IP Technology Labs

Always Connected!

Model 7151 Product Presentation

Secure Network Gateway with Embedded CAT-4 LTE Modem

Securing the Insecure
Connecting the Unconnected

IP Technology Labs

Secure Connectivity Simplified™

Secure Connectivity Simplified™

We design & manufacture appliances that remove cyber risks, lowers costs, & simplifies remote access

Eliminate Cyber Risks from device-based threats like backdoors, spoofing, & tampering without rip-outs

Simplify & Lower-costs with Higher Security when networking remote access devices between sites

We Design Appliances for Secure Connectivity

Founded in 2009, HQ Baltimore, Maryland USA

USA Product, Development & Source Code

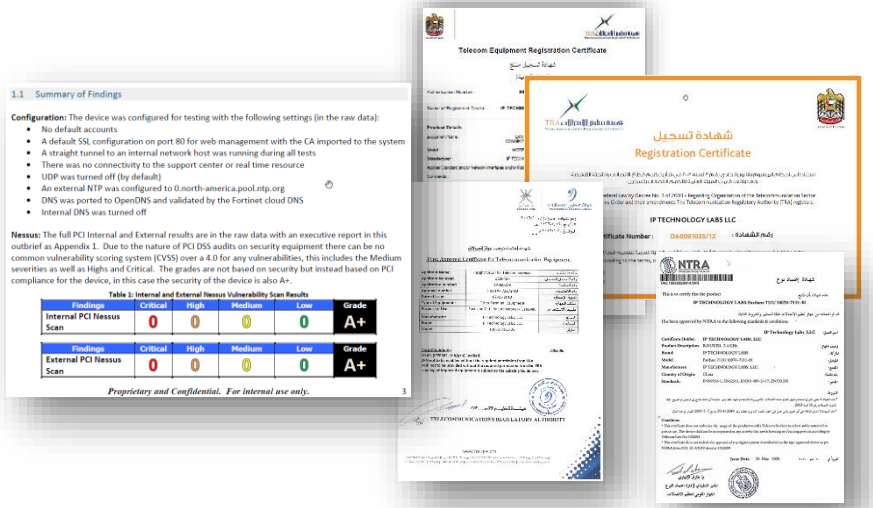
Technology: 6x Patents, Trade Secrets, Know-How

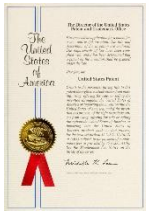
100+ Years in Serial, Modems, Ethernet, & IP

Go to Market: Sell globally – Support locally

Global from the start – used in 73+ countries

We do it All: Engg, Manufacturing, & Logistics





What People Say - The Customer's we Keep

"Today I ran over 30 concurrent calls over tunnel and it worked perfect without any lag and issue. - Amir, VoipLeaders

"Our office is working fine – your device is much reliable"
– Essam, Accorac

"Tunnel is solid! no issues at all." - Sandeep, Dragon Oil/ENOC

"Product to report the tunnel is up and stable"
- Jon, Medical Billing

"*Very Clever! ...*the system worked without any glitches."
– Diaa, Honeywell

"Once again, thank you for all the excellent support; an excellent product at a very attractive price level."" - Amer, Sony Dist

"Saved the Day-- Your redundancy kicked-in twice when I was on holiday." - Dr. Robin, Veterinary Clinics

MERCK Animal Health

Abu Dhabi Gov't/MCC
مركز المتابعة والتحكم
MONITORING & CONTROL CENTRE

G4S

Honeywell

AVAYA

SITA

du

GHENT UNIVERSITY

MOTOROLA

dreambox

AbelCine

FORTUNE
ENGINEERING & ENERGY SERVICES

Dragon Oil

SECURITY EXCELLENCE IoT Evolution 2020

IoT Evolution SECURITY EXCELLENCE 2019

IoT EVOLUTION EDGE COMPUTING 2019 EXCELLENCE Winner IoT Gateways

CYBER DEFENSE GLOBAL AWARDS CYBER DEFENSE MAGAZINE 2019 WINNER

Model 7151 Cellular Secure Network Gateway

- **Integrated International 4G/LTE/UMTS/HSPA+ Modem & Wi-Fi & Wired Ethernet in one tightly managed package**
- **Use as a Cellular Modem or for auto-failover/redundancy**
- **IoT Applications – Physical Security, Sensors**
- **ATM, Access Control, IP Cameras**
- **Full Branch Office Connectivity**
- **Full featured Robust Ethernet Access Router**
- **Multi-port Active/Active or Active/Passive failover/fallback-restore**
- **Secure Armored Tunnels on any port**
- **Use Cellular, Wi-Fi uplink and access point, & Ethernet simultaneously**
- **Dynamic IP supported; Private APN supported**
- **Expandable to multiple port tunnels**

