

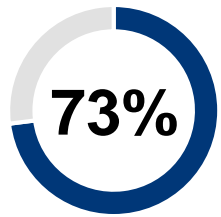


Bell Direct Routing for Microsoft Teams

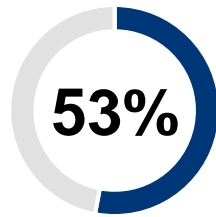
Agenda

- 1. Market trends and business opportunities**
- 2. Benefits of Bell Direct Routing for Microsoft Teams**
- 3. Bell Direct Routing solutions**
- 4. Why choose Bell**
- 5. Next steps**

The need for integrated communication and collaboration

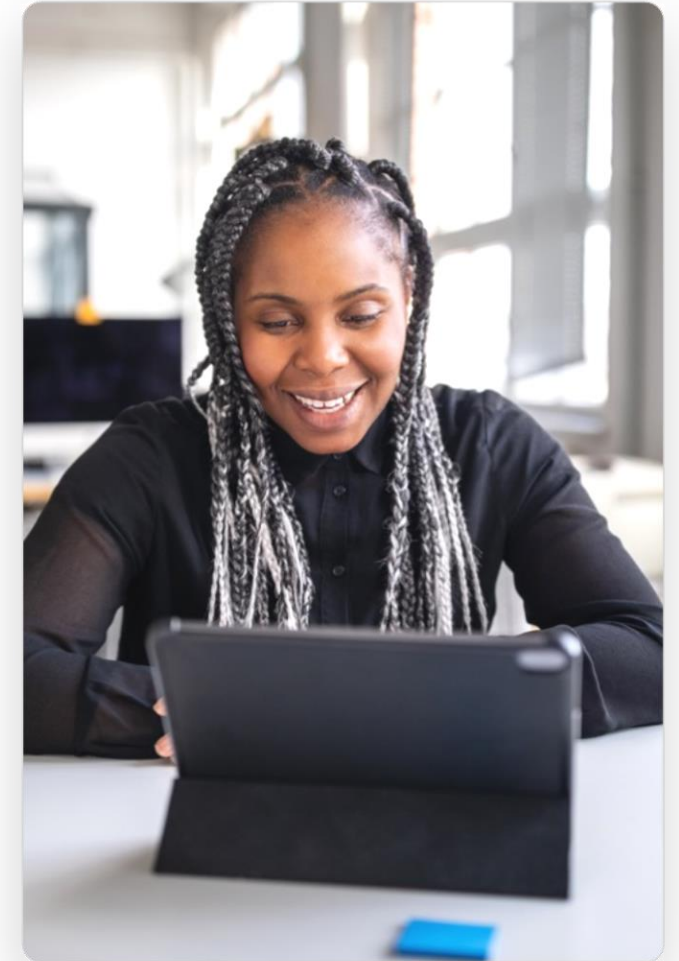


of employees want flexible remote work options to stay¹



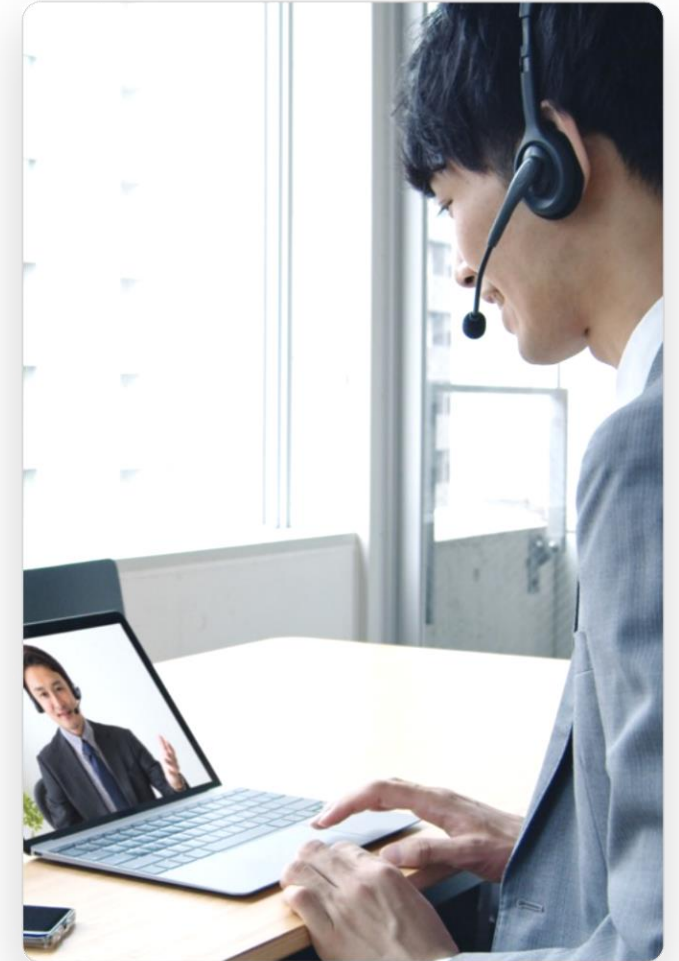
of organizations are spending more to enable employees to improve collaboration and work remotely²

- Business want to maximize their investment in Microsoft Teams by allowing employees to make and receive high-quality voice calls through their collaboration platform.
- This will boost productivity and reduce costs, if done through a service provider with deep Microsoft expertise.



Connect better with Bell Direct Routing for Microsoft Teams

- ✓ Make and receive high-quality phone calls directly through Microsoft Teams.
- ✓ Seamlessly integrate Microsoft's collaboration capabilities with Bell's extensive SIP trunking network.
- ✓ Available in as-a-service and on-premises options (or a combination of both).

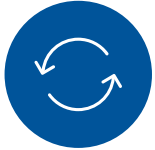


Benefits of Bell Direct Routing for Microsoft Teams



High-quality calls

Get the speed, performance and reliability you need with voice calls delivered over Bell's extensive SIP trunking network, with four points of presence across the country.



