcos back from delivering sustainable growth.

Dynamic monetization is geared towards delivering flexible and adaptable revenue generating models that can be instantiated in hours, not months.

Competitiveness addressed.
Time-to-market solved.

FIXED/MOBILE CONVERGENCE
BLOCK LIST / ALLOW LIST
NHN REVENUE SHARE
PRIVATE SLICE SLA
OUTCOME/SLA
API CALLS
ROAMING
QOS

DYNAMIC RATING AND CHARGING
GROUP SHARING
B2B2X
APPLICATION UTILIZATION
CLOUD BROKERAGE
EDGE UTILIZATION
NETWORK SLICE UTILIZATION
NETWORK LOADING
SPEED TIERING
LOCATION ID
DATA VOLUME
INFRASTRUCTURE UTILIZATION
SPONSORED DATA
DEVICE CAPACITY
DYNAMIC RATING & CHARGING
REVENUE SHARING & SETTLEMENT
WHOLESALE/MVNO FACTORIES

Game-Changing Experience

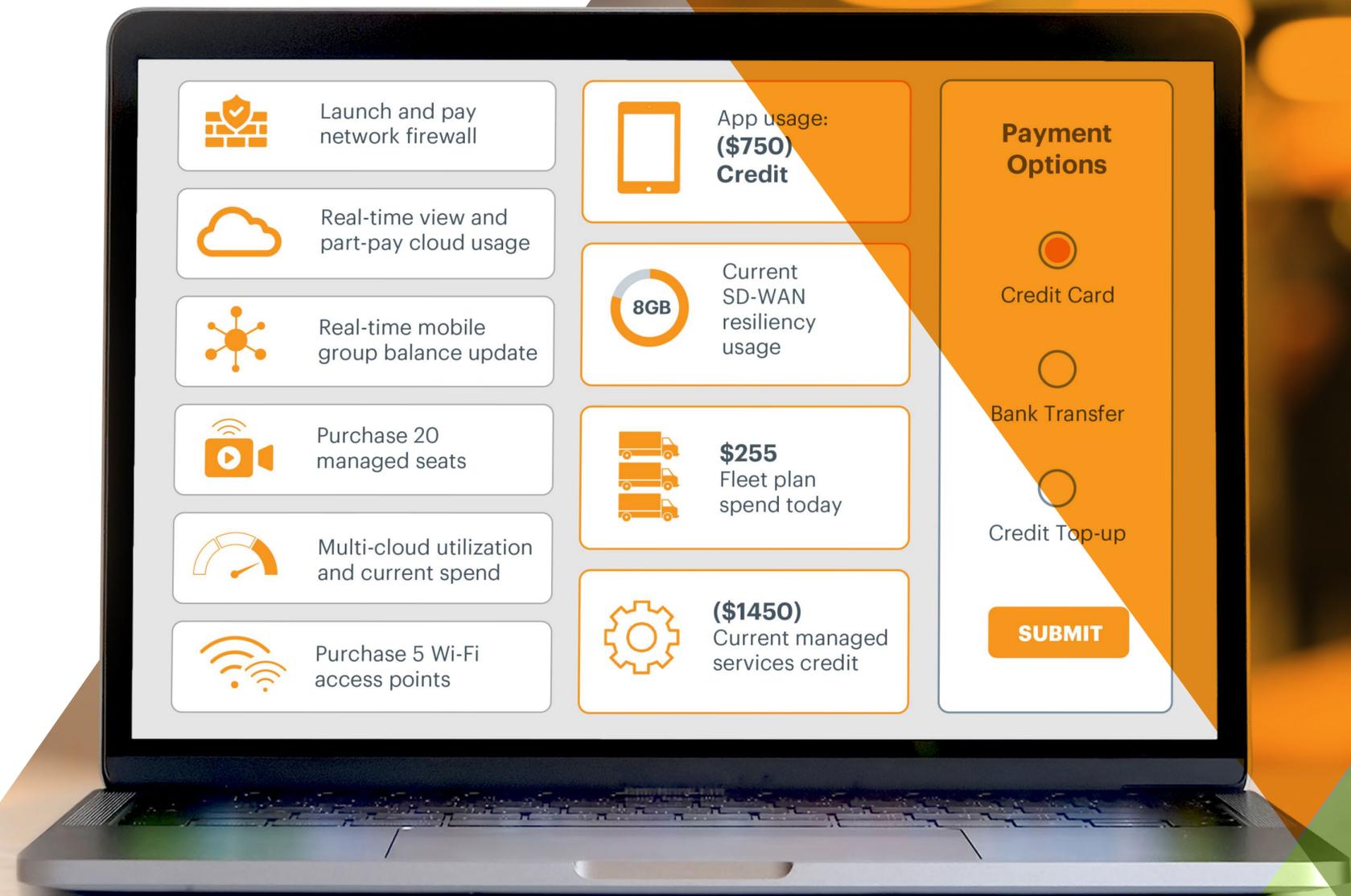## The value of a dynamic monetization approach:

