Overview

MSP | Managed Solutions Provider

ENTELEGENT

Capabilities

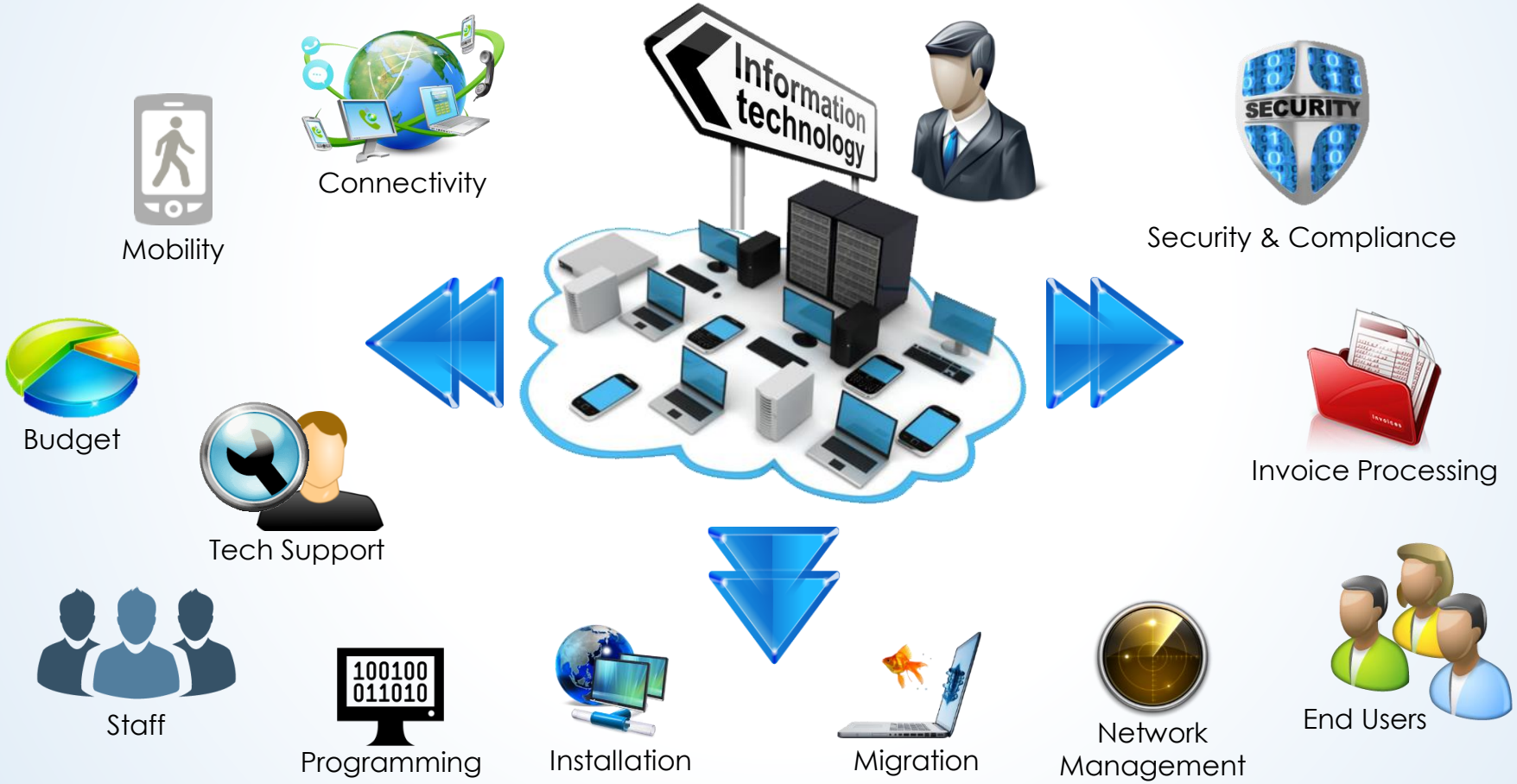
EnTelegent | Overview

PROFESSIONAL SERVICES	Ps	Telecom | IT Consulting
MANAGED SERVICES	Ms	WAN/LAN | Desktop | End User
NETWORK SERVICES	Ns	Network Connectivity | CPE

Managed Solutions Provider

Challenges

Information Technology | Resources



Lack of expertise
is typically not the driver.

NO
RESOURCES

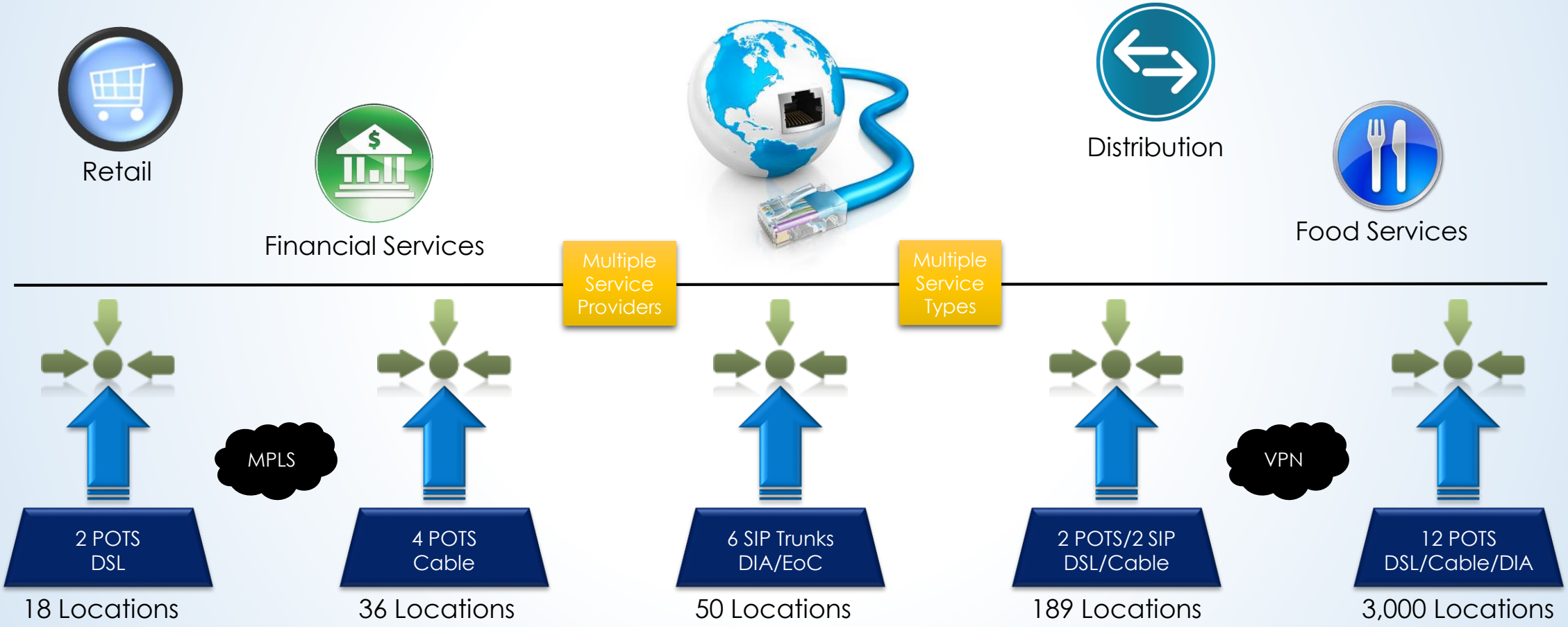
Complexity

Drivers | Scale

Cost and Complexity increase relative to **locations** ▸ **services** ▸ **providers**