Resilient architecture

Keep your teams connected in the event of service disruption, thanks to our geo-redundant VoIP infrastructure features, built-in failover, and overflow rerouting capabilities.



Expert support

Get integrated support across your entire Microsoft ecosystem from Bell's Microsoft-certified experts who can help design, deliver, and maintain your solutions.



Advanced features

Access innovative features such as media bypass for better performance and voice quality, and Remote Call Forward to redirect calls in the event of a Microsoft Teams outage.

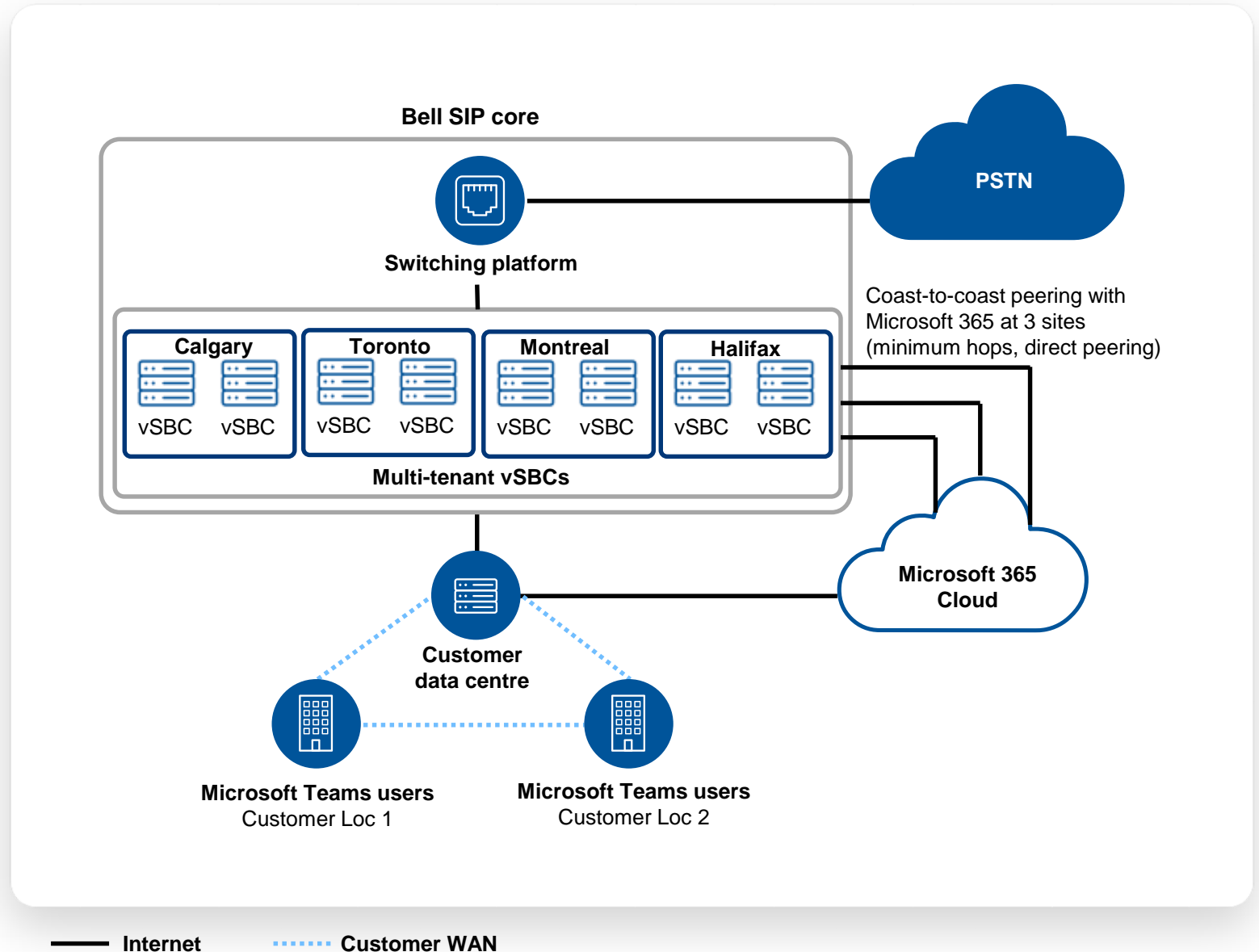


Managed costs

Reduce the need for desk phones and other hardware, along with the costs that come with them. Plus get unlimited voice calling and usage that is never metered.

