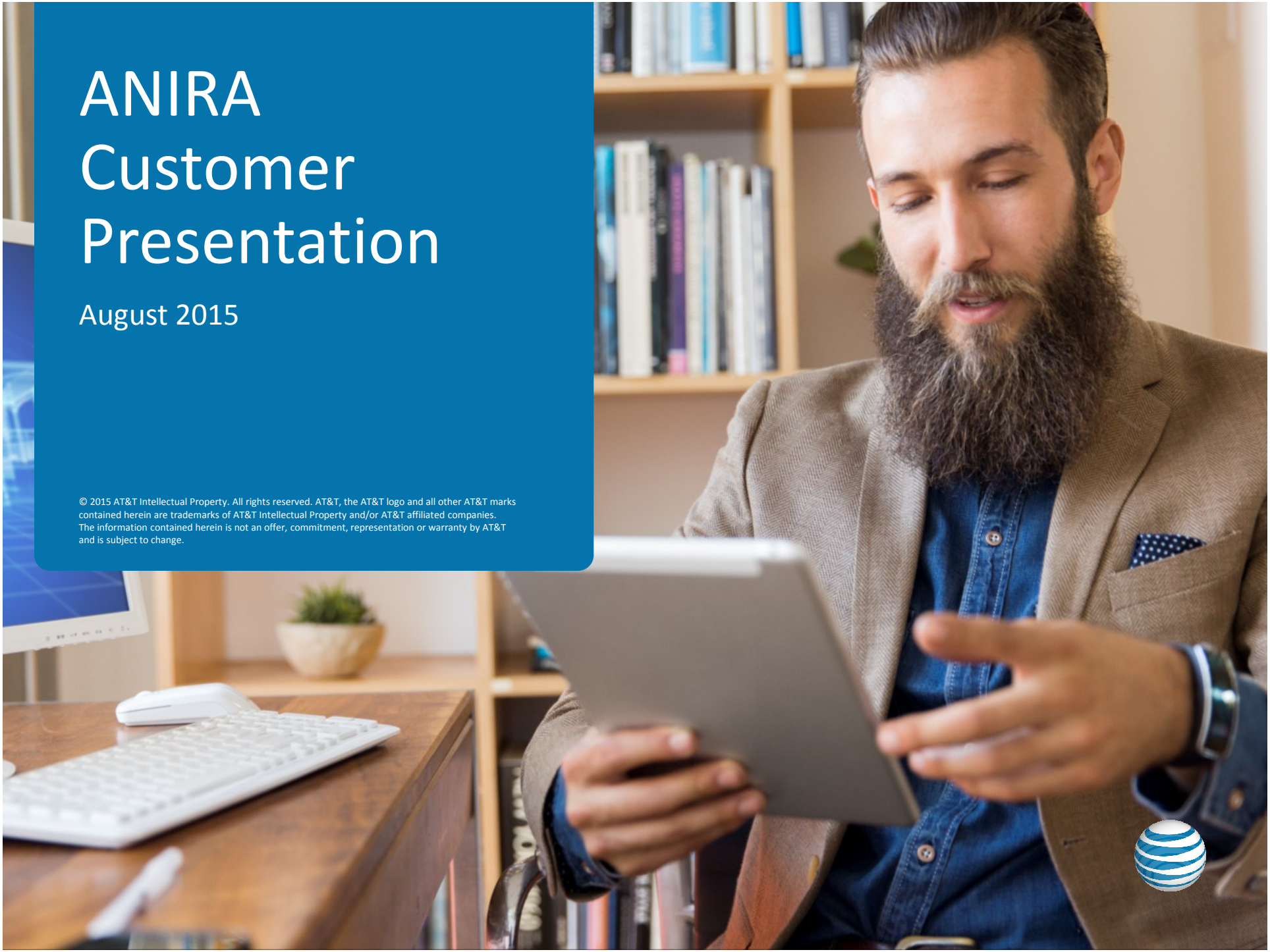
ANIRA Customer Presentation

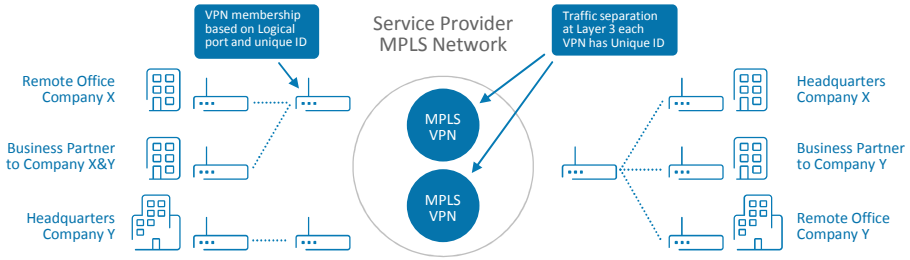
August 2015



MPLS VPN or VPN Tunnel VPN or Hybrid VPN

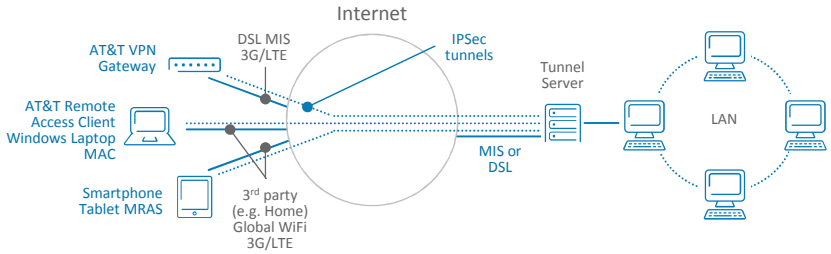
MPLS VPN – AT&T VPN

- Network-based VPN where the VPN is defined by the capability of the MPLS network
- Connects sites via a private network using MPLS backbone.
- Attractive to businesses where Private Networking is most important
- Higher level of technical expertise required
- Higher cost than VPN Tunneling