THE VALUE FOR ENTERPRISES

Informed business decision making

- Enabled by commercial transparency, accuracy and self-help control
- Exercised through real-time spend control, real-time utilization management and flexible payment terms, including third-party offers
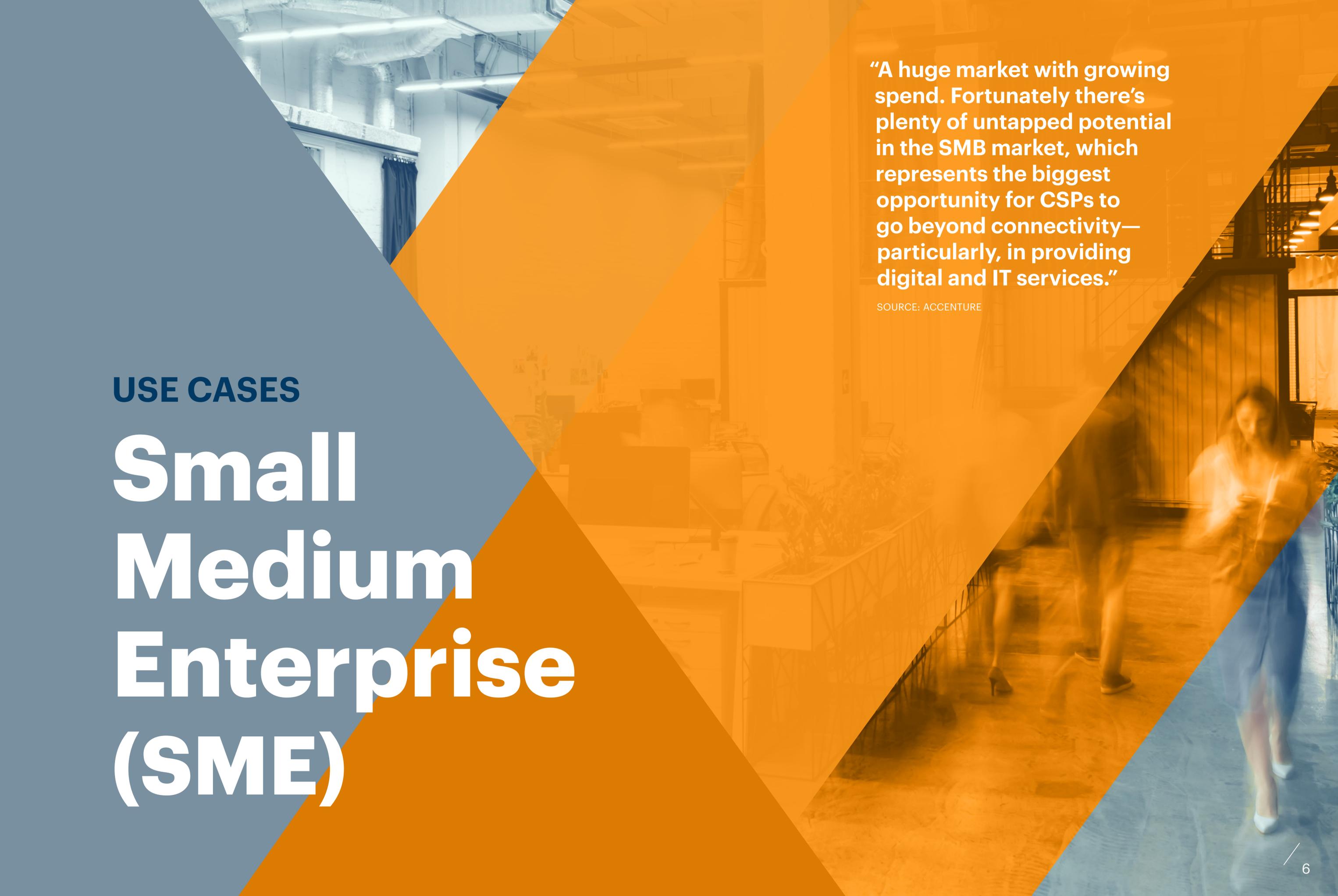- Delivered across the entire portfolio of fixed, mobile, cloud and content services

THE VALUE FOR TELCOS

Breakthrough portfolio economics

- Increased service lifecycle spend
- Massively reduced cost-to-serve
- Improved cash flow and reduced bad debt risk

REAL-TIME SPEND CONTROL

FLEXIBLE PAYMENTS

PARTNERED CONTENT

TRANSPARENCY AND ACCURACY

REAL-TIME UTILIZATION MANAGEMENT

Launch and pay network firewall

Real-time view and part-pay cloud usage

Real-time mobile group balance update

Purchase 20 managed seats

Multi-cloud utilization and current spend

Purchase 5 Wi-Fi access points

App usage: ($750) Credit

8GB Current SD-WAN resiliency usage

$255 Fleet plan spend today

($1450) Current managed services credit

Payment Options

Credit Card

Bank Transfer

Credit Top-up

SUBMIT

THE DIGITAL MARKETPLACE: A true experience game-changer for enterprises of all sizes.

USE CASES

Small Medium Enterprise (SME)

Dynamic Bundling and Outcome-Based Pricing

Traditional bundling approaches are margin dilutive and an example of static revenue collection. **Combining "build your own bundle" approaches with outcome-based pricing offers a more dynamic, transparent, revenue generating opportunity.** Outcome-based pricing removes the complexity of technology positioning and introduces offers based on business outcomes, such as improved productivity, compliance and hybrid working guarantees.

The digital marketplace is the key point of integration for delivering that differentiated combination of real-time monetization, outcome-based pricing and user self-help.

Cloud

Mobile

Applications

Fixed
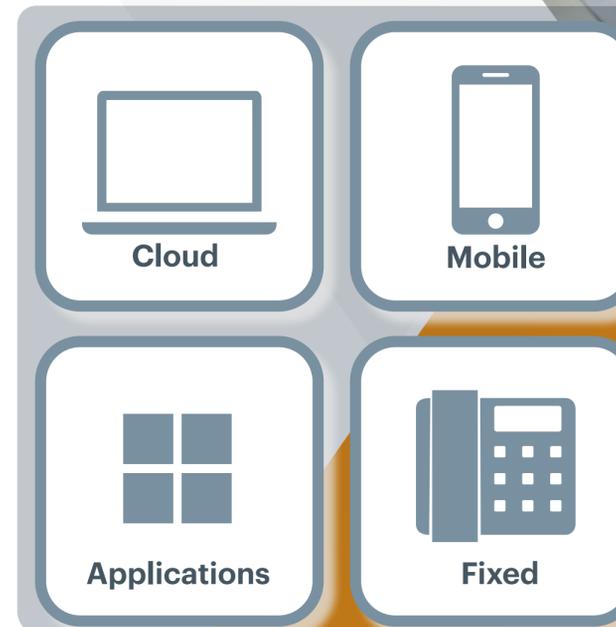
Margins

Revenues

ASSURED OUTCOME BASED INSIGHTS

DIY BUNDLE CREATION AND ADDITIONS

SELF-HELP EXPERIENCE

REAL-TIME SPEND ANALYSIS AND CONTROL

Digital Marketplace App

Real-time view and part-pay cloud usage

Enterprise Group Sharing

Self-help, real-time control and management of service spend and utilization lies at the heart of a game-changing enterprise experience.