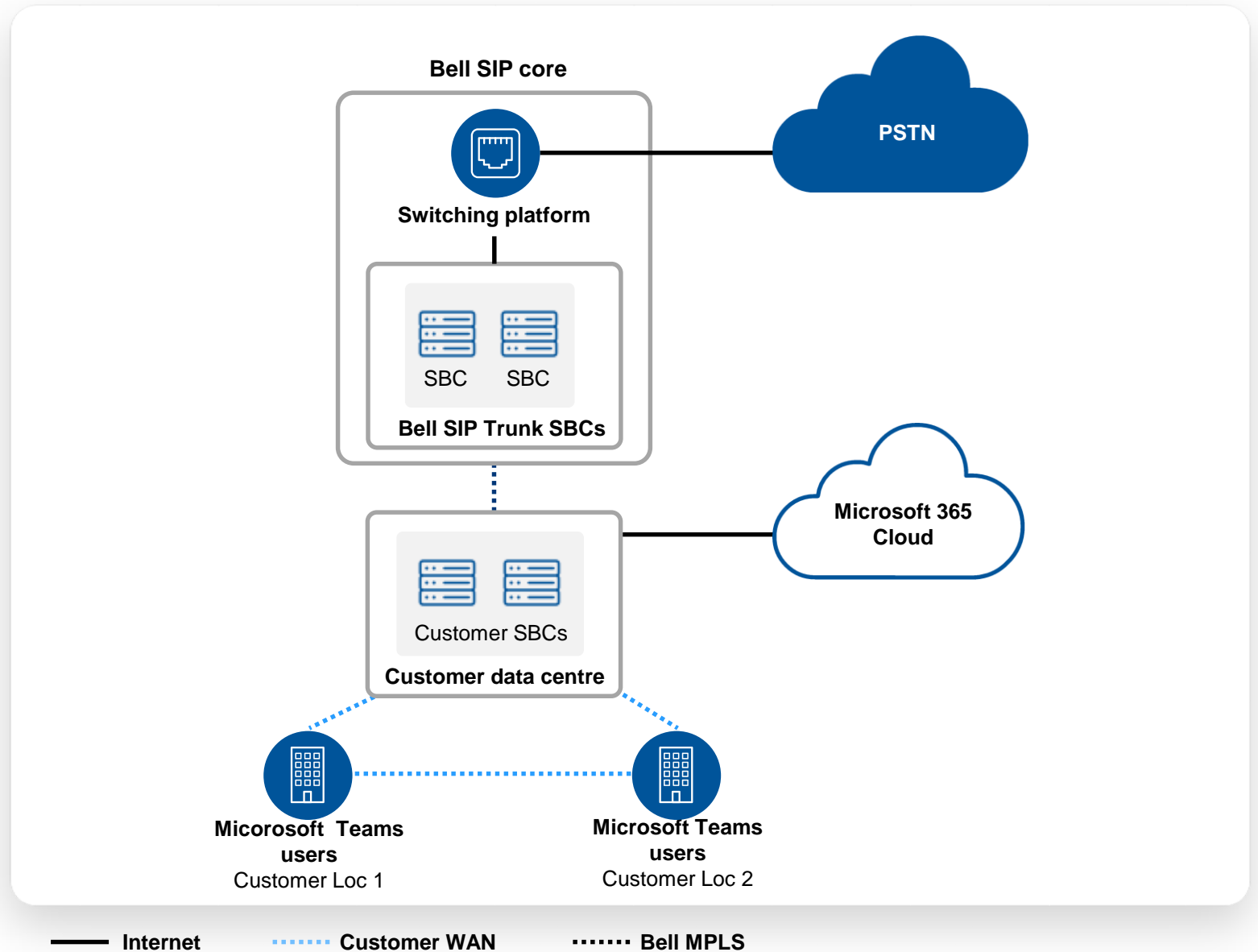
Direct Routing as a service

- Hosted in the cloud using Bell's virtual session border controllers (vSBCs) so no additional equipment or upfront investments are needed to get started.
- Fully managed by Bell experts, freeing up time for your IT resources.
- Direct connections to Microsoft 365 for better calling performance and reliability.



Direct Routing on-premises

- Connection between Microsoft Teams and the PSTN happens through session border controllers (SBCs) that you own and operate, giving you greater flexibility and control over call routing.
- You can use a broad range of SBCs that are certified for Microsoft Teams.
- Bell professional and managed services are available if you need support.



Why choose Bell for Direct Routing for Microsoft Teams



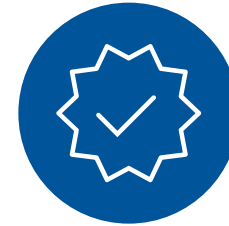
World-class network

The Bell network provides the reliability, speed and low latency to run Microsoft applications anywhere, on any device.



Reliable voice performance

With geo-redundant points of presence across Canada, the Bell network delivers excellent voice quality backed by industry-leading service-level agreements.



An experienced Microsoft partner

Bell is a Microsoft Gold Certified Communications Partner with advanced specializations in Microsoft 365, Azure and more.



Wide reach

Connect to the PSTN from virtually anywhere through one of the country's largest SIP trunking networks, reaching 95% the population and about 98% of all business.

