



Case Study – Pure IP

Pure IP is leveraging their Ribbon network for Microsoft Operator Connect and Direct Routing, enabling businesses to move to Microsoft Teams Phone System.

Microsoft Teams is winning in the business world. The platform boasts over 250 million monthly active users and continues to grow rapidly. The strength of Microsoft 365 adoption, combined with the global health crisis of 2020, drove unparalleled adoption of Teams for instant messaging, meeting collaboration, and file sharing. However, connecting Teams users to the PSTN to deliver Microsoft Phone System (hosted PBX services) is still relatively nascent, with only around 10% of Teams users connected to Phone System /PSTN. Of course, having millions of Microsoft Phone System users is nothing to complain about but room for growth remains.

In March 2021, Microsoft appeared to heed that notion by announcing Operator Connect, a streamlined way for organizations to connect Teams to a telecom provider. Microsoft's Operator Connect announcement included a select group of global providers to help co-develop and pilot the new solution, including Pure IP.

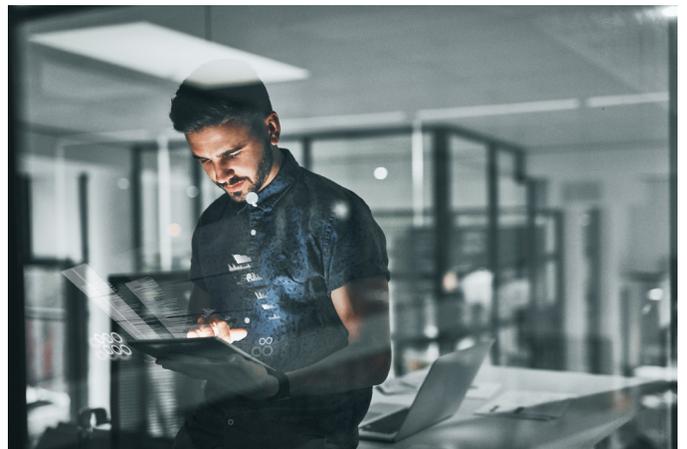
Founded in 2004, Pure IP has focused on providing SIP based connectivity for enterprise communications across the globe. Today, Pure IP's staff are experts at enabling businesses to move communications to a variety of cloud platforms, including its flagship offers for Microsoft Teams. Microsoft and Pure IP have worked together for more than a decade, and Pure IP was able to leverage its experience with Microsoft Lync, Skype for Business, and now Teams to help launch Microsoft's newest PSTN connectivity solution.

Microsoft's introduction of Operator Connect helps streamline the Microsoft Teams Phone System experience, simplifying and enhancing telecom provider selection, user and telecom service

Pure IP

provisioning, quality of experience, management, and reporting. It is believed that Microsoft created Operator Connect to better harvest the business opportunity that Teams calling presents. Likewise, Operator Connect provides Pure IP another way to sell and deliver high quality services to businesses already using Teams for collaboration.

Operator Connect uses the Teams admin center to create an "apps store" type of experience to enable organizations to connect to a telecom provider. Buyers can easily select Pure IP as their Teams telecom provider and sign up for services. Equally important, the Teams admin center also has new menu driven tools for Teams user configuration, eliminating text-based PowerShell commands.



What's the impact of deploying Operator Connect?

Operator Connect has multiple dimensions as it touches:

- SIP peering & call control
- User experience
- Telecom provider business system integration

One of the first concerns for telecom providers when introducing any new service is whether it will impact their core network. PureIP is deploying Operator connect using the same Ribbon SBCs and PSX centralized policy and routing engine that they use within the heart of their voice network for their Direct Routing deployments and other SIP trunking services. Pure IP is also using Ribbon's EdgeMarc devices for local site QoS monitoring and analog gateway ports.

