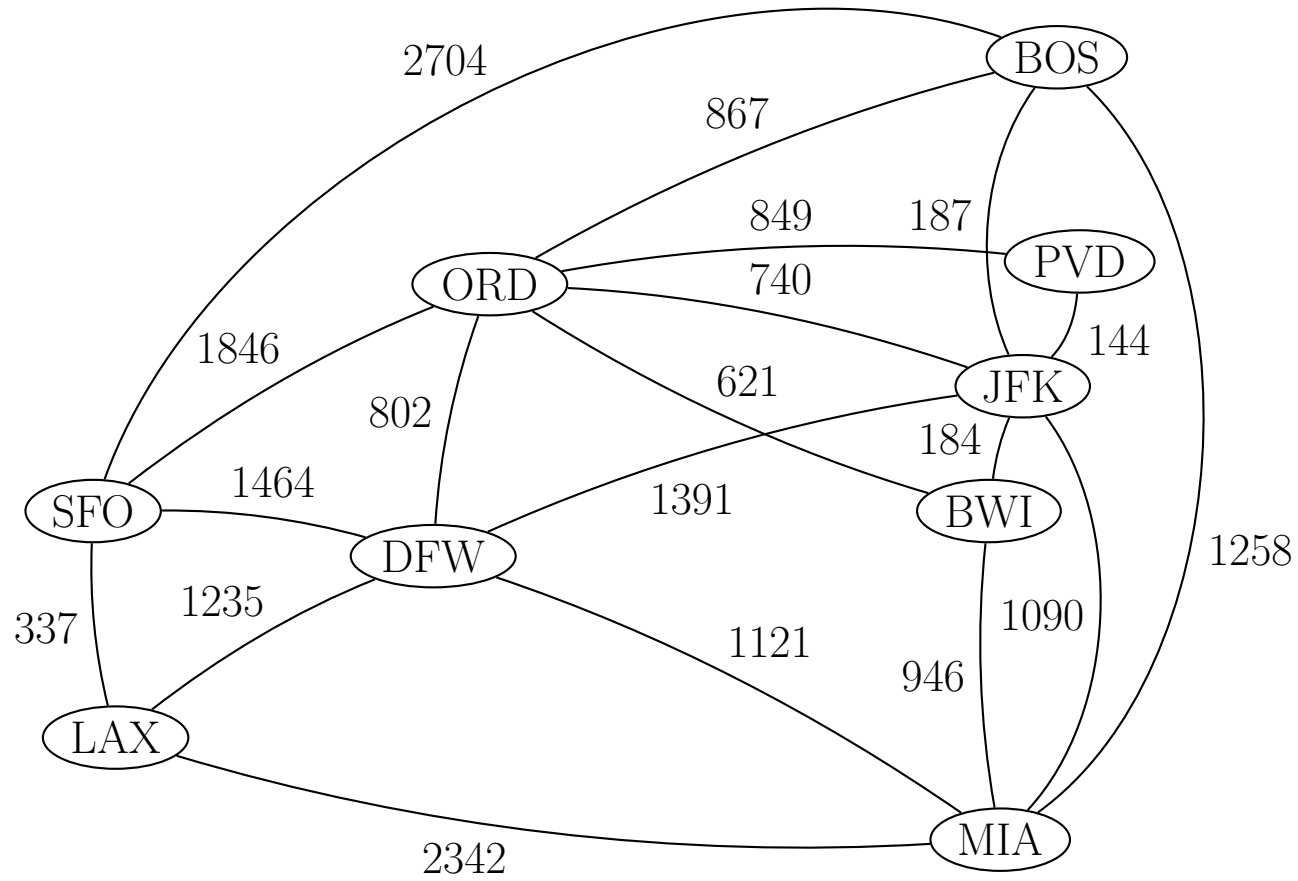
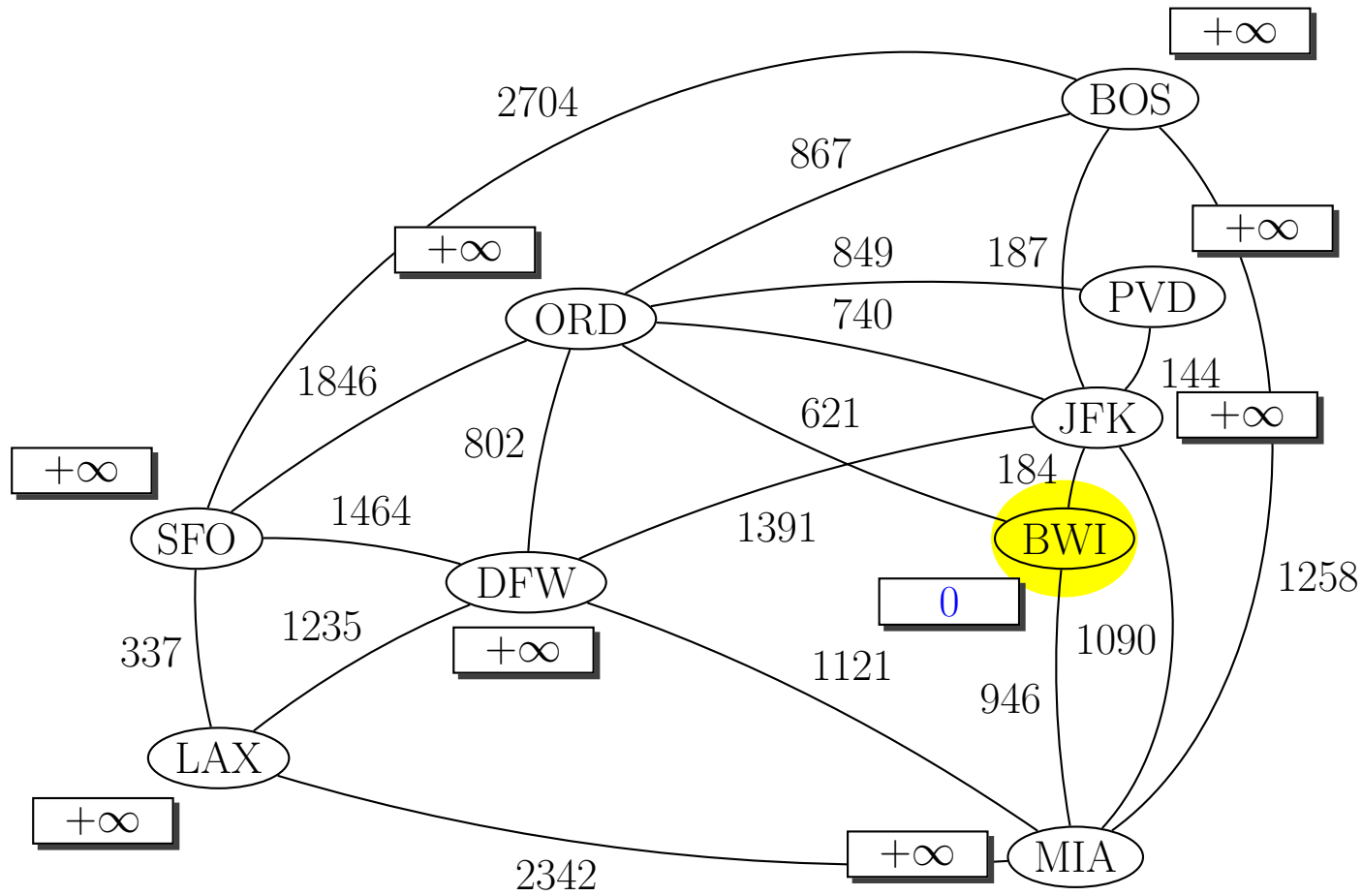


Dijkstra's Shortest Path Algorithm  
An Example From Goodrich & Tamassia

Ryan Stansifer  
Department of Computer Sciences  
Florida Institute of Technology  
Melbourne, Florida USA 32901  
`ryan@cs.fit.edu`

