

Enterprise solution for the Department of Human Services (Vic) and Department of Health (Vic)

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Enterprise GIS for the Department of Human Services and the Department of Health

DH and DHS overview

GIS Infrastructure

Our Approach to Integration

Lessons learnt

Results

About Us

It is all about people

Department of Health, portfolios:

- Public Health
- Mental Health
- Aged Care

Department of Human Services, portfolios:

- Children
- Disability
- Housing



GIS Strategic Development Stages

Stage 1 : Infrastructure build

Stage 2 : Integration with core business systems

Stage 3 : Public facing/ external web mapping services and mobile applications

Current GIS Environment

A shared service between the two Departments.

Enterprise structure

SDE on SQL Server 2008: Single source of truth for spatial data

Centrally managed

Virtual servers

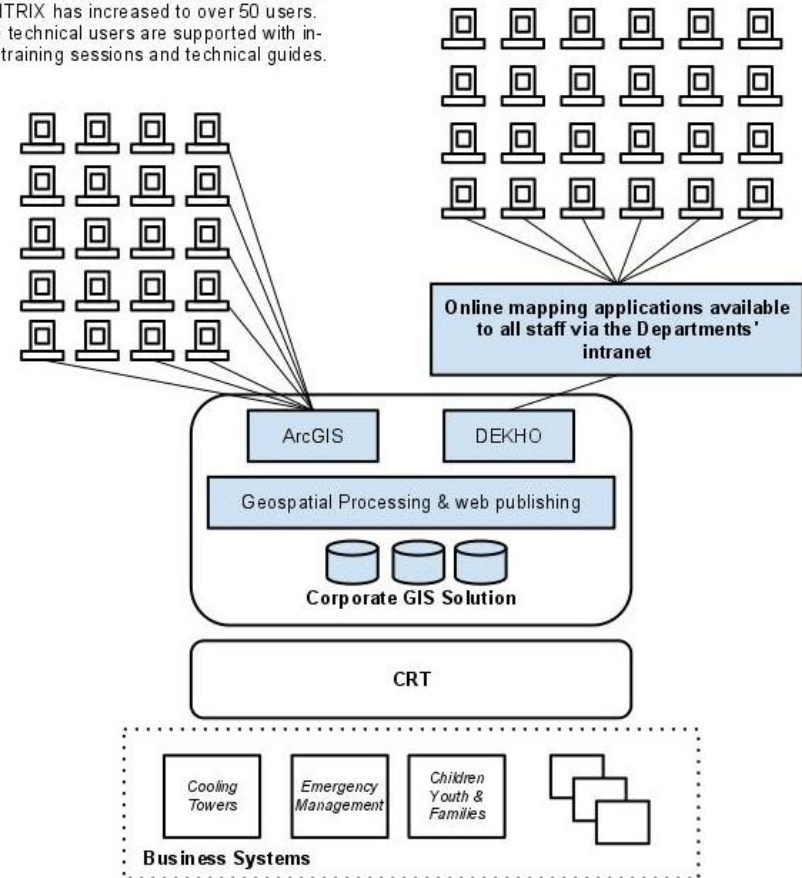
CITRIX environment

3 environments

- Development
- Test
- Production

Web mapping built on ArcGIS Server (10) and Dekho 3.2.1

GIS desktop users with access to the ArcGIS via CITRIX has increased to over 50 users. These technical users are supported with in-house training sessions and technical guides.

