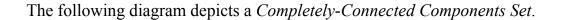
## **Graph-Theoretic Property:** *atis***CompletelyConnectedComponentsSet**

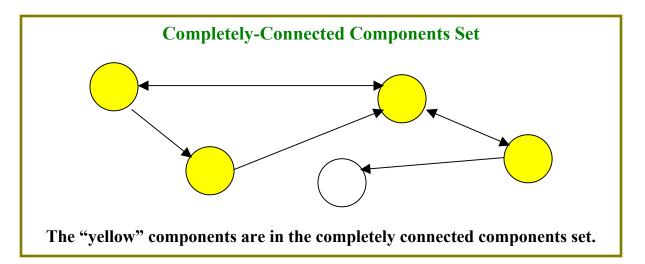
(*Graph-theoretic properties* are those properties that are part of the meta-theory and have been abducted from graph theory to be used as a tool to provide solutions concerning the theory. Those solutions may be assigned as values to components or relations of the theory and thereby become part of the theory.)

**Completely-connected components set**,  $_{CC}$ ,  $=_{df}$  a set of system components that are pair-wise path-connected in both directions.

$$\mathcal{O}_{\mathrm{CC}} \mathscr{O} =_{\mathrm{df}} \mathfrak{X} = \{ \mathbf{x} | \mathbf{x} \in \mathfrak{R} \subset \mathfrak{S}_{0} \land \exists \mathbf{y} \in \mathfrak{R} [\mathbf{x} \neq \mathbf{y} \land (\mathbf{x}, \mathbf{y}) \in_{cc} E ] \}$$

**Completely-connected components set** is a set of components, **x**; such that, the components, **x**, are in a subset of the object-set, and there exist distinct components,  $\gamma$ , of the subset such that (x, y) are completely connected.





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