Enabling informed business decision making by providing real-time control of spend levels and utilization for mobile, fixed broadband and SD-WAN, voice, cloud storage and software application services is highly value accretive. Self-help enabling the sharing or pooling of quota and spend across the enterprise structure and hierarchy is the foundation for trust, advocacy and increased lifecycle spend.

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Digital Marketplace App

Real-time view
and part-pay
cloud usage

Top Level SME

| Mobile | 985 GB |
| Cloud | 2TB |

Sales

| Mobile | 585 GB |
| Cloud | 0.5 TB |

Manufacturing

| Mobile | 200 GB |
| Cloud | 1 TB |

Admin

| Mobile | 200 GB |
| Cloud | 0.5 TB |

Real-Time IoT Utilization

IoT devices are business-critical for a growing number of SMEs, particularly in transportation, agriculture and manufacturing verticals.

Delivering accurate, up-to-the-second insights on spend, utilization, performance and geo-location across a scalable and geographically diverse set of things ensures a combination of commercial efficiency and accuracy, delivering key operational benefits to both the SME and telco.

Real-Time Fleet Monitoring

Data Rate	Cell ID	Policy
0-500 KB	Known	Allow
500-1024 KB	Known	Monitor
1024 - 2048 KB	Known	Report
>2048 KB	Known	Overage
Any	Unknown	Deny

Geo-Fenced Service Restriction

Service Denied

Service Allowed

Real-Time Production Line SLA Adherence

Robot D throughput threshold breached. Reported.

50%

Throughput	Policy Result
0-20 Mpbs	Normal
20-40 Mbps	Alert
>40 Mbps	Report

Digital Marketplace App

$255
Fleet plan spend today

Fixed Network Dynamic Insights

Broadband and SD-WAN VPN are foundational SME portfolio offerings.

Whether it's providing real-time application utilization insights, monitoring and monetizing the delivery of QoS policy for those applications, combining cloud storage and compute utilization or mobile backup monitoring and spend control, enhancing the digital marketplace offering through integrating fixed network spend and utilization control is critical.

Cloud Utilization

Compute Network Storage

SD-WAN Mobile Utilization

8GB

Application Usage

100%

Video Conferencing

Security

Office Productivity

Digital Marketplace App

App usage:
**($750)
Credit**

SD-WAN
vCPE
Router

SD-WAN

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"CSPs will need to embrace an agile architecture-centric design for future systems that emphasises flexible, scalable, configurable and extendible frameworks to support dynamic commercial models and as yet unseen use cases."

USE CASES

Large Enterprise
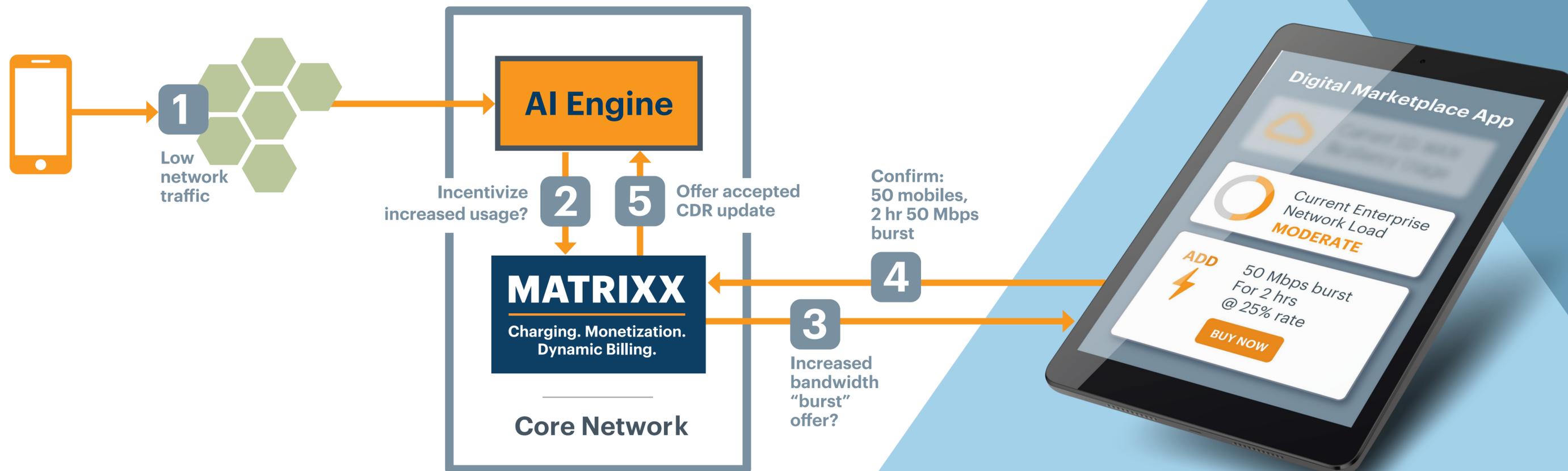
Multi-Cloud Brokerage

Even in today's pay-as-you-use, consumption-oriented cloud model, cloud bill shock for enterprises remains a real challenge.

Delivering up-to-the-second, accurate spend and utilization insights across cloud storage, compute and network utilization — whether for an in-house cloud service or a third-party multi-cloud brokerage offering, not only adds significant value to the digital marketplace offering, it removes a key pain point for enterprises.