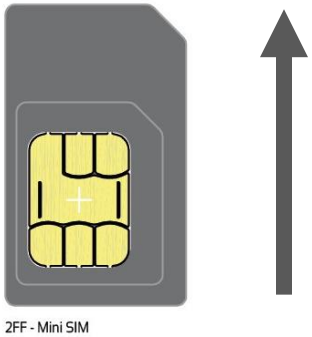
Model 7151 Hardware Highlights

- Semi-ruggedized compact all metal enclosure with integrated flange wall mounts
- Front panel status indicators
- Silent operation – No moving parts
- Low-Voltage DC power input 12V@1A
- 10°- 40°C Operating temp
- 10% - 90% Humidity
- 5x Fast Ethernet ports (auto MDI-X)
- 2x 5dBi RP-SMA Antenna ports (with high-quality Taoglas antennas)
- 2x 2dBi SMA Antenna ports
- External SIM Slot for Cellular Modem

SIM Card Details

- **Uses 2FF “standard” sized SIM cards**
- **External access on side of appliance**
- **Spring loaded secure insertion**

- **Install as shown - with “pads” up**
  1) Power down appliance
  2) Insert SIM
  3) Power up appliance
  Note: Power Cycle required changing or installing the SIM!



- **To use the Cellular modem, a SIM with an active data plan is required (not supplied by IpTL)**
- **The Model 7151 <u>will work</u> without a SIM with Ethernet Wi-Fi, and Tunnel**

Cellular Air Interface Compatibility

IpTL Model	
7151 Series International	
Carrier	**International**
LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32 B2/B4/B5/B7/B12/B13/B25/B26/B29/B30/B66
LTE-TDD	B38/B40/B41
2xCA	B1+B1/B5/B8/B20/B28; B3+B3/B5/B7/B8/B20/B28; B7+B5/B7/B8/B20/B28; B20+B32; B38+B38; B40+B40; B41+B41; note: LTE-FDD B29 and B32 support receiving only, and are only for secondary component carrier in 2×CA.
WCDMA	B1/B3/B5/B8 B2/B4/B5
GNSS	GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS (Optional)

