

nuwave

powered by  ipilot

COMPANY SERVICES OVERVIEW



Microsoft
Partner



Calling for Microsoft Teams
Advanced Specialization
Gold Project and Portfolio Management
Gold Communications
Gold Cloud Productivity

OVERVIEW

NUWAVE Communications' Proven Reliability

NUWAVE has 20+ years of experience delivering communications services to customers world-wide.

- iPILOT - An Award-Winning SaaS Platform to Manage and Deploy Enterprise Voice Service for Microsoft Teams.
- 1st, Self-Service Automation Portal for Microsoft Teams Voice Enablement.
- Operator Connect Global Launch Partner.
- Microsoft Advanced Specialization in Calling for Microsoft Teams.
- Global Voice & MAPS peering connectivity

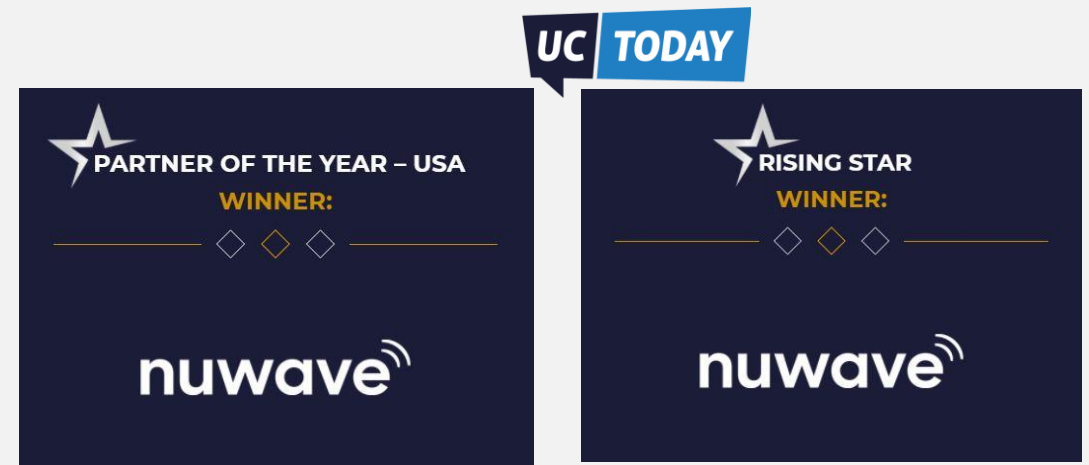


Calling for Microsoft Teams
Advanced Specialization
Gold Project and Portfolio Management
Gold Communications
Gold Cloud Productivity

OEM Device Partners



"NUWAVE's passion for driving a simplified customer experience and their highly reliable voice services made NUWAVE an easy addition to Operator Connect for Microsoft Teams. The level of integration and automation that NUWAVE introduces aligns with our vision for realizing the potential vision of Operator Connect",
Mattia Tocco, Product and Business Leader at Microsoft.



Our Network



SETTING NEW STANDARDS

Delivering Enterprise Voice for 10+ years without a customer facing service interruption



THE STRENGTH OF THE NETWORK

- ✓ Carrier Grade Infrastructure.
- ✓ Global Coverage – North America, EMEA, APAC(Q4)
- ✓ 1 to 1 Connect to Microsoft via MAPS
- ✓ Fraud Detection & Monitoring
- ✓ Complete Redundancy:
 - Equipment, Power, Cooling, Access & Storage
- ✓ Future Proof World Class Technology
- ✓ Disaster Plan support
- ✓ Committed Quality of Service



GLOBAL COVERAGE IN:

United States, Canada, Sweden, Denmark, Portugal, Spain, France, Belgium, Germany, Switzerland, Austria, Italy, Ireland, Netherlands, United Kingdom



100% 10+ Year Uptime

99.99999% 20+ YEAR GLOBAL NETWORK AVAILABILITY

nuwave





Communications Provisioning in Minutes, not Months



Unified

iPILOT™ offers a single pane of glass view and control of your entire global communications infrastructure.



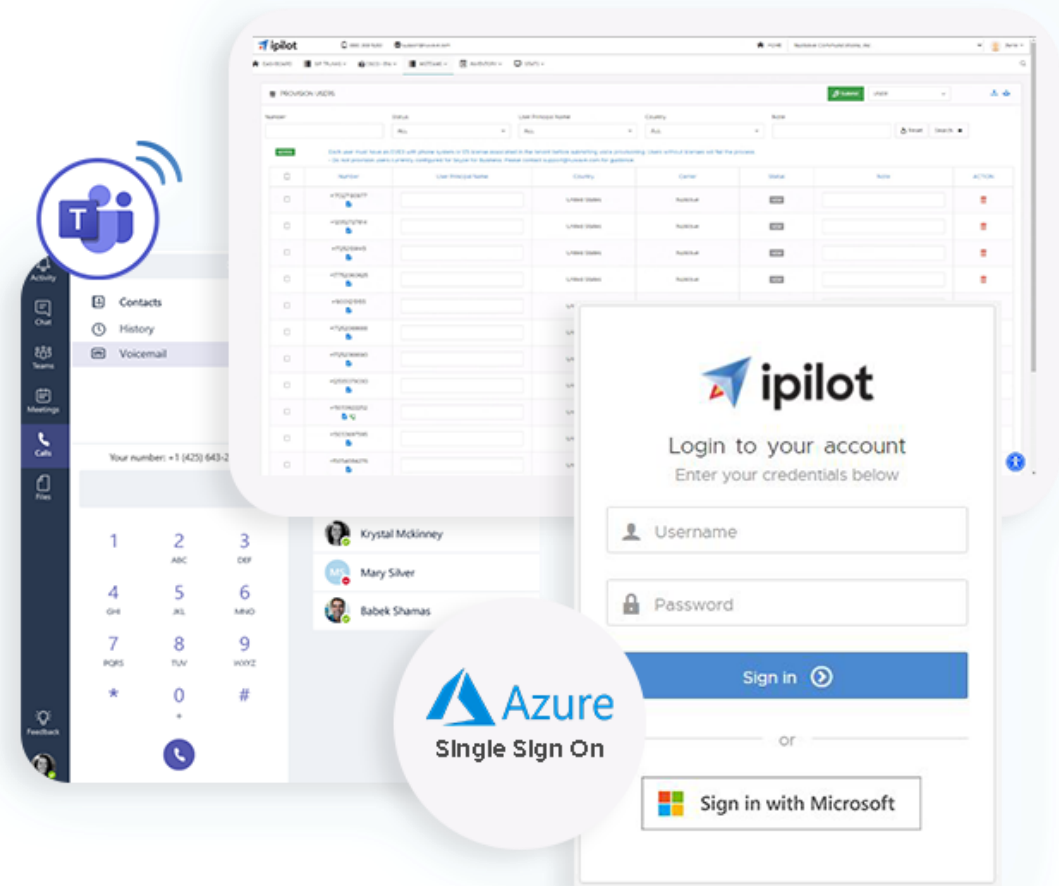
Simplified

iPILOT™ simplifies the onboarding & tenant provisioning process into a single workflow that can be managed by non-technical personnel.



Fast

iPILOT™ reduces the time to market for Direct Routing customers to minutes, not months.





In Addition to OC/DR Automation...

- Over a half million development hours invested in creating iPILOT
- End-to-end communications management automation platform that is unmatched in the industry
- Highest level of service availability and support
- Leverages customer feedback to organically grow and improve upon features

- | | | |
|---|---|---|
| ✓ Legacy PBX Assessments | ✓ Number provisioning to AA/CQ, Common Area, and Meeting Rooms. | ✓ SMS activation provisioning for Teams numbers |
| ✓ O365 Tenant Validation | ✓ Automated Device Procurement | ✓ Calling Party Number translation |
| ✓ Single Sign-on (SSO) | ✓ Automated Procurement of MS Licenses | ✓ E911 and Dynamic 911 activation and updating |
| ✓ Active Directory Integration | ✓ Enable/ Disable International Calling | ✓ On-Demand SIP Trunk Scaling |
| ✓ Automated DR Setup & Configuration | ✓ Integration & Interoperability through APIs | ✓ 24x7 iPILOT Support Services |
| ✓ Single Tenant Department Segregation | ✓ Enable/Disable Calling Features On-Demand | ✓ CSP Licensing Procurement |
| ✓ Same Day POC Setup & Configuration | ✓ Automated Toll-Free number activation, porting, and routing. | ✓ On-Demand MACD for Teams Voice |
| ✓ On-demand Disaster Planning | ✓ Automated New Number Ordering | ✓ CDR, Capacity, & Inventory Reporting |
| ✓ 3 rd Party Carrier Management | ✓ Automated Voice Provisioning | ✓ O365 Digital Skills Training Program |
| ✓ CNAM activation and updating | ✓ Automated User Provisioning | ✓ 24x7 Advanced Monitoring and Analytics |
| ✓ Automated Number Porting | ✓ Number Inventory and Management | ✓ Error Status reporting |
| ✓ User Feature Icon Display | ✓ Advanced search and export functionality | ✓ Call Recording |
| ✓ White Label Multi-tenancy (Carriers, SIs, MSPs) | | ✓ OC and DR Single Pane of Glass Management |



An Innovative Solution for Connecting Voice Services

Network as a Platform

NUWAVE SYNTHESIS™ is a product that allows partners to bring their own SIP trunks to inter-connect into the Nuwave carrier grade Network for ease of deployment for Microsoft Teams.

NUWAVE does all the heavy lifting for partners by interfacing with the Microsoft Teams infrastructure and acting as the “front end” for partners networks, essentially meshing the Nuwave carrier grade redundant network with the partners for the most optimal routing and resilient delivery of services.

Why SYNTHESIS

The SYNTHESIS™ platform is created to fill the gap and give speed to market for Carrier networks looking to offer their own Cloud Platform Carrier Voice services.

Who is this for

- ✓ **Carrier Operators**
- ✓ **Telecom License Partners**

“NUWAVE is focused on the simplification, automation, and innovation that enhances our partners to be successful in the ever-changing marketplace. Our goal is to enable a scalable future for all that strive to be the best in their cloud communication service offerings.” Mark Bunnell - COO



Award-Winning CPaaS Platform

iPILOT offers a cloud platform as a service (CPaaS) to support the entire Microsoft Teams Calling lifecycle including migration, deployment, capacity management, support, analytics, and integration.



Network as a Platform.

Complex Integrations Solved Through Innovation.

Simplifying the launch and scale of your UC Cloud Voice Offering.

Geo-Redundant Global Network

North America South America Asia Pacific
Europe Africa Australia/NZ

Carrier Grade Infrastructure

Certified, Carrier-Grade SBCs High Availability, Firewall Routers Synthesis Centralized Intelligent Routing Core

Security, Analytics and Fraud Protection Tools

Carrier-Grade DDOS Mitigation STIR/Shaken Framework SIP Security with auto Detection & Blocking
Encrypted SIP Analytics, IP Flow Analytics Visibility & Quality Assurance Tools Toll Fraud Detection & Mitigation

ISO 27001 Certification

SIP Connectivity

Carrier/Partner Network

API Integration

Operator Connect

Direct Routing

Direct BGP Peering



Microsoft Teams Voice Enabled Tenant

Direct Peering with Microsoft Azure

UC TODAY

PARTNER OF THE YEAR - USA
WINNER:

nuwave

RISING STAR
WINNER:

nuwave

Microsoft Partner



Calling for Microsoft Teams Advanced Specialization
Gold Project and Portfolio Management
Gold Communications
Gold Cloud Productivity

CHOOSE YOUR SOLUTION

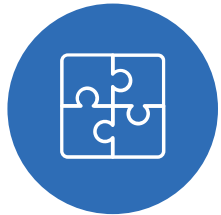


An Innovative Solution for Connecting Voice Services



Synthesis Cloud Connect

- Partner trunks directly connected into Nuwave Network for advanced call routing
- In this solution calls will ORIG from the PSTN over the partners trunk groups into Teams leveraging the redundant Nuwave network as the interface into the Microsoft Network.