Provider 1

Provider 2

Digital Marketplace

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Current Cloud Utilization

	Compute	Network	Storage
Provider 1			
Provider 2			
TOTAL			

Digital Marketplace App

Real-time view and part-pay cloud usage

Dynamic Bandwidth-On-Demand

Offering enhanced throughput or dynamic burst capabilities, charged at lower rates to the normal traffic profile and offered at times of reduced, prevailing network load, is a key example of an AI-assisted use case. Delivering transparent evidence and proof of that via the digital marketplace closes the service level agreement compliance loop. All undertaken in real-time.

1 Low network traffic

AI Engine

Incentivize increased usage? **2**

5 Offer accepted CDR update

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3 Increased bandwidth "burst" offer?

4

Confirm:
50 mobiles,
2 hr 50 Mbps
burst

Digital Marketplace App

Current Enterprise
Network Load
MODERATE

ADD
50 Mbps burst
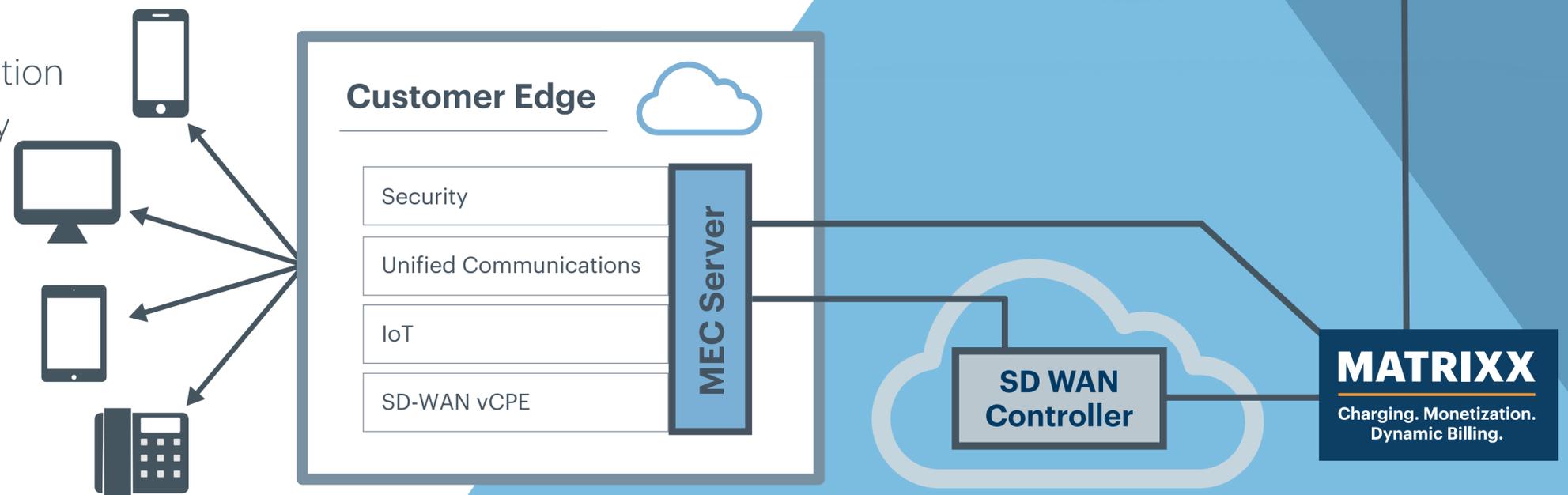For 2 hrs
@ 25% rate
BUY NOW

Edge Branch Offload

Edge computing services are becoming a key offering within the overall managed service portfolio, where a need for lower latency, privacy or traffic offload is required.

Competition from hyper scalers and private network players is fierce. Control of the edge is control of a large percentage of future enterprise spend.
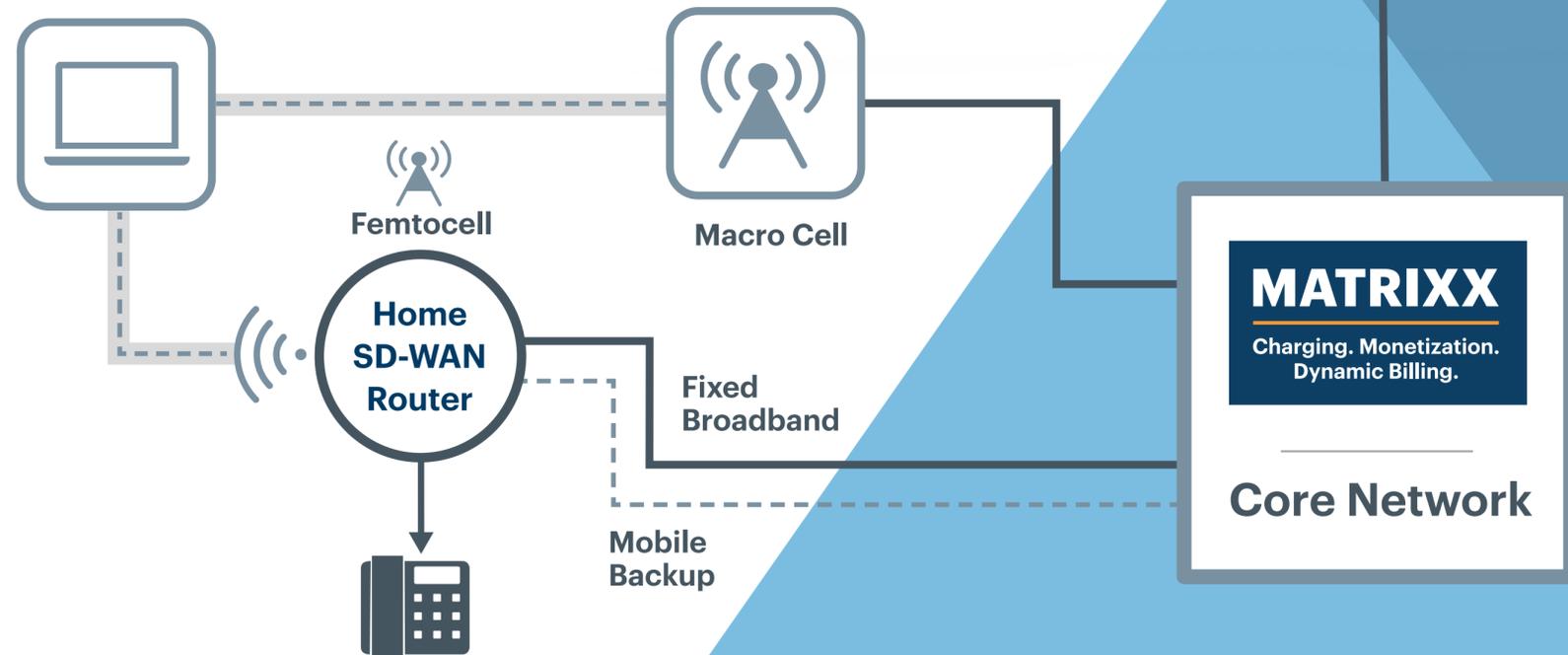
The ability to flexibly monetize the underlying compute and storage infrastructure, application level utilization, API calls, slice utilization or time of day usage, exemplify the dynamic nature of this developing environment.

