



# MatreComm CraftWorld Customer Experience as a Service

# Agenda

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Customer Experience –  
An Overview



Business Impact

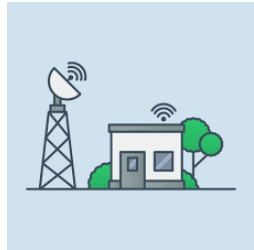


MatreComm CraftWorld  
– Customer Experience  
as a Service



Benefits and ROI

# Internet Service Provider (ISP) to Digital Service Provider (DSP)



Focus on Providing  
Connectivity Services

Internet Service Provider



In addition to Internet Connectivity

- Focus on Digital Services
- E-Commerce
- E-Health
- Advertisements
- So forth ...

Digital Service Provider

## Key Network Performance Growth Factors

- Internet Experience
- Application Performance Experience
- Digital Service Experience
- Revenue Streams beyond Internet Connectivity
- Monetize your current User-base

# MatreComm CraftWorld Network as a Service (NaaS)

## Internet Service Provider Transformation Platform

# MatreComm CraftWorld - ISP Transformation Platform

## Helping ISP's Transform to Digital Service Provider



Single Console to Manage the Multi-vendor,  
Multi-Technology Networks

Take the burden away from Managing Complex networks

Service Management Platform – Automation across- Feasibility Analysis,  
Service Provisioning, Diagnostics



Lead to Cash Platform – Integrated Service  
Journey – Billing/Invoice + Service Management

MatreComm CraftService Billing/Invoice Platform

integrated with

MatreComm CraftWorld – Service Management Platform



Network Virtualization – vBNG + Firewall + Router + Security Gateway + MPLS

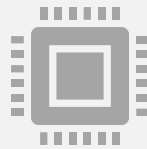


New Revenue Enablers – Advertisement + e-Commerce

# Transform to a Digital Service Provider



Network Infrastructure – From Capex to Opex Model



Multi-tenant platform –  
Build a tiered  
Organization  
underneath

ISP, Franchise,  
Reseller  
State, District,  
Block, Village



Earn beyond Internet

E-Commerce  
Advertisement  
More ...

# Network Observability Key Driver to seamless Digital Services

# Network Observability vs Network Monitoring

Network Observability	Network Monitoring
Focus on Network Health from End-User Perspective	Narrow focus on Network Device Health
Apply wider range of information to pin-point root cause	Baseline Traffic and Monitor Traffic Deviations
Reduce Administrator Time for Root Cause and Remediation	NetOp Staff Manually Handle Errors
User Next-Gen Streaming Telemetry and AI	Use Proven Tools and Protocols



# Customer Experience - Business Impact

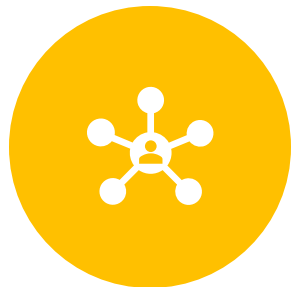
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What Dollar value in Global sales are influenced by consumers using SmartPhones and Mobile Web access



USD 1.1 Trillion



What percentage of customers say they switched Brands due to poor Network/Customer experience



89%

# Poor Customer Experience – Driving Factors

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- Outdated Technology
- Lack of Insights into the Network and Application Performance
- Poor Planning of Technology and Implementation



# Outcome of Poor Network/Customer Experience

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## **Significant Fall in - Digital Services Consumed**

E-Commerce Sales Cart abandoned  
Low same store sales  
OTT consumption erratic  
Similarly other Digital Services



## **Customers abandon the Internet Service Provider**

# MatreComm CraftWorld ISP Transformation + Observability Platform

- Network Observability and Root Cause Analysis across
  - WiFi Networks
  - Optical Networks
  - Switches
  - MPLS
  - Application performance aspects across Network