Customer Profile

Enterprise | Complexity



Ns Network Services

- Access
- CPE
- Voice
- Data
- VoIP

Ms Managed Services

- Telecom
- LAN
- WAN
- Desktop
- End User

Ps Professional Services

- Consulting
- Field Services
- Program Management
- Optimization

ENTELEGENT

Network Services

Connectivity

EnTelegent | Network Services

IP CPE	ATA\IAD	Phone	Switch	Router
ACCESS	CABLE	DSL	DIA	3G/4G
VoIP	Hosted	IP-BL	IP-PRI	SIP
VOICE	POTS	PRI	LD	Audio Conferencing
DATA	MPLS	VPLS	VPN	Web Conferencing

Voice

Local | Services

Aggregation

Hosted VoIP

POTS

PRI

Migration

SIP Trunks

EnTelegent has a clear migration path to VoIP.

VoIP Solutions

EnTelegent | Voice Services

IP Business Line
UNLIMITED Local and Domestic LD Calling option

- Digital voice business line
- Business line replacement service
- Delivered over broadband facilities
- Use existing analog or digital telephones
- Includes basic calling features

SIP Trunks
UNLIMITED Local Calling

- Digital voice business trunk
- Alternative to traditional PBX telephone trunks
- Delivered over broadband facilities

IP-PRI
Nationwide Availability

- 23 Digital voice business trunks
- Alternative to traditional PRI service
- Delivered over broadband facilities

Hosted VoIP
Turnkey Solution

- Service and equipment

POTS Replacement Service

ATA

OR

IP Phone

SIP talk paths with DID numbers

Bundled SIP Trunks

Hosted Telephony

Router | Switch | Firewall
IAD - ATA - IP Phone
CUSTOMER
Premises
Equipment
CPE

CPE

ADTRAN | NetVanta 3120

A Fixed-port Access Router that is ideal for enterprise-level Internet access for secure, high-speed corporate connectivity or IP Telephony using broadband access such as DSL or cable.

The NetVanta 3120 includes one Ethernet WAN port, a integrated four-port Ethernet Switch, a built-in firewall for network security, QoS to priority delay sensitive traffic like VoIP, DHCP to assign IP addresses, Network Address Translation (NAT) to conceal private address, and IPSec VPN as well.

- Fixed-port Access Router for broadband access such as DSL or cable
- Ethernet WAN Interface and Integral four-port, non-blocking, Ethernet switch
- Stateful inspection firewall for network security
- Quality of Service (QoS) for delay-sensitive traffic like Voice over IP (VoIP)
- Inherent URL filtering for easy content filtering
- IPSec Virtual Private Network (VPN) for secure corporate connectivity across the Internet

CPE

ADTRAN | NetVanta 3448

A Multi-Service Access Router that delivers the high-packet throughput required for IP Telephony, corporate connectivity and Internet access. This performance-enhanced routing platform delivers wire-speed throughput, even with advanced services like QoS, NAT, and Firewall-enabled.

- RapidRoute technology for greater performance
- Single Network Interface Module (NIM) slot
- Integral eight-port, non-blocking, Ethernet switch
- Inherent URL filtering for easy content filtering
- CompactFlash slot for auto-provisioning
- IPv6 ready

THE Box – Switch | Router | Firewall | PoE | VPN | Wi-Fi | VQM

CPE

ADTRAN | NetVanta 1335

A Multi-Service Access Router that delivers the high-packet throughput required for IP Telephony, corporate connectivity, and Internet access.

This performance-enhanced routing platform delivers wire-speed WAN throughput, even with advanced services like VQM, QoS, NAT, Firewall, and VPN-enabled.

- Standards-based routing/switching protocols
- RapidRoute technology for greater performance
- IPSec Virtual Private Network (VPN) for secure corporate connectivity across the Internet
- Voice Quality Monitoring (VQM) and Mean Opinion Score (MOS) prediction
- Inherent URL filtering to manage Internet access
- CompactFlash slot for backup and restore, and for auto-provisioning
- Wi-Fi Access Controller for centralized management of NetVanta Wireless Access Points (WAPs)
- Optional 802.3af-complaint Power over Ethernet Switch
- Optional 802.11a/b/g Wireless Access

CPE

ADTRAN | NetVanta 7100

The NetVanta 7100 is an all-in-one, Office in a Box that provides complete voice and data solutions in a single platform. The NetVanta 7100 offers outstanding business value as well as simplifying VoIP communications for small to medium businesses.

ADTRAN delivers industry leading technical innovation with the NetVanta 7100 by integrating all the voice and data networking functions into a single box and is designed to be the ideal solution for businesses that have up to 100 stations at each location.

- Integrated 24-port PoE switch, feature-rich IP router, IP PBX (100 SIP stations)
- Supports ADTRAN IP 706/712 and certified Polycom phones
- SIP/PSTN Gateway Internal voice mail
- Multilevel auto attendant

CPE

ADTRAN | NetVanta 4430

The NetVanta 4430 is an Modular Access Router designed for higher-bandwidth applications supporting up to eight T1s for Internet access, corporate Frame Relay, point-to-point connectivity, ADSL, VPN, and up to a 100Mbps Carrier Ethernet connection.

The NetVanta 4430 includes a built-in firewall and three Ethernet LAN ports, and can support the optional IPSec Virtual Private Networking (VPN) and Voice Quality Monitoring as well.

- Three-slot, three-Ethernet IP access router for eight T1s of bandwidth
- Stateful inspection firewall for network security
- Quality of Service (QoS) for delay-sensitive traffic like Voice over IP (VoIP)
- IPv6 ready

VPN
Head End

CPE

ADTRAN | VVX 300

The ADTRAN VVX® 300 is an expandable business media phone that delivers crystal clear communications, enhanced collaboration and personal productivity.

- 6 programmable line keys
- Grayscale graphical LCD
- HD Voice
- Two port fast Ethernet Switch
- Ideal for both premises-based and hosted VoIP applications

Simplicity and ease-of-use
The VVX 300 phone brings high-quality, cost effective solutions to any environment through advanced UC features. The intuitive user interface of the VVX 300 makes usability and navigation easy and requires minimal training.

Unsurpassed voice quality and clarity
The VVX 300 delivers breakthrough HD Voice™ quality for life-like conversations while minimizing fatigue making calls more efficient and productive.

The de facto IP Telephone

CPE

Cisco | SPA112 2 Port Phone Adapter

The **Cisco SPA112 2 Port Adapter** enables high-quality VoIP service with a comprehensive feature set through a broadband Internet connection.

Easy to install and use, it works over an IP network to connect analog phones and fax machines to a VoIP service provider and provides support for additional LAN connections.