What makes Operator Connect's deployment different is a new layer of integration services that enables telecom providers to interact with the Teams admin center. The Teams admin center provides a single pane of glass so that adding and managing telecom services becomes more intuitive and more automated for Teams administrators. This ties back to the key objectives of Operator Connect; making it easier for businesses to enable Teams Phone System.

Organizations can use the Teams admin center as a single pane of glass to:

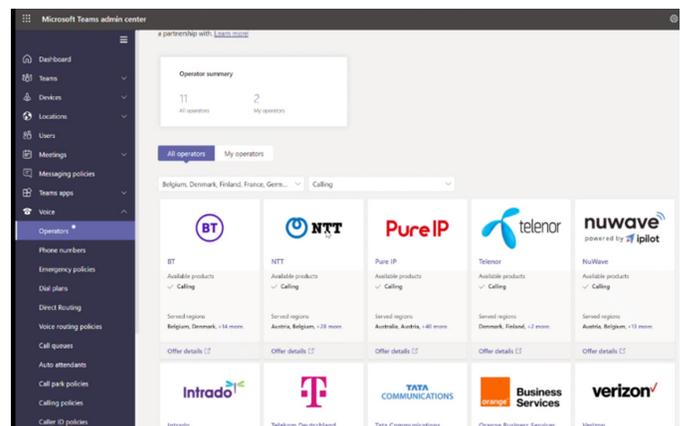
- Select a service provider, existing or new, and applicable services).
- Assign phone numbers to Teams users.
- Provision users for Teams Phone System services.
- Report on service health and engage on support issues.
- Add or provision phone numbers (number provisioning is still somewhat bespoke today but will be enhanced moving forward).

Teams customers can easily sign up for Pure IP's services from the Teams admin center, without having a pre-existing business relationship. Of course, Pure IP can provide enhancements such as legacy device or legacy PBX integration and professional services to these new customers. Some of these services may be delivered via Pure IP's existing Direct Routing infrastructure but that's an implementation detail that most customers won't notice and since both are delivered from the

same Ribbon SBCs, there's no additional expense for Pure IP. Operator Connect creates a new customer acquisition strategy for Pure IP that would otherwise not exist. Being a built-in choice in the Teams admin center offers tremendous exposure.

Some providers might initially consider Pure IP's decision to maintain both Operator Connect and Direct Routing services a burden. In fact, Pure IP expects to leverage their Ribbon network to deliver differentiated services that might not fit in Operator Connect's more structured model. The volume and complexity of legacy environments isn't going to evaporate, and many enterprises will seek out telecom providers that can help them make the transition to Teams easier. By leveraging Operator Connect, Pure IP can both expand its brand and create competitive advantage via its existing Ribbon core and edge SBC infrastructure.