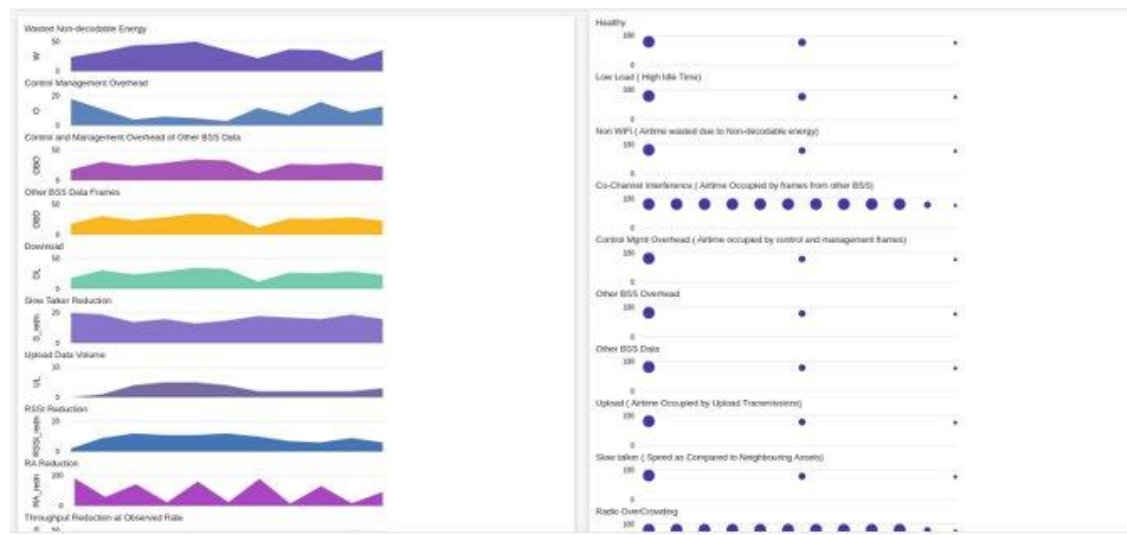
# Network Observability - WiFi

- QoE

MoS - Voice
MoS - Video
Latency
Jitter
Bandwidth

- Root Cause Analysis

Collision aware rate adaption
Overcrowding of the radios near the ONT/WiFi AP
Significant use of the Control Management frames
Band-Steering drops
Non-WiFi interference on the ONT/access point RF