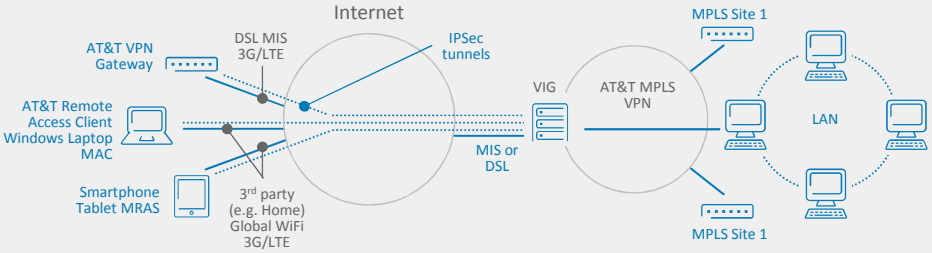
VPN Tunnel - AVTS

- Premises-based VPN as defined by the CPE creating and terminating tunnels
- Connects sites via public internet (usually broadband, e.g.. High Speed DSL)
- Attractive to businesses where internet offload is most important
- Lower level of technical expertise required—often considered DIY VPN
- Lower cost than MPLS VPN

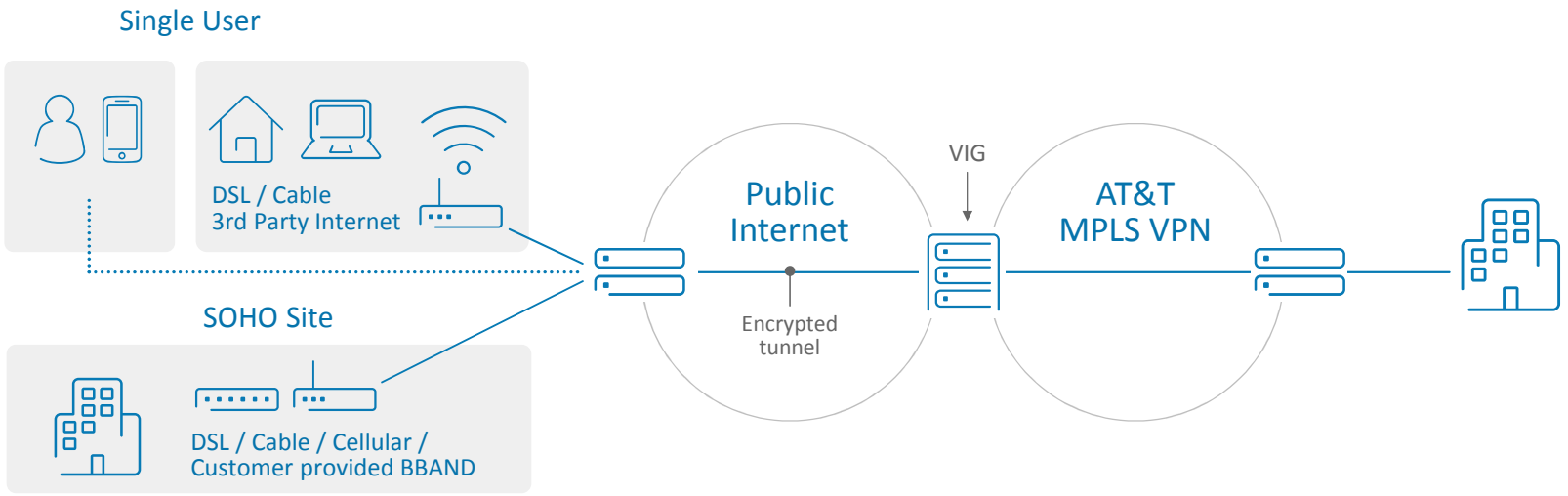


Hybrid VPN - ANIRA

- Combine the best of MPLS VPN services and Internet Based VPN services to create a single, global VPN
- Cloud based management tools for SOHO site and AGN user configurations
- Top 25 Class of Service profiles honored from AT&T VPN through VIG to internet sites and back



ANIRA - Internet access transport options



Internet options for SOHO

- Broadband Access
  - DSL
  - Cable
  - eDSL
  - AT&T Business Fiber
- Cellular Access
  - LTE/4G/3G
- AT&T Managed Internet Service
  - Ethernet Access
  - Point to Point

Internet options for single user

- WiFi Access
  - USA Unlimited WiFi
  - MOW Unlimited WiFi
  - Global WiFi
- Broadband Access
  - DSL
  - Cable
  - eDSL
- Cellular Access
  - LTE/4G/3G

AT&T Network Based IP VPN Remote Access (ANIRA)

ANIRA provides a highly secure internet based VPN that cost effectively extends the reach of any AT&T MPLS VPN. This Hybrid VPN solution leverages the private and predictable MPLS performance with the economical ubiquity and reach of broadband internet.