Real-Time Edge View

Security
Unified Communications
IoT
100%

Customer Edge Cloud Utilization
Compute **Network** **Storage**

Mobile Back-Up Link Utilization
8GB

Customer Edge

| Security |
| Unified Communications |
| IoT |
| SD-WAN vCPE |

MEC Server

SD WAN Controller

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The Rise of the Hybrid Telecommuter

Pandemic-accelerated hybrid working is now an established reality. With this mode of work, and workers' need to transition seamlessly between home and office locations, comes the need to deliver the same functionality, performance, versatility and resiliency in both locations. Business model flexibility is enhanced by "always-on" mobile back-up, femtocells for improved coverage and eSIM-enabled laptops that create new monetization requirements for this growing user group.

Real-Time Telecommuter View

100%

Video Conferencing
Security
Office Productivity

SASE Real-Time Cloud Utilization

Compute   Network   Storage   Session

SD-WAN Real-Time Mobile Link Utilization   8GB

eSIM Laptop 4/5G

Femtocell

Macro Cell

Home SD-WAN Router

Fixed Broadband

Mobile Backup

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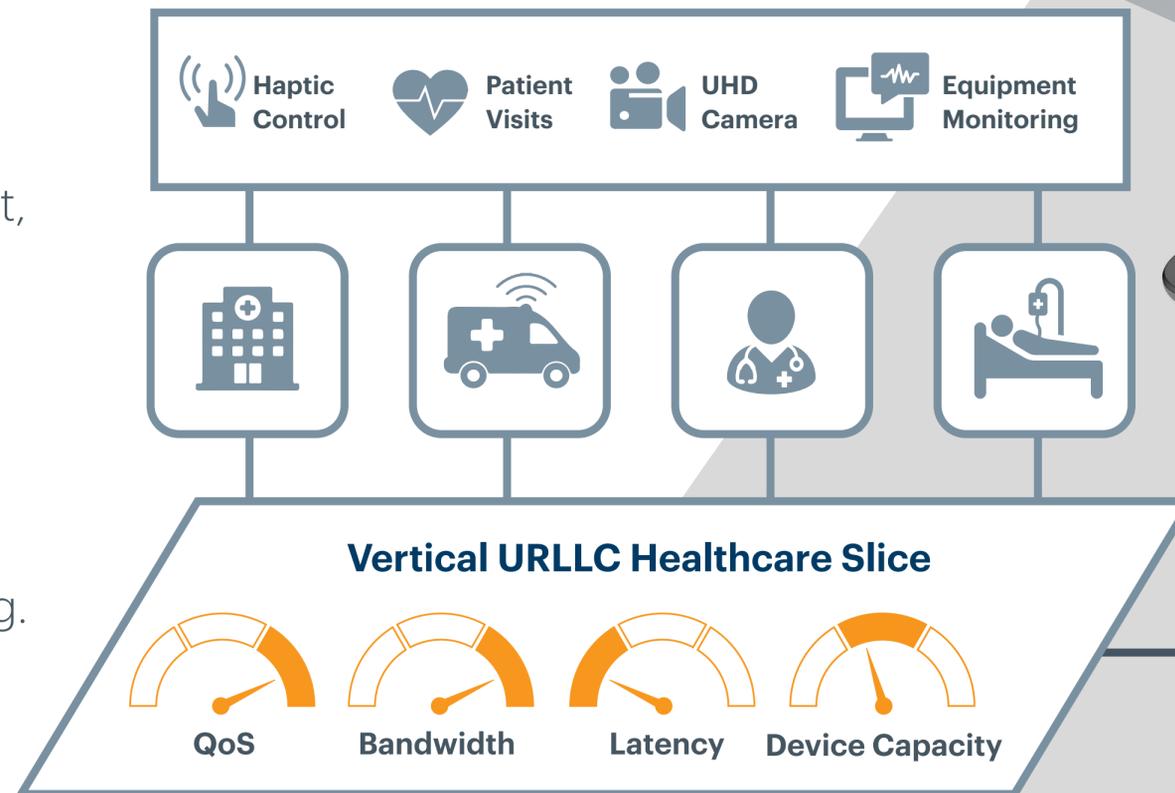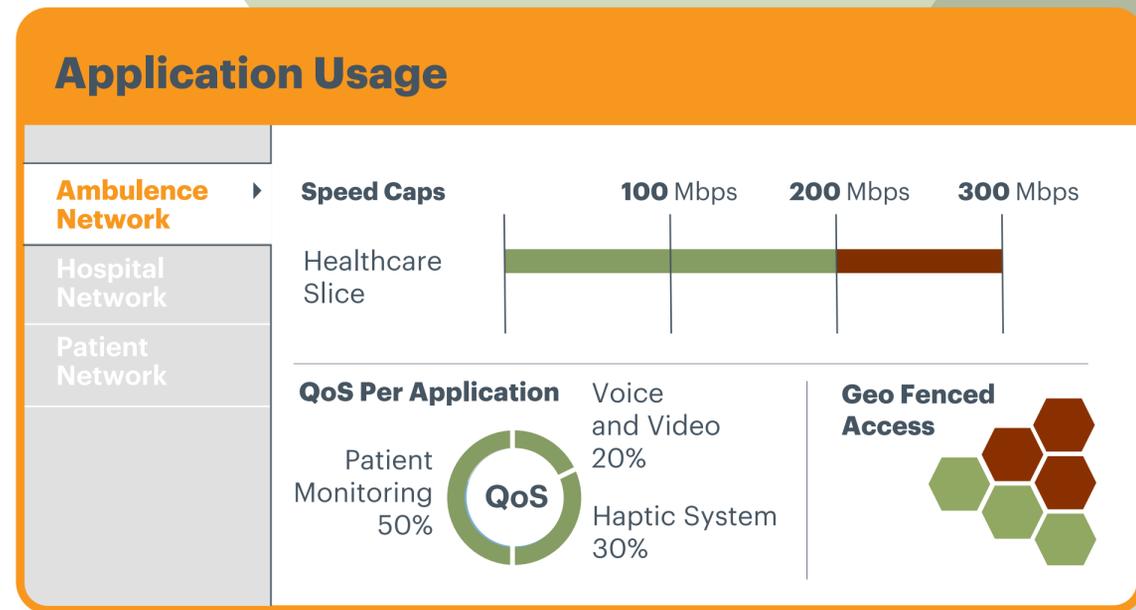Charging. Monetization.
Dynamic Billing.