SPA8000 8-port IP Telephony Gateway

CPE

ADTRAN | Total Access 908/908e

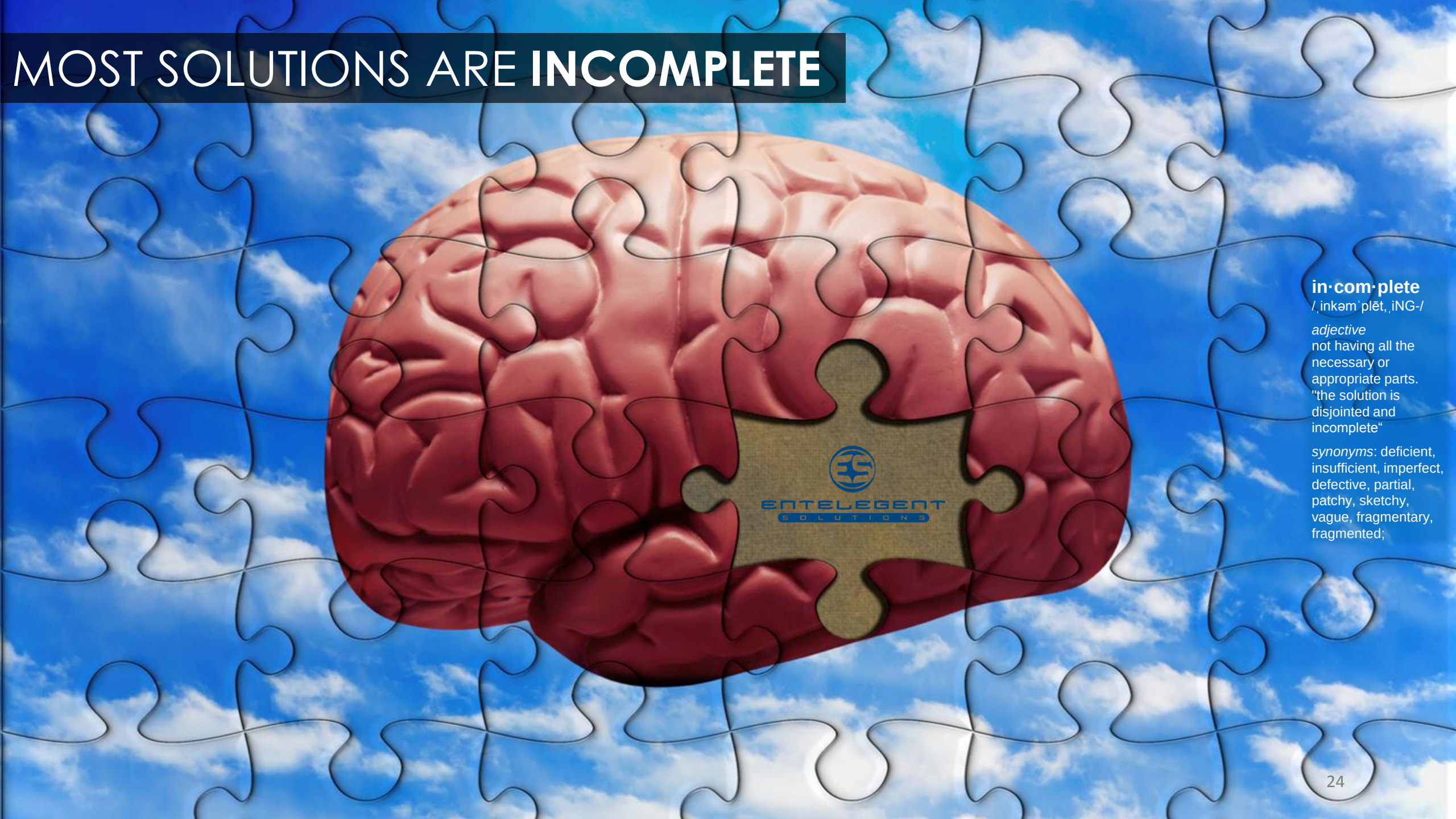
The Total Access 900/900e Series of IP Business Gateways combine the functionality of ADTRAN's industry-leading integrated access devices with a SIP and analog gateway to offer a cost-effective IP network strategy for VoIP deployment, with support for legacy equipment.

- Converged Access solutions for trunking and hosted VoIP networks
- Analog to SIP or MGCP conversion for legacy support over a dynamic IP network
- Robust routing, firewall, VPN, Voice Quality Monitoring, QoS, dynamic bandwidth allocation, and remote management features
- Support for up to 24 analog FXS ports, integral DSX-1 PRI/CAS interface for PBX connectivity
- Multiple chassis options provide flexibility and room for growth

Financing $ Available

Managed Services

MOST SOLUTIONS ARE **INCOMPLETE**



in·com·plete
/ˌinkəmˈplēt, ˌiNG-/

adjective
not having all the necessary or appropriate parts. "the solution is disjointed and incomplete"

synonyms: deficient, insufficient, imperfect, defective, partial, patchy, sketchy, vague, fragmentary, fragmented;

MNS

EnTelegent | Managed Network Services

Telecom Management
- Service Asset Inventory
- Consolidated Provider Invoice/Bill Pay
- Centralized Service Desk

WAN Management
- Circuit & Router Monitoring
- 24x7 Proactive Management
- Response and Resolution

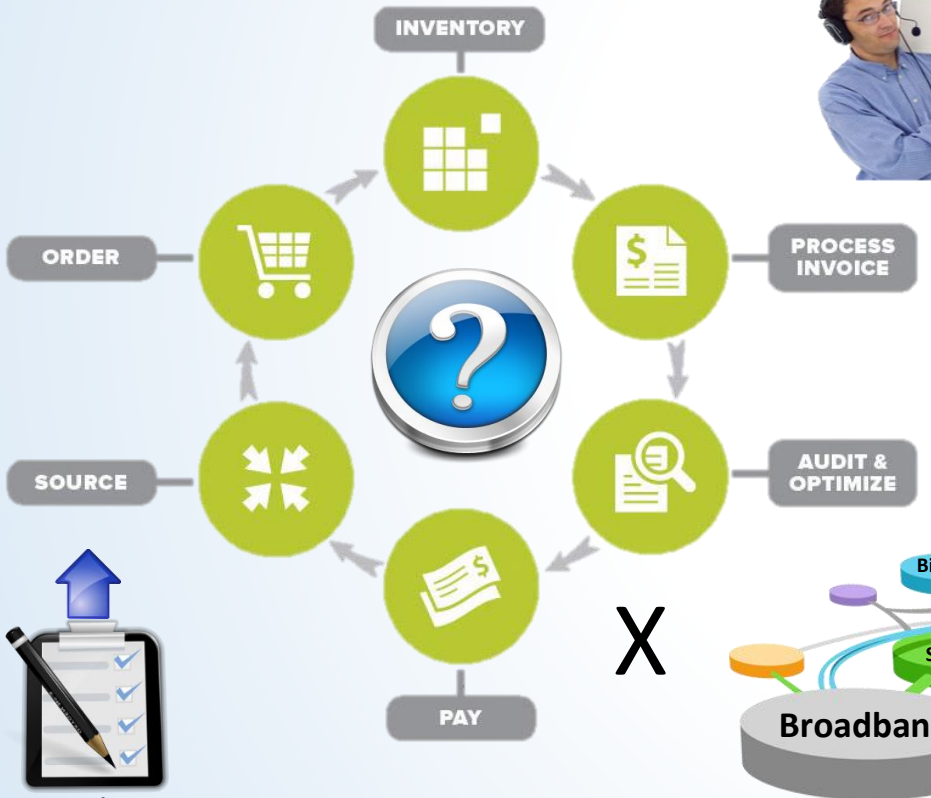
LAN Management
- Local Area Network Monitoring
- 24x7 Proactive Management
- Response and Resolution