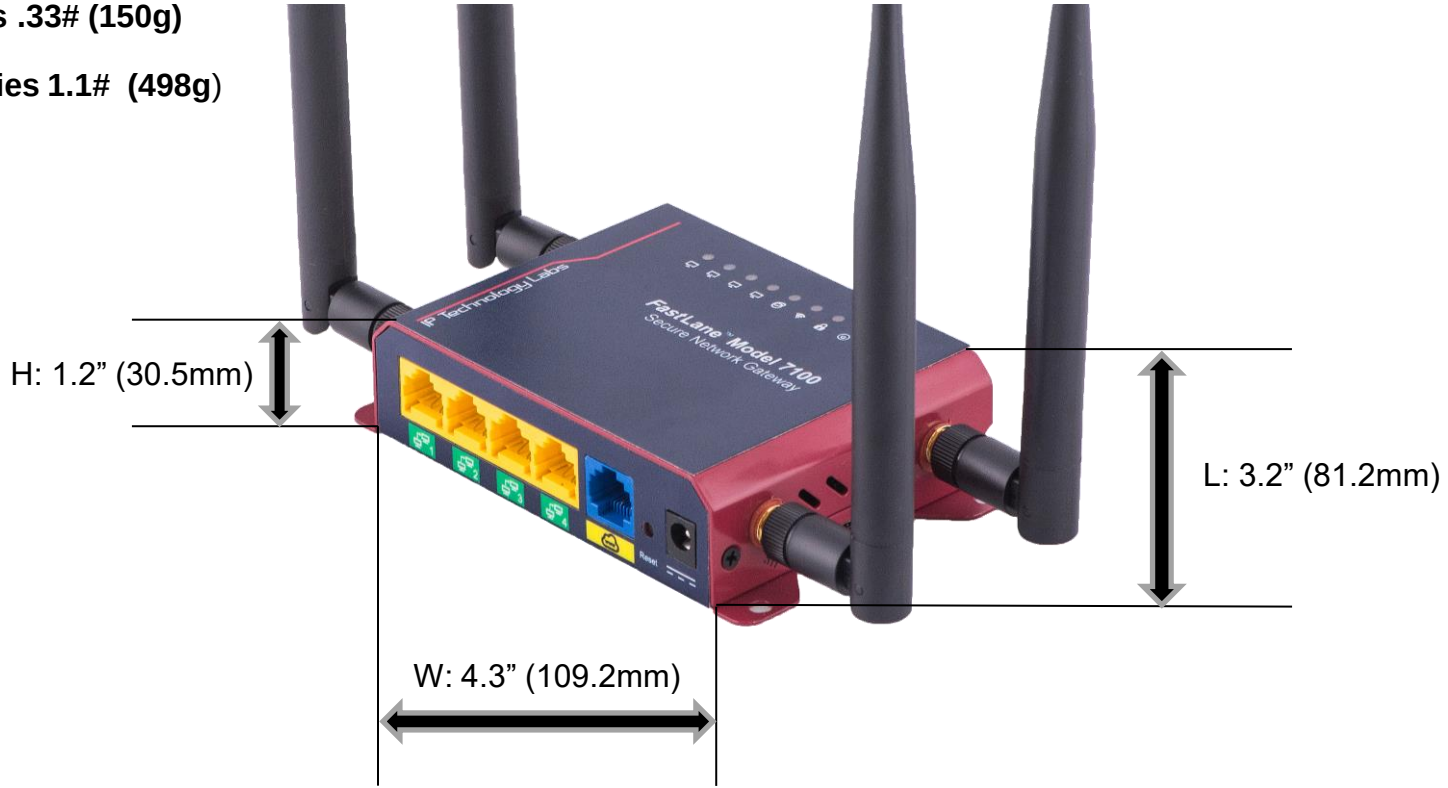
* EP06 Radio

Dims & Weights

Weights

Appliance with Antennas .33# (150g)

Product box & accessories 1.1# (498g)



Box and Accessories

Total Box weight and Dims

Box Dims 6.75” x 10.5” x 2.5”
(172mmx 266mm x 64mm)

Full product shipping weight 1.1# (498g)

Accessories included

- Universal Power Supply 100-240V
  - Includes US, Euro, UK adaptors (intl)
- Ethernet Cable
- 2x 5dBi RP-SMA Antennas (Taoglas)
- 2x 2dBi SMA Antennas

Supplied Antennas for Superior Connectivity

IpTL provides high-quality multiband gain antennas for optimum connectivity

TAOGLAS

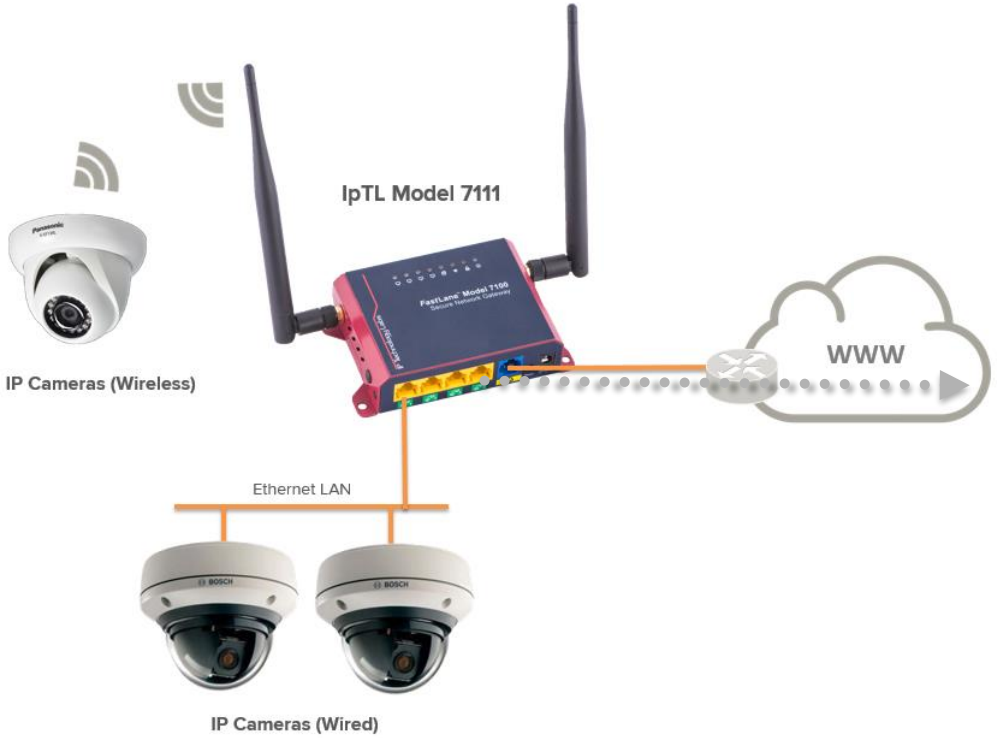
Product Name	:	**Triton** - 2G/3G/4G Terminal Antenna for Cellular Gateways and Routers with Assisted GPS Hinged SMA(M)
Features	:	LTE / GSM / CDMA /GPS/ DCS /PCS / WCDMA / UMTS / HSPA / GPRS / EDGE /IMT 698MHz to 960MHz, 1710MHz to 2690Mhz Dipole Terminal Antenna Hinged SMA(M) Connector Dimensions: Length 168*18*13mm,Φ13mm RoHS Compliant

