



Execution Environment:
Superdome X



Graph:
200 Million Vertices



Nodes:
16

Summary

Iteration: [100]



LSGi

61 sec



GraphLab

7700sec ↑



SpeedUp

126x



Convergence

92.5%

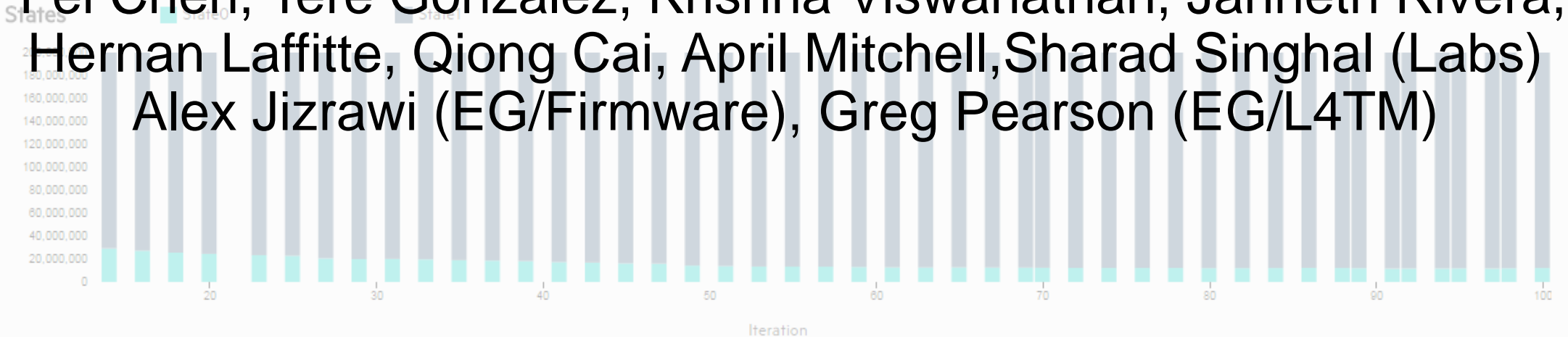


Inference
State0


6.1%

The Team!


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Hernan Laffitte, Qiong Cai, April Mitchell, Sharad Singhal (Labs)
Alex Jizrawi (EG/Firmware), Greg Pearson (EG/L4TM)



Demo

 Hewlett Packard
Enterprise

LSGi ON The Machine

 Hewlett Packard
Enterprise



Execution Environment:
Superdome X



Graph:
1 Billion Vertices



Nodes:
16

LSGi ON The Machine



Execution Environment:
Superdome X



Graph:
1 Billion Vertices



Nodes:
16



Launching...



Graph Description

Vertices:	1,000,000,000	
Edges:	3,392,337,264	
Known Vertices with State 0:	429,382	(0.04%)
Known Vertices with State 1:	278,726	(0.03%)



Execution Environment:
Superdome X



Graph:
200 Million Vertices



Nodes:
16



Launching...



Graph Description

Vertices:	200,000,000	
Edges:	662,942,059	
Known Vertices with State 0:	429,382	(0.21%)
Known Vertices with State 1:	278,726	(0.14%)