Desktop Support
- 24x7 Remote End User Support
- User Authentication
- Support Escalation

Telecom
Management

Telecom

Process | Challenges

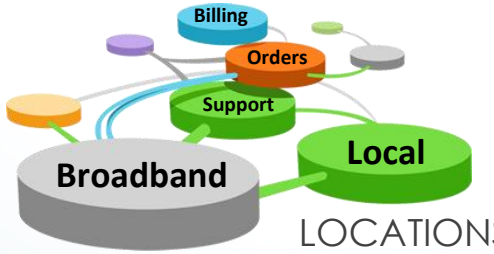


Trouble & Repair

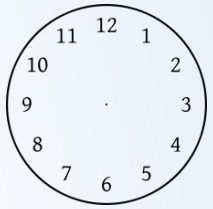
Pain Points

Tasks

X



LOCATIONS



Time

Attention

Resource

The EnTelegent Solution

EnTele-Bundle

EnTelegent | Telecom Management

All Services | All Providers | All Locations

Inventory

- Assets
- Services
- Contracts

EnTeleBundle
EnTelegent Telecom Management

Optimization

- Best Technology
- Cost Savings
- Migration Management

Service Desk

- Order Management
- Change Management
- Trouble and Repair

Reporting

- Web Portal
- Optimization Blueprint
- Quarterly Value Report

Single Invoice

- Consolidated Billing
- Charge File
- Bill-Pay

Wireless & Wire Line

The perfect view…

Single point of administration and control.

WAN
Management

Managed Broadband

EnTelegent | Managed Network Services

Cable/DSL | All Providers | All Locations

Inventory
- Circuits
- Providers
- Contracts

Optimization
- Best Technology
- Cost Savings
- Migration Management

Service Desk
- Order Management
- Change Management
- Trouble and Repair

Single Invoice
- Consolidated Billing
- Charge File
- Bill-Pay

Reporting
- Web Portal
- Optimization Blueprint
- Quarterly Value Report

WAN Management

EnTelegent | Circuit Monitoring

MONITOR & NOTIFY

- The Internet has become mission critical for businesses of all sizes. Most carriers simply deliver service to your doorstep, then they leave. The responsibility for letting them know there is an issue, with their circuit, falls on you.
- For a few dollars a month, our Support Team will watch your mission critical circuit every day and night, even on holidays - REGARDLESS OR WHO THE PROVIDER IS…

WHAT WE DO FOR YOU

- Check your circuit every 5 minutes.
- If it goes down, we alert you whether you are at the site or not.

WAN Management

EnTelegent | Circuit Management

FULL PROACTIVE MONITORING AND MANAGEMENT

- If you want us to handle the issue from proactive notification through troubleshooting and repair to issue resolution, our Support Team will watch your mission critical circuit every day and night, even on holidays – Whether it's ours or another provider.

WHAT WE DO FOR YOU

- Check your circuit every 5 minutes.
- If it goes down, we alert you whether you are at the site or not.
- We work with the carrier or service provider to restore service, as soon as possible.
- Once the issue is resolved, we check with you to make sure you are back up and running.

WAN Management

EnTelegent | Router Management

THE MODEM IS THE DEMARCATION POINT FOR BROADBAND SERVICE

- We think it is important for your office to be protected without putting the responsibility of router configuration onto your people. This is why we offer Router Management Service.
- Based on your requirements, we will select, install and manage an award winning ADTRAN NetVanta Router/Firewall at your site - **LEASE IT**. We'll even set it up to automatically switch to your backup service.