IoT – IP Camera Application

Aggregate sensors, controls, & monitors securely

End-to-End Security and Attribution for all Media stream – (Video & Audio)

Seamless application and DVR/NVR control



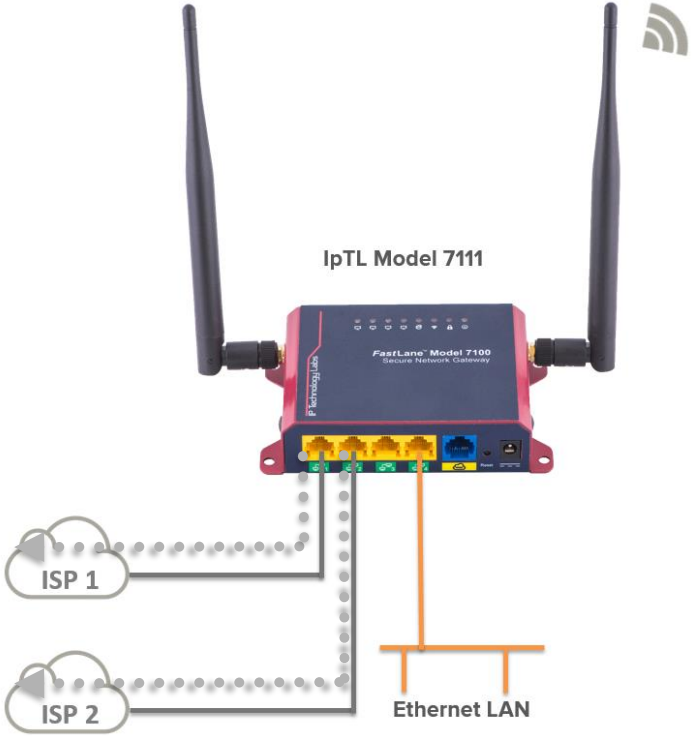
Redundant Providers Application

Branch Office Redundancy
Up to 64 providers (logical)