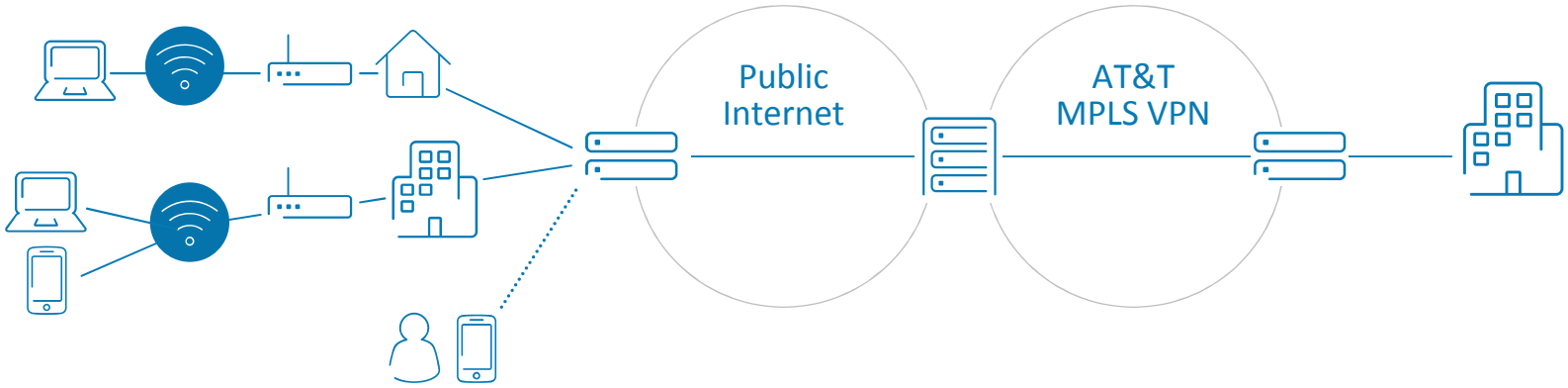
Configurations

SOHO

- Cloud Configured/Managed solution based on the AT&T VPN Gateway 8300 and/or Cisco 800 series routers
- Virtually any Internet access methods are supported
- Fail over options
- Works with Public WiFi in support of Retail WiFi Analytics

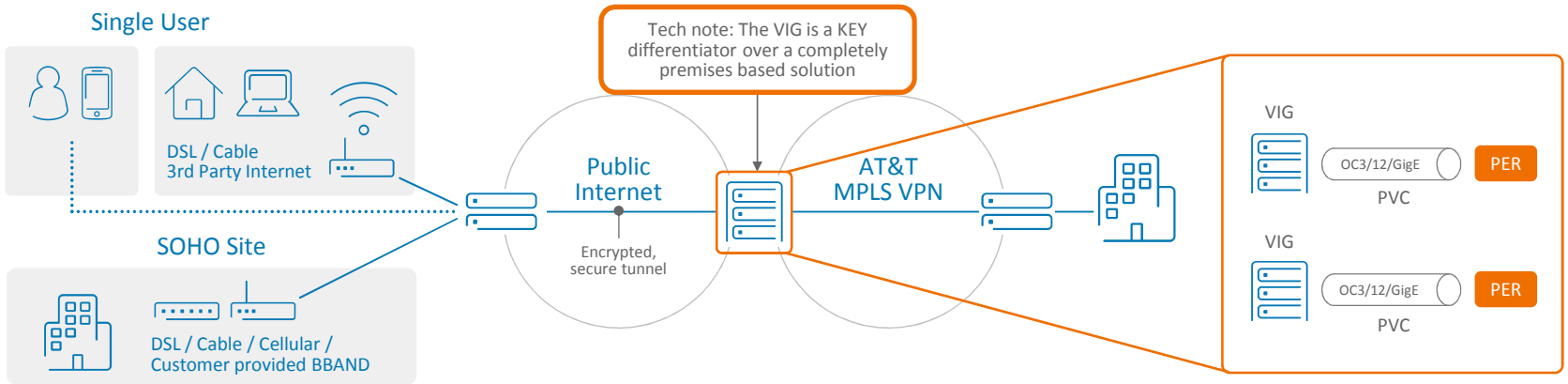
Single User

- Over 1M global hot spots available
- Cloud Configured Single user solution based on the AT&T Global Network Client
- Includes software clients for Windows, Mac, iOS and Android



Private Network Connection (PNC) /Virtual Internet Gateway (VIG) Architecture

- The PNC is defined as TWO direct connections into a customer's MPLS VPN on TWO physically diverse VIG hardware platforms
- Top 25 AT&T VPN Profiles supported from AT&T VPN, through PNC to SOHO sites in both directions.
- VIG endpoint determination based on VIG 'health' check every time a tunnel needs to be established
  - Latency and congestion are both factors in VIG selection
- Multiple VPNs may be supported with multiple PNCs
- VIGs are protected by AT&T's DDOS Prevention to provide a high level of security
- VIGs are engineered, coded and supported by AT&T Labs
  - Feature enhancements are prioritized and developed as AT&T's customers require them