Appendix

Bell Direct Routing as a Service: Features included in standard base product

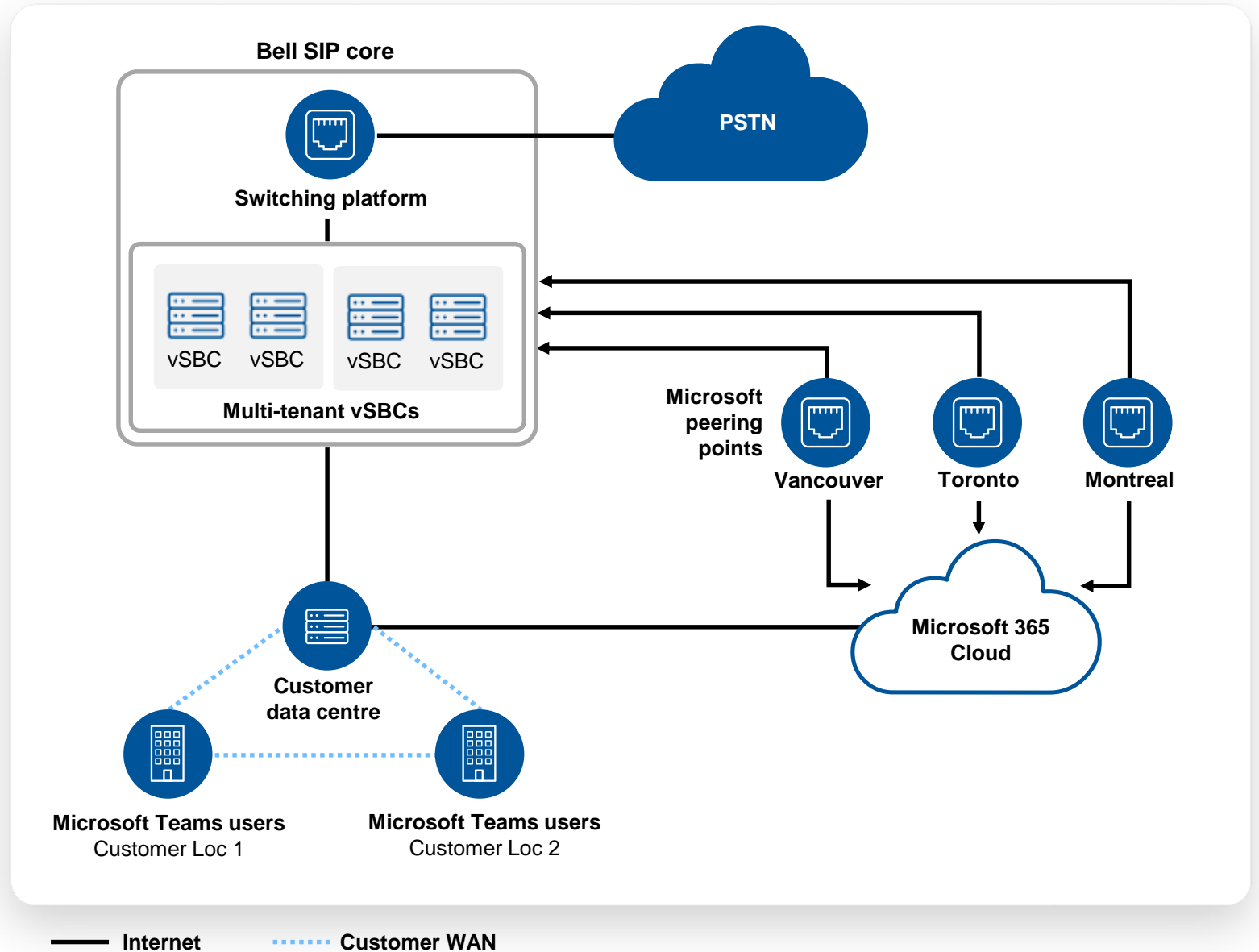
Feature	Details
Microsoft Direct Routing Trunk Group	A single trunk group that provides local presence & telephone number portability from all rate centres served by Bell Canada. Free long distance (LD) calls across Bell National ILEC/CLEC footprint including: Western Region (BC/AB/SK), Manitoba Bell, Bell ON & QC, Bell Aliant, Telebec, Telus Quebec, NorthernTel & Bell Mobility. This will help maximize Concurrent Call Channel (CC) efficiencies as concurrent calls are pooled across all users in all locations.
Optimal peering service with Microsoft Teams	Direct Peering links from Bell Internet to Microsoft at 3 Meet-Me locations across Canada.
High availability session border controllers (SBCs)	High availability architecture: each Bell Direct Routing for Microsoft Teams Point of Presence (POP) is deployed as a High Availability (HA) pair in active/standby mode. In the unlikely event of a failure of the active SBC, the standby will automatically take over the call processing without the end application having to do anything.
Geo-redundant connectivity across 4 datacentres	The service's points of presence (POPs) are deployed in four data centres. In the unlikely event of losing an entire data centre, the remaining data centres will be able to carry all the load for all current and future Microsoft Teams users when wanting to place a PSTN call. Users will continue to have full service access in the event of a primary site failure. Customers can design call-routing policies on a user-by-user basis and individually set which of the four data centres is primary and which are 2nd, 3rd, and 4th for failover priority.
Media bypass	Enables a Microsoft Teams client to shorten the path of media traffic and reduce the number of hops in transit for better performance. With media bypass, media is kept between the SBC and the client instead of sending it via the Microsoft phone system.
Voice codec	Supports Microsoft Teams SILK to G.711 (standard voice quality = 100kb/s) transcoding.
Self-serve portal	Customer portal to order: add/remove telephone numbers, add/remove capacity, add/remove features.
Performance portal	Near-real-time, peak usage, 3 months of call detail record (CDR), 12-month history of capacity utilization, SLA tracking, trouble-ticket details.

Bell Direct Routing as a Service: Features available as optional add-ons

Feature	Details
Destination unreachable: telephone number	The ability to reroute inbound customer calls from a trunk group to an existing PSTN number. Protects against failure of Microsoft Teams phone system.
Dynamic outgoing name and number display (D-ONND)	The service will pass through customer's Microsoft Teams programmed names and numbers.
Static outgoing name and number display (Static-ONND)	The ability for the customer to set a name and/or a number for each TN that is viewable on the set of the terminating number of the call. This will override the name and number provisioned on Microsoft Teams.
Calling ID name and number	The ability for the customer to view the incoming caller's name and telephone number.
Overflow handling: telephone number options	The ability to overflow the customer's calls from a trunk group to any telephone number in the world. This feature provides a safeguard of call capacity if Trunk Group is at capacity.
Remote Call Forward	Customer portal to enable control of inbound call destination. Any North American telephone number target can be provisioned by the customer.

