



## The Boundary Multiplet of N=4 SU(2)xU(1) Gauged Supergravity on Asymptotically-AdS<sub>5</sub>

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We consider N=4 SU(2)xU(1) gauged supergravity on asymptotically-AdS<sub>5</sub> backgrounds. By a near-boundary analysis we determine the boundary-dominant components of the bulk fields from their partially gauge-fixed field equations. Subdominant components are projected out in the boundary limit and we find a reduced set of boundary fields, constituting the N=2 Weyl multiplet. The residual bulk symmetries are found to act on the boundary fields as four-dimensional diffeomorphisms, N=2 supersymmetry and (super-)Weyl transformations. This shows that the on-shell N=4 supergravity multiplet yields the N=2 Weyl multiplet on the boundary with the appropriate local N=2 superconformal transformations.

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