ANIRA

Virtual Interface Gateway (VIG) Locations

Small Office/Home Office (SOHO)

Access Devices - AT&T VPN Gateway

- Cloud configured via Service Manager to enable one touch provisioning or configuration changes
- Two GigE WAN Ports
- Built-in 8 port Ethernet switch (+1 WAN side Ethernet port) with VLAN support and 2 PoE Ports
- Cellular internet (3G/4G) transport
- Supports Internet and VPN offload
- Directly connects to AT&T's WSS Security BlueCoat infrastructure
- Carrier Agnostic and used with most internet services (LTE, cable, DSL, U-verse, AT&T Business Fiber, MIS)

Cellular and WiFi Ready

Small Office/Home Office (SoHo)

Access Devices

Cisco 881

- Cloud configured via Service Manager
- Built-in 4 port hub (+1 WAN side Ethernet port)
- Console port that may be used for external modem
- Uses Cisco IOS
- Can also be used with other broadband services (cable, DSL, etc.)
- Requires broadband modem or router

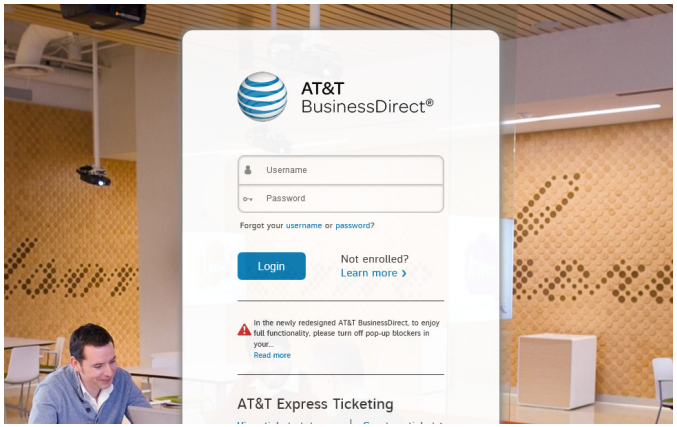
Service Manager

Accessing the Tool

The tool can be reached from the Web Engine portal http://globalnetwork.support.att.com customer support site.
It can also be reached via the BusinessDirect® portal, at https://www.businessdirect.att.com/portal/index.jsp or Business Center at https://www.att.com/ebiz/registration/home.jsp, depending upon when the setup of the tools was completed.

- MS Internet Explorer 8.0+, Chrome or Firefox is recommended to use the tool.
- It is recommended that the tool be used in Full Screen Mode.

Accessing via BusinessDirect® Portal



ANIRA Changes

COS data can now be entered on the VIG VC profile.

▾ Class of Service

COS Enabled	
PNC Bandwidth	
Profile Number	
COS1	
COS2	
COS2V	
COS3	
COS4	
COS5	
Total (COS2-5)	

New section for the SeGW project.

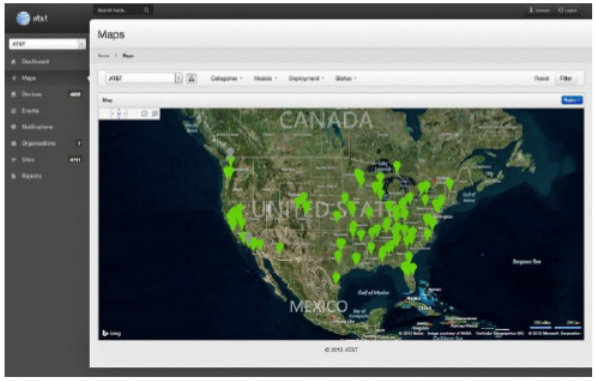
▾ SeGW Fields

DHCP Primary V4 Address	3.4.5.6
DHCP Secondary V4 Address	
Link V4 Address	
DHCP Primary V6 Address	FD44:4444:4444:0000:0000:0000:0000:0004
DHCP Secondary V6 Address	
Link V6 Address	FD44:4444:4444:0000:0000:0000:0000:0006

ARMT

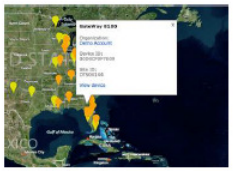
Maps

The **Map** panel displays the status of the various devices visually on a map of the organization's home country. The maps can be zoomed in and out to display finer levels of granularity all the way to a single site. The map can be filtered by organization, device category, device type, deployment, status, and country/region. When a category is selected it will prepopulate the devices under that category. Changes can be made to any filter criteria before filtering the map.



Once the desired devices are displayed you may get more detailed information on a particular site by clicking on the status indicator display. This will display an information bubble with the device type, site ID, and device information.

Clicking on **View Device** will then take you to the detailed device display.

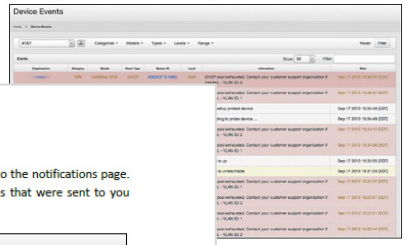


Events

The **Events** tab will bring up a near real-time chronologically sorted table of device events for your current organization. Event management provides a set of alert conditions that are significant to the user. As the Event conditions are detected they are categorized and color-coded for easy recognition. Critical errors and alerts are coded **Red** while warnings and notices are **Orange** or **Yellow**. All other device events are informational only and not coded.