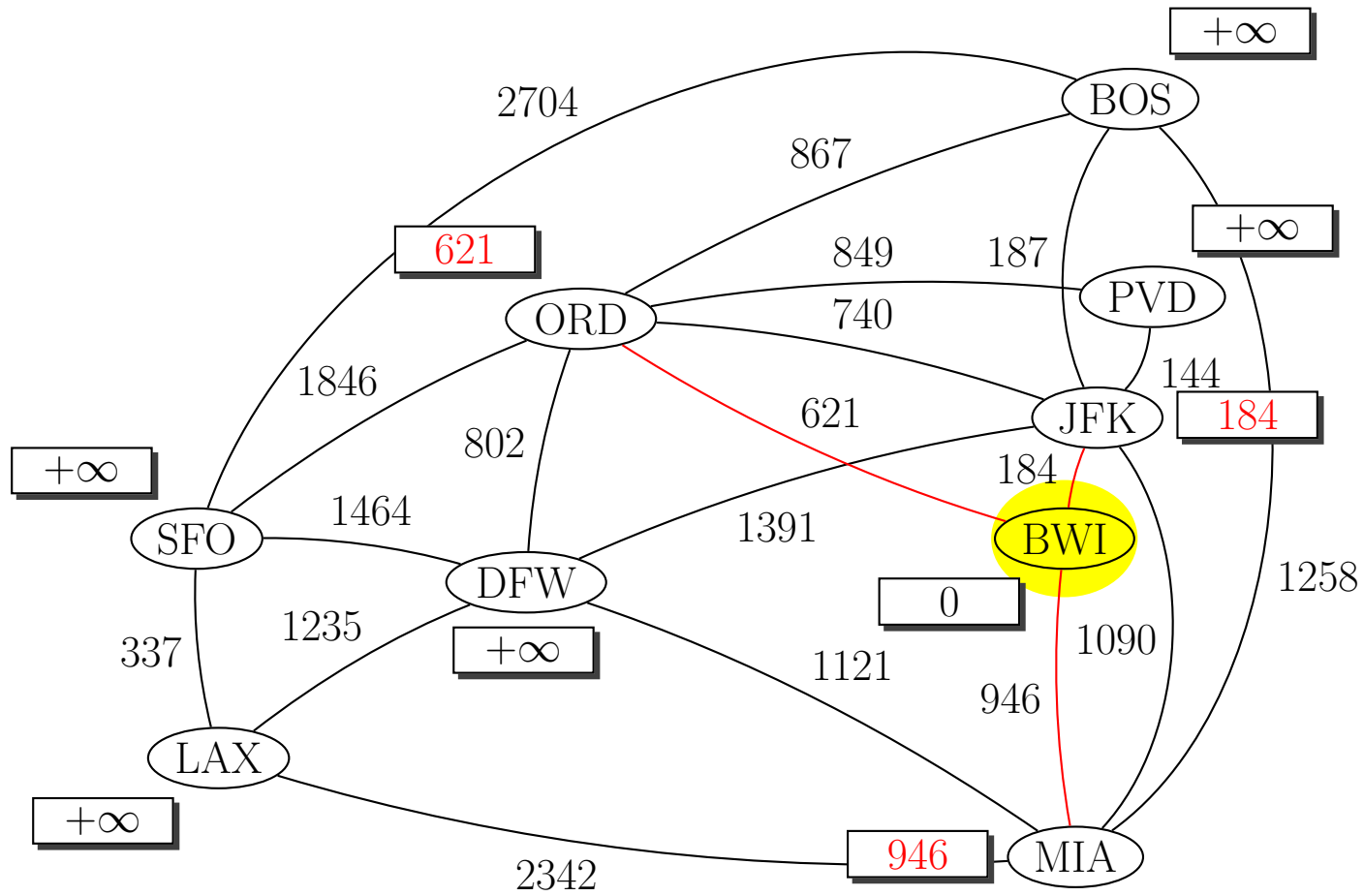
December 6, 2001



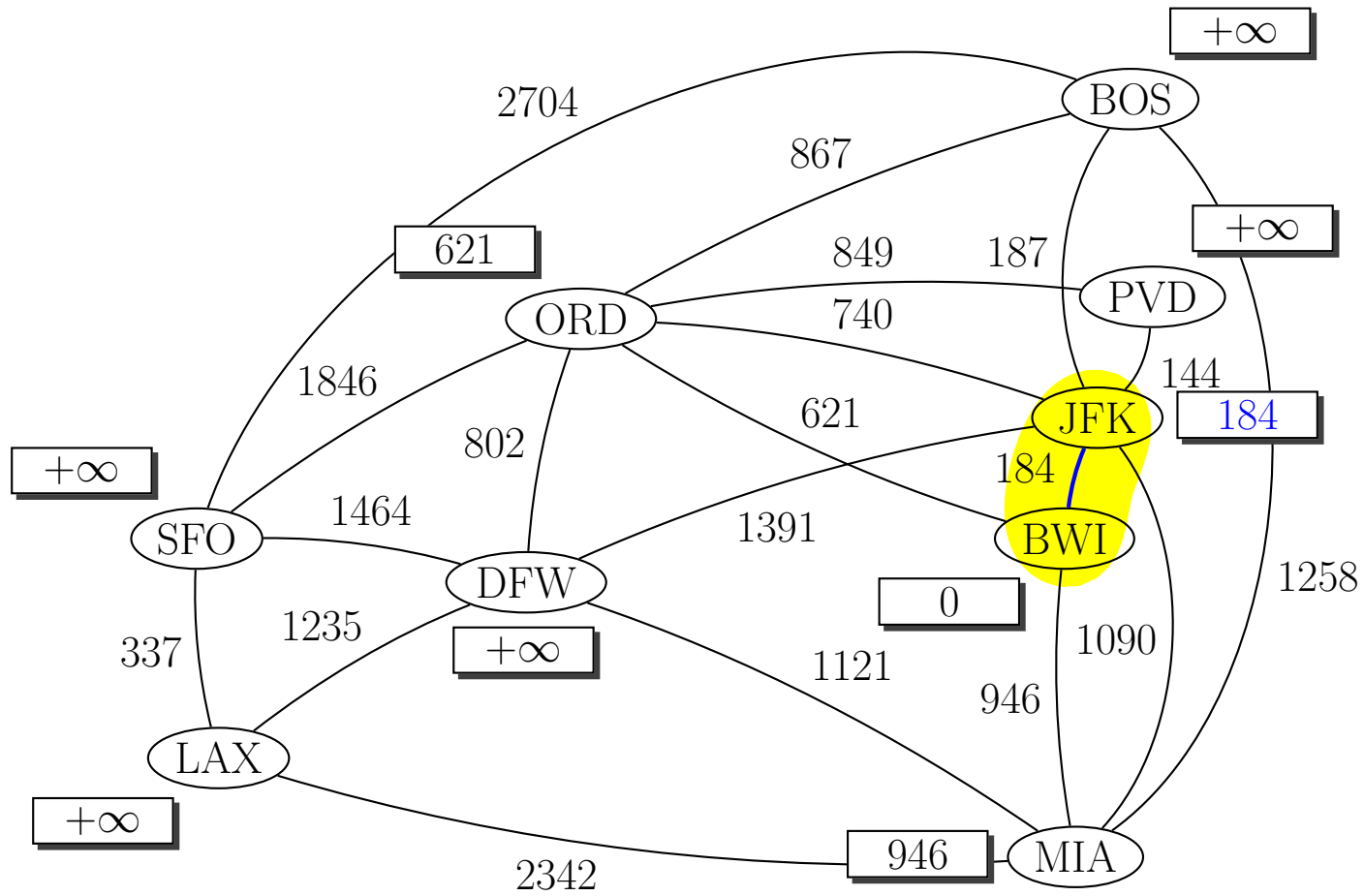


	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	$+\infty$	$+\infty$	$+\infty$	0	$+\infty$	$+\infty$	$+\infty$
pred	?	?	?	?	?	—	?	?	?

