

MANAGEMENT REPORT

Date: November 25, 2024
To: Mayor and Council
From: Naeem Khan, Chief Technology & Security Officer
Report Number: COU24-146
Attachments: None

Title: 10-Year Dark Fibre Lease Agreement with Rhyzome

Objective: To provide Council with an overview of the proposed 10-year dark fibre lease agreement between the City and Rhyzome and seek Council's approval for the Mayor and Clerk to sign the agreement.

Background: Dark fibre, also known as unlit fibre, refers to fibre optic cables with no service or traffic running on them – an unused point-to-point connection. It's called 'dark' because the cables aren't lit by a light signal. The City has leased dark fibre from Rhyzome since the early 2000s, providing essential connectivity for various City sites. Despite the longstanding relationship, there has not been a formal agreement in place that outlines service levels, responsibilities, and terms for maintenance and support. This new agreement addresses this gap by formalizing the lease arrangement with a clear Service Level Agreement (SLA) to ensure service reliability, defined performance standards, and accountability. Establishing these terms will help the City better manage its network infrastructure and service continuity.

Analysis: The proposed 10-year dark fibre lease agreement with Rhyzome provides the City with a stable, high-capacity fibre network across multiple key sites, supporting critical connectivity needs. This arrangement is designed to meet both current and future requirements as the City's digital and operational demands continue to grow.

Key points of analysis include:

1. **Cost-Effectiveness:** The long-term lease secures fibre connectivity at a predictable cost structure. The initial rates are competitive, and this is within standard industry ranges for long-term infrastructure leases.
2. **Service Level Agreement (SLA):** The agreement includes a formal SLA, which has not previously been in place. This SLA commits Rhyzome to maintaining a

minimum uptime of 99.7% per month, with specified response times and a process for handling service interruptions. Such defined service levels will provide the City with greater reliability and accountability in network performance.

3. **Operational Impact:** Reliable network infrastructure is essential for the City's daily operations. This agreement will ensure that the necessary bandwidth and connectivity are consistently available to support these services.
4. **Risk Mitigation:** By formalizing the relationship and including indemnity and termination clauses, the City reduces potential risks associated with this agreement. The inclusion of an SLA provides further safeguards against service degradation, outlining specific steps for issue resolution and outage credits.
5. **Scalability and Future Planning:** The agreement ensures that the City's network can be expanded and adapted to future needs, with terms that allow for ongoing review and potential adjustments in alignment with evolving technology and city growth.

In summary, this agreement provides a robust foundation for the City's connectivity needs, ensuring dependable service levels while mitigating risks. It positions the City well to meet both current and projected future demands for reliable network infrastructure.

Financial Implications:

Impact on current year and future year operating budgets:

The annual costs associated with the current practice are included in the 2024 budget and are part of annual operating costs. The 2024 budget included \$67,515 and the 2025 budgets and beyond will be approximately \$82,882. It is a bit higher in the subsequent years due to some additional strands added in 2024 for a couple of locations. There are no additional financial impacts or changes anticipated under this agreement.

Legal considerations:

The proposed dark fibre lease agreement with Rhyzome has been reviewed by the City's legal counsel. The agreement includes key provisions to protect the City's interests, such as indemnity clauses, termination rights, and a Service Level Agreement (SLA) outlining performance standards and responsibilities.

Alignment with Strategic Priorities:

Enhance our Infrastructure

This report aligns with this priority as supports critical network infrastructure, securing reliable fibre connectivity across multiple city sites. The dark fibre lease supports the City's ability to maintain high-quality infrastructure that underpins essential services and future digital initiatives.

Work Together For Greater Impact

This report aligns with this priority as it reflects collaboration with Rhyzome, a key partner, to secure a long-term infrastructure solution. The agreement supports greater efficiency and reliability, enhancing the City's ability to serve residents effectively.

Intentionally Change to Support the Future

This report aligns with this priority as it formalizes the City's approach to managing network infrastructure, incorporating a Service Level Agreement (SLA) that ensures accountability, reliability, and future scalability. This proactive approach positions the City to meet evolving technological demands and support future growth.

Alignment with One Planet Principles:

Equity and Local Economy

This agreement supports local economic growth by partnering with Rhyzome, a locally based service provider. This approach contributes to the local economy and promotes sustainable community partnerships.

Zero Carbon Energy

The leased fibre infrastructure supports energy-efficient data transmission and reduces the need for on-premises server storage and related energy consumption. This aligns with the goal of promoting sustainable energy use within city operations.

Staff Recommendation: THAT the report titled, "10-Year Dark Fibre Lease Agreement with Rhyzome" (COU24-146), be received for information;

AND THAT the Mayor and Clerk, or their respective delegates, be authorized to sign the Dark Fibre Lease Agreement and any related documents.

Prepared by:

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Recommended by:

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Joan Thomson, Chief Administrative Officer