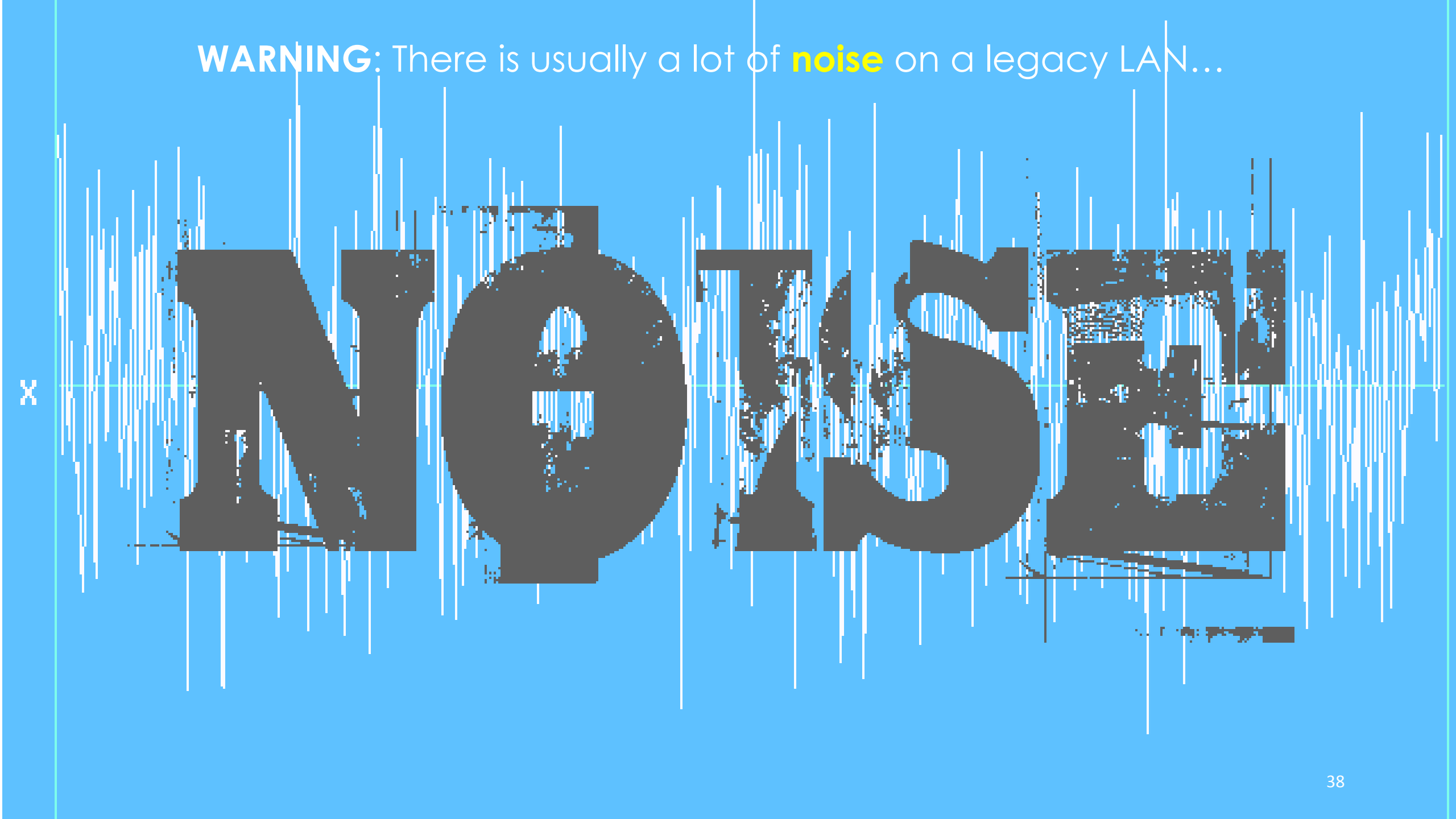
WHAT WE DO FOR YOU

- Install an ADTRAN NetVanta Router/Firewall at your site.
- Check your circuit and router performance every 5 minutes.
- If the circuit goes down, we alert you whether you are at the site or not.
- Automatic failover management, if your site has a backup service.
- If the router fails, we will replace it the next business day, at our expense.
- We provide priority service restoration.
- Once the issue is resolved, we check on you to make sure you are back up and running.

ENTELEGENT
The EnTelegent Solution goes beyond the demarc.

LAN
Management

WARNING: There is usually a lot of **noise** on a legacy LAN…



LAN Management

EnTelegent | Device & Server Support

ENTELEGENT PROVIDES 24 X 7 REMOTE NOC MONITORING SERVICES

- EnTelegent will install a network monitoring probe based on requested options.

- **Managed Monitoring Server Deployment**
  - Pre-configuration of Server
  - Installation of software and licensing
  - Onsite Installation of hardware
  - Deployment of monitoring configuration
  - Integration with EnTelegent NOC

- **24 x 7 Remote Monitoring** - The Network Operations Center will remotely monitor each site on your network. The center will actively watch, respond and work through process and procedure to resolve the following items:

- **Network Devices** - CPU, Memory and Environmentals, Port Utilization, activity and up/down status

- **Servers** - CPU, Memory, Disk Space and Available Environmentals, Operating System, SNMP Measurable Applications Statistics, Citrix or VMWare Status

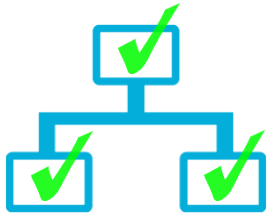
LAN Management

EnTelegent | Device & Server Support

PROACTIVE MANAGEMENT PREVENTS COSTLY DOWNTIME

- **Response and Resolution** - Network Operations Center responds to monitoring alarms according to the following procedures:

- *Acknowledge alarm* - verify site power, create ticket, alert local staff of issue.
- *Diagnose Issue* - remotely check Telco, network or server equipment for functionality.
- *Escalate* - engage Telco or site resources to resolve problem.
- *Resolve* - ensure restoration of service, contact site personnel, monitor issue for 24 hours, close ticket.



EnTelegent provides 24 x 7 Remote NOC Monitoring Services to proactively identify issues before they become service impacting.

Desktop Support

Desktop Support

EnTelegent | Desktop & Perimeter Defense

ENTELEGENT CAN BLAST PAST THE TRADITIONAL DEMARCATION POINT

Defense in depth is necessary in today's corporate environments. A layered approach to enterprise security requires more than just watching the front door… firewalls, IPS, DDOS and other security appliances.

F-Secure

CLIENT SECURITY
Integrated antivirus, firewall, antispyware, rootkit scanning and behavior monitoring.

Desktop and Perimeter Defense includes F-Secure Desktop Anti-Virus software and OpenDNS perimeter phishing/malware protection.

OpenDNS

ENTERPRISE THREAT PROTECTION
Cloud-delivered network security for any device, anywhere, anytime.

NETWORK SECURITY | WEB FILTERING

Desktop Support

EnTelegent | End User Help Desk

HELP DESK ACCEPTS CALLS FROM END USERS 24 X 7 X 365

The EnTelegent Customer Support Group will make every attempt to Diagnose, Troubleshoot and Resolve end user issues in the following areas:

- End User PC and Device Issues
- Network Connectivity Issues
- Internet Connectivity Issues
- PBX and Phone Issues
- Printer Driver and Connectivity Issues
- Existing Anti-Virus Software Issues
- Common OS and User Applications

TeamViewer

User Authentication Help Desk will provide authentication support for Active Directory, Radius or LDAP authentication mechanism for the company. Help Desk must be granted administrative rights to corporate user authentication system.

- User add or delete
- Password change or reset
- Password policy enforcement

Desktop Support

EnTelegent | IP Telephony Support

HOSTED PBX END USER SUPPORT

- Hosted PBX is a great service with tons of features, but End Users that transition from a traditional key system have trouble making the change.
- End Users have to deal with the new technology of IP handsets, voicemail to email and other features that they will forget soon after training.

WHAT WE DO FOR YOU

- Provide full monitoring and issue resolution services.
- Firewall adds, moves and changes.
- Verify failover circuit, if provided.
- Voice Quality Monitoring for SIP-based services on a call by call basis.
- Provide Hosted PBX End User Support.
- Moves, adds and changes, if allowed.
- Password reset, information update.
- Handset support, including RMA.

ENTELEGENT SOLUTIONS

Managed Services

LAN/WAN Management

- Circuit
- Router
- Device
- Server
- Desktop

Desktop Support

- Desktop & Perimeter Defense
- End User Help Desk

Telecom Management

- Service/Asset Inventory
- Consolidated Invoice
- Single Bill Pay
- Centralized Service Desk

Business Contact
Solution
Strategy
Consulting
Success
Support
Quality
ENTELEGENT

ENTELEGENT

Infrastructure | Access | Service | Equipment | Management | Support | Administration