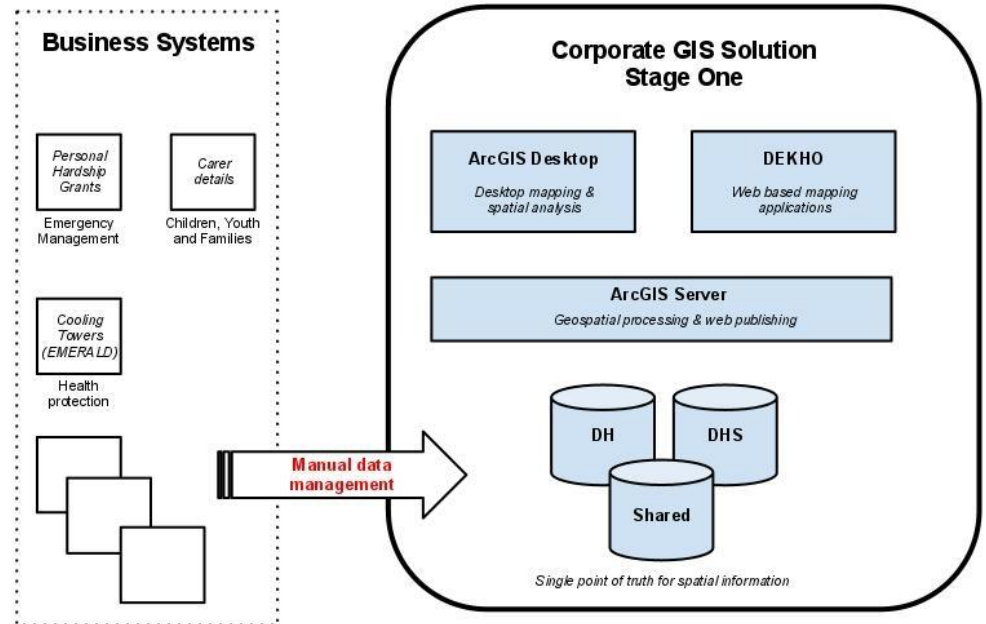


Stage 1 : Infrastructure

A solid foundation for spatial analysis and reporting

Constrained by a silo-based data management process

Open to errors and information delays with the manual handling of data



Stage 2 : Integration with internal business systems

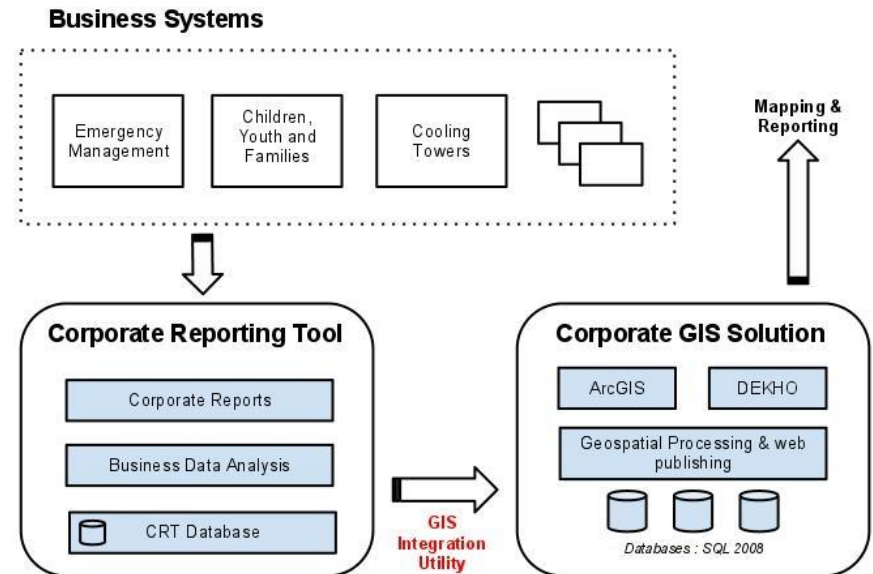
Line of Business applications can be integrated with the GIS via the departments Corporate Reporting Tool (Microsoft Reporting Services and SQL database)

Data can be obtained from an authoritative source

Program area has control over the data views

Datasets can be added/removed

Complies with the departmental security model



Stage 2 : Approach for integrating corporate solutions

Phase 1 : Identify the Authoritative Source

- Program areas had multiple repositories
- Which one to use? System of Entry is preferred.
- Test for completeness
- Educate the program area about appropriate use and limitations

Stage 2 : Business Views

Phase 2 : Define the Business Data View

- Define the Business Data View
- Collaborate with the program area on:
 - What filters should be available for the data
 - What attributes should be visible
 - What symbology should be applied
 - What questions are likely to be asked of the data (determines what attributes are required)
- Create a mock up application and workshop with the program area
- Engages the program area as they 'get it' when they can see it

Corporate Reporting Toolset and GIS Integration

- Corporate Reporting Tool (CRT) – consistent and integrated platform for departmental reporting
- Secure data exchange process already exist with source systems
- Has fine-grained security controlling access to data
- Integration with CRT has meant that GIS need not duplicate security levels
- GIS simply houses the spatial objects and limited attributes
- Users can access CRT reports available to them from within the GIS (and vice-versa)
- SQL Server Integration Services packages extract the data from the CRT to a holding database. Data split into 'Core' and 'Non Core'

SQL Server Integration Services - Packages

- Core attributes include the location (stored proc projects Lat/Long to VicGrid94) and those required for the GIS layers
- SQL Sever 2008 geometry functions used to calculate object to object relationships and update attribute fields (ie: what LGA does this client reside in?)
- Non Core is additional business specific attributes
- Controlled by the program area
- Adding/removing fields does not effect the GIS
- Core to Non Core linked via unique key and ArcGIS10 Query Layers
- If program area removes a field, GIS administrators can simply alter the query layer SQL syntax – no change to the GIS schema!