Synthesis Fusion

- Mixture of call routing over Partners directly connected trunk groups as well as the existing Nuwave Tier1 carrier interconnects
- Custom dial plans can be setup within the Nuwave routing core to route based on desired destinations where the partners desires (over Nuwave existing trunks to PSTN or over the partners directly connected trunks).
- In this solution where calls will Terminate out of Teams over the partners trunks as well as Nuwave Tier1 trunks to the PSTN. Custom dialing plans can be setup within the Nuwave routing core to distribute calls based on destination (for example 911 can utilize current Nuwave services, or International can use current Nuwave service and Domestic can be routed over the partner directly connected trunk groups)

SOLUTION BRIEFS

Use Case	iPILOT	Synthesis	NUWAVE Voice	Partner Voice	Agreement	Commercials
PARTNER VOICE	YES	Synthesis Cloud Connect	NO	YES	<ol style="list-style-type: none"> 1. iPILOT Partner Agreement 2. Synthesis Addendum 	<ol style="list-style-type: none"> 1. iPILOT Subscription Fee 2. iPILOT Platform Setup Fee 3. Synthesis Subscription Fee 4. Synthesis Setup and Mgmt. Fee
NUWAVE VOICE	YES	NO	YES	NO	<ol style="list-style-type: none"> 1. iPILOT Partner Agreement 2. Nuwave Voice Agreement 	<ol style="list-style-type: none"> 1. iPILOT Subscription Fee 2. iPILOT Platform Setup Fee 3. Nuwave Voice Usage Fee
PARTNER VOICE + NUWAVE VOICE	YES	Synthesis Fusion	YES	YES	<ol style="list-style-type: none"> 1. iPILOT Partner Agreement 2. Synthesis Addendum 3. Nuwave Voice Agreement 	<ol style="list-style-type: none"> 1. iPILOT Subscription Fee 2. iPILOT Platform Setup Fee 3. Synthesis Subscription Fee 4. Synthesis Setup and Mgmt. Fee 5. Nuwave Voice Usage Fee
PARTNER VOICE + NUWAVE VOICE+ 3 rd Party VOICE	YES	Synthesis Fusion	YES	YES	<ol style="list-style-type: none"> 1. iPILOT Partner Agreement 2. Synthesis Addendum 3. Nuwave Voice Agreement 	<ol style="list-style-type: none"> 1. iPILOT Subscription Fee 2. iPILOT Platform Setup Fee 3. Synthesis Subscription Fee 4. Synthesis Setup and Mgmt. Fee 5. Nuwave Voice Usage Fee <p>** 3rd Party Voice Agreement is with Partners – No NUWAVE Involvement</p>

Why SYNTHESIS

The goal of the SYNTHESIS Platform is to simplify, speed up the onboarding process, reduce the associated integration CAPEX costs for the Service Provider and leverage existing Network as a Service from SYNTHESIS to provide deeper integrations, and overall, enable more Service Providers to easily integrate and offer voice services for cloud platform providers with less associated cost and complexity of handling of the relevant infrastructure.



Connectivity

Synthesis Provides Geo Redundant Global Network Coverage, with Pops in ASIA PACIFIC, EUROPE & North America, with AFRICA and Latin Americas Regions on deck.



Visibility

Synthesis provides Analytics with Encrypted SIP Analytics and IP Flow with quality assurance tools to support Partner Operations.



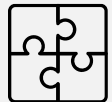
Scalability

Only pay for what you use without CapeX investment. SYNTHESIS platform provides maximum on-demand elasticity.



Automation

SYNTHESIS provides automated Routing through NUWAVE's Centralized Intelligent Routing Core, making it easy to connect and manage your service.



Security

Advanced security modules such as Carrier-Grade DDOS Mitigation, STIR/Shaken Framework, SIP Security with auto Detection & Blocking, and Toll Fraud Detection & Mitigation.



UC platform

Synthesis is connected to Microsoft network (MAPS) and partner using synthesis can easily and quickly launch and enable Cloud UC voice.

PRE-REQUISITES

1. Inter-op details for the directly connected SIP trunks (SIP IP addresses / RTP IP addresses) for Interconnection setup
2. Teams accounts for Testing will need to be built on the Teams side
3. Routing specifications on how partner wants calls routed depending on the Synthesis model deployed



EXAMPLE

Unique Customer/Partner	Offered Dial Plans/Patterns	ROUTING PATH
Teams Caller 1	Emergency	Predetermined Routing Label Id / Customer trunk group (TG/IP address) as specified by Customer/Partner or use Nuwave routing
	North America	Predetermined Routing Label Id / Customer trunk group (TG/IP address) as specified by Customer/Partner or use Nuwave routing
	International	Predetermined Routing Label Id / Customer trunk group (TG/IP address) as specified by Customer/Partner or use Nuwave routing
Teams Caller 2	Emergency	Predetermined Routing Label Id / Customer trunk group (TG/IP address) as specified by Customer/Partner or use Nuwave routing
	North America	Predetermined Routing Label Id / Customer trunk group (TG/IP address) as specified by Customer/Partner or use Nuwave routing
	International	Predetermined Routing Label Id / Customer trunk group (TG/IP address) as specified by Customer/Partner or use Nuwave routing

Advantages

The SYNTHESIS™ platform is the most innovative, simple way to connect your voice services to UC Cloud Platform OEMs that NUWAVE supports (Microsoft Teams and in Q1 2022 Zoom). Using SYNTHESIS™ and iPILOT™, you obtain immediate access to Integration, Visibility and Control across your own network that you would otherwise need to build out the capability yourself.



Geo Redundant network in each region globally.



Self-serve/On demand provisioning of all services.



DDos protection & STIR/Shaken included.



Eliminate network elements (SBCs), licensing, support contracts.



Analytics/NOC tools built in for visibility and troubleshooting.



ISO 27001 certification on the network elements included.



Hacker detection & Fraud protection tools included.



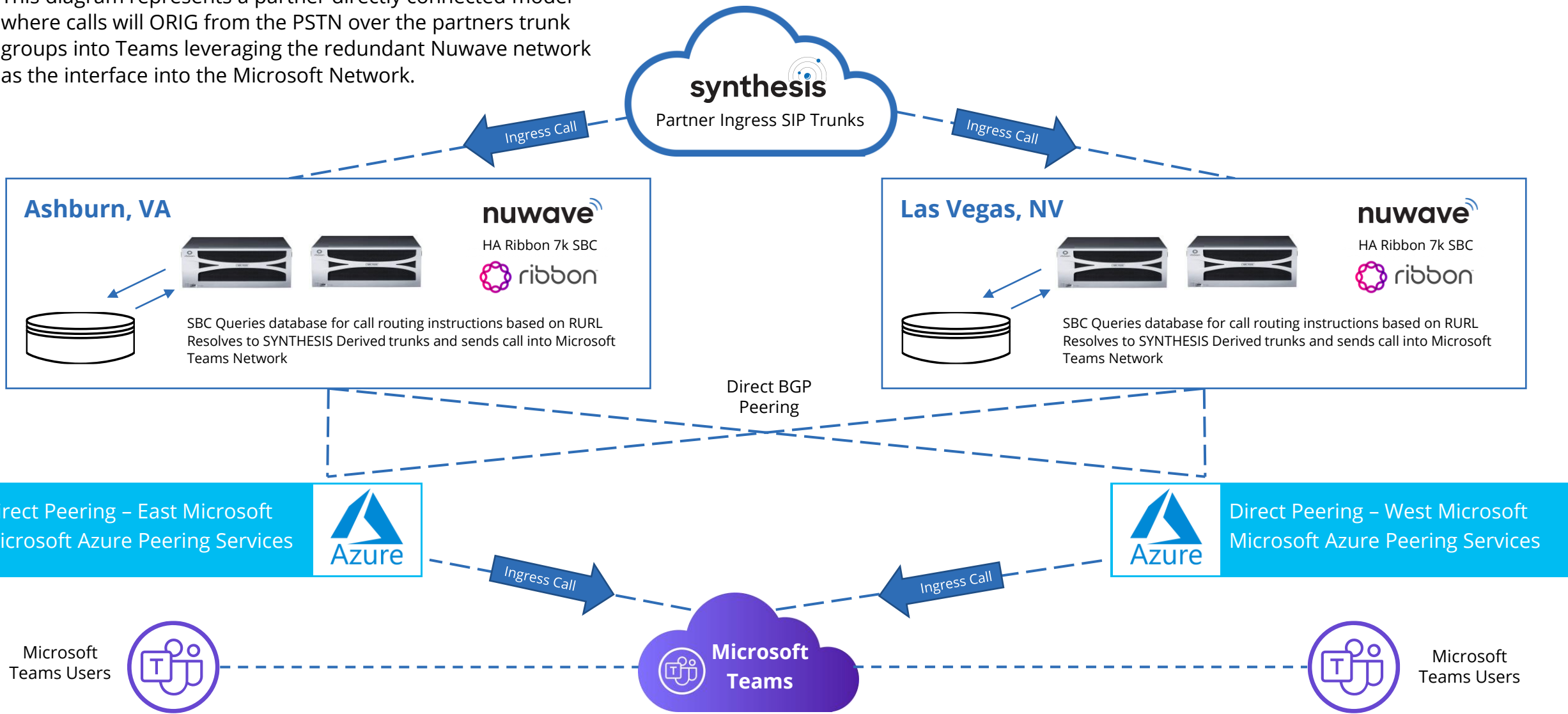
Eliminate Colocation space, power, cross connects, internet.



Gain access to all the latest services, Teams, Zoom, Cisco and others.