ENTELEGENT

Solution PAC

Complete Network Solutions

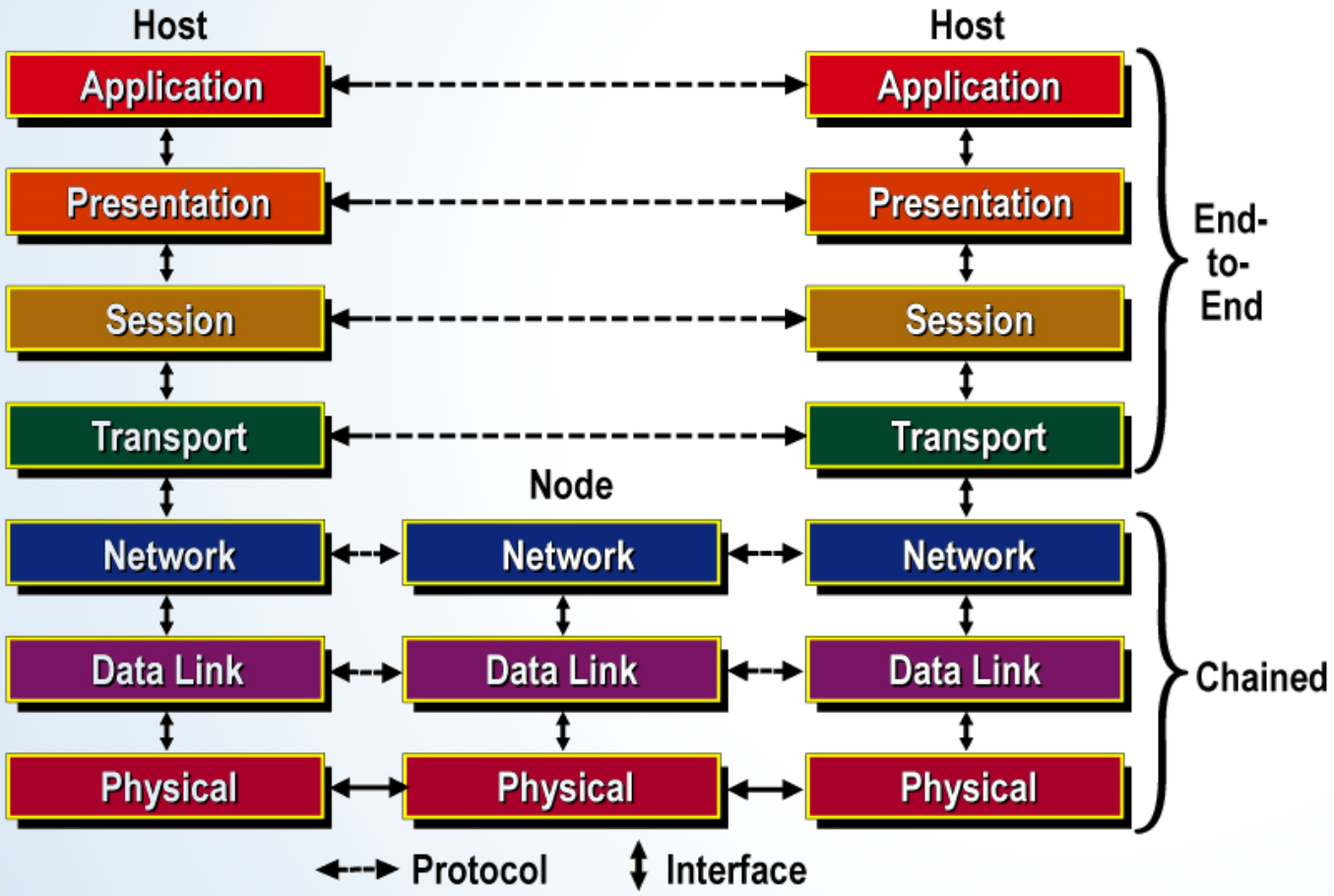
Premises | Access | Connectivity

Solution PAC

OSI Stack | PAC Layers

ASSEMBLY LINE

computer **network**



Layer 7: Administration

Layer 6: Support

Layer 5: Management

Layer 4: Equipment

Layer 3: Service

Layer 2: Access

Layer 1: Infrastructure

Solution
PAC
CONCEPT

Managed Services

EnTelegent | Solution PAC [Premises – Access – Connectivity]

Holistic Solutions

EnTelegent | PAC: Premises – Access – Connectivity

VALUE

Billing	Reporting	Inventory	Optimization	**Layer 7:** Administration
Trouble & Repair	End User Help Desk	MAC-D	Field Services	**Layer 6:** Support
Telecom Management	Circuit Monitoring	Circuit Management	Router Management	**Layer 5:** Management
Router	Switch	Firewall	IP Phone	**Layer 4:** Equipment
POTS	Hosted IP PBX	IP Fax	IP Business Line	**Layer 3:** Service
DSL	Cable	EoC	DIA	**Layer 2:** Access
Structured Cable	Wi-Fi WLAN	Integrated Security	Demarc Extensions	**Layer 1:** Infrastructure

MNS Pricing

Managed | Network Services

MNS	MRC	DESCRIPTION
Circuit Monitoring	$12.00	Monitor Only
Circuit Management	$20.00	Monitor, manage, trouble shoot and repair
Circuit & Router Management	$34.00	Monitor, manage, trouble shoot and repair
Circuit & Router -VPN/VQM Management	$34.00	Monitor, manage, trouble shoot and repair
Desktop & Perimeter Defense	$8.00	Integrated antivirus, firewall, antispyware, rootkit scanning and behavior monitoring; perimeter phishing/malware protection.
End User Help Desk	$20.00	End User PC and Device Issues, Network and Internet Connectivity Issues, PBX and Phone Issues, Printer Driver and Connectivity Issues, Existing Anti-Virus Software Issues, Common OS and User Applications Support.

SUPPORT COST	ANNUAL	MONTHLY
Unmanaged PC	$5,000	$416.66
PC, Firewall, Server, Storage, Back Office Software	$8,500	$708.33
Total IT spend per employee[1]	$13,164	$1,097

Midsize companies spend 3.7% of revenue on IT-related projects.
[1] As a percent of operating expenses – 4.7%