CORE

Program id *(i.e Site ID, CoolingTower ID)*

Latitude *(location of the Cooling Tower)*

Longitude *(location of the Cooling Tower)*

GeocodeLevel *(result from VMAS)*

GeocodeConfidence *(result from VMAS)*

NON CORE

Program id *(i.e Site ID, CoolingTower ID)*

Inspection to Do

Inspection Date

Staff Name

Status

NON CORE

Program id *(i.e Site ID, CoolingTower ID)*

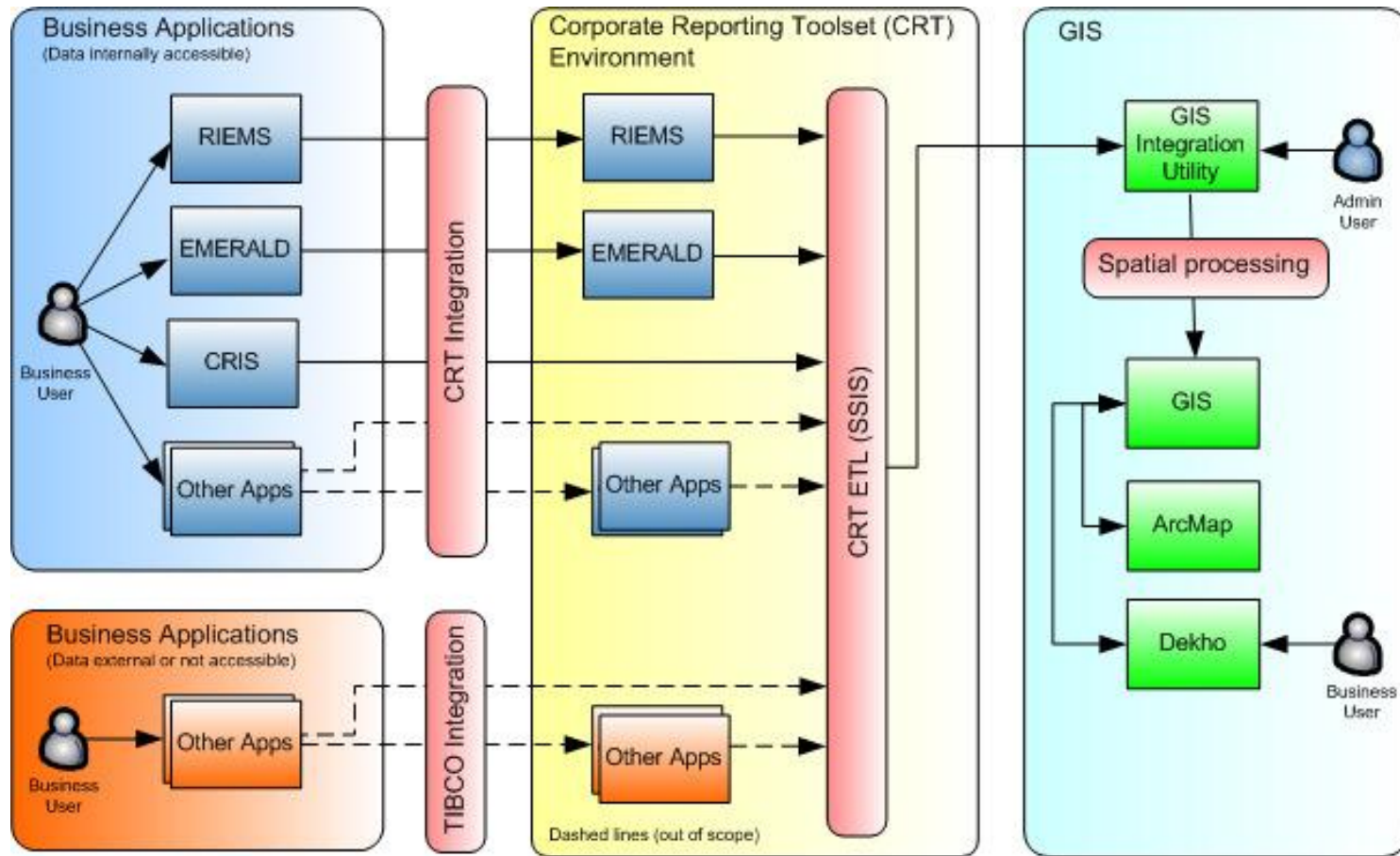
Case Detection

Inspection Date

Concentration

Type Detected

GIS Integration



GIS Integration Utility - Spatial Integration Manager Screen Grabs

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Spatial Integration Manager

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Manage datasets

Manage system

Data load dashboard

Dataset name	Last data load time	
GIS_CRIS	Wed 24-Aug-2011 12:10 PM	■
GIS_EMERALD	Wed 24-Aug-2011 10:22 AM	■
GIS_RIEMS	Fri 09-Sep-2011 05:30 PM	■

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Manage a dataset - details

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GIS_EMERALD dataset details

Description	One core and 5 views in this package
Status	Active
Last updated on	Mon 29-08-2011 05:55 PM
Last updated by	geng1212

Transaction summary

Last data load on	Wed 24-08-2011 10:22 AM
Status of last run	Successfully imported and processed all data
Core view	View name: v_GIS_EMER_CORE result = 7430
Service view	View name: v_GIS_EMER_CaseDetection result = 484, View name: v_GIS_EMER_CaseInvestigation result = 188, View name: v_GIS_EMER_LegionellaToDo result = 26, View name: v_GIS_EMER_NCAtodo result = 13104, View name: v_GIS_EMER_NoAudit result = 2454
Next data load on	Mon 28-09-2011 08:00 PM

for testing only, please ignore below

GIS_EMERALD dataset details

Description	One core and 5 views in this package
Status	Active
Last updated on	Mon 29-08-2011 05:55 PM