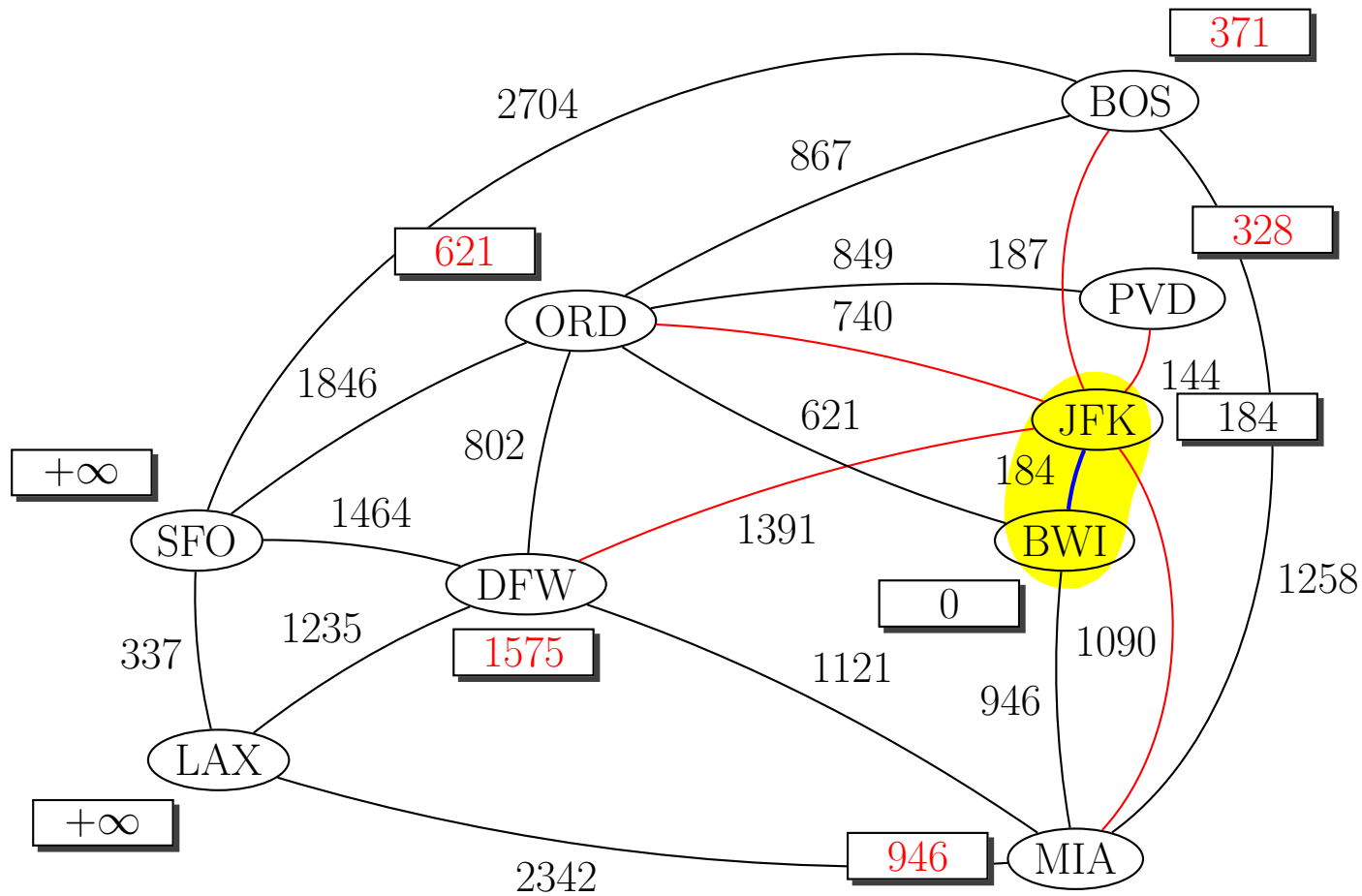
Begin at vertex BWI; set distance to 0.



	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	$+\infty$	621	946	0	184	$+\infty$	$+\infty$
pred	?	?	?	BWI	BWI	—	BWI	?	?

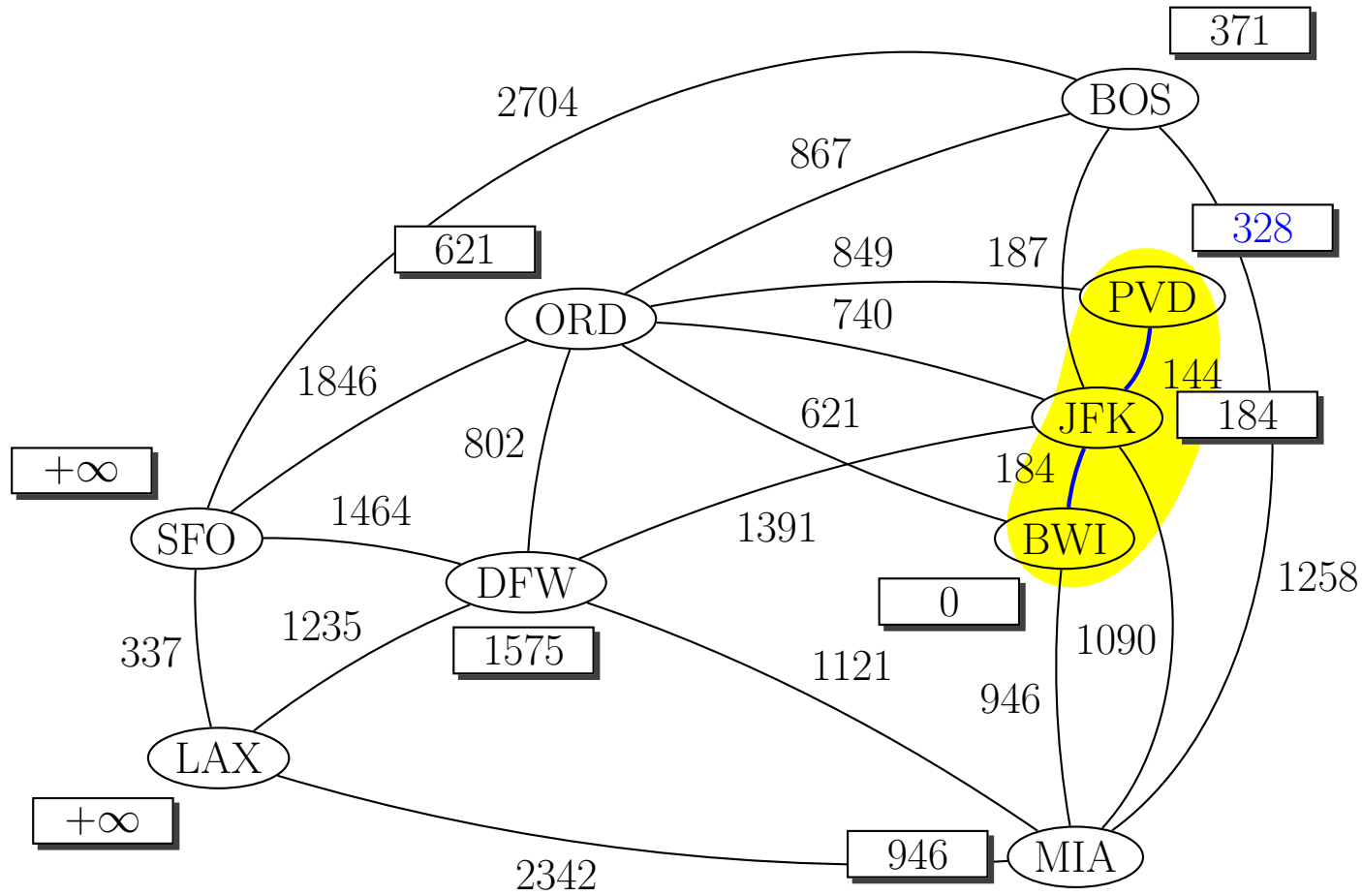


	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	$+\infty$	621	946	0	184	$+\infty$	$+\infty$
pred	?	?	?	BWI	BWI	—	BWI	?	?