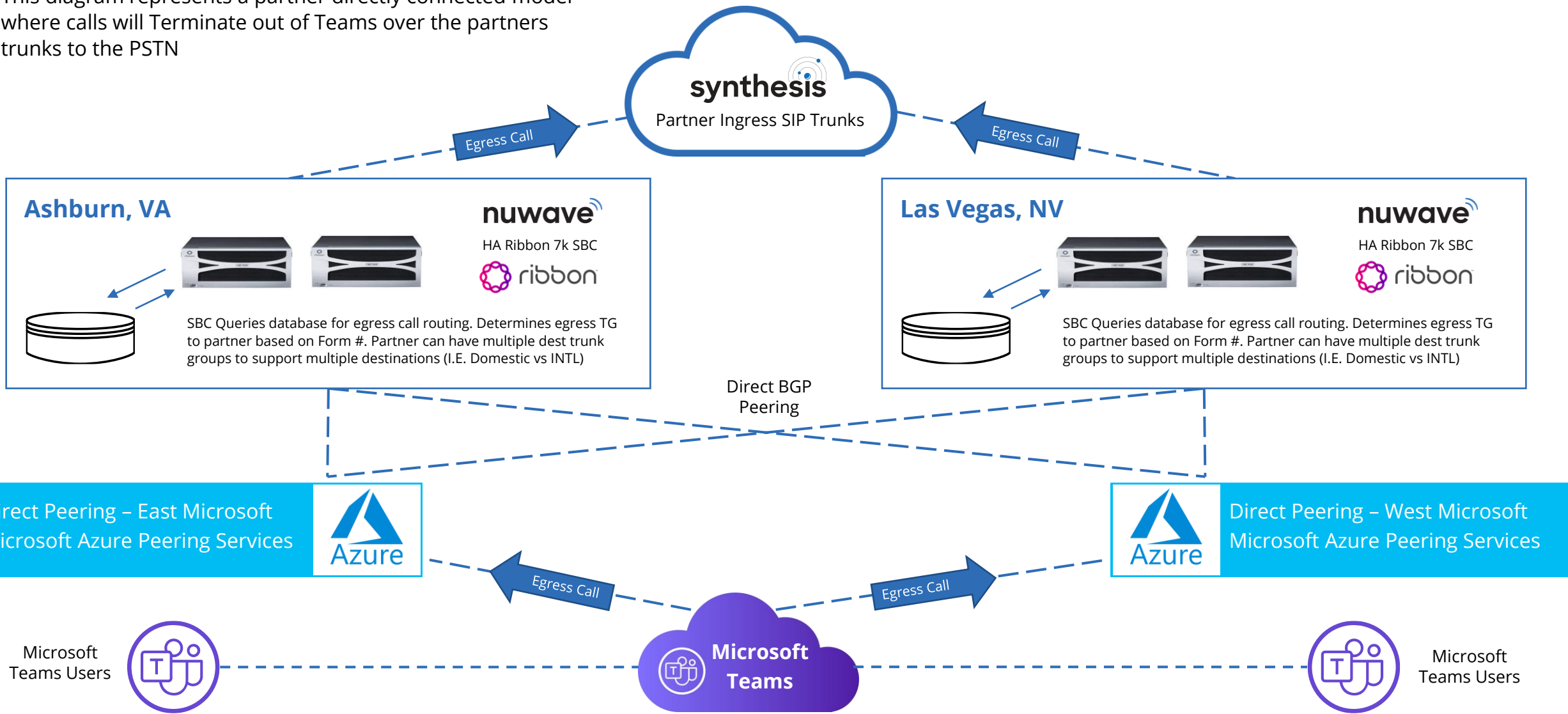
North America Call Flow Architecture (Ingress)

This diagram represents a partner directly connected model where calls will ORIG from the PSTN over the partners trunk groups into Teams leveraging the redundant Nuwave network as the interface into the Microsoft Network.



North America Call Flow Architecture (Egress)

This diagram represents a partner directly connected model where calls will Terminate out of Teams over the partners trunks to the PSTN



Benefits for Sales/Service/Support

Single Service Pane of Glass

No easy way to connect your current service provider or to your existing Cloud architecture that enables your remote work. This results in a company managing a variety of different services while trying to tie them together, which causes higher overhead costs, operational complexity, and long response times from providers.

Faster Revenue

Because of the complexity of provisioning, enabling your Cloud Network can take a long time to implement, sometimes having to wait weeks or months before getting your service or users up and running.

Reduced Administration

Connecting your Voice Network to your Cloud Office can have a complex onboarding and provisioning process, which requires extensive coding knowledge and a team of Engineers to be able to provision new users, assign new numbers or make changes to your current network.



**Single UI
Management**



**Faster Revenue
Streams**



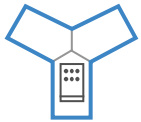
**Zero-Touch Sales
Scalability**

PILOT READINESS FOR PARTNERS



Rapid Enablement via Fully Automated Platform

Enabling OC Partners with a fully Self-serve provisioning platform



Automated Device Procurement

Use Nuwave Or Partner's Existing Distribution Contracts



Bring Your Own Carrier (BYOC)

Multi Carrier Support For Each Region/Country



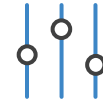
Single Pane of Glass

Complete Control And Management Capability



Fully White Label Multi-tenant

Provide the customer with industry standard solution



Voice Lifecycle Orchestration

Day0/Day1/Day2 lifecycle orchestration



Billing As a Service (Optional)

Fully-automated, Self Service Ordering



Disaster Recovery Planning Features

Design & Pre-Configure your Carrier-level forwarding



Global Connectivity & Support

Globally support any customer location



On-Demand Scalability

Zero-touch, fully elastic platform allows for on-demand scalability

- ✔ **No Power-Shell Knowledge Required**
- ✔ **Enhanced Productivity**
- ✔ **Scalability**
Provision DR/OC from a few users to thousands in minutes
- ✔ **Unified Platform**
Consolidation of Multiple Vendors via single platform
- ✔ **Faster Time To Market**
- ✔ **Pay As You Use – Pure Opex Offering**
- ✔ **Reduced costs and improved agility**
Error Free Deployment
- ✔ **Automated Number Procurement & Porting**
- ✔ **Automated Device Procurement**
- ✔ **Full control of MACD**
Easily Add Trunks, Select phone Numbers, Provision users & more
- ✔ **Automated Voice Policy Configuration**
- ✔ **Automated DIRECT ROUTING Configuration**
- ✔ **Fully Secure Solution**
Role based Access, Audit Trail, AD SYNC MFA enabled

W/O IPILOT BASED SOLUTION:

- ✖ **Need Power-Shell Expert**
- ✖ **Chance of Human Error**
- ✖ **Longer Implementation Cycle**
- ✖ **Requires CAPEX investment**
- ✖ **Manual Process**
Dependent on Microsoft expert
- ✖ **Higher Cost as compared to iPILOT Solution**
- ✖ **Complex solution implementation**
scattered system and roll out process
- ✖ **Need manual intervention for Business Continuity**
- ✖ **Unclear costs & lack of control**

CUSTOMER USING IPILOT VS W/O FOR SAVINGS

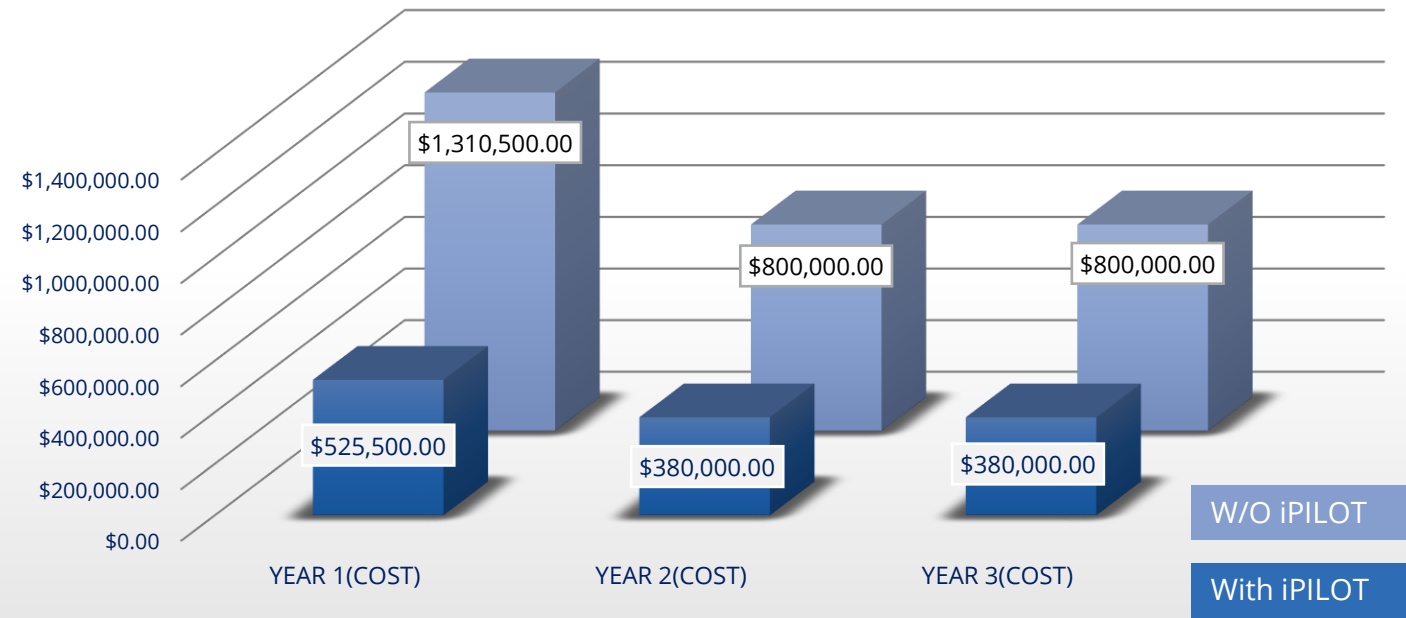


- ✓ Lower Upfront investment to establish the service
- ✓ NUWAVE will provide specialist technical resources to help deploy and support the services into your estate
- ✓ Roll out for the iPILOT solution would be deployed in 2 Months

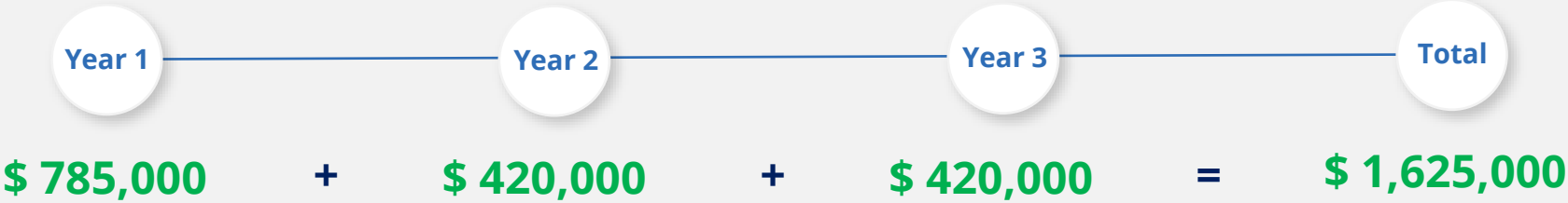
W/O IPILOT

- ⊖ High upfront investment on year 1 (additional \$785, 000)
- ⊖ Need to find specialized resources and skills to manage and maintain platform
- ⊖ Roll out time for the solution would take anything up to 12 months

Cost of DR/OC SOLUTION FOR 5K USERS



POTENTIAL SAVINGS:



CUSTOMER USING IPILOT VS W/O FOR SAVINGS

User Count: 5000		Customer Inhouse Implementation				Roll Out Time: 12 Months	
RESOURCE TYPE	PER- ANNUM	YEAR 1(FTE)	YEAR 2(FTE)	YEAR 3(FTE)	YEAR 1(COST)	YEAR 2(COST)	YEAR 3(COST)
iPILOT SUBSCRIPTION FEE (4 USD PUPM)	\$ 48	0	0	0	0	0	0
Microsoft Professional Tech Resource	\$ 180,000	1.00	0.00	0.00	\$ 180,000	\$ 0	\$ 0
Microsoft Professional Support Resource	\$ 160,000	1.00	1.00	1.00	\$ 160,000	\$ 160,000	\$ 160,000
Voice Network Resource	\$ 140,000	1.00	1.00	1.00	\$ 140,000	\$ 140,000	\$ 140,000
Project Management	\$ 150,000	0.50	0.00	0.00	\$ 75,000	\$ 0	\$ 0
Governance	\$ 200,000	0.25	0.00	0.00	\$ 50,000	\$ 0	\$ 0
Cross Functional Effort	\$ 150,000	0.25	0.00	0.00	\$ 37,500	\$ 0	\$ 0
Initial Planning And Design	\$ 180,000	0.10	0.00	0.00	\$ 18,000	\$ 0	\$ 0
Support Desk L1 To L3	\$ 120,000	4.00	4.00	4.00	\$ 480,000	\$ 480,000	\$ 480,000
Premier Support	\$ 20,000	1.00	1.00	1.00	\$ 20,000	\$ 20,000	\$ 20,000
Project Kick Off And Mobilization	\$ 150,000	1.00	0.00	0.00	\$ 150,000	\$ 0	\$ 0
					\$ 1,310,500	\$ 800,000	\$ 800,000

Subscription Fee (PUPM) 4.00 USD		iPILOT Implementation				Roll Out Time : 2 Months	
RESOURCE TYPE	PER- ANNUM	YEAR 1(FTE)	YEAR 2(FTE)	YEAR 3(FTE)	YEAR 1(COST)	YEAR 2(COST)	YEAR 3(COST)
iPILOT SUBSCRIPTION FEE (4 USD PUPM)	\$ 48	5000	5000	5000	\$ 240,000	\$ 240,000	\$ 240,000
Microsoft Professional Tech Resource	\$ 180,000	0.00	0.00	0.00	\$ 0	\$ 0	\$ 0
Microsoft Professional Support Resource	\$ 160,000	0.00	0.00	0.00	\$ 0	\$ 0	\$ 0
Voice Network Resource	\$ 140,000	0.00	0.00	0.00	\$ 0	\$ 0	\$ 0
Project Management	\$ 150,000	0.25	0.00	0.00	\$ 37,500	\$ 0	\$ 0
Governance	\$ 200,000	0.10	0.10	0.10	\$ 20,000	\$ 20,000	\$ 20,000
Cross Functional Effort	\$ 150,000	0.10	0.00	0.00	\$ 15,000	\$ 0	\$ 0
Initial Planning And Design	\$ 180,000	0.10	0.00	0.00	\$ 18,000	\$ 0	\$ 0
Support Desk L1 To L3	\$ 120,000	1.00	1.00	1.00	\$ 120,000	\$ 120,000	\$ 120,000
Premier Support	\$ 20,000	0.00	0.00	0.00	\$ 0	\$ 0	\$ 0
Project Kick Off And Mobilization	\$ 150,000	0.50	0.00	0.00	\$ 75,000	\$ 0	\$ 0
					\$ 525,500	\$ 380,000	\$ 380,000

POTENTIAL SAVING	YEAR 1	YEAR 2	YEAR 3	TOTAL
	\$ 785,000	\$ 420,000	\$ 420,000	\$ 1,625,000

PARTNER USING IPILOT VS W/O IPILOT FOR SCALE & SAVINGS



- ✓ PURE OPEX -NO Need of Initial Investment
- ✓ Customer Success Based
- ✓ No Business/Investment Risk
- ✓ Market Competitive
- ✓ Go To Market Readiness **1 MONTH**

W/O IPILOT

- ⊖ NEED Huge INVESTMENT
- ⊖ FINDING RIGHT SKILL is Difficult
- ⊖ Attrition Challenge
- ⊖ GTM Readiness - **6 Months**
- ⊖ Increased cost - Less Competitive in the market

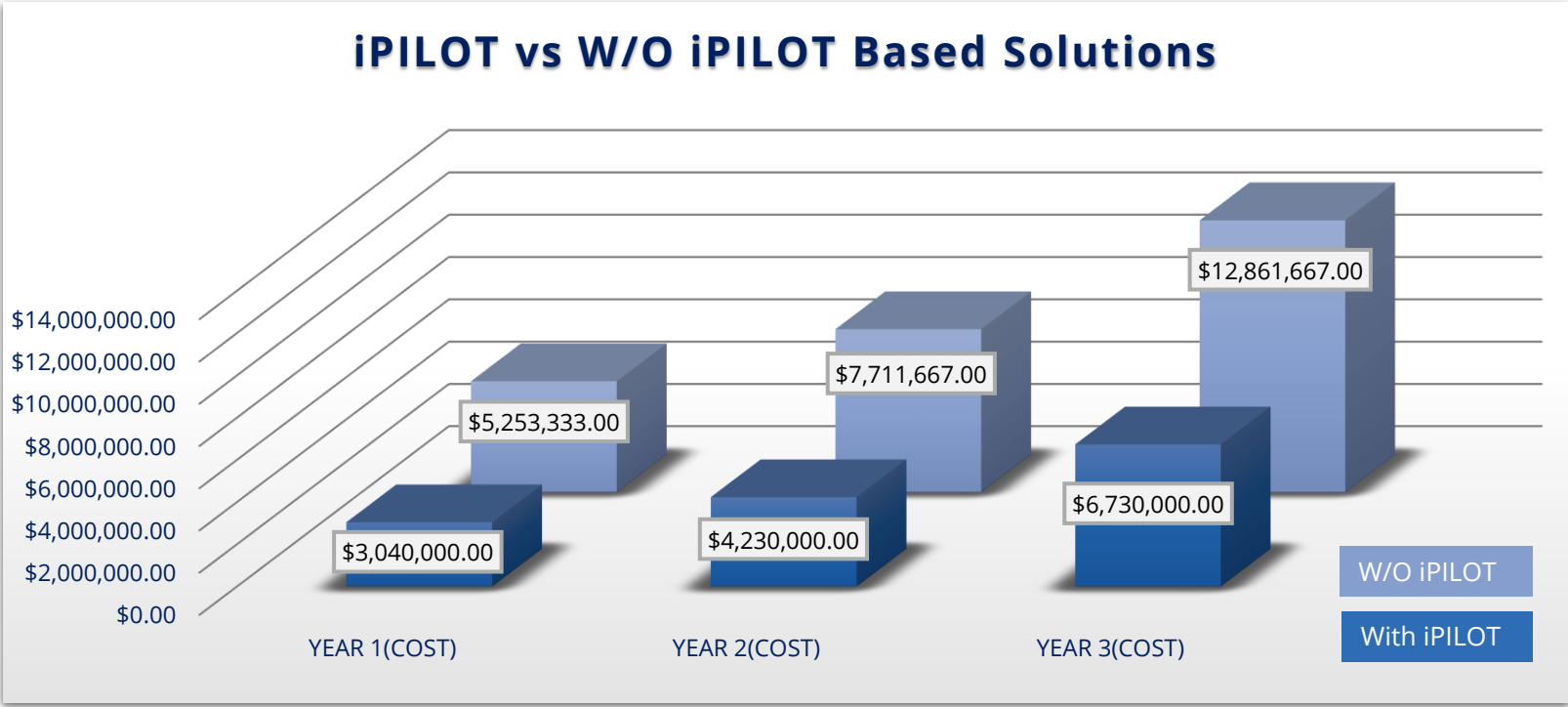
Key Assumptions

- Provisioning Resource supports 2 customer Opportunity in a year
- Monthly Ticket Volume is 5% of total users, per support resource productivity is 150 tickets per month
- Project Manager support 3 projects in a year

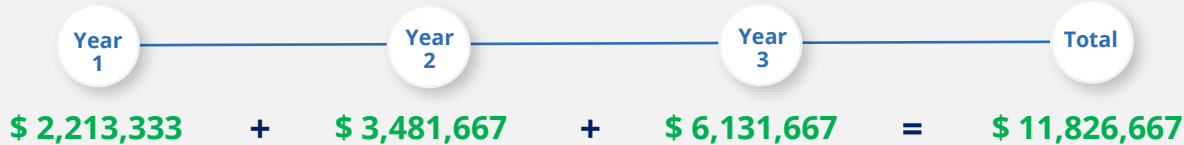
iPILOT SUBSCRIPTION FEE PUPM	
0-50000	\$ 2.00
50000-100000	\$ 1.80
100,000 –199,999	\$ 1.70
200,000 –499,999	\$ 1.60

W/O iPILOT BUSINESS PROJECTION	YEAR 1	YEAR 2	YEAR 3
No of customers	10	15	25
TOTAL CUSTOMERS	10	25	50

W/ iPILOT BUSINESS PROJECTION	YEAR 1	YEAR 2	YEAR 3
NEW USER	40000	60000	100000
TOTAL USER COUNT	40000	100000	200000



POTENTIAL SAVINGS:



PARTNER USING IPILOT VS W/O IPILOT FOR SCALE & SAVINGS



- ✓ PURE OPEX -NO need of Initial Investment
- ✓ Customer Success based
- ✓ NO BUSINESS/INVESTMENT RISK
- ✓ Market Competitive
- ✓ GO TO MARKET READINESS **1 MONTH**

W/O IPILOT

- ⊖ NEED Huge INVESTMENT
- ⊖ FINDING RIGHT SKILL is Difficult
- ⊖ Attrition Challenge
- ⊖ GTM Readiness - **6 Months**
- ⊖ Increased cost - Less Competitive in the market

Key Assumptions

- Provisioning Resource supports 2 customer Opportunity in a year
- Monthly Ticket Volume is 5% of total users, per support resource productivity is 150 tickets per month
- Project Manager support 3 projects in a year

BUSINESS PROJECTION	YEAR 1	YEAR 2	YEAR 3	BUSINESS PROJECTION	YEAR 1	YEAR 2	YEAR 3
New User	40000	60000	100000	New Customers	10	15	25
Total User Count	40000	100000	200000	Total Customers	10	25	50

W/O IPILOT BASED SOLUTION							
RESOURCE TYPE	YEAR 1(FTE)	YEAR 2(FTE)	YEAR 3(FTE)	PER- ANNUM	YEAR 1(COST)	YEAR 2(COST)	YEAR 3(COST)
iPILOT SUBSCRIPTION FEE	0	0	0	0	0	0	0
MS Certified Provisioning Resource	5	8	13	\$ 180,000	\$ 900,000	\$ 1,350,000	\$ 2,250,000
MS Certified Support Resource	13	27	47	\$ 160,000	\$ 2,133,333	\$ 4,266,667	\$ 7,466,667
Project Management	3	5	8	\$ 150,000	\$ 500,000	\$ 750,000	\$ 1,250,000
Voice Network Resource For Teams	3	4	6	\$ 140,000	\$ 350,000	\$ 525,000	\$ 875,000
Initial Readiness To Setup Microsoft Practice	5	0	0	\$ 150,000	\$ 750,000	\$ 0	\$ 0
Premier Support	1	1	1	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Microsoft Teams Engineering	3	4	5	\$ 200,000	\$ 600,000	\$ 800,000	\$ 1,000,000
	33	48	80		\$ 5,253,333	\$ 7,711,667	\$ 12,861,667