Multi-ISP Failover/Fallback

Tunnel Bandwidth Aggregation

Traffic Steering Opportunities
E.g. HTTP out ISP1; email out ISP2



Typical Remote LAN Application

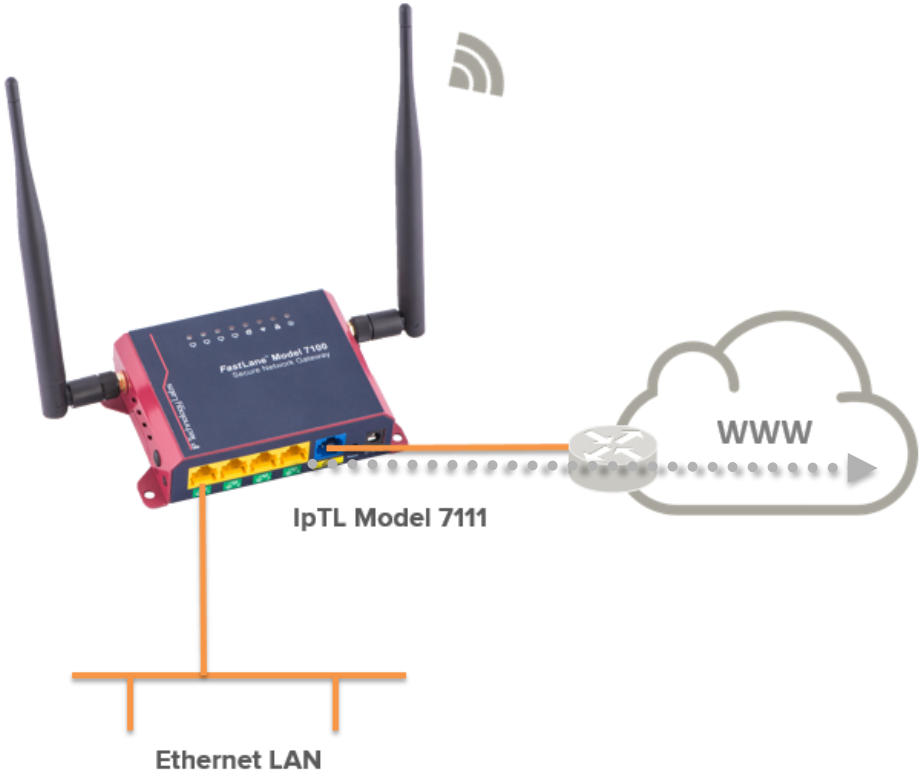
SoHo Branch Connectivity

Split or Compulsory Tunnel

802.11n Wi-Fi Access Point

Full Access Router

- DHCP server/client
- DNS server/client
- Firewall SPI & ACL's



Q & A

Q: I've used the Model 71-04 before, can the Model 7151 be used instead?

A: Yes, the Model 7151 is the replacement for the M71-04 and adds additional functionality, additional ports, and a robust metal enclosure.

Q: Which IpTL servers is the Model 7151 compatible with?

A: The appliance is fully compatible with all IpTL appliances in either server or remote modes.

Q: Can I use the Cellular for auto fail-over/redundancy or backup?

A: Yes, you can automatically use the Model 7151 to provide automatic protection for existing networking facilities.

Q & A

Q: What the data rates I can expect on cellular?
A: This depends on the Carrier network and RF parameters. This table indicates the max upload and download transmission

MAX Air Interface Data Transmission per Standard
LTE-FDD Data Rate (Mbps) 300 (DL)/50 (UL) 300 (DL)/50 (UL)
LTE-TDD Data Rate (Mbps) 226 (DL)/28 (UL) 226 (DL)/28 (UL)
DC-HSPA+ Data Rate (Mbps) 42 (DL)/5.76 (UL) 42 (DL)/5.76 (UL)
WCDMA Data Rate (Kbps) 384 (DL)/384 (UL)

Q: Can I use the Model 7151 as just a Cellular modem for remote Internet?
A: Yes, you can use the appliance as an Internet Cellular Router. Use of IPTL Tunnels is not required for operation.

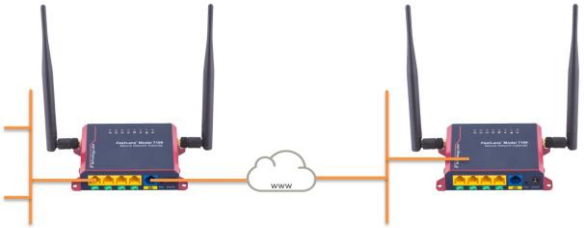
Q: Which servers is the 7151 Tunnel compatible with?
A: All IpTL Clients, Remotes, & Servers are compatible and fully interoperable with each other.

