The ORCM Experience - a Main Roads Odyssey

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Drivers for ORCM in Main Roads

- Improved effectiveness and efficiency
- Improved communication/coordination
- Faster and better decision making
- Better availability of information
- Improved record/knowledge management
- Better contract relationships
- Construction Process Re-Engineering
Communication Comparison

CONVENTIONAL COMMUNICATIONS

Superintendent

Contractor

Sub Contractor

Principal

Designer

COMMUNICATIONS USING ORCM

Superintendent

ORCM Server

Contractor

Sub Contractor

Principal

Designer

Request for information

Information Feedback
Pilot ORCM Projects

• Initially Construction Sites - Emerald, Toowoomba, Port of Brisbane Motorway
• Initial focus has been on correspondence management
• Plan to extend more widely into more advanced applications, e.g., video conferencing, drawing exchange
• Investigating design and maintenance opportunities
Emerald Project - Dawson Highway

- Constructor in Townsville
- Principal and superintendent in Emerald
- RTCS designer in Rockhampton
- Site south of Bauhinia Downs
- Researcher and reviewers in Brisbane
- Used purpose built web based software
- Server in neutral site in Sydney
Some Linkages
Typical Communications

- Requests for Information
- Site Instructions
- Quality Records
- Photos and Images
- Progress Payments
- Meeting Management
- Drawings
- Diaries
Evaluation of ORCM

• Main Roads designed qualitative questionnaire in addition to QUT analysis
  – what has gone well and not so well
  – problems and how addressed
  – benefits/issues
  – suitable communications for ORCM
  – impact on contract relationships
  – overall impression
  – suggested improvements
Observed Benefits

- Fast response times to communication
- One communication - several recipients
- Excellent document control
- Easy links between documents
- Use of photographs - save time, money
- Can transmit drawings
- Time savings
- Use of web for public interface
Example of Project Image
Observed Issues

- Size, complexity of projects for which ORCM is viable
- Provision of communication facilities
- Internet access can be slow, unreliable
- Data security, integrity, privacy, etc.
- Legal requirements and issues
- Need for commitment by participants
- Cultural issues
- Still require good well trained people
Conclusions

• Ability to save time and money
• Benefits vary with project role
• Best suited to more complex projects with several participants
• Still immature (security, legal, etc issues)
• Potential for public consultation
• Cultural issues require to be addressed
• Potential to revolutionise project communication throughout supply chain
Where to Next?

- Discussions with design consultants - consultation seen as a key application
- Investigation of ADSL, GPS, wide angle cameras, voice, etc, for maintenance
- Draft contract agreements for ORCM use in supply chain being drafted by legal personnel
- Extension to e-tendering, total project management and e-commerce applications