IPILOT BASED SOLUTION							
RESOURCE TYPE	YEAR 1(FTE)	YEAR 2(FTE)	YEAR 3(FTE)	PER- ANNUM	YEAR 1(COST)	YEAR 2(COST)	YEAR 3(COST)
iPILOT SUBSCRIPTION FEE	40000	100000	200000		\$ 960,000	\$ 2,160,000	\$ 4,080,000
MS Certified Provisioning Resource	2	2	2	\$ 180,000	\$ 360,000	\$ 360,000	\$ 360,000
MS Certified Support Resource	4	4	4	\$ 160,000	\$ 640,000	\$ 640,000	\$ 640,000
Project Management	2	3	5	\$ 150,000	\$ 300,000	\$ 450,000	\$ 750,000
Voice Network Resource For Teams	2	3	5	\$ 140,000	\$ 280,000	\$ 420,000	\$ 700,000
Initial Readiness To Setup Microsoft Practice	2	0	0	\$ 150,000	\$ 300,000	\$ 0	\$ 0
Premier Support	0	0	0	\$ 20,000	\$ 0	\$ 0	\$ 0
Microsoft Teams Engineering	1	1	1	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
					\$ 3,040,000	\$ 4,230,000	\$ 6,730,000

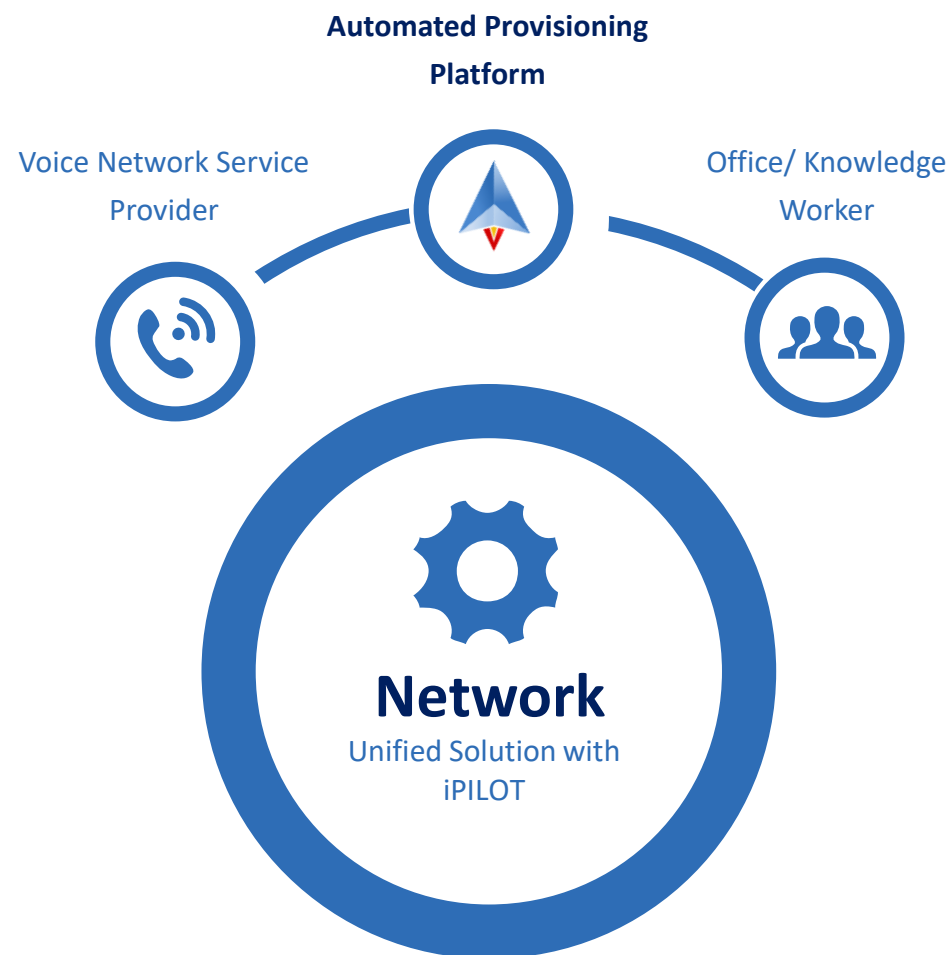
POTENTIAL SAVING	YEAR 1	YEAR 2	YEAR 3	TOTAL
	\$ 2,213,333	\$ 3,481,667	\$ 6,131,667	\$ 11,826,667
NET REVENUE for iPILOT (including Voice) **this does not include other wrap services (i.e. Devices,CSM,Contact center etc.)	\$ 3,600,000	\$ 9,000,000	\$ 18,000,000	\$ 30,600,000



By connecting, automating, and orchestrating your global onboarding, provisioning, and management, you can do in minutes what previously took months and with significantly less cost and resources.

Unified Solution with iPILOT

- ✓ Self Service Portal with Dashboard View – No Custom Code or Add Ins
- ✓ Simplified & Automated – Planning, Provisioning, Onboarding, MACD Support
- ✓ Active Directory Integration with Single Sign On
- ✓ Number Porting, DID Management, International Calling Enablement
- ✓ Dynamic E-911, Pre-Configure Disaster Plan, Carrier Level Call Forwarding
- ✓ Capacity Planning with Real Time Graphs of Inbound & Outbound Calls
- ✓ Carrier Management – Manage any Direct Routing from another provider
- ✓ Automated Legacy PBX Assessments with Gap Analysis
- ✓ Change Management & Adoption Programs – M365 Digital Skills Training Program
- ✓ Specialized Solutions – E-Fax, Overhead Paging, Call Recording, SMS
- ✓ Managed Services – Local SBC, Gateway, Devices
- ✓ Professional Services Available for Custom Call Flow & Auto Attendant Design



Direct Routing

Direct Routing Benefits

Because of the complex architecture that goes along with Direct Routing, customers are able to custom build their network with robust features while taking advantage of their existing hybrid, on-prem SBC, or Cloud network setups.

Customers can work directly with their local telco to enable calling features for Microsoft Teams users while keeping their existing investment into their calling infrastructure (PBXs, Call Centers, and Analog Telephony Adaptors (ATA)).

Reasons to choose Direct Routing:

- ✓ Highly Customizable
- ✓ Can use existing PSTN infrastructure
- ✓ Phase your migration by department, office, or number range
- ✓ Existing PBX co-existence (Must first migrate from legacy telephony systems)
- ✓ Available Globally
- ✓ Bring your own Carrier Service
- ✓ Local PSTN survivability via SBA



**Highly
Customizable**

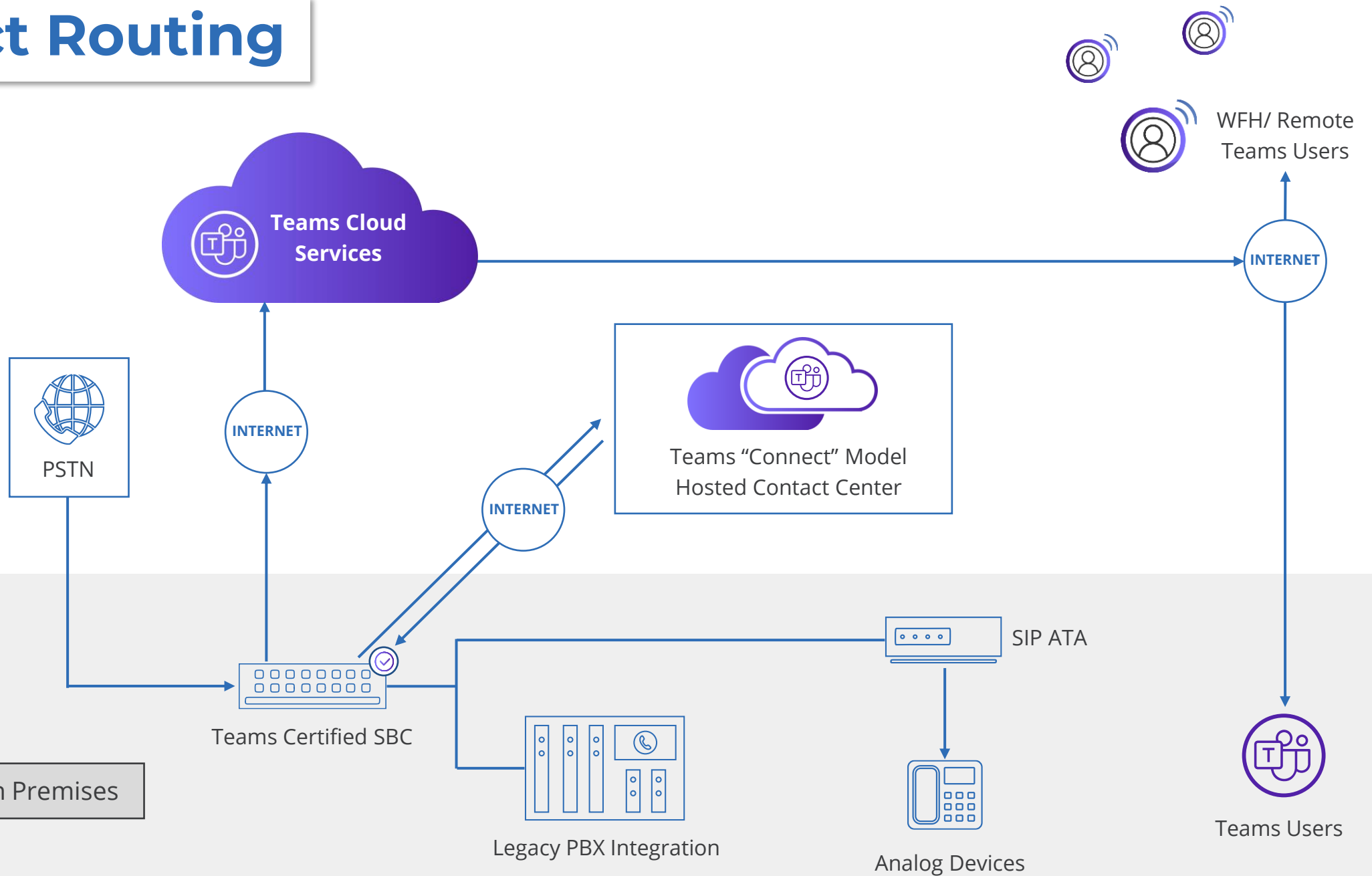


**Leverage Existing
Infrastructure**



**Bring your
Own Carrier**

Direct Routing



Direct Routing As a Service

Direct Routing (DRaaS)

Teams Certified SBCs require knowledge workers and maintenance that make them difficult to maintain. Because of this, many organizations choose to go the Direct Routing As a Service, or SBCs As a Service Route.

This allows for an organization to outsource their certified SBCs in order to integrate into the Teams Cloud calling ecosystem without the heavy lift of maintenance and certification.