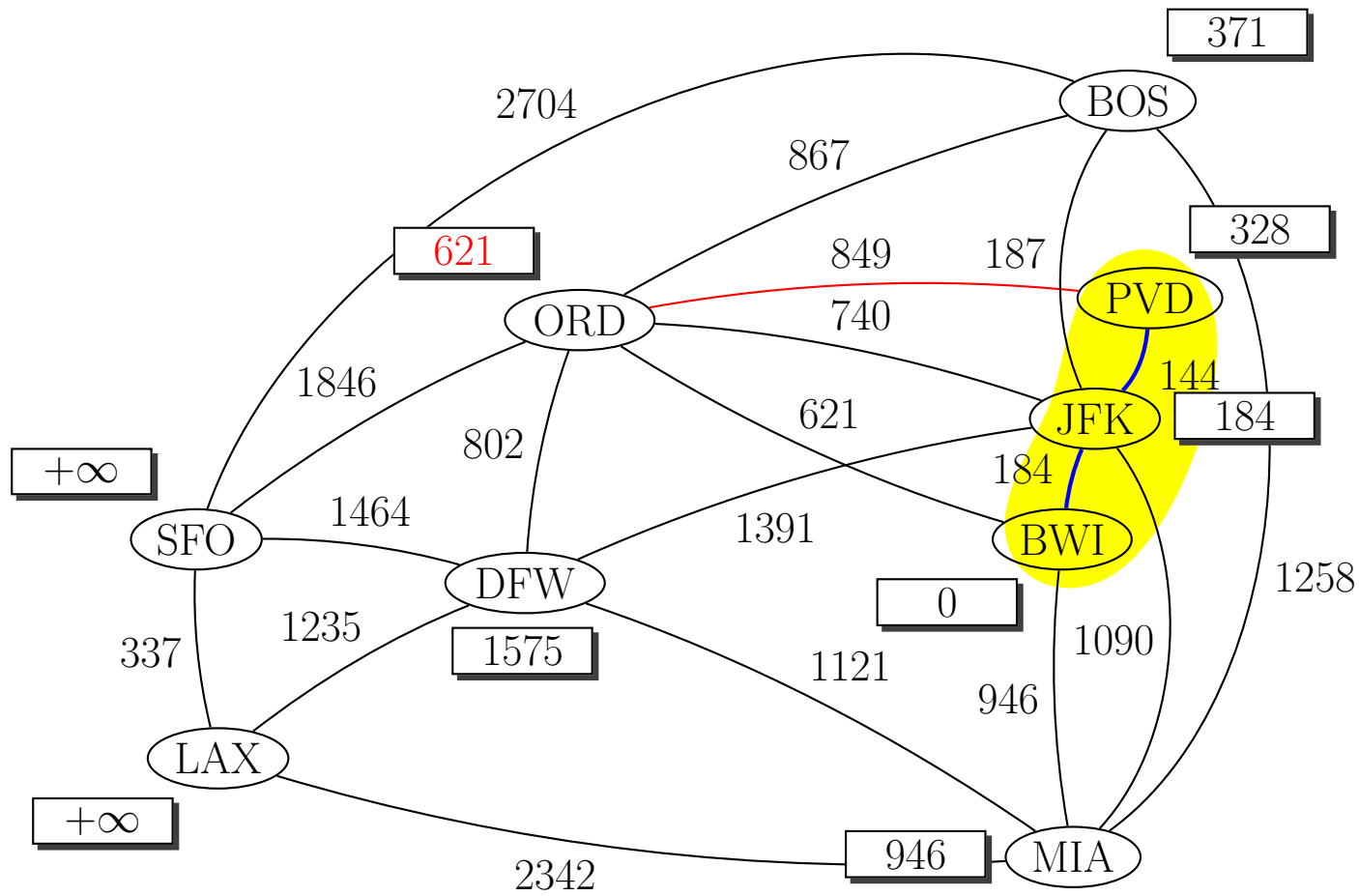


	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	1575	621	946	0	184	328	371
pred	?	?	JFK	BWI	BWI	—	BWI	JFK	JFK

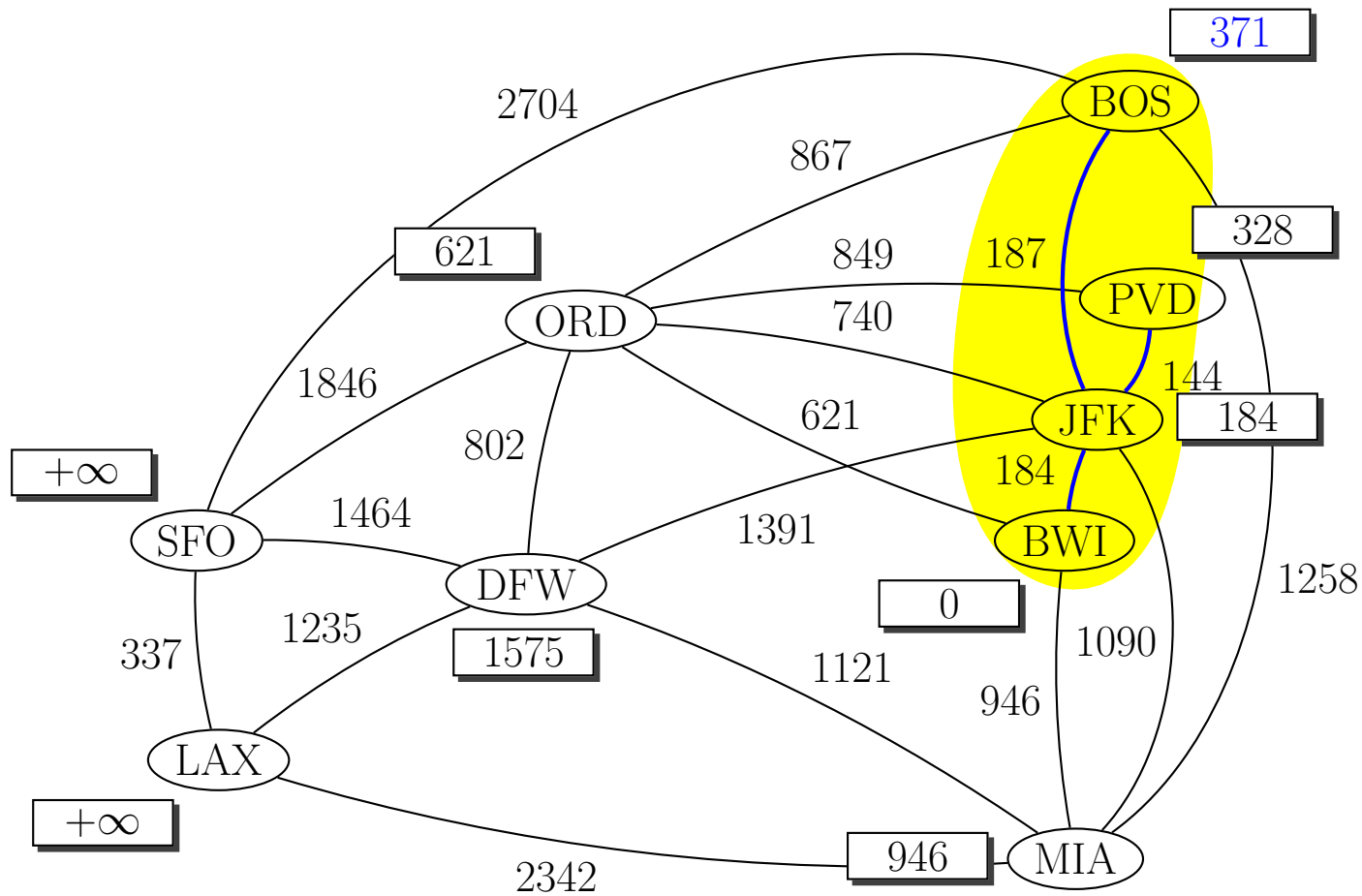
BOS, PVD, DFW get updated, ORD, MIA remain the same, and BWI is ignored.



	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	1575	621	946	0	184	328	371
pred	?	?	JFK	BWI	BWI	—	BWI	JFK	JFK