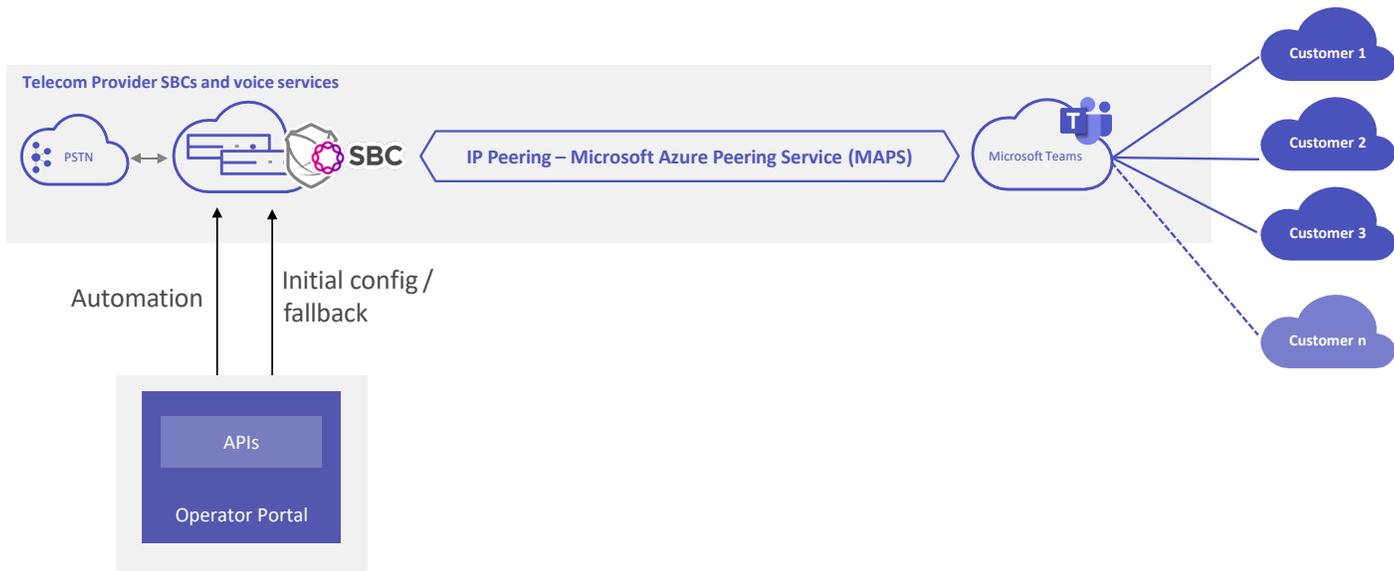
To orchestrate Operator Connect's streamlined buy and provisioning experience, Pure IP integrated its OSS/BSS systems with Microsoft's APIs so that appropriate information can be exchanged for sign-up, billing, etc. Operator Connect end-to-end API integration enables sign-up, provisioning, reporting and support.



Operator Connect creates an Apps Store like buying experience inside the Teams admin center.

Operator Interconnect

- IP Peering via Microsoft Azure Peering Service (MAPS)
- Provisioning APIs and an Operator Portal for trunk set-up to connect to Microsoft Teams



Operator Connect adds APIs to enable a richer UX as well as a resiliency & QoS specification for interconnect.

Operator Connect also introduces important enhancements to connectivity and QoS requirements. Microsoft refers to this connectivity as Microsoft Azure Peering Service (MAPS.) Microsoft created MAPS to assure voice quality and reliability from the Azure core to the telecom provider's core, providing a carrier-grade deployment. As an Operator Connect provider, Pure IP is required to have redundant high-bandwidth links between its network and each Azure datacenter interconnect, delivering the following benefits:

- Best public routing over the internet to Microsoft Azure Cloud Services for optimal performance and reliability.
- Ability to select a preferred ISP to connect to the Microsoft cloud.
- Traffic insights such as latency reporting and prefix monitoring.
- Optimum network hops (AS hops) from the Microsoft cloud.
- Route analytics and statistics: Events for (BGP) route anomalies (leak or hijack detection) and suboptimal routing.

Pure IP adopted MAPS without impacting its existing Ribbon deployment for Direct Routing and can support both Operator

Connect and Direct Routing traffic from the same Ribbon environment, providing its existing Direct Routing customers from the enhanced quality enabled by the MAPS connection. Pure IP delivers that benefit without any additional investment in their SBC infrastructure. MAPS also includes reporting and serviceability tools so that Pure IP and Microsoft can proactively manage connectivity as well as expedite issue resolution.

Capturing the next 90%

Pure IP's decision to focus on communication enabling Microsoft solutions puts it in an enviable position to focus on the 90% of the 250 million Teams users that have yet to make the move to Teams Phone System. As a first mover for Operator Connect, Pure IP is making it easier for prospective customers to see their brand and create a business relationship. Ribbon is excited to be Pure IP's vendor of choice to power the next phase in Pure IP's incredible growth. Ribbon SBCs, PSX and EdgeMarc devices have been one of the foundational pieces of Pure IP's network. Moving forward, Ribbon solutions will power Pure IP's newest Operator Connect services and continue to deliver existing services.