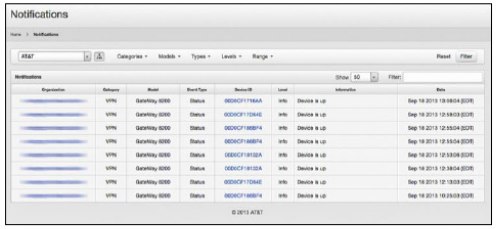
The list can be filtered in a variety of different ways using the Filter Menu at the top of list. The highest level of filtering is by Organization, which is provided as a dropdown list with all organizations you have access to being displayed. You can also filter the list in the following ways:

Device Category – the available options are VPN Gateway.
Device Models – you can select all the models of device you wish to see.
Event Type – the type of events displayed can be filtered.
Event Level – severity level of alert.
Range – amount of data to be included by time frame.



Notifications

When you open the **Notifications** tab on the menu, it will take you to the notifications page. This page will show you by default the last 24 hours of notifications that were sent to you because you subscribed to a device or an organization of devices.

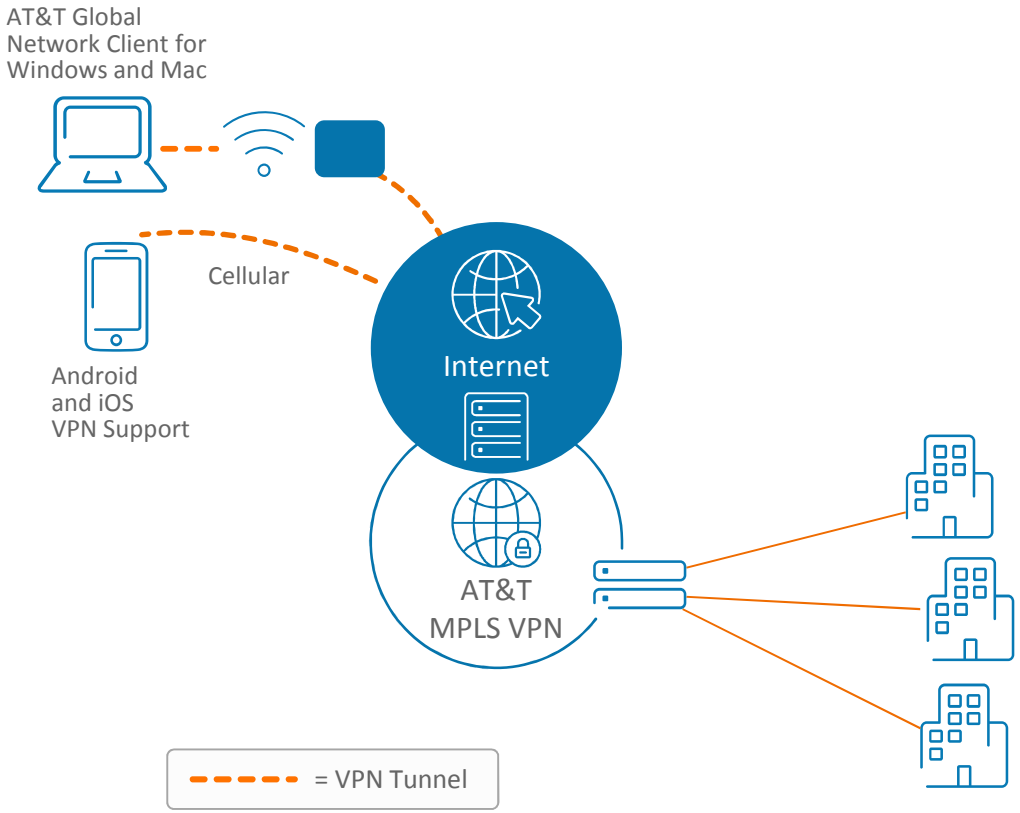


The **Notification** panel is a convenient way to look back at alerts that were sent to you, in case you deleted the email or need to have an extra record of it. The information column sums up the content of the email for quick reference and when clicking on it, takes you to the event that spawned the email for more analysis and information. You can filter just like events and go back as far as 30 days if you need to look for a record of something older. If you want to get to the device quickly you can, just select the MAC address. The date displayed is when the notification was generated.

What is AT&T Network Based IP VPN Remote Access

Single User

- Provides remote user access to corporate resources
- Cloud-based configuration and management tool
- Variety of Internet access supported: AT&T Broadband, AT&T cellular, AT&T Wi-Fi, and customer provided Internet
- SAME PNC Supports SoHo device connections also



AT&T Global Network Client

AGN Client

- “Wizard-less” connection setup
- Supports GSM & CDMA card & devices
- Single client solution – Connectivity, VPN and more (what does this mean?)
- AT&T Wi-Fi Hotspot access
- Session Persistence
- AT&T Owned and Developed
- Customizable User Interface
- Flexible user authentication methods

Single PC Client functionality

- Configure, connect to user defined Wi-Fi hotspots
- Automatic detection/selection
- Security and policy enforcement
- Single log-in and credentials

Security Features

- Firewall
- Lightweight policy enforcement to detect use of Anti-Virus, Web-Filtering & Firewalls

Redesigned, Simpler User Interface!