Core Network

"Business customers need 5G. Many see it as a critical enabler for their own digital transformation. In other words, the hype extends beyond the telecoms industry – it's now a global political and business issue. But are communications service providers (CSPs) ready to seize the opportunity?"

SOURCE: TM FORUM

USE CASES

5G

5G Healthcare

5G's rich monetization levers make it an ideal mobile transport technology for a wide range of vertical industries and use cases. A prime example is healthcare. Within hospitals, a key driver will be devices that can operate securely and deterministically in a mobile context, making 5G and slicing critical. Within the ambulance network, being able to deliver reliable, secure high bandwidth, QoS-enabled services for patient monitoring and video or haptic engagement, will become a key part of the service offering. Finally, remote patient care capabilities again require similar high bandwidth, QoS-oriented service elements, monetized through speed tiering. data volume, sessions, devices, location ID and QoS SLAs.

Application Usage

Ambulence Network
Hospital Network
Patient Network

Speed Caps   100 Mbps   200 Mbps   300 Mbps

Healthcare Slice

QoS Per Application

Patient Monitoring 50%

QoS

Voice and Video 20%

Haptic System 30%

Geo Fenced Access

Haptic Control   **Patient Visits**   **UHD Camera**   **Equipment Monitoring**

Vertical URLLC Healthcare Slice

QoS   **Bandwidth**   **Latency**   **Device Capacity**

Digital Marketplace App

Healthcare Slice **65% THROUGHPUT**

Do you want a speed boost?
ADD   300 Mbps burst For 24 hrs
BUY NOW

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Multi-Mode Mobile VPN

Extending the enterprise portfolio with flexible mobile VPN services that can operate either in standalone mode or integrated with the fixed VPN network is a key incremental value add. 5G is unique in its ability to support multi-layered encapsulation, each with their own unique monetization needs.
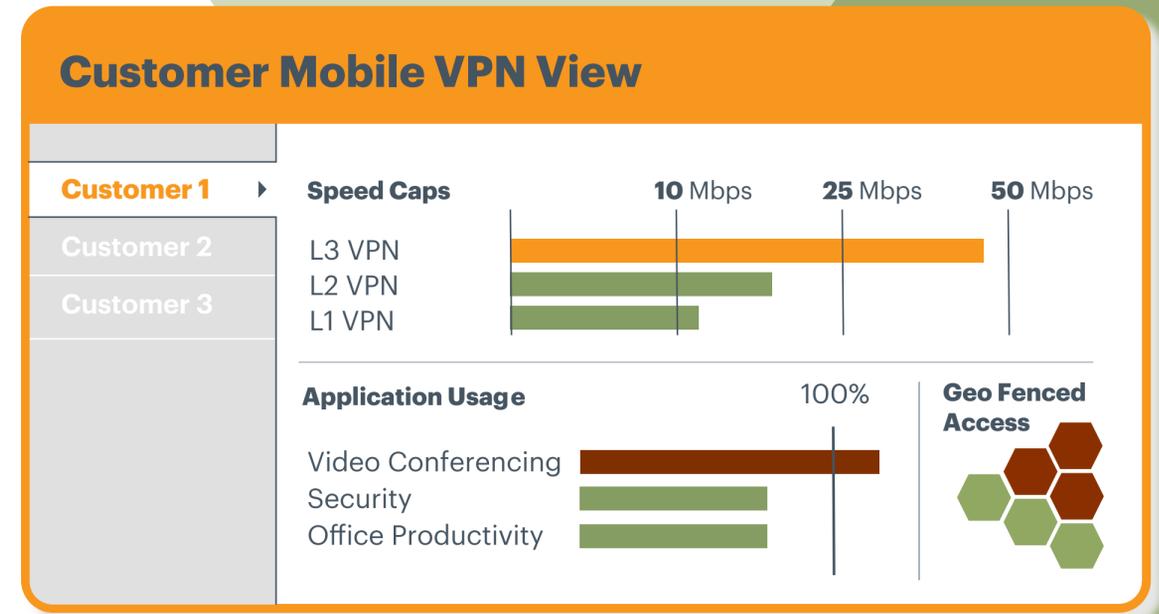
IP	Ethernet	Payload

LAYER 3 | Encapsulation for generic IP application deployment pan vertical. Monetized by application utilization.
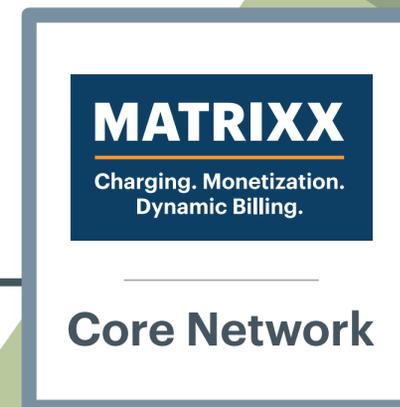
Ethernet	Payload

LAYER 2 | Encapsulation for non-IP devices and transparent LAN services, such as encryption. Monetized through QoS, Speed Tiers or Volume usage.