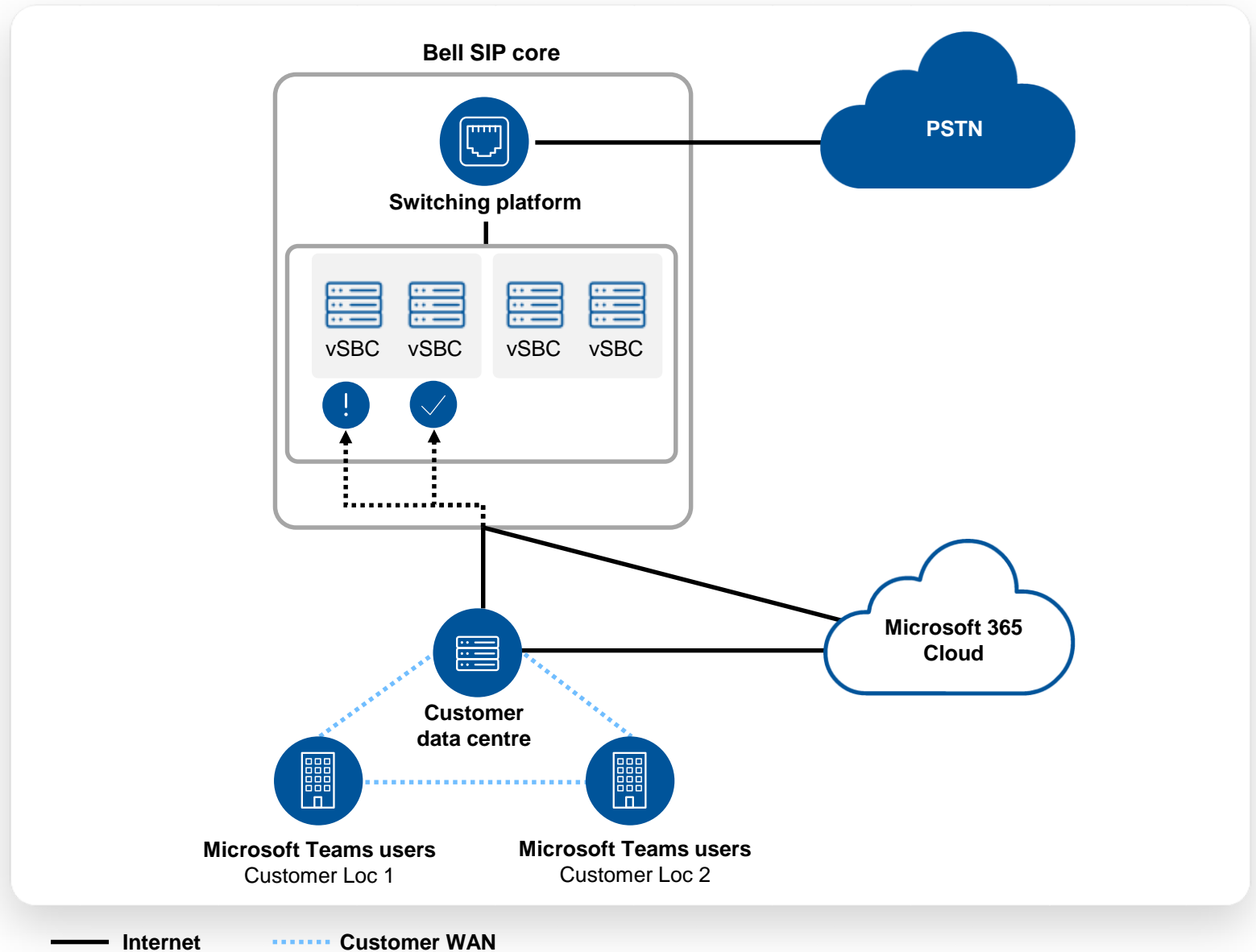
Optimal peering service with Microsoft Teams

- The best national peering service with Microsoft with peering at 3 sites (minimum hops, direct peering)
- Customers on Bell Internet will benefit with minimal hops to Microsoft Teams for Direct Routing vs third party Internet



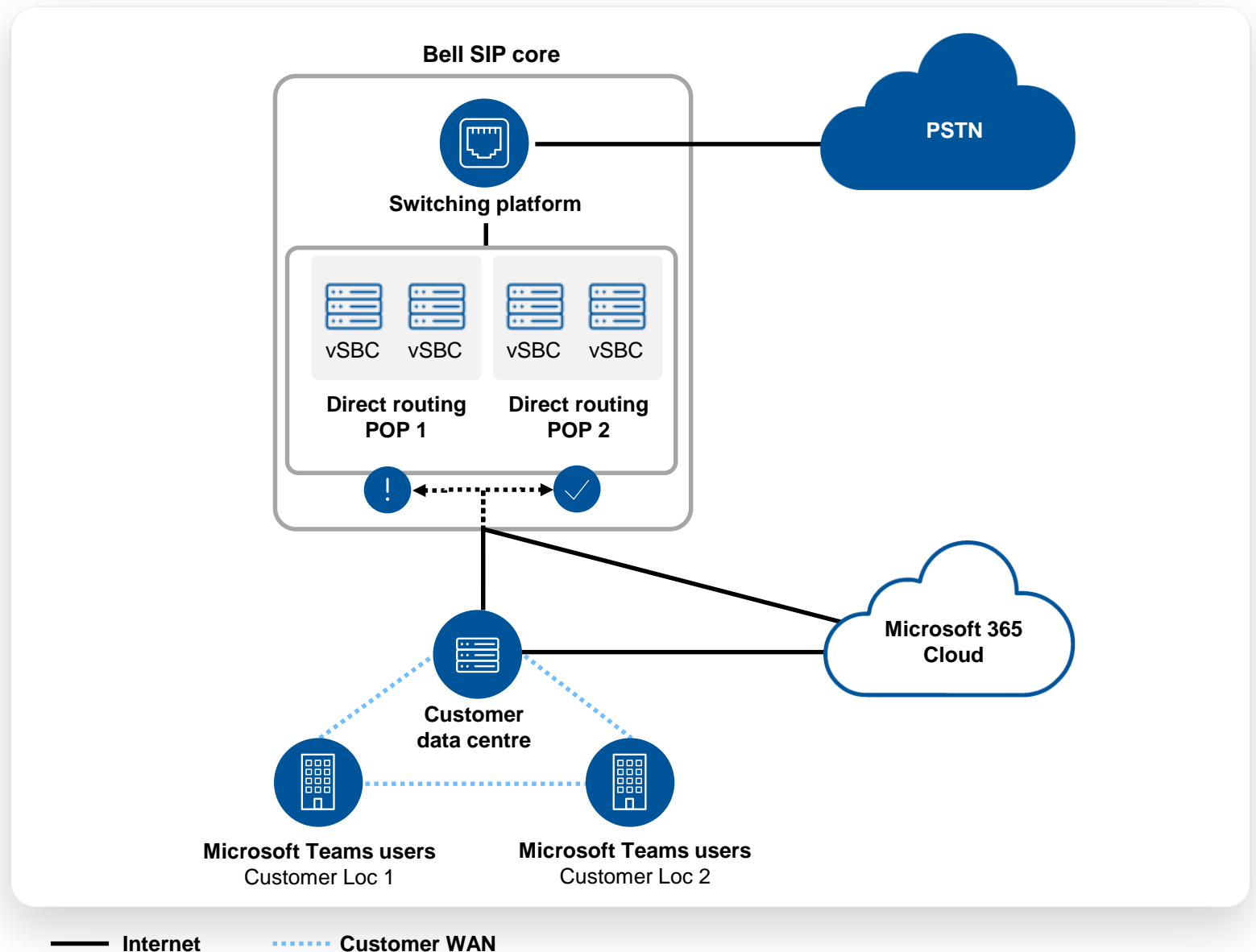
Bell Direct Routing as a service: High availability SBCs