Reasons to choose DRaaS / SBCaaS:

- ✓ Highly Customizable Solutions
- ✓ 3rd Party Hosted SBCs
- ✓ Phase your migration by department, office, or DDI range
- ✓ Existing PBX co-existence (Must first migrate from legacy telephony systems)
- ✓ Global Service through Microsoft Partners
- ✓ Local PSTN survivability via SBA



**3rd Party
Hosted SBCs**

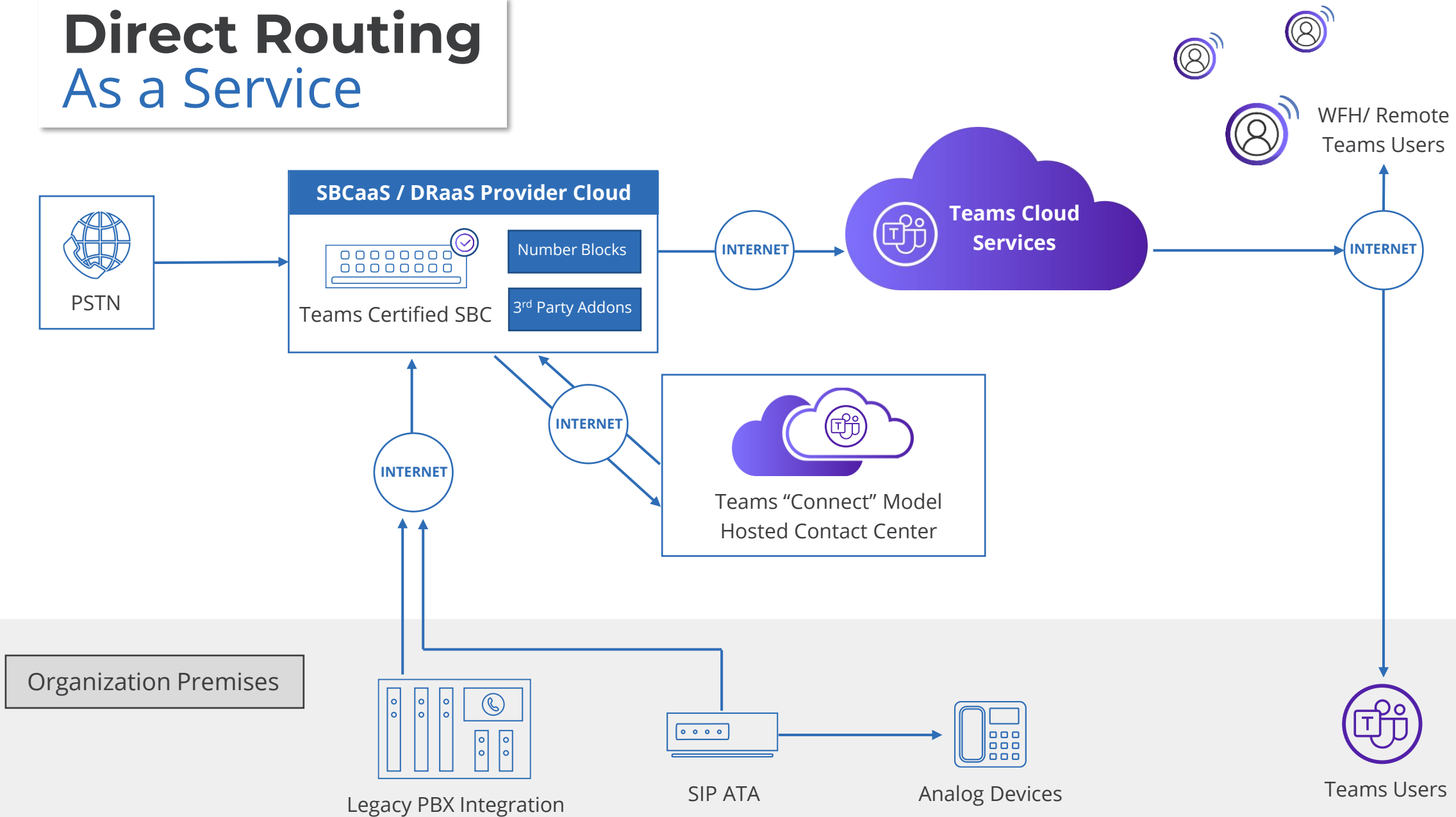


**Managed
Infrastructure**



**Migrate in
Phases**

Direct Routing As a Service





Operator Connect

Benefits of Operator Connect:

Operator Connect allows you to manage all your numbers and users directly inside of the Microsoft Teams Admin Center. You can request a relationship directly from the Teams Admin Center, which allows you to see and assign numbers provided to you by NUWAVE.

Still to come:

Because Operator Connect is still in its infancy stages, it currently has limited functionality and features that may be required for larger enterprise customers who may want to have more control over their network. As features get added, NUWAVE can help you bridge the gap with Direct Routing while OC grows.

Reasons to choose Operator Connect:

- ✓ Simplified Deployment Process
- ✓ Fast Setup, setup in minutes
- ✓ Phone Number management from Teams Admin Center
- ✓ Fully Cloud Based Solution, No equipment required, Fully Managed Solution
- ✓ 1:1 network connection for enhanced resilience through MAPS
- ✓ Manage Numbers from Multiple Operators in the Teams Admin Center
- ✓ Can Coexist with Direct Routing and Calling Plans in the same tenant

Currently not supported:

- Common Area Phones
- Meeting Rooms
- ATA support for Analog devices (i.e., Paging)



Fully Managed
Solution



Direct Connection
Through Microsoft
Azure Peering Services



Teams Admin Center
Management



Operator Connect

☰

Dashboard

Teams

Devices

Locations

Users

Meetings

Messaging policies

Teams apps

Voice

Phone numbers

Emergency policies

Dial plans

Direct Routing

Phone numbers

To set up calling features for users and services in your organization, you can get new numbers from a service provider. You can manage phone numbers including assigning, unassigning and deleting numbers or for services like audio conferencing, auto attendants or call queues. [Learn more](#)

Numbers

Order history

+ Add

↓ Port

✎ Edit

✓	Phone number	Location	Number type
	+1 772 212 2422	Port St Lucie, United States	Users
	+1 772 217 5946	Port St Lucie, United States	Users
✓	+1 772 228 4226	Port St Lucie, United States	Users
✓	+1 772 228 4971	Port St Lucie, United States	Users
	+1 772 226 0668	Port St Lucie, United States	Users

Building now for the future

Number Provisioning:

Manage all your numbers and users directly inside of the Microsoft Teams Admin Center.

- Self Service Management of Phone Numbers and users through the Teams Admin Portal
- DID inventory management and assignment

Operator Connect

Operator Management

Operator Management:

You can request a relationship directly from the Teams Admin Center, which will also allow you to see and assign numbers provided to you by Operators.

The screenshot shows the Microsoft Teams Admin Center interface for Contoso Electronics. The left sidebar contains navigation links: Home, Teams, Users, Teams devices, Teams apps, Meetings, Messaging policies, Voice, Phone numbers, Operator Connect (selected), Direct Routing, Calling policies, Call park policies, Caller ID policies, Dial plans, Emergency policies, Voice routing policies, Auto attendants, Call queues, Holidays, and Resource accounts. The main content area is titled 'Operator Connect \ NuWave'. It features the NuWave logo (powered by ipilot) and statistics: 'Acquired phone numbers 0' and 'Available products Calling'. Below this is the 'Operator settings' section with a heading 'Review products by region and select where to partner with this operator'. It contains two columns of checkboxes for various countries: Austria, Belgium, Canada (checked), Denmark, France, Germany (checked), Ireland, Italy, Netherlands, Portugal, Spain, Sweden (checked), Switzerland, United Kingdom (checked), and United States (checked). At the bottom, there are input fields for 'Full name *' (Ken), 'Email *' (Ken@Contoso.com), 'Company name *' (Contoso), 'Phone number (optional)', and 'Company size *' (1000 to 2999 people). A checkbox for 'I accept the data privacy terms' is checked. At the very bottom are two buttons: 'Add as my operator' and 'Cancel'.

Building now for the future

For the Customer:

- Easy access to Operators for Calling Management
- Easily segregate access by Region/Geography/Calling areas per Operator

For the Operator:

- No special permissions such as delegated admin permissions to manage Calling Services
- Single Point of Contact information for customer updates & maintenance

Operator Connect Numbers

Number Provisioning:

Manage all your numbers and users directly inside of the Microsoft Teams Admin Center.

☰

Dashboard

Teams

Devices

Locations

Users

Meetings

Messaging policies

Teams apps

Voice

Phone numbers

Emergency policies

Dial plans

Direct Routing

Voice routing policies

Phone numbers

To set up calling features for users and services in your organization, you can get new numbers or port from an existing service provider. You can manage phone numbers including assigning, unassigning and releasing phone numbers or for services like audio conferencing, auto attendants or call queues. [Learn more](#)

Numbers

Order history

+ Add

↓ Port

✎ Edit

✓	Phone number	Location	Number type
	+1 772 212 2422	Port St Lucie, United States	Users
	+1 772 217 5946	Port St Lucie, United States	Users
✓	+1 772 228 4226	Port St Lucie, United States	Users
✓	+1 772 228 4971	Port St Lucie, United States	Users
	+1 772 236 0668	Port St Lucie, United States	Users

Number Provisioning

For the Customer:

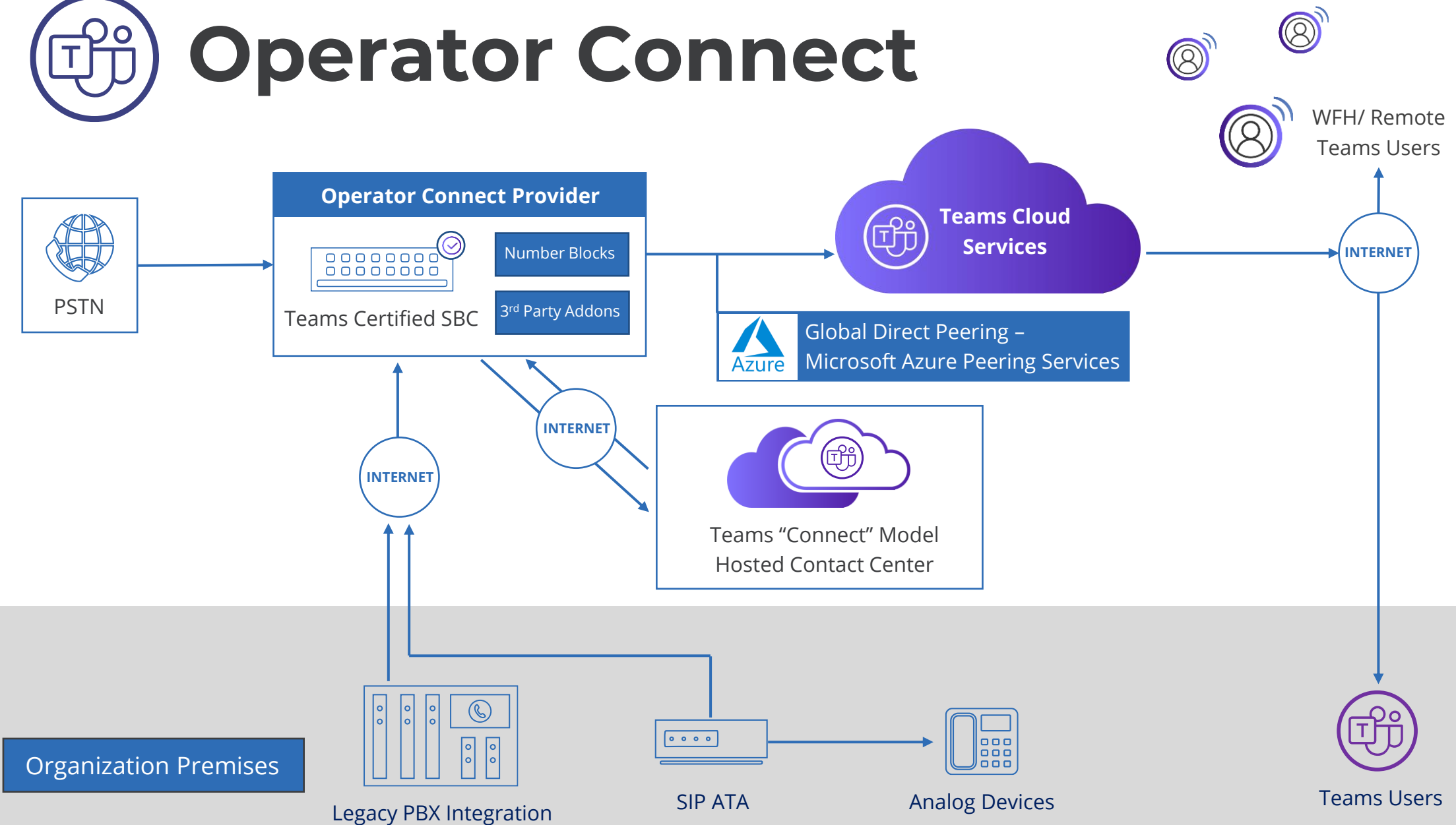
- Self Service Management of Phone Numbers and users through the Teams Admin Portal
- DID inventory management and assignment