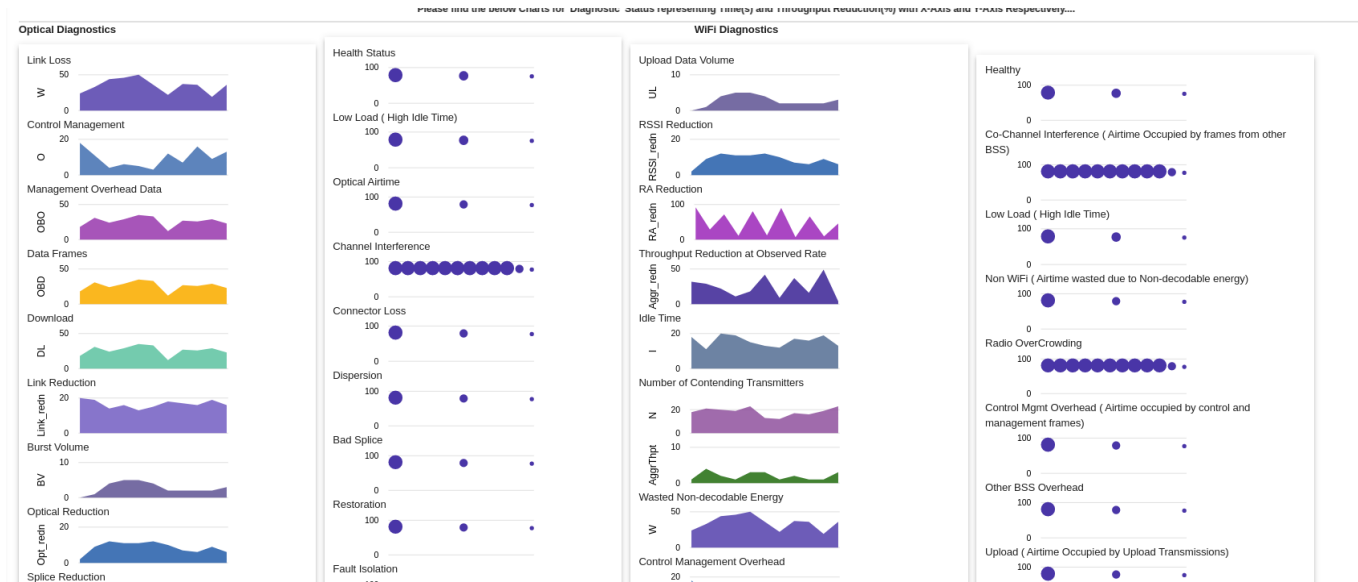
# Network Observability - Optical

- QoE

MoS - Voice
MoS - Video
Latency
Jitter
Bandwidth

- Root Cause Analysis

Fiber Cut
Fiber Bend
Fiber Pressure
Faulty Connectors
De-degraded Fiber



# Network Observability - Applications

- QoE

Application Access Speed

Application Start time/Response time

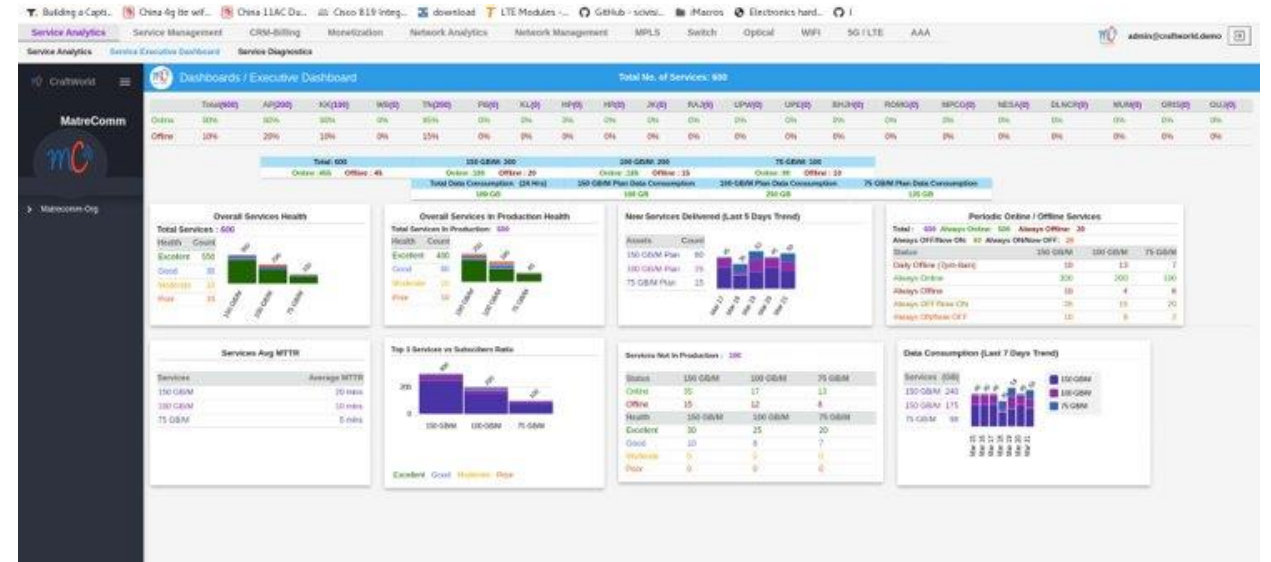
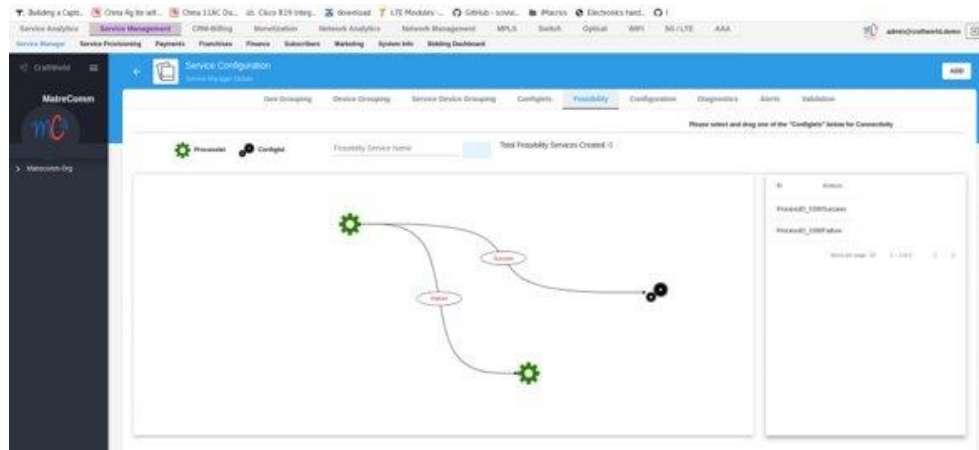
Application Experience

