

Terms of Reference

Options for improving telecommunications across northern Australia for a connected beef industry.

Summary:

Meat and Livestock Australia (MLA) in consultation with the Northern Pastoral Group (NPG), which is a collection of corporate and large family red meat enterprises, is seeking applications from individuals, organisations or project teams with the capability to identify and develop a strategy to provide connectivity solutions available to maximise internet and phone connectivity in regional and remote locations. The emphasis for this study is to identify solutions for northern Australia, however the outcomes may be applicable to other rural applications.

Background:

Recent Australian research has identified telecommunications, specifically internal (eg. on-farm) and external (eg. network) connectivity to be a significant constraint in achieving productivity gains offered through sensing technologies (remote and in-paddock surveillance techniques), data analytics (e.g. marketing, logistics, risk management, financial, HR etc.) and associated cloud-based, or centralised server-based decision support and business management tools (e.g. feedbase, animal, asset, commodities). MLA wishes to build a framework and strategy to assist Australian northern pastoral industry and producers to take advantage of opportunities that can be achieved for reliable internet and phone connectivity. However the geographic scale of many pastoral operations both in terms of the physical size of individual landholdings, and the distances between other elements of the supply chain and head office(s) means the northern pastoral sector is heavily reliant upon information and communications technologies. Reliable connectivity is vital and so it is important that any issues or impediments to successful connectivity are identified and that industry is aware of the range of solutions available to them.

Project Objectives:

1. Identify the connectivity needs of key dimensions of northern pastoral operations including working staff, actual or desired surveillance and management tools relating to paddocks (e.g. feedbase, infrastructure, management history and scheduling), yards (livestock interventions/movements), employee and contractor safety, business (head office and associated supply chain elements) as well as the private needs of resident families (homesteads/camps) including educational and social. Connectivity for both mobile and desktop environments are relevant.
2. Survey current and emerging terrestrial and satellite connectivity options (internal and external) such as related to voice, data, 'internet of things' and 'machine-to-machine' (IoT/M2M), vision ('video'), remote switching. Assess the potential

feasibility of each in the context of northern pastoral operations factoring in such issues like realisable speed, latency and owner/user complexity. Acceptable compromises that balance cost, maintenance, privacy of information, embedded security, ease of use and speed of installation should be identified.

3. Identify and communicate the range of connectivity solutions available to northern pastoral operations which maximise internet and phone connectivity within and between operational segments in regional and remote locations. Recommend methodologies to measure and evaluate services. Provide indicative cost bands of the recommended solutions (hardware, operational costs and ongoing subscriptions) and a listing of potential vendors.
4. Provide recommendations to MLA on next steps in facilitating improvements in connectivity (Phase #2) for northern pastoral operations.

Methodology:

1. Utilising responses from the Northern Pastoral Group preliminary connectivity survey – January 2018 and the NPG’s response to the Regional Telecommunications Review, identify current access and use patterns including connection method, speed (actual and desirable), cost, maintenance and IT support.
2. Conduct a limited number of site interviews/visitations to ascertain current and future technology needs as they relate to connectivity needs, both present and future. Visits to current installations may also be appropriate. Evaluate cost/performance trade-offs. Undertake a ‘gap analysis’ between current and future requirements.
3. Conduct a desktop survey of current and emerging terrestrial and satellite connectivity options available or on the short-term horizon to northern pastoral operators.
4. Present the finding in a digestible format that can assist operators assess their needs and potential solutions available to them. Case studies may be used where applicable and approved.

Application guidelines:

Individuals and groups are invited to apply to conduct the MLA NPG Connectivity project. Proposals must contain the following sections and will be scored against the selection criteria set out in this Terms of Reference. Applications should not exceed four pages and be emailed to applications@mla.com.au

The application should detail:

1. Name, address, email and telephone contact details, of the project lead.
2. Details of the entity including address and ABN.
3. Information on the skills and capacity of the team performing this work.
4. The approach that will be adopted to address the project objectives.
5. The specific work activities proposed and timelines for their achievement.
6. The information/data to be collected, collated and assessed and how these activities will be undertaken.
7. A fully costed budget that covers all the resources required to undertake the work, including details of basis for charging (daily fees, number of days, expenses, etc.).

8. A proposed project timeline and payment schedule, with the preference for the first payment of 50% paid on signing, an interim draft report milestone and the remainder paid on acceptance by MLA of the final report.
9. Applicants, research teams or subcontractors with any potential conflicts of interest, should outline these in their application, including how they propose to manage them, if applicable.

Selection Criteria:

Applications will be reviewed by MLA, and selection of the successful proposal will be based on assessment against the following criteria:

1. Proven capacity and experience in performing similar tasks in the IT field.
2. The description of the methodology.
3. Quality of the methodology to achieve project objectives in the terms of reference.
4. Quality of budget justification.
5. Value for money of the application.
6. Delivery timeline.

Reporting Requirements:

The successful applicant will provide a draft and final report giving full details of the results of the work. The reports will be prepared in line with MLA report guidelines and delivered in Microsoft Word format.

The final report should also be in a format that is easily publishable in a way that producers can assess the possible solutions and, if commercially desirable, implement them on site. In addition to MLA standard reports, the following will also be provided to MLA at the time of delivery of the Final report:

1. a 600 word (maximum) magazine-type article with one high resolution image (>1MB file size).
2. a Microsoft Powerpoint presentation summarizing key project outcomes.

Timing:

A draft summary and recommendations is to be delivered to the Project Manager by 28th February, 2019.

Meetings:

The applicant needs to allow for two half-day presentations/meetings with the MLA Project Manager, one at project inception and one at the stage of delivery of the final report. The MLA project manager will travel to the applicant in all cases.

The successful applicant shall report directly to one of the contacts below. The contact may also provide additional relevant material at the start of the project or respond to requests for material if the contractor requires it and MLA has access to it.

Confidentiality and IP:

The successful applicant will be required to enter into a contractor agreement with MLA.

Project Proposal Submissions:

MLA applications must be lodged electronically as Word document to:
applications@mla.com.au

Strict adherence to the time deadline of 17th December 2018 for applications will occur. MLA reserves the right not to assess applications received past the deadline.

Further Information:

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