TT-MID Resolution Team

RT1 : SKA1-MID Construction Phasing (aka Array Rollout)

Antonio Chrysostomou
Head of Scientific Operations Planning
What is the issue that needs resolution?

SKA1-MID Construction Phasing

- recognise the importance of identifying commissioning & engineering requirements for early AIV support
- identify early functionality to be delivered by software intensive components
  - TM, CSP, SDP
  - identify milestones
- describe use cases for Array Releases, specifically AR1
- identify science capabilities for the Array Releases
  - e.g. how long will the longest baseline be for AR2?
- identify operations support
Who are the Resolution Team?

<table>
<thead>
<tr>
<th>Name</th>
<th>Consortia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyler Bourke (Lead)</td>
<td>Science</td>
</tr>
<tr>
<td>Antonio Chrysostomou (PM)</td>
<td>Operations</td>
</tr>
<tr>
<td>Jean Kotze</td>
<td>DSH</td>
</tr>
<tr>
<td>Jasper Horrell</td>
<td>SDP</td>
</tr>
<tr>
<td>Michael Rupen</td>
<td>CSP</td>
</tr>
<tr>
<td>Lize van den Heever</td>
<td>TM</td>
</tr>
<tr>
<td>Ralph Braddock</td>
<td>SaDT</td>
</tr>
<tr>
<td>Telalo Lekalake</td>
<td>INFRA SA</td>
</tr>
<tr>
<td>David Bolt</td>
<td>AIV</td>
</tr>
</tbody>
</table>
What were the Resolution Team asked to do?

Construction Phasing:
1. Review requirements & functionality for each AR
2. Propose a suggested procurement policy based on this
3. Ensure a process is in place

Science Phasing:
1. Identify science capabilities
2. Assess requirements against construction schedule
3. Propose science release milestones
4. Estimate operations support required
What has been done?

Quickly became clear that the majority of the work proposed is already being considered and planned for

**AIV planning:**
- AIV roll-out plan is undergoing revision since PDR
- A version will be released soon but all major stakeholders should be consulted

**SKAO planning:**
- Science capabilities have already been folded into AIV planning
  - more detail still required to add flesh to the bones
- Operations support for Array Rollouts will be determined Summer 2016
AR timeline - AIV

MeerKAT Science Programme

Array Releases

- **LVE** = Lab Verification Event
- 1 = 8 Dishes
- 2 = 64 Dishes
- 3 = 128 Dishes
- 4 = 133 + 64 Dishes

Start Construction SKA1

End Construction SKA1

Exploring the Universe with the world's largest radio telescope
AR timeline - AIV

Exploring the Universe with the world’s largest radio telescope

SKA Engineering Mtg – Penticton, CA – Nov. 2015
AR timeline
- AIV

verify L0 requirements

verify L1 requirements

see special session(s)
What has been done?

Quickly became clear that the majority of the work proposed is already being considered and planned for

AIV planning:
- AIV roll-out plan is undergoing revision since PDR
- a version will be released soon but all major stakeholders should be consulted

SKAO planning:
- science capabilities have already been folded into AIV planning
  - more detail still required for verifying requirements
- Operations support for Array Rollouts will be determined Summer 2016

Recommend that we make this RT a WATCH issue.
What needs to be done and by when?

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open discussion – Penticton meeting</td>
<td>Now</td>
</tr>
<tr>
<td>Regular updates to TT-MID meetings</td>
<td>every 2 weeks</td>
</tr>
<tr>
<td>Draft report</td>
<td>end Jan 2016</td>
</tr>
<tr>
<td>Final report</td>
<td>mid Feb 2016</td>
</tr>
</tbody>
</table>

It is possible that the most productive result from this RT is that it generates a new set of more specific issues and RTs to be convened.
What can we all continue to do?

Feedback any comments to the RT and AIV teams

Read the latest version of the AIV rollout plan(s) & provide feedback
  – new version to be issued soon!

Discuss the plan within consortia and include AIV/SKA in those discussions
  – “yes”, “no”, “maybe” responses to expected deliverables are very helpful for planning

Engage with the AIV team
  – I know this is happening!
  – just a gentle and friendly reminder that this needs to continue