Payload

LAYER 1 | Encapsulation targeting media and TV networks where the transportation of 'raw' unformatted video from live location to production suite is key. Monetized by geo-location and data volume.
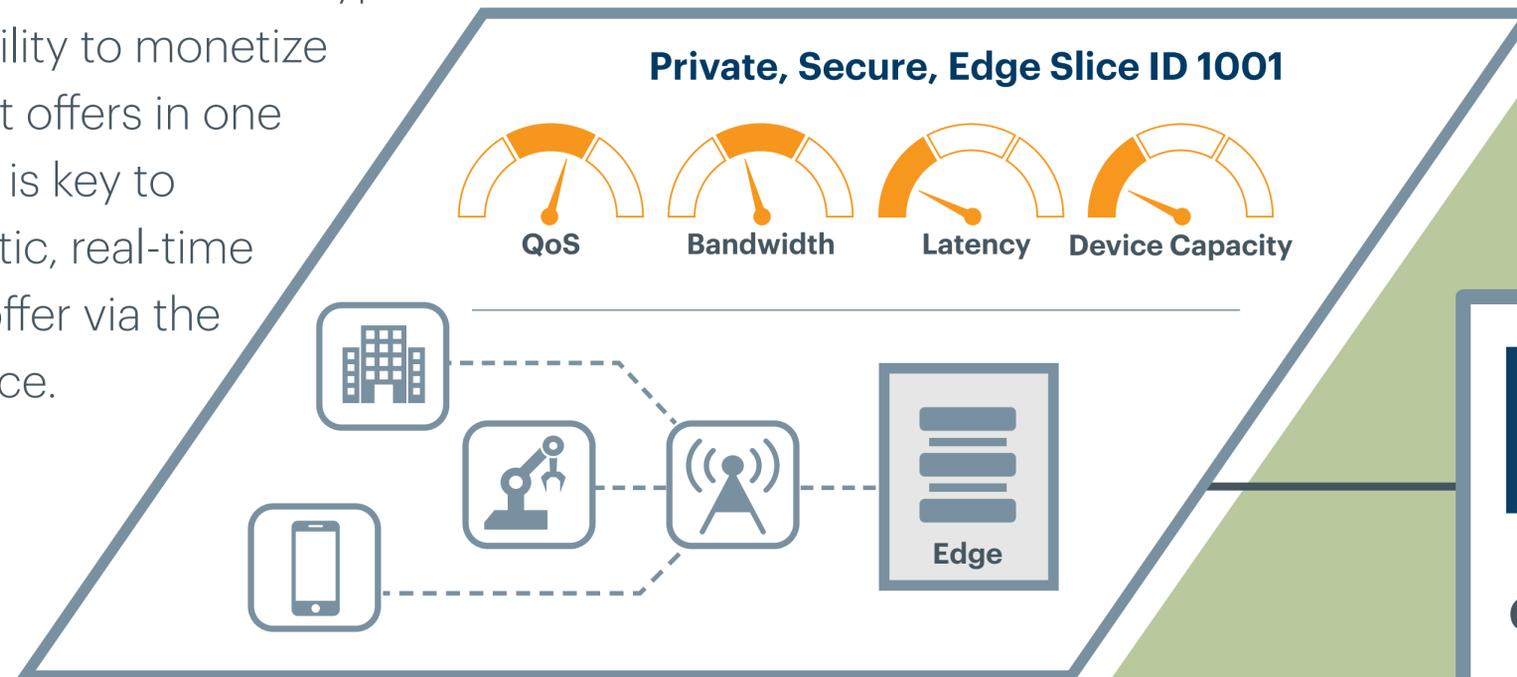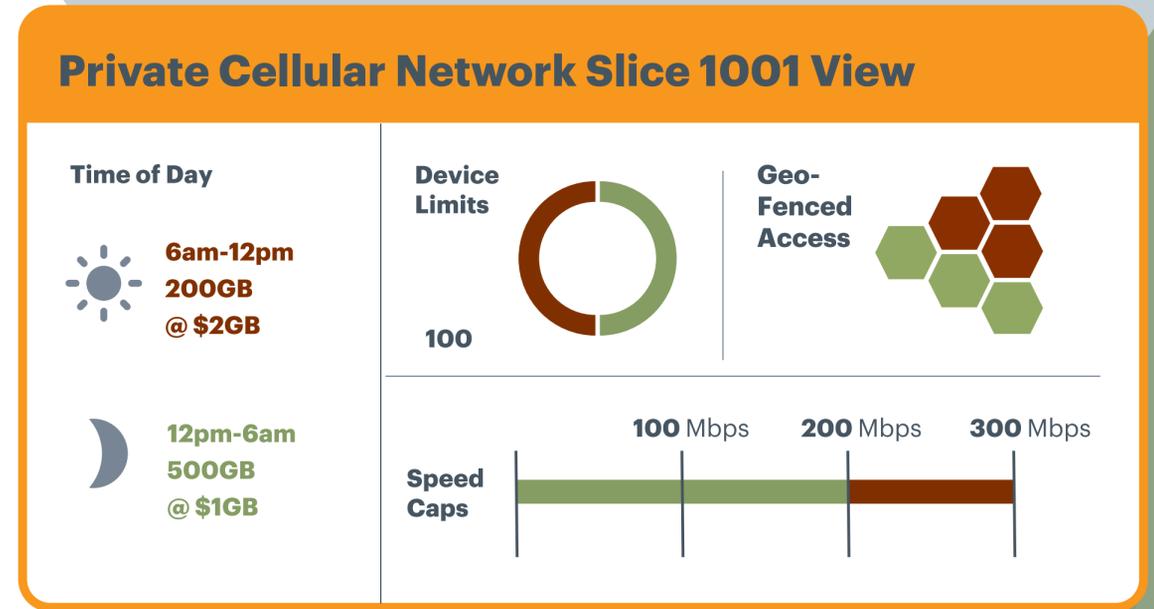
Customer Mobile VPN View