Application Hop-Hop Metrics

- Root Cause Analysis

Per hop -QoS

Per hop – Application Aware QoS Metrics



# Results/Outcomes with one of our Customer

- Time & motions savings 60-70%
- Capex Reduction 30-40%
- OpEx Reduction 50-70%
- 5Yr ROI 383%

## Operations Cost Components

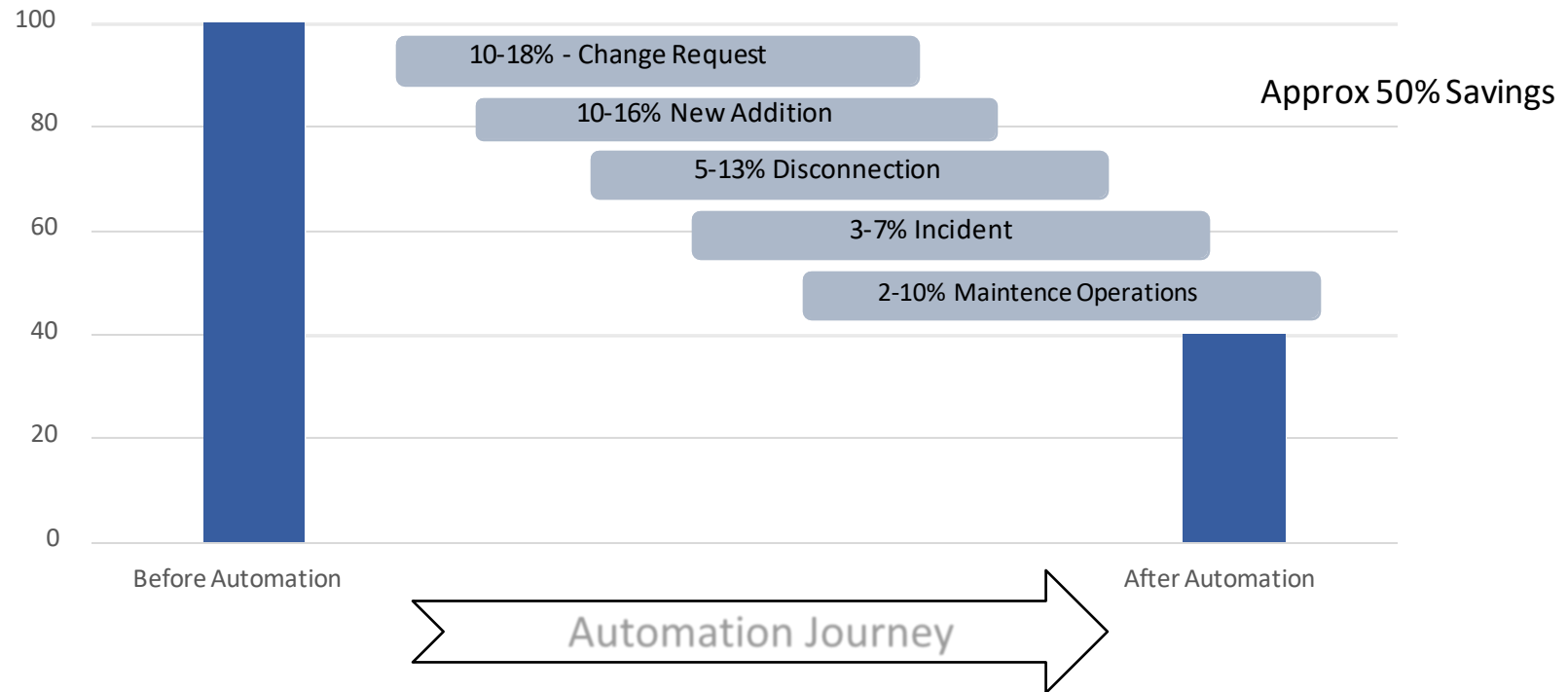
New Customer Addition

Incident Resolution

Change Request

Maintenance Window

## Savings through Network Service Automation





# Network Virtualization



[Bare Metal Devices](#)  
[VM Devices](#)

- Bare Metal Devices
  - Device 1
  - Device 2
- VM Devices
  - 6Wind AWS
  - 6Wind Azure
- Devices
  - Host Node
  - Router
  - PE Router
  - CE Router
  - 6Wind Router

**TopoScope Actions**  
 Topology Name:  Save

+  
 -  
 Refresh  
 Lock

MPLS  
 Inventory  
 Configuration  
 Diagnostics  
 Dashboard

Dashboard Topology Service Management Common Services Network Management Billing Management

### Inventory Dashboard

MPLS

[Asset Information](#) [Asset Analytics](#) [Diagnostics](#) [Remote Provisioning](#)

VRF Properties

Routing Entity

Label Switched Entity

AF	Destination	Next Hop	Local Label	Remote Label	In Use
ipv4	10.0.1.0/24	10.3.3.3	imp-null	19	no
ipv4	10.0.1.0/24	10.10.10.10	imp-null	19	no
ipv4	10.0.1.0/24	10.2.2.2	imp-null	19	no
ipv4	10.0.1.1/24	10.2.2.2	imp-null	16	no
ipv4	10.0.1.1/24	10.2.2.2	imp-null	16	no

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Dashboard Topology Service Management Co

### Inventory Dashboard

MPLS

[Asset Information](#) [Asset Analytics](#)

**CE to CE**

To Check the MPLS VPN connectivity between two CEs