- Each direct routing point of presence (POP) is deployed as a high availability (HA) pair in active/standby mode.
- In the unlikely event of a failure of the active SBC, the standby will automatically take over the call processing without the end application having to do anything.



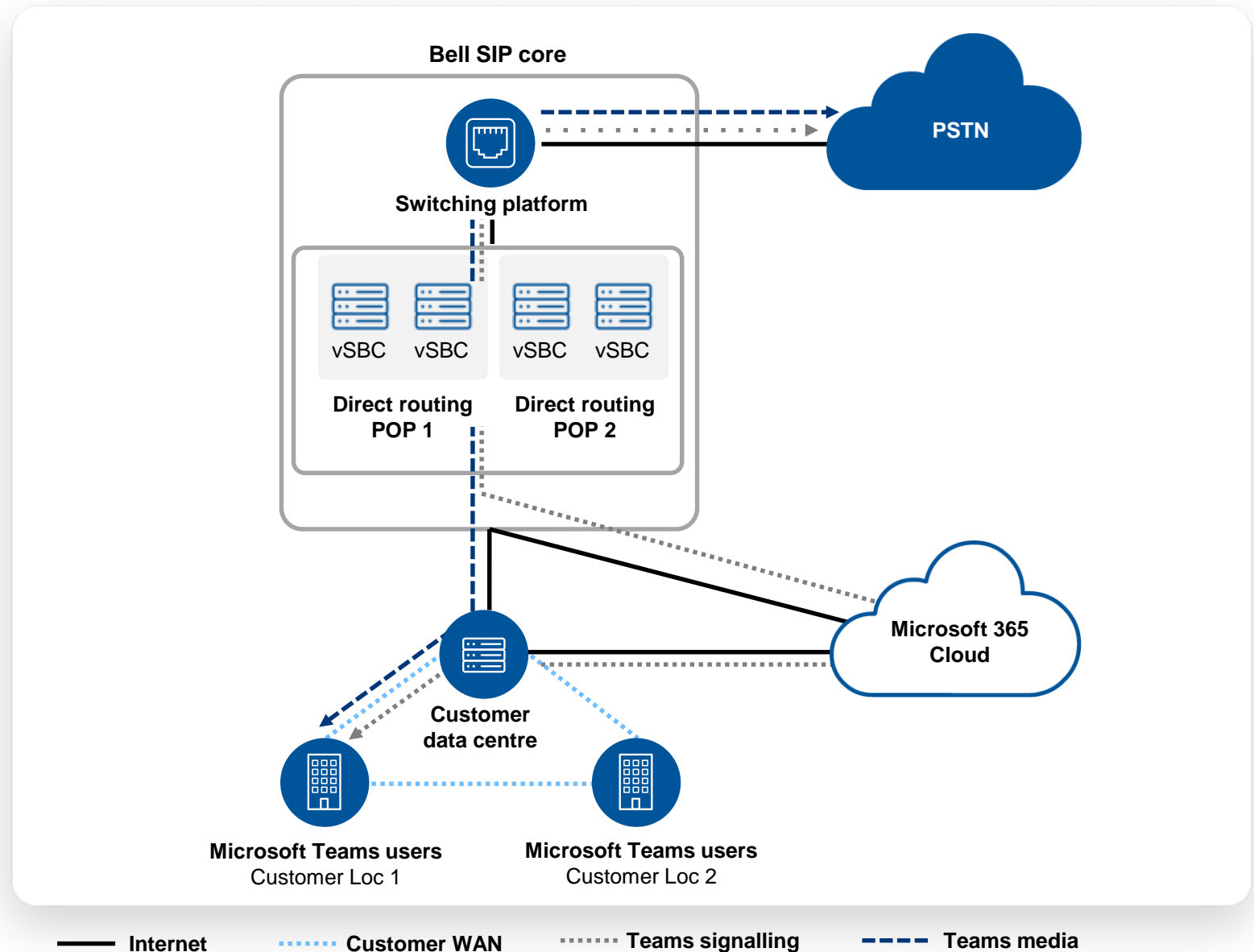
Bell Direct Routing as a service: Geo-redundant architecture

- Direct routing points of presence (POPs) are deployed in different data centres.
- In the unlikely event of losing an entire data centre, the remaining data centre will be able to carry all the load for all current and future Microsoft Teams users when wanting to place a PSTN call. The user will continue to have full service access in the event of a primary site failure.