Consider your total cost of ownership

Points to consider

- ANIRA is a fully managed, Global service
  - No Capital Outlay
  - No License Fees to “make the service work”
  - No Fees for Cloud Management Tools
- ANIRA has Availability SLA’s

AT&T provides

- Helpdesk support 24-hours-per-day, 7-days-per-week
- Proactive or Reactive trouble notification
- 4 Hour TTR for SOHO Devices
- Service enhancements
- Support for NetFlow and SNMP data

Security features

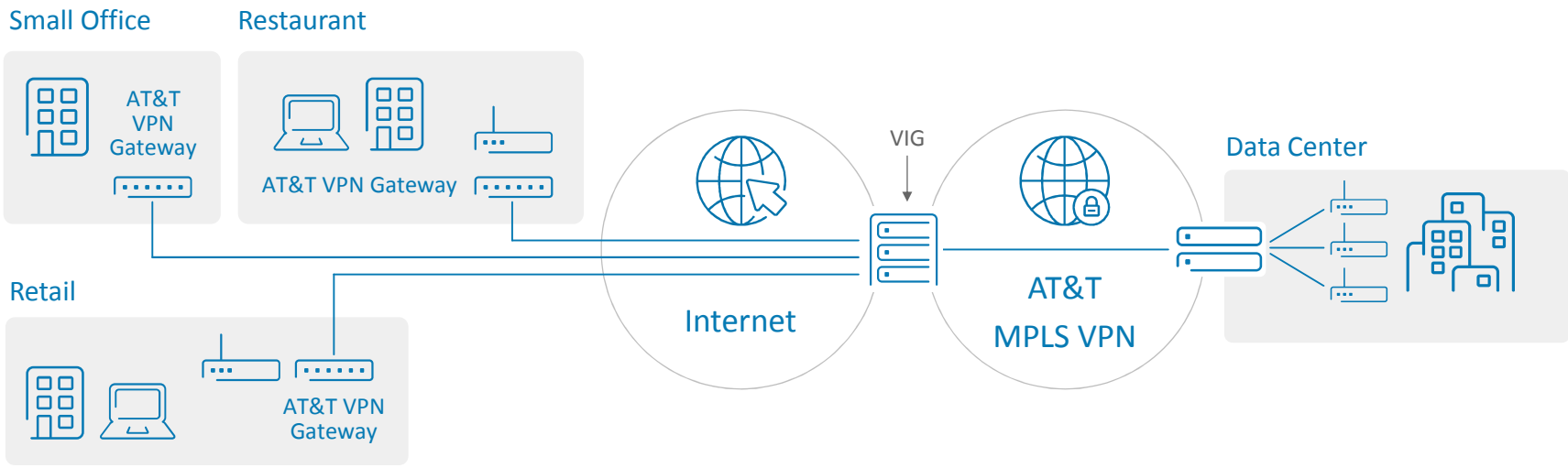
- AT&T authentication
- 802.1x supported
- 3DES IPSec with extended authentication
- PCI Certified
- HIPPA compliant

Let AT&T do it all

Hybrid VPN Services are not your core business, it’s ours

Scenarios

Primary VPN



"Internet side Value Proposition"

- PCI Compliant
- Internet offload to NBFW
- Public WiFi/Analytics
- LTE for failover

Cloud Based Tools

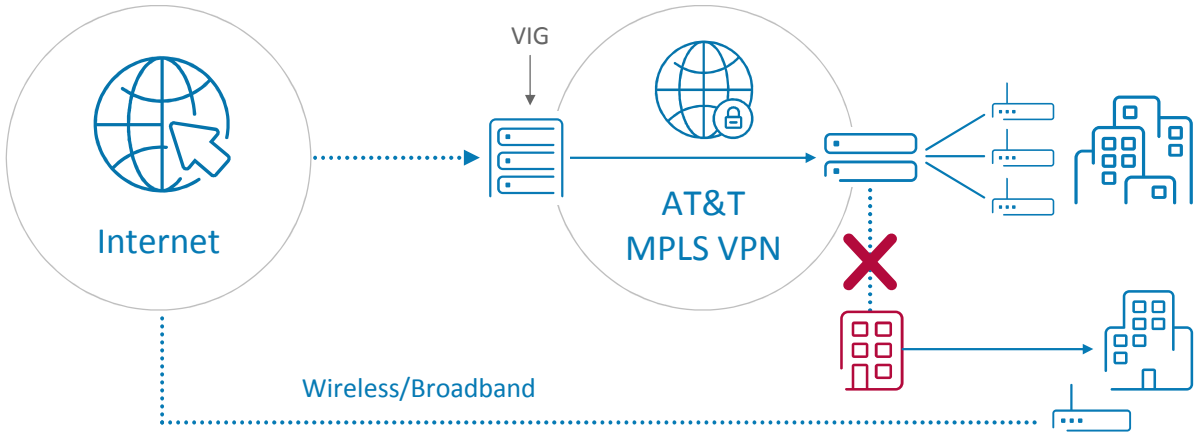
- VIG is Globally Deployed in hardened data centers
- Service Manager - Cloud Configuration
- ARMT - Reporting Visibility