Test

**PE to PE (CE)**

To Check the MPLS VPN connectivity between a PE and the attached CE

Test

**CE to PE across Core**

To Check the MPLS VPN connectivity between CE & PE across the MPLS Core

Test

**PE to PE VRF**

To Check the MPLS VPN connectivity between two PEs.

Test

**PE to PE (Core)**

To Check the MPLS Core connectivity between two PEs

Test

# Monetization



Service Analytics Service Management CRM-Billing **Monetization** Network Analytics Network Management MPLS Switch Optical WIFI 5G / LTE AAA

Monetization Dashboard Advertiser Registration Advertisement Inventory Captive Portal Manager Captive Portal WorkFlow Campaign Management

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Campaign Manager Campaign Details

Media Audience Locations Screens Bidding Details Schedule

Images Videos

a-walk-amongst-friends-small.jpg  
brains-like-small.jpg  
first-snow-small.jpg  
lago-di-brates-small.jpg  
never-stop-changing-small.jpg  
lago-di-sorapis-small.jpg

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Service Analytics Service Management CRM-Billing **Monetization** Network Analytics Network Management MPLS Switch Optical WIFI 5G / LTE AAA

Monetization Dashboard Advertiser Registration Advertisement Inventory Captive Portal Manager Captive Portal WorkFlow Campaign Management

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Monetization Dashboard

**Presence Analysis:**

Attraction Rate 12% Unique Visitors 640 Repeat Visitors 49.06% Avg Visit Duration 2 Hrs 35 Mins

Total Traffic (User Count by Hour)