Last updated by	geng1212



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Source views

View name	Core view	No. columns	Status	Last updated on
v_GIS_EMER_CaseDetection	No	5	Active	Mon 18-Jul-2011 04:03 PM
v_GIS_EMER_CaseInvestigation	No	5	Active	Mon 18-Jul-2011 04:04 PM
v_GIS_EMER_CORE	Yes	20	Active	Mon 18-Jul-2011 04:01 PM
v_GIS_EMER_LegionellaToDo	No	3	Active	Mon 18-Jul-2011 04:05 PM
v_GIS_EMER_NCAToDo	No	7	Active	Mon 18-Jul-2011 04:05 PM
v_GIS_EMER_NoAudit	No	4	Active	Mon 18-Jul-2011 04:06 PM

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View 1 - 6 of 6

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Dataset data load settings - details

GIS_EMERALD data load settings	
Database name	GIS_Health
SSIS package name	GIS_EMERALD_CORE
Feature class table name	dbo.EMERALD_CTS_PT
Feature class key name	CTSID
Recreate views on next load	Yes
Last data load on	Wed 24-Aug-2011 10:22 AM
Last run status	Successful
Load interval	12 hours
Next data load on	
Maximum number of retries	3
Currently retry count	0
Retry intervals	60 mins
Send retry notification	Yes
Success notification email(s)	gekgek.ng@dhs.vic.gov.au
Failure notification email(s)	gekgek.ng@dhs.vic.gov.au

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GIS_RIEMS dataset details

Description	One core in this package
Status	Active
Last updated on	Fri 15-07-2011 10:20 AM
Last updated by	SERVICE\geng1212

Transaction summary

Last data load on	Fri 09-09-2011 05:30 PM
Status of last run	Failed (unable to complete feature class, service views creation and geo area load)
Core view	View name: v_GIS_RIEMS_Core result = 27322
Service view	
Next data load on	Fri 09-09-2011 11:00 AM

for testing only, please ignore below

GIS_RIEMS dataset details

Description	One core in this package
Status	Active
Last updated on	Fri 15-07-2011 10:20 AM
Last updated by	SERVICE\geng1212