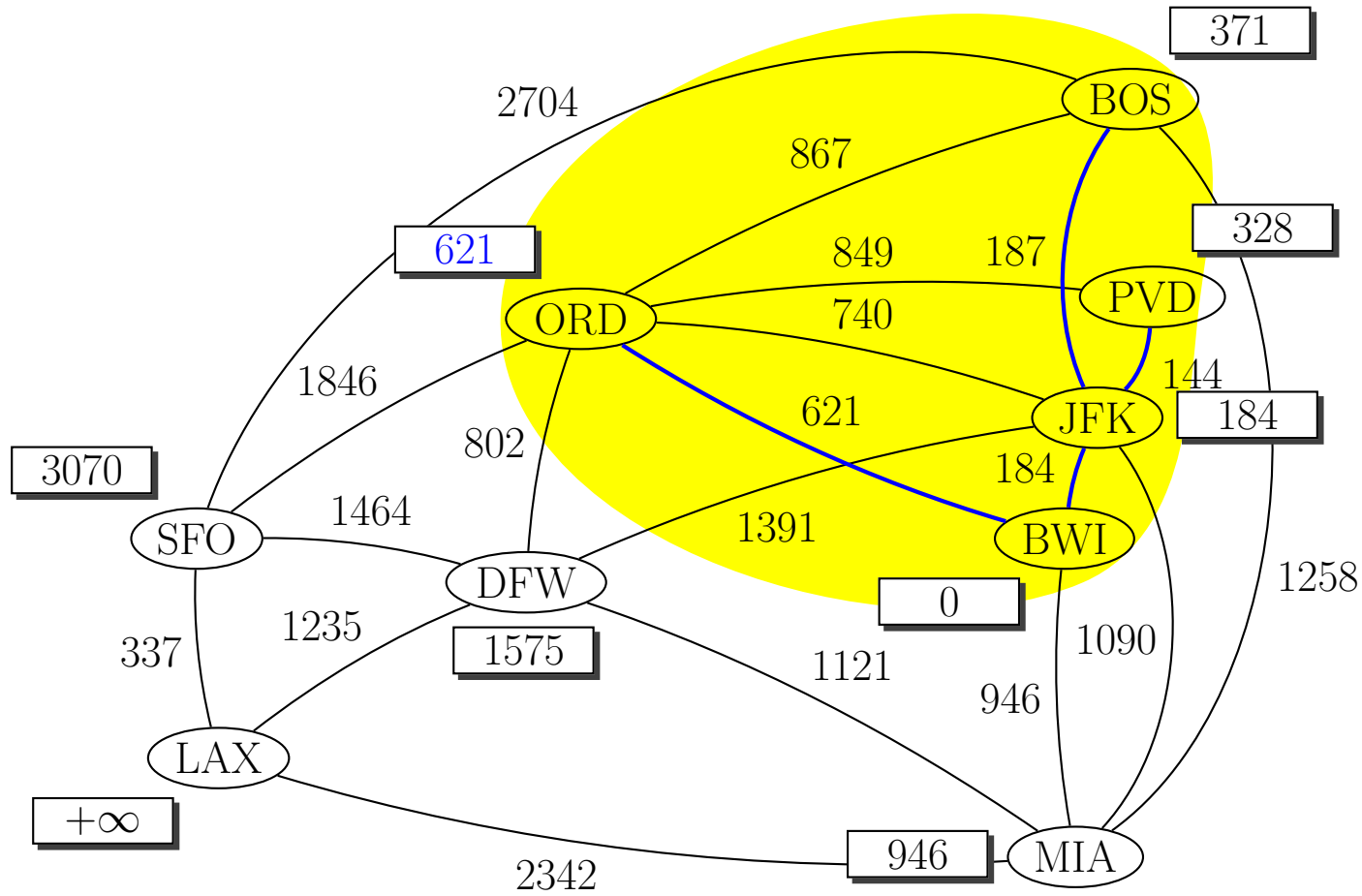


	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	1575	621	946	0	184	328	371
pred	?	?	JFK	BWI	BWI	—	BWI	JFK	JFK

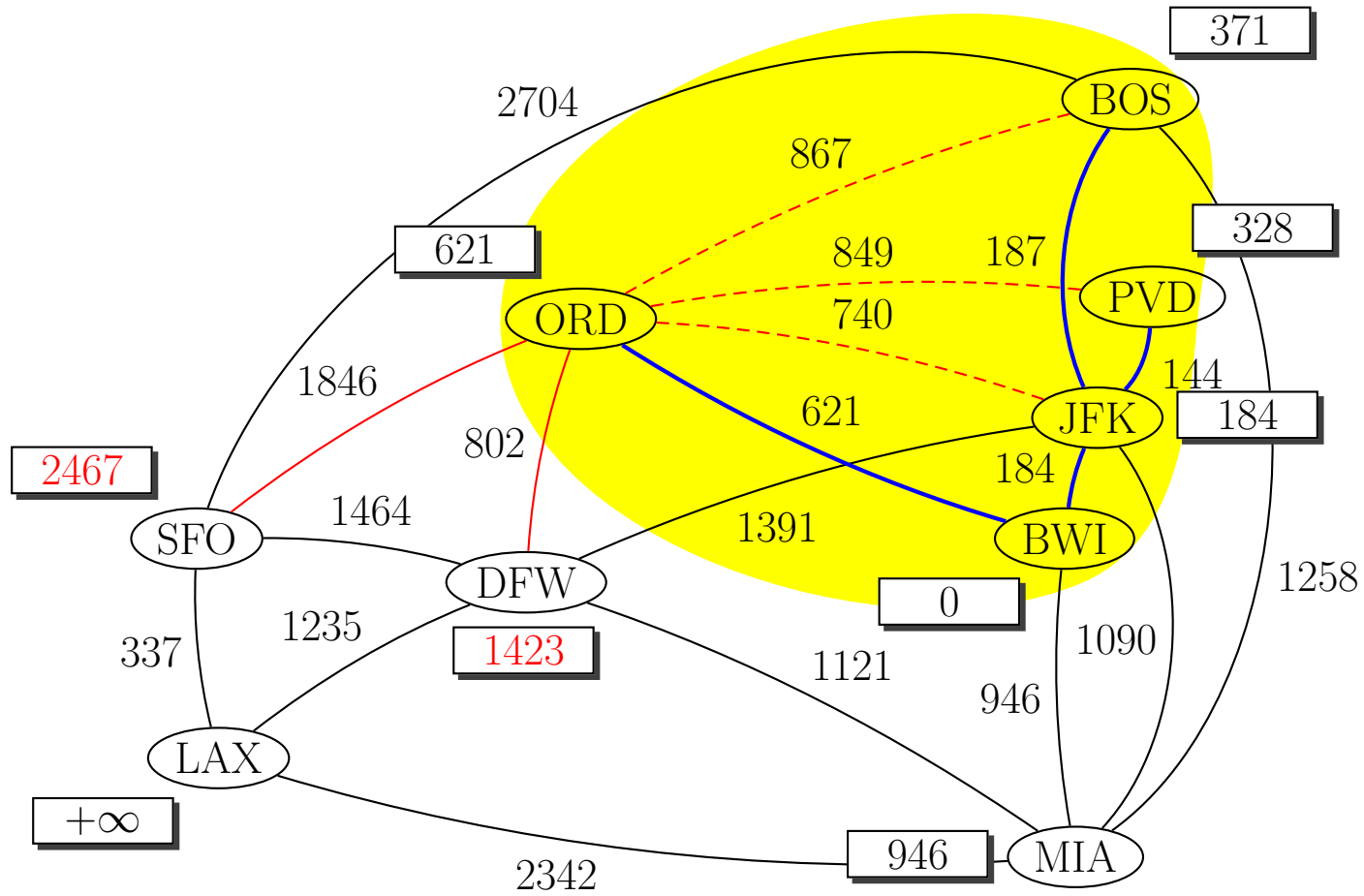


	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	$+\infty$	$+\infty$	1575	621	946	0	184	328	371
pred	?	?	JFK	BWI	BWI	—	BWI	JFK	JFK