Gartner® 2013

EnTelegent

The | Solution

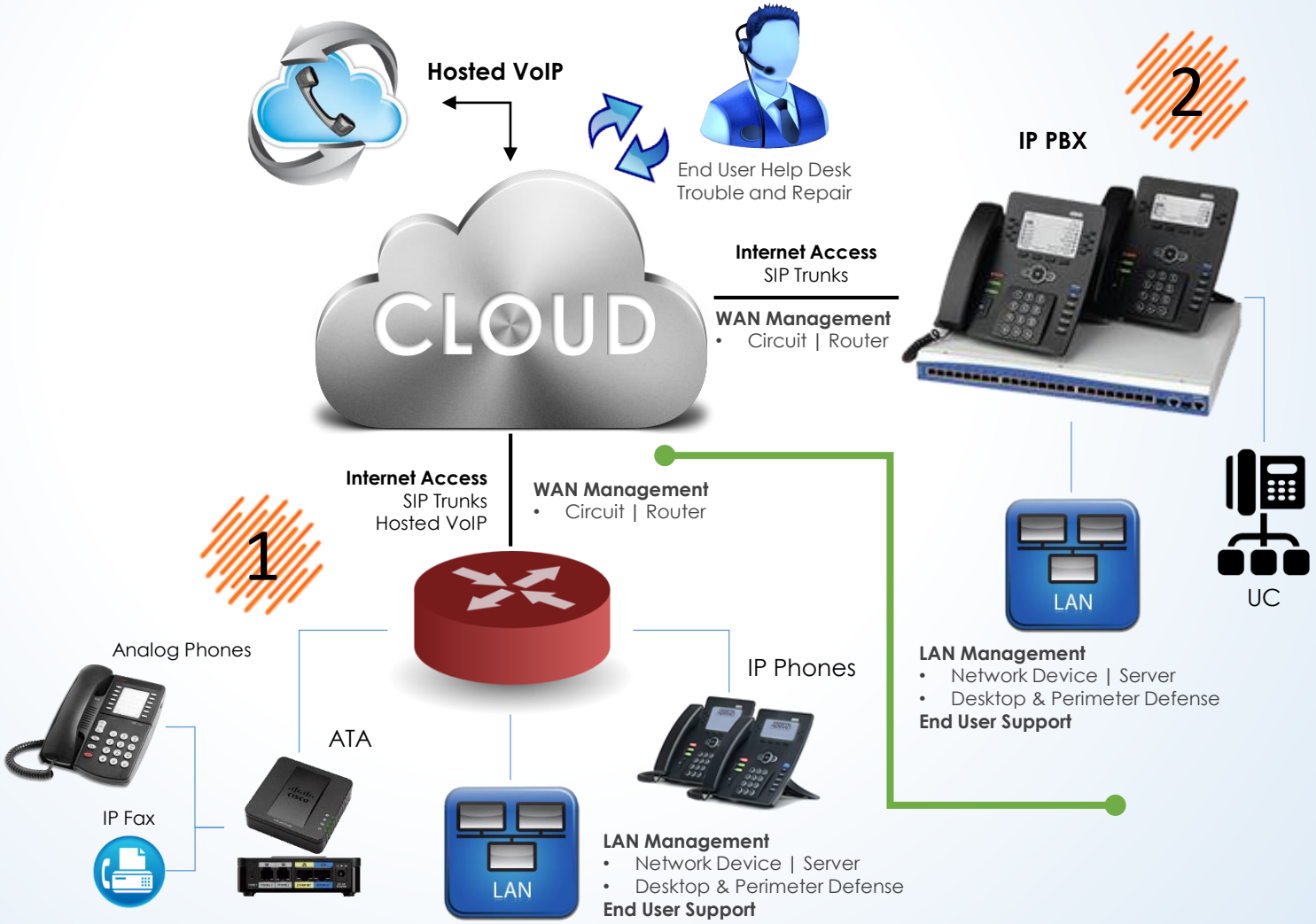
Connectivity
- Cable
- DSL
- DIA

Service
- IP PBX
- Hosted VoIP
- SIP Trunks
- IP Business Line
- IP PRI
- IP Fax

Equipment
- Switch/Router
- IAD/ATA
- Phones

Management
- Telecom
- WAN
- LAN

Support
- Desktop
- End User



Analog Phone Lines

Nationwide | POTS

PSTN – Public Switched Telephone Network

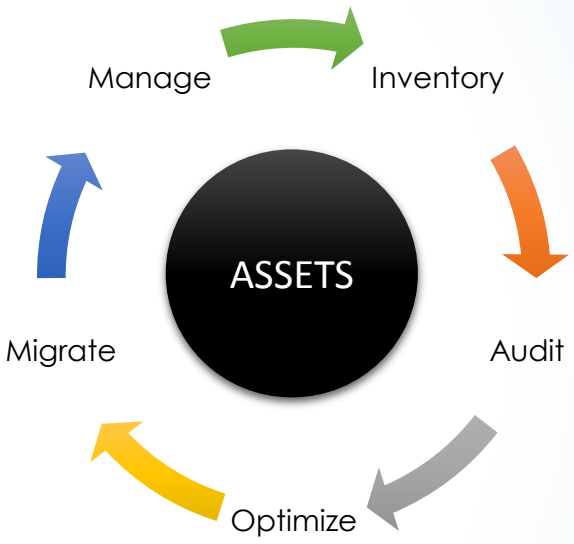
ENTELEGENT

Solution PAC

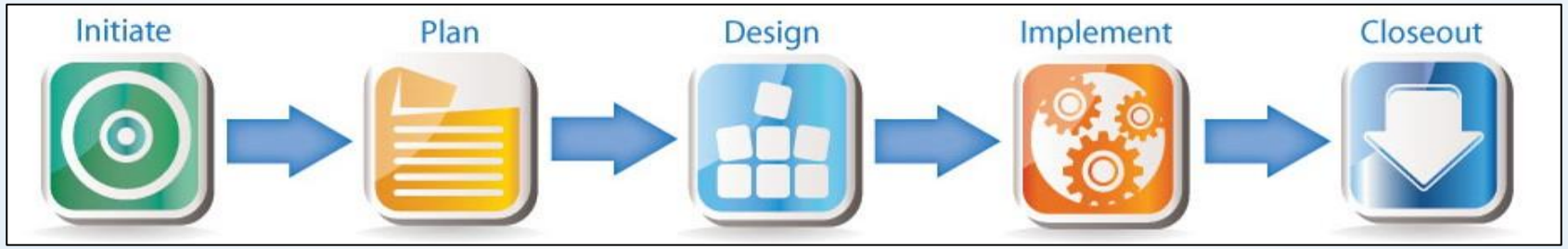
TEM

EnTelegent | Asset Lifecycle

- Inventory/Audit
  - Document current environment
  - Create line item asset inventory
- Optimize
  - Benchmark current spend
  - Evaluate/recommend alternatives
- Migrate/Manage
  - Define and develop migration strategy
  - Create/implement/manage project plans



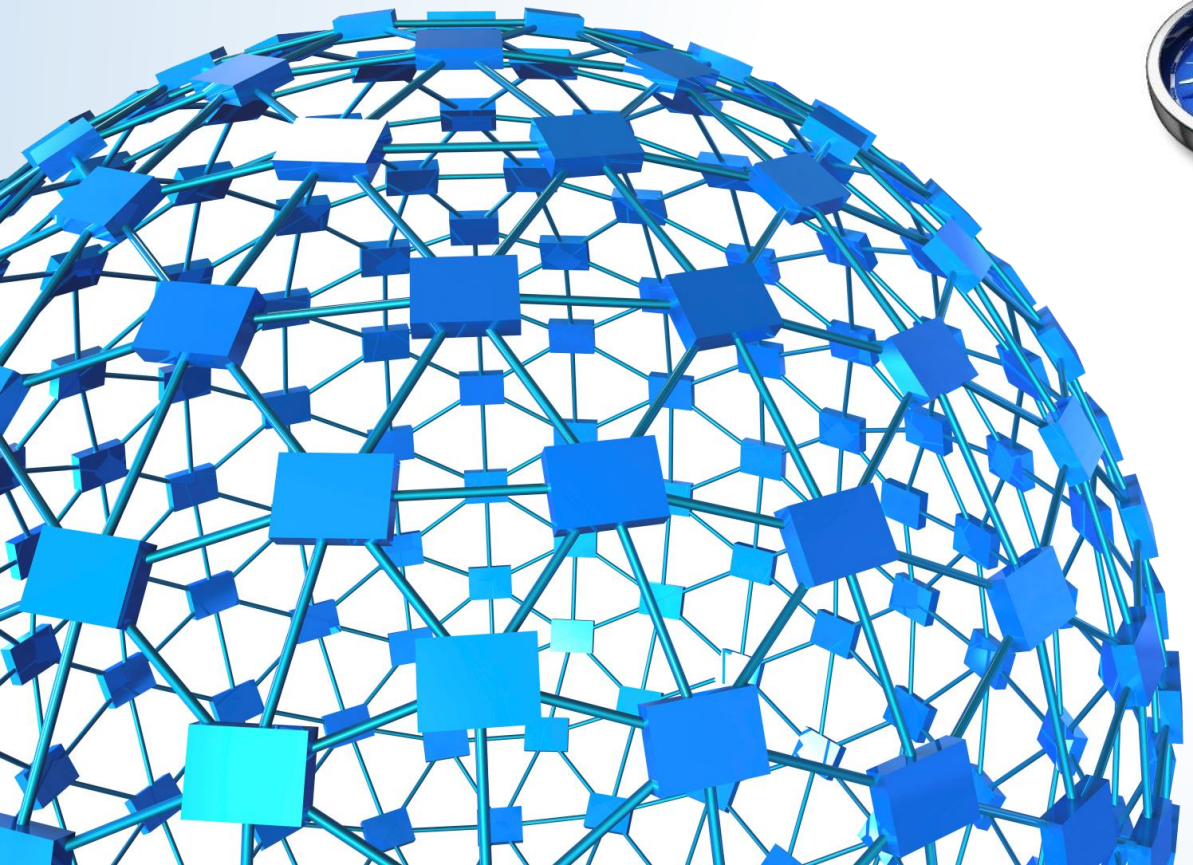
Your TEM or ours!



