



TRANSMAT
Trusted Operations for
Untrusted Database Applications

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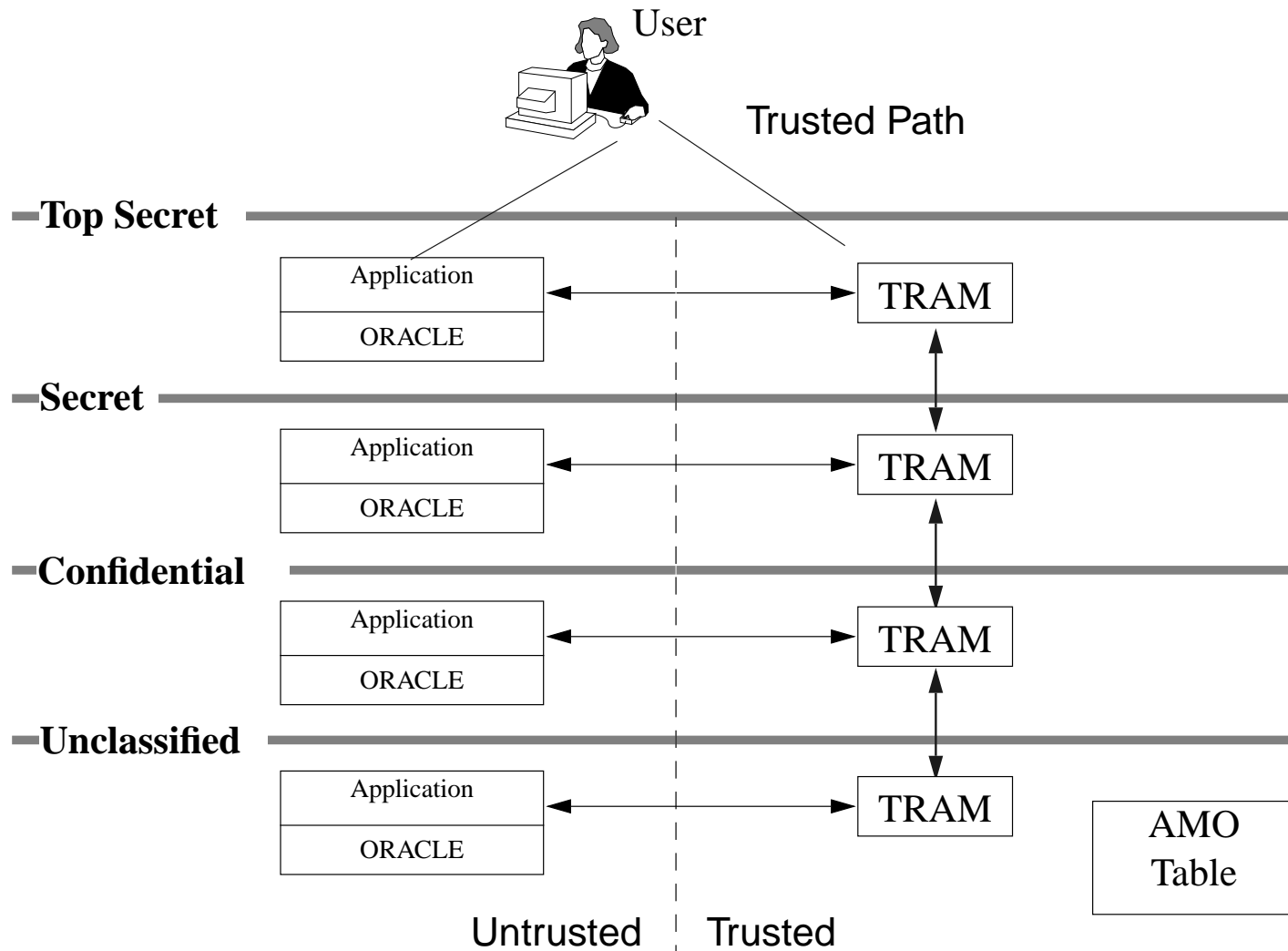
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Outline



- TCB Subset Architecture
- TRANSMAT approach
- Drawbacks to the approach
- Future work
- Summary

Status of Oracle Port



Approved Multilevel Operation (AMO)



.AMO Table

Operation Name	Target Level	Parameter Description	SQL Script
Pilot Selection	Unclassified	30 Characters	Update pilot set status = assigned where pilot = ???
Pilot Debrief	Unclassified	30 Characters	Update pilot set status = available where pilot = ???