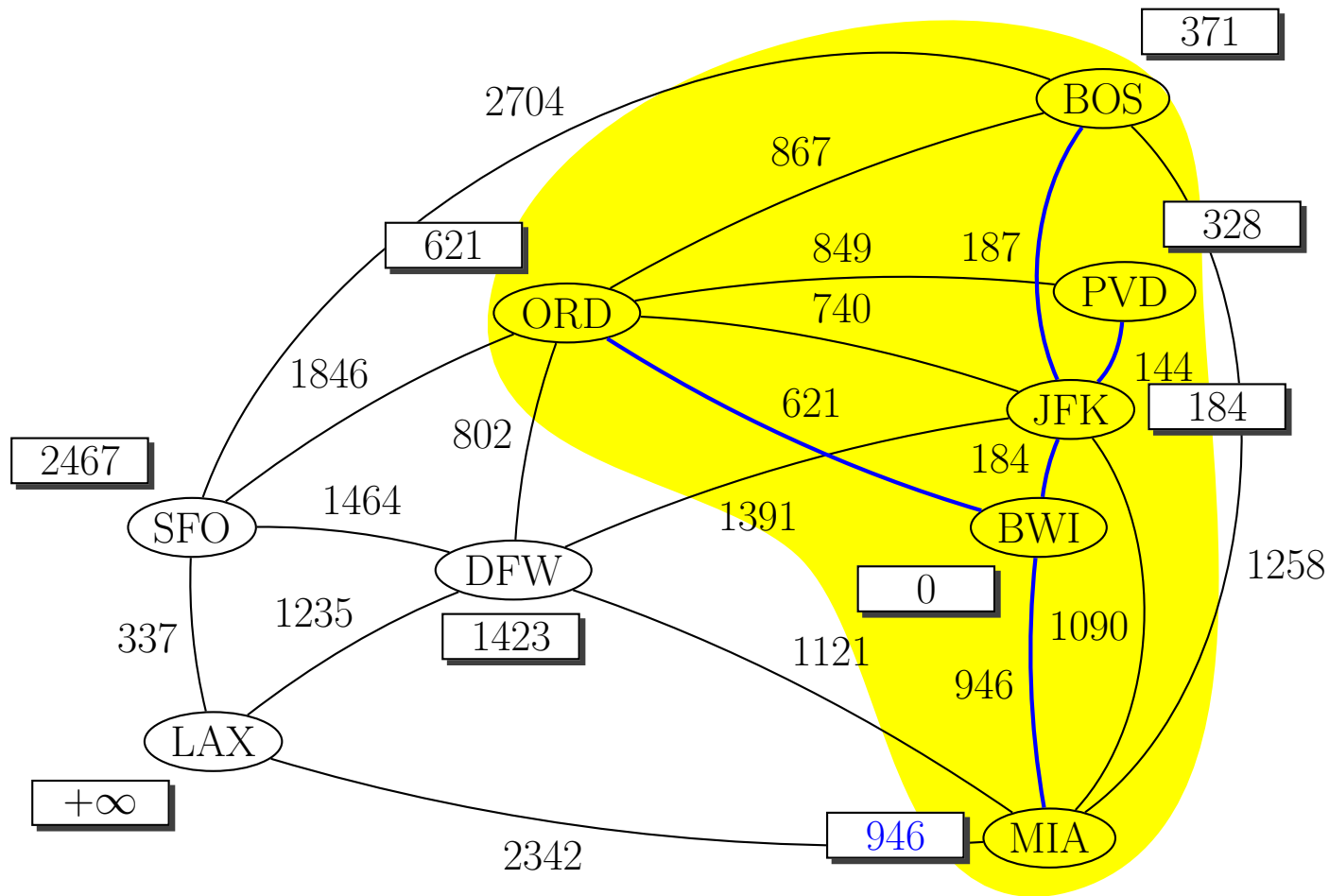




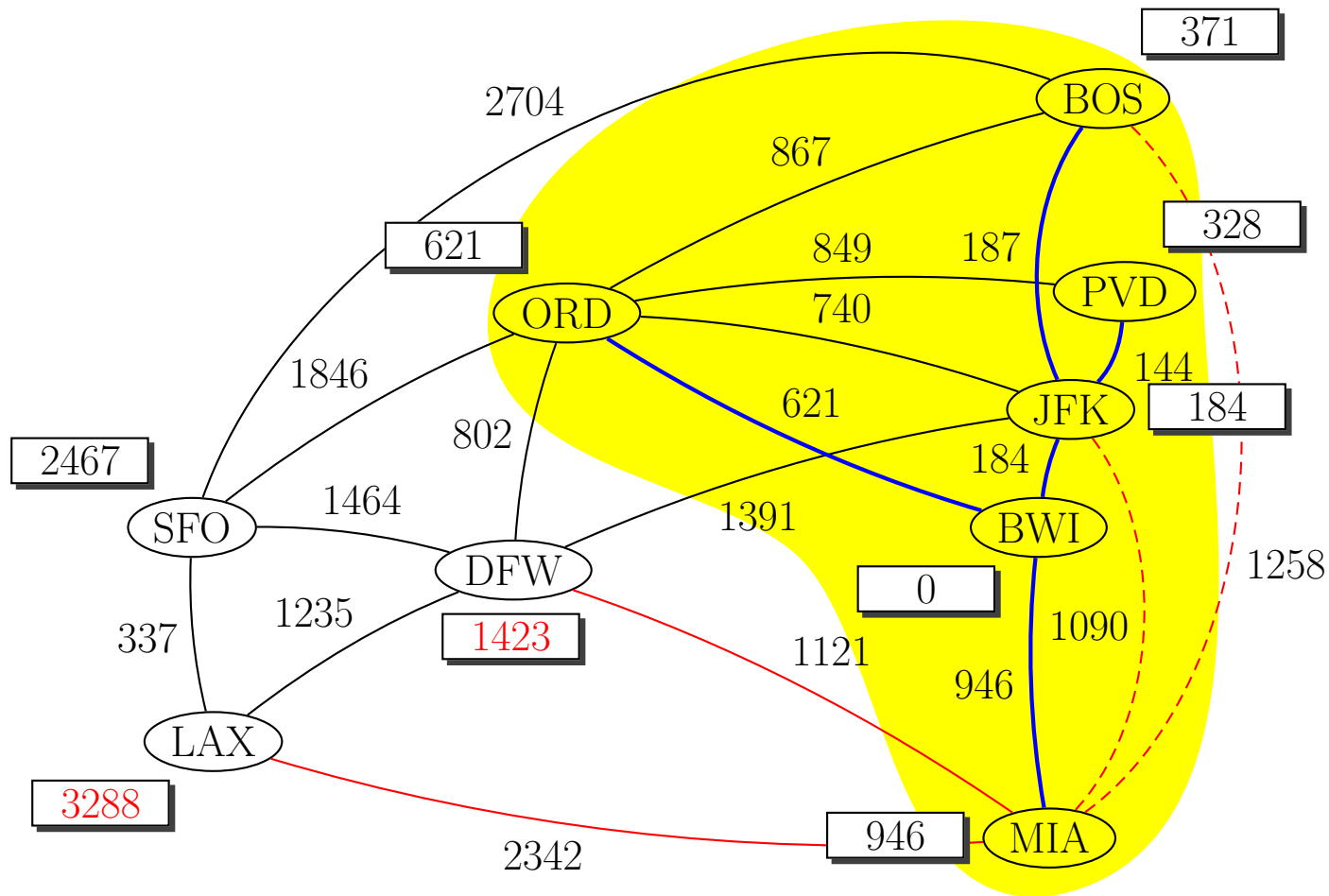
	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	3070	$+\infty$	1575	621	946	0	184	328	371
pred	BOS	?	JFK	BWI	BWI	—	BWI	JFK	JFK



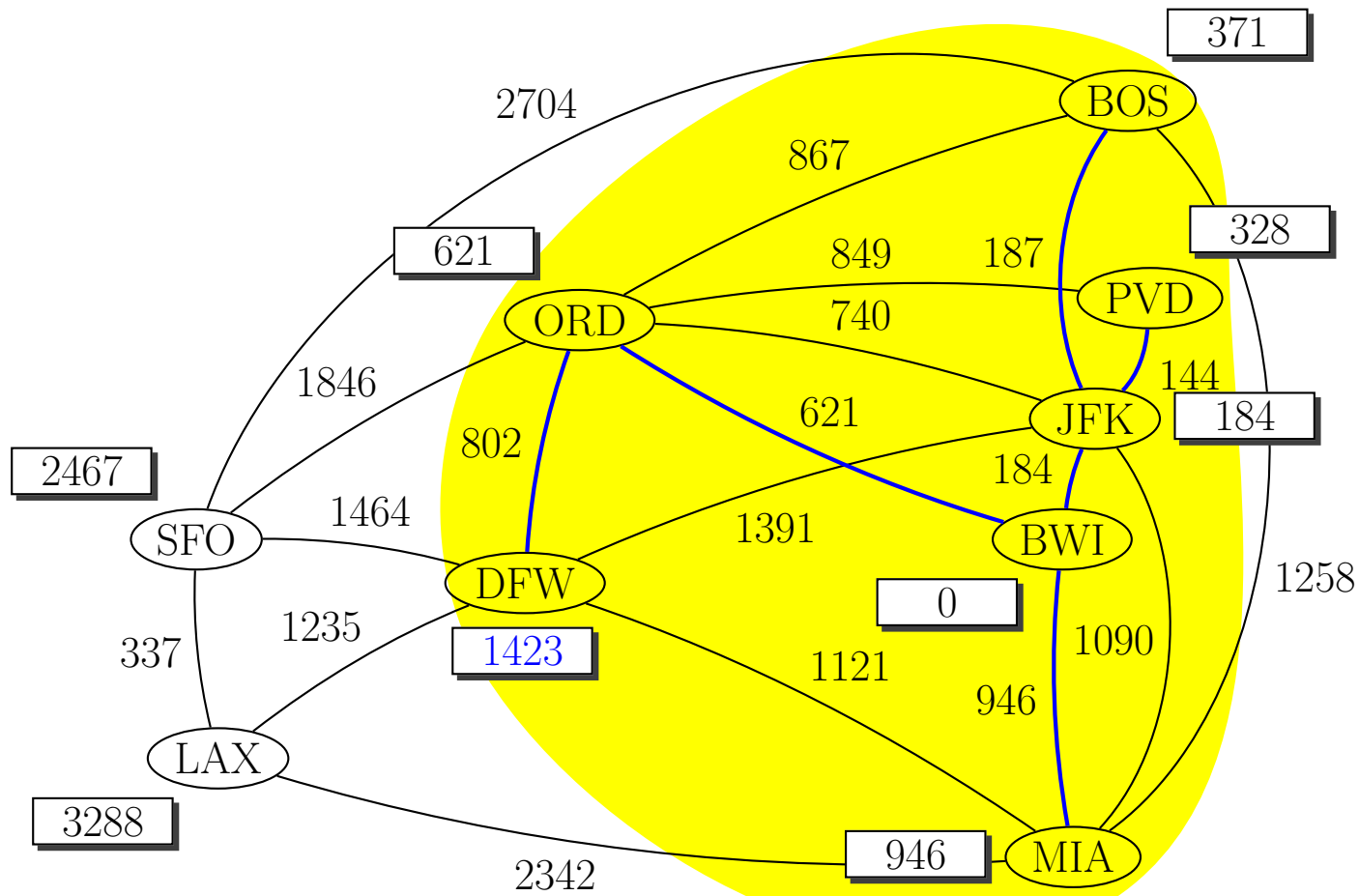
	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	+∞	1423	621	946	0	184	328	371
pred	ORD	?	ORD	BWI	BWI	—	BWI	JFK	JFK