For the Operator:

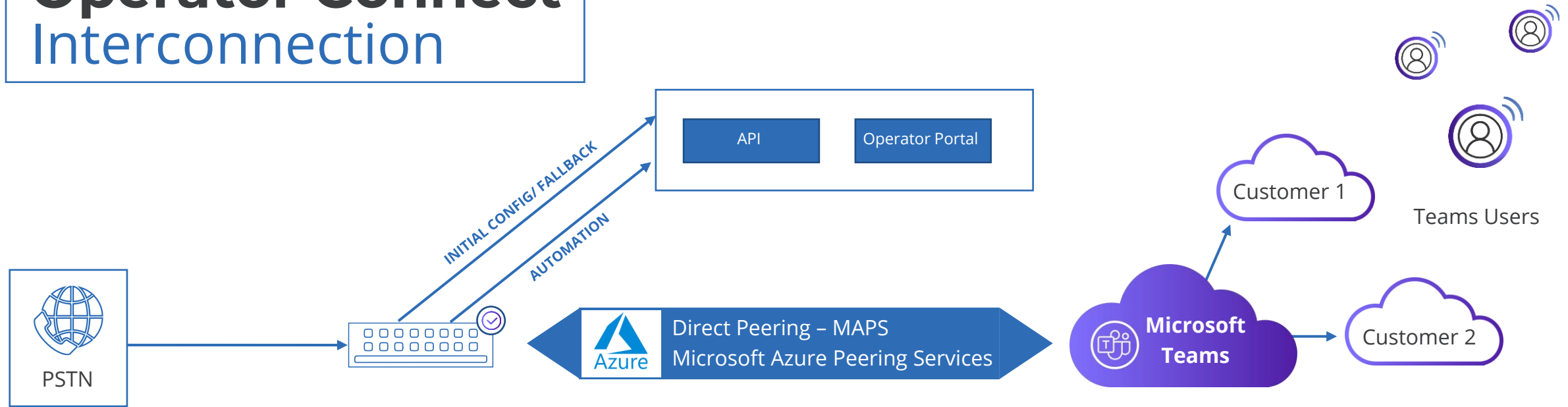
- Numbers show up in the Teams Admin Center
- Simple MACD changes through the portal



Operator Connect



Operator Connect Interconnection



Direct Peering through MAPS

For the Customer:

- Easy access to Operators for Calling Management
- Easily segregate access by Region/Geography/Calling areas per Operator



Provisioning APIs and Portal

For the Operator:

- No special permissions such as delegated admin permissions to manage Calling Services
- Single Point of Contact information for customer updates & maintenance
- End to End QOS from Client, to Microsoft's Cloud, and through the Operators Cloud
- Offer High Level SLA to the customer

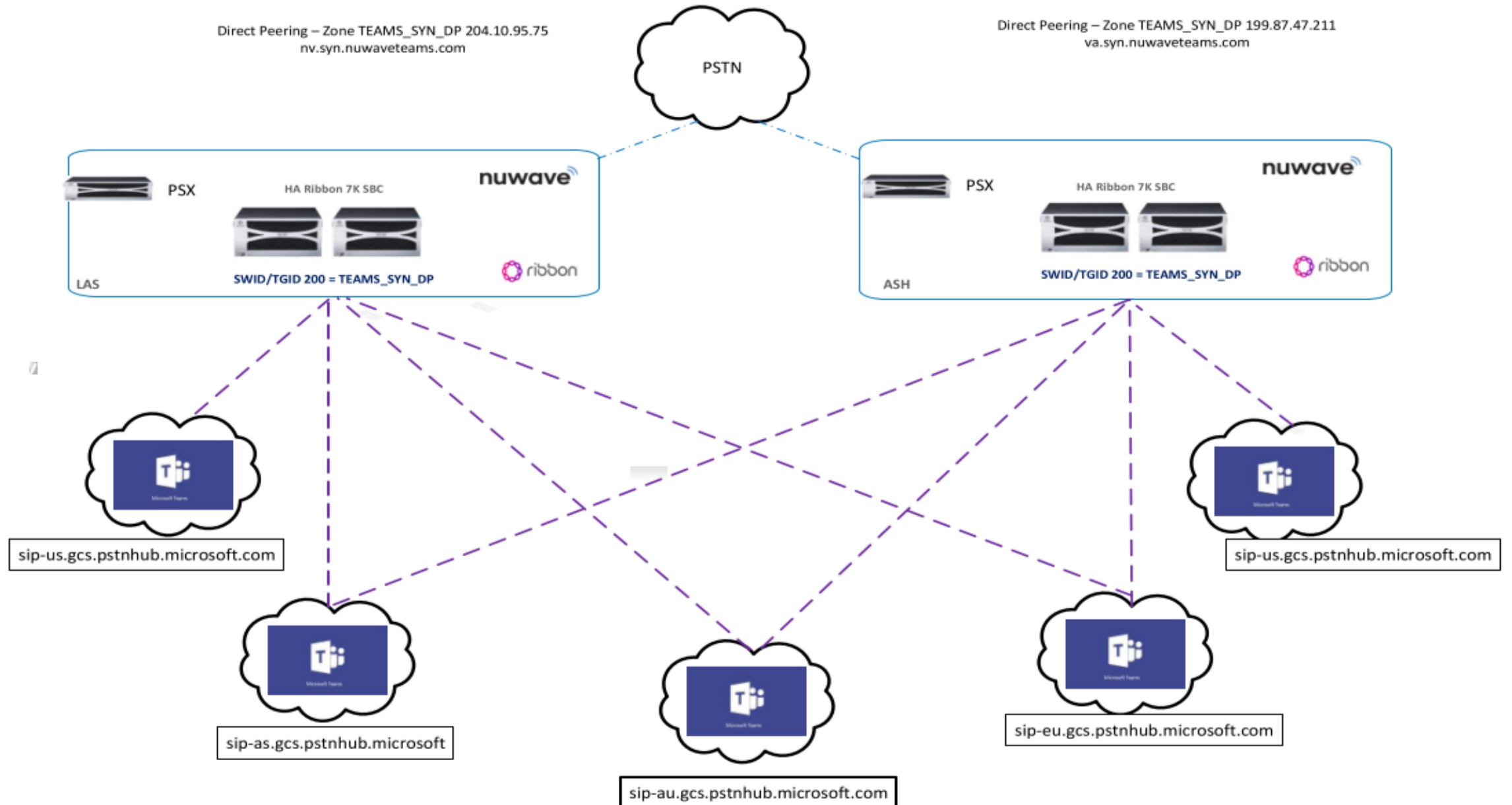
The Difference between Microsoft Operator Connect and Direct Routing

	Operator Connect	Direct Routing
Program Type	<ul style="list-style-type: none">• Programmatic Approach to Operator Provided Calling	<ul style="list-style-type: none">• Not a Program. Core Functionality.
Interconnection	<ul style="list-style-type: none">• Microsoft Azure Peering Service (MAPS) for Voice• Dedicated Portal/APIs for Trunk Setup and validation	<ul style="list-style-type: none">• TLS/SRTP over internet• Carrier Tenant for setting up super trunk• Some Customer configuration required or delegated specifically
Number Provisioning	<ul style="list-style-type: none">• Provisioning through APIs to facilitate automation	<ul style="list-style-type: none">• None, need customer account or “admin on behalf” for executing PowerShell commands
Teams Admin Center	<ul style="list-style-type: none">• Presence in the portal, customer can select the Operator for number provisioning / management, or assignment	<ul style="list-style-type: none">• None
Customer Experience	<ul style="list-style-type: none">• Number visualized in the portal as Operator numbers• IT Admin can assign numbers to users directly from the portal	<ul style="list-style-type: none">• IT Admin or Operator needs to assign number through PowerShell• IT Admin or Operator needs to create/assign Voice Policies
Data Sharing	<ul style="list-style-type: none">• CDR/CQD (QoS)/SLA data provided to Operators through API's• Joint CDR for customers reporting	<ul style="list-style-type: none">• CDR/CQD data can be retrieved tenant by tenant using delegated access
Support / SLA	<ul style="list-style-type: none">• Operator Tier 1 Support; Operator-Microsoft Model in place• Product Change Management and updates channel• Back-to-back SLA in place between Microsoft and Operator	<ul style="list-style-type: none">• Operator Tier 1 Support• Escalations through M365 Support or Premier Support• No Back-to-back SLA in place
Management	<ul style="list-style-type: none">• Dedicated Management capabilities in Operator Portal/API (at GA)	<ul style="list-style-type: none">• Delegated Admin or Teams RBAC Access required from Customer
Total Cost of Ownership	<ul style="list-style-type: none">• “As a Service” model delivered by the Operator	<ul style="list-style-type: none">• SBC owned and operated by the Customer or Hosted/Managed by the Operator

Today's Snapshot Comparison

Features	Direct Routing	Operator Connect	MSFT Calling Plans
Native Teams Call Routing	✓	✓	✓
Shared Trunk / Call Path sharing plans	✓	✓	NA
eFax & traditional fax solutions	✓	✓	NA
SMS Integrations	✓	✓	NA
Dynamic Emergency Calling	Optional	Included	Included
Direct Connection to Microsoft via MAPS	ONLY through iPILOT Galaxy	Only Approved Carriers	NA
Carrier Level Forwarding	ONLY through iPILOT	ONLY through iPILOT	NA
Disaster Plans	ONLY through iPILOT	ONLY through iPILOT	NA
Automated Bulk Provisioning	ONLY through iPILOT	ONLY through iPILOT	Bulk via PowerShell
Converting DIDs between User & Service Number	ONLY through iPILOT	ONLY through iPILOT	via MSFT Ticket
Managing multiple carrier DIDs in 1 Portal	ONLY through iPILOT	ONLY through iPILOT	NA
Manage Direct Routing & Operator Connect DIDs in 1 Portal	ONLY through iPILOT	ONLY through iPILOT	NA
Department level access for phone number management	ONLY through iPILOT	ONLY through iPILOT	NA
Extension Dialing	ONLY through iPILOT	ONLY through iPILOT	NA

OPERATOR CONNECT- HIGH LEVEL DESIGN



How ISO 27001 Benefits NUWAVE Partners



NUWAVE has chosen to implement the most trusted global security certification, audited by independent bodies to ensure compliance with strict standards of practice, fostering trust and assurance.