Time	12-6AM	6AM-12PM	12-6PM	6PM-12AM
Nov-24	1,142	760	838	1,007
Nov-25	760	838	892	760
Nov-26	1,142	760	838	1,007

Visits By Duration

Duration	Nov-24	Nov-25	Nov-26	Nov-27	Nov-28	Nov-29	Nov-30
5-20 Mins	201	188	178	207	159	188	204

Types of Visits

Visit Type	Nov-24	Nov-25	Nov-26	Nov-27	Nov-28	Nov-29	Nov-30
Passerby Visits	823	416	469	431	889	509	624

Repeat Visitors By Frequency

Frequency	Nov-24	Nov-25	Nov-26	Nov-27	Nov-28	Nov-29	Nov-30
1 Visits	1,142	760	838	1,007	892	760	1,142

User List:

Name	Status	Username	Venues
Bella	Active	BDA123	Store1 Bangalore
Jackson	Inactive	UXA123	Store2 Bangalore
Jake	Active	JKD123	Store3 Bangalore

**New Users & Impressions Analysis:**

New Users 124 Returning Users 13.02% New User who connected to the internet 86.98% Total Impressions 5368

Current Day New Users - Trend

New Users - Last 7 Days

Current Day Impressions - Trend

Impressions - Last 7 Days

Tenant	Venues	New Users ↓	Impressions
Store6	Bangalore	319	334
Store3	Bangalore	203	224
Store1	Bangalore	198	234

**Connections Analysis:**

Connections 5368 Unique Connections 3576 Avg Connections Per User 1.18 Max Concurrent Connections 640

Current Day Connections - Trend

Connections - Last 7 Days

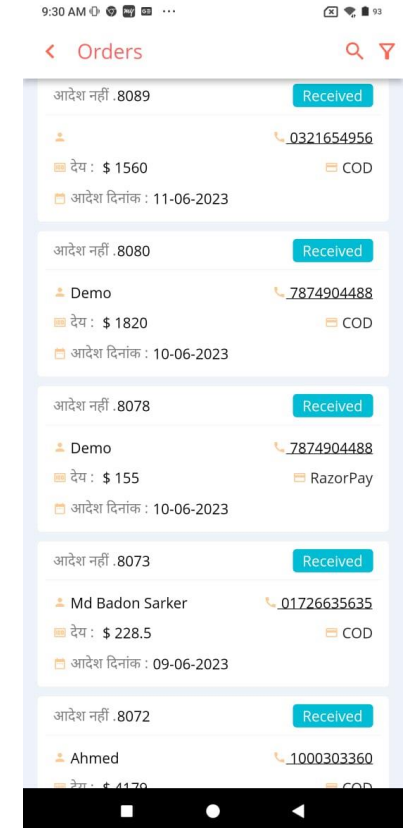
Tenant	Venues	Connections ↓	Max.Concurrent Connections
Store6	Bangalore	345	29

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Show all

# E-Commerce

- E-Commerce enable
- Local Shops
- Buyers
- Sellers



# MatreComm CraftWorld

- Automate your Network Service Management
  - Reduce Capex and Opex by 30-40%
- Virtualize your Network Elements – Routers, Firewall, Switches
  - Reduce your Capex by 30-40%
- Enable Monetization of User Base – Earn Everyday
  - Advertisement
  - E-Commerce

# Get Started to be a Digital Service Provider



Engage with us



Conduct a discovery of your Network



Draw a Digital Transformation Roadmap



Implement the SDN+SD-WAN+Multi-Cloud+Security Solutions



Virtualise Network – Physical to Cloud – Capex to Opex



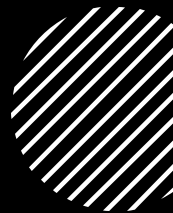
Implement the Applications – Advertisement + e-Commerce



Start saving and earning revenue



# Summary



Transform with  
MatreComm  
CraftWorld to be Digital  
Service Provider

Earn beyond  
Internet  
Connectivity



Transform from Capex  
to Opex Network  
Infrastructure

Save the Cash  
and use it  
expand your  
Business



Monetise your User  
Database

Un-tapped  
Potential

Thank You