Example Schema



Mission

—Top Secret

<u>Mission Name</u>	Pilot
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Red Dog	M. Douglas
Skyfish	

—Secret

Windsor	J. Fairchild
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—Unclassified

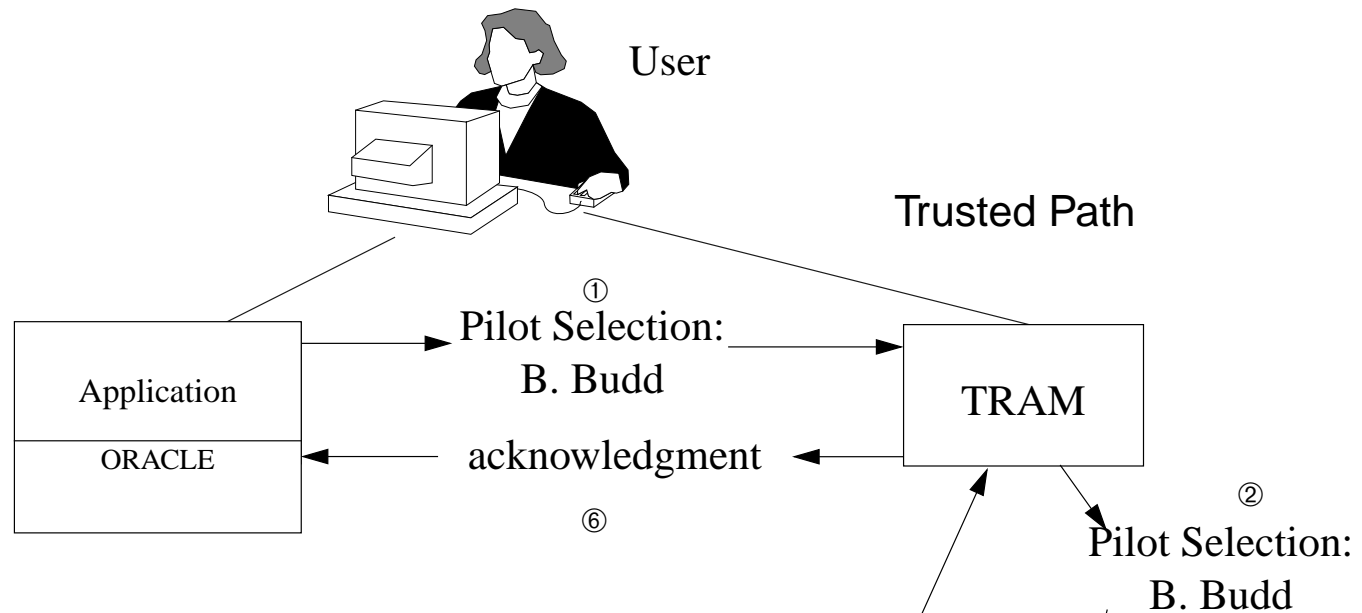
Pilot

<u>Pilot Name</u>	Status
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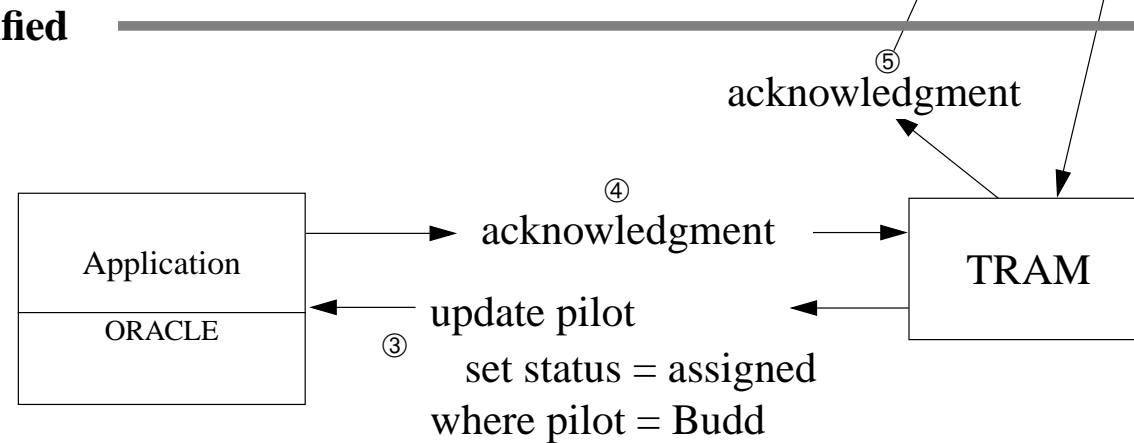
B. Budd	Available
M. Douglas	Assigned
J. Fairchild	Assigned
O. Wright	Assigned

Mail Run	O. Wright
Pegasus	S. Smith
Convoy	J. Johnson
E-Guard	

Top Secret



Unclassified



Summary



- TRANSMAT extends the TCB subset architecture
- Only a small amount of trusted code is required to implement TRANSMAT
- TRANSMAT allows multilevel operations to be incorporated into applications quickly and easily