Professional Services

Consulting

Drivers | Professional Services



3 Questions

Where are you?

- What do you have?
- How much does it cost?

Where should you be?

- What should you have?
- What should it cost?

Where do you want to be?

- How do you get there?
- How much will it cost?

Capabilities

EnTelegent | Professional Services

Consulting	Contract Evaluation	Bench-marking	Resource Augment	Call Center	Technology Evaluation
PMO	Program Management	Project Management	Technology Migration		
Field Services	Installation	Repair			
Optimization	Land Line	Wireless			

People ● Process ● Technology

Professional Services

EnTelegent | Program Management

Migration Services

PMO

- Audit & Inventory
- Impact Evaluation
- Change Management

Audit ● Inventory ● Consolidate ● Optimize ● Migrate ● Manage ● Support

ENTELEGENT

Defining Scope

Project | Launch Point

IT Consulting

EnTelegent | Professional Services

Engineering Support Services

Our customers need occasional Network Engineering Support to help cover when key network staff are travelling or out of reach of a computer. Our Network Engineering Staff can have remote access to your network, and provide:

- Up to 10 hours per month of remote Network Engineering Services
- Moves, adds and changes
- Requested configuration changes for Cisco network
- Limited After hours Remote on-call Network Engineering Support[1]
- Vendor and Carrier Escalation as necessary

When possible, we request that a ticket be opened 24 hours in advance with the engineering request. It is understood that circumstances may require more immediate assistance. The customer team will be given access to the engineering support email and 24 x 7 Emergency Escalation number to engage resources.

[1] It is assumed that most requests will take place during normal operating hours. After hours requests should be limited to emergencies, when possible. Customer may elect to enable Engineering Support Services at any time during the contract term. Tickets will be created for all requests.

Field
SERVICES

Field Services

Installation | Repair

Nationwide Dispatch Center for Remote On-Site Support

Convenient Hourly Rate or Project-Based

Enjoy the valuable added services of a fully staffed dispatch center. Leverage a nationwide single-source provider of voice and data network support services. Take advantage of IT services ranging from complex product rollouts to routine break/fix and truck roll service activity.

ENTELEGENT

Program Management

- Asset Inventory
- Service Optimization
- Service Migration

Industry Expertise

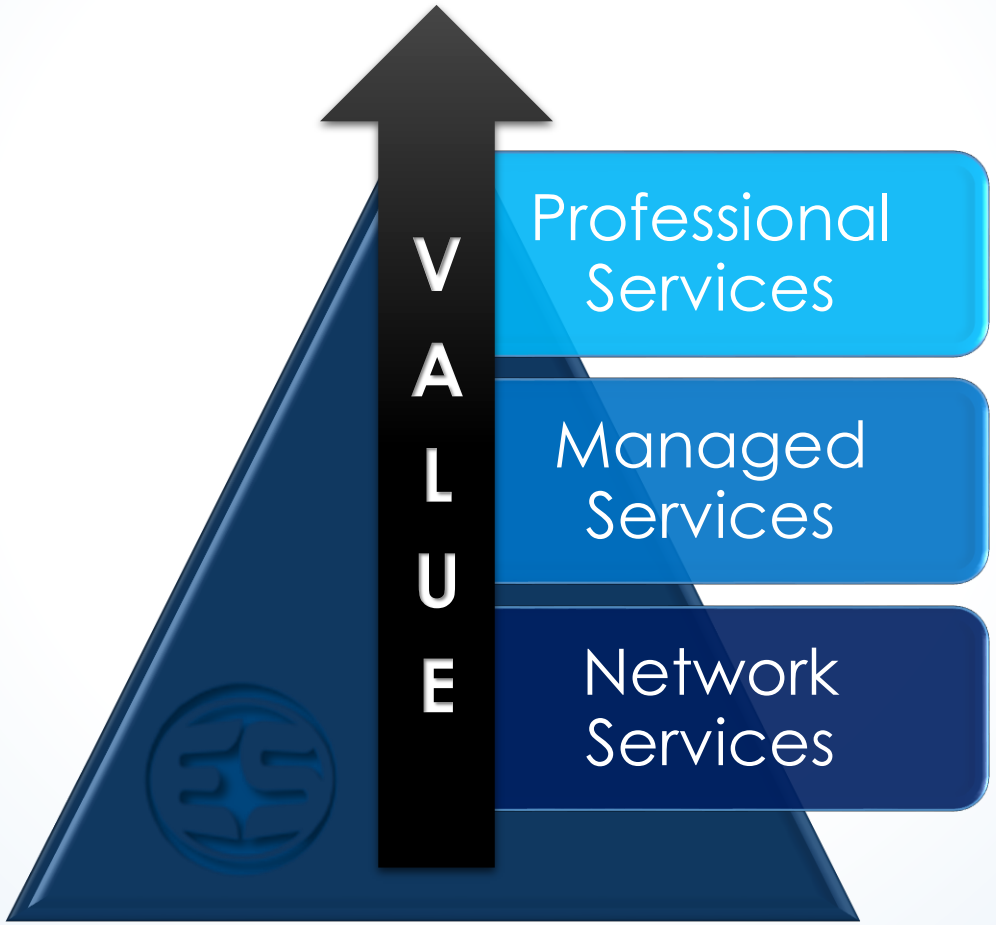
- Technology Evaluation
- Benchmarking
- Planning

Consulting Services

- Where are you now?
- Where do you want to be?
- How do you get there?

EnTelegent Value Proposition

ELEMENT	SOLUTION SET	COMPONENT
ADIMISTRATION	Professional Services	PMO IT Consulting
SUPPORT		
MANAGEMENT	Managed Services	Telecom LAN/WAN Desktop End User
EQUIPMENT		
SERVICE		
ACCESS	Network Services	Broadband SIP Hosted VoIP POTS - PRI
INFRASTRUCTURE		



Get a complete solution…
ENTELEGENT SOLUTIONS
ENTELEGENT

Ps

Professional Services

Ms

Managed Services

Ns

Network Services

ENTELEGENT

A Managed Solutions Provider…