Customer 1 ▶

Customer 2

Customer 3

Speed Caps   **10** Mbps   **25** Mbps   **50** Mbps

L3 VPN
L2 VPN
L1 VPN

Application Usage   100%   **Geo Fenced Access**

Video Conferencing
Security
Office Productivity

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Core Network

SD WAN Controller

Digital Marketplace App

Current VPN Speed Cap **MAXIMIZED**

Do you want a speed boost?

ADD Additional VPN Layer

BUY NOW

Private Cellular Networks

Whether via the use of private spectrum such as the CBRS band in the US or via network slices off the public land mobile network, private cellular networking will become a significant contributor to overall revenue. Monetizing by slice instantiation and usage, geo-location, QoS and throughput, API calls plus integration with edge architectures such as Multi-Access Edge Computing (MEC) will be typical of this deployment. It is important to note that PCNs will not operate in isolation. In many cases, they will need to be integrated into existing fixed, Wi-Fi, SD-WAN or other network types.
Having the flexibility to monetize multiple segment offers in one platform at scale is key to delivering a holistic, real-time digital portfolio offer via the digital marketplace.
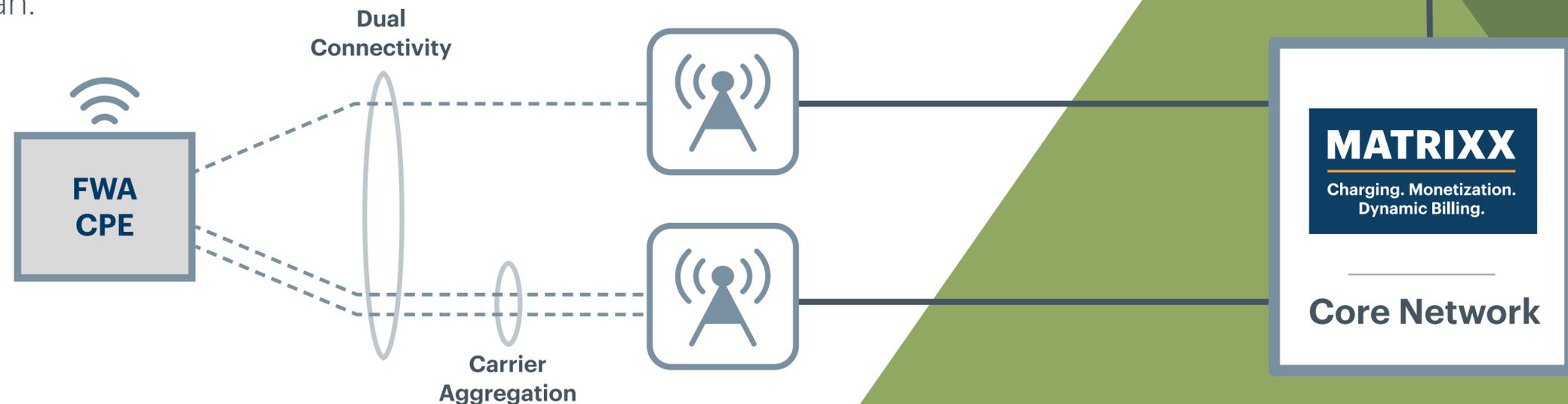
Private Cellular Network Slice 1001 View

Time of Day

☀ 6am-12pm
200GB
@ $2GB

☾ 12pm-6am
500GB
@ $1GB

Device Limits

100

Geo-Fenced Access

Speed Caps

100 Mbps   200 Mbps   300 Mbps

Private, Secure, Edge Slice ID 1001

QoS   Bandwidth   Latency   Device Capacity

Edge

Digital Marketplace App

PCN Device Limit **80%**

Do you want a storage boost?

ADD   Additional Capacity

BUY NOW

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Fixed Wireless Access

5G fixed wireless access will be a key element of service deployment for broadband-on-demand sites or those fixed locations out of commercial reach of copper or fiber broadband. Geo-location restrictions are key on the Fixed Wireless Access Customer Premises Equipment to prevent its usage as a generic mobile device. QoS utilization and monitoring for specific apps, speed tier monetization or overall data volume utilization, all integrated into a holistic digital marketplace view, provide the complete enterprise-wide view of the services in their commercial plan.

Fixed Wireless Access View

Geo-Fenced Service Restriction | Data Volume Usage

Service Denied

Service Allowed

500 GB

Dual Connectivity

FWA CPE

Carrier Aggregation

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Core Network

20

About MATRIXX Software

MATRIXX Software delivers a dynamic billing, monetization and charging solution proven at scale. Global service providers like Telefónica, IoT providers like Tata Communications and network-as-a-service providers like DISH rely on MATRIXX to overcome the limitations of existing billing applications. MATRIXX provides a unified platform that transforms and simplifies billing operations across consumer, enterprise and wholesale businesses. With MATRIXX, operators can rapidly configure, deploy and monetize personalized offerings, enabling commercial innovation and real-time customer experiences that drive revenue and growth.

matrixx.com