"MPLS side Value Proposition"

- Predictable, Reliable, Ultra high bandwidth
- Access NetBond
- Network on Demand

Business Continuity

Protect your Network and Maintain workforce productivity



Concerns

- Local Access outage
- Building is heavily damaged along with data access – building uninhabitable
- Relocation of employees to temporary site
- Lengthy timeframe to restore building and connections in the event of natural disasters

AT&T Remote Access Offers

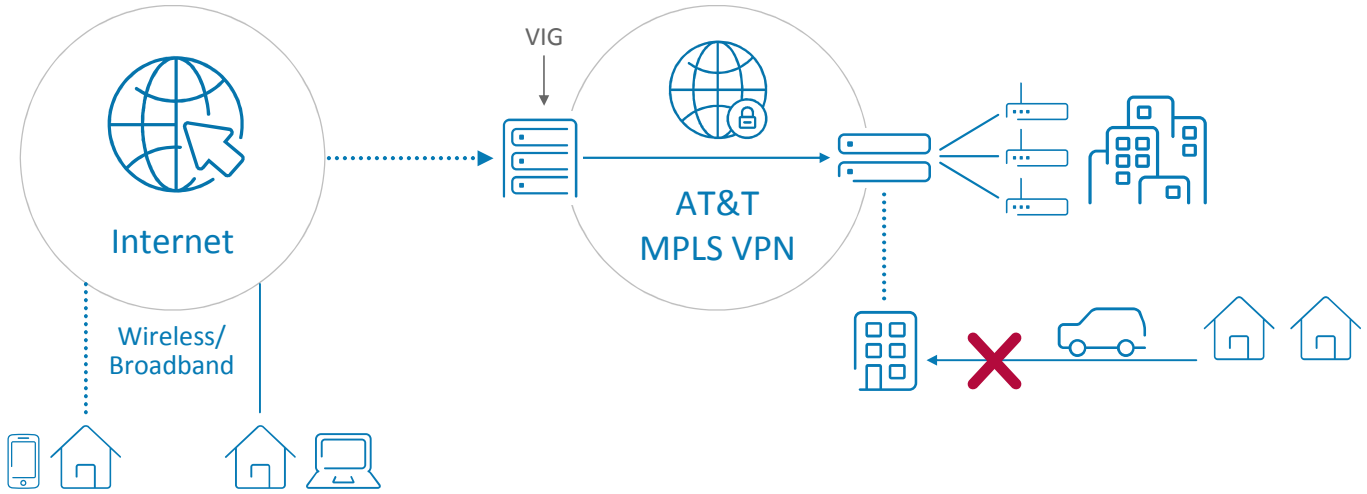
- ANIRA with any Internet for SOHO
- ANIRA with LTE Internet for temporary relocation during restoration
- AT&T Internet-based Remote Access or Mobile Remote Access coupled with a wireless/ broadband connection to restore connectivity can give multiple users access to your network

Benefits

- Temporary solutions can be implemented when needed then stored or sent to new sites
- Fast and easy implementation
- Logical resiliency of network
- Physically diverse transport paths

Employees Must Work from Home

Flexible Scalability



Concerns

- Employees must work remotely, pandemic, road flooded, mass transit unavailable
- Ability to quickly scale number of remote users
- Multiple access devices, laptops, tablets, smartphones