Bell Direct Routing as a service: Media bypass over Internet

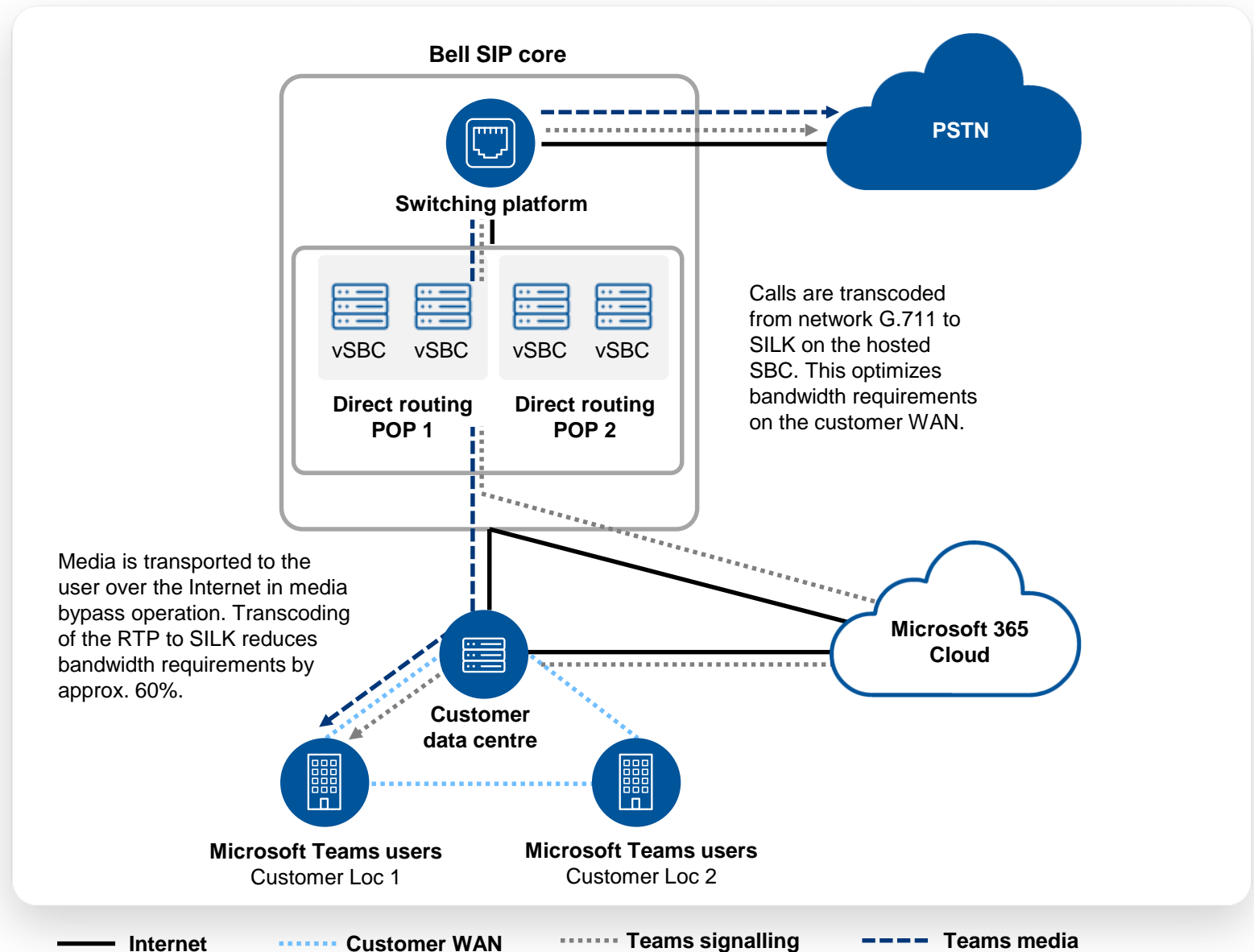
- Enables Microsoft Teams client to shorten the path of media traffic and reduce the number of hops in transit for better performance.
- Media is kept between the SBC and the client instead of sending it via the Microsoft phone system.
- For media bypass to work with the Bell SBC and Microsoft Teams, clients must be able to directly route to each other.
- This allows for successful peer-to-peer calling to stay within the customer network.
- If the media cannot route directly, it will seamlessly fail back to routing via the Microsoft cloud.
- Media bypass has two components: licensing and setup on the SBC (also on the tenant side on the customer Microsoft Teams profile).



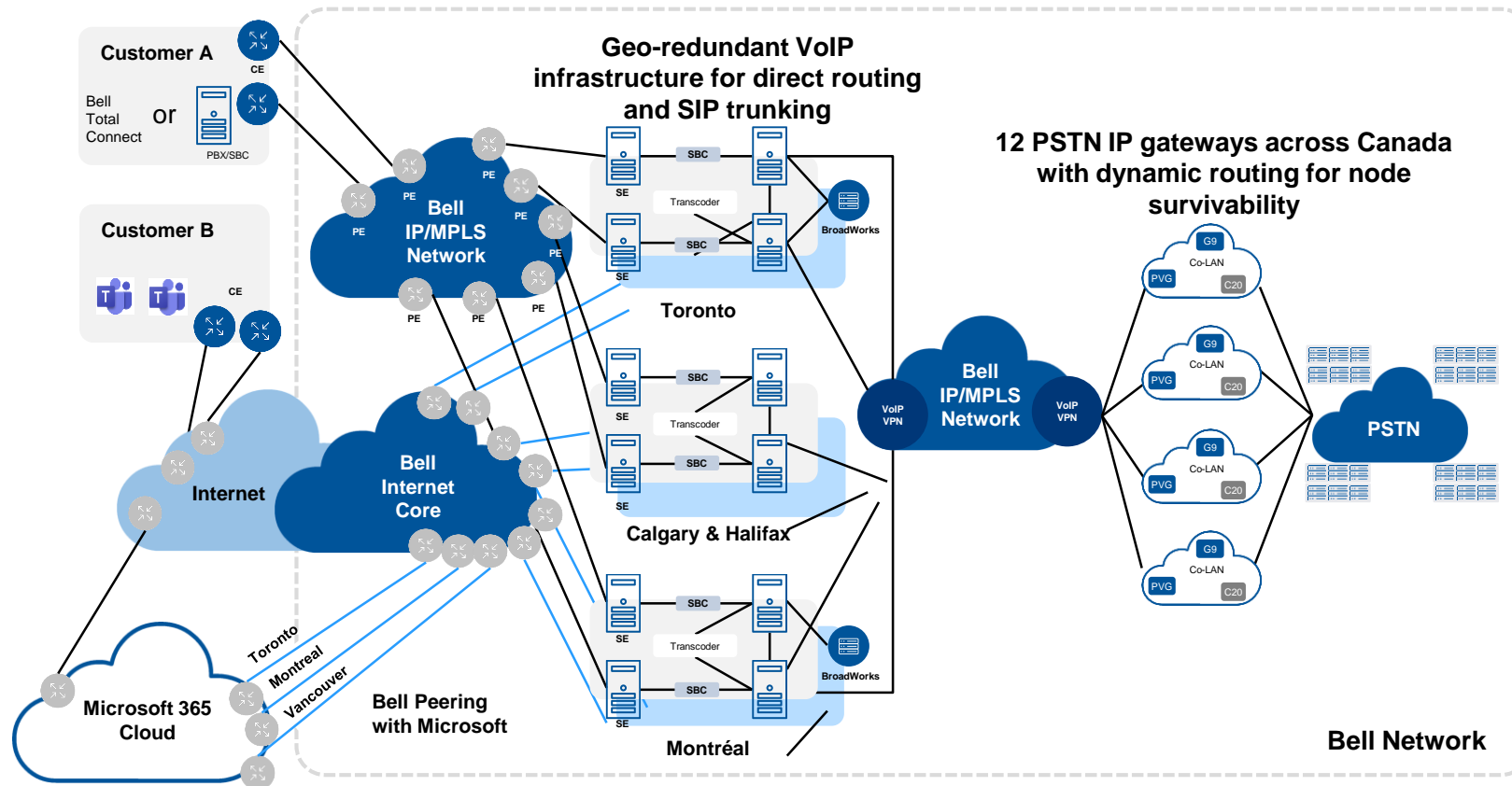
Bell Direct Routing as a service: SILK transcoding