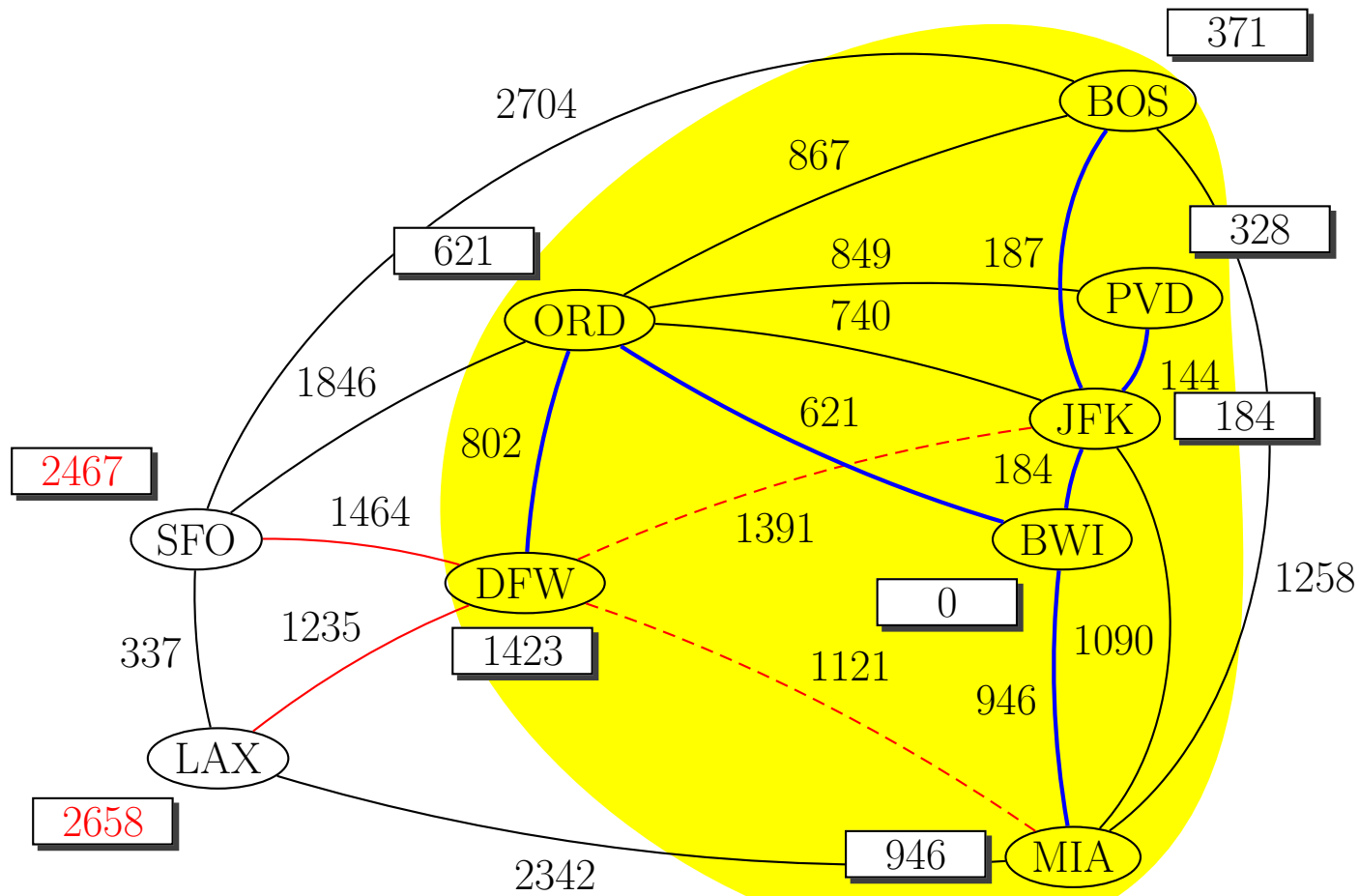
	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	$+\infty$	1423	621	946	0	184	328	371
pred	ORD	?	ORD	BWI	BWI	—	BWI	JFK	JFK



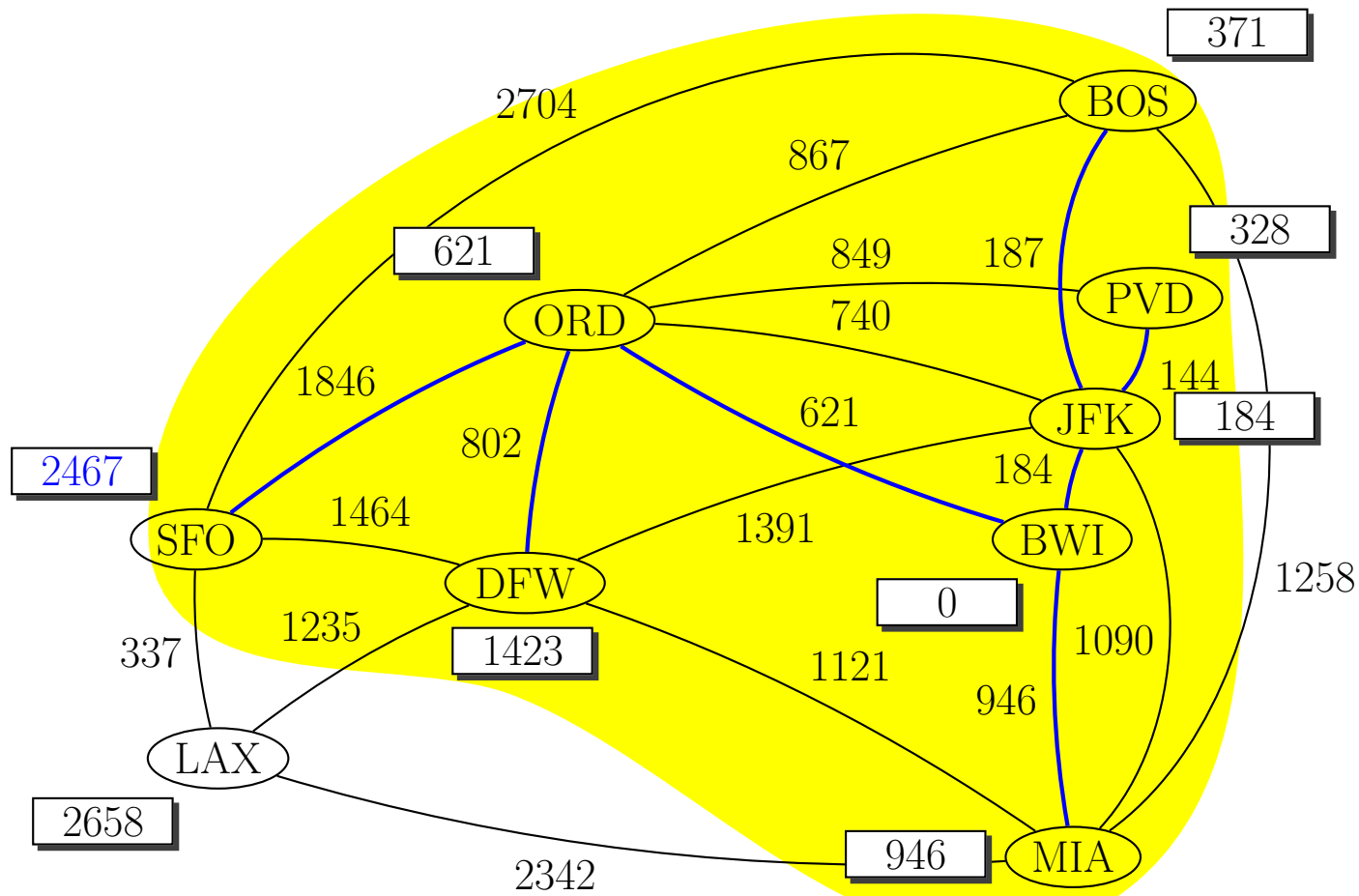
	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	3288	1423	621	946	0	184	328	371
pred	ORD	MIA	ORD	BWI	BWI	—	BWI	JFK	JFK