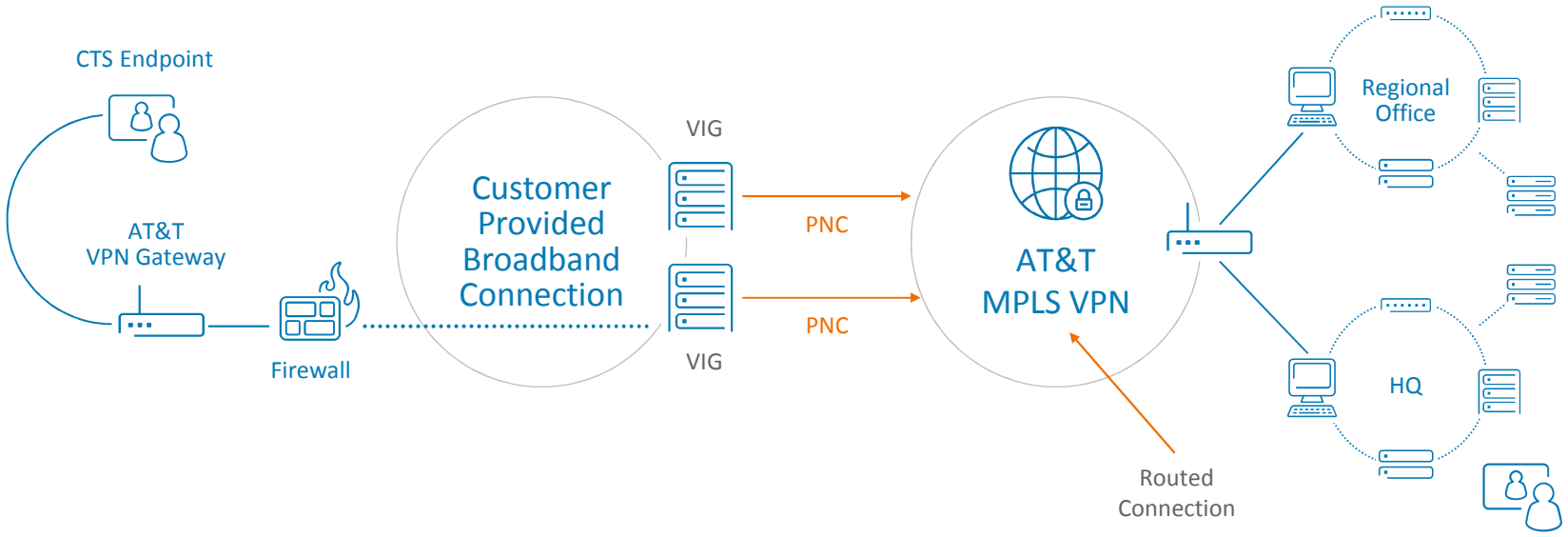
AT&T Remote Access Offers

- AT&T Network-based Internet Remote Access gives laptops access to the corporate network via wireless or broadband
- Mobile Remote Access gives the same access for tablets and smartphones

Benefits

- Fast and easy implementation
- Ability for rapid scalability to thousands of employees
- Business Continuity

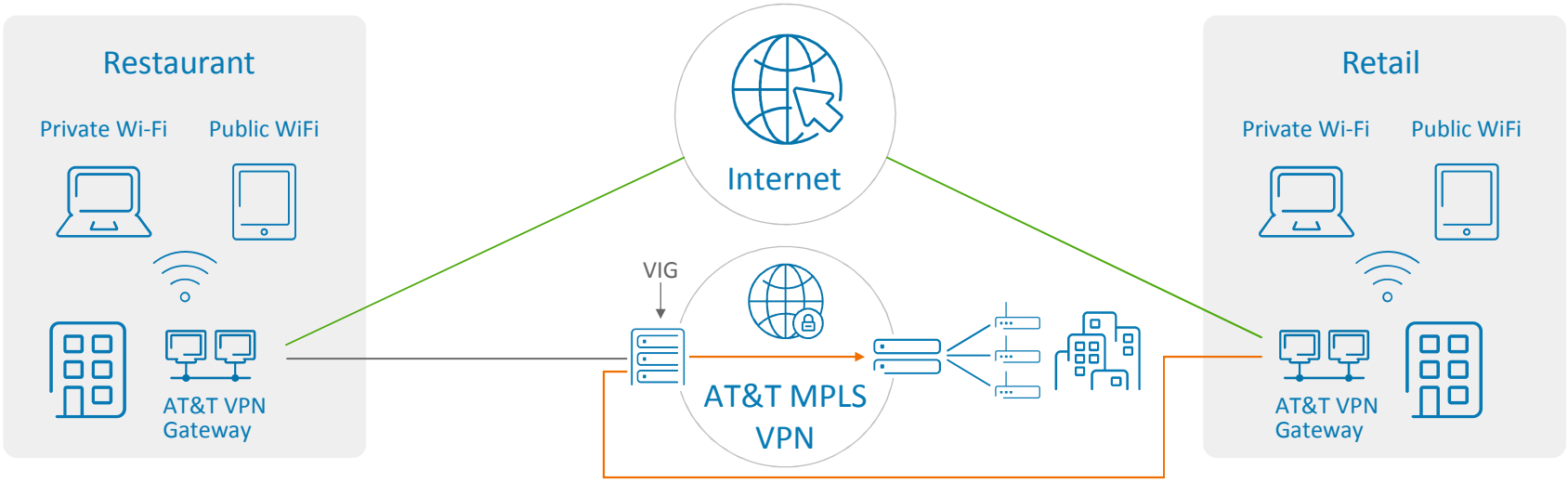
Telepresence over AT&T Network-based IP VPN Remote Access



- Provides Telepresence Service to single users, executives, board members, government officials etc.
- Cost effective telepresence solution for smaller locations

VPN WiFi Access

Retail Locations



Managed WiFi with ANIRA

- ATTGate to VIG tunnel for VPN
- AWS WiFi access points at customer premises

Private WiFi

- Point of Sale (PCI compliant)
- Inventory (Symbol guns)

Public WiFi

- Splash page
- Retail Analytics
- End User Support
- CALEA support

Monitoring for SOHO Devices

Technical Features

- Customer may set their Profile in SERVICE MANAGER to be reactive or proactive alerting
- If Proactive Monitoring has been enabled for an AT&T Gateway 8200/8300, after 6 missed – 5 minute apart polls -- AT&T contacts the customer. Customer must call Help Desk to begin remediation
- A Proactive Monitoring Customer Overview is located at: http://olympus.labs.att.com/attvpng/Education/Customer_Proactive_Monitoring_Specifications_1.3.pdf
- Customer Monitoring Options the AT&T Gateway 8200/8300 SOHO device supports the following management options:
  - ARMT for AT&T VPN Gateway monitoring, alerting and remote reboots
  - Syslog, Netflow and SNMP available to send to Customer's management collectors