Bell Canada direct routing service enables the customer to optimize voice network bandwidth by supporting SILK codec on-Net

- The preferred codec for Microsoft Teams calls is SILK (media).
- SILK transcoding is a function built into the SBC by the OEM vendor that Bell Canada supports in its direct routing solution.



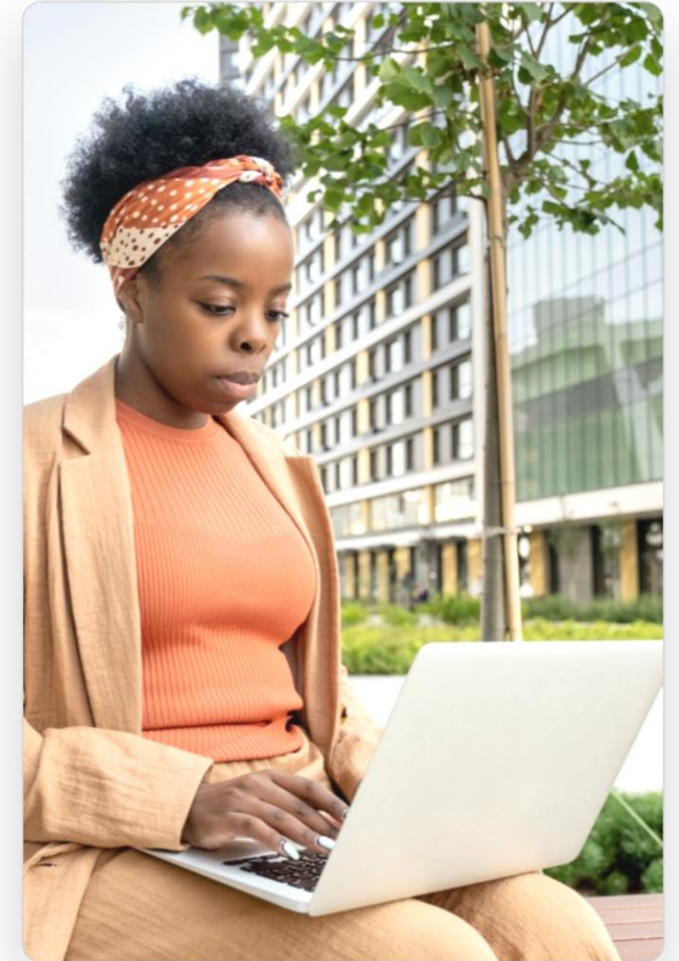
Bell Direct Routing as a service: SIP trunking architecture



- High availability and geo-redundancy.
- 4 SBC POPs: Toronto, Montréal, Calgary, Halifax.
- Each SBC POP has a high availability architecture; no loss of stable calls during hardware failure.
- Call control geo-redundancy in Toronto and Montréal.
- Failover and overflow routing deployed to prevent any service outage.
- 12 PSTN gateways with dynamic routing for node survivability.

Microsoft 365 from Bell

- Microsoft 365 suite provides customers with cloud-based collaboration applications that their businesses rely on to stay productive, including email, file sharing and conferencing solutions. This solution is part of what is known as the “Microsoft Modern Workplace”.
- Bell makes it easy to manage Microsoft 365 subscriptions through the Bell Business Marketplace. Businesses can add new subscriptions, adjust subscription quantities, or get quotes for new licences in real time. They can also easily discover and buy multi-cloud solutions from Bell and our other partners to simplify their journey to the cloud.
- Why Bell is better for Microsoft 365:
 - Preferred vendor discounts
 - Access to Bell’s 24/7 helpdesk plus Microsoft Premier Support
 - Access to professional services expertise
 - A one-stop shop for integrating Microsoft 365 licences



Microsoft Azure from Bell

- Preferred partnership with Microsoft Azure
- Microsoft Azure certified experts, professional and managed services teams to help customers accelerate their journey to Microsoft Azure
- End-to-end expertise: cloud, network and security
- Best-in-class connectivity to Microsoft Azure with Bell Cloud Connect, over Canada's largest network with end-to-end security
- Industry-leading hybrid multi-cloud solutions
- Multi-cloud driven services through Bell Business Marketplace