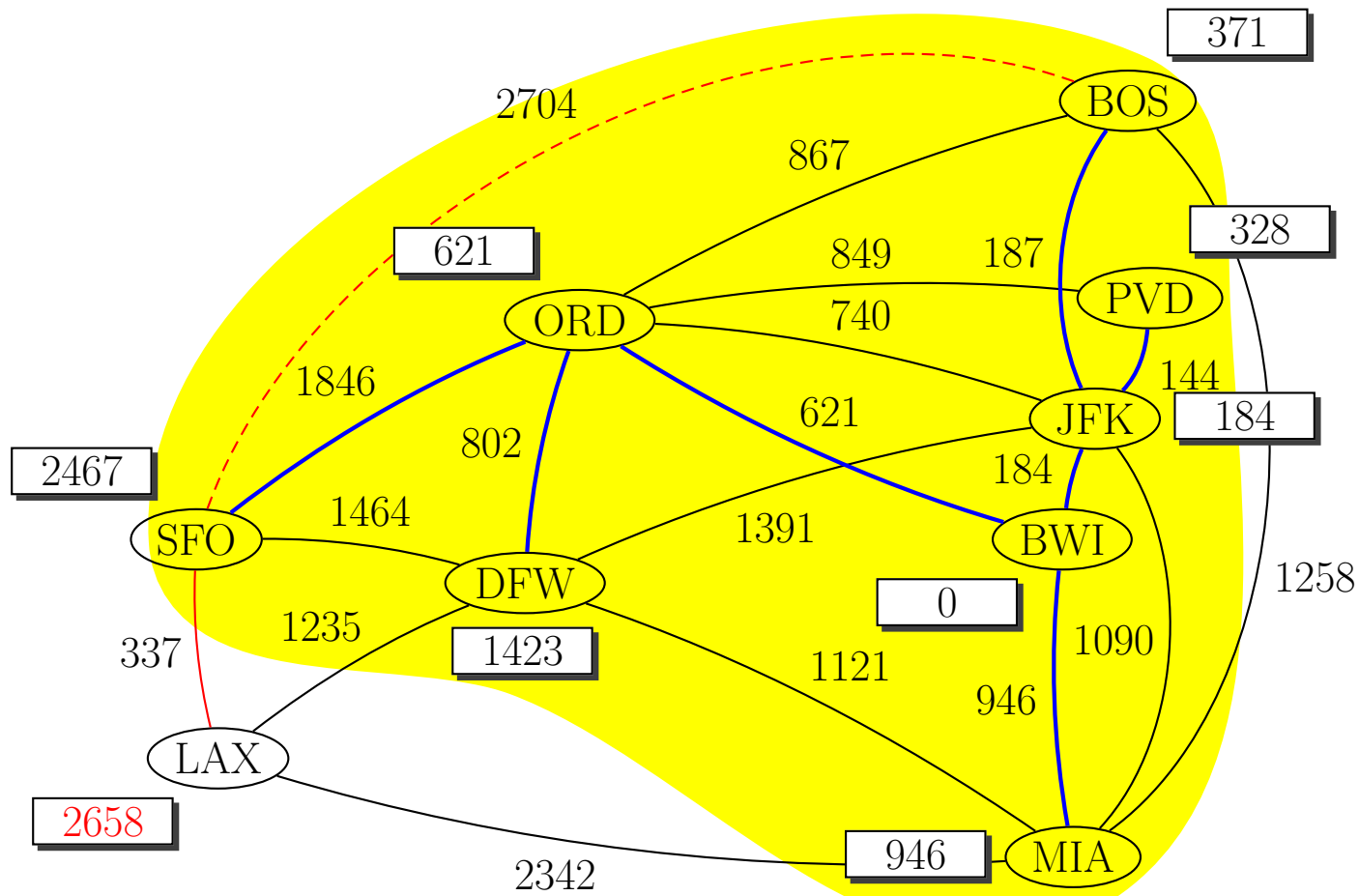
	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	3288	1423	621	946	0	184	328	371
pred	ORD	MIA	ORD	BWI	BWI	—	BWI	JFK	JFK



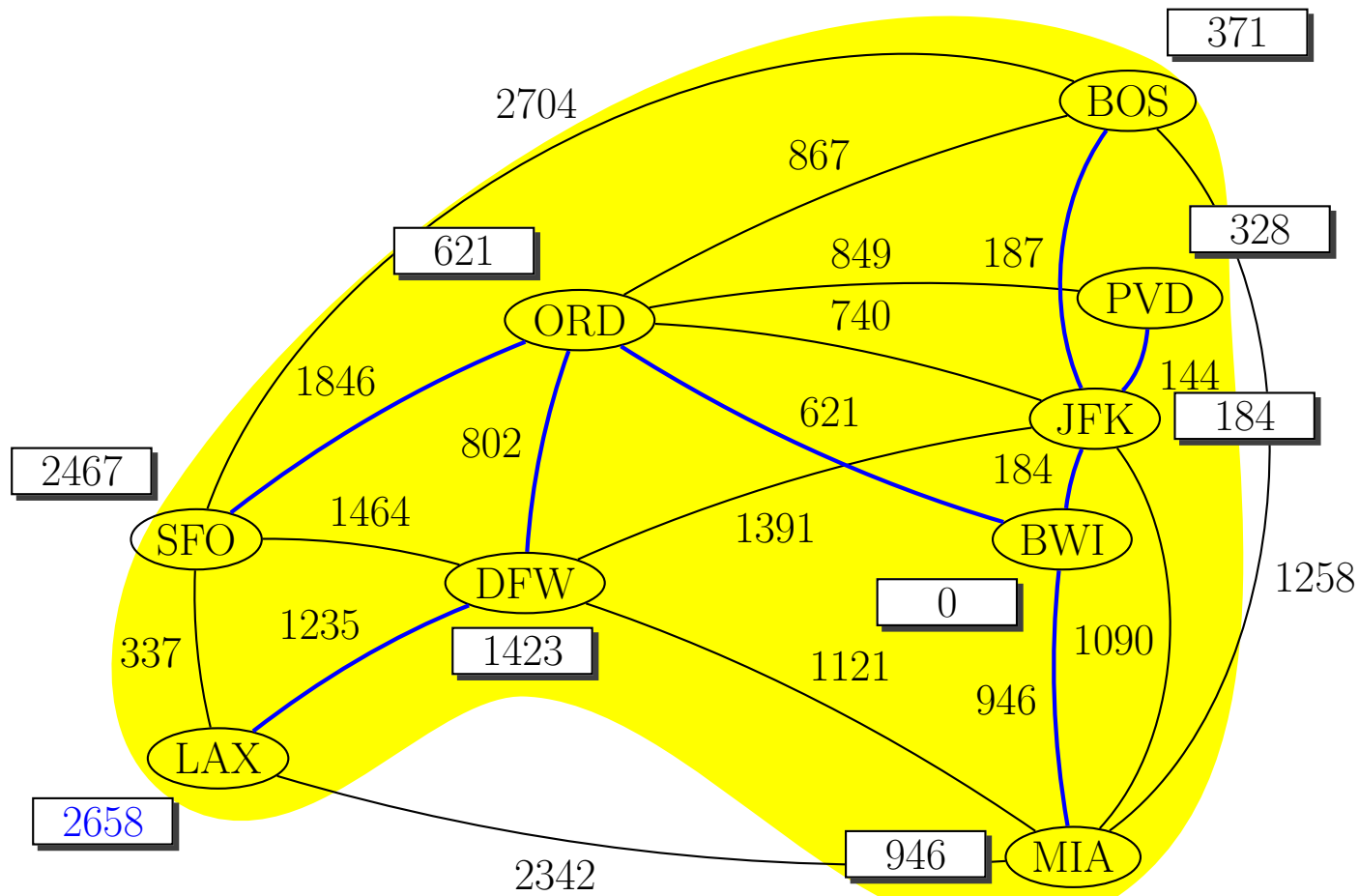
	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	2658	1423	621	946	0	184	328	371
pred	ORD	DFW	ORD	BWI	BWI	—	BWI	JFK	JFK



	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	2658	1423	621	946	0	184	328	371
pred	ORD	DFW	ORD	BWI	BWI	—	BWI	JFK	JFK



	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	2658	1423	621	946	0	184	328	371
pred	ORD	MIA	ORD	BWI	BWI	—	BWI	JFK	JFK



	SFO	LAX	DFW	ORD	MIA	BWI	JFK	PVD	BOS
dist	2467	2658	1423	621	946	0	184	328	371
pred	ORD	DFW	ORD	BWI	BWI	—	BWI	JFK	JFK