LSGi ON The Machine



Execution Environment:
Superdome X

Graph:
200 Million Vertices

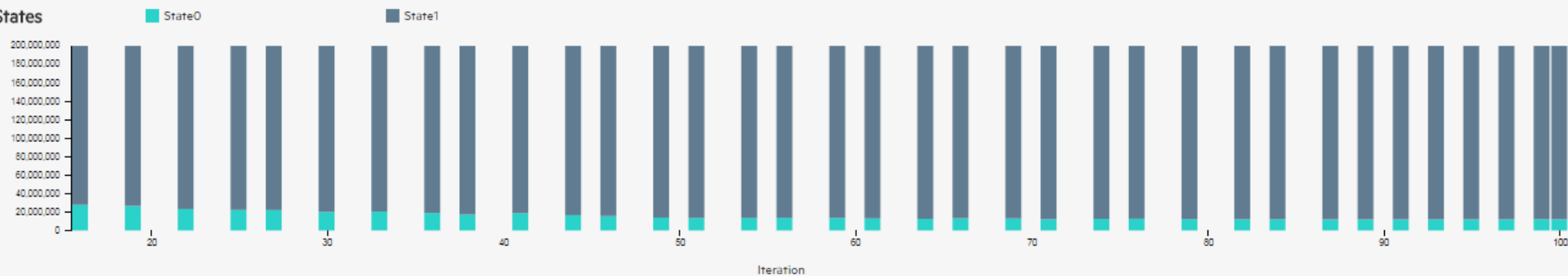
Nodes:
16

Summary

Iteration: [100]

 LSGi 60 sec	 GraphLab 7700sec ↑	 SpeedUp 128x	 Convergence 92.6%	 Inference State0 6.1%
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States



Convergence (%)





Execution Environment:
QEMU- 10 Nodes



Graph:
2 Million Vertices



Nodes:
10

Summary

Iteration: [100]



LSGi

18 sec



Convergence

85.8%



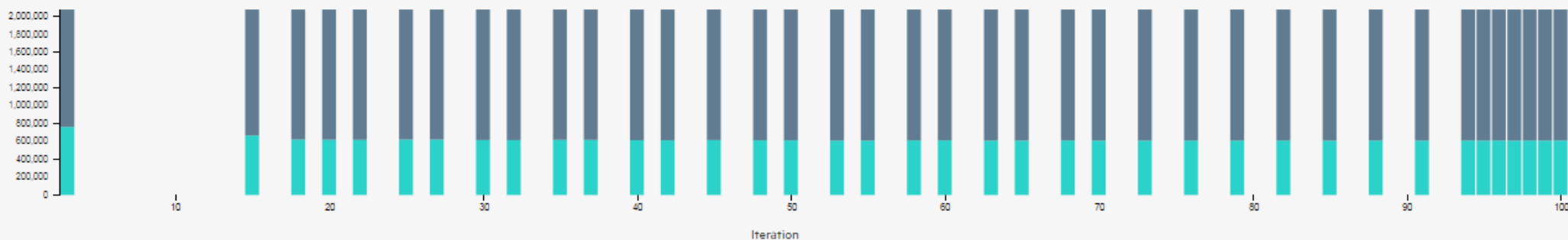
Inference
State0

29.4%

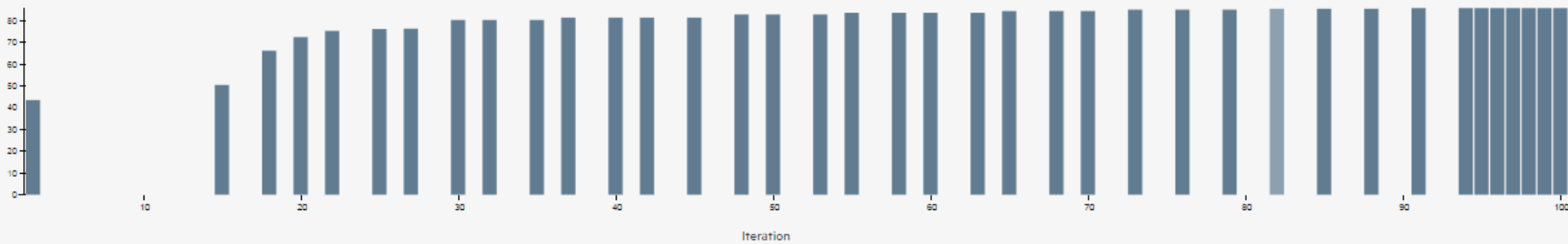
States

State0

State1



Convergence (%)



Acknowledgements

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Thank you!