Reduces

the risk of cyberattacks...

by processing customer data securely according to best practices.

Improves

process and strategies...

by creating repeatable systems of accountable measurement.

Increases

system and business resiliency...

by designing and testing business continuity management.

Aligns

to customer requirements...

by recording customer requirements and auditing compliance.

Structures

policy to comply with complex regulations...

by documenting regulatory obligation and auditing compliance.

Establishes

trust, confidence and assurance...

because NUWAVE adheres to an international standard with measurable accountability to partners and customers.

Cybersecurity Policy and Assurance

NUWAVE employs an independent, third-party cybersecurity firm to perform vulnerability management and penetration testing.

The audit report promotes transparency, accountability and assurance.

nuwave[®] Cybersecurity Penetration Assessment Report

Grey-Box Findings

An Independent Evaluation and Attack Narrative by Allendeaux & Company

December 2021



Security | Privacy | Complex Compliance



ALLENDEVAUX & COMPANY

info@allendeaux.com · www.allendeaux.com

Data Protection | Risk Management | Complex Compliance



HIGHLY CONFIDENTIAL

December 2021

NUWAVE Communications
Attn: Mark Bunnell
8275 S. Eastern Ave
Ste 266, Las Vegas, NV 89123

IPILOT PENETRATION REPORT NARRATIVE: GREY-BOX

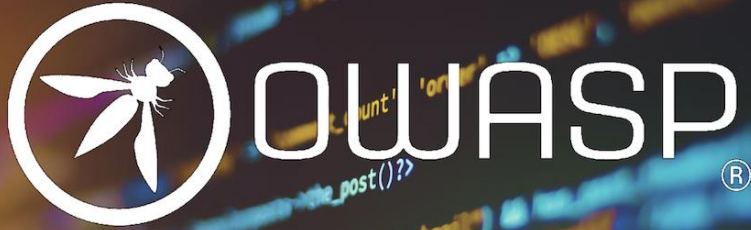
Dear Mr. Bunnell,

ALLENDEVAUX & COMPANY LLC conducted an independent penetration test¹ of the iPilot platform during December 2021. The objective of the test was to determine the iPilot platform exposure to a targeted attack from an Internet-facing vector. All activities were conducted in a manner that replicated a malicious actor engaged in a targeted attack against the system with the goals of:

- identifying if a remote attacker can successfully penetrate the iPilot deployment's security perimeter based on the architecture and understanding of the platform; and
- determining the impact of a security breach on the confidentiality of data stored and processed within the application, and potential impacts to availability to the platform.

While iPilot operates as a cloud service accessible from multiple data centers, the testing was focused on the East coast data center which runs the same codebase. Therefore, the results of this targeted attack against the East coast data center represent a fairly accurate reflection of the security posture of other data centers.

¹ Penetration testing has more of an emphasis on gaining as much access as possible while vulnerability testing places the emphasis on identifying areas that are vulnerable to a computer attack. An automated vulnerability scanner will often identify possible vulnerabilities based on service banners or other network responses that are not in fact what they seem. A vulnerability assessor will stop just before compromising a system, whereas a penetration tester will go as far as they can within the scope of the contract. (Northcutt, et al. 2006)



Security by Design in NUWAVE Software Development

NUWAVE has adopted OWASP security principles, following these philosophies to ensure services are secure for partners and customers.

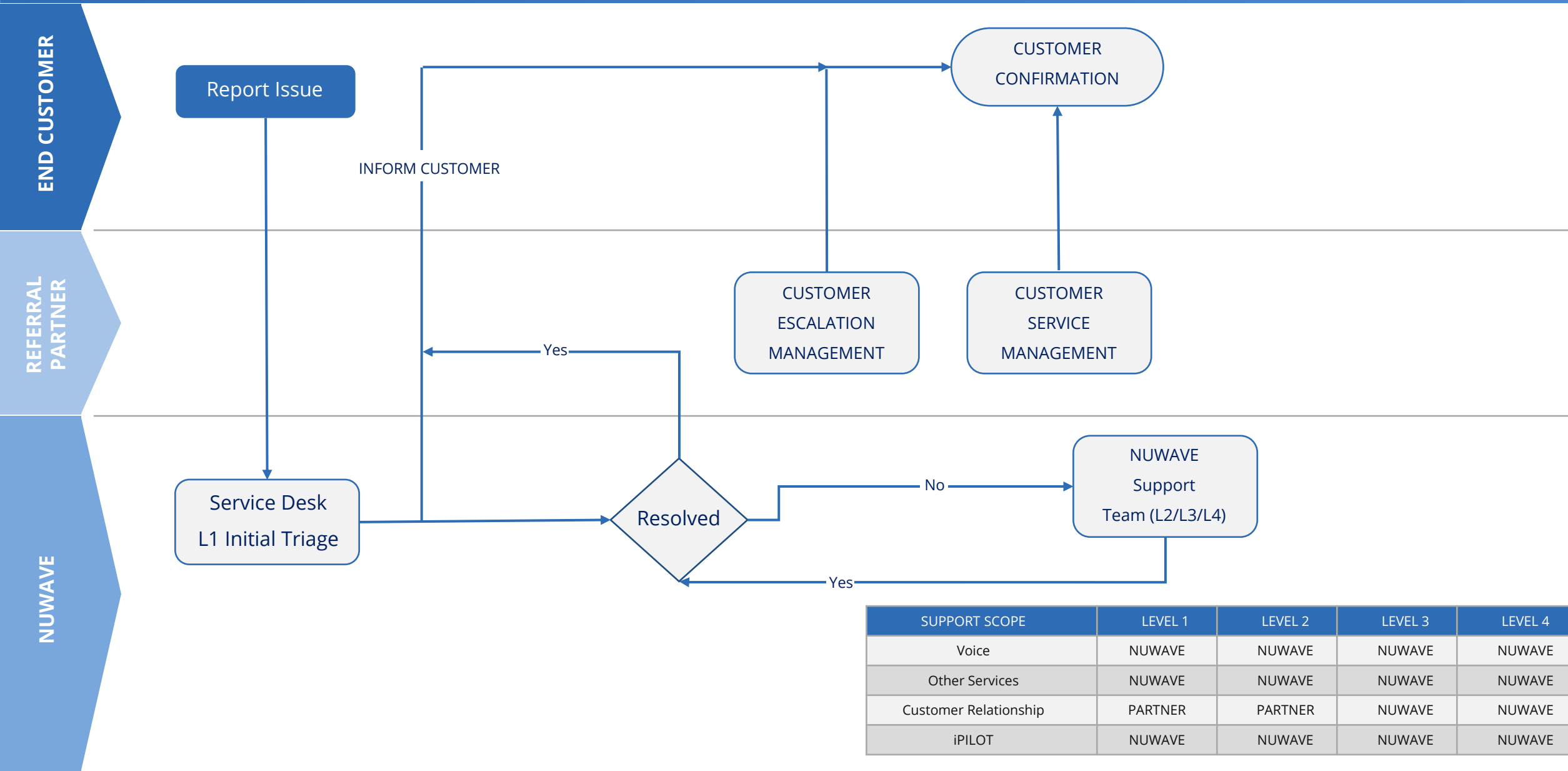
OWASP PRINCIPLES AT NUWAVE

- ① Principle of **least privilege**.
- ② Principle of **separation of duties**.
- ③ Principle of **defense in depth**.
- ④ Principle of **failing securely**.
- ⑤ Principle of **open design**.
- ⑥ Principle of **avoiding security by obscurity**.
- ⑦ Principle of **minimizing the attack surface**.

OWASP Secure Coding Practices for Software Development at NUWAVE

- Input validation
- Output encoding
- Cryptographic practices
- Authentication and password management
- Session management
- Access control
- Memory management
- Data security
- System configuration
- File management
- Error handling and logging
- Data protection
- General coding practices

SUPPORT PROCESS – REFERRAL PARTNER



SUPPORT SCOPE	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Voice	NUWAVE	NUWAVE	NUWAVE	NUWAVE
Other Services	NUWAVE	NUWAVE	NUWAVE	NUWAVE
Customer Relationship	PARTNER	PARTNER	NUWAVE	NUWAVE
iPILOT	NUWAVE	NUWAVE	NUWAVE	NUWAVE

Roadmap Features	Description	Target Release
Analytics Dashboard Ver 2.0	Call Quality/Network Analytics/CDR Dashboard On iPILOT	Q4 CY21
iPILOT 2.0	iPILOT Redesign- Enhanced UI/UX	Q1 CY22
Compliance Call Recording Integration	iPILOT Integration With Microsoft Approved Call Recording Solutions.	Q1 CY22
O365 Digital Skills Training Program	Adoption And Change Management Service Offering Integration With iPILOT	Q4 CY21
Dynamics 365 Customer Service iPILOT Integration	Integration Of Dynamics 365 Customer Service Solution With iPILOT	Q2 CY22
Infrastructure Extension LATAM	Addition Of Global POPs for LATAM and Other countries	Q1 CY22
Device Room Configurator	Configure Meeting Rooms and Order Via iPILOT	Q1 CY22
End-Point Management And Monitoring	Management And Monitoring Of Teams Certified Devices	Q1 CY22
Automated Device Procurement Ver 2.0	Integration With Global Distributors – Addition to Current Distributor network	Q1 CY22
Single Interface For Operator Connect And Direct Routing	Manage Direct Routing and Operator Connect provisioning, MACDs and DID Management via Single Portal	Q4 CY21
iPILOT - GCC High Launch	iPILOT Availability for GCC High Customer	Q4 CY21
Meta Switch Integration	Integration of Meta Switch Perimeta with iPILOT	Q1 CY22
iPILOT ITSM Integration	Integration of Top ITSM solutions with iPILOT for Partner Support Enablement	Q1 CY22
Contactless Activation (Zero-Touch)	End customers can access a Free iPILOT access for immediate turn-up of services	Q1 CY22

iPilot Proof of Concept

60-Day
Free Trial

Seeing is believing. In only a few minutes, enable yourself with the most industry disrupting tool in the market for Microsoft Teams. Go to www.ipilot.io to get started.

We are here to answer any questions: sales@NUWAVE.com.

Included with our Free Trial:



NUWAVE's award-winning world class PSTN hosted Voice Network



iPILOT's first in its class automated provisioning platform



Unified, Simple, and fast Microsoft Teams Calling Experience

Hands on Experience

- ✓ Gain "Hands On" Experience with the [iPILOT](#) Self-Service Portal for MS Teams
- ✓ Set-Up: Dedicated Solution Engineer for Standard Configurations
- ✓ Duration: 60 Days - up to 10 Unified Voice Licenses w/DID's
- ✓ Location: US (Immediate Trunk & DID Availability)
- ✓ Pre-Req's: 0365 Tenant & Admin Credentials, 0365 Phone System Licenses

Combined with NUWAVE's carrier grade SBCs, iPILOT delivers the best unified calling experience for Microsoft Teams in the market today.



Unified Solution



Single Pane of Glass Management



Global Compliance



Enabled in Minutes

Thankyou