Edit

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Lessons Learnt

- Need to identify the correct source
- Actively engage stakeholders with workshops and demonstrations
- Understand the security and infrastructure constraints
- Keep design, development and deployment in house
 - You're more flexible
 - You're more responsive
 - It's quicker and cheaper

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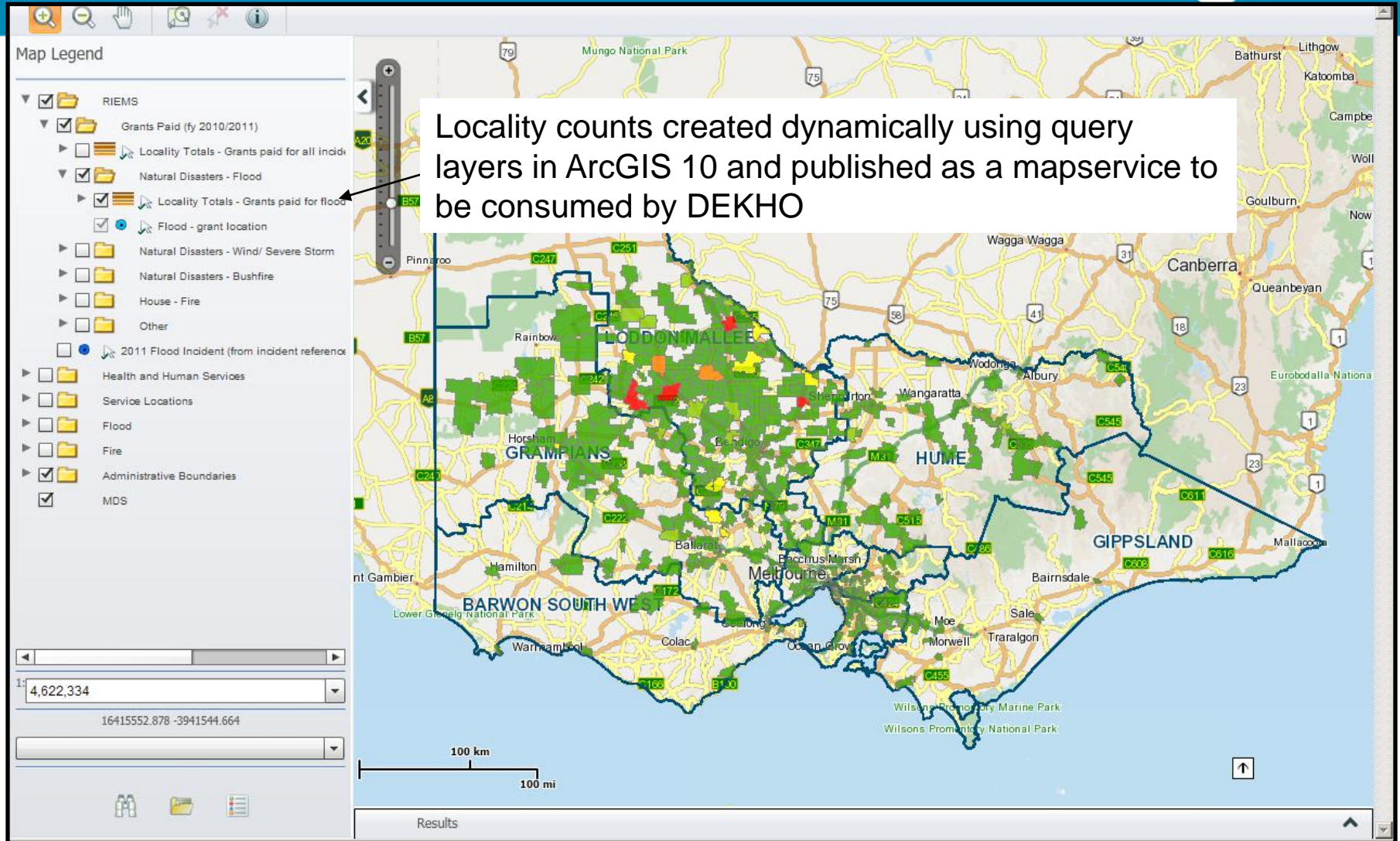
The Departments spatial awareness has been improved – increased demand

Program areas see the benefit of investing in data quality and governance

Automated integration of programmatic data supports an informed approach to planning and operations

Improved Client Outcomes – it's what we're all about

Resulting mapping applications in DEKHO - RIEMS (Grant Locations)



Dummy data has been used

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