What can you do with IpTL Appliances

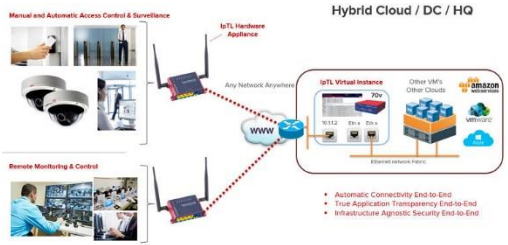
- **Easily & Quickly connect** offices together – including VoIP
- **Encrypt Video** RTSP end-to-end – control device access
- Provide **remote network access** to your customer's network without changing their Router, Network, or using "TeamViewer"
- **Connect and View cameras** remotely without a P2P or Relay Server
- **Prevent spoofing, snooping, and tampering of devices**
- Easily and securely **connect physical devices to "the cloud"**
- Provide **High-Availability** with the fastest Failover/Restore Solution

Application Areas for IpTL

Ethernet Extension and Secure Ethernet LAN over the Internet

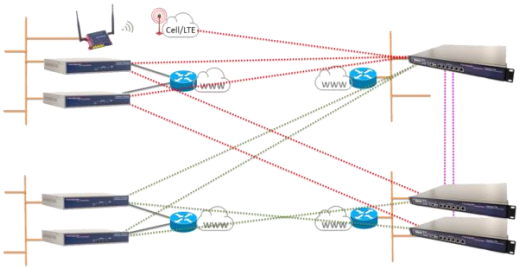


Network Access Control & Infrastructure Security



Secure Remote Access for Devices, IoT, & OT

Cellular Connectivity & Failover for any WAN



Scalable 1 to 1,000 of Networks- Endpoints, Servers, & Cloud

	Wired+Wi-Fi+LTE	Cellular LTE			Virtual
Mobility	**Workgroup**	**M2M/DR-BC**	**Networking**	**Access+**	**Cloud / DC**
1+ Tunnel			1+ Tunnels	1-25 Tunnels	1,000's Tunnels

Model 8 NetBlazer-D2

Model 501 IoT Adapter

Wi-Fi / Eth Dongles

- Multi Device Support
- Low-power 5VDC
- 2 Factor Form

Model 800 Series

Wi-Fi+Eth+LTE+Batt

- 840 – LTE Intl Only
- 830 – Wi-Fi Only
- 5000mAh Batt
- Wired Ethernet
- Portable Secure Access

Model 7111, 7004VZ, & 7151

LTE + Wi-Fi + Wired Ethernet

- Integrated LTE
- Internet Access
- Auto Backup Failover
- All ports can be used for tunnels

Model 780-75

Performance Remote

- 1 Connection, expandable
- IP Camera Backhaul
- VoIP/UC Connectivity
- Use for high-bandwidth applications

Model 780

4X GiG Aggregator

- 1-25 Connections
- Connections are license scalable
- Office VoIP UC
- Expandable for additional sites

Model 70v

- VMWare ESXi
- Amazon AWS AMI
- Virtual Box
- Hyper-V/Azure

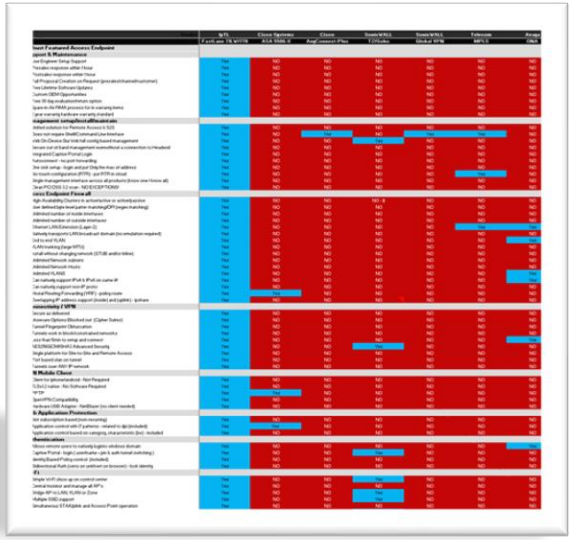
Model 79R

- 1RU form Factor
- 1,000's of users
- 6x GigE ports

Why to Buy - How Does It Compare?

6 Reasons to Consider IpTL

Easiest Tunneling	VPN for IP Cams, Access Control, Alarms, & Ethernet OT
Superior Connectivity	End-to-End even with Dynamic IP
Highest Availability	Redundancy, & Resilience
Best Management	Full-touch out-of-band access
Highest Security	Integrated device-based 2-Factor NAC attribution
Best Privacy	Not a P2P service - data is direct between your sites



…while lowering all costs, decreasing rollout time, & removes deployment risks and delays

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Always Connected™

Thank you for your Attention!

Email: sales@IpTechnologyLabs.com
Tel: +1 301 570 6611 x601

SuperNAC™